ttp consulting

transport planning specialists

Cudworth Limited

The Old Dairy Project

Transport Statement

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1 INTRODUCTION

1.1 TTP Consulting has been appointed on behalf of Cudworth Limited ('the Applicant') to provide traffic and transport advice in relation to their proposed development at The Old Dairy (the Site) on 7 Wakefield Street located in Bloomsbury within the London Borough of Camden (LBC).

1.2 The Site currently provides a Warehouse building for Class B8 use with no on-site car parking. There is a gated access which allows vehicles to access the Site.

1.3 There was a previous planning application (Ref: 2011/6032/P) for the demolition of the existing building with the development of 1,102sqm of Class B1 office space and 8 residential units. This was granted permission on 14th March 2012.

1.4 An additional planning application (Ref: 2015/0825/P) was granted consent in 2015 for the demolition of the existing building with the development of 1,102sqm of Class B1 office space and 10 residential units.

1.5 This planning application will seek to provide a mixed commercial and residential scheme with circa 1,128sqm of Class B1 commercial space plus 13 residential units (2 x 3 bed, 10 x 2 bed and 1 x 1 bed) with no on-site car parking, i.e. an increase of 26sqm of Class B1 office space and 3 additional residential units when compared to the consented scheme. Cycle storage will be provided in accordance with London Plan standards. Refuse storage will be located within the boundary of the Site with refuse vehicles able to service on-site. Copies of the Architect's plans are shown at **Appendix A.**

1.6 The remainder of the report is set out as follows:

- Section 2 - describes the existing situation;
- Section 3 - presents relevant policy guidance;
- Section 4 - considers the effects of development; and,
- Section 5 - provides a summary and conclusion.

2 EXISTING SITUATION

Site Description

2.1 The Site currently provides a Warehouse building in Class B8 use with no on-site car parking. There is a gated access from Wakefield Street providing vehicle access into the Site.

2.2 It is located approximately 450m north-east of Russel Square Underground Station and 600m south of St Pancras International and Kings Cross railway stations. **Figure 1** illustrates the location in context to local bus stops and railway stations.

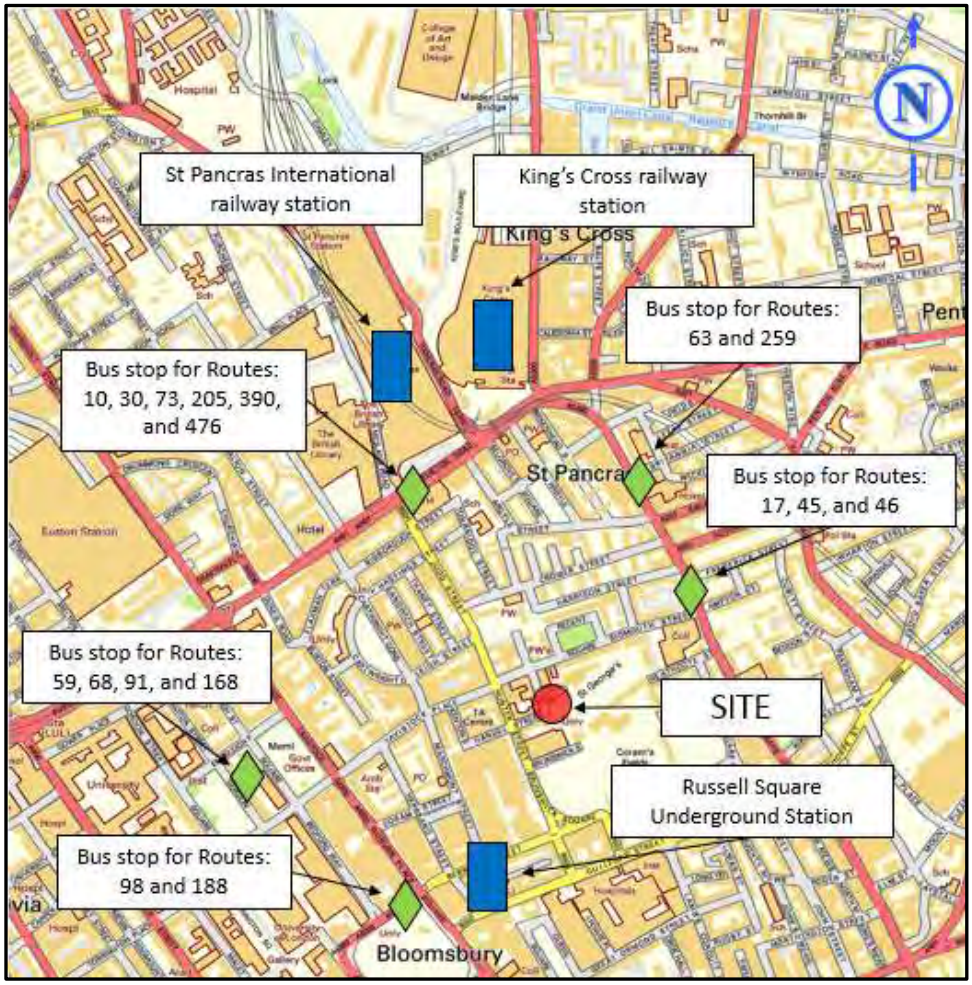

Figure 1: Location Plan

Surrounding Area

2.3 The surrounding area comprises a mixture of residential and commercial uses with St Pancras International, Kings Cross railway station and the British Library located to the north of the Site. The UCL School of Pharmacy, Brunswick Square Gardens, and Great Ormond Street Hospital are located to the south. The Brunswick Shopping Centre offering a number of retail shops is located to the southwest. To the east are St George's Gardens and Westminster Kingsway College and UCL Eastman Dental Institute. To the west are Hunter Street Health Centre and the RAF Armed Forces Careers Office.

Local Highway Network

2.4 Wakefield Street is a two-way road which connects from Handel Street in the south to Wakefield Mews in the north. Wakefield Street also provides a side street which leads towards the Site where the road has single yellow line restrictions on both sides. On the western side of the road in the vicinity there are permit holder parking bays with small sections of single yellow lines. The eastern side of the road is predominantly controlled by single yellow line restrictions with 4 parking bays located for permit holder use. The northern end of Wakefield Street is controlled by single yellow line restrictions on both sides with only 2 parking bays present. The road is subject to a 20mph speed restriction.

2.5 Tavistock Place is a predominantly one-way single lane road running southwest to northeast connecting the A400 in the southwest to the A501 in the northeast. There are cycle lanes on either side of the road offering a cycle route in both directions. There are double yellow lines and double kerb blips located along the majority of the road. In the vicinity of the Site, Tavistock Place widens and provides a two-way road with a mixture of single and double yellow lines on either side. The road is subject to a 20mph speed restriction.

On-Street Parking

2.6 The Site is located in a controlled parking zone (Kings Cross Area – CA-D) which is in operation 8.30am to 6.30pm Monday through Friday and from 8.30am – 1.30pm on Saturday.

Accessibility

Access on Foot

2.7 The Transport for London guidance document 'Walking Good Practice' issued in April 2012 refers to car journeys up to 2km in length which could easily be walked in less than 30 minutes. The Chartered Institution of Highways and Transportation (CIHT) published a document in April 2015 titled 'Planning for Walking' states that after driving and being driven, walking is the most common form of travel in Britain accounting for 22% of all journeys in 2012 (National Travel Survey, Department for Transport, annual).

2.8 **Table 2.1** sets out details of approximate distances between the Site and public transport opportunities and local amenities with walking times based on an average walking speed of 80m per minute. Local roads surrounding the Site have footways on both sides along with street lighting at regular intervals. There are dropped kerbs and tactile paving in the vicinity with a refuge island and a speed table just north of the Site on Tavistock Place providing a crossing point.

Table 2.1: Approximate Distances to local amenities

Amenity	Location	Distance	Approximate Walking Time
Public Transport Opportunities			
Bus	Grays Inn Road	440m	5 minutes
	Tavistock Road	560m	7 minutes
Railway/Underground Stations	Russell Square, Bernard St	450m	6 minutes
	Kings Cross Underground, Euston Rd	600m	8 minutes
	Kings Cross Station, Euston Rd	600m	8 minutes
	St Pancras International, Euston Rd	600m	8 minutes
Facilities and Amenities			
Bloomsbury Surgery	Handel Street	80m	1 minute
Church & Community Centre	Tavistock Place	80m	1 minute
Sainsbury's Local	The Brunswick	320m	4 minutes
Holy Cross Church	Cromer Street	320m	4 minutes
Waitrose	The Brunswick	370m	5 minutes
Gym	Mecklenburgh Place	640m	8 minutes
Schools	UCL School of Pharmacy	<50m	1 minute
	Collingham Gardens Nursery	<50m	1 minute
	Westminster Kingsway College	400m	5 minutes

Access by Bicycle

2.9 The Chartered Institution of Highways and Transportation (CIHT) published a document in October 2015 titled 'Planning for Cycling' which states that the majority of cycling trips are for short distances, with 80% being less than five miles and with 40% being less than two miles. The majority of trips by all modes are also short distances (67% are less than five miles, and 38% are less than two miles); therefore, the bicycle is a potential mode for many of these trips (DfT, 2014a).

2.10 In the immediate vicinity of the Site, Hunter Street and Tavistock Place are highlighted as 'routes signed or marked for use by cyclists on a mixture of quiet or busier roads' within the Transport for London Cycling Guide 1. These routes link to Brunswick Square, Guildford Street and Lamb's Conduit Street which have been highlighted as 'other roads that have been recommended by cyclists and may connect to other route sections'. These provide a good network of cycle routes in the vicinity, as such there is potential for a number of trips to be undertaken by bicycle.

2.11 There are 4 Santander cycle hire docking stations within 400m walking distance of the Site opportunities for sustainable modes of travel, these include:

- Tavistock Place approximately 110m north-west of the Site with a total of 18 docking stations available;
- Brunswick Square approximately 290m south of the Site with a total of 24 docking stations available;
- Cartwright Gardens approximately 360m north-west of the Site with a total of 21 docking stations available; and
- Ampton Street approximately 400m north-east of the Site with a total of 21 docking stations available.

Access by Public Transport

Bus Services

2.12 The nearest bus stop is located 440m east of the Site on Grays Inn Road with bus services on Routes 17, 45 and 46 calling at the stop. Additional daytime services on a further 14 Routes are all within walking distance of the Site. Table 2.2 provides a summary of the local bus services in the vicinity which combine to provide an average of 3 buses every minute. A copy of the TfL Bus Spider Map is included at **Appendix B.**

Table 2.2: Bus Services in the vicinity of the Site

Bus Stop Location	Number	Route		Daytime Frequency Every 'x' minutes	
		From	To	M - F	SAT
Tavistock Square Stop 'K' (Tavistock Square)	59	Telford Avenue	Kings Cross Station	4 – 8	6 – 10
	68	St Julian's Farm Road	Euston Bus Station	6 – 10	7 – 11
	91	Tottenham Lane	Trafalgar Square	6 – 10	7 – 10
	168	Royal Free Hospital	Dunton Road	6 – 8	8 – 12
	N91	Cockfosters Station	Trafalgar Square	30	15
Swinton Street Stop 'N' (Grays Inn Road)	63	Forest Hill Tavern	Kings Cross Station	3 – 7	5 – 9
	259	Edmonton Green Bus Station	King's Cross Road	5 – 8	6 – 10
	N63	Crystal Palace	King's Cross Station	30	14 – 15
British Library Stop 'C' (Euston Road)	10	Hammersmith Bus Station	Kings Cross Station	7 – 10	7 – 11
	30	Portman Street	Hackney Wick	7 – 11	9 – 13
	73	Victoria Bus Station	Stoke Newington Common	3 – 6	4 – 7
	205	Cleveland Terrace	Bow Church Station	6 – 10	7 – 11
	390	Archway Station	Palace Gardens Terrace	6 – 10	6 – 10
	476	Northumberland Park	Euston Bus Station	5 – 8	7 – 9
	N73	Victoria Bus Station	Walthamstow Bus Station	30	20
	N205	Cleveland Terrace	Drapers Field	30	19 – 20
Russell Square Stop 'J' (Woburn Place)	98	Willesden Bus Garage	Red Lion Square	6 – 10	6 – 10
	188	North Greenwich Station	Russell Square	7 – 9	7 – 10
Acton Street Stop 'HF' (Grays Inn Road)	17	Archway Station	London Bridge	5 – 9	9 – 12
	45	St Pancras International	Atkins Road	7 – 11	8 – 12
	46	Lancaster Gate Station	St Bartholomew's Hospital	7 – 11	10 – 14

Rail Services

2.13 Russell Square London Underground Station is located approximately 450m southwest of the Site and is located on the Piccadilly Line which provides access to Cockfosters to the north and to Heathrow airport to the southwest.

2.14 King's Cross St. Pancras London Underground Station is located approximately 600m north of the Site and is located on the Circle, Hammersmith & City, Metropolitan, Northern, Piccadilly,

and Victoria Lines. This provides connections throughout Central London and to the north, south and west of London.

2.15 Kings Cross railway station is located approximately 600m north of the Site (8 minutes' walk) and is served by trains operated by First Hull Trains, Grand Central, Great Northern, and Virgin Trains EC.

2.16 St Pancras International railway station is located approximately 600m north of the Site (8 minutes' walk) and is served by trains operated by East Midlands Trains, Southeastern, Thameslink, and the Eurostar.

2.17 The above combine to provide on average 30 National Rail trains in each direction during peak hours and a tube service every minute.

Public Transport Accessibility Level (PTAL)

2.18 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 PTAL is categorised in six levels, 1 to 6 where 6 represents an excellent level of accessibility and 1 a poor level of accessibility. The assessment methodology reflects 1) Walking time from the point of interest to the public transport access points; 2) the reliability of the service modes available; 3) the number of services available within the catchment (640m for bus / 960m for tube / train); and 4) the level of service at the public transport access points – i.e. average waiting time.

2.19 By reference to the Transport for London database the Site has a PTAL Rating of 6b, demonstrating an 'excellent' level of accessibility to public transport. The PTAL report is contained in **Appendix C.**

Car Club

2.20 There are 5 car club spaces within a 250m walking distance of the Site. These are located as follows:

- Kenton Street approximately 230m west of the Site operated by Zipcar;
- Brunswick Square approximately 230m south of the Site operated by Enterprise;
- Cromer Street approximately 280m northwest of the Site operated by Zipcar;
- Marchmont Street approximately 300m west of the Site operated by Enterprise; and
- Tonbridge Street approximately 360m north of the Site operated by Zipcar.

3 POLICY

3.1 This section provides a brief summary of the relevant transport policies at national, regional and local level.

National Planning Policy Framework

3.2 The National Planning Policy Framework (NPPF) which was published on 27th March 2012 sets out the Government's planning policies for England and how these are expected to be applied. Chapter 4 – 'Promoting Sustainable Transport' sets out central government national transport policy:

'Transport policies have an important role to play in facilitating sustainable development but also in contributing to wider sustainability and health objectives. Smarter use of technologies can reduce the need to travel. 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.

Encouragement should be given to solutions which support reductions in greenhouse gas emissions and reduce congestion. In preparing Local Plans, local planning authorities should therefore support a pattern of development which, where reasonable to do so, facilitates the use of sustainable modes of transport.'

3.3 Chapter 4 – 'Promoting Sustainable Transport' continues by stating:

'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.'*

The London Plan (MALP 2016)

3.4 The London Plan 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.

3.5 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.'

3.6 Policy 6.9 Cycling states that:

'The Mayor will work with all relevant partners to bring about a significant increase in cycling in London, so that it accounts for at least 5 per cent of modal share by 2026'.

3.7 Policy 6.13 sets out the Mayor's parking policy stating:

'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.

in locations with high public transport accessibility, car-free developments should be promoted (while still providing for disabled people).

Adequate parking spaces for disabled people must be provided preferable on-site'.

3.8 The London Plan cycle parking standards are summarised in **Table 3.1.**

Table 3.1: Cycle Parking Standards

Land Use	Long	Short
B1 Office Use	1 space per 90sqm	First 5,000sqm: 1 space per 500sqm Thereafter: 1 space per 5,000sqm
C3 Residential Use	1 space per studio and 1 bedroom unit 2 spaces per all other dwellings	1 space per 40 units

London Borough of Camden Core Strategy

3.9 The London Borough of Camden's Core Strategy indicates that car-free developments will be promoted in areas which are highly accessible.

3.10 Policy CS11 'Promoting sustainable and efficient travel' states:

'To minimise congestion and address the environmental impacts, the Council will: minimise provision for private parking in new developments, in particular through car free developments in the borough's most accessible locations'.

London Borough of Camden Unitary Development Plan

3.11 The London Borough of Camden's Unitary Development Plan (UDP) sets out aims, priorities and policies which will be used to decide whether or not a site should achieve planning permission.

3.12 Within Section 5 'Transport', Policy T1 Sustainable transport states:

'The Council will grant planning permission for development that would encourage travel by walking, cycling and public transport. The Council will not grant planning permission that would be dependent on travel by private motor vehicles.'

3.13 In section 5 'Transport', Policy T8 states:

'The Council will particularly seek car free housing or car capped housing in the following locations: the Central London Area; the King's Cross Opportunity Area; Town Centres; and other areas within Controlled Parking Zones that are easily accessible by public transport'.

4 ASSESSMENT OF THE PROPOSAL DEVELOPMENT

The Proposal

4.1 The proposal seeks to provide a mixed commercial and residential scheme with circa 1,128sqm of Class B1 commercial space plus 13 residential units (2 x 3 bed, 10 x 2 bed and 1 x 1 bed). As such, the proposals are for an additional 26sqm of Class B1 office space plus 3 residential units when compared to the consented scheme. There is no on-site car parking proposed, with cycle storage provided in accordance with London Plan standards in the form of Sheffield style stands within the courtyard. Refuse storage will be located within the courtyard with refuse vehicles able to service on-site.

4.2 The Architect's plans are shown at **Appendix A.**

Trip Generation

4.3 A trip generation assessment has been undertaken to estimate the potential number of person trips for a typical weekday with emphasis placed on the morning peak period (7am - 10am), evening peak period (4pm – 7pm), and the daily trips (7am – 7pm).

4.4 In order to provide a robust assessment, no reference has been made to the former / consented use at the Site with all trips associated with the development considered as 'new.

4.5 The potential number of trips associated with overall proposed commercial space has been based on trip rates from the TRICS database considering surveys from sites in the Employment: Office Category with sites selected using the following criteria:

- Employment – Offices;
- Greater London Only from 2008;
- Inner London Boroughs Only; and
- Only weekday data.

4.6 The potential number of trips associated with the overall proposed number of residential units has been based on criteria similar to the commercial space except for selecting the Residential: Flats Privately Owned Category.

4.7 A summary of the selected TRICS output is included at **Appendix D.**

4.8 **Table 4.1** provides a summary of the trip rates and resultant number of person trips for each of the peak hours, the peak periods and daily flows for both the office and residential uses.

Table 4.1: Summary of Person Trip Rates and Resultant Flows

Period	Office Use				Residential				Total Flows	
	Trip Rates (per 100sqm)		Flows (1129sqm)		Trip Rates (per unit)		Flows (11 dwellings)			
	In	Out	In	Out	In	Out	In	Out	In	Out
0700 – 0800	0.414	0.057	5	1	0.059	0.277	1	4	5	4
0800 – 0900	1.722	0.127	19	1	0.114	0.522	1	7	21	8
0900 – 1000	2.019	0.242	23	3	0.116	0.218	2	3	24	6
1600 – 1700	0.331	1.064	4	12	0.242	0.150	3	2	7	14
1700 – 1800	0.228	1.987	3	22	0.304	0.160	4	2	7	25
1800 – 1900	0.198	0.955	2	11	0.306	0.143	4	2	6	13
0700 – 1900	10.699	9.977	121	113	2.424	2.546	32	33	152	146

4.9 **Table 4.2** provides a summary of the mode split based on 2011 Census Data for people travelling to work for the Super Output Area Middle Layer 025 along with a suggested mode share adjusted to reflect the car free nature of the development with the 8% mode share to car driver be reapportioned to other modes of transport based on the Census data.

Table 4.2 – Modal Split / Travel to Work Patterns

Mode	Daytime Population		Resident Population	
	2011 Census	Adjusted	2011 Census	Adjusted
Car Driver + Passenger	8%	0%	7%	0%
Rail	65%	70%	31%	33%
Bus	13%	14%	16%	17%
Motorcycle	1%	1%	1%	1%
Taxi	0%	0%	1%	1%
Cycle	5%	6%	7%	8%
Walk	8%	9%	38%	41%
Total	**100%**		**100%**	

4.10 **Table 4.3** provides a summary of the potential number of additional trips by mode and time of day for the proposed office use with the adjusted travel to work mode share from Table 4.2 applied to the trip generation data in Table 4.1. The data suggests that the commercial aspect of the development would generate 26 two-way person trips (23 arrivals; 3 departures) during the AM peak hour (0900-1000) and 25 two-way person trips (3 arrivals; 22 departures) during the PM peak hour (1700-1800).

Table 4.3: Trip Generation with Adjusted Values (Office Trips)

Period	Car		Rail		Bus		M/C		Cycle		Walk		Total	
	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
0700 – 0800	-	-	3	0	1	0	-	-	0	0	0	0	5	1
0800 – 0900	-	-	14	1	3	0	-	-	1	0	2	0	19	1
0900 – 1000	-	-	16	2	3	0	-	-	1	0	2	0	23	3
0700 - 1000			**33**	**3**	**7**	**1**	**1**	**-**	**3**	**0**	**4**	**0**	**47**	**5**
1600 – 1700	-	-	3	8	1	2	-	-	0	1	0	1	4	12
1700 – 1800	-	-	2	16	0	3	-	-	0	1	0	2	3	22
1800 – 1900	-	-	2	8	0	2	-	-	0	1	0	1	2	11
1600 – 1900			**6**	**32**	**1**	**6**	**-**	**1**	**1**	**3**	**1**	**4**	**9**	**45**
0700 - 1900	-	-	85	79	17	16	2	2	7	7	10	9	121	113

4.11 In reference to Table 4.1, the peak hour flows for the 11 residential units are 1 arrival and 7 departures during the AM peak hour and 4 arrivals and 2 departures during the PM peak hour. In order to provide a robust assessment, 100% of the trips will be accounted for as either by rail or by bus to assess the level of impact on public transport services.

Impact on Public Transport Services

4.12 The above suggests that there would be on average 18 arrivals by train during the morning peak hour and 18 departures by rail during the evening peak hour, which suggests less than 1 additional person per train during the peak hours. In terms of buses, the data suggests 4 arrivals by bus during the morning peak hour and 5 departures by bus during the evening peak hour, which suggests circa 1 additional person per 30 busses during the peak hours.

4.13 The above demonstrates that the proposed development would not result in a noticeable impact on existing conditions or levels of public transport service for existing users.

Parking

Car Parking

4.14 The proposed development will be car free and is deemed appropriate and is in accordance with London Plan standards which states that developments should be car free in locations when there is a good level of public transport accessibility.

4.15 The car free nature of the development is considered appropriate given its location and PTAL rating of 6b providing excellent accessibility to public transport services. This will promote sustainable modes of travel and therefore adhere to the LBC Core Strategy as it attempts to restrain the growth of private car use.

4.16 The Applicant is willing to accept a condition whereby residents and staff will not be able to apply for parking permits.

Cycle Parking

4.17 Parking will be provided for 40 bicycles in accordance with London Plan standards. This will be in sheltered and secure facilities at ground floor level within the courtyard in the form of Sheffield style stands.

Access

4.18 The proposals do not include alterations to the access arrangements with the existing gated access point from Wakefield Street retained.

4.19 Each dwelling and commercial unit will have its own individual pedestrian access point taken from within the courtyard area.

Deliveries and Servicing

4.20 Refuse storage facilities are to be located within the courtyard within the Site. It is proposed that refuse will be privately collected with vehicles able to access the Site through a gated entrance with operatives not required to wheel containers further than 20 metres.

4.21 Deliveries will occur on-site within the courtyard area. Research suggests that offices typically generate 1 delivery per 400sqm floorspace per day, with residential units typically generating 1 delivery per 10 dwellings per day. As such, it is reasonable to suggest that the proposals will generate approximately 3 – 4 deliveries per day. The majority of deliveries to offices are typically associated with letters / parcels and would be delivered by Luton style box vans or by foot/bike. The majority of deliveries to homes are similar to that of offices but also include online food shopping.

5 SUMMARY AND CONCLUSION

Summary

5.1 TTP Consulting has been appointed to provide traffic and transport advice in relation to the proposed development at The Old Dairy located in Bloomsbury within the London Borough of Camden.

5.2 The proposals can be summarised as follows;

- Consent exists to redevelop the Site to provide a total of 1,102sqm of Class B1 Office floorspace and 10 residential units.
- The Site currently comprises a Warehouse building of Class B8 use with associated offices. The Applicant is seeking consent to provide a mixed commercial and residential scheme with circa 1,128sqm of Class B1 commercial space plus 13 residential units (2 x 3 bed, 10 x 2 bed and 1 x 1 bed).
- The Site is accessible by all modes being within walking and cycling distance of public transport opportunities and day to day services, and has a PTAL Rating of 6b demonstrating an 'excellent' level of accessibility to public transport.
- The Site is located in a controlled parking zone with future residents and tenants prevented from applying for parking permits. The Site offers no on-site car parking and as such accords with policy.
- The Site is anticipated to generate 30 two-way person trips (24 arrivals; 6 departures) during the AM peak hour (0900-1000) and 32 two-way person trips (7 arrivals; 25 departures) during the PM peak hour (1700-1800). The majority of trips are anticipated to be by rail and would not result in a noticeable impact on existing conditions or levels of public transport service for existing users.
- Parking for a total of 40 bicycles will be provided in accordance with London Plan standards.
- It is anticipated that there would be on average 3 to 4 deliveries per day the majority of which will be by Luton Box Van or smaller and take place on Site.
- Refuse storage facilities will be located on-site within the courtyard area. Refuse collections will on-site via the gated access from Wakefield Street.

Conclusion

5.3 The proposed scheme is consistent with relevant policy guidance and will not rise to any material transport related impacts. It therefore meets the test of the NPPF and paragraph 32, which states that:

"Development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe."

5.4 In light of the above, we conclude that the planning application proposal is acceptable in traffic and transport terms.

Appendix A

DRAWING TO BE READ IN CONJUNCTION WITH THE SPECIFICATION AND ALL RELEVANT DRAWINGS.
DO NOT SCALE FROM THIS DRAWING.

MATERIAL SPECIFICATION:

CERAMIC CLADDING
1. Glazed bespoke fluted ceramic cladding, 268mm x 520mm and 1000mm, varied bones of white and cream, hung on aluminium sections. Vertical joints lapped, horizontal joints open maximum 9mm. To courtyards, undercroft, roof terraces and garden wall to rear of residential and commercial units as per drawings. Manufacturer NBK ceramics

METAL CLADDING
2A. Copper-alloy cladding comprising 1.0mm thick TECU® Brass Profiled Elements
Support structure: Eurofox or similar secondary metal support grid
Cladding system: Weltec® Profiled TECU® Brass Cladding System
Cladding panel: Pre-fabricated burnished brass, manufacturer KME
Material: TECU® Brass, CuSn 30, R-250. Thickness: 1.0mm
Finish: Manual pre-burnished finish on outer surfaces to architects approved sample
Contractor design to include adequate measures to prevent bi-metallic or chemical corrosion of adjacent materials to the brass
2B. Copper-alloy profiled cladding, TECU® Brass or similar approved
2C. Copper-alloy cladding, TECU® Brass or similar approved

GLAZING
3. Ground + lower ground floor facade, glazing to incorporate sliders and openings, aluminium frame, polyester powder coated to match metal cladding. Manufacturer Cantifix or similar
4. Upper Ground floor louver position to be mechanically adjustable for increased privacy
5. Fsc hardwood timber sliding windows behind metal fins. Fixed fins 130mm x 2300mm set flush with facade at regular spacings, sliding fins 40mm x 2300mm set back from facade. Internal glazed balustrade.
6. Inward opening aluminium windows, 650mm x 2400mm/2 x 350mm x 2400mm, recessed in profiled metal to mitigate overlooking, recess finish around window to maximise reflectance
7. Glazed roof supported on 75mm x 600mm concrete fins at approx 1m centres.
8. Rooflights, frameless, steel, flush with standing seam roof, manufacturer The Rooflight Company range Neo (or similar)

Note: All louvres and window frames to match TECU profiled metal cladding or RAL 6015 Black Olive
Note: All office ventilation to comply with consultants report

ROOF FINISHES
9. Standing seam copper-alloy to match profiled metal cladding, TECU or similar
10. All gutters and downpipes to be concealed
11. Parapet capping to match profiled metal cladding, TECU or similar
12. Brown roof over Unit 1 to increase biodiversity

BRICK CLADDING
13. Petersen's bricks 222mm x 108mm x 54mm), warm red, header bond with stormalor bricks cambered in sections, within expressed steel frame
14. Windows to sit behind fixed brick facade. Stagger bond setting out to have missing bricks as shown on elevation

EXTERNAL FLOOR FINISHES:
15. Forecourt - reinforced limestone external paving, flamed finish
Manufacturer Hardscape
16. Basement courtyards - limestone external paving, flamed finish
Manufacturer Hardscape
17. Unit 1 Terrace + Roof Terraces - Cedar decking with rough planed finish

OTHER:
18. Bespoke Glazed roof access hatch to private terraces. Note: Roof terraces to be fitted with beacon alarm system for fire safety purposes, final solution to be approved by building control officer
19. Forecourt balustrade - to match profiled metal cladding, TECU or similar
20. Roof Terrace planter - to match profiled metal cladding, TECU or similar
21. Glazed Terrace Balustrade

LANDSCAPE SPECIFICATION:

FLOOR FINISHES (outside Unit 01)
Reclaimed and reuse existing granite sets, flat topped and smooth laid
Pavement width 1.8m, precast concrete panels with circular glass pavement lights. Manufacturer Luceplan or similar

SHARED SURFACE (outside Unit 02, 03 + 04)
Robust large format limestone paving suitable for heavy duty access by emergency and servicing vehicles
Manufacturer Hardscape

FOOTPATH, FORECOURT + COURTYARDS
Limestone pavers, varied smooth and rough split texture. 200mm x 500mm
Tree pits with limestone edging and tree grilles
Manufacturer Hardscape

LIGHTING
Recessed flush into soffits of building overhangs
Manufacturer Louis Poulsen

PLANTING
Native species planted in zone along listed wall

PLANNING ISSUE

REV.	DATE	DESCRIPTION
PA02	12/04/17	Change in unit mix

THE OLD DAIRY
WAKEFIELD STREET
LONDON

Lower Ground Floor

DRNG No	SCALE	DATE
1250-11-002-PA02	1:100@A0	March 2017

Stanhope Gate Architecture
105 JERMYN STREET
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0 1 5 10m

LINE OF EXISTING OLD DAIRY

DRAWING TO BE READ IN CONJUNCTION WITH THE SPECIFICATION AND ALL RELEVANT DRAWINGS.
DO NOT SCALE FROM THIS DRAWING.

MATERIAL SPECIFICATION:
CERAMIC CLADDING
1. Glazed bespoke fluted ceramic cladding, 200mm x 500mm and 1000mm, varied tones of white and cream, hung on aluminium sections. Vertical joints lapped, horizontal joints open maximum 9mm. To courtyards, undercroft, roof terraces and garden wall to rear of residential and commercial units as per drawings. Manufacturer NBK ceramics

METAL CLADDING
2A. Copper-alloy cladding comprising 1.0mm thick TECU® Brass Profiled Elements
Support structure: Eurofox or similar secondary metal support grid
Cladding system: Weltec® Profiled TECU® Brass Cladding System
Cladding panel: Pre-fabricated burnished brass, manufacturer KME
Material: TECU® Brass, CuSn 30, R-250. Thickness: 1.0mm
Finish: Manual pre-burnished finish on outer surfaces to architect's approved sample
Contractor design to include adequate measures to prevent bi-metallic or chemical corrosion of adjacent materials to the brass.
2B. Copper-alloy profiled cladding. TECU® Brass or similar approved
2C. Copper-alloy cladding. TECU® Brass or similar approved

GLAZING
3. Ground + lower ground floor facade, glazing to incorporate sliders and openings, aluminium frame, polyester powder coated to match metal cladding. Manufacturer Camfil or similar
4. Upper Ground floor louver position to be mechanically adjustable for increased privacy
5. FSC hardwood timber sliding windows behind metal fins. Fixed fins 230mm x 2300mm set flush with facade at regular spacing, sliding fins 40mm x 2300mm set back from facade. Internal glazed balustrade
6. Inward opening aluminium windows, 950mm x 2400mm/2 x 350mm x 2400mm, recessed in profiled metal to mitigate overlooking, recess finish around window to maximise reflectance
7. Glazed roof supported on 75mm x 100mm concrete fins at approx 1m centres.
8. Rooflights, frameless, steel, flush with standing seam roof, manufacturer The Rooflight Company range Neo (or similar)

Note: All louvres and window frames to match TECU profiled metal cladding or RAL 6015 Black Olive
Note: All office ventilation to comply with consultants report.

ROOF FINISHES
9. Standing seam copper-alloy to match profiled metal cladding, TECU or similar
10. All gutters and downpipes to be concealed
11. Parapet capping to match profiled metal cladding, TECU or similar
12. Brown roof over Unit 1 to increase biodiversity

BRICK CLADDING
13. Petersen's bricks 228mm x 108mm x 54mm), warm red, header bond with alternate bricks omitted in sections, within expressed steel frame
14. Windows to sit behind fixed brick facade. Stagger bond setting out to have missing bricks as shown on elevation

EXTERNAL FLOOR FINISHES:
15. Forecourt - reinforced limestone external paving, flamed finish
Manufacturer Hardscape
16. Basement courtyards - limestone external paving, flamed finish
Manufacturer Hardscape
17. Unit 1 Terrace + Roof Terraces - Cedar decking with rough planed finish

OTHER:
18. Bespoke Glazed roof access hatch to private terraces. Note: Roof terraces to be fitted with beacon alarm system for fire safety purposes, final solution to be approved by building control officer
19. Forecourt balustrade - to match profiled metal cladding, TECU or similar
20. Roof Terrace planter - to match profiled metal cladding, TECU or similar
21. Glazed Terrace balustrade

LANDSCAPE SPECIFICATION:
FLOOR FINISHES (outside Unit 01)
Reclaimed and reuse existing granite sets, flat topped and smooth laid
Pavement width 1.8m, precast concrete panels with circular glass pavement lights. Manufacturer Luxcrete or similar

SHARED SURFACE (outside Unit 02, 03 + 04)
Robust large format limestone paving suitable for heavy duty access by emergency and servicing vehicles
Manufacturer Hardscape

FOOTPATH, FORECOURT + COURTYARDS
Limestone pavers, varied smooth and rough split texture. 100mm x 620mm
Tree pits with limestone edging and tree grilles
Manufacturer Hardscape

LIGHTING
Recessed flush into soffits of building overhangs
Manufacturer Louis Poulsen

PLANTING
Native species planted in zone along listed wall

PLANNING ISSUE

REV.	DATE	DESCRIPTION
PA02	12/04/17	Change in unit mix.

THE OLD DAIRY
WAKEFIELD STREET
LONDON

Ground Floor

DRNG No	SCALE	DATE
1250-11-003-PA02	1:100@A0	March 2017

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0 1 5 10m

LINE OF EXISTING OLD DAIRY

DRAWING TO BE READ IN CONJUNCTION WITH THE SPECIFICATION AND ALL RELEVANT DRAWINGS.
DO NOT SCALE FROM THIS DRAWING.

MATERIAL SPECIFICATION:

CERAMIC CLADDING
1. Glazed bespoke fluted ceramic cladding, 268mm x 500mm and 1000mm, varied tones of white and cream, hung on aluminium sections. Vertical joints lapped, horizontal joints open maximum 9mm. To courtyards, undercroft, roof terraces and garden wall to rear of residential and commercial units as per drawings. Manufacturer NBK ceramics

METAL CLADDING
2A. Copper-alloy cladding comprising 1.0mm thick TECU® Brass Profiled Elements
Support structure: Eurofox or similar secondary metal support grid
Cladding system: Weltec® Profiled TECU® Brass Cladding System
Cladding panel: Pre-fabricated burnished brass, manufacturer KME
Material: TECU® Brass, CuSn 30, R-250. Thickness: 1.0mm
Finish: Manual pre-burnished finish on outer surfaces to architects approved sample
Contractor design to include adequate measures to prevent bi-metallic or chemical corrosion of adjacent materials to the brass
2B. Copper-alloy profiled cladding, TECU® Brass or similar approved
2C. Copper-alloy cladding, TECU® Brass or similar approved

GLAZING
3. Ground + lower ground floor facade, glazing to incorporate sliders and openings, aluminium frame, polyester powder coated to match metal cladding. Manufacturer Cantifix or similar
4. Upper Ground floor louver position to be mechanically adjustable for increased privacy
5. Fsc hardwood timber sliding windows behind metal fins. Fixed fins 330mm x 2300mm set flush with facade at regular spacings, sliding fins 40mm x 2300mm set back from facade. Internal glazed balustrade
6. Inward opening aluminium windows, 650mm x 2400mm/2 x 350mm x 2400mm, recessed in profiled metal to mitigate overlooking, recess finish around window to maximise reflectance
7. Glazed roof supported on 75mm x 600mm concrete fins at approx 1m centres.
8. Rooflights, frameless, steel, flush with standing seam roof, manufacturer The Rooflight Company range Neo (or similar)

Note: All louvres and window frames to match TECU profiled metal cladding or RAL 6015 Black Olive
Note: All office ventilation to comply with consultants report

ROOF FINISHES
9. Standing seam copper-alloy to match profiled metal cladding, TECU or similar
10. All gutters and downpipes to be concealed
11. Parapet capping to match profiled metal cladding, TECU or similar
12. Brown roof over Unit 1 to increase biodiversity

BRICK CLADDING
13. Petersen's bricks 220mm x 108mm x 54mm), warm red, header bond with alternate bricks omitted in sections, within expressed steel frame
14. Wall thickness to sit behind fixed brick facade. Stagger bond setting out to have missing bricks as shown on elevation

EXTERNAL FLOOR FINISHES:
15. Forecourt - reinforced limestone external paving, flamed finish
Manufacturer Hardscape
16. Basement courtyards - limestone external paving, flamed finish
Manufacturer Hardscape
17. Unit 1 Terrace + Roof Terraces - Cedar decking with rough planed finish

OTHER
18. Bespoke Glazed roof access hatch to private terraces. Note: Roof terraces to be fitted with beacon alarm system for fire safety purposes, final solution to be approved by building control officer
19. Forecourt balustrade - to match profiled metal cladding, TECU or similar
20. Roof Terrace planter - to match profiled metal cladding, TECU or similar
21. Glazed Terrace Balustrade

LANDSCAPE SPECIFICATION:

FLOOR FINISHES (outside Unit 01)
Reclaimed and reuse existing granite sets, flat topped and smooth laid
Pavement width 1.8m, precast concrete panels with circular glass pavement lights. Manufacturer Luxcrete or similar

SHARED SURFACE (outside Unit 02, 03 + 04)
Robust large format limestone paving suitable for heavy duty access by emergency and servicing vehicles
Manufacturer Hardscape

FOOTPATH, FORECOURT + COURTYARDS
Limestone pavers, varied smooth and rough split texture, 200mm x 500mm
Tree pits with limestone edging and tree grilles
Manufacturer Hardscape

LIGHTING
Recessed flush into soffits of building overhangs
Manufacturer Louis Poulsen

PLANTING
Native species planted in zone along listed wall

PLANNING ISSUE

REV	DATE	DESCRIPTION
PA02	12/04/17	Change in unit mix

THE OLD DAIRY
WAKEFIELD STREET
LONDON

First Floor

DRNG No	SCALE	DATE
1250-11-004-PA02	1:100@A0	March 2017

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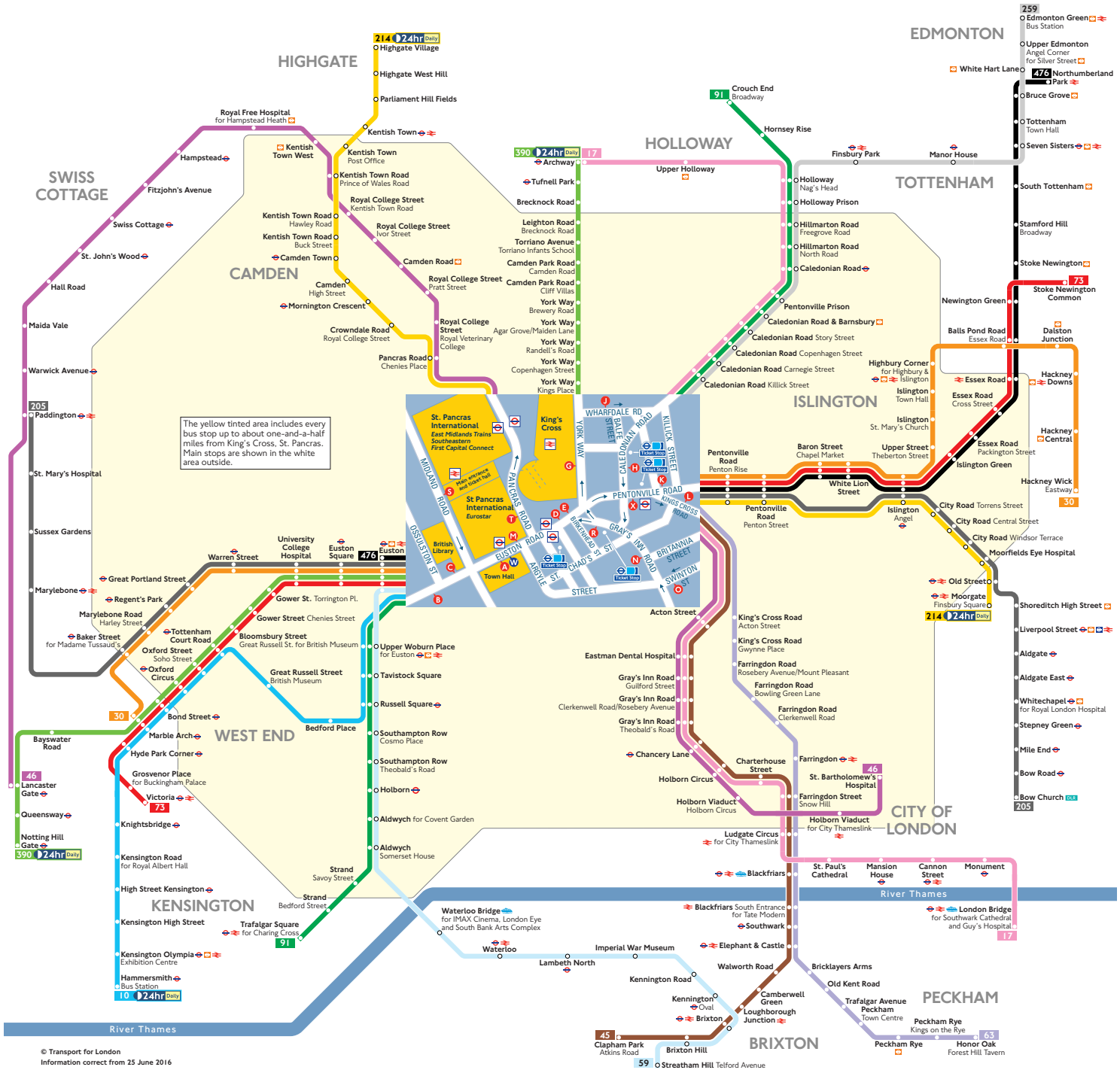
LINE OF EXISTING OLD DAIRY

Appendix B

Buses from King's Cross, St Pancras



Information correct from 25 June 2016

Route finder

Bus route	Towards	Bus stops
10 24hr Daily	Hammersmith	A B H J R
17	Archway	G J N
	London Bridge	H L
30	Hackney Wick	C E K
	Marble Arch	A B R X
45	Clapham Park	D L S
46	Lancaster Gate	N T
	St. Bartholomew's Hospital	D L S
59	Streatham Hill	A B H J R
73	Stoke Newington	C E K
	Victoria	A B R X
91	Crouch End	C G J M
	Trafalgar Square	A B H R
205	Bow Church	C E K
	Paddington	A B R X
214 24hr Daily	Highgate Village	T X
	Moorgate	E K S
259	Edmonton Green	G J N
390 24hr Daily	Archway	C G M
	Notting Hill Gate	A B H J R
476	Euston	A B R X
	Northumberland Park	C E K

Key

- Connections with London Underground
- Connections with London Overground
- Connections with TfL Rail
- Connections with National Rail
- DLR Connections with Docklands Light Railway
- Connections with river boats

Ways to pay

Use your contactless debit or credit card. It's the same fare as Oyster and there is no need to top up.

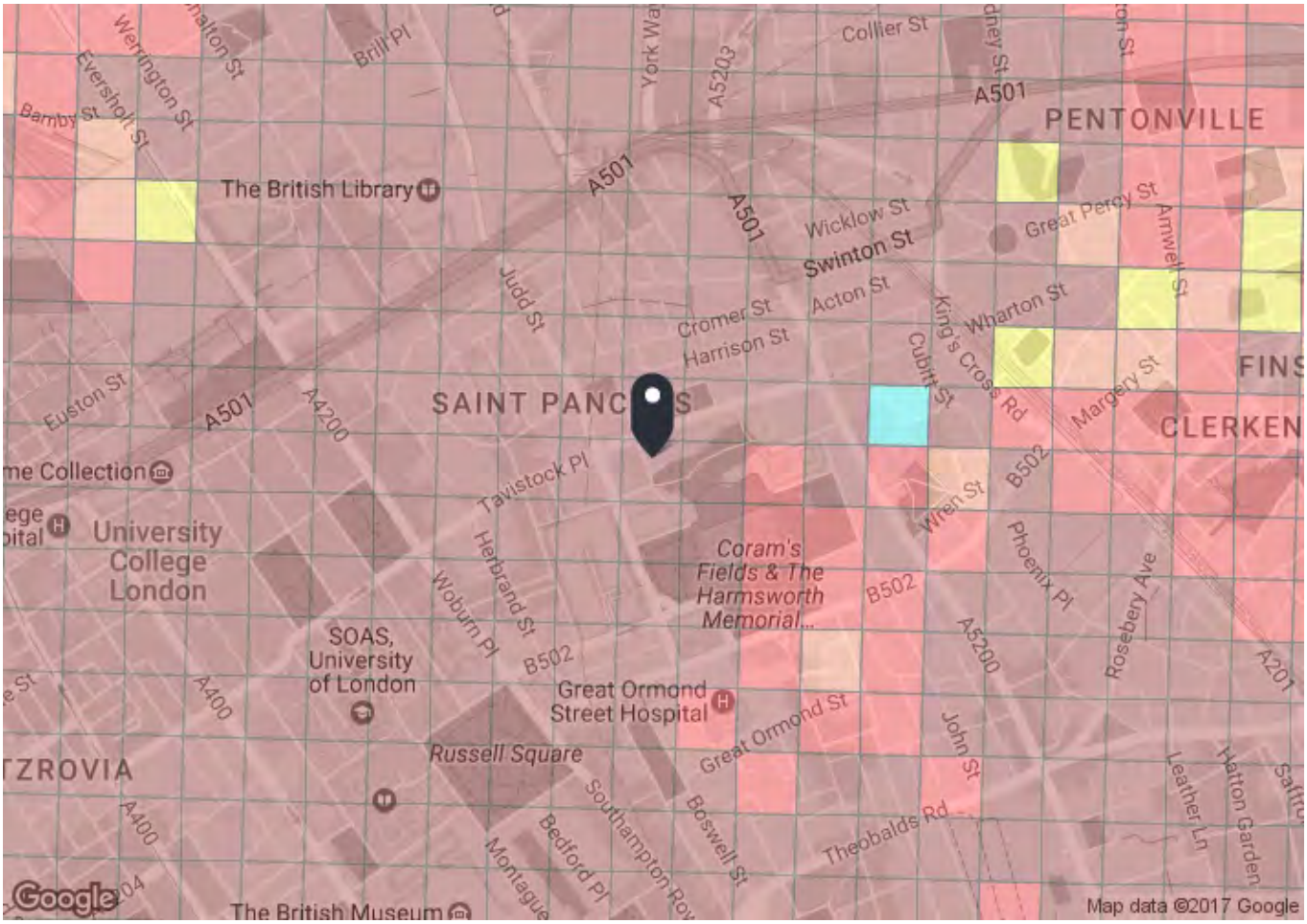
Ticket Stop Top up your Oyster pay as you go credit or buy Travelcards and bus & tram passes at around 4,000 shops across London.

Sign up for an online account to top up online and see your travel history and spending.

TFL31952.07.16 (P)

Appendix C

TRANSPORT FOR LONDON



PTAL output for Base Year
6b

WC1N 1PG
Wakefield St, Kings Cross, London WC1N 1PG, UK
Easting: **530348**, Northing: **182458**

Grid Cell: 90414

Report generated: 24/03/2017

Map key - PTAL

0 (Worst)	1a
1b	2
3	4
5	6a
6b (Best)	

Map layers

PTAL (cell size: 100m)

Calculation Parameters

Day of Week	M-F
Time Period	AM Peak
Walk Speed	4.8 kph
Bus Node Max. Walk Access Time (mins)	8
Bus Reliability Factor	2.0
LU Station Max. Walk Access Time (mins)	12
LU Reliability Factor	0.75
National Rail Station Max. Walk Access Time (mins)	12
National Rail Reliability Factor	0.75

Calculation data

Mode	Stop	Route	Distance (metres)	Frequency(vph)	Walk Time (mins)	SWT (mins)	TAT (mins)	EDF	Weight	AI
Bus	TAVISTOCK SQUARE	59	503.43	10	6.29	5	11.29	2.66	0.5	1.33
Bus	TAVISTOCK SQUARE	91	503.43	9	6.29	5.33	11.63	2.58	0.5	1.29
Bus	TAVISTOCK SQUARE	68	503.43	9	6.29	5.33	11.63	2.58	0.5	1.29
Bus	TAVISTOCK SQUARE	168	503.43	9	6.29	5.33	11.63	2.58	0.5	1.29
Bus	G INN RD ROYAL ENT HOSP	259	623.27	8	7.79	5.75	13.54	2.22	0.5	1.11
Bus	G INN RD ROYAL ENT HOSP	63	623.27	12	7.79	4.5	12.29	2.44	0.5	1.22
Bus	EUSTON R BRITISH LIBRARY	10	610.09	4.5	7.63	8.67	16.29	1.84	0.5	0.92
Bus	EUSTON R BRITISH LIBRARY	390	610.09	8	7.63	5.75	13.38	2.24	0.5	1.12
Bus	EUSTON R BRITISH LIBRARY	30	610.09	7.5	7.63	6	13.63	2.2	0.5	1.1
Bus	EUSTON R BRITISH LIBRARY	73	610.09	18	7.63	3.67	11.29	2.66	1	2.66
Bus	EUSTON R BRITISH LIBRARY	476	610.09	7.5	7.63	6	13.63	2.2	0.5	1.1
Bus	EUSTON R BRITISH LIBRARY	205	610.09	8	7.63	5.75	13.38	2.24	0.5	1.12
Bus	RUSSELL SQ NTH/WOBURN PL	98	567.68	9	7.1	5.33	12.43	2.41	0.5	1.21
Bus	RUSSELL SQ NTH/WOBURN PL	188	567.68	8	7.1	5.75	12.85	2.34	0.5	1.17
Bus	GRAYS INN RD ACTON ST	46	432.27	6	5.4	7	12.4	2.42	0.5	1.21
Bus	GRAYS INN RD ACTON ST	17	432.27	7.5	5.4	6	11.4	2.63	0.5	1.32
Bus	GRAYS INN RD ACTON ST	45	432.27	7	5.4	6.29	11.69	2.57	0.5	1.28
Rail	St Pancras	'BEDFDM-SVNOAKS 1E62'	589.29	0.33	7.37	91.66	99.03	0.3	0.5	0.15
Rail	St Pancras	'BEDFDM-BROMLYS 1E83'	589.29	0.33	7.37	91.66	99.03	0.3	0.5	0.15
Rail	St Pancras	'BEDFDM-ORPNGTN 1L60'	589.29	0.33	7.37	91.66	99.03	0.3	0.5	0.15
Rail	St Pancras	'BEDFDM-SUTTON 1O13'	589.29	0.33	7.37	91.66	99.03	0.3	0.5	0.15
Rail	St Pancras	'BEDFDM-KENTHOS 1S85'	589.29	0.33	7.37	91.66	99.03	0.3	0.5	0.15
Rail	St Pancras	'BEDFDM-BRGHTN 1T11'	589.29	0.33	7.37	91.66	99.03	0.3	0.5	0.15
Rail	St Pancras	'BEDFDM-BRGHTN 1T15'	589.29	0.67	7.37	45.53	52.89	0.57	0.5	0.28
Rail	St Pancras	'BRGHTN-BEDFDM 1T83'	589.29	0.33	7.37	91.66	99.03	0.3	0.5	0.15
Rail	St Pancras	'BEDFDM-SUTTON 1V23'	589.29	0.33	7.37	91.66	99.03	0.3	0.5	0.15
Rail	St Pancras	'BEDFDM-SUTTON 1V82'	589.29	0.33	7.37	91.66	99.03	0.3	0.5	0.15
Rail	St Pancras	'BRGHTN-BEDFDM 1W06'	589.29	0.33	7.37	91.66	99.03	0.3	0.5	0.15
Rail	St Pancras	'BRGHTN-BEDFDM 1W81'	589.29	0.33	7.37	91.66	99.03	0.3	0.5	0.15
Rail	St Pancras	'BEDFDM-BRGHTN 1W84'	589.29	0.33	7.37	91.66	99.03	0.3	0.5	0.15
Rail	St Pancras	'BEDFDM-BRGHTN 1W86'	589.29	0.33	7.37	91.66	99.03	0.3	0.5	0.15
Rail	St Pancras	'STALBCY-SVNOAKS 2E11'	589.29	1	7.37	30.75	38.12	0.79	0.5	0.39
Rail	St Pancras	'BEDFDM-SVNOAKS 2E19'	589.29	0.33	7.37	91.66	99.03	0.3	0.5	0.15
Rail	St Pancras	'LUTON-SVNOAKS 2E21'	589.29	0.33	7.37	91.66	99.03	0.3	0.5	0.15
Rail	St Pancras	'STALBCY-SVNOAKS 2E95'	589.29	0.33	7.37	91.66	99.03	0.3	0.5	0.15
Rail	St Pancras	'SUTTON-LUTON 2O00'	589.29	0.33	7.37	91.66	99.03	0.3	0.5	0.15
Rail	St Pancras	'SUTTON-BEDFDM 2O04'	589.29	0.33	7.37	91.66	99.03	0.3	0.5	0.15
Rail	St Pancras	'SUTTON-STALBCY 2O06'	589.29	0.33	7.37	91.66	99.03	0.3	0.5	0.15
Rail	St Pancras	'SUTTON-LUTON 2O10'	589.29	1	7.37	30.75	38.12	0.79	0.5	0.39
Rail	St Pancras	'LUTON-SUTTON 2O17'	589.29	0.67	7.37	45.53	52.89	0.57	0.5	0.28
Rail	St Pancras	'STALBCY-SUTTON 2O21'	589.29	0.33	7.37	91.66	99.03	0.3	0.5	0.15
Rail	St Pancras	'STALBCY-SUTTON 2O29'	589.29	0.67	7.37	45.53	52.89	0.57	0.5	0.28
Rail	St Pancras	'LUTON-BCKNHMJ 2S91'	589.29	0.33	7.37	91.66	99.03	0.3	0.5	0.15
Rail	St Pancras	'STALBCY-BROMLYS 2S93'	589.29	0.33	7.37	91.66	99.03	0.3	0.5	0.15
Rail	St Pancras	'BRGHTN-BEDFDM 2T02'	589.29	0.33	7.37	91.66	99.03	0.3	0.5	0.15
Rail	St Pancras	'BRGHTN-BEDFDM 2T04'	589.29	0.33	7.37	91.66	99.03	0.3	0.5	0.15
Rail	St Pancras	'BEDFDM-BRGHTN 2T15'	589.29	1	7.37	30.75	38.12	0.79	0.5	0.39
Rail	St Pancras	'BEDFDM-BRGHTN 2T25'	589.29	0.33	7.37	91.66	99.03	0.3	0.5	0.15
Rail	St Pancras	'BRGHTN-LUTON 2T99'	589.29	0.33	7.37	91.66	99.03	0.3	0.5	0.15
Rail	St Pancras	'SUTTON-STALBCY 2V02'	589.29	0.33	7.37	91.66	99.03	0.3	0.5	0.15
Rail	St Pancras	'SUTTON-STALBCY 2V08'	589.29	0.67	7.37	45.53	52.89	0.57	0.5	0.28
Rail	St Pancras	'BEDFDM-SUTTON 2V15'	589.29	0.33	7.37	91.66	99.03	0.3	0.5	0.15
Rail	St Pancras	'SUTTON-BEDFDM 2V16'	589.29	0.33	7.37	91.66	99.03	0.3	0.5	0.15
Rail	St Pancras	'LUTON-SUTTON 2V19'	589.29	0.33	7.37	91.66	99.03	0.3	0.5	0.15
Rail	St Pancras	'SUTTON-KNTSHTN 2V20'	589.29	0.33	7.37	91.66	99.03	0.3	0.5	0.15
Rail	St Pancras	'STALBCY-SUTTON 2V27'	589.29	0.33	7.37	91.66	99.03	0.3	0.5	0.15
Rail	St Pancras	'LUTON-SUTTON 2V31'	589.29	0.33	7.37	91.66	99.03	0.3	0.5	0.15
Rail	St Pancras	'BRGHTN-BEDFDM 2W08'	589.29	0.33	7.37	91.66	99.03	0.3	0.5	0.15

Mode	Stop	Route	Distance (metres)	Frequency(vph)	Walk Time (mins)	SWT (mins)	TAT (mins)	EDF	Weight	AI
Rail	St Pancras	'BRGHTN-BEDFDM 2W12'	589.29	0.33	7.37	91.66	99.03	0.3	0.5	0.15
Rail	St Pancras	'BRGHTN-BEDFDM 2W16'	589.29	0.33	7.37	91.66	99.03	0.3	0.5	0.15
Rail	St Pancras	'ASHFKY-BEDFDM 1E61'	589.29	0.33	7.37	91.66	99.03	0.3	0.5	0.15
Rail	St Pancras	'ASHFKY-BEDFDM 1E63'	589.29	0.33	7.37	91.66	99.03	0.3	0.5	0.15
Rail	St Pancras	'RCHT-BEDFDM 1E67'	589.29	0.33	7.37	91.66	99.03	0.3	0.5	0.15
Rail	St Pancras	'SVNOAKS-BEDFDM 1E69'	589.29	0.33	7.37	91.66	99.03	0.3	0.5	0.15
Rail	St Pancras	'BROMLYS-BEDFDM 1E82'	589.29	0.33	7.37	91.66	99.03	0.3	0.5	0.15
Rail	St Pancras	'BCKNHMJ-BEDFDM 1G65'	589.29	0.33	7.37	91.66	99.03	0.3	0.5	0.15
Rail	St Pancras	'KENTHOS-BEDFDM 1G71'	589.29	0.33	7.37	91.66	99.03	0.3	0.5	0.15
Rail	St Pancras	'ORPNGTN-STALBCY 2D93'	589.29	0.33	7.37	91.66	99.03	0.3	0.5	0.15
Rail	St Pancras	'ORPNGTN-LUTON 2D95'	589.29	0.33	7.37	91.66	99.03	0.3	0.5	0.15
Rail	St Pancras	'SVNOAKS-STALBCY 2E59'	589.29	0.67	7.37	45.53	52.89	0.57	0.5	0.28
Rail	St Pancras	'SVNOAKS-LUTON 2E61'	589.29	0.33	7.37	91.66	99.03	0.3	0.5	0.15
Rail	St Pancras	'SVNOAKS-WHMPSTM 2E63'	589.29	0.33	7.37	91.66	99.03	0.3	0.5	0.15
Rail	St Pancras	'SVNOAKS-KNTSHTN 2E65'	589.29	0.33	7.37	91.66	99.03	0.3	0.5	0.15
Rail	St Pancras	'SVNOAKS-KNTSHTN 2E67'	589.29	0.33	7.37	91.66	99.03	0.3	0.5	0.15
Rail	St Pancras	'BROMLYS-LUTON 2E93'	589.29	0.33	7.37	91.66	99.03	0.3	0.5	0.15
Rail	St Pancras	'ORPNGTN-LUTON 2L59'	589.29	0.33	7.37	91.66	99.03	0.3	0.5	0.15
Rail	St Pancras	'ORPNGTN-KNTSHTN 2L65'	589.29	0.33	7.37	91.66	99.03	0.3	0.5	0.15
Rail	St Pancras	'BEDFDM-ELPHNAC 1J87'	589.29	0.33	7.37	91.66	99.03	0.3	0.5	0.15
Rail	St Pancras	'BEDFDM-ELPHNAC 1J88'	589.29	0.33	7.37	91.66	99.03	0.3	0.5	0.15
Rail	St Pancras	'STPANCI-FAVRSHM 1F08'	589.29	2	7.37	15.75	23.12	1.3	1	1.3
Rail	St Pancras	'BRSR-STPANCI 1F13'	589.29	0.67	7.37	45.53	52.89	0.57	0.5	0.28
Rail	St Pancras	'FAVRSHM-STPANCI 1F17'	589.29	1	7.37	30.75	38.12	0.79	0.5	0.39
Rail	St Pancras	'EBSFLTI-STPANCI 1F85'	589.29	1.33	7.37	23.31	30.67	0.98	0.5	0.49
Rail	St Pancras	'STPANCI-MARGATE 1J08'	589.29	0.33	7.37	91.66	99.03	0.3	0.5	0.15
Rail	St Pancras	'STPANCI-DOVERP 1J10'	589.29	1	7.37	30.75	38.12	0.79	0.5	0.39
Rail	St Pancras	'RAMSGTE-STPANCI 1J11'	589.29	0.67	7.37	45.53	52.89	0.57	0.5	0.28
Rail	St Pancras	'STPANCI-MARGATE 1J12'	589.29	0.67	7.37	45.53	52.89	0.57	0.5	0.28
Rail	St Pancras	'MARGATE-STPANCI 1J13'	589.29	0.33	7.37	91.66	99.03	0.3	0.5	0.15
Rail	St Pancras	'MARGATE-STPANCI 1J17'	589.29	0.33	7.37	91.66	99.03	0.3	0.5	0.15
Rail	St Pancras	'DOVERP-STPANCI 1J19'	589.29	0.33	7.37	91.66	99.03	0.3	0.5	0.15
Rail	St Pancras	'MARGATE-STPANCI 1J21'	589.29	0.33	7.37	91.66	99.03	0.3	0.5	0.15
Rail	St Pancras	'MSTONEW-STPANCI 1T91'	589.29	1	7.37	30.75	38.12	0.79	0.5	0.39
Rail	King's Cross	'KNGX-PBRO 1P11'	705.07	1	8.81	30.75	39.56	0.76	0.5	0.38
Rail	King's Cross	'PBRO-KNGX 1P62'	705.07	1.33	8.81	23.31	32.12	0.93	0.5	0.47
Rail	King's Cross	'KNGX-CAMBDGE 2C03'	705.07	1	8.81	30.75	39.56	0.76	0.5	0.38
Rail	King's Cross	'KNGX-PBRO 2P04'	705.07	1	8.81	30.75	39.56	0.76	0.5	0.38
LUL	King's Cross	'Hammersmith-Plaistow'	705.07	1	8.81	30.75	39.56	0.76	0.5	0.38
LUL	King's Cross	'Ches-AldgateFast'	705.07	2	8.81	15.75	24.56	1.22	0.5	0.61
LUL	King's Cross	'Uxbridge-AldSlow'	705.07	5.33	8.81	6.38	15.19	1.97	0.5	0.99
LUL	King's Cross	'Ald-HarrowHill'	705.07	1.33	8.81	23.31	32.12	0.93	0.5	0.47
LUL	King's Cross	'Morden-MillHillE'	705.07	4	8.81	8.25	17.06	1.76	0.5	0.88
LUL	King's Cross	'Uxbridge-Cockfosters'	705.07	3.67	8.81	8.92	17.74	1.69	0.5	0.85
Rail	King's Cross	'KNGX-CAMBDGE 1C35'	612.93	0.33	7.66	91.66	99.32	0.3	0.5	0.15
Rail	King's Cross	'CAMBDGE-KNGX 1C82'	612.93	0.33	7.66	91.66	99.32	0.3	0.5	0.15
Rail	King's Cross	'ROYSTON-KNGX 1R50'	612.93	0.33	7.66	91.66	99.32	0.3	0.5	0.15
Rail	King's Cross	'CAMBDGE-KNGX 2C54'	612.93	0.67	7.66	45.53	53.19	0.56	0.5	0.28
Rail	King's Cross	'PBRO-KNGX 2P90'	612.93	0.33	7.66	91.66	99.32	0.3	0.5	0.15
Rail	King's Cross	'LTCE-KNGX 2R07'	612.93	0.67	7.66	45.53	53.19	0.56	0.5	0.28
Rail	King's Cross	'HITCHIN-KNGX 2R94'	612.93	0.33	7.66	91.66	99.32	0.3	0.5	0.15
Rail	King's Cross	'WLWYNGC-KNGX 2Y04'	612.93	0.33	7.66	91.66	99.32	0.3	0.5	0.15
Rail	King's Cross	'WLWYNGC-KNGX 2Y13'	612.93	0.67	7.66	45.53	53.19	0.56	0.5	0.28
LUL	King's Cross	'Hammersmith-Edgware'	612.93	6	7.66	5.75	13.41	2.24	0.5	1.12
LUL	King's Cross	'Barking-Hammersmith'	612.93	6.34	7.66	5.48	13.14	2.28	0.5	1.14
LUL	King's Cross	'Aldgate-AmerFast'	612.93	1	7.66	30.75	38.41	0.78	0.5	0.39
LUL	King's Cross	'Watford-AldSfast'	612.93	3.67	7.66	8.92	16.59	1.81	0.5	0.9
LUL	King's Cross	'Aldg-WatfordSlow'	612.93	3.67	7.66	8.92	16.59	1.81	0.5	0.9

Mode	Stop	Route	Distance (metres)	Frequency(vph)	Walk Time (mins)	SWT (mins)	TAT (mins)	EDF	Weight	AI
LUL	King's Cross	'Edgware-Morden'	612.93	9	7.66	4.08	11.74	2.55	0.5	1.28
LUL	King's Cross	'Morden-HighBarnet'	612.93	14.67	7.66	2.79	10.46	2.87	0.5	1.43
LUL	King's Cross	'Cockfosters-LHRT4LT'	612.93	4.67	7.66	7.17	14.84	2.02	0.5	1.01
LUL	King's Cross	'Oakwood-Uxbridge'	612.93	0.33	7.66	91.66	99.32	0.3	0.5	0.15
LUL	King's Cross	'Oakwood-Ruislip'	612.93	0.33	7.66	91.66	99.32	0.3	0.5	0.15
LUL	King's Cross	'Brixton-WalthamstowC'	612.93	15.67	7.66	2.66	10.33	2.91	1	2.91
LUL	King's Cross	'SevenSisters-Brixton'	612.93	11.67	7.66	3.32	10.98	2.73	0.5	1.37
Rail	Kings Cross St Pancras	'ROYSTON-KNGX 1R51'	717.05	0.67	8.96	45.53	54.49	0.55	0.5	0.28
Rail	Kings Cross St Pancras	'CAMBDGE-KNGX 2C91'	717.05	0.33	8.96	91.66	100.62	0.3	0.5	0.15
Rail	King's Cross	'KNGX-CAMBDGE 1C33'	952.31	0.67	11.9	45.53	57.43	0.52	0.5	0.26
Rail	King's Cross	'CAMBDGE-KNGX 2C92'	952.31	0.67	11.9	45.53	57.43	0.52	0.5	0.26
LUL	King's Cross	'ArnosGrove-RayLane'	952.31	0.33	11.9	91.66	103.56	0.29	0.5	0.14
LUL	Russel Square	'RayLane-Cockfosters'	454.74	3.67	5.68	8.92	14.61	2.05	0.5	1.03
LUL	Russel Square	'LHRT4LT-ArnosGrove'	454.74	4.67	5.68	7.17	12.86	2.33	0.5	1.17
LUL	Russel Square	'ArnosGrove-Nthfields'	454.74	3	5.68	10.75	16.43	1.83	0.5	0.91
LUL	Russel Square	'Oakwood-RayLane'	454.74	0.33	5.68	91.66	97.34	0.31	0.5	0.15
LUL	Russel Square	'Nthfields-Cockfoster'	454.74	1	5.68	30.75	36.43	0.82	0.5	0.41
LUL	Russel Square	'LHRT5-Cockfosters'	454.74	6	5.68	5.75	11.43	2.62	0.5	1.31
LUL	Russel Square	'Ruislip-Cockfosters'	454.74	2.33	5.68	13.63	19.31	1.55	0.5	0.78
LUL	Russel Square	'ArnosGrove-Uxbridge'	454.74	1	5.68	30.75	36.43	0.82	0.5	0.41
									Total Grid Cell AI:	**64.49**

Appendix D

Calculation Reference: AUDIT-752101-170324-0343

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : A - OFFICE
MULTI-MODAL TOTAL PEOPLE

Selected regions and areas:

01	GREATER LONDON		
	CI	CITY OF LONDON	3 days
	CN	CAMDEN	2 days
	IS	ISLINGTON	1 days
	SK	SOUTHWARK	2 days
	WH	WANDSWORTH	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Secondary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Gross floor area
Actual Range: 1215 to 17187 (units: sqm)
Range Selected by User: 1215 to 17187 (units: sqm)

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/08 to 29/11/13

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	1 days
Tuesday	1 days
Wednesday	2 days
Thursday	2 days
Friday	3 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	9 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Town Centre	6
Edge of Town Centre	2
Suburban Area (PPS6 Out of Centre)	1

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Commercial Zone	4
Built-Up Zone	5

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

B1	9 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 1 mile:

10,001 to 15,000	1 days
25,001 to 50,000	1 days
50,001 to 100,000	6 days
100,001 or More	1 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

250,001 to 500,000	1 days
500,001 or More	8 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.5 or Less	6 days
0.6 to 1.0	3 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

Yes	1 days
No	8 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	5 days
4 Good	1 days
5 Very Good	1 days
6b (High) Excellent	2 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1 CI-02-A-01 OFFICES CITY OF LONDON
50 CANNON STREET
CITY OF LONDON
BANK
Town Centre
Built-Up Zone
Total Gross floor area: 1386 sqm
Survey date: WEDNESDAY 21/10/09 Survey Type: MANUAL

2 CI-02-A-02 OFFICES CITY OF LONDON
GRACECHURCH STREET
MONUMENT
CITY OF LONDON
Town Centre
Commercial Zone
Total Gross floor area: 9803 sqm
Survey date: FRIDAY 29/11/13 Survey Type: MANUAL

3 CI-02-A-03 OFFICES CITY OF LONDON
MONUMENT STREET
MONUMENT
CITY OF LONDON
Town Centre
Commercial Zone
Total Gross floor area: 1951 sqm
Survey date: FRIDAY 29/11/13 Survey Type: MANUAL

4 CN-02-A-01 OFFICES CAMDEN
ELY PLACE
HOLBORN CIRCUS
HOLBORN
Edge of Town Centre
Built-Up Zone
Total Gross floor area: 4062 sqm
Survey date: THURSDAY 23/10/08 Survey Type: MANUAL

5 CN-02-A-02 OFFICES CAMDEN
GRAYS INN ROAD

CLERKENWELL
Town Centre
Built-Up Zone
Total Gross floor area: 6056 sqm
Survey date: WEDNESDAY 22/10/08 Survey Type: MANUAL

6 IS-02-A-01 OFFICES ISLINGTON
ESSEX ROAD

ISLINGTON
Suburban Area (PPS6 Out of Centre)
Built-Up Zone
Total Gross floor area: 5500 sqm
Survey date: FRIDAY 24/10/08 Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

7	SK-02-A-01	GLA HQ		SOUTHWARK
	THE QUEENS WALK			
	SOUTHWARK			
	Town Centre			
	Commercial Zone			
	Total Gross floor area:		17187 sqm	
	Survey date: TUESDAY		21/10/08	Survey Type: MANUAL
8	SK-02-A-02	OFFICES		SOUTHWARK
	ST OLAV'S COURT			
	ROTHERHITHE			
	Edge of Town Centre			
	Commercial Zone			
	Total Gross floor area:		2371 sqm	
	Survey date: MONDAY		20/10/08	Survey Type: MANUAL
9	WH-02-A-02	OFFICES		WANDSWORTH
	BATTERSEA PARK ROAD			
	BATTERSEA			
	Town Centre			
	Built-Up Zone			
	Total Gross floor area:		1215 sqm	
	Survey date: THURSDAY		10/05/12	Survey Type: MANUAL

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED
MULTI-MODAL TOTAL PEOPLE
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	18	60	0.059	18	60	0.277	18	60	0.336
08:00 - 09:00	18	60	0.114	18	60	0.522	18	60	0.636
09:00 - 10:00	18	60	0.116	18	60	0.218	18	60	0.334
10:00 - 11:00	18	60	0.090	18	60	0.169	18	60	0.259
11:00 - 12:00	18	60	0.134	18	60	0.139	18	60	0.273
12:00 - 13:00	18	60	0.146	18	60	0.143	18	60	0.289
13:00 - 14:00	18	60	0.149	18	60	0.156	18	60	0.305
14:00 - 15:00	18	60	0.133	18	60	0.151	18	60	0.284
15:00 - 16:00	18	60	0.248	18	60	0.118	18	60	0.366
16:00 - 17:00	18	60	0.242	18	60	0.150	18	60	0.392
17:00 - 18:00	18	60	0.304	18	60	0.160	18	60	0.464
18:00 - 19:00	18	60	0.306	18	60	0.143	18	60	0.449
19:00 - 20:00	3	160	0.227	3	160	0.104	3	160	0.331
20:00 - 21:00	3	160	0.156	3	160	0.096	3	160	0.252
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.424			2.546			4.970

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.

Parameter summary

Trip rate parameter range selected:	9 - 294 (units:)
Survey date date range:	01/01/08 - 14/07/16
Number of weekdays (Monday-Friday):	18
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	1

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.