



Mixed Use Development  
294-295 High Holborn

Travel Plan Statement

For

CHH London Ltd

## Document Control Sheet

Travel Plan Statement

Mixed Use Development, 294-295 High Holborn

CHH London Ltd

This document has been issued and amended as follows:

Date	Issue	Prepared by	Approved by
20/03/2017	Final	Kathryn Lewis	David Lewis
27/03/2017	Final Rev A	Kathryn Lewis	David Lewis

## Contents

1.0	Introduction .....	1
2.0	Baseline Conditions.....	2
3.0	Objectives.....	6
4.0	Travel Plan Measures .....	7
5.0	Summary and Conclusions .....	8

## Figures

- 2.1 Site Location Plan
- 2.2 Local Amenities Map

## Appendices

- A PTAL Output Report
- B Bus Route Spider Map

## 1.0 Introduction

- 1.1 Motion has been appointed by CHH London Ltd to provide a Travel Plan Statement associated with the proposed mixed use development proposals at 294-295 High Holborn, within the London Borough of Camden (LB Camden).
- 1.2 The site is located to the south of High Holborn (A40) and is bound by office and commercial units to the east and west, while Lincolns Inn Gardens forms the southern boundary of the site. The site is located approximately 250 metres to the west of Chancery Lane underground station and approximately 350 metres to the east of Holborn underground station.
- 1.3 Planning permission was granted in September 2003 (Ref: PSX0304010) for the demolition of the original structure and redevelopment comprising basement, ground and 8 upper storeys with retail use on the ground/ basement floor and office use on the upper floors. The demolition has since been completed and the site is currently vacant.
- 1.4 The current proposals comprise the redevelopment of the site to provide a building comprising basement, ground and 8 upper storeys. The ground/basement level would be occupied by retail restaurant use, along with bicycle and refuse storage. The first and second floors would provide B1 office use and the third to eighth floors would provide residential use, totalling 10 residential units. A Transport Statement has been prepared and is submitted under separate cover.
- 1.5 A Travel Plan is a management tool that allows a coordinated strategy to bring together daily travel issues and achieve a more sustainable travel choice. A successfully implemented Travel Plan can offer substantial gains towards the sustainable transport objectives of central and local Government. Based on TfL guidance it is considered that a Travel Plan Statement is appropriate to support the development proposals.
- 1.6 The remainder of this report is set out as follow:
  - ▶ Section 2 – Existing Situation;
  - ▶ Section 3 – Objectives;
  - ▶ Section 4 – Travel Plan Measures;
  - ▶ Section 5 – Summary and Conclusions.

## 2.0 Baseline Conditions

- 2.1 The site is located to the south of High Holborn (A40) and is bound by office and commercial units to the east and west, while Lincolns Inn Gardens forms the southern boundary. The site is located approximately 250 metres to the west of Chancery Lane underground station and approximately 350 metres to the east of Holborn underground station.
- 2.2 The site location with regard to the surrounding area is shown in [Figure 2.1](#).

### Local Highway Network

- 2.3 High Holborn, the A40, is a two-way carriageway with separate bus lanes and operates at a 30mph speed limit. To the east High Holborn forms a route to the City of London while to the west it connects the site to Oxford Circus and Regent Street.
- 2.4 To the west of the site the A4200 is a two-way carriageway subject to a 30mph speed limit. To the south of High Holborn, the A4200 forms Kingsway creating a link to the A4 while to the north it forms Southampton Row and offers access to the A501, Euston Road. The A501 can further be accessed via Grays Inn Road to the east of the site.
- 2.5 To the east of the site, Charterhouse Street operates as a two-way carriageway and creates a link between High Holborn to the south west and Farringdon Street, the A201. Approximately 150 metres to the east of this junction, Charterhouse Street becomes one-way operating in a north-east direction and provides access to the A1.

### Sustainable Transport Accessibility

- 2.6 It is generally accepted that walking and cycling provide important alternatives to the private car, and should also be encouraged to form part of longer journeys via public transport. Indeed, it is noteworthy that the Chartered Institute of Highways and Transportation (CIHT) has prepared several guidance documents that provide advice with respect to the provision of sustainable travel in conjunction with new developments.

	Town Centres	Commuting / Schools	Elsewhere
Desirable	200m	500m	400m
Acceptable	400m	1000m	800m
Preferred Maximum	800m	2000m	1200m

Table 2.1 - Suggested Walking Distances (CIHT Guidelines)

- 2.7 It is acknowledged that there is the potential for short car trips to be substituted by walking and cycle trips, and for longer trips to be substituted by a combination of walking, cycle and public transport trips. Guidance issued by the CIHT *"Planning for Cycling, 2014"* indicates that there is the potential for journeys under 5 miles (8 km) to be made by bicycle.
- 2.8 The following sections consider the opportunities for sustainable travel that are available in the vicinity of the site.

### Accessibility by Foot

- 2.9 Footways are provided along both sides of High Holborn providing pedestrian access to the site as well as a connection to the local underground stations. Dropped kerbs, tactile paving and signalised pedestrian crossings are provided at the junction of High Holborn and Grays Inn Road creating a safe link towards King's Cross Station to the north. The same arrangement can be found at the junction of High Holborn and Kingsway to the west creating a convenient link to an alternative north/south route.

- 2.10 The pedestrian network in the vicinity of the site allow access to a range of shops and services including several banks, supermarkets and schools. A summary of the walking / cycling distance to the local amenities can be seen in Table 3.2, while a map detailing their respective locations is attached at [Figure 2.2](#).

Amenity	Walking / Cycling Distance
St Alban's CofE Primary School	500m
City of London School	1,700m
University of London	1,200m
Little Waitrose	250m
The People's Supermarket	650m
M&S Simply Food	200m
Sainsbury's Local	<100m
Barclays	600m
Natwest	450m
HSBC	450m
Nationwide	500m
Great Ormond Street Hospital	850m
Covent Garden Medical Centre	850m
Forest & Ray Dental Practice	900m
Boots Pharmacy	100m
Holborn Pharmacy	650m
Vision Express Opticians	<100m
Post Office	150m
Holborn Library	400m
Oasis Sports Centre	750m

Table 2.2 - Local Amenities

### Accessibility by Cycle

- 2.11 Signed cycle routes connecting towards Kings Cross and Camden Town are situated approximately 50 metres to the west of the site. These connect to further signed routes on Hunter Street which route towards the West End, The City, Waterloo and Finsbury.
- 2.12 Advanced stop lines are provided for cyclists at key junctions along High Holborn including that of High Holborn / Kingsway to the west of the site and High Holborn / Grays Inn Road to the east of the site. There are several public cycle parking opportunities available along each side of High Holborn.
- 2.13 The North-South Cycle Superhighway will be situated approximately 700 metres to the east of the site. The Cycle Superhighway would operate between Elephant & Castle to the south and Kings Cross to the north and would connect to several other superhighways including the East-West Superhighway joined at Blackfriars Bridge and Cycle Superhighway 7 at Elephant & Castle.

### Public Transport Accessibility Level (PTAL)

- 2.14 Public Transport Accessibility Levels (PTALs) provide a guide to the relative accessibility of a site. PTAL scores range from 1 to 6b, where 6b is the highest score and 1 is the lowest. The Transport for London PTAL calculator indicates a PTAL of 6a when measured from the centre of the site, demonstrating that the site has excellent access to public transport opportunities. The full PTAL report is attached at [Appendix A](#).

### Accessibility by Bus

- 2.15 The nearest bus stops to the site are located adjacent to the northern boundary of the site on High Holborn. These stops benefit from shelters, seating and timetabling information.
- 2.16 Several services operate from these stops offering access to destinations such as London Bridge, Bank and Oxford Street. The stops further benefit from 24 hour services on routes 25 and 242, as well as a night bus, route N8.
- 2.17 Table 2.3 provides a summary of the local bus services while a bus route spider map is attached at [Appendix B](#).

	Route	Frequency (every x minutes)		
		Mon-Fri	Saturday	Sunday
8	Bow Church – Liverpool Street Station – Holborn Station – Holles Street	4 – 8	6 – 10	8 – 12
25	Hainault Street – Stratford Centre – Bank Station – Holles Street	5 – 10	6 – 10	6 – 10
242	Homerton Hospital – Hackney Central Station – Holborn Station – St Giles High Street	6 – 9	5 – 8	7 – 11
521	Waterloo Station – Cannon Street Station – Monument Station – London Bridge Station	5 – 10	No Service	
N8	The Lowe – Stratford High Street – St Paul's Station – Oxford Street – Holles Street	15 – 20	7 – 8	15 – 20

Table 2.3 - Local Bus Services

### Accessibility by Rail

- 2.18 The site is located approximately 250 metres to the west of Chancery Lane underground station and approximately 350 metres to the east of Holborn underground station.
- 2.19 Chancery Lane is located on the Central Line offering services every 2 – 3 minutes to locations including Ealing Broadway, White City and Newbury Park. Holborn station is also located on the Central Line but further benefits from access to the Piccadilly Line. The Piccadilly Line operates between Cockfosters and Heathrow Airport every 2 – 3 minutes.
- 2.20 Farringdon Station is located approximately 800 metres to the north east of the site and benefits from both overground and underground facilities. The station is located on the Circle, Metropolitan and Hammersmith & City lines operating to destinations such as Aldgate, Edgware Road and Hammersmith. Farringdon overground station offers services to Bedford, Sutton and Brighton among others. A full summary of the over ground services is shown in Table 2.4.

	Route	Frequency		
		Mon-Fri	Saturday	Sunday
Bedford	Farringdon – St Pancras – St Albans City – Luton Airport Parkway – Flitwick – Bedford	4 per hour	4 per hour	4 per hour
Sutton	Farringdon – London Blackfriars – Tooting – Morden South – West Sutton – Sutton	4 per hour	4 per hour	No Service
Brighton	Farringdon – East Croydon – Gatwick Airport – Haywards Heath – Hassocks – Brighton	2 per hour	2 per hour	2 per hour
Luton	Farringdon – Kentish Town – Mill Hill Broadway – Luton Airport Parkway – Luton	6 per hour	6 per hour	4 per hour

Table 2.4 - Local Rail Services

### Car Club

- 2.21 Car clubs can help to reduce car ownership by offering the convenience of a car without the costs of repairs, servicing, insurance and parking. The nearest car club vehicle is located approximately 250 metres south of the site on Newman's Row where two spaces are provided by ZipCar.
- 2.22 Further car club spaces are located on Bedford Row and Red Lion Square comprising one space each and operated by City Car Club and ZipCar respectively.

### Summary

- 2.23 It has been demonstrated that the site benefits from excellent access to public transport opportunities with several key stations and bus stops within close proximity of the site. In addition, the site is well served by pedestrian and cycle infrastructure and there is a wide range of shops and services within a short walk/cycle of the site.

### 3.0 Objectives

3.1 The principle objectives of the Travel Plan Statement have been developed with references to relevant policy and guidance. These are set out below:

- ▶ To increase awareness of the use of sustainable modes of travel and to encourage their use;
- ▶ To increase awareness of the environmental impacts of travel by the private car;
- ▶ To promote walking and cycling as a health benefit to residents and staff;
- ▶ To reduce the perceived safety risk associated with the alternatives of walking and cycling; and,

3.2 In order to meet these objectives, a number of measures will be implemented in and around the proposed development; these are detailed in the following sections.

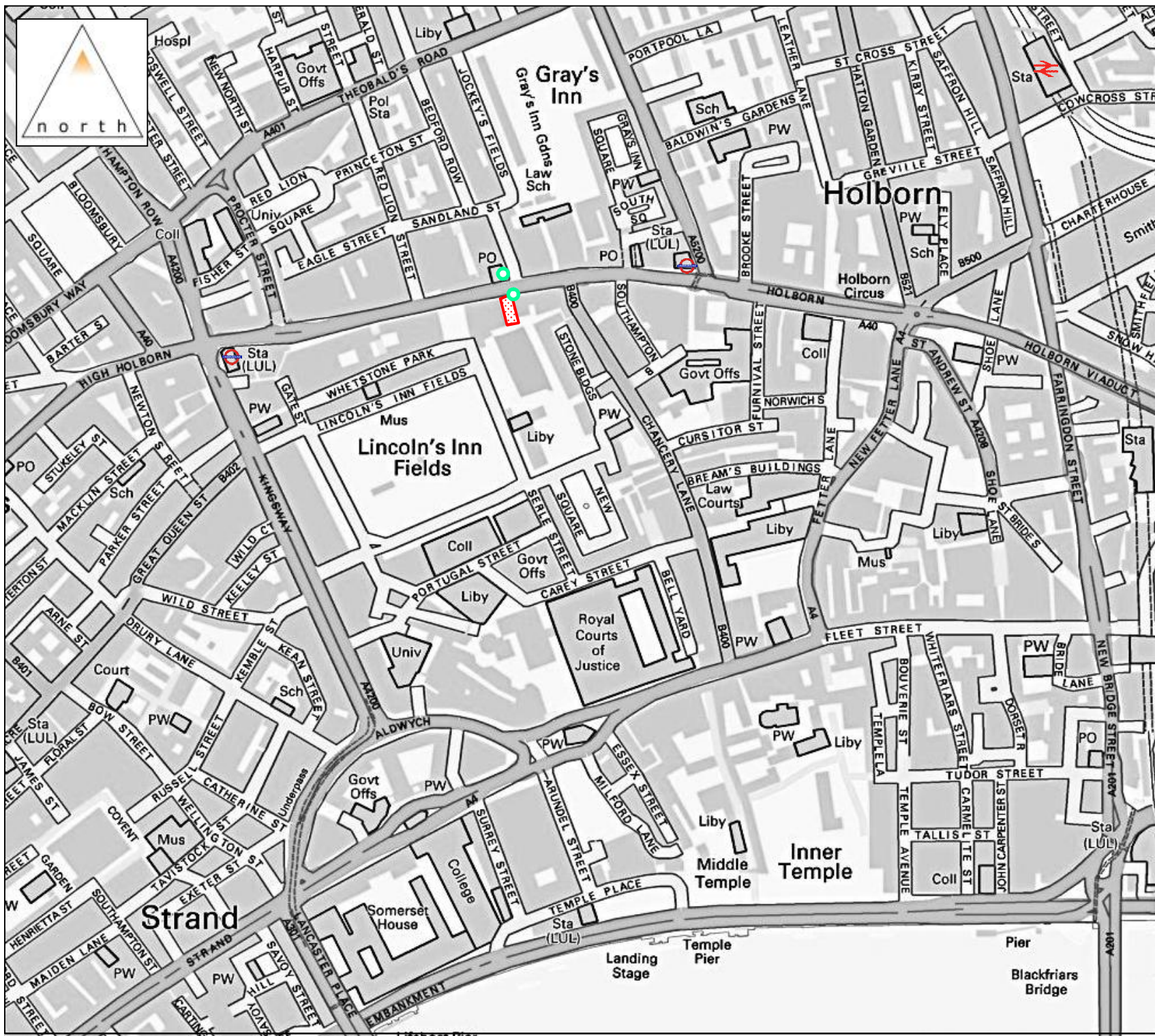
## 4.0 Travel Plan Measures

- 4.1 This section of the Travel Plan Statement outlines the potential 'hard' infrastructural and 'soft' behavioural measures that could be implemented at the site in order to encourage travel by more sustainable transport modes.
- 4.2 In accordance with national, regional and local planning policy guidance the applicant is committed to encouraging the use of more sustainable modes of transport. A number of measures have been proposed to encourage sustainable travel:
- ▶ The development will be car free to encourage the use of sustainable transport modes.
  - ▶ Cycle parking with 32 spaces in accordance with relevant parking standards.
  - ▶ Notice boards will be provided in the communal corridors of the residential areas as well as the entrance lobby/reception area and staff areas; these will be used to encourage sustainable transport modes including:
    - ▶ Journey planning tools such as those available on [www.walkit.com](http://www.walkit.com) to enable users to plan journeys using sustainable means.
    - ▶ Information on the health benefits of walking and cycling.
    - ▶ Details of local bus, rail and underground services.
- 4.3 One of the most important measure to be introduced as part of this Travel Plan is the 'Travel Pack' which will be issued to all residents with keys. Tenants of the commercial space will be provided with the 'Travel Pack' to circulate their staff.
- 4.4 The pack will contain information about all modes of transport available for journeys to and from the site. It will include information related to journeys to key amenities within walking and cycling distance of the development. It will also contain details of the health, financial and environmental benefits of using sustainable modes of transport. Furthermore, the pack will present information about car clubs and sharing schemes so that residents are made aware of the benefits of joining them and also how to register with the schemes. Additional information included within the pack will consist of:
- ▶ Information will be provided about the location of cycle parking and the cycle routes in the vicinity of the site, as well as advice for maintaining bicycles.
  - ▶ Information and advice concerning safe cycle routes from the site to key locations such as train stations and shops.
  - ▶ Journey planning tools such as those available on [www.walkit.com](http://www.walkit.com) will be provided to enable users to plan journeys using sustainable means.

## 5.0 Summary and Conclusions

- 5.1 Motion has prepared this Travel Plan Statement with regard to development proposals at 294-295 High Holborn within the London Borough of Camden (LB Camden).
- 5.2 The proposals comprise the redevelopment of the site to provide a building comprising basement, ground and 8 upper storeys. The ground/basement level would be occupied by retail restaurant use, along with bicycle and refuse storage. The first and second floors would provide B1 office use and the third to eighth floors would provide residential use, totalling 10 residential units.
- 5.3 The purpose of this Travel Plan Statement is to provide a strategy for encouraging reduced dependency on travelling by private car in favour of more sustainable modes such as public transport, walking, cycling and utilising car clubs for all journey purposes.
- 5.4 This Travel Plan Statement demonstrates that:
- ▶ The site is accessible by a range of public transport modes, including by bus and rail;
  - ▶ The site is within close proximity to local amenities making walking and cycling realistic alternatives; and,
  - ▶ The proposed development could include a number of 'hard' and 'soft' measures to encourage travel by modes other than the private car.
- 5.5 It is apparent that the proposed development is in a sustainable location with access to a range of non-car travel modes. On that basis, it is considered that the strategies outlined within this document have the potential to help deliver the objective of a providing a sustainable development.

Figures



Legend:

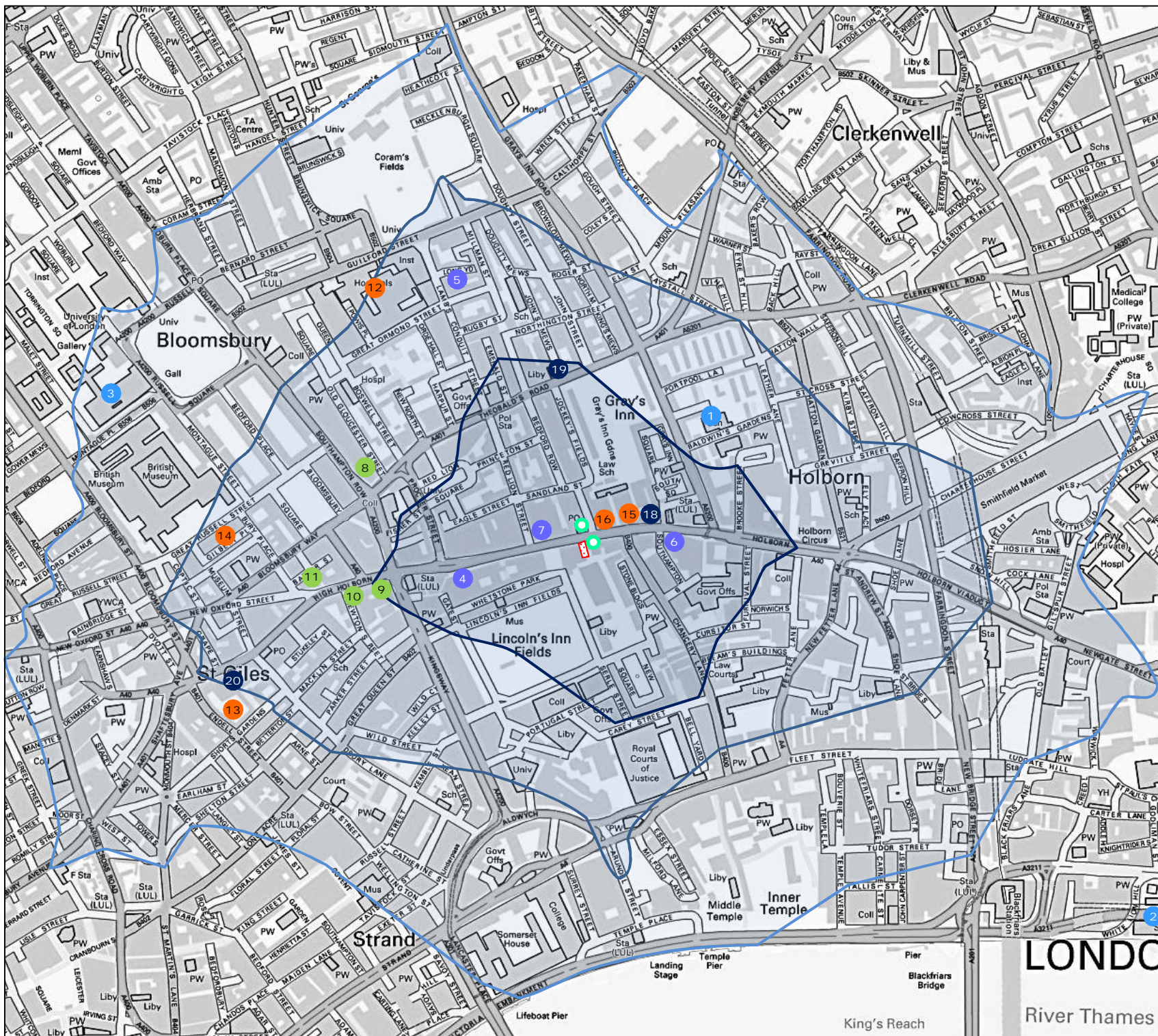
- Local Bus Stop
- Underground Station
- ✕ Overground Station
- ✕ Application Site

294-295 High Holborn,

London

Figure 2.1 Site Location Plan

*Not to Scale*

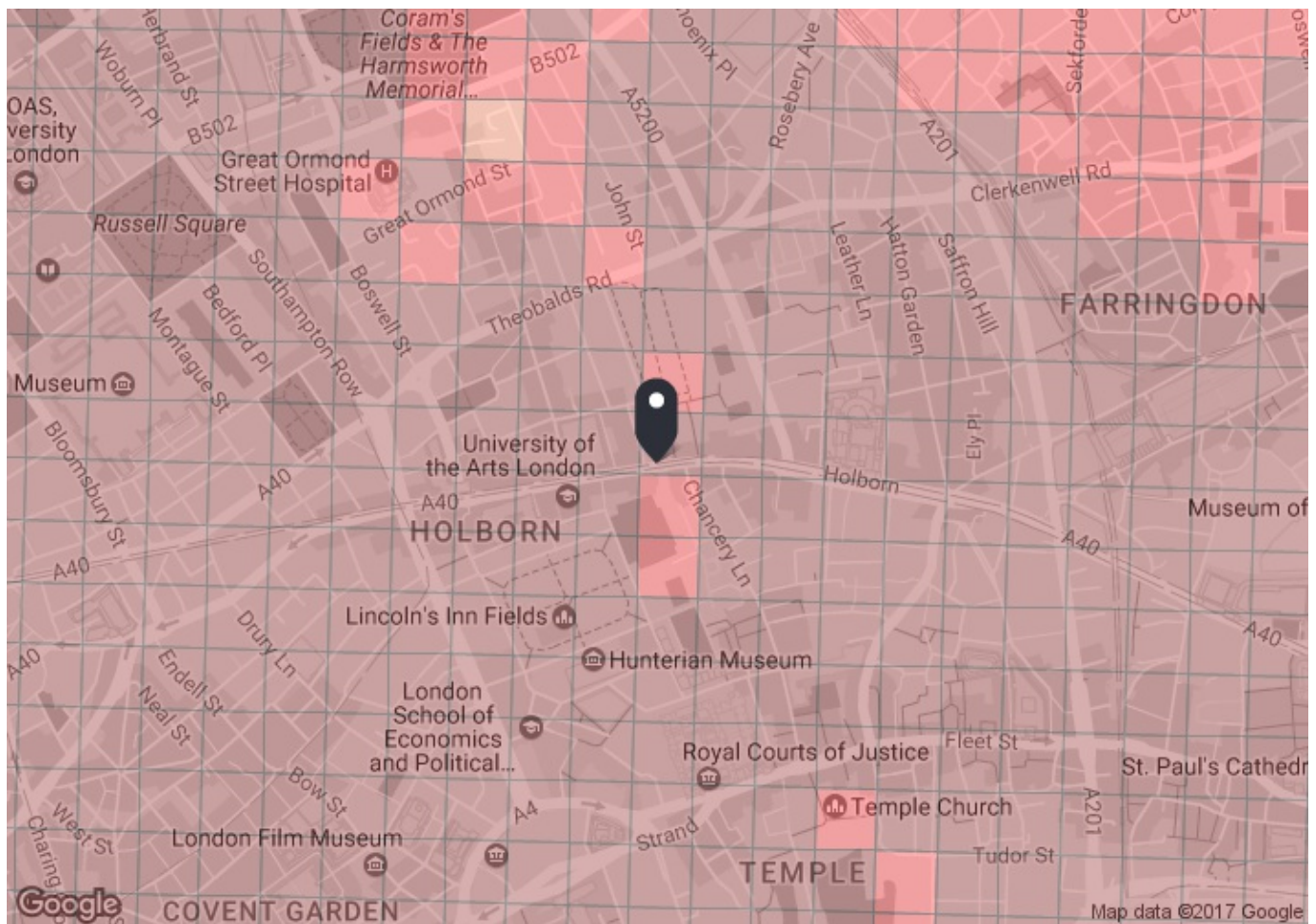


- Legend:
- 1 St Alban's CofE Primary School
  - 2 City of London School
  - 3 University of London
  - 4 Little Waitrose
  - 5 The People's Supermarket
  - 6 M&S Simply Food
  - 7 Sainsbury's Local
  - 8 Barclays
  - 9 NatWest
  - 10 HSBC
  - 11 Nationwide
  - 12 Great Ormond Street Hospital
  - 13 Covent Garden Medical Centre
  - 14 Forest & Ray Dental Practice
  - 15 Boots Pharmacy
  - 16 Holborn Pharmacy
  - 17 Vision Express Opticians
  - 18 Post Office
  - 19 Holborn Library
  - 20 Oasis Sports Centre
- 
- Local Bus Stop
  - Underground Station
  - Overground Station
  - Application Site
  - 400m Isocrone
  - 800m Isocrone
  - 1200m Isocrone

294-295 High Holborn,  
London  
Figure 2.2 Local Amenities Map  
Not to Scale

## Appendix A

PTAL Report



### PTAL output for Base Year 6b

**294 High Holborn**  
294 High Holborn, London WC1V, UK  
Easting: 530926, Northing: 181606

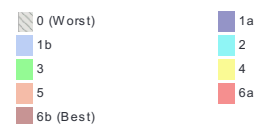
Grid Cell: 86363

Report generated: 20/03/2017

#### 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 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

#### 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	FLEET ST CHANCERY LANE	11	636.16	7.5	7.95	6	13.95	2.15	0.5	1.08
Bus	FLEET ST CHANCERY LANE	23	636.16	8	7.95	5.75	13.7	2.19	0.5	1.09
Bus	FLEET ST CHANCERY LANE	26	636.16	7.5	7.95	6	13.95	2.15	0.5	1.08
Bus	FLEET ST CHANCERY LANE	4	636.16	6	7.95	7	14.95	2.01	0.5	1
Bus	FLEET ST CHANCERY LANE	15	636.16	7.5	7.95	6	13.95	2.15	0.5	1.08
Bus	FLEET ST CHANCERY LANE	76	636.16	8	7.95	5.75	13.7	2.19	0.5	1.09
Bus	FLEET ST CHANCERY LANE	172	636.16	6	7.95	7	14.95	2.01	0.5	1
Bus	GRAYS INN RD CHANCERY LN	46	299.53	6	3.74	7	10.74	2.79	0.5	1.4
Bus	GRAYS INN RD CHANCERY LN	17	299.53	7.5	3.74	6	9.74	3.08	0.5	1.54
Bus	GRAYS INN RD CHANCERY LN	45	299.53	7	3.74	6.29	10.03	2.99	0.5	1.5
Bus	GRAYS INN RD CHANCERY LN	341	299.53	6	3.74	7	10.74	2.79	0.5	1.4
Bus	HOLBORN POLICE STATION	243	461.18	11	5.76	4.73	10.49	2.86	0.5	1.43
Bus	HOLBORN POLICE STATION	38	461.18	10	5.76	5	10.76	2.79	0.5	1.39
Bus	HOLBORN POLICE STATION	19	461.18	8	5.76	5.75	11.51	2.61	0.5	1.3
Bus	HOLBORN POLICE STATION	55	461.18	10	5.76	5	10.76	2.79	0.5	1.39
Bus	HIGH HOLBORN BROWNLOW STREET	8	115.3	10	1.44	5	6.44	4.66	0.5	2.33
Bus	HIGH HOLBORN BROWNLOW STREET	521	115.3	27	1.44	3.11	4.55	6.59	1	6.59
Bus	HIGH HOLBORN BROWNLOW STREET	242	115.3	6.5	1.44	6.62	8.06	3.72	0.5	1.86
Bus	HIGH HOLBORN BROWNLOW STREET	25	115.3	8	1.44	5.75	7.19	4.17	0.5	2.09
Bus	HOLBORN STATION KINGSWAY	59	591.13	10	7.39	5	12.39	2.42	0.5	1.21
Bus	HOLBORN STATION KINGSWAY	91	591.13	9	7.39	5.33	12.72	2.36	0.5	1.18
Bus	HOLBORN STATION KINGSWAY	1	591.13	8	7.39	5.75	13.14	2.28	0.5	1.14
Bus	HOLBORN STATION KINGSWAY	68	591.13	9	7.39	5.33	12.72	2.36	0.5	1.18
Bus	HOLBORN STATION KINGSWAY	X68	591.13	4	7.39	9.5	16.89	1.78	0.5	0.89
Bus	HOLBORN STATION KINGSWAY	188	591.13	8	7.39	5.75	13.14	2.28	0.5	1.14
Bus	HOLBORN STATION KINGSWAY	171	591.13	7.75	7.39	5.87	13.26	2.26	0.5	1.13
Bus	HOLBORN STATION KINGSWAY	168	591.13	9	7.39	5.33	12.72	2.36	0.5	1.18
Rail	City Thameslink	'BEDFDM-SVNOAKS 1E62'	808.57	0.33	10.11	91.66	101.77	0.29	0.5	0.15
Rail	City Thameslink	'BEDFDM-BROMLYS 1E83'	808.57	0.33	10.11	91.66	101.77	0.29	0.5	0.15
Rail	City Thameslink	'BEDFDM-ORPNGTN 1L60'	808.57	0.33	10.11	91.66	101.77	0.29	0.5	0.15
Rail	City Thameslink	'BEDFDM-SUTTON 1O13'	808.57	0.33	10.11	91.66	101.77	0.29	0.5	0.15
Rail	City Thameslink	'BEDFDM-KENTHOS 1S85'	808.57	0.33	10.11	91.66	101.77	0.29	0.5	0.15
Rail	City Thameslink	'BEDFDM-BRGHTN 1T11'	808.57	0.33	10.11	91.66	101.77	0.29	0.5	0.15
Rail	City Thameslink	'BEDFDM-BRGHTN 1T15'	808.57	0.67	10.11	45.53	55.63	0.54	0.5	0.27
Rail	City Thameslink	'BRGHTN-BEDFDM 1T83'	808.57	0.33	10.11	91.66	101.77	0.29	0.5	0.15
Rail	City Thameslink	'BEDFDM-SUTTON 1V23'	808.57	0.33	10.11	91.66	101.77	0.29	0.5	0.15
Rail	City Thameslink	'BEDFDM-SUTTON 1V82'	808.57	0.33	10.11	91.66	101.77	0.29	0.5	0.15
Rail	City Thameslink	'BRGHTN-BEDFDM 1W06'	808.57	0.33	10.11	91.66	101.77	0.29	0.5	0.15
Rail	City Thameslink	'BRGHTN-BEDFDM 1W81'	808.57	0.33	10.11	91.66	101.77	0.29	0.5	0.15
Rail	City Thameslink	'BEDFDM-BRGHTN 1W84'	808.57	0.33	10.11	91.66	101.77	0.29	0.5	0.15
Rail	City Thameslink	'BEDFDM-BRGHTN 1W86'	808.57	0.33	10.11	91.66	101.77	0.29	0.5	0.15
Rail	City Thameslink	'STALBCY-SVNOAKS 2E11'	808.57	1	10.11	30.75	40.86	0.73	1	0.73
Rail	City Thameslink	'BEDFDM-SVNOAKS 2E19'	808.57	0.33	10.11	91.66	101.77	0.29	0.5	0.15
Rail	City Thameslink	'LUTON-SVNOAKS 2E21'	808.57	0.33	10.11	91.66	101.77	0.29	0.5	0.15
Rail	City Thameslink	'STALBCY-SVNOAKS 2E95'	808.57	0.33	10.11	91.66	101.77	0.29	0.5	0.15
Rail	City Thameslink	'SUTTON-LUTON 2O00'	808.57	0.33	10.11	91.66	101.77	0.29	0.5	0.15
Rail	City Thameslink	'SUTTON-BEDFDM 2O04'	808.57	0.33	10.11	91.66	101.77	0.29	0.5	0.15
Rail	City Thameslink	'SUTTON-STALBCY 2O06'	808.57	0.33	10.11	91.66	101.77	0.29	0.5	0.15
Rail	City Thameslink	'SUTTON-LUTON 2O10'	808.57	1	10.11	30.75	40.86	0.73	0.5	0.37
Rail	City Thameslink	'LUTON-SUTTON 2O17'	808.57	0.67	10.11	45.53	55.63	0.54	0.5	0.27
Rail	City Thameslink	'STALBCY-SUTTON 2O21'	808.57	0.33	10.11	91.66	101.77	0.29	0.5	0.15
Rail	City Thameslink	'STALBCY-SUTTON 2O29'	808.57	0.67	10.11	45.53	55.63	0.54	0.5	0.27
Rail	City Thameslink	'LUTON-BCKNHIMJ 2S91'	808.57	0.33	10.11	91.66	101.77	0.29	0.5	0.15
Rail	City Thameslink	'STALBCY-BROMLYS 2S93'	808.57	0.33	10.11	91.66	101.77	0.29	0.5	0.15
Rail	City Thameslink	'BRGHTN-BEDFDM 2T02'	808.57	0.33	10.11	91.66	101.77	0.29	0.5	0.15
Rail	City Thameslink	'BRGHTN-BEDFDM 2T04'	808.57	0.33	10.11	91.66	101.77	0.29	0.5	0.15
Rail	City Thameslink	'BEDFDM-BRGHTN 2T15'	808.57	1	10.11	30.75	40.86	0.73	0.5	0.37
Rail	City Thameslink	'BEDFDM-BRGHTN 2T25'	808.57	0.33	10.11	91.66	101.77	0.29	0.5	0.15

Mode	Stop	Route	Distance (metres)	Frequency(vph)	Walk Time (mins)	SWT (mins)	TAT (mins)	EDF	Weight	AI
Rail	City Thameslink	'BRGHTN-LUTON 2T99'	808.57	0.33	10.11	91.66	101.77	0.29	0.5	0.15
Rail	City Thameslink	'SUTTON-STALBCY 2V02'	808.57	0.33	10.11	91.66	101.77	0.29	0.5	0.15
Rail	City Thameslink	'SUTTON-STALBCY 2V08'	808.57	0.67	10.11	45.53	55.63	0.54	0.5	0.27
Rail	City Thameslink	'BEDFDM-SUTTON 2V15'	808.57	0.33	10.11	91.66	101.77	0.29	0.5	0.15
Rail	City Thameslink	'SUTTON-BEDFDM 2V16'	808.57	0.33	10.11	91.66	101.77	0.29	0.5	0.15
Rail	City Thameslink	'LUTON-SUTTON 2V19'	808.57	0.33	10.11	91.66	101.77	0.29	0.5	0.15
Rail	City Thameslink	'SUTTON-KNTSHTN 2V20'	808.57	0.33	10.11	91.66	101.77	0.29	0.5	0.15
Rail	City Thameslink	'STALBCY-SUTTON 2V27'	808.57	0.33	10.11	91.66	101.77	0.29	0.5	0.15
Rail	City Thameslink	'LUTON-SUTTON 2V31'	808.57	0.33	10.11	91.66	101.77	0.29	0.5	0.15
Rail	City Thameslink	'BRGHTN-BEDFDM 2W08'	808.57	0.33	10.11	91.66	101.77	0.29	0.5	0.15
Rail	City Thameslink	'BRGHTN-BEDFDM 2W12'	808.57	0.33	10.11	91.66	101.77	0.29	0.5	0.15
Rail	City Thameslink	'BRGHTN-BEDFDM 2W16'	808.57	0.33	10.11	91.66	101.77	0.29	0.5	0.15
Rail	City Thameslink	'ASHFKY-BEDFDM 1E61'	808.57	0.33	10.11	91.66	101.77	0.29	0.5	0.15
Rail	City Thameslink	'ASHFKY-BEDFDM 1E63'	808.57	0.33	10.11	91.66	101.77	0.29	0.5	0.15
Rail	City Thameslink	'RCHT-BEDFDM 1E67'	808.57	0.33	10.11	91.66	101.77	0.29	0.5	0.15
Rail	City Thameslink	'SVNOAKS-BEDFDM 1E69'	808.57	0.33	10.11	91.66	101.77	0.29	0.5	0.15
Rail	City Thameslink	'BROMLYS-BEDFDM 1E82'	808.57	0.33	10.11	91.66	101.77	0.29	0.5	0.15
Rail	City Thameslink	'BCKNHMJ-BEDFDM 1G65'	808.57	0.33	10.11	91.66	101.77	0.29	0.5	0.15
Rail	City Thameslink	'KENTHOS-BEDFDM 1G71'	808.57	0.33	10.11	91.66	101.77	0.29	0.5	0.15
Rail	City Thameslink	'ORPNGTN-STALBCY 2D93'	808.57	0.33	10.11	91.66	101.77	0.29	0.5	0.15
Rail	City Thameslink	'ORPNGTN-LUTON 2D95'	808.57	0.33	10.11	91.66	101.77	0.29	0.5	0.15
Rail	City Thameslink	'SVNOAKS-STALBCY 2E59'	808.57	0.67	10.11	45.53	55.63	0.54	0.5	0.27
Rail	City Thameslink	'SVNOAKS-LUTON 2E61'	808.57	0.33	10.11	91.66	101.77	0.29	0.5	0.15
Rail	City Thameslink	'SVNOAKS-WHIMPSTM 2E63'	808.57	0.33	10.11	91.66	101.77	0.29	0.5	0.15
Rail	City Thameslink	'SVNOAKS-KNTSHTN 2E65'	808.57	0.33	10.11	91.66	101.77	0.29	0.5	0.15
Rail	City Thameslink	'SVNOAKS-KNTSHTN 2E67'	808.57	0.33	10.11	91.66	101.77	0.29	0.5	0.15
Rail	City Thameslink	'BROMLYS-LUTON 2E93'	808.57	0.33	10.11	91.66	101.77	0.29	0.5	0.15
Rail	City Thameslink	'ORPNGTN-LUTON 2L59'	808.57	0.33	10.11	91.66	101.77	0.29	0.5	0.15
Rail	City Thameslink	'ORPNGTN-KNTSHTN 2L65'	808.57	0.33	10.11	91.66	101.77	0.29	0.5	0.15
Rail	City Thameslink	'BEDFDM-ELPHNAC 1J87'	808.57	0.33	10.11	91.66	101.77	0.29	0.5	0.15
Rail	City Thameslink	'BEDFDM-ELPHNAC 1J88'	808.57	0.33	10.11	91.66	101.77	0.29	0.5	0.15
LUL	Farringdon	'Edgware-Hammersmith'	898.68	6	11.23	5.75	16.98	1.77	0.5	0.88
LUL	Farringdon	'Barking-Hammersmith'	898.68	6.34	11.23	5.48	16.72	1.79	0.5	0.9
LUL	Farringdon	'Hammersmith-Plaistow'	898.68	1	11.23	30.75	41.98	0.71	0.5	0.36
LUL	Farringdon	'Aldgate-AmerFast'	898.68	1	11.23	30.75	41.98	0.71	0.5	0.36
LUL	Farringdon	'Ches-AldgateFast'	898.68	2	11.23	15.75	26.98	1.11	0.5	0.56
LUL	Farringdon	'Uxbridge-AldSlow'	898.68	5.33	11.23	6.38	17.61	1.7	0.5	0.85
LUL	Farringdon	'Watford-AldSfast'	898.68	3.67	11.23	8.92	20.16	1.49	0.5	0.74
LUL	Farringdon	'Aldg-WatfordSlow'	898.68	3.67	11.23	8.92	20.16	1.49	0.5	0.74
LUL	Farringdon	'Ald-HarrowHill'	898.68	1.33	11.23	23.31	34.54	0.87	0.5	0.43
LUL	Chancery Lane	'Epping-Ealing'	217	3	2.71	10.75	13.46	2.23	0.5	1.11
LUL	Chancery Lane	'WRuislip-Epping'	217	3	2.71	10.75	13.46	2.23	0.5	1.11
LUL	Chancery Lane	'RuislipGar-Epping'	217	1	2.71	30.75	33.46	0.9	0.5	0.45
LUL	Chancery Lane	'WhiteCity-Epping'	217	0.33	2.71	91.66	94.37	0.32	0.5	0.16
LUL	Chancery Lane	'Epping-NActon'	217	1	2.71	30.75	33.46	0.9	0.5	0.45
LUL	Chancery Lane	'Northolt-Epping'	217	0.67	2.71	45.53	48.24	0.62	0.5	0.31
LUL	Chancery Lane	'Debden-WRuislip'	217	0.33	2.71	91.66	94.37	0.32	0.5	0.16
LUL	Chancery Lane	'WhiteCity-Debden'	217	0.33	2.71	91.66	94.37	0.32	0.5	0.16
LUL	Chancery Lane	'Debden-Northolt'	217	1	2.71	30.75	33.46	0.9	0.5	0.45
LUL	Chancery Lane	'RuislipGdns-Debden'	217	0.33	2.71	91.66	94.37	0.32	0.5	0.16
LUL	Chancery Lane	'Loughton-WRuislip'	217	1	2.71	30.75	33.46	0.9	0.5	0.45
LUL	Chancery Lane	'NActon-Loughton'	217	0.67	2.71	45.53	48.24	0.62	0.5	0.31
LUL	Chancery Lane	'Loughton-WhiteCity'	217	0.67	2.71	45.53	48.24	0.62	0.5	0.31
LUL	Chancery Lane	'Loughton-Northolt'	217	0.33	2.71	91.66	94.37	0.32	0.5	0.16
LUL	Chancery Lane	'Ealing-Loughton'	217	1	2.71	30.75	33.46	0.9	0.5	0.45
LUL	Chancery Lane	'Ealing-NewburyPark'	217	0.67	2.71	45.53	48.24	0.62	0.5	0.31
LUL	Chancery Lane	'WRuislip-NewburyPark'	217	0.33	2.71	91.66	94.37	0.32	0.5	0.16
LUL	Chancery Lane	'NActon-NewburyPark'	217	0.33	2.71	91.66	94.37	0.32	0.5	0.16

Mode	Stop	Route	Distance (metres)	Frequency(vph)	Walk Time (mins)	SWT (mins)	TAT (mins)	EDF	Weight	AI
LUL	Chancery Lane	'Hainault-Ealing '	217	5.33	2.71	6.38	9.09	3.3	1	3.3
LUL	Chancery Lane	'Hainault-Nacton '	217	1.33	2.71	23.31	26.02	1.15	0.5	0.58
LUL	Chancery Lane	'Hainault-WRuislip '	217	3.33	2.71	9.76	12.47	2.41	0.5	1.2
LUL	Chancery Lane	'Hain-NP-RuislipGdns '	217	0.67	2.71	45.53	48.24	0.62	0.5	0.31
LUL	Chancery Lane	'WhiteCity-Hainault '	217	1.67	2.71	18.71	21.43	1.4	0.5	0.7
LUL	Chancery Lane	'Hainault-NP-Northolt'	217	1	2.71	30.75	33.46	0.9	0.5	0.45
LUL	Chancery Lane	'GrangeHill-WD-Eal '	217	1	2.71	30.75	33.46	0.9	0.5	0.45
LUL	Chancery Lane	'GrangeHill-Wolfd-Whit'	217	0.67	2.71	45.53	48.24	0.62	0.5	0.31
LUL	Chancery Lane	'GrangeHill-Wolfd-WRsp'	217	0.67	2.71	45.53	48.24	0.62	0.5	0.31
LUL	Holborn	'RuislipGdns-Loughton'	547.66	0.67	6.85	45.53	52.37	0.57	0.5	0.29
LUL	Holborn	'LHRT4-Cockfosters '	547.66	1	6.85	30.75	37.6	0.8	0.5	0.4
LUL	Holborn	'RayLane-Cockfosters '	547.66	3.67	6.85	8.92	15.77	1.9	0.5	0.95
LUL	Holborn	'ArnosGrove-LHRT4LT '	547.66	4	6.85	8.25	15.1	1.99	0.5	0.99
LUL	Holborn	'ArnosGrove-RayLane '	547.66	0.33	6.85	91.66	98.5	0.3	0.5	0.15
LUL	Holborn	'ArnosGrove-Nthfields'	547.66	3	6.85	10.75	17.6	1.7	0.5	0.85
LUL	Holborn	'Oakwood-RayLane '	547.66	0.33	6.85	91.66	98.5	0.3	0.5	0.15
LUL	Holborn	'Nthfields-Cockfoster'	547.66	1	6.85	30.75	37.6	0.8	0.5	0.4
LUL	Holborn	'Cockfosters-LHRT5'	547.66	3.33	6.85	9.76	16.6	1.81	0.5	0.9
LUL	Holborn	'Uxbridge-Cockfosters'	547.66	3.67	6.85	8.92	15.77	1.9	0.5	0.95
LUL	Holborn	'Ruislip-Cockfosters '	547.66	2.33	6.85	13.63	20.47	1.47	0.5	0.73
LUL	Holborn	'ArnosGrove-Uxbridge '	547.66	1	6.85	30.75	37.6	0.8	0.5	0.4
LUL	Holborn	'Oakwood-Uxbridge '	547.66	0.33	6.85	91.66	98.5	0.3	0.5	0.15
LUL	Holborn	'Oakwood-Ruislip '	547.66	0.33	6.85	91.66	98.5	0.3	0.5	0.15
Total Grid Cell AI:										79.32

## Appendix B

Bus Spider Map

# Day buses from Holborn

## Route finder

Bus route	Towards	Bus stops
1	Canada Water	B M
8	Tottenham Court Road	P S
19	Bow Church	B H
	Tottenham Court Road	K R
	Battersea Bridge	A B C
	Finsbury Park	B F G
25 24hr Daily	Ilford	B H
	Oxford Circus	K R
38	Clapton	B F G
	Victoria	A B C
55	Leyton	B F G
	Oxford Circus	A B C
59	King's Cross	N Y
	Streatham Hill	M X
68	Euston	N Y
	West Norwood	M X
91	Crouch End	N Y
	Trafalgar Square	M X
98	Willesden	W
168	Hampstead Heath	N Y
	Old Kent Road	M X
171	Bellingham	B M
188 24hr Daily	North Greenwich	M X
	Russell Square	N Y
242 24hr Daily	Homerton Hospital	B H
	Tottenham Court Road	K D S
243 24hr Daily	Waterloo	A M
	Wood Green	G P
521	London Bridge	H P
	Waterloo	K M
X68	Russell Square	N Y
	West Croydon	M X

For night bus information, please see separate poster

## Key

	Connections with London Underground
	Connections with London Overground
	Connections with TfL Rail
	Connections with National Rail
	Connections with Tramlink
	Connections with river boats
	Connections with Docklands Light Railway
	Connections with Emirates Air Line
	Limited stops, Mondays to Fridays afternoon peak hours only
	Mondays to Fridays morning peak hours only
	Mondays to Fridays
	Tube station with 24-hour service Friday and Saturday nights when Night Tube services operate

## 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.
	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

