

Project Title
32 Torrington Square

Report Title
Travel Plan

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Prepared For
Birkbeck, University of
London

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1.0 INTRODUCTION

- 1.1 Robert West Consulting was appointed in April 2017 by Birkbeck, University of London to provide transport planning advice in relation to the proposed development at 32 Torrington Square, London Borough of Camden (LBC). The development is for a Centre for Brain and Cognitive Development (CBCD) to provide facilities for the study of toddlers with autism and other behavioural conditions. The location of the application site is showed in **Figure 1.1**.

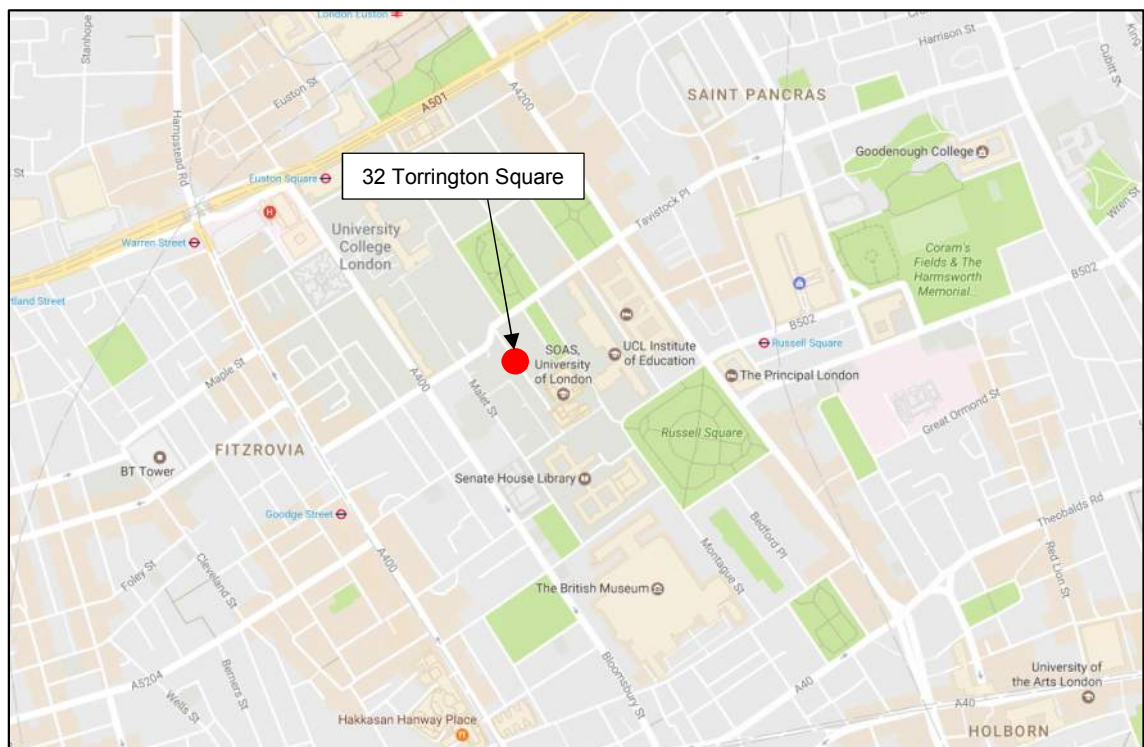


Figure 1.1: Site Location

Proposed Development

- 1.2 The proposal involves refurbishing works to 32 Torrington Square and a proposed Annexe on land the north. The development will provide for the CBCD and will result in a total floor area of 937.9 m² GEA. The proposed site plans are contained in **Appendix A** of this report.

BREEAM Assessment

- 1.3 BREEAM is the world's leading and most widely used environmental assessment method for buildings. The aim of BREEAM is to enable developments to be recognised according to their sustainability benefits and stimulates demand for sustainable development. This Travel Plan (TP) has been developed in accordance with BREEAM objectives.
- 1.4 **Table 1.1** provides a summary of the BREEAM Transport requirements as quoted in BREEAM New Construction, Non-domestic Buildings, Technical Manual, 2014.

Issue Name	Credits	Credit Summary
TRA 01 - Public transport accessibility	Up to 5 credits	<p>The public transport Accessibility Index (AI) for the assessed building is calculated and BREEAM credits awarded in accordance with the building types.</p> <p>For building types: Higher Education type; 5 BREEAM credits are available if AI is greater than 18.</p>
TRA 02 - Proximity to amenities	Up to 1 credit	<p>Where the building is located within close proximity of (500m) and accessible to local amenities, which are likely to be frequently required and used by building occupants, 1 BREEAM credits is available.</p>
TRA 03 - Cyclist facilities	Up to 2 credits	<p>If a building provides a cycle storage spaces that meet the minimum levels set out in the BREEAM standard, 1 BREEAM credits is available. The standard is: one cycle parking space for every 10 members of staff/students.</p> <p>If at least two of the following types of cyclist facilities: showers, changing facilities, lockers and drying spaces are provided; 1 BREEAM credits is available.</p>
TRA 04 - Maximum car parking capacity	Up to 2 credits	<p>If a development limits the car parking provision, 2 BREEAM credits are available.</p>
TRA 05 - Travel Plan (TP)	Up to 1 Credit	<p>If a TP has been developed as part of the feasibility and design stages, 1 BREEAM credit is available. A site-specific TP should cover the following:</p> <ul style="list-style-type: none"> • Where relevant, existing travel patterns and opinions of existing building or site users towards cycling and walking so that constraints and opportunities can be identified. • Travel patterns and transport impact of future building users. • Current local environment for walkers and cyclists. • Disabled access. • Public transport links serving the site. • Current facilities for cyclists. • The TP includes a package of measures to encourage the use of sustainable modes of transport and movement of people and goods during the building's operation and use. • If the occupier is known, they must be involved in the development of the TP and they must confirm that the TP will be implemented post construction and be supported by the building's management in operation.

Table 1.1: BREEAM Category Summary

2.0 CONTEXT

2.1 The report has been divided into the following chapters and is structured to follow the Transport for London (TfL, 2013) guidance:

- i. **Section 1.0** provided an introduction;
- ii. **Section 2.0** sets the context of the development and structure of this TP;
- iii. **Section 3.0** details the baseline site assessment;
- iv. **Section 4.0** details information on travel modes for predicted travel behaviour in relation to the proposed development;
- v. **Section 5.0** describes the objectives of this TP;
- vi. **Section 6.0** details the targets of this TP;
- vii. **Section 7.0** outlines the package of measures to be implemented;
- viii. **Section 8.0** provides details on how the TP will be managed;
- ix. **Section 9.0** explains how the TP will be monitored;
- x. **Section 10.0** details the Action Plan for implementation of measures; and
- xi. **Section 11.0** details how the TP will be secured and enforced.

Travel Plan Context

- 2.2 A TP is a long-term management strategy for an organisation, site or area, which is aimed at promoting the use of sustainable modes of transport and providing choice for the users, with an end objective of reducing the environmental impacts of travel and dependency on the motorised modes.
- 2.3 TPs can provide benefits to individuals as well as organisations by providing better access to work, improved travel choices, reduced costs and reduced congestion which can improve staff health.
- 2.4 This TP will be a 'live' document with an initial lifespan of 5 years. It will be monitored on Year 1, 3 and 5 with any updates being incorporated as necessary. A detailed review and update will occur after 5 years when a new TP will be produced.

Proposed Development

- 2.5 The proposed development will provide a new facility for CBCD for the Birkbeck, University of London and will include academic offices and research units, and will continue to operate as a Class D1 Use.
- 2.6 Due to the proposed development being for research and academic purposes, it is not expected to be attended by students. The site will have with 35 staff members and is expected to be attended 10 visitors per day. It is understood that the staff is likely to travel during the network peak periods and keep a standard office working hours.

Access Arrangements

- 2.7 The access to the building will continue from Torrington Square. The existing pedestrian entrance to 32 Torrington Square will remain unchanged. A new step-free entrance will be provided to the Annexe, which will lead to the main reception. The access is proposed to be levelled with the footway and thus, is considered to be suitable to address accessibility needs of disabled users with varying levels of disability and visually impaired.
- 2.8 The existing servicing road provides access for small vehicles (golf carts) only. The vehicular access will be converted to a 1.8m wide access road, which is sufficient to maintain the current operation. This access has the form of a ramp and will access the cycle parking spaces, for the proposed development. The access arrangement is suitable to be used by disabled users. No vehicular access is proposed as part of the proposed development.

Car Parking

- 2.9 The development is proposed as car-free and will not provide any parking spaces. The Local Plan states that parking for disabled people should be provided where necessary and should consider availability to on-street parking spaces for blue badge holders in the area.
- 2.10 The site visit undertaken during the morning peak period identified that the existing accessible spaces in the area of the development have residual parking capacity. Four accessible spaces on Malet Street were observed to be occupied by one blue badge holder only, and residual parking capacity was observed in pay & display spaces. The pay & display spaces provided on Gordon Square were observed to be 50% occupied.
- 2.11 As such, it can be concluded that during the morning peak period, when the majority of staff will be expected to arrive, residual on-street parking capacity exists. Should demand for accessible spaces be generated, it is expected to be accommodated on-street.

Cycle Parking

- 2.12 A total of 12 cycle parking spaces, in the form of six Sheffield stands, are proposed to be provided within the application site. Additional cycle facilities such as shower, changing facilities, a drying cupboard and nine lockers will also be provided at the basement level of the Annexe to make cycling more feasible for the users.
- 2.13 This level of proposed cycle parking spaces exceeds the amount required by the BREEAM standards, that requires minimum 1 space per 10 staff/students. As the proposed development will be occupied by 35 staff and 10 visitors, provision of five cycle spaces is considered acceptable.
- 2.14 It is understood that Camden has a high level of bicycle use, when compared to different areas within the Greater of London. To ensure that the proposed provision is adequate, the Census of Population 2011 data, on the method of travel to work (Survey set QS701EW), was reviewed. The data suggests that 7.1% of people in LBC cycle to work, compared to 4.3% across the Greater London. The parking provision provided within the development is sufficient to accommodate demand for 17% of staff and visitors, and therefore is considered to be sufficient.

Deliveries and Servicing

- 2.15 Birkbeck operates a University site wide delivery service from the post room located on Malet Street. The majority of deliveries for the proposed development will be send to the post room, from where deliveries will be distributed within the University estate twice a day. This is undertaken by using a hand trolley. As the majority of deliveries to the development are expected to by the Royal Mail, the proposed arrangement will allow for effective consolidation of deliveries.

- 2.16 A loading bay is not proposed as part of the development and the refuse collections and deliveries will fall under the Birkbeck, University of London site wide servicing strategy.
- 2.17 The strategy for the proposed refuse collection is that all waste and recycling bins will be taken to a waste compound located at the main storage area for all Birkbeck, University buildings. The waste compound is located across the Torrington Square approximately 50m from the application site. Refuse is collected daily from Monday to Saturday, which ensures that waste storage capacity is always available. No additional refuse vehicle trips are anticipated as part of the proposed development.
- 2.18 It is expected that occasional deliveries by large vehicles will take place and this is predicted to occur approximately twice per year. Should these deliveries be required, it will be arranged from Torrington Square. When these deliveries will be required, the date and time will be arranged to ensure that the deliveries outside morning or evening peaks. Furthermore, assistance from staff members will be provided to ensure that loading/unloading take place in a time-efficient manner. The arrangement allows for efficient consolidation of deliveries between the proposed and existing Birkbeck, University buildings.

Summary

- 2.19 The proposed development is for a CBCD facility for Birkbeck, University of London and is proposed to be located at the 32 Torrington Square and land to the north (proposed Annexe). The building will operate as a Class D1 Use and will accommodate 35 members of staff and 10 visitors per day.
- 2.20 The development is proposed as 'car-free' and will not provide any disabled spaces or a dedicated loading bay. Refuse collection and delivery will be arranged from Malet Street and will form part of the Birkbeck, University site wide strategy. An access to the rear of the properties will have a reduced width of 1.8m. The development will have 12 cycle spaces on-site and other cycling facilities including showers and storage lockers.

3.0 SITE ASSESSMENT

3.1 This section describes the existing conditions in the vicinity of the site, the surrounding area and the accessibility of the site by non-car modes including: walking, cycling and public transport, and conditions of highway network. This was informed by observations made during a site visit undertaken during both the morning network peak period on Tuesday 9th May 2017.

Site Location

3.2 The application site is located on Torrington Square at the northern end of a terrace. The site fronts onto Torrington Square, which consists a large public realm space, and is surrounded by other University of London buildings in close proximity as presented in **Figure 3.1**. The Warburg Institute is located to the north of the site, while The School of Oriental and African Studies (SOAS) is located to the south. The Student Central Building and Birkbeck University of London are located opposite Torrington Square. Further University buildings are located on Malet Street to the west and on Bedford Way to the east of the site.

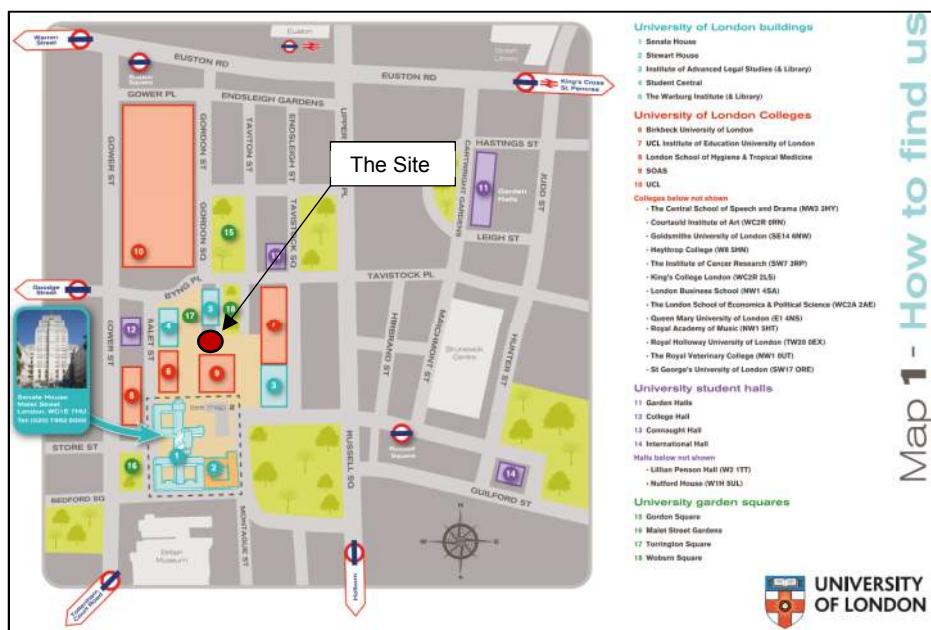


Figure 3.1: The site location in the context of University of London building

3.3 There are a variety of other land uses including residential properties, commercial properties and a number of squares providing green space in the wider area. London Euston, St Pancras International and London King's Cross stations are located north of the site, within 16 – 17 minutes' walk; while Tottenham Court Road and Holborn stations are located to the south, within similar distance.

Site Accessibility by Non-Car Modes*Walking*

- 3.4 The area surrounding the site has a comprehensive and extensive footway network. These include: wide footways, off-road pedestrian links and well-placed crossing facilities, which optimise pedestrian movements in the area. It is noted that improvements were made to the streets surrounding the University and included implementation of a high quality public realm scheme on Byng Place.
- 3.5 The footway on Torrington Square is in good condition and is approximately 2m wide. The footway is provided along the eastern side of the street and is adjacent to a frontage of terraced properties. The footway across the square is adjacent to the public plaza and connects to the large hardcourt public realm.
- 3.6 A pedestrian crossing is provided on Torrington Square, 60m to the south of the site, which provides a continuous link between Torrington Square and Woburn Square Garden. The crossing is marked with a zebra marking and is facilitated with dropped kerbs, tactile pavings and bollards.
- 3.7 Zebra crossing points are provided on Byng Place: on the approach to the junction with Malet Street and opposite Woburn Square. The crossings provide dropped kerbs, tactile pavings and flashing beacons.
- 3.8 A pedestrian link is provided between Malet Street and Torrington Square, to the north of Senate House, which provides an attractive option for pedestrians. In the area surrounding the site there are a number of parks which provide off-road links for pedestrian.
- 3.9 The area surrounding the application site is considered to have a very good characteristic to encourage active travel through the extensive provision of good quality footways, parks, and areas to high quality public realms.

Cycling

- 3.10 The area surrounding the site has comprehensive cycle facilities including: wide network of segregated on-road cycle routes, extensive provision of public cycle parking spaces and generous provision of Santander bike hire scheme.
- 3.11 Torrington Place, Byng Place and Tavistock Place have cycle lanes provided along either side of the carriageway. These cycle lanes are wide and segregated from traffic by physical kerbed islands, kerbed surfaces, delineators, or bollards. A contra flow cycle lane is provided along Malet Street. Advance cycle stopping areas are provided at the junction of Tavistock Square with Bedford Way and at the junction with Woburn Place. There are numerous junction entry raised treatments in the area, which improve the overall cycling environment.

- 3.12 Provision of public cycle parking spaces is extensive. These are provided in the form of Sheffield stands located on footways, along the street edge and outside the shops. Torrington Square also provides a significant provision of cycle stands.
- 3.13 The site is well served by Santander Cycle docking stations. The nearest docking station is located outside the Birkbeck, University building on Malet Street, approximately 260m from the site (3 – 4 minutes' walk). This docking station provides access to 47 bicycles. Other Santander Cycle docking stations are available on Bedford Way (300m, 3 – 4 minutes' walk away) and on Taverton Street (280m, 3 – 4 minutes' walk away). These stations provide 21 and 29 bicycles respectively.
- 3.14 An extract from the TfL Cycling Guide 7 is contained in **Appendix B** of this report. This shows the off-road cycle routes on Torrington Place, Byng Place and Gordon Square and signed or marked routes on Malet Street, Russell Square, Montague Street, Tavistock Square and Marchmont Street. Other streets in the area are highlighted as being recommended by other cyclists and include: Gordon Street, Montague Place and Bloomsbury Square.
- 3.15 The extensive cycle network in the area surrounding the site provides very good connectivity to other areas in Central London by bike.

Public Transport Accessibility Level (PTAL)

- 3.16 PTAL is an industry recognised way of measuring public transport accessibility throughout Greater of London. The PTAL methodology makes a series of assumptions with regards to the behaviour of public transport users. These are set out below;
- i. Pedestrians will walk a maximum of 960m (12 minutes) to reach a London Underground/Overground or National Rail Station;
 - ii. Pedestrians will walk a maximum of 640m (8 minutes) to a bus stop; and
 - iii. The average walk speed of a pedestrian is 4.8km/hour (80m per minute).
- 3.17 The PTAL of the application is '6b' based on the use of the TfL Web PTAL website (<http://www.webptals.org>) which indicates that the site is located in an area of 'excellent' public transport accessibility and is the highest rating achievable.
- 3.18 It is recognised that the tool available at the TfL Web provides PTAL that is calculated based on squared areas, distances measured is straight lines and showed the Accessibility Index (AI) of 64.54. This was reviewed using more precise dimensions, measured along the available footway network from the site entrance to the transport nodes and showed the AI of 57.95. This still classifies the site as 6b. The PTAL outputs can be found in **Appendix C**.

Bus Routes

- 3.19 The closest bus stops to the site are located on Gower Street, Russell Square and Tavistock Square. The nearest stop is located on Gower Street, 260m from the site (3 – 4 minutes' walk) and it is served by routes nos. 14, 24, 29, 73, 134, 390 and some night routes. The nearest bus stop on Russell Square is located 350m from the site (4 – 5 minutes' walk) and is served by routes 10 and 188. The bus stops provide flags, timetables, shelter seating and bus cages.
- 3.20 The bus stops located on Tavistock Square are located 350m and 400m from the site (4 – 5 minutes' walk). The northbound bus stop provides a flag, timetable, bus lane and bus cage, while the southbound stop provides the aforementioned facilities and a shelter seating area. Both bus stops are served by routes nos. 10, 59, 68, 91 and 168 during the day and a night service also operates from these stops.
- 3.21 The bus services available within a 640m distance of the site and the frequencies are presented in **Table 3.1**.

Service	Destination	AM Peak (08:00 – 09:00)	Midday (12:00 – 13:00)	PM Peak (17:00 – 18:00)
8	Bow Bus Garage	7 – 15 vehs	7 – 15 vehs	7 – 15 vehs
10	King's Cross Station / York Way	6 – 8 vehs	6 – 8 vehs	6 – 8 vehs
14	Putney Heath / Green Man	7 – 15 vehs	7 – 15 vehs	7 – 15 vehs
18	Sudbury & Harrow Road Station	10 – 20 vehs	10 – 20 vehs	10 – 20 vehs
24	Royal Free Hospital	6 – 8 vehs	6 – 8 vehs	6 – 8 vehs
29	Wood Green Station	10 – 20 vehs	10 – 20 vehs	10 – 20 vehs
30	Marble Arch Station	5 – 8 vehs	5 – 8 vehs	5 – 8 vehs
59	Streatham Hill / Telford Avenue	7 – 15 vehs	7 – 15 vehs	7 – 15 vehs
68	Ernest Avenue	13 vehs	10 – 30 vehs	15 vehs
73	Stoke Newington Common	10 – 20 vehs	10 – 20 vehs	10 – 20 vehs
91	Whitehall / Trafalgar Square	6 – 10 vehs	6 – 10 vehs	6 – 10 vehs
98	Pound Lane	6 – 10 vehs	6 – 10 vehs	6 – 10 vehs
134	New Oxford Street	7 – 12 vehs	7 – 12 vehs	7 – 12 vehs
168	Dunton Road	6 – 10 vehs	6 – 10 vehs	6 – 10 vehs
188	North Greenwich Station	5 – 8 vehs	5 – 8 vehs	5 – 8 vehs
205	Bow Church Station	6 – 10 vehs	6 – 10 vehs	6 – 10 vehs
390	Archway Station	6 – 8 vehs	6 – 12 vehs	6 – 12 vehs
Total		123 – 210 vehs	120 – 231 vehs	125 – 216 vehs

Table 3.1: Bus Frequencies

3.22 **Table 3.1** shows that the bus routes operating in the vicinity of the site provide high frequencies during the day, with a minimum of 120 buses per hour per direction.

London Underground (LU)

3.23 Euston Square, Russell Square, Goodge Street Stations and Warren Street are located within 960m from the site. These stations provide access to the Northern Line, Metropolitan Line, Circle Line, Hammersmith & City Line, Piccadilly Line and Victoria Line.

London Overground and National Rail

3.24 London Overground services are also available at Euston Station, located 600m to the north of the site (7 – 8 minutes' walk). These services run between Euston and Watford Junction. Euston National Rail Station is served by Virgin Trains and London Midland Trains. The trains operating from this station offer travel to destinations across the country.

3.25 Additional rail services are available from St Pancras International and Kings Cross, which provide additional long-distance routes as well as serving locations within Greater of London. These stations are located approximately 1.2km away (circa 15 – 16 minutes' walk) and can be reached in 8 – 10 minutes by using London Underground services or local buses.

Proximity to Local Amenities

3.26 An assessment was undertaken to assess the proximity of local amenities to the proposed development. As per BREEAM criteria, a 500m distance was considered and the amenities in this area are summarised in **Table 3.2**. **Figure 3.2** presents the precise location of these facilities.

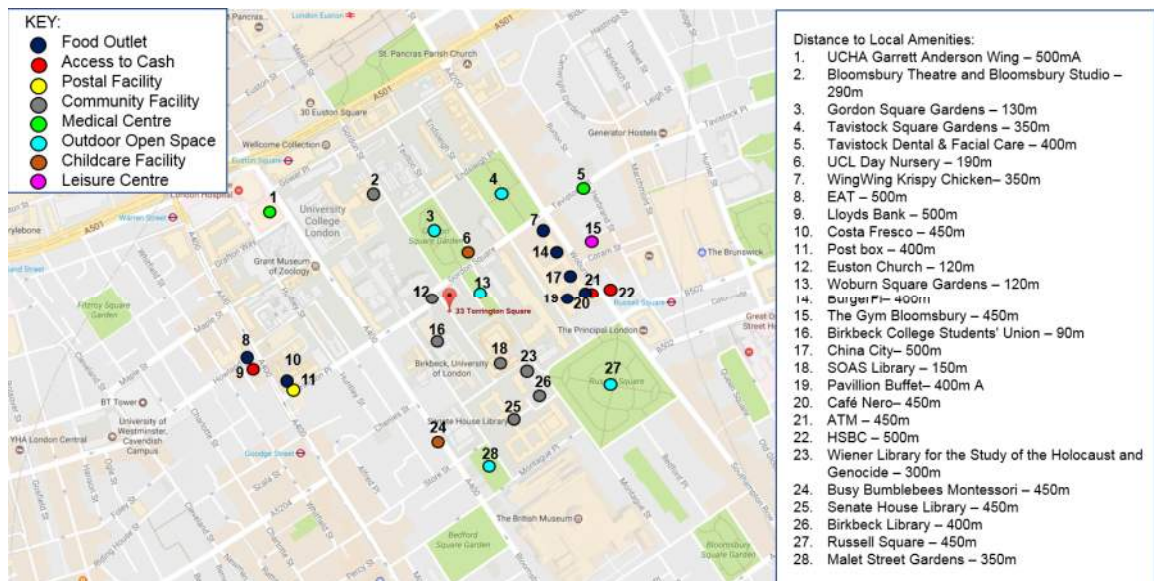


Figure 3.2: BREEAM Proximity to Amenities

Criteria	Building Type 1	Local Services and Distant from Site
Appropriate Food Outlet	Core Amenity for Building Type	Costa Fresco – 450m EAT – 500m China City– 500m China City– 500m Pavilion Buffet– 400m Café Nero– 450m BurgerFi– 400m WingWing Krispy Chicken– 350m
Access to Cash	Core Amenity for Building Type	HSBC – 500m, Lloyds Bank – 500m, ATM – 450m
Access to An Outdoor Open Space	Amenity Relevant to Building Type	Gordon Square Gardens – 130m Tavistock Square Gardens – 350m Woburn Square Gardens – 120m Russell Square – 450m Malet Street Gardens – 350m
Access to A Recreation/Leisure Facility for Fitness/Sports	Core Amenity for Building Type	The Gym Bloomsbury – 450m
Publicly Available Postal Facility	Amenity Relevant to Building Type	Post box – 400m
Community Facility	Amenity Relevant to Building Type	Euston Church – 120m Bloomsbury Theatre and Bloomsbury Studio – 290m Wiener Library for the Study of the Holocaust and Genocide – 300m Birkbeck Library – 400m Senate House Library – 450m SOAS Library – 150m Birkbeck College Students' Union – 90m
Over the Counter Services Associated with A Pharmacy	Amenity Relevant to Building Type	
Public Sector GP Surgery or General Medical Centre	Amenity Relevant to Building Type	UCHA Wing – 500m Tavistock Dental & Facial Care – 400m
Child Care Facility or School	Amenity Relevant to Building Type	UCL Day Nursery – 190m Busy Bumblebees Montessori – 450m

Table 3.2: BREEAM Assessment of Amenities

3.27 **Table 3.2** indicates that each of the criteria classified as ‘*Core amenity for building type*’ are provided within 500m of the site (11 services). There are also multiple other facilities classified as ‘*Amenity Relevant to Building Type*’ within the Site (17 services). This indicates that the application site is located within walking distance of a number of local amenities and fully complies with BREEAM requirements.

Local Highway Network*Torrington Square*

- 3.28 Torrington Square lies adjacent to the application site and meets with Byng Place to the north, in the form of a priority junction. The northern end of the street has a hatched area, a gate and the street narrows before connecting the public realm at Byng Place. The street continues along the SOAS building, turns right and continues towards Malet Street through the provision of a gated arrangement. There are on-street parking spaces on Torrington Square and are marked as residential parking bays, which were observed to be circa 90% occupied during the site visit (9th May 2017 between 08:00 and 09:00).

Byng Place

- 3.29 Byng Place is a one-way road for eastbound movements. The road is approximately 150m long and continues as Gordon Square and Travistock Square to the east and Torrington Place to the west. The street provides marked cycle lanes along both side of the carriageway. The eastbound cycleway is segregated from the vehicles with kerbs, while the westbound cycleway is marked with white lanes.

Malet Street

- 3.30 Malet Street is a single carriageway connecting to Torrington Place to the north and Montague Place to the south in the form of priority junctions. The northern section of road, north of the junction with Keppel Street, operates as one-way northbound only, while the southern section operates southbound only. Cycle movements are permitted in both directions and contra-flow cycle lanes are marked at each end of the road. The road is subject to a 20mph speed limit and raised tables are provided along the length of the road to mitigate speed.
- 3.31 Parking lay-bys are located on both sides of the road indicated through the provision of slab paving and edging. The lay-bys are flush with the footways. These lay-bys have combination of dedicated usage that includes: disabled spaces, loading bays, pay & display spaces and car club spaces.
- 3.32 The lay-bys along the western side of the carriageway are subject to resident permit holder only and restrictions apply between Monday and Friday from 08:30 to 18:30 and Saturday from 08:30 to 13:30.

- 3.33 There are further residential lay-bys along the eastern side of the carriageway. One of these lay-bys, adjacent to the Birkbeck College, is dedicated to disabled users and can accommodate approximately four cars. A loading bay and car club bays are located towards the northern end of the street. Pay & display parking bays are located towards the southern end of the street and are restricted between Monday and Saturday from 08:30 to 18:30. The disabled parking is located within 260m walking distance of the site, but blue badge holders can use pay & display bays free of charge.
- 3.34 The occupancy of the parking spaces during the morning peak period on 9th May 2017 was observed to be approximately 30%. The dedicated disabled spaces were observed to be occupied by a disabled badge holder and by a taxi, resulting in 50% occupancy.
- 3.35 Birkbeck, University of London has an on-site car park outside the Senate House and it is understood that this car park provides disabled spaces which were observed to be partially occupied during the site visit observation.

Woburn Square

- 3.36 Woburn Square is a cul-de-sac: is located to the east of the site and is parallel to Torrington Square. The street has a gated arrangement at the northern end of the street and is marked with double yellow lines along the eastern edge of the carriageway.
- 3.37 Marked parking bays, including disabled spaces, are provided around the western edge of the street which are a mix of perpendicular and echelon bays. These parking spaces are not subject to parking restrictions and high parking demand was observed during the site visit. Disabled spaces on this street were observed to be fully occupied during the site visit.

Gordon Square

- 3.38 Gordon Square is a two-way single carriageway that runs around the perimeter of Gordon Square Garden. During the site visit the northern end of Gordon Square was closed due to construction works.
- 3.39 A mix of single and double yellow lines is present on the northern side of the carriageway. The section of street, to the east of Gordon Square Garden, has parking bays restricted to resident permit holders between Monday and Friday from 08:30 to 18:30 and Saturday from 08:30 to 13:30. The section of street, to the west of Gordon Square Garden, has pay & display parking bays with parking restriction between Monday and Friday from 08:30 to 18:30 and Saturday from 08:30 to 13:30. Gordon Square was observed to be approximately 30% occupied during the morning peak.

Existing Facilities and Car Travel

- 3.40 No car parking will be provided at the site and the development is proposed as car-free. On-street parking surrounding the site is controlled with pay & display charges. The site is well connected by public transport modes which are anticipated to provide the primary modes of travel to and from the site for future users.

Travel Provision for Disabled Users

- 3.41 No on-site parking for disabled users is proposed. Four accessible spaces are available on Malet Street and were observed to be occupied by one blue badge holder only on 9th May 2017 between 08:00 and 09:00. As such residual parking capacity was observed in pay & display spaces. In addition to that, pay & display spaces are provided on Gordon Square where occupancy was observed to be 50%.
- 3.42 During the morning peak period, when the majority of staff will be expected to arrive, residual on-street parking capacity exists. Should demand for accessible spaces be generated, is expected to be accommodated on-street.

Summary

- 3.43 The site is surrounded by a comprehensive network of footways, cycle routes and areas of public space. The infrastructure is of a very good quality, which is expected to be appealing to the road users that wish to travel by active modes.
- 3.44 The site is in an area which has the highest accessibility level by public transport (PTAL of 6b), with very high number of bus services, London Underground and National Rail service. The site is served by minimum of 120 buses per hour per direction, seven LULs, Overground Lanes and numerous train lanes.
- 3.45 The area surrounding the site has a high quality highway network, that includes: TROs, resident permit holder spaces, disabled spaces, loading lay-bys, pay & display parking spaces and car club spaces. On-street parking spaces have provision of disabled spaces and pay & display spaces, that can also be used by disabled users free of charge.

4.0 TRAVEL SURVEY

Baseline Travel Data

- 4.1 Given that no survey data is available for the proposed development, predicted trip generation and travel profiles were estimated in the Transport Statement, that accompanies the planning application, where full information on the approach to calculating trip generation is included.
- 4.2 The predicted trip generation has been used to estimate baseline travel mode shares for the proposed development and is presented in **Table 4.1**. This predicted travel data will be verified through baseline surveys that will be undertaken following the site occupation (usually within six months of first occupation or at 75% occupancy, whichever is greater).

Travel Mode	Staff	Visitors	Total	%
National Rail	18	5	23	19%
LUL/DRL	43	11	54	45%
Bus	8	2	9	7%
Coach/minibus	0	0	1	1%
Car	4	1	5	4%
Taxi	1	0	1	1%
Motor-cycle	1	0	1	1%
Pedal-cycle	3	1	3	3%
Pedestrians	22	-	22	19%
Total	70	20	118	100%

Table 4.1: Predicted Trip Generation

Future Travel Surveys

- 4.3 This TP will be a 'live' document with an initial lifespan of 5 years from its adoption. It will be monitored with any updates to the document being incorporated as necessary. An interim review will occur after 3 years, and a detailed update will occur after 5 years when a new TP will be produced.
- 4.4 The first set of baseline monitoring surveys will be undertaken within six months of first occupation of the development. These surveys will determine the actual baseline travel patterns and modal split generated by the future occupants. The results will be incorporated into the updated TP as part of the review process.

4.5 **Table 4.2** below provides a format for updating the survey information captured after first occupation of the development and for the duration of this TP (five years). The predicated travel behaviours identified above, is to be updated in future years from full occupation.

Transport Mode	Predicted Baseline	Year 3 Within Full Occupation	Year 5 Within Full Occupation
National Rail	19%		
LUL/DRL	45%		
Bus	7%		
Coach / minibus	1%		
Car	4%		
Taxi	1%		
Motor-cycle	1%		
Pedal-cycle	3%		
Pedestrians	19%		
Total	100%		

Table 4.2: Travel Plan Survey Results

5.0 AIMS AND OBJECTIVES

- 5.1 The aim of the TP is to reduce the impact of the travel demand generated by the development, and particularly to encourage sustainable movement of staff and visitors. This is in accordance with the broader goals of TfL's Travel Planning Guidance (2013), The London Plan and LBC's transport objectives.
- 5.2 The objectives of the TP are supported by a set of quantified SMART (Specific, Measurable, Achievable, Realistic and Time-Bound) targets in accordance with TfL guidance.
- 5.3 The baseline modal splits have been used to inform the objectives. As this is not based on a site-specific survey data, it will be subject to review following the first travel surveys collection that will be undertaken six months after first occupation or at 75% occupation, whichever is greater.
- 5.4 The objectives of this TP will be subject to review and modification once baseline travel surveys have been conducted and tailored as appropriate. The objectives are provided below:
- i. To encourage the sustainable movement of people and goods to and from the site;
 - ii. To ensure that the site is accessible by a wide range of travel modes and to ensure that staff and visitors have a choice of travel modes for the journey to work;
 - iii. To influence the travel behaviour of staff and promote the health benefits of travelling by sustainable modes, particularly walking and cycling, and improve the overall health of staff;
 - iv. To reduce the number of journeys made by taxi/ private/hired vehicles to the site;
 - v. To support National, Regional and Local sustainable transport policy objectives in reducing the need to travel overall; and
 - vi. To meet the National Air Quality objectives and minimise the environmental impact of transport.

Deliveries and Servicing

- 5.5 A loading bay is not proposed as part of the development and the refuse collections and deliveries will fall under the Birkbeck, University site wide servicing strategy.
- 5.6 The strategy for the proposed refuse collection is that all waste and recycling bins will be taken to a waste compound located at the main storage area for all University buildings. The waste compound is located across the Torrington Square approximately 50m from the site. Refuse is collected daily from Monday to Saturday, which ensures that waste storage capacity is always available. No additional refuse vehicle trips are anticipated as part of the proposed development.

- 5.7 Birkbeck operates the University site wide delivery service from the post room located on Malet Street. The majority of deliveries for the proposed development will be sent to the post room, from where deliveries will be distributed within the University estate twice a day. This is undertaken by using a hand trolley.
- 5.8 It is expected that occasional deliveries by large vehicles will take place and this is predicted to occur approximately twice per year. Should these deliveries be required, it will be arranged from Torrington Square. When these deliveries will be required, the date and time will be arranged to ensure that the deliveries are scheduled outside morning or evening peaks. Furthermore, assistance from staff members will be provided to ensure that loading/unloading take place in a time-efficient manner. The arrangement allows for efficient consolidation of deliveries between the proposed and existing University buildings.

6.0 TARGETS

6.1 Baseline surveys will be carried out following occupation of the site, and will inform the ongoing review of objectives and targets. It is anticipated that the targets recommended at this stage will need to be refined in the context of the initial surveys. The targets are set at this stage to ensure that the development operator will encourage sustainable travel behaviour in-line with the objectives of this TP from first occupation.

6.2 To encourage momentum and to ensure the continued success of the TP, realistic targets will be set following the first survey as listed below:

- i. Short Term – within 1st year of the adoption of the TP;
- ii. Medium Term – within 3 years of the adoption of the TP; and
- iii. Longer Term – within 5 years of the adoption of the TP.

6.3 At this stage, the targets will take into account the sustainable location of the site and London-wide targets and will be set up for a frame of five years. This is expected to be updated and re-set to a format of short, medium and long term targets following first survey.

Target 1 - A reduction of car trips

6.4 The TP will target a mode share of 0% for car and taxi to be achieved within 5 years. This emphasis in particular on decreasing both private cars, hired cars or taxis, reducing congestion around the site and increasing the use of active modes (walking and cycling) of travel over the five year lifetime of the TP. This target will exclude anyone travelling by car with a mobility impairment.

Target 2- Increase cycling amongst staff

6.5 The TP will target a mode share of 10% for cycling to be achieved within 5 years. This is double the London-wide target for cycling.

Target 3 - Increase walking amongst staff

6.6 The currently predicted walking as a “main mode” account for 19% of movements. The objective to increase this proportion will greatly depend on the origin from which visitors and employees will travel to the site. It should be recognised that the proposed development will require staff with specific and specialist skills and employment at local level may not be possible. As such, employees are expected to be arriving from the wider London area and where walking as a ‘main mode’ will not be a feasible option. However, walking should be encouraged as a “final mode”, and this is expected to achieve the London-wide target of 24%.

7.0 PACKAGE OF MEASURES

7.1 The TP measures are the initiatives used to achieve the objectives of the TP, i.e. to limit the number of car journeys and increase walking and cycling associated with the proposed development.

7.2 The remainder of this chapter provides further details on the measures that will be implemented by development. The measures are designed to complement each other and include a mixture of 'hard' measures such as cycle parking facilities and 'soft' measures such as promotional material. The measures will be implemented prior to occupation in order to encourage sustainable travel from the outset.

Company Information Travel Pack

7.3 The Travel Plan Co-ordinator (TPC) will produce a travel information pack which will be distributed to all employees and all prospective employees prior to commencement of their employment. The pack will include information on accessing the site on-foot, by cycle and public transport, including routes, timetables and fare information.

Personalised Journey Planning Service

7.4 The TPC will provide a personalised journey planning service for all employees during a one to one appointment. The journey planning appointment with the TPC compare costs and journey times using sustainable modes in comparison to using a private vehicle. The carbon footprint of the individual will also be discussed. Advice on where to seek further information will be provided e.g. www.transportdirect.info and other website sources.

Reducing the Need to Travel

7.5 The following measures will be implemented in order to ensure company policy aligns with the objectives of the TP:

- i. Introduce policy on flexible working (e.g. teleworking, flexi-time);
- ii. Adoption of 'smart' working practices (e.g. teleconferencing, audio-conferencing, hot desking); and
- iii. Web access, provision of work space in homes and home working policy.

Walking

7.6 The following measures will be implemented to encourage walking for those travelling from a location, which are within a suitable walking distance:

- i. Produce a travel information leaflet as part of the Travel Pack supplied to new staff, which provides information on the available safe pedestrian routes and raise awareness of the health benefits of walking. This should include safe walking routes to bus stops, London Underground and National Rail Stations;
- ii. Details for the pedestrian routes to and from the site will be made available for the staff.

Cycling

7.7 Cycling represents a viable option for staff who will be employed at the site who live in the local area. The following measures will be implemented to maximise the attractiveness of cycling for the staff:

- i. Generous cycle parking and cycle facilities will be provided within the plot of development and will include other cycle facilities such as: shower, changing facilities, a drying cupboard and lockers.
- ii. A Travel information leaflet, which identifies safe cycle routes around the site will be provided as part of the travel pack;
- iii. Use of Santander London Cycle Hire Scheme should be encouraged for trips to meetings and to National Rail Stations;
- iv. Employees will benefit from a tax-free loan for the purchase of a bicycle and cycling equipment via the government Cycle to Work Scheme; and
- v. Health awareness and benefits of cycling will be made available to staff free of cost.

Public Transport

7.8 The site is already highly accessible by public transport, being located within a short walk of existing public bus services and London Underground Services at various stations. The following measures will be implemented to encourage both staff and visitors to travel by public transport:

- i. A Travel Pack will be supplied to members of staff detailing up to date information on relevant public transport routes, services and timetables. The pack will include a travel information leaflet indicating bus stop locations and local bus routes, together with London Underground and rail timetable information. The travel pack will also provide links to external journey planning websites such as Travel Line and TfL's Journey Planner;

- ii. A provision for personalised journey plans to be provided for the individual needs of staff;
- iii. Email alerts should be set up for employees which provides details of any changes to services;
- iv. Publicise the travel distance and time via public transport to the site. Links to TfL's Journey Planner, access to real time service information;
- v. Review offering interest free loans to employees for the purchase of public transport season tickets; and
- vi. Policies supporting use of public transport for travel in the course of work (e.g. pool Oyster cards).

Deliveries and Servicing

7.9 It is recommended that the following measures will be implemented to limit the impact of servicing activity on the local highway network:

- i. The development will comply with the Birkbeck, University site wide strategy to minimise and consolidate deliveries and servicing as far as possible;
- ii. Management of supply chain with choice of suppliers based on their participation in the Freight Operators Recognition Scheme (FORS);
- iii. Choice of suppliers based on use of green fleets complying with the standards set by London Emissions Zones;
- iv. Issue of information regarding the servicing strategy for the development to all supplies; and
- v. Schedule times and management of loading and unloading activities during the occasional deliveries by large vehicles.

Promotional Strategy

7.10 The measures within this TP will be promoted prior to occupancy of the development which will be complemented by ongoing publicity throughout the lifetime of this TP. A clear objective marketing campaign will be developed which targets. An effective marketing campaign will enable staff to become aware of the TP at the earliest possible stage and actively encourage them to get involved.

7.11 The main means of promotion will be:

- i. Production of a travel information leaflet outlining the local bus, walking and cycling routes and bus timetables;
- ii. Participating in promotional events;
- iii. A list of nationally recognised event dates such as 'Bike to Work' day;
- iv. When arranging for visitors to come to the lab an email will be sent which includes travel information such as the nearest stations and transport hubs; and
- v. Notice board and website; the development will be encouraged to prioritise sustainable modes of travel on their website detailing their location and information on how to reach the site. Similarly, materials relevant to TP measures will be made available to staff on site including staff notice boards.

8.0 MANAGEMENT

8.1 Management, monitoring and review of the TP are important in ensuring that measures are implemented, and objectives and targets are being met. This chapter describes how the TP will be managed and monitored throughout its lifetime.

Travel Plan Co-ordinator

8.2 The applicant is committed to appoint the TPC and implement the TP measures, ensure effective delivery and monitoring requirements. The key responsibilities of the TPC will be to:

- i. Actively promote and publicise the TP;
- ii. Ensure that information available on sustainable travel opportunities is provided to staff and visitors;
- iii. Ensure the TP is easily available for all to view;
- iv. Implement and manage the TP;
- v. Organise promotional events associated with the TP;
- vi. Be a point of contact for information and resolve any transport issues;
- vii. Monitor, review and adapt the TP; and
- viii. Keep a working log of the implementation of the TP, including copies of promotional materials. The log will be submitted to LBC as part of the annual monitoring process.

Consultation

8.3 For the TP to be successful, it will be essential for the TPC will consult with staff and visitors as follows:

- i. Undertake a travel survey at the outset of the TP, that will determine travel patterns and attitudes towards specific TP initiatives;
- ii. Ensure awareness of the TP and its initiatives that staff and visitors will buy into;
- iii. Raise the awareness of the TP; and
- iv. Certify that initiatives promoted through the TP can be integrated into any wider traffic and transport schemes.

8.4 The consultation procedure can be broken down into three broad areas:

- i. Internal Consultation; designed to inform staff of the TP and to seek positive involvement, feedback and suggestions;
- ii. External (informal) Consultation; designed to gather information and new ideas to enable the TPC to maximise the benefit of the TP. The role of the TPC will include liaising with external organisations and establishing a point of contact. It is suggested that an approach should be made to the local authority cycling, walking and public transport officers, local bus service operators and private hire vehicle operators; and
- iii. External (formal) Consultation; designed to ensure formal recognition of the implementation and maintenance of the TP. It is envisaged that annual meetings will take place involving nominated TP Officers of the council and the TPC. The aim of the meetings will be to review progress on operational matters and to discuss the potential for new initiatives.

Staffing

8.5 The administration of the TP will be the responsibility of the nominated TPC. The key aspects relating to the administration include:

- i. Maintenance of necessary data;
- ii. Organisation of associated paperwork;
- iii. Implementation and promotion of measures and initiatives;
- iv. Regular consultation and monitoring; and
- v. Managing the review process.

Core Records

8.6 The TPC will also be responsible for holding a number of key records. These are essential to the success of the TP and include:

- i. Details of travel surveys, with survey data being retained as record for future use; and
- ii. Correspondence File: a file will be set up to record all correspondence relating to the TP.

9.0 MONITORING

- 9.1 The development and monitoring of the TP will be conducted by a nominated TPC, working on behalf of the site, and the LBC TP Officer. In conjunction, these parties will work together to monitor and develop the TP against the identified targets contained herein.
- 9.2 Monitoring is an essential consideration in the implementation of a TP as the results determine what measured are successful and whether any new measures should be adopted. It also informs the refinement of objectives and targets.
- 9.3 A baseline survey will be undertaken within six months of occupation or at 75% occupancy in accordance with TfL Travel Plan guidance for the development with subsequent surveys one year after the baseline and then within 3 years and 5 years of the TP adoption to measure the success of the plan in meeting its objectives and targets.
- 9.4 TfL Guidance requires TP monitoring surveys to be iTRACE or TRICS compliant. The TPC appointed will be responsible for ensuring that these surveys are undertaken and for informing LBC when they are to be undertaken. They will also be responsible for the submission of monitoring reports to LBC in the first five years. The iTRACE and TRICS pro-forma and compliancy notes are provided in **Appendix D**.

Review Report

- 9.5 To ensure that the TP continues to achieve its aim of increasing cycling and walking, the TP will be reviewed on a regular basis. The Review Reports should be prepared by the TPC. The objective of the review will be to assess the success of the TP against stated objectives, to identify the potential for future refinement of the details in the TP.
- 9.6 The review will utilise information and data gathered through the monitoring programme and will be supplemented by other comments and feedback derived through the ongoing consultation programme and recorded as part of the day-to-day administration of the TP.

10.0 ACTION PLAN

10.1 The TP measures outlined will be implemented in a phased manner throughout the life of the TP.

Table 10.1 provides an initial implementation program, which would be finalised and agreed in discussion with LBC.

Measure	Timescale
Implement on site facilities to encourage sustainable travel such as cycle parking, shower, changing facilities, a drying cupboard and lockers.	Prior to occupation of the development
Appoint a TPC	On occupation of the development
Provision of an introductory travel pack and copy of the TP to all staff	On occupation of the development
Provision of a plan and travel information leaflet with details for local bus and rail routes and services and pedestrian / cycle routes	On occupation of the development
Developing personalised journey plans for individual members of staff	Within 1 year of the adoption of the TP
Include sustainable travel option information on an internet website	Within 1 month of the adoption of the TP
Promoting the cycle to work initiative	Within 1 month of the adoption of the TP
Undertake initial staff travel survey	Within six months of occupation or at 75% occupancy
Undertake monitoring staff travel surveys	1 year, 3 years and 5 years post TP adoption

Table 10.1: Action Plan & Implementation Programme

10.2 In addition to the specific measures outlined the TPC will develop a marketing campaign within the first 6 months to promote sustainable travel throughout the life of the plan. Within this the TPC would develop specific promotional events such as 'cycle to work' days to give further impetus to the overall objective of encouraging walking and cycling.

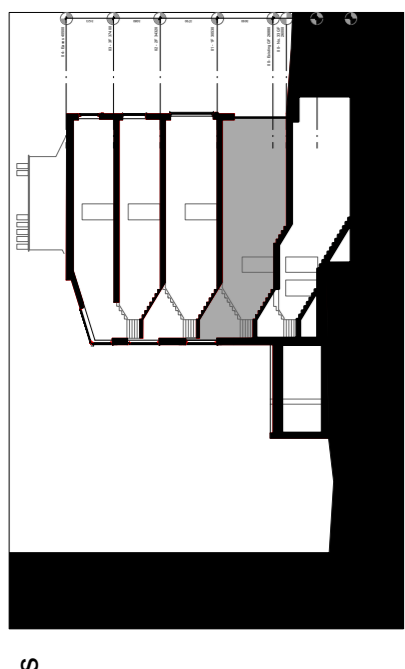
11.0 SECURING AND ENFORCING**Securing**

- 11.1 This TP has been prepared to comply with planning application requirements associated with the proposed site. It is expected that, the TP will be secured through planning condition, with details to be agreed with LBC. Funding will be provided internally for the TP, including the funding of travel surveys required as part of the monitoring and review process.

Enforcement

- 11.2 If the monitoring and review process finds that the TP is under performing and targets are not being achieved, the TPC would be responsible for meeting with LBC officers upon request to discuss the issues and identify where improvements can be made. The possible reasons will be discussed and further improvements or new measures agreed to ensure targets are met in future. Any new measures introduced, as applicable, whilst the areas of weakness will be reviewed regularly to ensure progress is achieved.

Appendix A - Proposed Site Layout



- key**
- Hatch denotes proposed new partition for Nr.32
 - Hatch denotes proposed historical areas to be repair / make good / refurbish

All the original lath and plaster ceilings, cornices, decorative plasterwork and ceiling roses that may survive to be retained and made good. Conservation paint solvent would be used to peel away historic paint build up to re-expose cornice detailing.

Careful raising of the floorboards, documenting the location and type of fixing of each when removed. Ends not to be broken or cut. To be refixed in place using reclaimed or original iron nails, not screws or stainless steel nails. Note if boards are board end nailed when lifted.

Historic doors in good condition to be refurbished to original state. Removal of MDF later panels to 4-paneled historic doors. Historical door timber frames to be repaired with spliced in timber, repairs where needed and repainted. New ironmongery to match original.

Historic external sash windows to be refurbished: clean and paint to match original. Broken glass panes to be replaced. Care to be taken not to damage existing windows.

Historic skirting to be refurbished. Clean and paint to match original

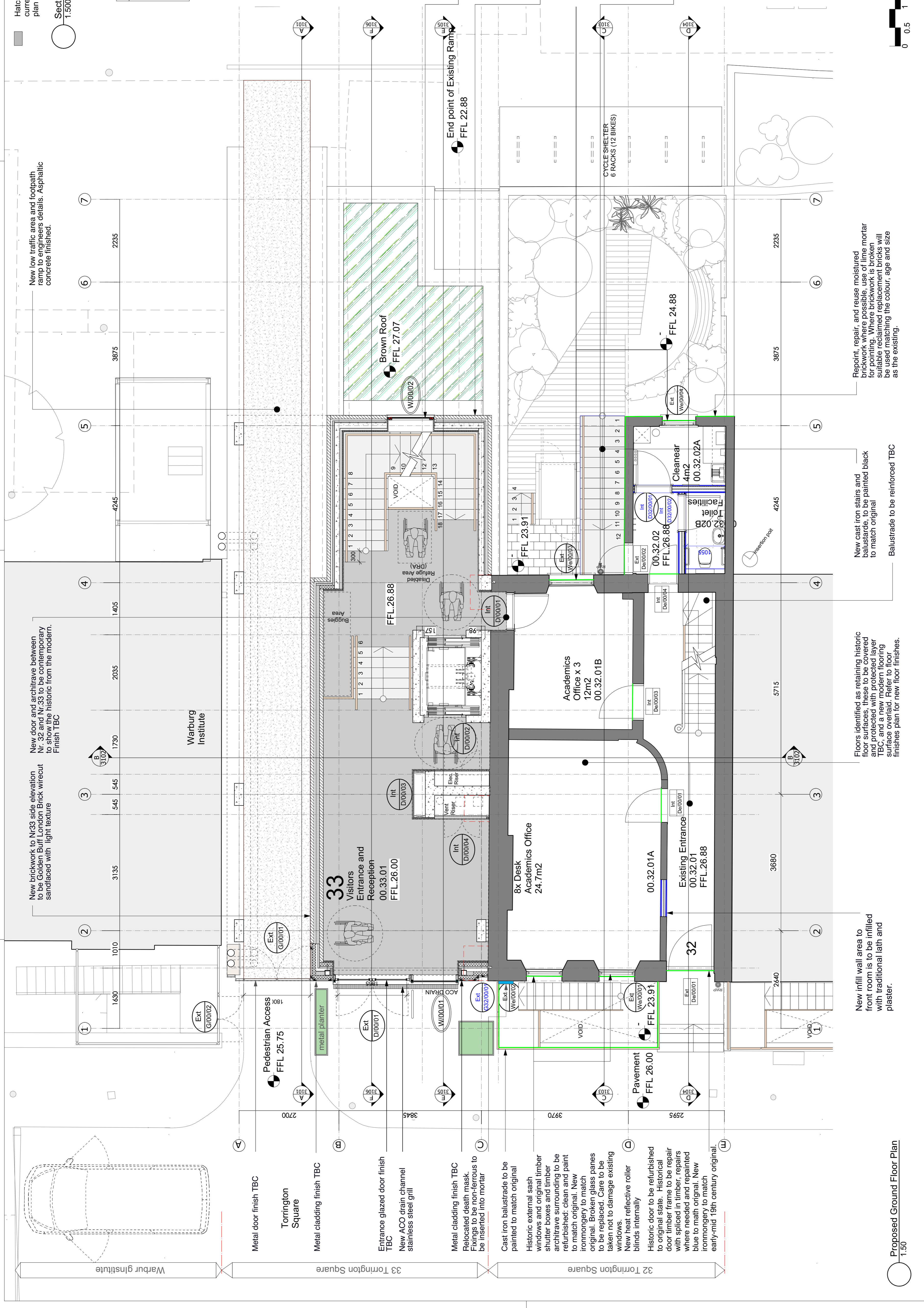
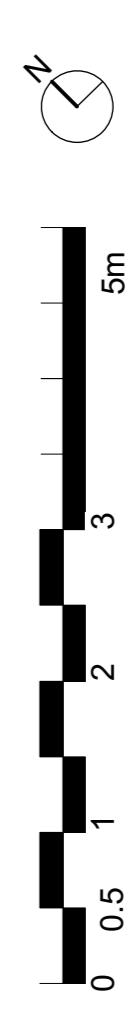
Aluminum double glazed window. Color TBC

New brickwork to Nr33 rear elevation to be Golden Buff London Brick wirecut sandfaced with light texture

Historic external sash windows and original timber shutter boxes and timber architrave surrounding to be refurbished: clean and paint to match original. New ironmongery to match original. Broken glass panes to be replaced. Care to be taken not to damage existing windows.

New heat reflective roller blinds internally

Existing down pipe to be retained



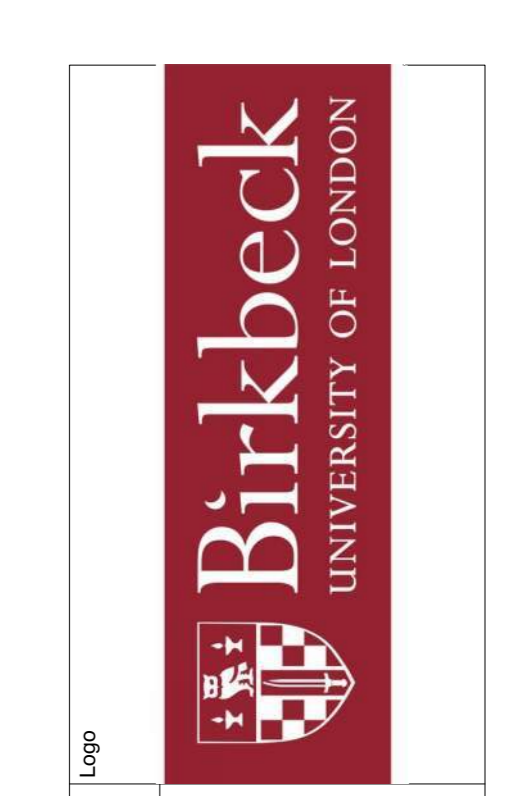
Information Title: **Proposed - Ground Floor Plan**

Date	Drawn	Checked	Scale
17.01.17	RP	IJ	1:50

Project No.	Originator	Zone	Level	Type	Role	Number	Subsidiary	Revision
BB029	BA	00	00	DR	A	1202	S0	P1

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T +44 (0)20 7250 0440 | E info@bissetadams.com | www.bissetadams.com

Project: CBCE Baby Laboratory
Key: 32-33 Torrington Square Bloomsbury London WC1E 7HX Birkbeck University of London



Logo: Birkbeck UNIVERSITY OF LONDON

Notes:
No dimensions are to be scaled from this drawing. The contractor / manufacturer is responsible for checking all dimensions and querying any discrepancies.
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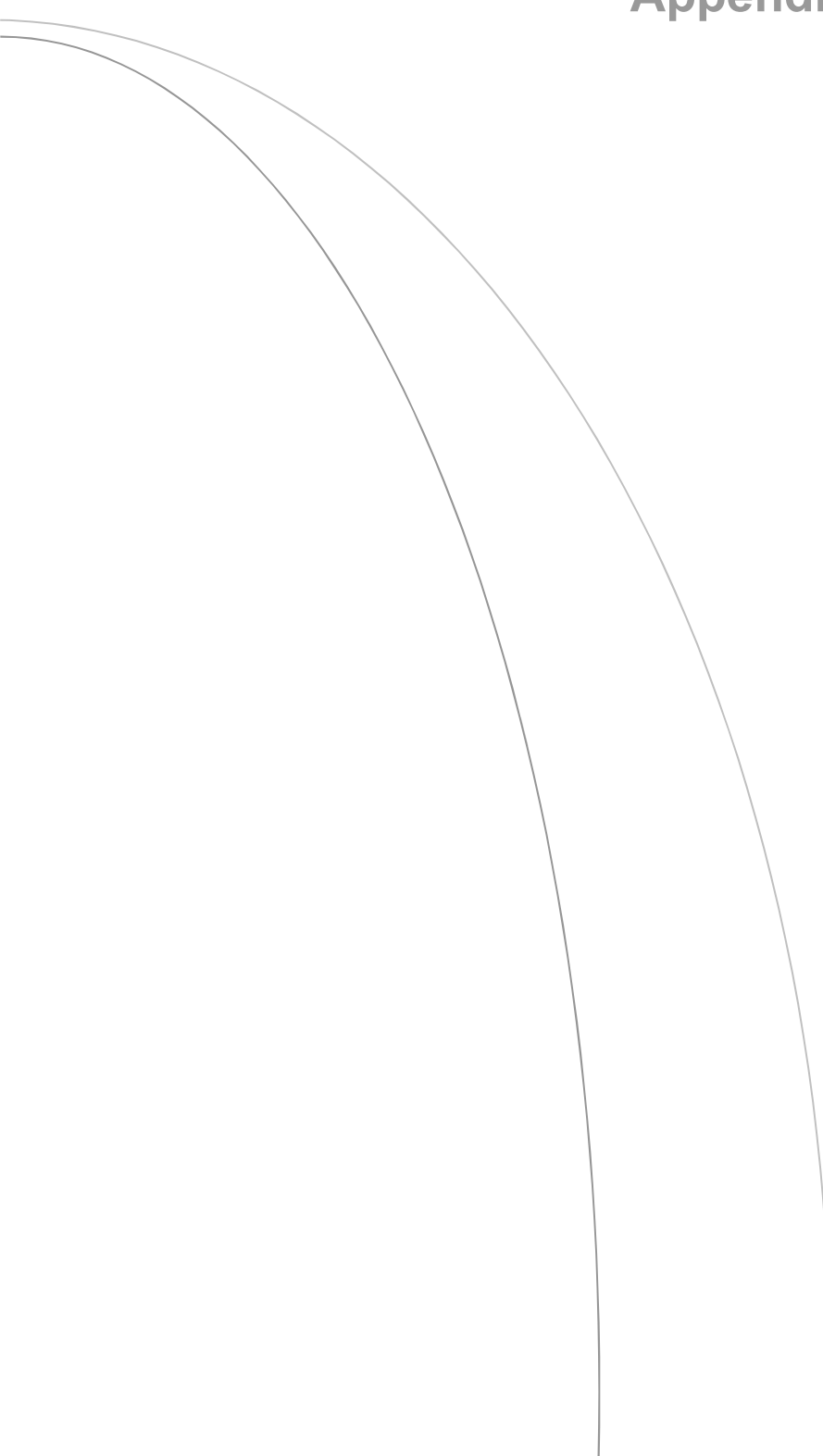
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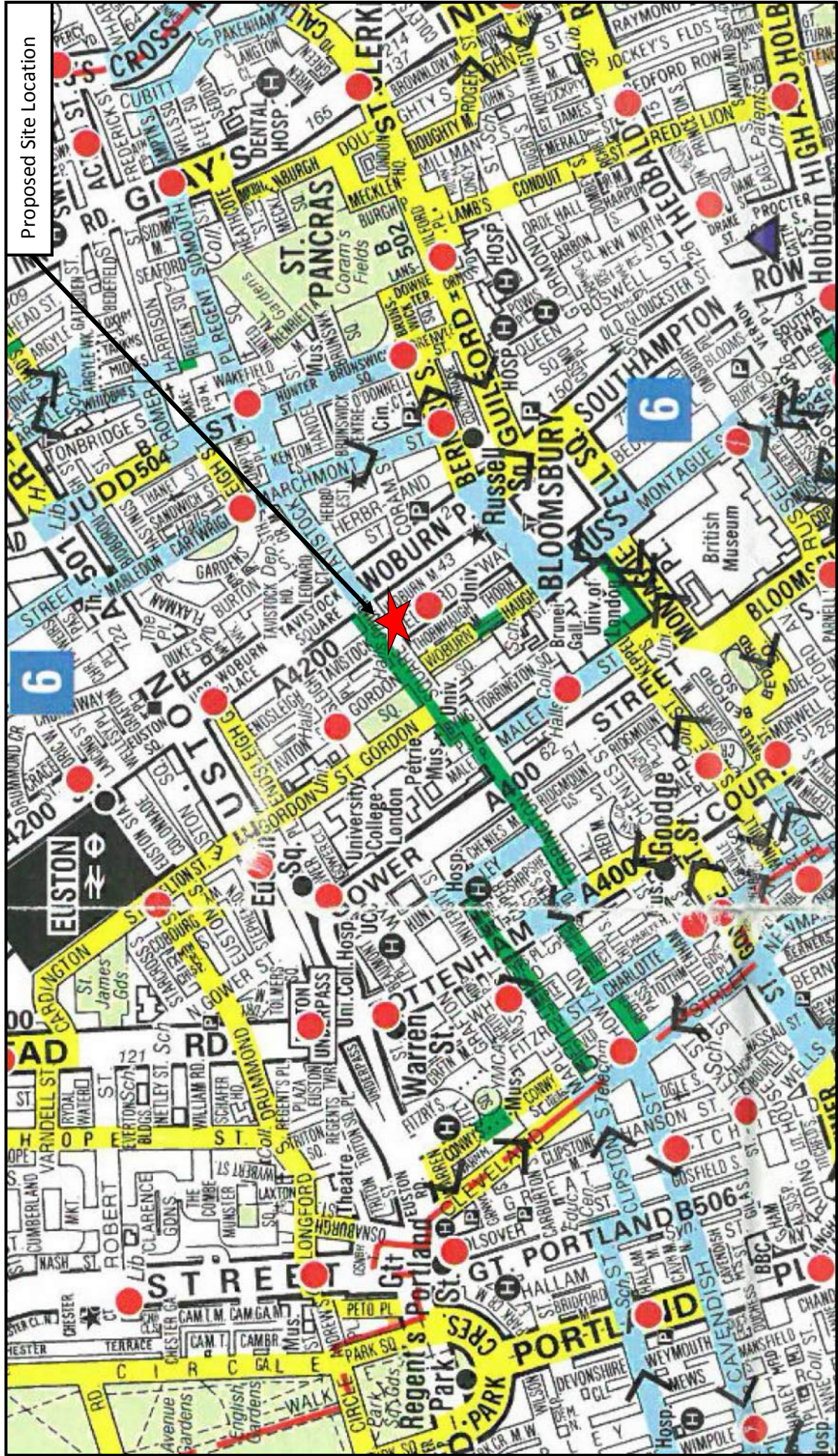
A1

Revision	Date	Comments
S0	P1	01/01/2017 [e.g. Issue for review to Lead Designer]

Proposed Ground Floor Plan 1:50

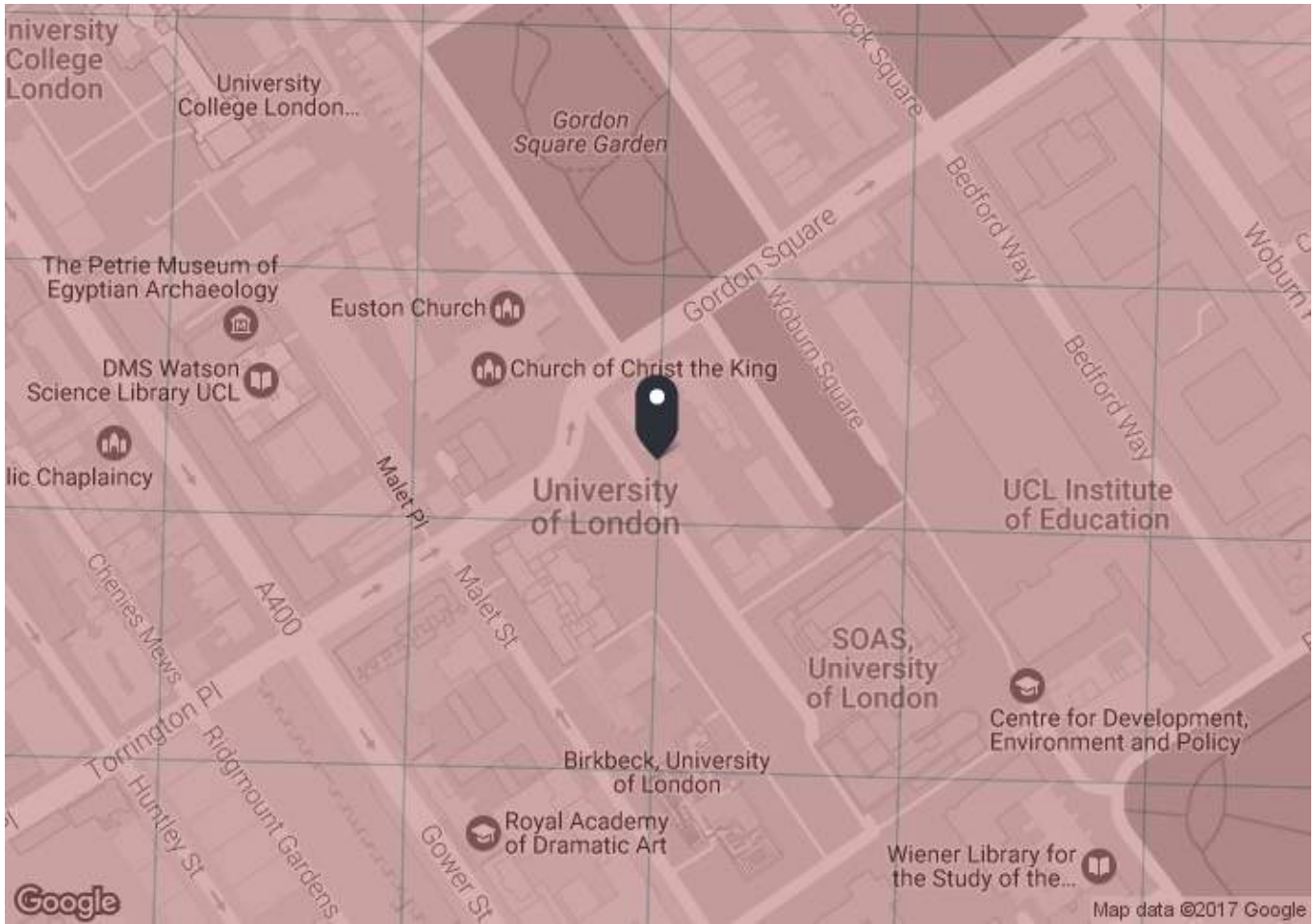
Appendix B – Cycle Map





Proposed Site Location

Appendix C - PTAL Assessment



PTAL output for Base Year
6b

31 Torrington Square, Bloomsbury London WC1E 7JL, UK
Easting: 529796, Northing: 182120

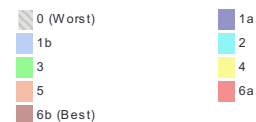
Grid Cell: 88886

Report generated: 22/05/2017

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 ReliabilityFactor	2.0
LU Station Max. Walk Access Time (mins)	12
LU ReliabilityFactor	0.75
National Rail Station Max. Walk Access Time (mins)	12
National Rail ReliabilityFactor	0.75

Map key - PTAL



Map layers

 PTAL (cell size: 100m)

Calculation data

Mode	Stop	Route	Distance (metres)	Frequency(vph)	Walk Time (mins)	SWT (mins)	TAT (mins)	EDF	Weight	AI
Bus	HYG & TROP MEDICINE SCHL	8	334.45	10	4.18	5	9.18	3.27	0.5	1.63
Bus	EUSTON SQUARE STATION	30	540.76	7.5	6.76	6	12.76	2.35	0.5	1.18
Bus	EUSTON SQUARE STATION	18	540.76	17	6.76	3.76	10.52	2.85	0.5	1.43
Bus	EUSTON SQUARE STATION	205	540.76	8	6.76	5.75	12.51	2.4	0.5	1.2
Bus	GOWER ST TORRINGTON PL	10	224	4.5	2.8	8.67	11.47	2.62	0.5	1.31
Bus	GOWER ST TORRINGTON PL	24	224	10	2.8	5	7.8	3.85	0.5	1.92
Bus	GOWER ST TORRINGTON PL	134	224	12	2.8	4.5	7.3	4.11	0.5	2.05
Bus	GOWER ST TORRINGTON PL	390	224	8	2.8	5.75	8.55	3.51	0.5	1.75
Bus	GOWER ST TORRINGTON PL	73	224	18	2.8	3.67	6.47	4.64	1	4.64
Bus	GOWER ST TORRINGTON PL	29	224	15	2.8	4	6.8	4.41	0.5	2.21
Bus	GOWER ST TORRINGTON PL	14	224	13	2.8	4.31	7.11	4.22	0.5	2.11
Bus	EUSTON BUS STATION	476	603.2	7.5	7.54	6	13.54	2.22	0.5	1.11
Bus	EUSTON BUS STATION	253	603.2	12	7.54	4.5	12.04	2.49	0.5	1.25
Bus	TAMSTOCK SQUARE	59	331.07	10	4.14	5	9.14	3.28	0.5	1.64
Bus	TAMSTOCK SQUARE	91	331.07	9	4.14	5.33	9.47	3.17	0.5	1.58
Bus	TAMSTOCK SQUARE	68	331.07	9	4.14	5.33	9.47	3.17	0.5	1.58
Bus	TAMSTOCK SQUARE	168	331.07	9	4.14	5.33	9.47	3.17	0.5	1.58
Bus	RUSSELL SQ NTH/MOUBURN PL	98	522.88	9	6.54	5.33	11.87	2.53	0.5	1.26
Bus	RUSSELL SQ NTH/MOUBURN PL	188	522.88	8	6.54	5.75	12.29	2.44	0.5	1.22
LUL	Warren Street	'Brixton-WalthamstowC'	763.18	15.67	9.54	2.66	12.2	2.46	0.5	1.23
LUL	Warren Street	'SevenSisters-Brixton'	763.18	11.67	9.54	3.32	12.86	2.33	0.5	1.17
LUL	Goodge Street	'Morden-Edgware'	490.11	4.67	6.13	7.17	13.3	2.26	0.5	1.13
LUL	Goodge Street	'HighBarnet-Morden'	490.11	0.33	6.13	91.66	97.79	0.31	0.5	0.15
LUL	Goodge Street	'Kennington-Edgware'	490.11	14.67	6.13	2.79	8.92	3.36	1	3.36
LUL	Goodge Street	'HighBarnet-Kenningt'	490.11	5.33	6.13	6.38	12.5	2.4	0.5	1.2
LUL	Goodge Street	'MillHill-Morden'	490.11	1.67	6.13	18.71	24.84	1.21	0.5	0.6
LUL	Goodge Street	'MillHillE-Kenningt'	490.11	1.67	6.13	18.71	24.84	1.21	0.5	0.6
LUL	Euston Square	'Hammersmith-Edgware'	594.49	6	7.43	5.75	13.18	2.28	0.5	1.14
LUL	Euston Square	'Barking-Hammersmith'	594.49	6.34	7.43	5.48	12.91	2.32	0.5	1.16
LUL	Euston Square	'Hammersmith-Plaistow'	594.49	1	7.43	30.75	38.18	0.79	0.5	0.39
LUL	Euston Square	'Amer-AldgateFast'	594.49	1	7.43	30.75	38.18	0.79	0.5	0.39
LUL	Euston Square	'Ches-AldgateFast'	594.49	2	7.43	15.75	23.18	1.29	0.5	0.65
LUL	Euston Square	'Uxbridge-AldSlow'	594.49	5.33	7.43	6.38	13.81	2.17	0.5	1.09
LUL	Euston Square	'Watford-AldSfast'	594.49	3.67	7.43	8.92	16.36	1.83	0.5	0.92
LUL	Euston Square	'Aldg-WatfordSlow'	594.49	3.67	7.43	8.92	16.36	1.83	0.5	0.92
LUL	Euston Square	'Ald-HarrowHill'	594.49	1.33	7.43	23.31	30.74	0.98	0.5	0.49
Rail	Euston	'BLTCHLY-EUSTON 2B04'	882.08	0.33	11.03	91.66	102.69	0.29	0.5	0.15
Rail	Euston	'WATFDJ-EUSTON 2J06'	882.08	0.67	11.03	45.53	56.55	0.53	0.5	0.27
Rail	Euston	'EUSTON-MKNSCEN 2K21'	882.08	0.33	11.03	91.66	102.69	0.29	0.5	0.15
Rail	Euston	'EUSTON-TRING 2T11'	882.08	0.67	11.03	45.53	56.55	0.53	0.5	0.27
Rail	Euston	'EUSTON-TRING 2T19'	882.08	1.33	11.03	23.31	34.33	0.87	0.5	0.44
Rail	Euston	'MKNSCEN-EUSTON 2W01'	882.08	0.67	11.03	45.53	56.55	0.53	0.5	0.27
Rail	Euston	'TRING-EUSTON 2W02'	882.08	1	11.03	30.75	41.78	0.72	0.5	0.36
Rail	Euston	'TRING-EUSTON 2W26'	882.08	0.33	11.03	91.66	102.69	0.29	0.5	0.15
Rail	Euston	'BLTCHLY-EUSTON 2W57'	882.08	0.33	11.03	91.66	102.69	0.29	0.5	0.15
Rail	Euston	'RUGBY-EUSTON 2W59'	882.08	0.33	11.03	91.66	102.69	0.29	0.5	0.15
Rail	Euston	'TRING-EUSTON 2W63'	882.08	0.33	11.03	91.66	102.69	0.29	0.5	0.15
Rail	Euston	'MKNSCEN-EUSTON 2W93'	882.08	0.33	11.03	91.66	102.69	0.29	0.5	0.15
Rail	Euston	'WATFJDC-EUSTON 2C06'	882.08	2.67	11.03	11.99	23.01	1.3	0.5	0.65
Rail	Euston	'EUSTON-WATFJDC 2D86'	882.08	3	11.03	10.75	21.78	1.38	1	1.38
LUL	Euston	'Edgware-Morden'	882.08	9	11.03	4.08	15.11	1.99	0.5	0.99
LUL	Euston	'Morden-HighBarnet'	882.08	14.67	11.03	2.79	13.82	2.17	0.5	1.09
LUL	Euston	'Morden-MillHillE'	882.08	4	11.03	8.25	19.28	1.56	0.5	0.78
LUL	Russel Square	'Cockfosters-LHRT4LT'	635.81	4.67	7.95	7.17	15.12	1.98	0.5	0.99
LUL	Russel Square	'RayLane-Cockfosters'	635.81	3.67	7.95	8.92	16.87	1.78	0.5	0.89
LUL	Russel Square	'LHRT4LT-ArnosGrove'	635.81	4.67	7.95	7.17	15.12	1.98	0.5	0.99
LUL	Russel Square	'ArnosGrove-RayLane'	635.81	0.33	7.95	91.66	99.61	0.3	0.5	0.15
LUL	Russel Square	'ArnosGrove-Nthfields'	635.81	3	7.95	10.75	18.7	1.6	0.5	0.8

Mode	Stop	Route	Distance (metres)	Frequency(vph)	Walk Time (mins)	SWT (mins)	TAT (mins)	EDF	Weight	AI
LUL	Russel Square	'Oakwood-RayLane'	635.81	0.33	7.95	91.66	99.61	0.3	0.5	0.15
LUL	Russel Square	'Nthfields-Cockfoster'	635.81	1	7.95	30.75	38.7	0.78	0.5	0.39
LUL	Russel Square	'LHRT5-Cockfosters'	635.81	6	7.95	5.75	13.7	2.19	0.5	1.1
LUL	Russel Square	'Uxbridge-Cockfosters'	635.81	3.67	7.95	8.92	16.87	1.78	0.5	0.89
LUL	Russel Square	'Ruislip-Cockfosters'	635.81	2.33	7.95	13.63	21.57	1.39	0.5	0.7
LUL	Russel Square	'ArnosGrove-Uxbridge'	635.81	1	7.95	30.75	38.7	0.78	0.5	0.39
LUL	Russel Square	'Oakwood-Uxbridge'	635.81	0.33	7.95	91.66	99.61	0.3	0.5	0.15
LUL	Russel Square	'Oakwood-Ruislip'	635.81	0.33	7.95	91.66	99.61	0.3	0.5	0.15
Total Grid Cell AI:									64.54	

Alpoi	PTAL
57.95	6b
Alpoi	PTAL

Mode	SAPs	Route	Frequency	Dist	Walk Time	Headway	SWT	Reliability	Access	EDF	AI mode
Bus											
Bus	Torrington Place (Stop C)	14	11	260	3.25	5.45	2.73	2	7.98	3.76	45.58
		24	7	260	3.25	8.57	4.29	2	9.54	3.15	
		29	15	260	3.25	4.00	2.00	2	7.25	4.14	
		73	15	260	3.25	4.00	2.00	2	7.25	4.14	
		134	10	260	3.25	6.00	3.00	2	8.25	3.64	
	Tavistock Square (Stop N)	390	9	260	3.25	6.67	3.33	2	8.58	3.50	
		10	7	350	4.38	8.57	4.29	2	10.66	2.81	
		59	11	350	4.38	5.45	2.73	2	9.10	3.30	
		68	16	350	4.38	3.75	1.88	2	8.25	3.64	
		91	8	350	4.38	7.50	3.75	2	10.13	2.96	
	Tavistock Square (Stop K)	168	8	350	4.38	7.50	3.75	2	10.13	2.96	
		10	7	400	5.00	8.57	4.29	2	11.29	2.66	
		59	11	400	5.00	5.45	2.73	2	9.73	3.08	
		68	16	400	5.00	3.75	1.88	2	8.88	3.38	
		91	8	400	5.00	7.50	3.75	2	10.75	2.79	
	Euston Station (Stop H)	168	8	400	5.00	7.50	3.75	2	10.75	2.79	
		18	15	500	6.25	4.00	2.00	2	10.25	2.93	
		30	7	500	6.25	8.57	4.29	2	12.54	2.39	
		73	15	500	6.25	4.00	2.00	2	10.25	2.93	
		205	8	500	6.25	7.50	3.75	2	12.00	2.50	
	Russell Square (Stop E)	390	9	500	6.25	6.67	3.33	2	11.58	2.59	
		10	7	500	6.25	8.57	4.29	2	12.54	2.39	
		188	7	500	6.25	8.57	4.29	2	12.54	2.39	
	Great Russell Street (Stop R)	8	11	650	8.13	5.45	2.73	2	12.85	2.33	
		14	11	650	8.13	5.45	2.73	2	12.85	2.33	
		24	7	650	8.13	8.57	4.29	2	14.41	2.08	
		29	15	650	8.13	4.00	2.00	2	12.13	2.47	
		73	15	650	8.13	4.00	2.00	2	12.13	2.47	
		134	10	650	8.13	6.00	3.00	2	13.13	2.29	
		390	9	650	8.13	6.67	3.33	2	13.46	2.23	
LUL/DLR/Rail											
LUL/DLR/Rail	Picadilly Line	x	24	550	6.88	2.50	1.25	0.75	8.88	3.38	12.36
	Northern Line Via Bank	x	24	700	8.75	2.50	1.25	0.75	10.75	2.79	
	Northern Line Via Charing Cross	x	24	550	6.88	2.50	1.25	0.75	8.88	3.38	
	Metropolitan Line	x	13	600	7.50	4.62	2.31	0.75	10.56	2.84	
	Circle Line	x	6	600	7.50	10.00	5.00	0.75	13.25	2.26	
	Hammersmith & City Line	x	6	600	7.50	10.00	5.00	0.75	13.25	2.26	
	Victoria Line	x	34	700	8.75	1.76	0.88	0.75	10.38	2.89	
	Overground	x	3	700	8.75	20.00	10.00	0.75	19.50	1.54	

Appendix D – iTRACE Workplace Pro Forma



iTRACE Workplace Travel Plan Pro-forma

Submission Date **1st** **2nd** **3rd**

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Organisation Information

Business/Org Name

Business Activity (*select only one*)

- | | |
|--|---|
| <input type="checkbox"/> Bingo | <input type="checkbox"/> Light industry |
| <input type="checkbox"/> Bowling | <input type="checkbox"/> Nightclub |
| <input type="checkbox"/> Cinema | <input type="checkbox"/> Office |
| <input type="checkbox"/> Day nursery | <input type="checkbox"/> Other |
| <input type="checkbox"/> Property Developer | <input type="checkbox"/> Public House |
| <input type="checkbox"/> Financial & Professional Services | <input type="checkbox"/> Residential |
| <input type="checkbox"/> Garden centre | <input type="checkbox"/> Residential care |
| <input type="checkbox"/> General industry | <input type="checkbox"/> Restaurant (min 25 cap.) |
| <input type="checkbox"/> Golf courses | <input type="checkbox"/> Retail park |
| <input type="checkbox"/> Health centre | <input type="checkbox"/> Retail warehouse |
| <input type="checkbox"/> Health Clubs and Sports | <input type="checkbox"/> School |
| <input type="checkbox"/> Hospital | <input type="checkbox"/> Storage & distribution |
| <input type="checkbox"/> Hostel | <input type="checkbox"/> Supermarket |
| <input type="checkbox"/> Hotel | <input type="checkbox"/> Take-Away/Fast Food |
| <input type="checkbox"/> Leisure Complex | |

Site Information

Address

Post Code



Land Use (*select only one*)

- | | |
|---|---|
| <input type="checkbox"/> Assembly and Leisure | <input type="checkbox"/> Hotels |
| <input type="checkbox"/> Business | <input type="checkbox"/> Non Residential Institutions |
| <input type="checkbox"/> Dwellinghouses | <input type="checkbox"/> Residential Institutions |
| <input type="checkbox"/> Financial or Professional Services | <input type="checkbox"/> Shops |
| <input type="checkbox"/> Food and Drink | <input type="checkbox"/> Storage or Distribution |
| <input type="checkbox"/> General Industrial | |

Gross Site Area Net Site Area

Contact Information

TP Coordinator Name

Job Title

Email

Tel Fax

Planning Information

Application No.

Date of Occupancy Actual or Proposed

Please specify if the date of Occupation for the site in question is *actual* or *proposed*.



Targets

- Any Targets based on 'Modal Shift', to be included in a Travel Plan, should be provided as 'Percentage Point Change' Targets.

e.g. – increase the current level of cycling by 5% (Percentage Points) by 01/09/2008 = if 10% of staff currently cycle to work and a 5% (percentage point) increase is achieved by/or before 01/09/2008 then overall 15% of staff will be cycling to work. In actual figures that can be shown as – from a total of 100 staff, if 10 currently cycle, a 5%age point increase would equate to 15 people cycling

NOTE: These targets should be determined by the information gathered from the 'BASELINE' survey and should 'demonstrate ambition'.

Target Type	Target % Change	Target Date	Target Required	Date Required
SELECT FROM DROP-DOWN LIST	+/-		<input type="checkbox"/>	
SELECT FROM DROP-DOWN LIST	+/-		<input type="checkbox"/>	
SELECT FROM DROP-DOWN LIST	+/-		<input type="checkbox"/>	
SELECT FROM DROP-DOWN LIST	+/-		<input type="checkbox"/>	
SELECT FROM DROP-DOWN LIST	+/-		<input type="checkbox"/>	
SELECT FROM DROP-DOWN LIST	+/-		<input type="checkbox"/>	
SELECT FROM DROP-DOWN LIST	+/-		<input type="checkbox"/>	
SELECT FROM DROP-DOWN LIST	+/-		<input type="checkbox"/>	

If more targets are required, please duplicate this page

- When individual 'Modal Shift Targets' are not provided, an overall target of 'Total Percentage of Employees travelling by car (as driver)' by a defined date, will suffice.

e.g. - no more than 40% of all staff will travel to work by car (as driver) by 2010.

	Target % by Car	Date Required (MM/YYYY)
Threshold 1:	<input style="width: 100px; height: 20px;" type="text" value="%"/>	<input style="width: 100px; height: 20px;" type="text"/>
Threshold 2:	<input style="width: 100px; height: 20px;" type="text" value="%"/>	<input style="width: 100px; height: 20px;" type="text"/>
Comments:	<input style="width: 300px; height: 60px;" type="text"/>	



Generic Site/Organisation Survey

Total No. of Employees	<input type="text"/>	No. Car Club Members	<input type="text"/>
No. Car Spaces*	<input type="text"/>	Fuel Efficient Vehicles	<input type="checkbox"/> Yes <input type="checkbox"/> No
No. Motorcycle Spaces	<input type="text"/>	No. Fuel Eff. Vehicles	<input type="text"/>
No. Bicycle Spaces	<input type="text"/>	Fuel Eff. Freight Vehicles	<input type="checkbox"/> Yes <input type="checkbox"/> No
No. Disables Spaces	<input type="text"/>	No. Fuel Eff. Freight Vehicles	<input type="text"/>
No. HGV Spaces	<input type="text"/>	Flexible Working	<input type="checkbox"/> Yes <input type="checkbox"/> No
Car Share Program	<input type="checkbox"/> Yes <input type="checkbox"/> No	Home Working	<input type="checkbox"/> Yes <input type="checkbox"/> No
No. of Car Share Members	<input type="text"/>	Shower Facilities	<input type="checkbox"/> Yes <input type="checkbox"/> No
Taxi Service (GRH**) <input type="checkbox"/> Yes <input type="checkbox"/> No		Locker Facilities	<input type="checkbox"/> Yes <input type="checkbox"/> No
Car Club <input type="checkbox"/> Yes <input type="checkbox"/> No		Travel Card Subsidy	<input type="checkbox"/> Yes <input type="checkbox"/> No

* not including disabled spaces
 GRH** - Guaranteed Ride Home

Baseline Modal Survey – Main Mode

Car (driver alone)		Tube	
Car (driver with others)		Rail	
Car (as passenger)		Bike/Rail	
Motorcycle		Bicycle	
Bus		Foot	
Tram		Other	

Model Survey response requires actual figures to allow input into iTRACE:
e.g. 78 people travel to the site by Bus (Not percentages!)



END OF DOCUMENT

Appendix E – BREEAM Check List

Issue Name	Credits	Summary	References in the TP
TRA 01 - Public transport accessibility	Up to 5 credits	<p>The public transport Accessibility Index (AI) for the assessed building is calculated and BREEAM credits awarded in accordance with the building types.</p> <p>For building types: Higher Education type; 5 BREEAM credits are available if AI is greater than 18.</p>	<p>Paragraphs 3.16 – 3.25</p> <p>Appendix C</p>
TRA 02 - Proximity to amenities	Up to 1 credit	<p>Where the building is located within close proximity of (500m) and accessible to local amenities, which are likely to be frequently required and used by building occupants, 1 BREEAM credits is available.</p>	<p>Paragraphs 3.26 – 3.27</p>
TRA 03 - Cyclist facilities	Up to 2 credits	<p>If a building provides a cycle storage spaces that meet the minimum levels set out in the BREEAM standard, 1 BREEAM credits is available. The standard is: one cycle parking space for every 10 members of staff/students.</p> <p>If at least two of the following types of cyclist facilities: showers, changing facilities, lockers and drying spaces are provided; 1 BREEAM credits is available.</p>	<p>Paragraphs 2.12 – 2.14</p>
TRA 04 - Maximum car parking capacity	Up to 2 credits	<p>If a development limits the car parking provision, 2 BREEAM credits are available.</p>	<p>Paragraphs 2.9 – 2.11</p>
TRA 05 - Travel Plan (TP)	Up to 1 Credit	<p>If a TP has been developed as part of the feasibility and design stages, 1 BREEAM credit is available. A site-specific TP should cover the following:</p> <p>Where relevant, existing travel patterns and opinions of existing building or site users towards cycling and walking so that constraints and opportunities can be identified.</p>	
		<p>Travel patterns and transport impact of future building users.</p>	<p>Section 4.0</p>
		<p>Current local environment for walkers and cyclists.</p>	<p>Paragraphs 3.4- 3.15 / Appendix B</p>

		Disabled access (accounting for varying levels of disability and visual impairment)	Paragraphs 2.7 - 2.11
		Public transport links serving the site.	Paragraphs 3.16 - 3.25
		Current facilities for cyclists	Paragraphs 2.12 - 2.13
		The TP includes a package of measures to encourage the use of sustainable modes of transport and movement of people and goods during the building's operation and use	Section 7.0
		If the occupier is known, they must be involved in the development of the TP and they must confirm that the TP will be implemented post construction and be supported by the building's management in operation.	Sections 8.0, 9.0 and 10.0.