

**PROPOSED MIXED USE DEVELOPMENT
HOLLOWAY HEAD, BIRMINGHAM**

Panther Securities
Transport Assessment

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Proposed Mixed-Use Development Holloway Head, Birmingham

Contents

1.0	INTRODUCTION	1
2.0	HIGHWAY CONTEXT	5
3.0	SUSTAINABLE TRANSPORT CONTEXT	8
4.0	DEVELOPMENT PROPOSALS	13
5.0	TRAFFIC DATA	17
6.0	SUMMARY & CONCLUSIONS	24

List of Tables

Table 1 – Census Data	15
Table 2 – TEMPRO Traffic Growth Rates	18
Table 3 – Trip Attraction of the Existing Offices	18
Table 4 – Trip Attraction of the Existing Car Showroom/Workshop	19
Table 5 – Trip Attraction of the Extant Offices	19
Table 6 – Trip Attraction of the Extant Hotel	20
Table 7 – Trip Attraction of the Extant Apartments	20
Table 8 – Trip Attraction of the Extant Car Showroom/Workshop	20
Table 9 – Trip Attraction of the Extant Casino	21
Table 10 – Trip Attraction of the Proposed Apartments	21
Table 11 – Net Development Effect	22
Table 12 – Trip Distributions	22
Table 13 – Traffic Impacts	23

**Proposed Mixed-Use Development
Holloway Head, Birmingham**

List of Appendices

Appendix 1	Existing Highway Layout
Appendix 2	Development Proposals
Appendix 3	Proposed Site Access Arrangements and Swept Path Analysis
Appendix 4	Surveyed 2014 Traffic Movements
Appendix 5	TEMPRO and 2018/2020 Base Traffic Flows
Appendix 6	TRICS Assessment
Appendix 7	Existing Office Flows
Appendix 8	Existing Car Workshop/Sales Flows
Appendix 9	Total Existing Site Flows
Appendix 10	Total Extant Site Flows
Appendix 11	Total Proposed Site Flows
Appendix 12	Net Development Effect
Appendix 13	2018 / 2020 Base Traffic Flows with Development

1.0 INTRODUCTION

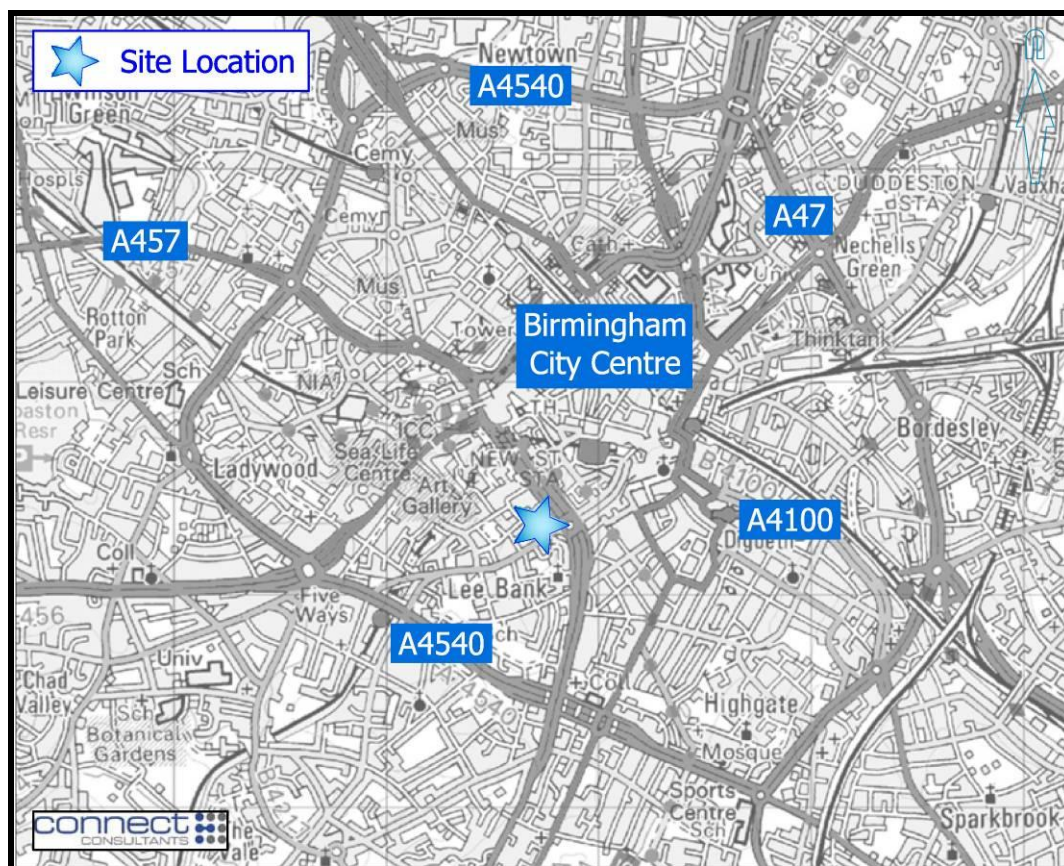
1.1 Background

- 1.1.1 Connect Consultants has been commissioned to prepare a Transport Assessment (TA) in relation to a planning application for a mixed-use development comprising A1 retail units alongside residential apartments at Holloway Head, Birmingham.
- 1.1.2 The proposal site has an extant planning permission (LPA Reference: 2010/06724/PA) for an alternative mixed-use development, details of which are also provided in this report.

1.2 Site Location and Characteristics

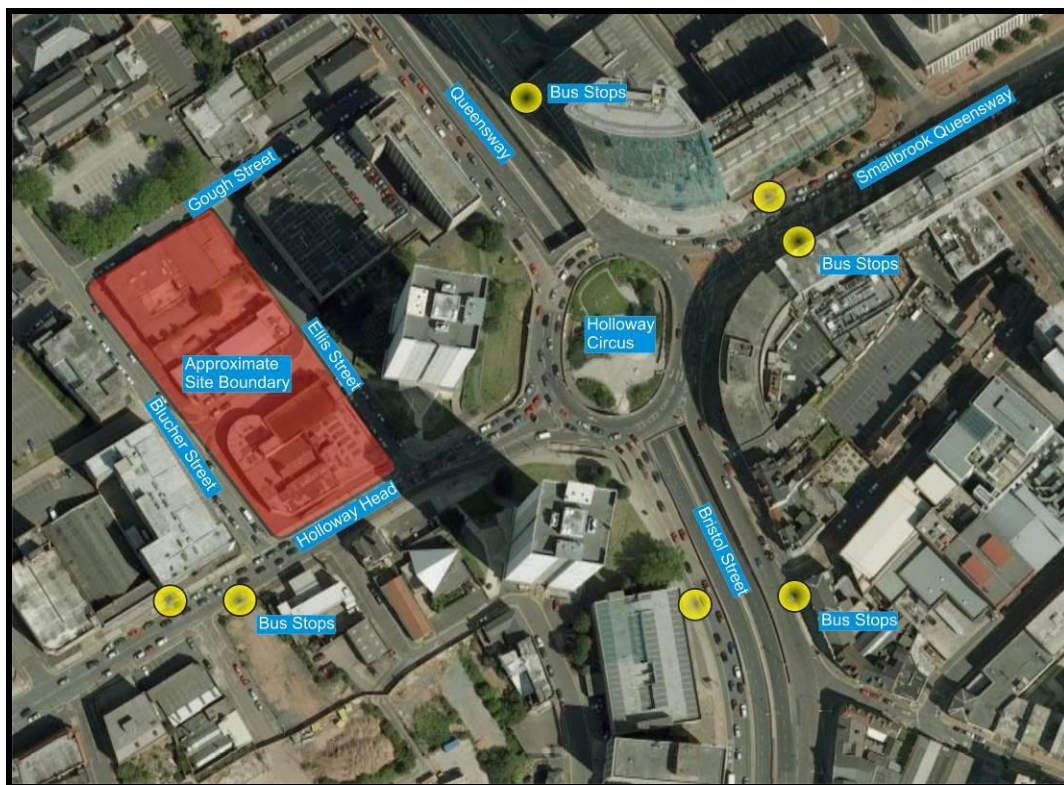
- 1.2.1 The site lies to the south-west of Birmingham City Centre on the northern side of Holloway Head approximately 60m to the west of the Holloway Circus Island as shown on the plan at **Inset 1**.

Inset 1 – Site Location Plan



- 1.2.2 The site is bound to the north by Gough Street, to the east by Ellis Street, to the south by Holloway Head and to the west by Blucher Street. The aerial photograph at **Inset 2** shows the site in its local context.

Inset 2 – Site in its Local Context



- 1.2.3 The site has been previously occupied by a mix of uses comprising offices, a car showroom / workshops, warehousing and a girl guide's centre. The existing site uses (and extant planning permission, detailed further below) result in the site having an established travel generation potential, albeit that a number of the buildings are currently vacant.
- 1.2.4 The site is located in an area which is densely developed for residential, employment and retail uses. Birmingham's main City Centre retail core is located to the north-east of the site and the retail frontage extends along Smallbrook Queensway to the Holloway Circus Island.
- 1.2.5 Birmingham New Street station, which provides Birmingham's main rail hub, is located approximately 450m to the north-east of the site.
- 1.2.6 Holloway Head and Smallbrook Queensway are bus routes and there are bus stops within easy walking distance from the site.
- 1.2.7 The site is linked to Birmingham City Centre by footways flanking Holloway Head and Smallbrook Queensway and pedestrian movements are assisted by the signalised pedestrian crossing facilities which are provided at the Holloway Circus Island.
- 1.2.8 Based on the above, the site is highly accessible by non-car travel modes by virtue of the local bus stops / Birmingham New Street Station and is located where it benefits from easy access to the vast range of local jobs, shops and services in central Birmingham.

- 1.2.9 The location of the site is therefore ideal to accommodate the proposed apartments.
- 1.2.10 The future residents of the proposed apartments will benefit from the vast range of jobs, shops and services in central Birmingham which are easily accessible by non-car travel modes from the proposal site. Thus, accommodating residential uses in this central location will minimise total travel demand when compared to a more peripheral location.
- 1.2.11 On this basis, irrespective of any local impacts, there is a soundly based justification for the re-use of the site to accommodate travel intensive land uses.

1.3 Existing Site Composition

- 1.3.1 The site is currently developed to provide a range of uses including the following:-
- Offices with a gross floor area (GFA) of 6,384 sq.m.
 - A car showroom with a GFA of 1,728 sq.m.
 - Warehousing with a GFA totalling 613 sq.m.
 - A Girl Guides Centre with a GFA of 500 sq.m.

1.4 Extant Site Composition

- 1.4.1 The proposal site has an extant planning permission (LPA Reference: 2010/06724/PA) for a mixed-use development, to provide the following uses:-
- Offices with a GFA of 9,344 sq.m.
 - A hotel with 125 rooms.
 - 303 apartments.
 - A car workshop/showroom with a GFA of 1,030 sq.m.
 - A casino with a GFA of 1,505 sq.m.
 - A replacement girl guides centre with a GFA of 990 sq.m.
 - A3 restaurants with a GFA of 505 sq.m.
 - 303 parking spaces.

1.5 Proposed Site Composition

- 1.5.1 The scheme proposal is to redevelop the site to provide the following uses:-
- 487 apartments, located in four blocks and subdivided over 14 storeys.
 - Two A1 retail units, located at ground floor level within the southernmost block, with a combined GFA of 468sq.m.
 - 200 parking spaces for the proposed residential apartments. 92 Parking spaces will be located on the southern part of the site (south of Brownsea Drive, which bisects the site), and 108 spaces will be located on the northern part of the site (to the north of Brownsea Drive).

1.5.2 Comparison of the extant and proposed site composition indicates that the net affect of the development would be as follows:-

- The removal of the office floor space from the scheme (i.e. 9,344sq.m.).
- The removal of a 125 room hotel from the scheme.
- 487 apartments will be provided, which is an increase of 184 units from the extant proposal.
- The removal of the 1,030sq.m car workshop/showroom from the scheme.
- The removal of the 1,505sq.m casino from the scheme.
- The removal of the 990sq.m girl guide's centre from the scheme.
- The removal of the 505sq.m A3 restaurants from the scheme.
- A1 retail will be provided, which is a 468sq.m increase compared to the extant proposal.
- 200 parking spaces, which is 103 spaces less than the extant development proposal.

1.6 Report Overview

1.6.1 This TA has been produced to assess the transport and traffic related changes compared to the extant planning permission and has been prepared to address the following main considerations:-

- The accessibility of the proposal site by sustainable transport modes.
- The accessibility of the proposal site from the existing road network.
- The safety record of the local road network.
- Car parking provision.
- Traffic attraction.

1.6.2 The remainder of this report is separated into five further sections as detailed below.

Section 2 describes highway context of the site including the safety record of the roads and junctions within a defined study area.

Section 3 assesses the accessibility of the proposal site by non-car travel modes.

Section 4 provides full details of the development proposals, including car parking.

Section 5 provides the traffic data used for the assessment.

Section 6 provides a summary along with our conclusions.

2.0 HIGHWAY CONTEXT

2.1 Introduction

- 2.1.1 This section of the report considers the highway context of the site including consideration of the safety record of a study area which includes Gough Street, Blucher Street, Ellis Street and Holloway Head local to the site including the Holloway Head / A41 / Smallbrook Queensway (Holloway Circus Island) junction.
- 2.1.2 A drawing showing the layout of the roads and junctions within the study area is provided at **Appendix 1**.

2.2 Highway Layout

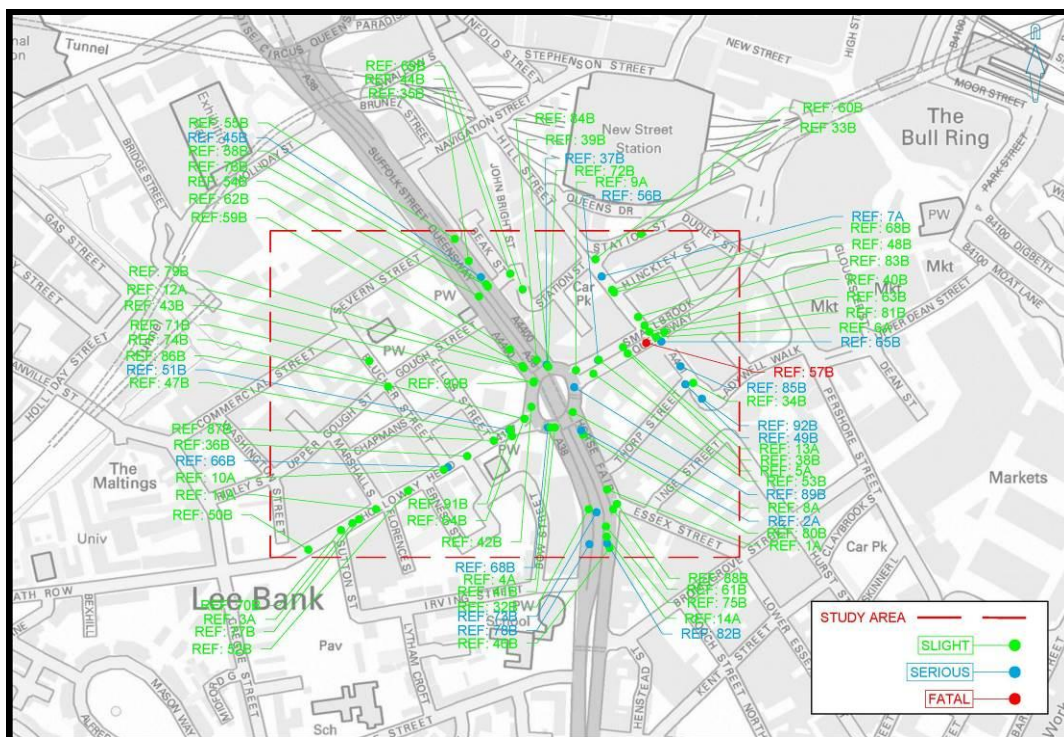
- 2.2.1 Local to the site, Holloway Head, Blucher Street, Ellis Street and Gough Street form a cordon around the development site.
- 2.2.2 Holloway Head forms the southern site boundary and is classified as the B4127 connecting Holloway Circus to the east with A4540 Islington Row Middleway to the west. Being a B class road, Holloway Head is an important local distributor road but is not part of Birmingham's strategic road network.
- 2.2.3 Holloway Head is a wide two-way road which is flanked by densely developed commercial and residential uses with high levels of associated frontage activity including on-street parking, accesses to individual properties, pedestrian crossing facilities, bus stops etc. Holloway Head has street-lighting and footways on either side of the carriageway.
- 2.2.4 Blucher Street and Ellis Street are one-way roads bounding the site to the west and east respectively. Ellis Street is restricted to one-way northbound and has a width of approximately 6.5m with on-street parking at various locations along its length. Blucher Street is a southbound one-way road with on-street parking and has a width of approximately 7m. Both Blucher Street and Ellis Street are street-lit and have footways on either side of the carriageway.
- 2.2.5 Gough Street to the north of the site is a one-way westbound road providing a connection between Ellis Street and Blucher Street. It has a width of approximately 7.5m with on-street parking, street lighting and has footways on either side of the carriageway.
- 2.2.6 Approximately 60m to the east of the site Holloway Head meets Suffolk Street and Smallbrook Queensway at the Holloway Circus Island. The roundabout has a diameter of approximately 70m and is a 4 arm grade separated junction with the A38 Suffolk Street Queensway passing under the junction in an underpass. The A38 northbound and southbound junction arms have 3 lane approaches to the junction whilst Holloway Head and Smallbrook Queensway arms have 2 lane approaches. The junction is partially signalised and includes signalised pedestrian facilities.
- 2.2.7 The A38 forms a strategic highway link within central Birmingham linking the City Centre to the ring road, city suburbs and beyond to Birmingham's orbital motorway system.
- 2.2.8 Approximately 800m to the west of the site B4127 Bath Row (continuation of Holloway Head) meets A4540 Islington Row Middleway at a left-in/left-out T-junction. A4540 Islington Row Middleway forms part of Birmingham's ring road.

- 2.2.9 Overall, the site benefits from a high level of accessibility to the local road network offering easy access from Birmingham and its hinterland.

2.3 Accident Analysis

- 2.3.1 Personal injury accident data has been obtained from Birmingham City Council for the study area for the most recent 5 year period for which data is available, this being 1st October 2008 to 31st September 2014. This shows that a total of 75 personal injury accidents have been recorded within the study area. **Inset 3** below identifies the distribution of collisions local to the proposal site.

Inset 3 – Accident Plan



- 2.3.2 Along the site frontages, the data identifies two accidents occurred at the Blucher Street / Holloway Head junction, one occurred at the Bow Street / Holloway Head junction, one occurred at the Ellis Street / Holloway Head junction and one occurred at the Blucher Street / Gough Street junction.
- 2.3.3 The Holloway Circus roundabout has a total of 27 accidents at the various nodes, including the grade separated under-pass to this junction and up to c50m of the approaches. Of these 27 accidents, there were five accidents at the Holloway Head approach (three of which were at the signalised pedestrian crossing), three accidents at the Suffolk Street southbound roundabout approach, two accidents at the Smallbrook Queensway roundabout approach, and three accidents on the Bristol Street northbound roundabout approach. All the remaining accidents occurred on the under-pass, junctions exits, and circulatory carriageway of the roundabout.

-
- 2.3.4 There were no specific locations (junctions or nodes at roundabout approaches or at larger junctions) where five or more accidents have occurred over the five year assessment period (i.e. 1 or more accident(s) per annum).
- 2.3.5 On this basis, and the basis of the flow data provided at **Section 5.0**, the proposed development is unlikely to materially worsen the occurrence of accidents at this location.

3.0 SUSTAINABLE TRANSPORT CONTEXT

3.1 Introduction

- 3.1.1 This section of the report considers the existing non-car travel opportunities which provide access to / from the site. This includes consideration of the existing pedestrian, cycle, bus and rail travel opportunities.

3.2 Pedestrian Accessibility

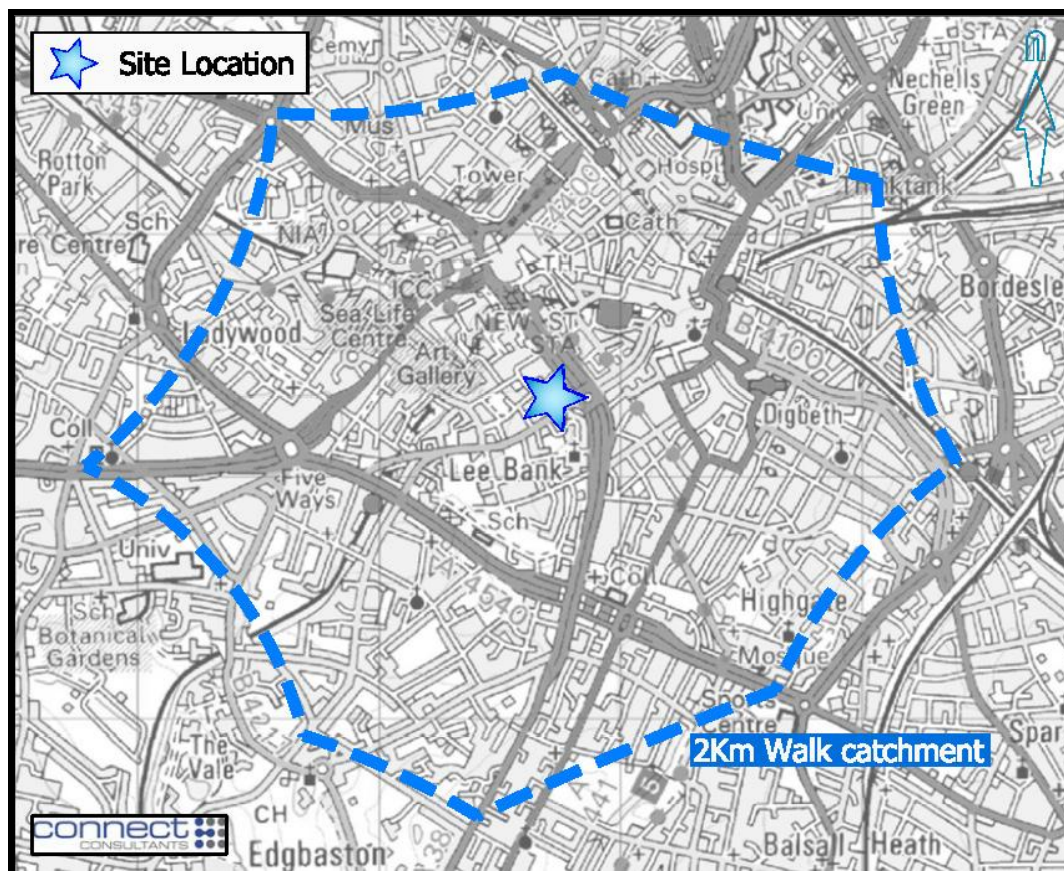
- 3.2.1 The Department for Transport's (DfT) document entitled 'Manual for Streets' dated 2007 sets out the requirements for pedestrians at Section 4.4 stating:-

"Walkable neighbourhoods are typically characterised by having a range of facilities within 10 minutes' (up to about 800m) walking distance of residential areas which residents may access comfortably on foot."

- 3.2.2 Table 3.2 of The Institute of Highways and Transportation (IHT) guidance document entitled 'Providing for Journeys on Foot' identifies a maximum walk distance of 2.0km for commuter, school and sightseeing walk trips, 800m for town centre walk trips and 1.2km for trips elsewhere.

- 3.2.3 The 2km walk catchment area is shown at **Inset 4** below.

Inset 4 – Pedestrian Walk Catchment Isochrone

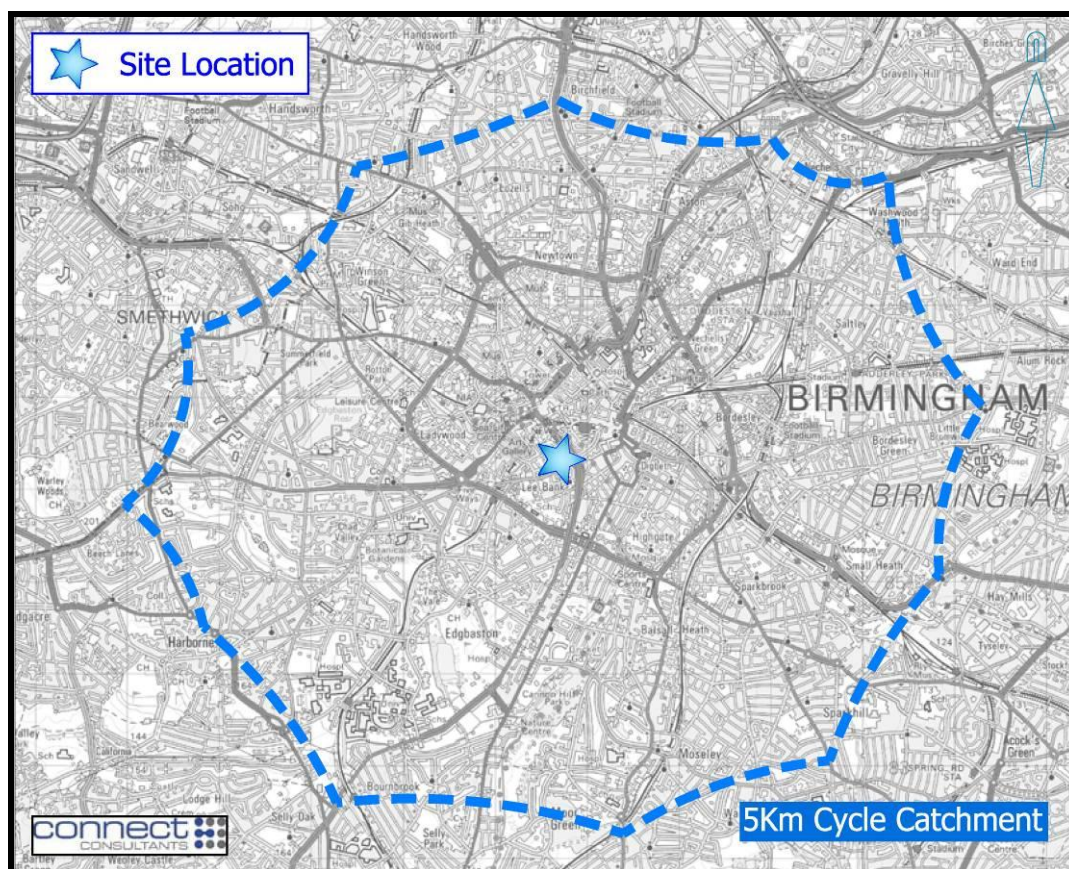


- 3.2.4 The proposal site is surrounded by a well developed pedestrian network that connects the site to local residential catchment areas along with Birmingham City Centre to the north-east of the site.
- 3.2.5 There are signalised pedestrian crossing facilities located on Holloway Head approximately 30m to the east of the site along with signalised crossing facilities at the Holloway Circus Island. These facilities provide safe and convenient connections linking the site to Birmingham City Centre and other local trip origins / destinations.
- 3.2.6 For the purposes of the assessment, it has been assumed that the area which is accessible by foot for future residents of the proposed apartments would be the area within the full 2km walk distance from the site.
- 3.2.7 On this basis, the future residents of the apartments would have access to a substantial array of jobs, shops and services by foot and a substantial number of potential visitors are located within walking distance of the site.
- 3.2.8 Overall, the proposed development is likely to result in a high proportion of trips by foot.

3.3 Cycle Accessibility

- 3.3.1 Sustrans indicate in their 'Travel Behaviour Research Baseline Survey – 2004' under the subheading 'measuring the potential for change' that cycling offers an alternative to car travel, and particularly for trips of less than 6 kilometres. This research is supported by the 2013 National Travel Survey, which specified average journey lengths, by cycle, of 5.3km (≈ 5 km).
- 3.3.2 Assuming a five kilometre maximum cycle distance, the catchment area of the site by cycle is shown at **Inset 5** below, which shows that a substantial area of Birmingham is within cycle distance of the proposal site.

Inset 5 – 5km Cycle Catchment



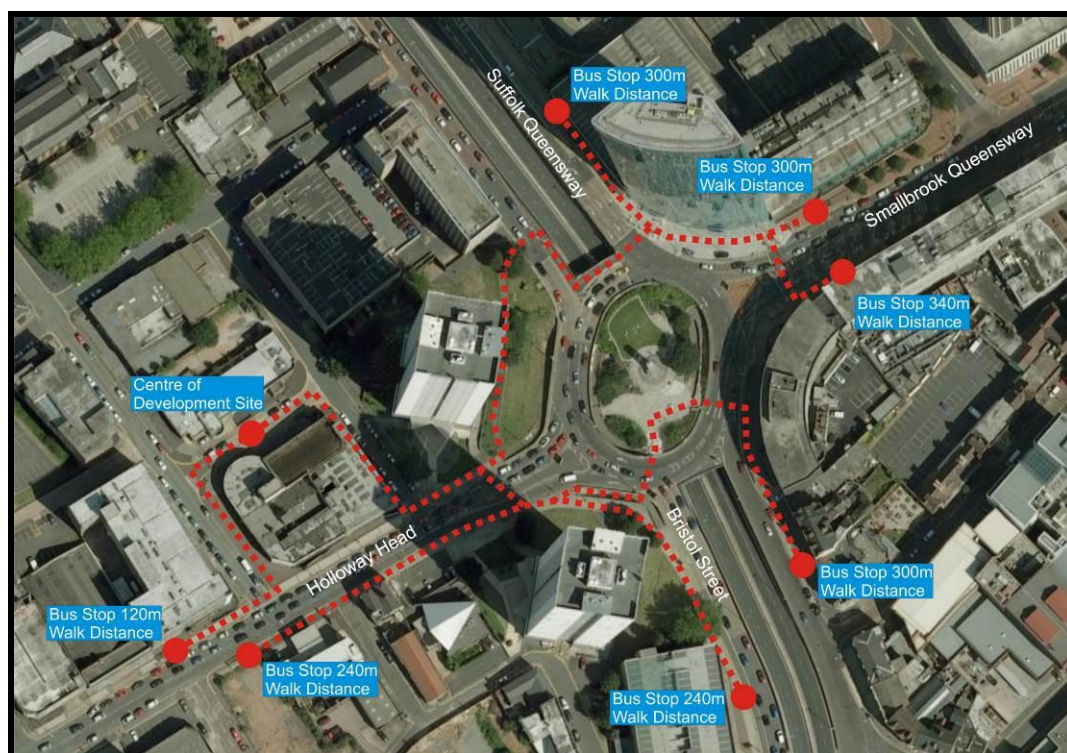
3.3.3 Cycling offers a potential alternative to car trips and provides the future residents of the apartments access to a very substantial range of employment opportunities.

3.4 Bus Accessibility

- 3.4.1 The nearest bus stop to the proposal site is an eastbound bus stop on Holloway Head which is located approximately 120m walk distance to the west of the centre of the proposal site. The nearest westbound Holloway Head bus stop is located opposite the eastbound bus stop and is approximately 240m walk distance from the centre of the site assuming that pedestrians utilise the signalised pedestrian crossing facilities to the east of the site.
- 3.4.2 In addition to this, there are bus stops located on Smallbrook Queensway, Bristol Street and Suffolk Street Queensway to the east of the site which provide access to additional bus services. All the bus stops are lit, have shelters and provide timetable information.

- 3.4.3 The publication entitled 'Planning for Public Transport in Developments' produced by the Institution of Highways and Transportation sets out that new developments should be located within 400 metres of the nearest bus stop. The proposed development clearly meets this criterion as the bus stops referred to above are within this maximum walk distance threshold.
- 3.4.4 A plan showing the site in relation to the Holloway Head, Smallbrook Queensway, Bristol Street, and Suffolk Street Queensway bus stops is provided below at **Inset 6**.

Inset 6 – Site in Relation to Local Bus Stops



- 3.4.5 There are 3 bus services that operate from the Holloway Head bus stops providing 9 buses per hour each way during the day. Details of these services are provided below.

Route 80: This service operates every 20 minutes Monday to Saturday between Birmingham and West Bromwich (and also via Smethwick);

Route 98: This service operates every 20 minutes during the day Monday to Saturday between Birmingham city centre and Rubery via Selly Oak and Northfield;

Route 99: This service operates every 20 minutes during the day Monday to Saturday. The service operates between Birmingham and Halesowen via Harborne, Worlds End and Hurst Green.

- 3.4.6 In addition to the above, there are 7 services operating from the Smallbrook Queensway, Bristol Street, and Suffolk Street Queensway bus stops and these provide a total of 29 buses per hour each way during the day. Details of these services are provided below.

Route 61: The service operates every 10 minutes during the day Monday to Sunday between Birmingham and Gannow via Selly Oak, Northfield, and Frankley;

Route 63: This service operates every 10 minutes during the day Monday to Saturday and every 20 minutes during the day on a Sunday between Birmingham city centre and Great Park via Selly Oak, Northfield, Longbridge, and Rubery;

Route 82: This service operates every 10 minutes during the day Monday to Saturday and every 60 minutes on a Sunday between Birmingham and Bearwood via Dudley Road and Cape Hill;

Route 87: This service operates every 10 minutes during the day Monday to Saturday and every 15-30 minutes during the day on a Sunday between Birmingham and Dudley via Cape Hill, Smethwick, and Oldbury;

Route X64: This service operates every 30 minutes Monday to Sunday between Birmingham and Ley Hill via Lee Bank, Selly Oak, and Bangham Pit;

Route 144: This service operates every 30 minutes Monday to Saturday and every 60 minutes on a Sunday between Birmingham and Worcester via Northfield, Bromsgrove, and Droitwich Spa;

Route 146: This service operates every 60 minutes Monday to Saturday between Birmingham and Redditch via King's Norton, West Heath, and Hopwood.

- 3.4.7 Considering the location of bus stops, the existing bus frequencies and the areas served by the bus routes, the site enjoys a very high level of accessibility by bus services. In conclusion, bus travel represents a viable alternative to the private car for trips to and from the proposed development.

3.5 Rail Accessibility

- 3.5.1 Birmingham New Street Station is located approximately 450m to the north-east of the site and provides Birmingham's main rail hub linking the City to the national rail network.
- 3.5.2 The IHT's publication entitled 'Planning for Public Transport in Developments' recommends a maximum walking distance of 800m to railway stations and the site is comfortably within the catchment area of New Street Station.
- 3.5.3 Rail travel therefore represents an attractive alternative to car travel to / from the proposal site.

3.6 Summary

- 3.6.1 The proposal site is highly accessible by a choice of travel modes including foot, cycle, bus and rail. The proposed development accords with planning policy being accessible by a choice of travel modes and because it will reduce reliance on the private car.

4.0 DEVELOPMENT PROPOSALS

4.1 Introduction

4.1.1 This section of the report provides details of the proposed development including its built form, access arrangements, and car parking.

4.2 Built Form

4.2.1 The proposal is to redevelop the site to provide the following uses:-

- 487 apartments, located in four blocks and subdivided over 14 storeys.
- Two A1 retail units, located at ground floor level within the southernmost block, with a combined GFA of 468sq.m.
- 200 parking spaces for the proposed residential apartments. 92 Parking spaces will be located on the southern part of the site, and 108 spaces will be located on the northern part of the site.

4.2.2 A drawing showing the proposed site layout is provided at **Appendix 2** along with a breakdown of the development at each floor level.

4.3 Vehicular Access

4.3.1 The proposed site access arrangements are shown on a drawing provided at **Appendix 3**.

4.3.2 The car park for the apartments located on the northern part of the site will be accessed via a new junction located on the eastern boundary of the site. The junction will be a simple priority junction access that will be located c25m north of the Ellis Street / Brownsea Drive junction. The proposed access will be located at the approximate position of an existing access serving the northern part of the site.

4.3.3 All remaining vehicular accesses to the northern site will be closed and reinstated as footway. Overall, the proposals on the northern site boundaries result in the potential to provide c10 additional on-street parking spaces.

4.3.4 The car park for the apartments located on the southern part of the site will be accessed via a new junction located on the eastern boundary of the site. The junction will be a simple priority junction access that will be located c25m north of the Ellis Street / Holloway Head junction.

4.3.5 All remaining vehicular accesses to the southern site will be closed and reinstated as footway. The proposed access results in the loss of four existing on-street parking spaces, but overall, considering the northern site, the proposals result in the potential to provide c6 additional on-street parking spaces.

4.3.6 The swept path of cars using the proposed car parking areas is demonstrated on the drawings also provided at **Appendix 3**.

4.4 Pedestrian / Cycle Access

- 4.4.1 Pedestrian access to the proposal site will be provided from the footways adjoining the roads that surround the site comprising Holloway Head, Brownsea Drive, Gough Street, Ellis Street, and Blucher Street.
- 4.4.2 Cycle access will be provided from the pedestrian and vehicular access arrangements, and suitable cycle storage will be provided within the car park areas and the central courtyards at ground level.

4.5 Car Parking Provision

- 4.5.1 The proposal is to serve the site by circa 200 car parking spaces which will be allocated to the proposed residential dwellings.
- 4.5.2 The car parking standards that are applicable to the proposed development are set out in the Birmingham City Council (BCC) document entitled 'Car Parking Guidelines, Supplementary Planning Document' dated February 2012. The document sets out the following maximum parking standards:

Apartments: 1 space per residential dwelling.

A1 Retail: 1 space per 28sq.m for convenience retail.

- 4.5.3 By applying the maximum car parking standards to the above elements of the proposed development, the maximum permitted number of spaces for each aspect of the development has been detailed below:-
- 487 spaces for the residential development.
 - 17 spaces for the retail development.
- 4.5.4 The proposed car parking provision of 200 spaces provides 1 space per 2.4 dwellings. No spaces are proposed for the proposed retail units; however, pay and display parking bays are located on the roads surrounding the site. Therefore, the proposed development accords with the parking requirements.

- 4.5.5 Data has been extracted from the 2011 Census to review statistics for the 'Super Output Area Lower Layer' areas surrounding the site, and thus determine the appropriateness of parking provisions for the proposed development. **Table 1** below includes the data.

Table 1 – Census Data

Information (Car Ownership)	Total Households	Percentage	
No Cars/Vans in Household	2,298	58%	
1 or More Cars/Vans in Household	1,638	42%	
Information (Method of Travel to Work)	Total Persons	Percentage	Percentage
Driving a Car or Van	1,095	27%	29%
Passenger in a Car or Van	71	2%	
Walk	1,684	42%	71%
Cycle	54	1%	
Public Transport	1,071	27%	
Other	31	1%	

- 4.5.6 The above data highlights that the majority (58%) of households local to the site had no cars when the 2011 Census was undertaken, with the average number of cars per household being just 0.49.
- 4.5.7 The census data also highlights that 71% of travel to work journeys from dwellings local to the site are undertaken by non-car travel modes.
- 4.5.8 Therefore, the provision of 200 spaces, which is less than the maximum of 1 space per dwelling reflects the non-car accessibility credentials of the site along with the travel habits of existing residents. The proposed provision is slightly less than existing car ownership levels (0.41 car spaces per dwelling), but new residents will purchase / move into the flats with the knowledge of the proposed parking arrangements.
- 4.5.9 In the case of the retail use, this is likely to be ancillary to other city centre activities.

4.6 Cycle Parking Provision

- 4.6.1 The relevant cycle parking standards for developments are set out in BCC's document entitled 'Car Parking Guidelines, Supplementary Planning Document' dated February 2012 which set out the following:
- Residential – 1 space per apartment.
 - Convenience Retail – 1 space per 125sq.m.
- 4.6.2 By applying these standards to the proposed development quantum, the standards equate to 487 cycle spaces for the proposed dwellings and 3-4 spaces for the proposed retail.
- 4.6.3 The site is located within easy walking distance of central Birmingham such that many trips which would be made from a peripheral location by cycle will manifest as walk trips to / from this site.
- 4.6.4 That being said, it is proposed to provide cycle hoops within the central courtyards of the two development areas; each of the courtyards will benefit from good natural surveillance. It is also proposed to provide cycle storage rooms within the parking areas of both the northern and southern sites.

5.0 TRAFFIC DATA

5.1 Introduction

5.1.1 This section of the report considers the potential trip attraction and traffic effect of the proposed development compared to the potential traffic attraction of the existing and the extant land uses. The assessment has been undertaken using data from the TRICS database.

5.2 Existing Traffic Flows

5.2.1 The traffic flows obtained for the study area junctions for which an assessment has been undertaken are set out below along with the dates that each survey was undertaken.

- Holloway Head / Blucher Street and Holloway Head / Ellis Street priority junctions – Wednesday 26th February 2014.
- Holloway Head / Smallbrook Queensway partially signalised roundabout junction – Wednesday 26th February 2014.

5.2.2 The weekday surveys were undertaken to capture the morning and evening peak periods. This assessment focuses on the 60 minute periods when the local highway network is at its peak and is a worst case approach for assessing the impacts of the development.

5.2.3 The weekday morning and weekday evening peaks are as listed below. The peak hour flows are shown in the diagrams at **Appendix 4**.

- Weekday AM Peak 08:15 to 09:15
- Weekday PM Peak 17:30 to 18:30

5.3 Base Traffic Flows

5.3.1 This assessment considers the traffic flows at assumed future years of 2018 and 2020 (application year plus 5 years).

5.3.2 Growth factors have been applied to the 2014 traffic flows at **Appendix 4** to represent the future year to account for projected economic growth and local development forecasts.

5.3.3 The growth factors have been derived based on the TEMPRO version 6.2 database for between 2014 and 2018/2020. This has been adjusted based on the TEMPRO output for car drivers for the graphical area of Birmingham and the results of the study are summarised below at **Table 2**.

Table 2 – TEMPRO Traffic Growth Rates

Peak Period	2014 to 2018	2014 to 2020
	Resultant Growth	Resultant Growth
Weekday AM Peak	1.0605	1.0954
Weekday PM Peak	1.0582	1.0918

5.3.4 Full details of the TEMPRO assessment are contained at **Appendix 5** together with diagrams showing the projected 2018/2020 base traffic flows.

5.4 Existing Site Potential Trip Attraction

5.4.1 The vehicular attraction of the existing, permitted and proposed on-site uses has been undertaken by reference to the TRICS trip attraction assessment contained within the Connect Consultants March 2014 Transport Assessment (produced for the permitted development scheme).

Offices

5.4.2 The potential traffic attraction of the existing offices has been assessed using the TRICS version7 database, based on all sites within the category 'Employment - Offices' with a population greater than 250,000 within 5 miles of the site.

5.4.3 Average trip rates have been derived from the datasets and the trip rates along with the trip attraction is set out at **Table 3** below, while **Appendix 6** provides full details of the TRICS assessment.

Table 3 – Trip Attraction of the Existing Offices

Peak Hour	Trip Rates			Trip Attraction		
	In	Out	Total	In	Out	Total
AM Peak	1.167	0.241	1.408	75	15	90
PM Peak	0.151	0.675	0.826	10	43	53

Car Showroom / Workshop

5.4.4 The potential traffic attraction of the existing car showroom and workshop has been assessed using version 7 of the TRICS database, based on all sites within the category 'Car Showrooms' with a population greater than 250,000 within 5 miles of the site.

5.4.5 Average trip rates have been derived from the dataset and the trip rates along with the trip attraction is set out at **Table 4** below while **Appendix 6** provides full details of the TRICS assessment.

Table 4 – Trip Attraction of the Existing Car Showroom/Workshop

Peak Hour	Trip Rates			Trip Attraction		
	In	Out	Total	In	Out	Total
AM Peak	0.646	0.278	0.924	11	5	16
PM Peak	0.278	0.526	0.804	5	9	14

- 5.4.6 Whilst the existing composition includes a girl guides centre and warehousing, it has been assumed that the trip attraction of these elements of the existing site will be negligible during the peak hours considered during the assessment, and therefore have not been considered as part of the trip attraction assessment.
- 5.4.7 The distribution of the existing site flows has been identified at **Section 5.8** below.
- 5.4.8 The traffic attraction of the existing offices has been shown on the diagrams at **Appendix 7**. The trip attraction of the car showroom/workshop is shown on the diagrams at **Appendix 8**.

5.5 Extant Development Proposal Trip Attractions

- 5.5.1 The trip attraction of each aspect of the extant development has been identified below.
- Offices
- 5.5.2 Average trip rates have been derived from the dataset identified for the existing office use above and the trip rates along with the trip attraction is set out at **Table 5** below while **Appendix 6** provides full details of the TRICS assessment.

Table 5 – Trip Attraction of the Extant Offices

Peak Hour	Trip Rates			Trip Attraction		
	In	Out	Total	In	Out	Total
AM Peak	1.167	0.241	1.408	109	23	132
PM Peak	0.151	0.675	0.826	14	63	77

Hotel

- 5.5.3 The traffic attraction of the extant hotel has been assessed using the TRICS database, based on all sites located at Town Centre or Edge of Town Centre locations within the category 'Hotel, Food and Drink - Hotel' with a population greater than 250,000 within 5 miles of the site.

- 5.5.4 Average trip rates have been derived from the dataset and the trip rates along with the trip attraction is set out at **Table 6** below while **Appendix 6** provides full details of the TRICS assessment.

Table 6 – Trip Attraction of the Extant Hotel

Peak Hour	Trip Rates			Trip Attraction		
	In	Out	Total	In	Out	Total
AM Peak	0.063	0.090	0.153	8	11	19
PM Peak	0.078	0.053	0.131	10	7	16

Apartments

- 5.5.5 The potential traffic attraction of the extant apartments has been assessed using the TRICS database, based on all sites at Town Centre locations within the category 'Residential – Flats Privately Owned' with a population greater than 250,000 within 5 miles of the site.
- 5.5.6 Average trip rates have been derived from the dataset and the trip rates along with the trip attraction is set out at **Table 7** below while **Appendix 6** provides full details of the TRICS assessment.

Table 7 – Trip Attraction of the Extant Apartments

Peak Hour	Trip Rates			Trip Attraction		
	In	Out	Total	In	Out	Total
AM Peak	0.008	0.028	0.036	2	8	11
PM Peak	0.028	0.008	0.036	8	2	11

Car Showroom / Workshop

- 5.5.7 Average trip rates have been derived from the dataset identified for the existing car workshop identified above and the trip rates along with the trip attraction is set out at **Table 8** below while **Appendix 6** provides full details of the TRICS assessment.

Table 8 – Trip Attraction of the Extant Car Showroom/Workshop

Peak Hour	Trip Rates			Trip Attraction		
	In	Out	Total	In	Out	Total
AM Peak	0.646	0.278	0.924	7	3	10
PM Peak	0.278	0.526	0.804	3	5	8

Casino

- 5.5.8 The traffic attraction of the extant casino has been assessed the TRICS database, based on all sites within the category 'Casino'.
- 5.5.9 Average trip rates have been derived from the dataset and the trip rates along with the trip attraction is set out at **Table 9** below while **Appendix 6** provides full details of the TRICS assessment.

Table 9 – Trip Attraction of the Extant Casino

Peak Hour	Trip Rates			Trip Attraction		
	In	Out	Total	In	Out	Total
AM Peak	0.000	0.000	0.000	0	0	0
PM Peak	0.011	0.000	0.011	0	0	0

- 5.5.10 Whilst the extant composition includes a girl guides centre and restaurants, it has been assumed that the trip attraction of girl guides centre will be negligible during the peak hours considered during the assessment and the restaurant flows will be ancillary to the casino development / complementary land uses in central Birmingham, and therefore have not been considered as part of the trip attraction assessment.

5.6 Development Proposal Trip Attractions

Retail Unit

- 5.6.1 Similar to the treatment of the extant A3 units, whilst the development proposal includes a retail unit, the proposal does not include any specific on-site parking for this unit, and it is likely to be ancillary to other city centre activities. Therefore, it has been assumed that the trip attraction retail unit will be negligible during the peak hours considered during the assessment and so has not been considered further as part of the trip attraction assessment.

Apartments

- 5.6.2 The potential traffic attraction of the proposed apartments has been assessed using the same trip rates identified for the extant apartments.
- 5.6.3 Average trip rates have been derived from the dataset and the trip rates along with the trip attraction is set out at **Table 10** below while **Appendix 6** provides full details of the TRICS assessment.

Table 10 – Trip Attraction of the Proposed Apartments

Peak Hour	Trip Rates			Trip Attraction		
	In	Out	Total	In	Out	Total
AM Peak	0.008	0.028	0.036	4	14	18
PM Peak	0.028	0.008	0.036	14	4	18

5.7 Net Development Effect

- 5.7.1 The net effect of the development is determined by subtracting the total existing and extant trip generation potential of the site from the proposed traffic attraction. This has been identified at **Table 11** below.

Table 11 – Net Development Effect

Peak Hour	Net Development Subtract Existing Trips			Net Development Subtract Extant Trips		
	IN	OUT	TOTAL	IN	OUT	TOTAL
AM Peak	-82	-6	-88	-122	-31	-153
PM Peak	-1	-48	-49	-21	-74	-95

5.8 Trip Distributions

- 5.8.1 The distribution of existing, extant, and proposed trips has been undertaken assuming the proportions identified at **Table 12** below. This is judgement based having regard to the relative importance of routes and the areas which they serve.

Table 12 – Trip Distributions

Origin / Destination	Percentage (%)
Holloway Head (W)	20.0%
Smallbrook Queensway (E)	0.0%
A38 (S)	40.0%
A41 (N)	40.0%

- 5.8.2 While it is possible for drivers to arrive / depart via Smallbrook Queensway, it is unlikely that they would do this unless their trip is linked with a land use in the city centre.
- 5.8.3 Given the relatively low number of additional site trips (as an absolute figure), the distribution assumptions are not particularly sensitive. Also, drivers will have the opportunity to vary their route to avoid congestion so the distribution is likely to be self adjusting to reduce congestion and not create it.
- 5.8.4 Appendices containing diagrams showing the trip attractions of each development component, along with net effect and base year scenarios have been identified as follows:-
- **Appendix 9:** Total Existing Site Flows;
 - **Appendix 10:** Total Extant Site Flows;
 - **Appendix 11:** Total Proposed Site Flows;
 - **Appendix 12:** Net Development Effect (compared to both existing and extant);
 - **Appendix 13:** 2018 / 2020 Base Traffic Flows with Development

5.9 Traffic Impact

5.9.1 **Appendix 12** includes diagrams which indicate the net development impact within the study area network. The results indicate the following impacts at the study area junctions:-

Table 13 – Traffic Impacts

AM Peak Hour	2014	2020 Base with Extant	2020 Base with Development	Percentage Impact
Holloway Circus Roundabout				
Suffolk Street	1,352	1,531	1,483	-3.2%
Smallbrook Queensway	542	594	594	0.0%
Bristol Street	597	704	656	-6.9%
Holloway Head	632	728	703	-3.5%
Total	3,123	3,558	3,435	-3.5%
Ellis Street Priority				
Holloway Head W	641	763	714	-6.5%
Holloway Head E	973	1,167	1,069	-8.4%
Total	1,614	1,930	1,783	-7.6%
Blucher Street Priority				
Holloway Head W	526	601	577	-4.1%
Blucher Street	109	165	133	-19.1%
Total	635	766	710	-7.3%
PM Peak Hour	2014	2020 Base with Extant	2020 Base with Development	Percentage Impact
Holloway Circus Roundabout				
Suffolk Street	1,186	1,309	1,300	-0.7%
Smallbrook Queensway	657	717	717	0.0%
Bristol Street	792	879	870	-1.0%
Holloway Head	880	1,023	964	-5.8%
Total	3,515	3,928	3,852	-1.9%
Ellis Street Priority				
Holloway Head W	885	1,035	972	-6.1%
Holloway Head E	908	1,020	1,002	-1.7%
Total	1,793	2,055	1,974	-3.9%
Blucher Street Priority				
Holloway Head W	744	819	815	-0.5%
Blucher Street	772	920	847	-8.0%
Total	1,516	1,740	1,662	-4.5%

5.9.2 The traffic affects of the proposals shown at **Table 13** and **Appendix 12** demonstrates that the impact of the proposed redevelopment will be minimal and less than the attraction associated with the permitted development scheme (as confirmed by the negative impact figures). The effects are especially low in the context of the high background traffic flows on Holloway Head and the A38 Island.

5.9.3 The assessment identifies that the modelling of these junctions is not required given the negligible impact of the development and based on the above, the operation of the roads and junctions local to the site are unlikely to change as a result of the proposals.

6.0 SUMMARY & CONCLUSIONS

6.1 Summary

6.1.1 This report has been prepared by Connect Consultants to consider proposals to re-develop a site at Holloway Head, Birmingham.

6.1.2 The report is considers a development comprising the following elements:-

- 487 apartments, located in four blocks and subdivided over 14 storeys.
- Two A1 retail units, located at ground floor level within the southernmost block, with a combined GFA of 468sq.m.
- 200 parking spaces for the proposed residential apartments. 92 Parking spaces will be located on the southern part of the site, and 108 spaces will be located on the northern part of the site.

6.1.3 The report is summarised as follows:-

- Car parking will be accommodated by 200 car parking bays, which is appropriate given the location of the development site.
- The report has demonstrated that the site is highly accessible by a choice of means of transport, including walking, cycling and public transport.
- The proposal to utilise the site for a high density development is soundly based given that the overall transport affect of accommodating these land uses where the benefit from the city centre travel opportunities and facilities will outweigh and local impacts.
- A trip attraction assessment of the proposed site and the existing composition has been undertaken using trip rates derived from the TRICS database. The traffic analysis indicates that the proposed redevelopment would not significantly increase traffic flows on the local road network.
- The proposals would not have any negative bearing on road safety given that net traffic flows would not significantly alter.

6.2 Conclusions

6.2.1 The site is highly accessible by a choice of travel modes. The traffic impact of the redevelopment would be within acceptable limits and there are no road safety issues which might have an adverse bearing on its acceptability. We therefore conclude that the proposal is acceptable from a transport perspective.

Appendix 1

Existing Highway Layout



rev.	amendment	date
connect CONSULTANTS		
78 Broad Street Chipping Sodbury Bristol BS37 6AG t: 01454 320020 f: 01454 320099 w: www.connect-consultants.com		
client Panther Securities Ltd		
project Proposed Development Holloway Head		
scale	1:500	drawn by TAS checked by
date	July 2009	cad file C4-09001-holloway.dwg
title Existing Highway Layout		
drawing number	C4 - 09001 - 001	
		rev.

Appendix 2

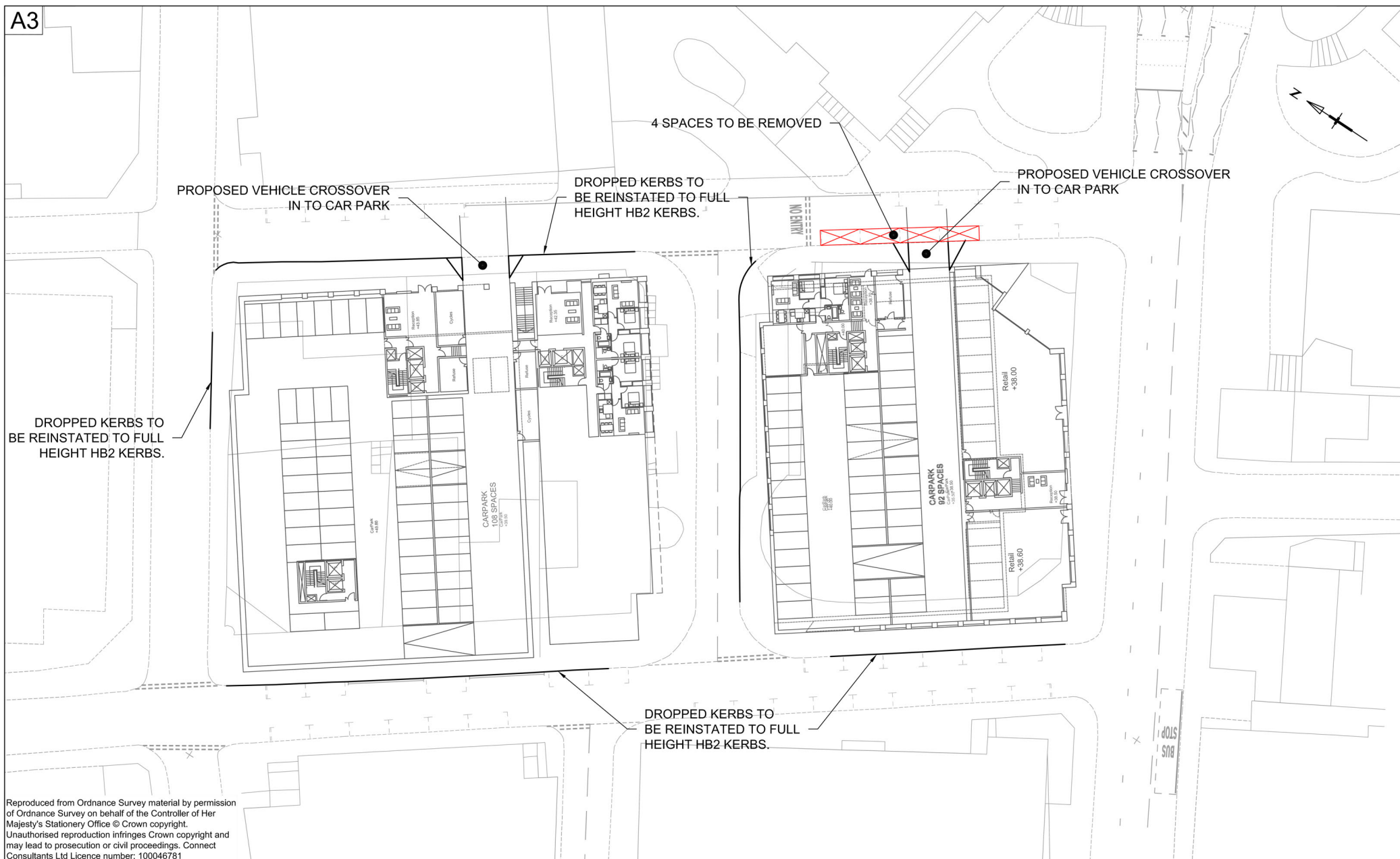
Development Proposals



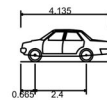
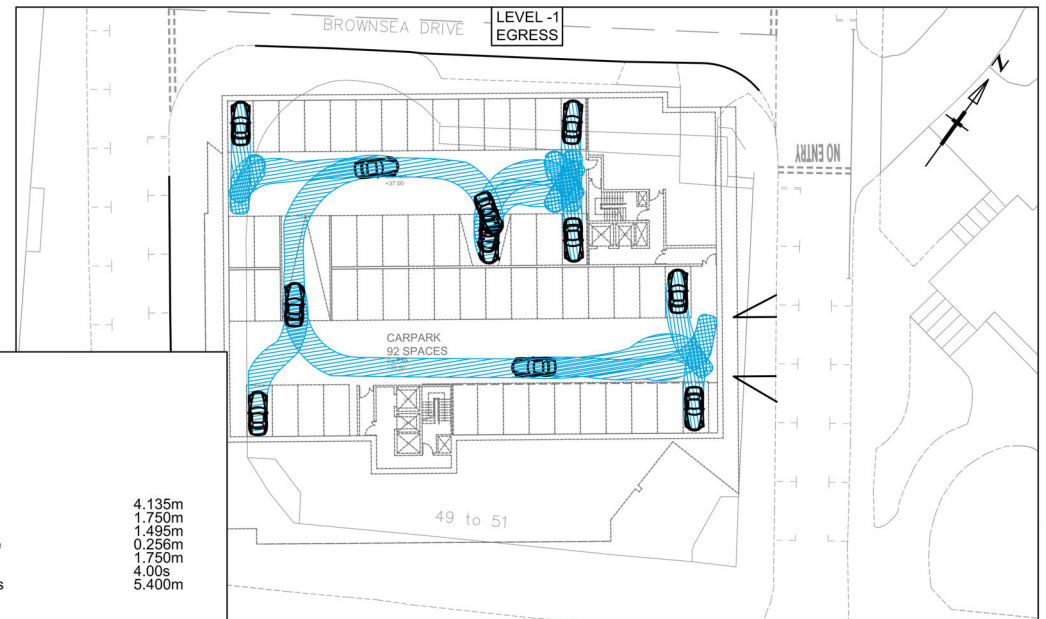
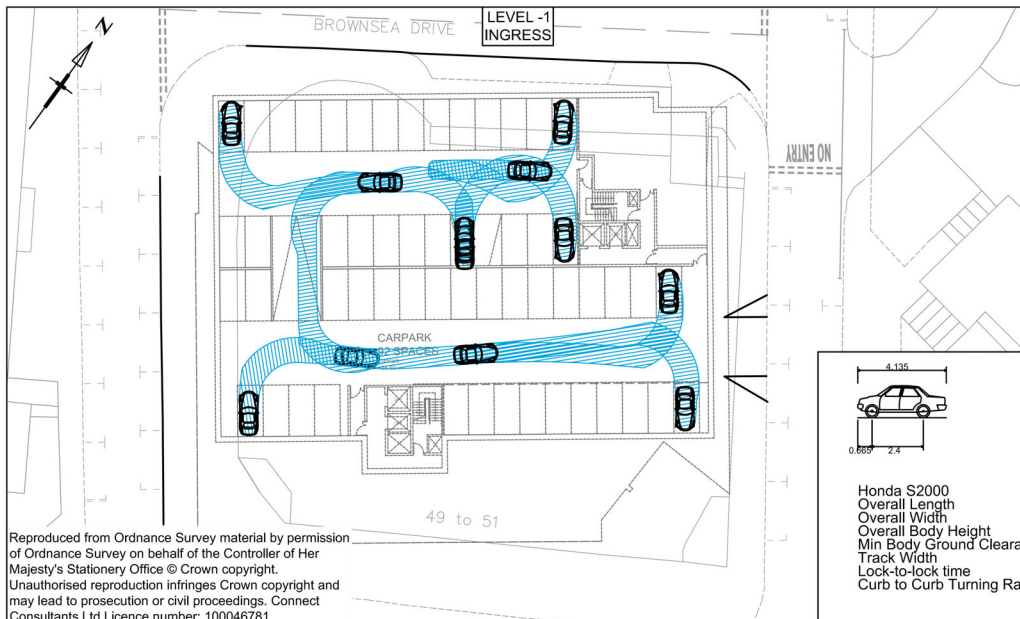
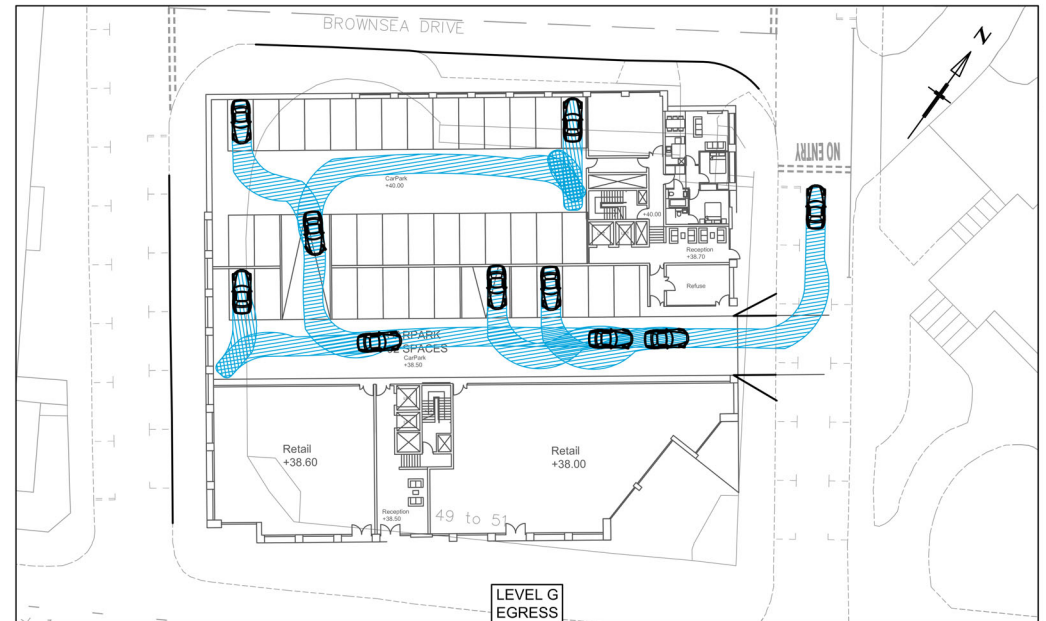
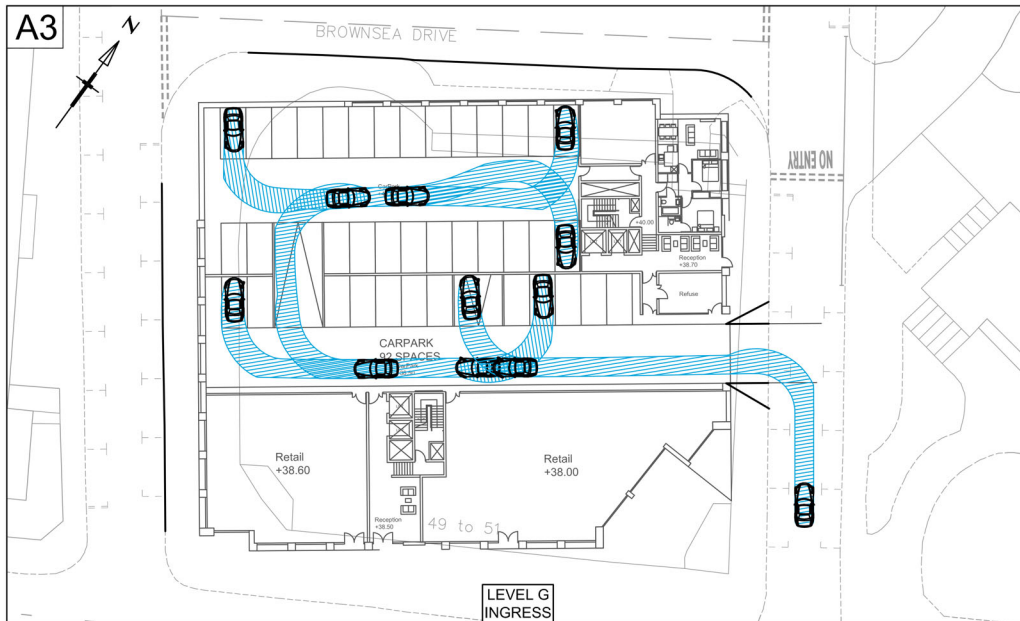
REV	DATE	NOTES
Client		
PANTHER SECURITIES		
Project		
HOLLOWAY HEAD		
Drawing Title		
PROPOSED LOCATION PLAN		
Drawn	Checked	Paper Size
TM	ML	A1
Scale	1:500	Date
Project No.	14135	May 2014
Drawing No.	100	Revision
		X

**Appendix 3
Proposed Site Access
Arrangements and Swept
Path Analysis**

A3



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Honda S2000
Overall Length
Overall Width
Overall Body Height
Min Body Ground Clearance
Track Width
Lock-to-lock time
Curb to Curb Turning Radius

4.135m
1.750m
1.495m
0.256m
1.750m
4.00s
5.400m

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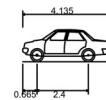
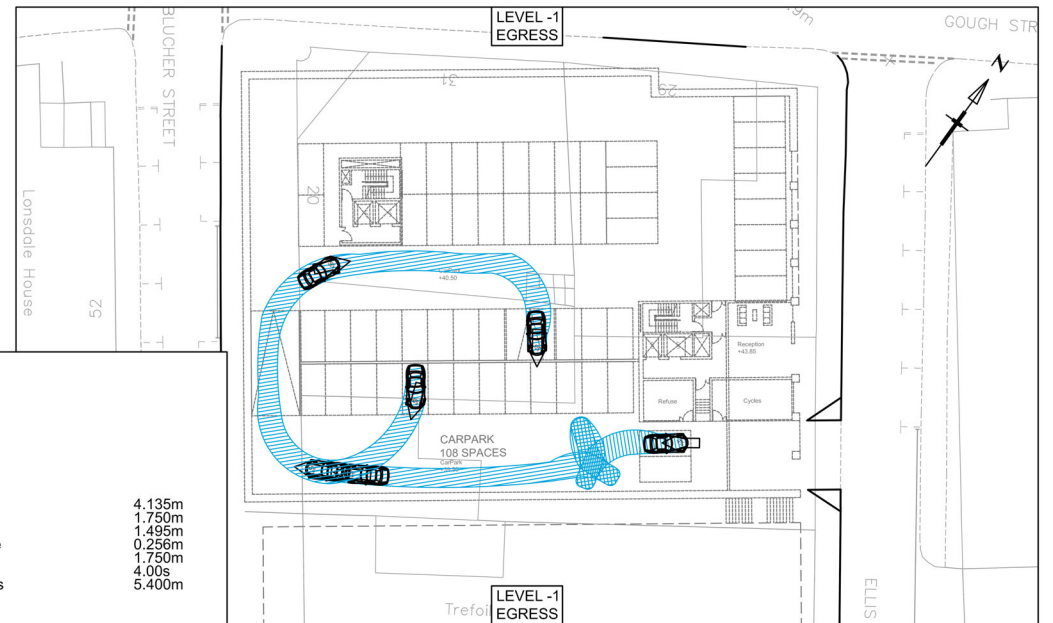
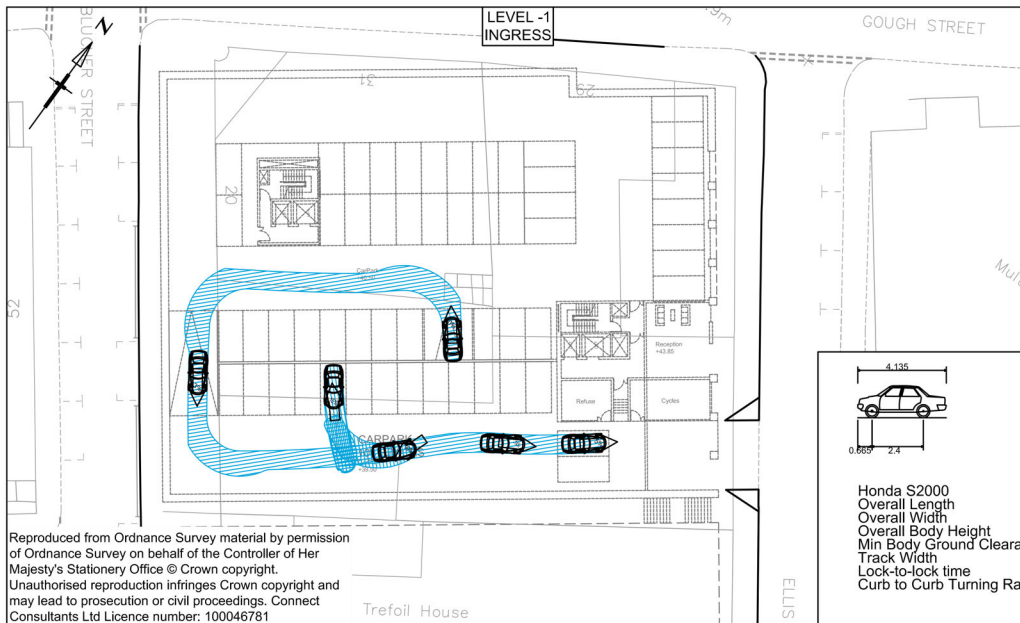
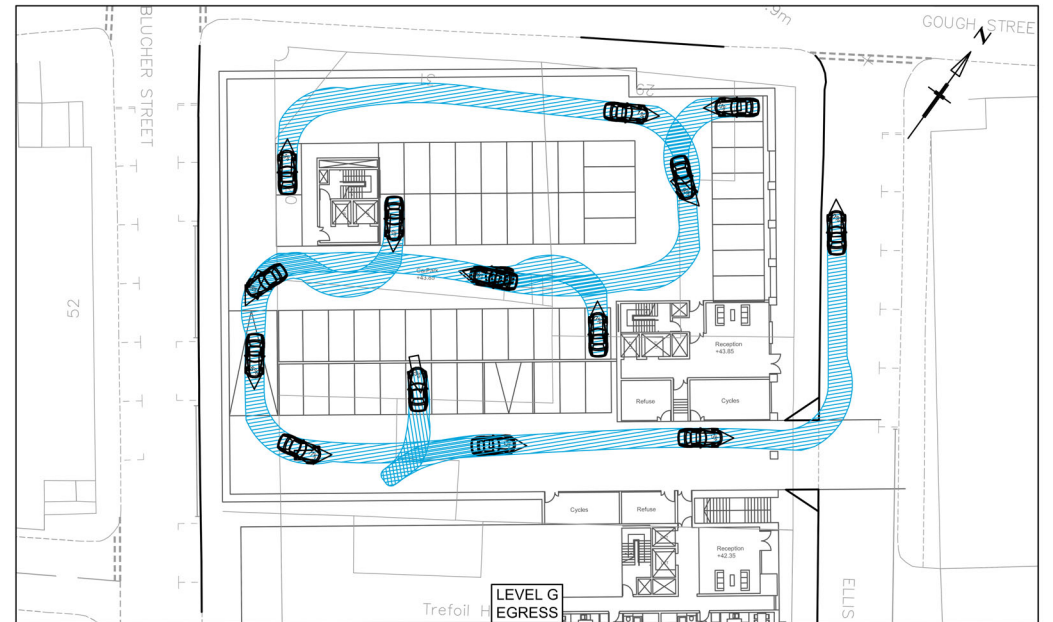
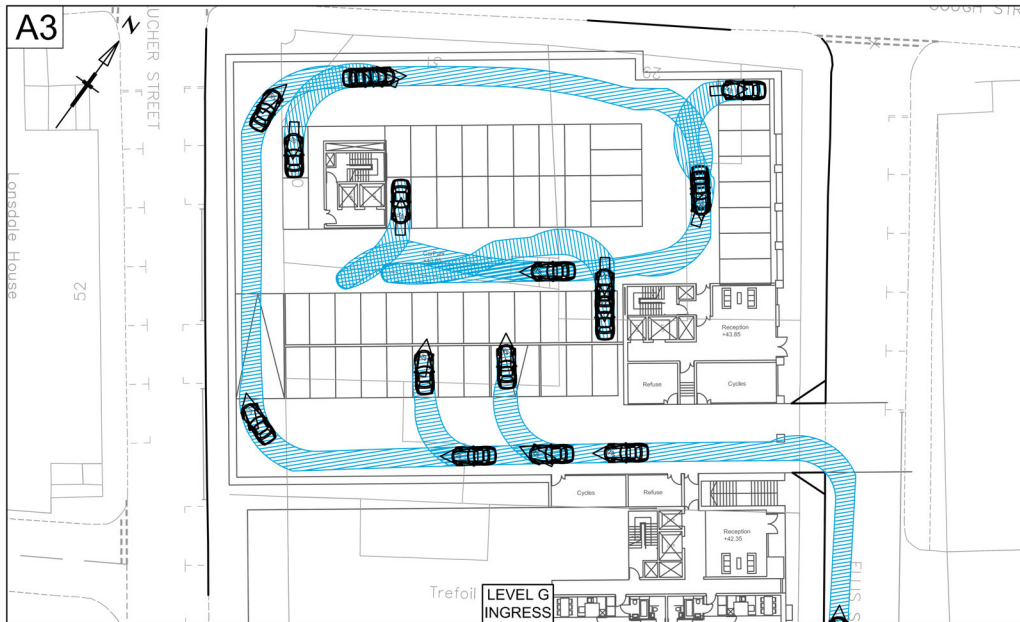
QUALITY MANAGEMENT SYSTEM
ISO 9001 : 2008 FS 59947

client
PANTHER SECURITIES

project
**PROPOSED DEVELOPMENT
HOLLOWAY ROAD,
HOLLOWAY HEAD**

title
**SWEEP PATH ANALYSIS
SOUTH BUILDING**

scale 1:500	drawn by T.A.S	checked by D.P.H
date JUNE 15	cad file 09001-TR001.dwg	rev. A
drawing number 09001-TR001		



Honda S2000
Overall Length 4.135m
Overall Width 1.750m
Overall Body Height 1.495m
Min Body Ground Clearance 0.256m
Track Width 1.750m
Lock-to-lock time 4.00s
Curb to Curb Turning Radius 5.400m

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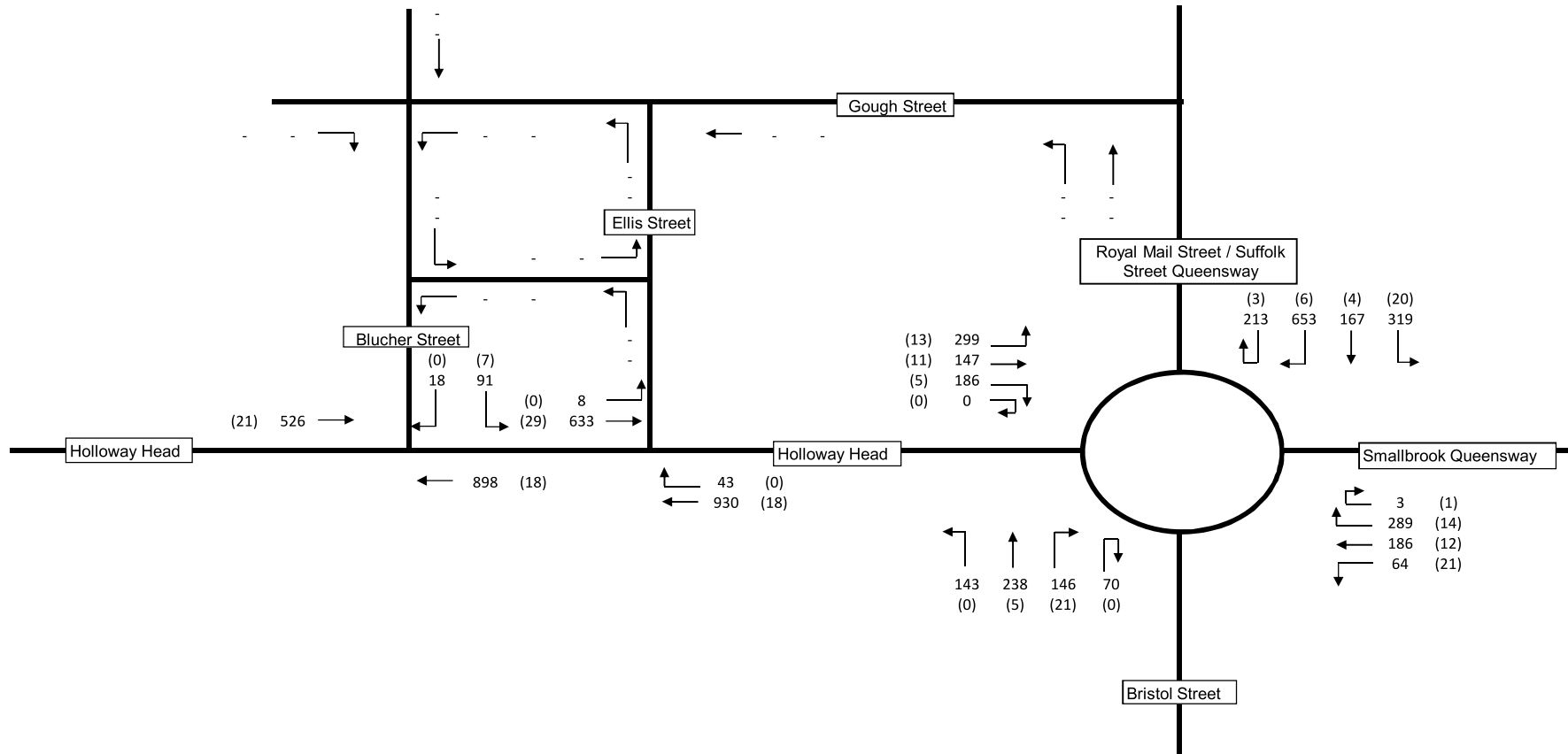
QUALITY MANAGEMENT SYSTEM
ISO 9001 - 2008 FS 59947

client
PANTHER SECURITIES
project
**PROPOSED DEVELOPMENT
HOLLOWAY ROAD,
HOLLOWAY HEAD**

title
**SWEEP PATH ANALYSIS
NORTH BUILDING**

scale	drawn by	checked by
1:500	T.A.S	D.P.H
date	cad file	
JUNE 15	09001-TR002.dwg	
drawing number		rev.
09001-TR002		A

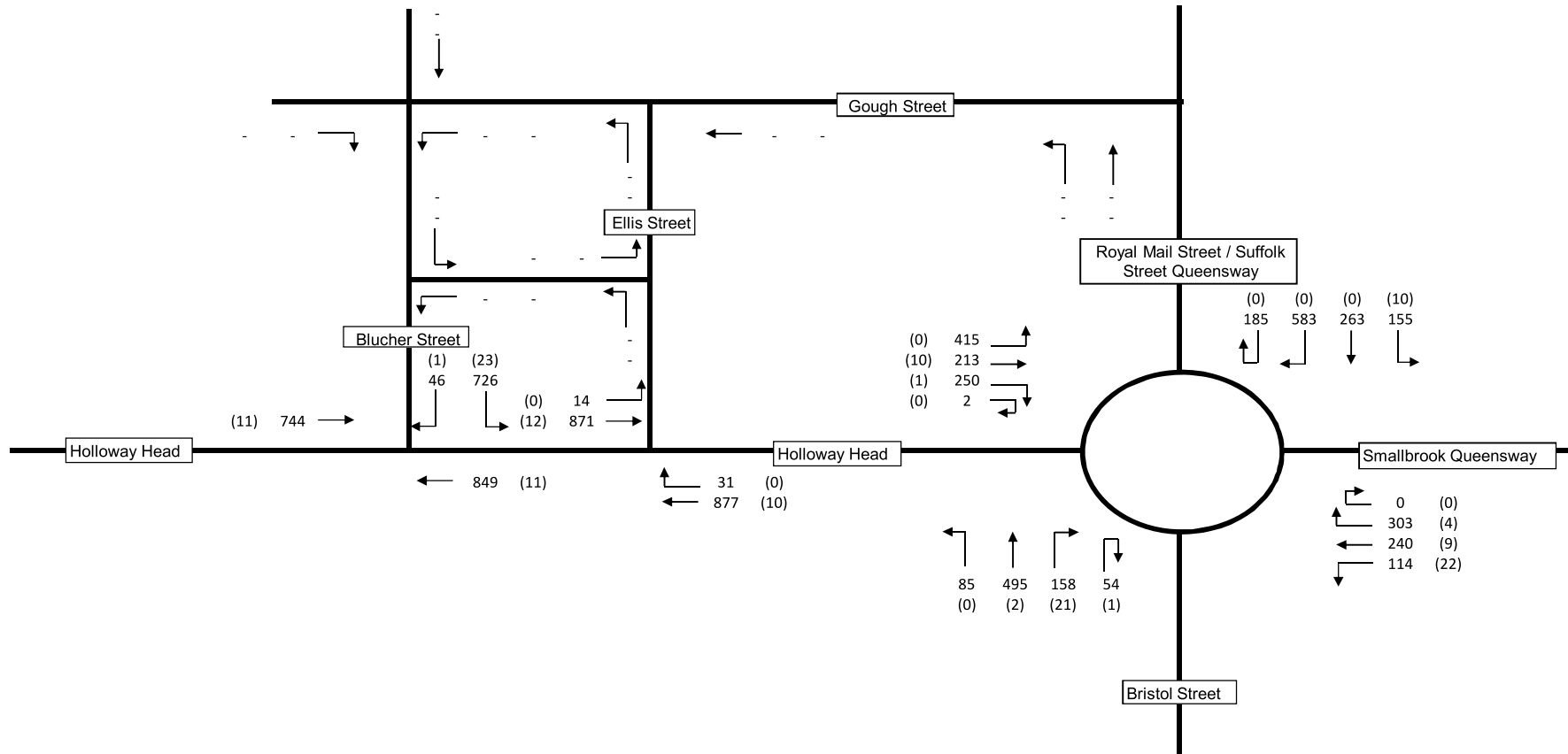
Appendix 4 Surveyed 2014 Traffic Movements



0 Total Vehicles
(0) Heavy Vehicles

Proposed Development - Holloway Head, Birmingham
AM Peak - (08:00 - 09:00) - Surveyed 2014 Total Flows





0 Total Vehicles
(0) Heavy Vehicles

Proposed Development - Holloway Head, Birmingham
PM Peak - (17:00 - 18:00) - Surveyed 2014 Total Flows



Appendix 5
TEMPRO and 2018/2020
Base Traffic Flows

ASSESSMENT OF TRAFFIC GROWTH

TEMPRO DATABASE

19TH FEBRUARY 2015

1.0 - Introduction

This technical note has been produced to set out the methodology used to determine traffic growth factors for the following geographical area:-

Geographical Area	Birmingham
--------------------------	------------

2.0 - Method

Use of the TEMPRO software is generally recognised as the industry standard tool for determining traffic growth factors to apply to surveyed traffic movements in order to estimate the number of vehicles using roads and junctions at a future assessment year.

The TEMPRO software provides a local adjustment to the National Trip End Model (NTEM) to determine localised growth factors for geographical areas and this assessment is based on the following TEMPRO datasets (NTEM) and National Transport Model Forecasts (NTM) forecasts:-

	Version	Notes
TEMPRO Software	6.2	This is the most recent version of the TEMPRO database produced in December 2009
TEMPRO Dataset	NTEM 6.2	This is currently the definitive TEMPRO NTEM dataset for use. (http://www.dft.gov.uk/tempro)
NTM Model	National Transport Model Forecasts 2009 (2003 – 2035)	NTM Forecasts are produced yearly and this is the most recent dataset released March 2010.

3.0 - TEMPRO Parameters

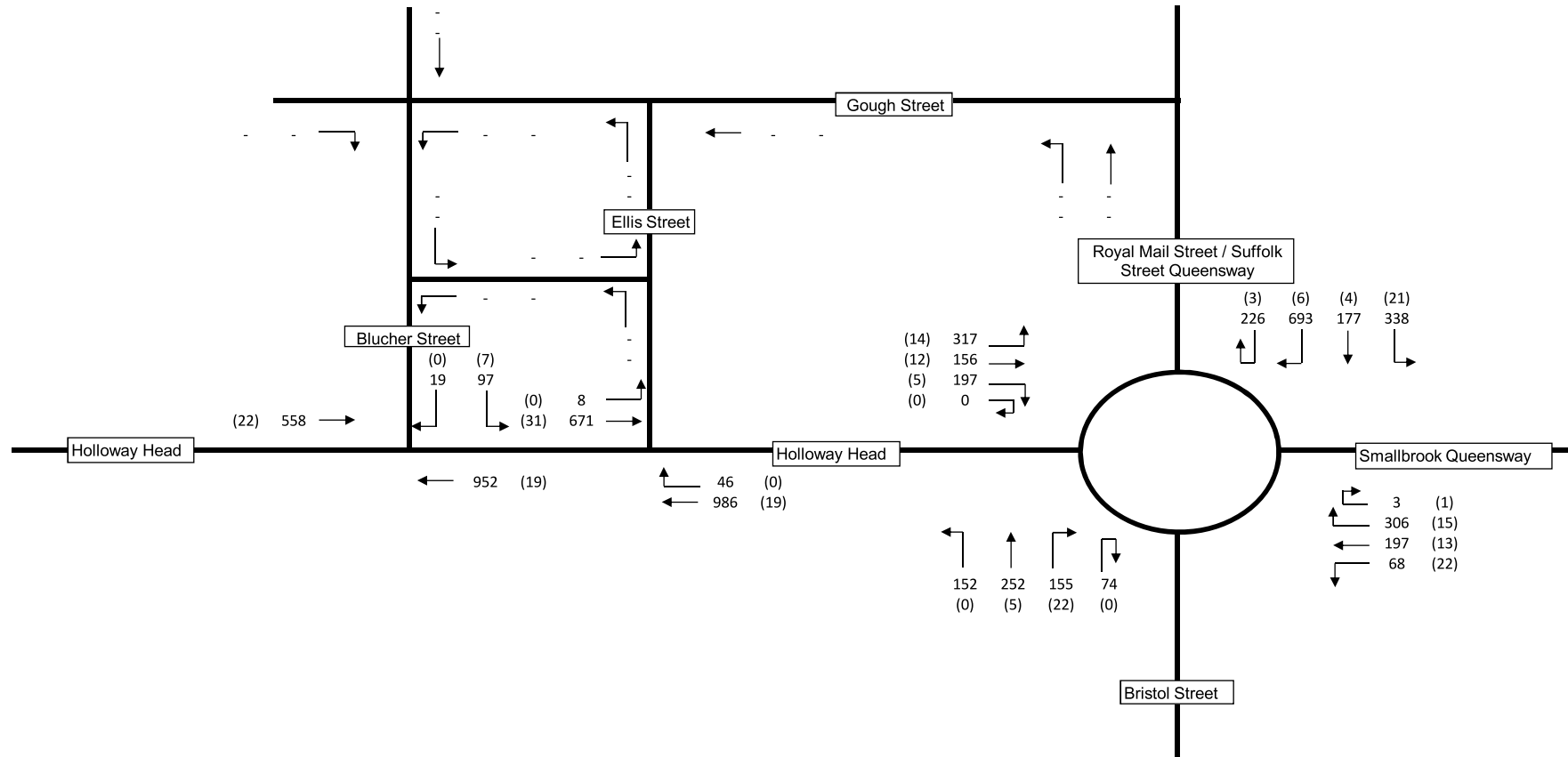
The assessment is based on the following TEMPRO parameters:-

	Version	Notes
Trip End Type	Origin / Destination	Origin / Destination or Production / Attraction
Transport Mode	Car Driver	Walk / Cycle / Car Driver / Car Passenger / Bus or Coach / Rail or Underground – More than one option may be selected
Area Type	All	Urban / Rural / All
Road Type	All	Motorway / Trunk / Principal / Minor / All

4.0 - Growth Factors

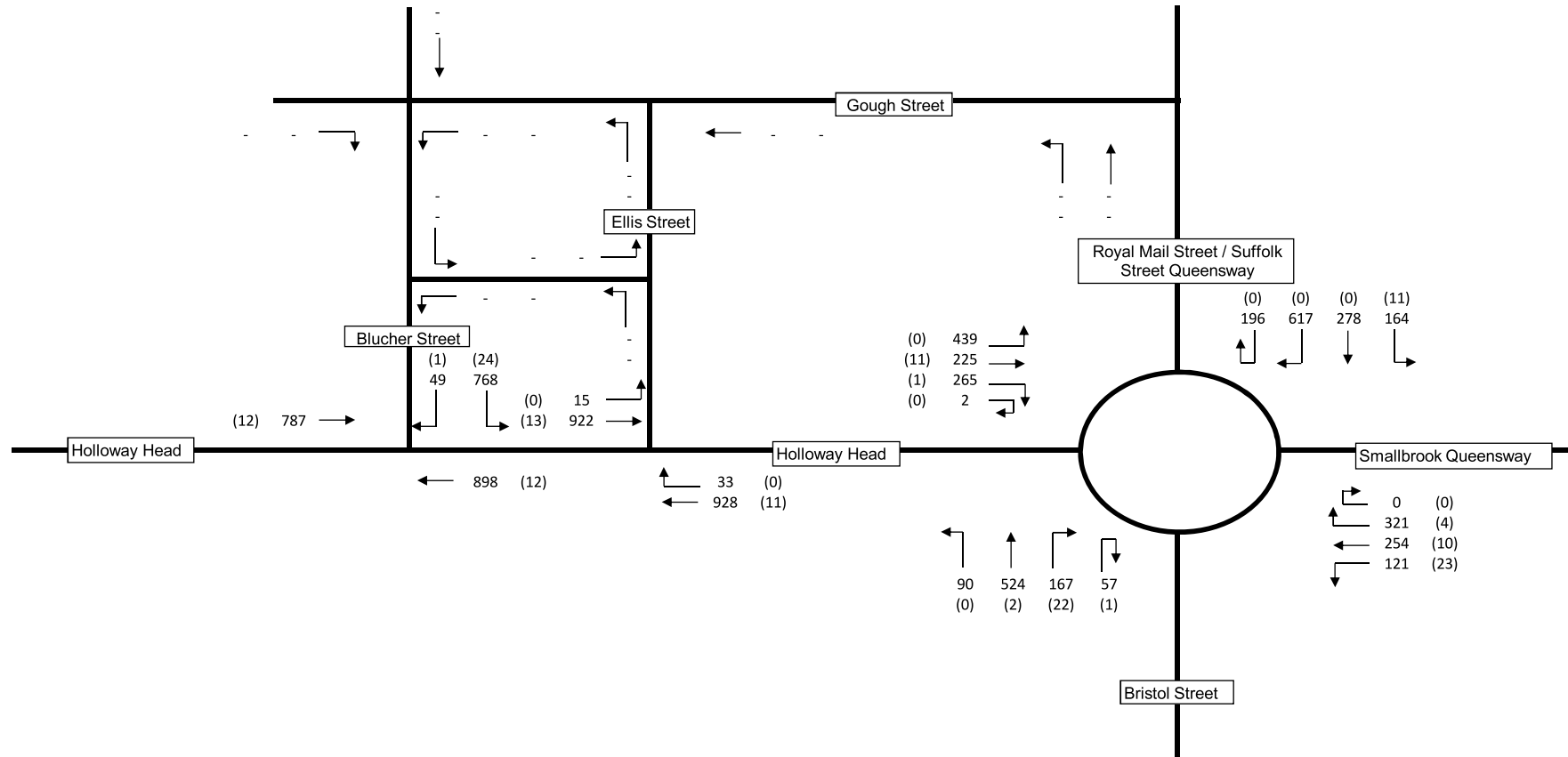
The assessment of traffic growth using the TEMPRO software with the aforementioned parameters results in the following local growth factors for the geographical area set out at **Section 1.0**

Surveyed Period	Assessment Year	Time Period	Local Growth Factor
2014	2018	Weekday AM Peak Period (0700 – 0959)	1.0605
		Weekday PM Peak Period (1600 – 1859)	1.0582
2014	2020	Weekday AM Peak Period (0700 – 0959)	1.0954
		Weekday PM Peak Period (1600 – 1859)	1.0918



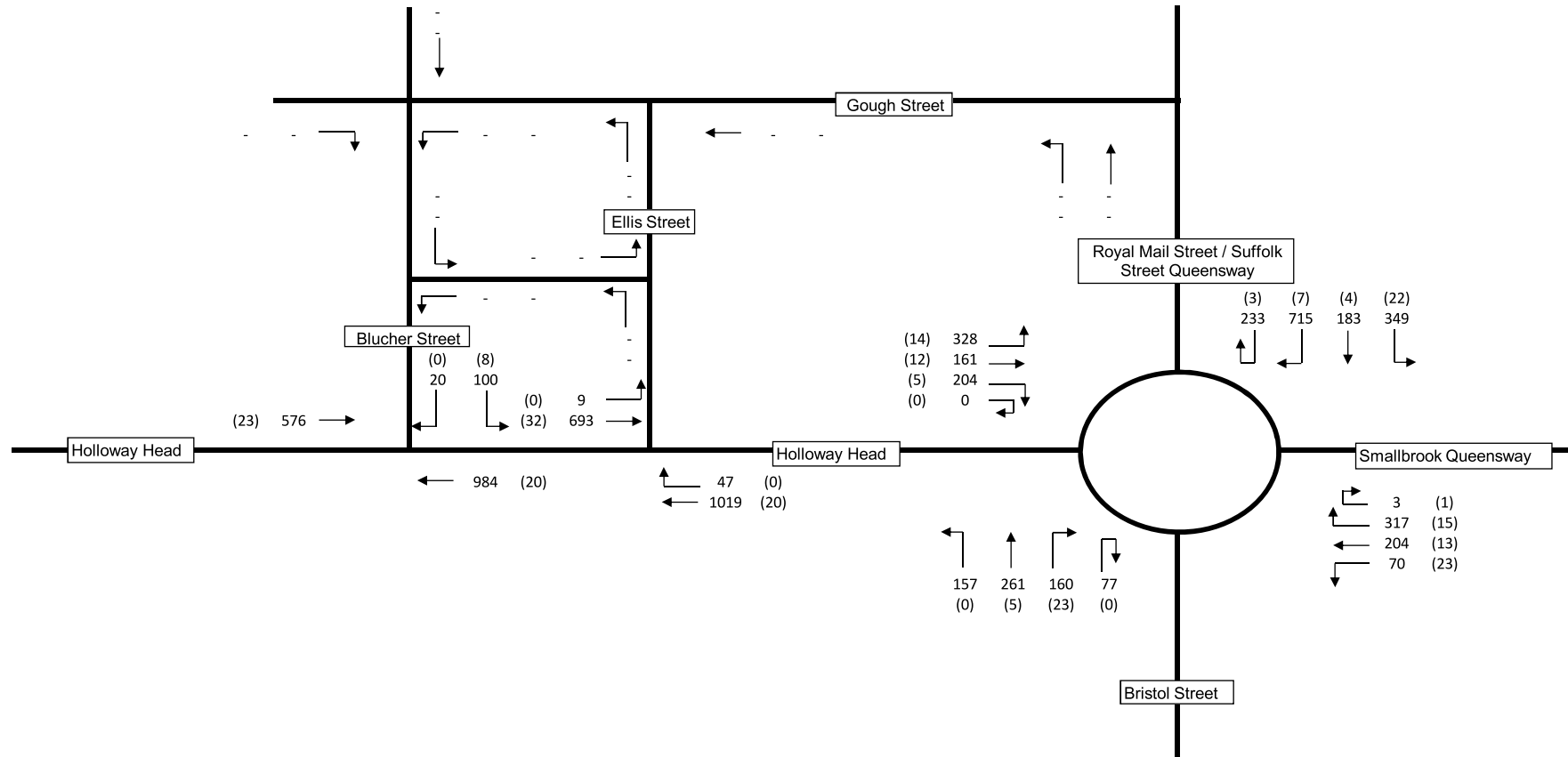
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(0) Heavy Vehicles

Proposed Development - Holloway Head, Birmingham
AM Peak - (08:00 - 09:00) - 2018 Base Traffic Flows

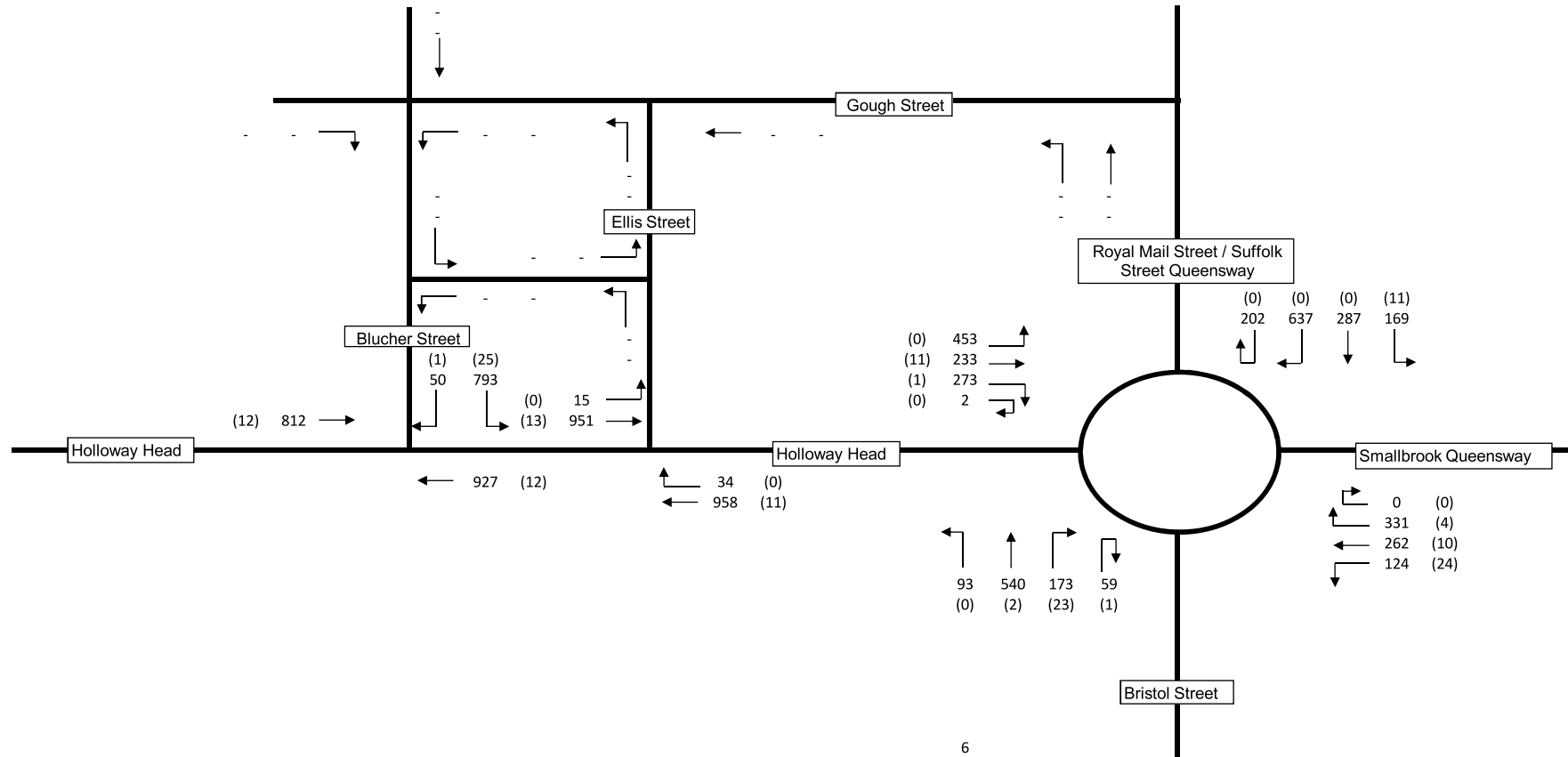


0 Total Vehicles
(0) Heavy Vehicles

Proposed Development - Holloway Head, Birmingham
PM Peak - (17:00 - 18:00) - 2018 Base Traffic Flows



Proposed Development - Holloway Head, Birmingham
AM Peak - (08:00 - 09:00) - 2020 Base Traffic Flows



0 Total Vehicles
(0) Heavy Vehicles

Proposed Development - Holloway Head, Birmingham
PM Peak - (17:00 - 18:00) - 2020 Base Traffic Flows



Appendix 6

TRICS Assessment

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT

Category : A - OFFICE

VEHICLESSelected regions and areas:**01 GREATER LONDON**

BT	BRENT	1 days
CI	CITY OF LONDON	1 days
CN	CAMDEN	2 days
IS	ISLINGTON	1 days
MR	MERTON	2 days
SK	SOUTHWARK	2 days
WH	WANDSWORTH	1 days

02 SOUTH EAST

ES	EAST SUSSEX	1 days
HC	HAMPSHIRE	1 days
SC	SURREY	1 days

06 WEST MIDLANDS

WM	WEST MIDLANDS	3 days
----	---------------	--------

07 YORKSHIRE & NORTH LINCOLNSHIRE

WY	WEST YORKSHIRE	2 days
----	----------------	--------

08 NORTH WEST

GM	GREATER MANCHESTER	1 days
MS	MERSEYSIDE	1 days

09 NORTH

TV	TEES VALLEY	1 days
TW	TYNE & WEAR	6 days

11 SCOTLAND

GC	GLASGOW CITY	2 days
----	--------------	--------

15 GREATER DUBLIN

DL	DUBLIN	3 days
----	--------	--------

17 ULSTER (NORTHERN IRELAND)

AN	ANTRIM	1 days
----	--------	--------

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

Filtering Stage 2 selection:

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

Parameter: Gross floor area
 Actual Range: 645 to 70291 (units: sqm)
 Range Selected by User: 186 to 175000 (units: sqm)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/05 to 24/09/13

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

Selected survey days:

Monday	6 days
Tuesday	8 days
Wednesday	7 days
Thursday	11 days
Friday	1 days

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

Selected survey types:

Manual count	33 days
Directional ATC Count	0 days

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

Selected Locations:

Town Centre	12
Edge of Town Centre	7
Suburban Area (PPS6 Out of Centre)	9
Edge of Town	3
Neighbourhood Centre (PPS6 Local Centre)	2

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

Selected Location Sub Categories:

Industrial Zone	1
Commercial Zone	12
Development Zone	1
Residential Zone	5
Built-Up Zone	10
High Street	1
No Sub Category	3

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

Filtering Stage 3 selection:Use Class:

A2	2 days
B1	31 days

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

Filtering Stage 3 selection (Cont.):Population within 1 mile:

5,001 to 10,000	1 days
10,001 to 15,000	5 days
15,001 to 20,000	2 days
20,001 to 25,000	6 days
25,001 to 50,000	9 days
50,001 to 100,000	8 days
101,000 or More	2 days

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

Population within 5 miles:

250,001 to 500,000	15 days
500,001 or More	18 days

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

Car ownership within 5 miles:

0.5 or Less	6 days
0.6 to 1.0	22 days
1.1 to 1.5	5 days

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

Travel Plan:

Yes	7 days
No	26 days

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

LIST OF SITES relevant to selection parameters

1	AN-02-A-03	OFFICES		ANTRIM
	BOUCHER ROAD			
	WINDSOR			
	BELFAST			
	Suburban Area (PPS6 Out of Centre)			
	Commercial Zone			
	Total Gross floor area:	2908 sqm		
	Survey date: WEDNESDAY	26/11/08		Survey Type: MANUAL
2	BT-02-A-02	OFFICE		BRENT
	WEMBLEY HILL ROAD			
	WEMBLEY			
	Suburban Area (PPS6 Out of Centre)			
	Built-Up Zone			
	Total Gross floor area:	4750 sqm		
	Survey date: TUESDAY	22/06/10		Survey Type: MANUAL
3	CI-02-A-01	OFFICES		CITY OF LONDON
	50 CANNON STREET			
	CITY OF LONDON			
	BANK			
	Town Centre			
	Built-Up Zone			
	Total Gross floor area:	1386 sqm		
	Survey date: WEDNESDAY	21/10/09		Survey Type: MANUAL
4	CN-02-A-01	OFFICES		CAMDEN
	ELY PLACE			
	HOLBORN CIRCUS			
	HOLBORN			
	Edge of Town Centre			
	Built-Up Zone			
	Total Gross floor area:	4062 sqm		
	Survey date: THURSDAY	23/10/08		Survey Type: MANUAL
5	CN-02-A-02	OFFICES		CAMDEN
	GRAYS INN ROAD			
	CLERKENWELL			
	Town Centre			
	Built-Up Zone			
	Total Gross floor area:	6056 sqm		
	Survey date: WEDNESDAY	22/10/08		Survey Type: MANUAL
6	DL-02-A-01	OFFICES		DUBLIN
	BLESSINGTON ROAD			
	TALLAGHT			
	DUBLIN			
	Neighbourhood Centre (PPS6 Local Centre)			
	No Sub Category			
	Total Gross floor area:	3344 sqm		
	Survey date: MONDAY	07/12/09		Survey Type: MANUAL
7	DL-02-A-02	OFFICES		DUBLIN
	BLESSINGTON ROAD			
	TALLAGHT			
	DUBLIN			
	Neighbourhood Centre (PPS6 Local Centre)			
	No Sub Category			
	Total Gross floor area:	1900 sqm		
	Survey date: MONDAY	07/12/09		Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

8	DL-02-A-04	OFFICES	DUBLIN
	AMIENS STREET		
	DOCKLANDS		
	DUBLIN		
	Edge of Town Centre		
	Development Zone		
	Total Gross floor area:	13827 sqm	
	Survey date: THURSDAY	20/05/10	Survey Type: MANUAL
9	ES-02-A-06	LEGAL & GENERAL	EAST SUSSEX
	CITY PARK		
	THE DROVEWAY		
	HOVE		
	Suburban Area (PPS6 Out of Centre)		
	No Sub Category		
	Total Gross floor area:	18675 sqm	
	Survey date: THURSDAY	29/11/07	Survey Type: MANUAL
10	GC-02-A-01	CALL CENTRE	GLASGOW CITY
	ROBERTSON STREET		
	GLASGOW		
	Town Centre		
	Commercial Zone		
	Total Gross floor area:	10000 sqm	
	Survey date: MONDAY	16/06/08	Survey Type: MANUAL
11	GC-02-A-02	CALL CENTRE	GLASGOW CITY
	ROBERTSON STREET		
	GLASGOW		
	Town Centre		
	Commercial Zone		
	Total Gross floor area:	9000 sqm	
	Survey date: THURSDAY	19/06/08	Survey Type: MANUAL
12	GM-02-A-07	LAW OFFICES	GREATER MANCHESTER
	MOSELEY STREET		
	MANCHESTER		
	Town Centre		
	Built-Up Zone		
	Total Gross floor area:	4200 sqm	
	Survey date: WEDNESDAY	19/10/11	Survey Type: MANUAL
13	HC-02-A-11	DIY CO. HQ	HAMPSHIRE
	CHESTNUT AVENUE		
	CHANDLER'S FORD		
	Edge of Town		
	Commercial Zone		
	Total Gross floor area:	26100 sqm	
	Survey date: MONDAY	17/10/11	Survey Type: MANUAL
14	IS-02-A-01	OFFICES	ISLINGTON
	ESSEX ROAD		
	ISLINGTON		
	Suburban Area (PPS6 Out of Centre)		
	Built-Up Zone		
	Total Gross floor area:	5500 sqm	
	Survey date: FRIDAY	24/10/08	Survey Type: MANUAL
15	MR-02-A-01	OFFICE	MERTON
	THE BROADWAY		
	WIMBLEDON		
	Edge of Town Centre		
	High Street		
	Total Gross floor area:	1548 sqm	
	Survey date: THURSDAY	10/09/09	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

16	MR-02-A-02	OFFICES		MERTON
	THE BROADWAY			
	WIMBELDON			
	Town Centre			
	Residential Zone			
	Total Gross floor area:	1548 sqm		
	Survey date: THURSDAY	10/09/09		Survey Type: MANUAL
17	MS-02-A-01	OFFICES		MERSEYSIDE
	CASTLE STREET			
	LIVERPOOL			
	Town Centre			
	Commercial Zone			
	Total Gross floor area:	9000 sqm		
	Survey date: TUESDAY	19/06/07		Survey Type: MANUAL
18	SC-02-A-17	PHARMACEUTICALS		SURREY
	ST GEORGE'S AVENUE			
	THE HEATH			
	WEYBRIDGE			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Gross floor area:	10293 sqm		
	Survey date: TUESDAY	18/10/11		Survey Type: MANUAL
19	SK-02-A-01	GLA HQ		SOUTHWARK
	THE QUEENS WALK			
	SOUTHWARK			
	Town Centre			
	Commercial Zone			
	Total Gross floor area:	17187 sqm		
	Survey date: TUESDAY	21/10/08		Survey Type: MANUAL
20	SK-02-A-02	OFFICES		SOUTHWARK
	ST OLAV'S COURT			
	ROTHERHITHE			
	Edge of Town Centre			
	Commercial Zone			
	Total Gross floor area:	2371 sqm		
	Survey date: MONDAY	20/10/08		Survey Type: MANUAL
21	TV-02-A-03	OFFICE		TEES VALLEY
	PINE STREET			
	MIDDLESBROUGH			
	Town Centre			
	Commercial Zone			
	Total Gross floor area:	3482 sqm		
	Survey date: TUESDAY	21/06/11		Survey Type: MANUAL
22	TW-02-A-01	RADIO STUDIOS		TYNE & WEAR
	CHURCH STREET			
	GATESHEAD			
	Edge of Town Centre			
	Built-Up Zone			
	Total Gross floor area:	645 sqm		
	Survey date: WEDNESDAY	04/05/05		Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

23	TW-02-A-02	UNION OFFICES	TYNE & WEAR
	JOHN DOBSON STREET		
	NEWCASTLE-UPON-TYNE		
	Town Centre		
	Built-Up Zone		
	Total Gross floor area:	1675 sqm	
	Survey date: TUESDAY	03/05/05	Survey Type: MANUAL
24	TW-02-A-03	DEVELOPMENT AGENCY	TYNE & WEAR
	KINGFISHER BOULEVARD		
	LEMINGTON		
	NEWCASTLE UPON TYNE		
	Edge of Town		
	Commercial Zone		
	Total Gross floor area:	6480 sqm	
	Survey date: THURSDAY	11/12/08	Survey Type: MANUAL
25	TW-02-A-04	HOUSING CO.	TYNE & WEAR
	EARLSWAY		
	TEAM VALLEY TRAD. EST.		
	GATESHEAD		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	2500 sqm	
	Survey date: TUESDAY	29/09/09	Survey Type: MANUAL
26	TW-02-A-05	TELEVISION CO.	TYNE & WEAR
	DELTA BANK ROAD		
	METRO RIVERSIDE PARK		
	GATESHEAD		
	Suburban Area (PPS6 Out of Centre)		
	Commercial Zone		
	Total Gross floor area:	1500 sqm	
	Survey date: TUESDAY	29/09/09	Survey Type: MANUAL
27	TW-02-A-06	GOVERNMENT OFFICES	TYNE & WEAR
	BENTON PARK ROAD		
	Longbenton		
	NEWCASTLE UPON TYNE		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Gross floor area:	70291 sqm	
	Survey date: WEDNESDAY	25/11/09	Survey Type: MANUAL
28	WH-02-A-02	OFFICES	WANDSWORTH
	BATTERSEA PARK ROAD		
	BATTERSEA		
	Town Centre		
	Built-Up Zone		
	Total Gross floor area:	1215 sqm	
	Survey date: THURSDAY	10/05/12	Survey Type: MANUAL
29	WM-02-A-01	COUNCIL OFFICES	WEST MIDLANDS
	A451 NORTON ROAD		
	MARY STEVENS PARK		
	STOURBRIDGE		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Gross floor area:	2725 sqm	
	Survey date: WEDNESDAY	26/04/06	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

30	WM-02-A-02	BRITISH TELECOM	WEST MIDLANDS
	BRINDLEY PLACE		
	BIRMINGHAM		
	Edge of Town Centre		
	Commercial Zone		
	Total Gross floor area:	12200 sqm	
	Survey date: THURSDAY	27/11/08	Survey Type: MANUAL
31	WM-02-A-03	BANK ADMIN	WEST MIDLANDS
	BRUNSWICK STREET		
	BRINDLEY PLACE		
	BIRMINGHAM		
	Town Centre		
	Commercial Zone		
	Total Gross floor area:	8200 sqm	
	Survey date: THURSDAY	27/11/08	Survey Type: MANUAL
32	WY-02-A-01	CALL CENTRE	WEST YORKSHIRE
	FILEY STREET		
	BRADFORD		
	Edge of Town Centre		
	Built-Up Zone		
	Total Gross floor area:	2400 sqm	
	Survey date: MONDAY	09/05/05	Survey Type: MANUAL
33	WY-02-A-03	OFFICE	WEST YORKSHIRE
	VICTORIA ROAD		
	HEADINGLEY		
	LEEDS		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Gross floor area:	2696 sqm	
	Survey date: THURSDAY	17/06/10	Survey Type: MANUAL

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

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE

VEHICLES**Calculation factor: 100 sqm****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00	1	70291	0.838	1	70291	0.235	1	70291	1.073
07:00 - 07:30	33	8172	0.282	33	8172	0.069	33	8172	0.351
07:30 - 08:00	33	8172	0.416	33	8172	0.104	33	8172	0.520
08:00 - 08:30	33	8172	0.572	33	8172	0.129	33	8172	0.701
08:30 - 09:00	33	8172	0.595	33	8172	0.112	33	8172	0.707
09:00 - 09:30	33	8172	0.412	33	8172	0.116	33	8172	0.528
09:30 - 10:00	33	8172	0.271	33	8172	0.077	33	8172	0.348
10:00 - 10:30	33	8172	0.172	33	8172	0.068	33	8172	0.240
10:30 - 11:00	33	8172	0.142	33	8172	0.062	33	8172	0.204
11:00 - 11:30	33	8172	0.128	33	8172	0.072	33	8172	0.200
11:30 - 12:00	33	8172	0.112	33	8172	0.088	33	8172	0.200
12:00 - 12:30	33	8172	0.108	33	8172	0.116	33	8172	0.224
12:30 - 13:00	33	8172	0.106	33	8172	0.115	33	8172	0.221
13:00 - 13:30	33	8172	0.118	33	8172	0.121	33	8172	0.239
13:30 - 14:00	33	8172	0.132	33	8172	0.093	33	8172	0.225
14:00 - 14:30	33	8172	0.131	33	8172	0.118	33	8172	0.249
14:30 - 15:00	33	8172	0.121	33	8172	0.168	33	8172	0.289
15:00 - 15:30	33	8172	0.121	33	8172	0.225	33	8172	0.346
15:30 - 16:00	33	8172	0.124	33	8172	0.307	33	8172	0.431
16:00 - 16:30	33	8172	0.108	33	8172	0.412	33	8172	0.520
16:30 - 17:00	33	8172	0.114	33	8172	0.487	33	8172	0.601
17:00 - 17:30	33	8172	0.096	33	8172	0.586	33	8172	0.682
17:30 - 18:00	33	8172	0.080	33	8172	0.394	33	8172	0.474
18:00 - 18:30	33	8172	0.071	33	8172	0.281	33	8172	0.352
18:30 - 19:00	33	8172	0.043	33	8172	0.149	33	8172	0.192
19:00 - 19:30	1	70291	0.095	1	70291	0.128	1	70291	0.223
19:30 - 20:00	1	70291	0.080	1	70291	0.090	1	70291	0.170
20:00 - 20:30	1	70291	0.088	1	70291	0.115	1	70291	0.203
20:30 - 21:00	1	70291	0.097	1	70291	0.083	1	70291	0.180
21:00 - 21:30	1	70291	0.085	1	70291	0.184	1	70291	0.269
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			5.858			5.304			11.162

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

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

Parameter summary

Trip rate parameter range selected:	645 - 70291 (units: sqm)
Survey date date range:	01/01/05 - 24/09/13
Number of weekdays (Monday-Friday):	33
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	5

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

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE

OGVS**Calculation factor: 100 sqm****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00	1	70291	0.006	1	70291	0.003	1	70291	0.009
07:00 - 07:30	33	8172	0.001	33	8172	0.001	33	8172	0.002
07:30 - 08:00	33	8172	0.004	33	8172	0.003	33	8172	0.007
08:00 - 08:30	33	8172	0.003	33	8172	0.003	33	8172	0.006
08:30 - 09:00	33	8172	0.004	33	8172	0.003	33	8172	0.007
09:00 - 09:30	33	8172	0.004	33	8172	0.004	33	8172	0.008
09:30 - 10:00	33	8172	0.006	33	8172	0.005	33	8172	0.011
10:00 - 10:30	33	8172	0.003	33	8172	0.003	33	8172	0.006
10:30 - 11:00	33	8172	0.002	33	8172	0.003	33	8172	0.005
11:00 - 11:30	33	8172	0.001	33	8172	0.001	33	8172	0.002
11:30 - 12:00	33	8172	0.004	33	8172	0.004	33	8172	0.008
12:00 - 12:30	33	8172	0.002	33	8172	0.002	33	8172	0.004
12:30 - 13:00	33	8172	0.002	33	8172	0.002	33	8172	0.004
13:00 - 13:30	33	8172	0.001	33	8172	0.001	33	8172	0.002
13:30 - 14:00	33	8172	0.002	33	8172	0.003	33	8172	0.005
14:00 - 14:30	33	8172	0.003	33	8172	0.001	33	8172	0.004
14:30 - 15:00	33	8172	0.001	33	8172	0.002	33	8172	0.003
15:00 - 15:30	33	8172	0.002	33	8172	0.003	33	8172	0.005
15:30 - 16:00	33	8172	0.001	33	8172	0.001	33	8172	0.002
16:00 - 16:30	33	8172	0.001	33	8172	0.000	33	8172	0.001
16:30 - 17:00	33	8172	0.002	33	8172	0.001	33	8172	0.003
17:00 - 17:30	33	8172	0.000	33	8172	0.001	33	8172	0.001
17:30 - 18:00	33	8172	0.000	33	8172	0.000	33	8172	0.000
18:00 - 18:30	33	8172	0.000	33	8172	0.000	33	8172	0.000
18:30 - 19:00	33	8172	0.000	33	8172	0.000	33	8172	0.000
19:00 - 19:30	1	70291	0.001	1	70291	0.000	1	70291	0.001
19:30 - 20:00	1	70291	0.000	1	70291	0.001	1	70291	0.001
20:00 - 20:30	1	70291	0.000	1	70291	0.001	1	70291	0.001
20:30 - 21:00	1	70291	0.000	1	70291	0.000	1	70291	0.000
21:00 - 21:30	1	70291	0.000	1	70291	0.000	1	70291	0.000
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.056			0.052			0.108

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

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

Parameter summary

Trip rate parameter range selected:	645 - 70291 (units: sqm)
Survey date date range:	01/01/05 - 24/09/13
Number of weekdays (Monday-Friday):	33
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	5

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

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 14 - CAR SHOW ROOMS

Category : A - CAR SHOW ROOMS

VEHICLESSelected regions and areas:

01 GREATER LONDON	
BM BROMLEY	1 days
02 SOUTH EAST	
KC KENT	1 days
SC SURREY	1 days
03 SOUTH WEST	
DV DEVON	1 days
05 EAST MIDLANDS	
LE LEICESTERSHIRE	1 days
06 WEST MIDLANDS	
WM WEST MIDLANDS	1 days
07 YORKSHIRE & NORTH LINCOLNSHIRE	
WY WEST YORKSHIRE	1 days
09 NORTH	
TW TYNE & WEAR	2 days
15 GREATER DUBLIN	
DL DUBLIN	3 days
17 ULSTER (NORTHERN IRELAND)	
AN ANTRIM	1 days

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

Filtering Stage 2 selection:

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

Parameter: Gross floor area
 Actual Range: 875 to 9800 (units: sqm)
 Range Selected by User: 425 to 9800 (units: sqm)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/05 to 04/10/13

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

Selected survey days:

Tuesday	2 days
Wednesday	3 days
Thursday	2 days
Friday	6 days

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

Selected survey types:

Manual count	13 days
Directional ATC Count	0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre)	8
Edge of Town	5

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

Selected Location Sub Categories:

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

Filtering Stage 3 selection:Use Class:

Sui Generis 13 days

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

Population within 1 mile:

10,001 to 15,000	5 days
15,001 to 20,000	2 days
25,001 to 50,000	6 days

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

Population within 5 miles:

250,001 to 500,000	9 days
500,001 or More	4 days

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

Car ownership within 5 miles:

0.5 or Less	1 days
0.6 to 1.0	6 days
1.1 to 1.5	6 days

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

Travel Plan:

No 13 days

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

LIST OF SITES relevant to selection parameters

1	AN-14-A-02	FORD		ANTRIM
	BOUCHER ROAD			
	WINDSOR			
	BELFAST			
	Suburban Area (PPS6 Out of Centre)			
	Commercial Zone			
	Total Gross floor area:	875 sqm		
	Survey date: WEDNESDAY	13/09/06		Survey Type: MANUAL
2	BM-14-A-01	AUDI		BROMLEY
	CROYDON ROAD			
	BECKENHAM			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Gross floor area:	915 sqm		
	Survey date: FRIDAY	18/09/09		Survey Type: MANUAL
3	DL-14-A-01	FORD		DUBLIN
	NORTH CIRCULAR ROAD			
	DUBLIN			
	Suburban Area (PPS6 Out of Centre)			
	Built-Up Zone			
	Total Gross floor area:	2500 sqm		
	Survey date: THURSDAY	14/04/05		Survey Type: MANUAL
4	DL-14-A-02	NISSAN & PEUGEOT		DUBLIN
	NEVINSTOWN LANE			
	SWORDS			
	DUBLIN			
	Edge of Town			
	No Sub Category			
	Total Gross floor area:	2659 sqm		
	Survey date: FRIDAY	21/09/12		Survey Type: MANUAL
5	DL-14-A-03	VOLKSWAGEN		DUBLIN
	NEVINSTOWN LANE			
	SWORDS			
	DUBLIN			
	Edge of Town			
	Retail Zone			
	Total Gross floor area:	1393 sqm		
	Survey date: FRIDAY	21/09/12		Survey Type: MANUAL
6	DV-14-A-01	MERCEDES BENZ		DEVON
	TAVISTOCK ROAD			
	DERRIFORD			
	PLYMOUTH			
	Suburban Area (PPS6 Out of Centre)			
	No Sub Category			
	Total Gross floor area:	2900 sqm		
	Survey date: WEDNESDAY	06/07/05		Survey Type: MANUAL
7	KC-14-A-02	CAR SHOW ROOM		KENT
	UPPER ELMERS END ROAD			
	EDEN PARK			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Gross floor area:	1290 sqm		
	Survey date: FRIDAY	09/03/07		Survey Type: MANUAL
8	LE-14-A-04	BMW & MINI		LEICESTERSHIRE
	MERIDIAN EAST			
	BRAUNSTONE			
	LEICESTER			
	Edge of Town			
	Commercial Zone			
	Total Gross floor area:	9800 sqm		
	Survey date: THURSDAY	25/06/09		Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

9	SC-14-A-02	HONDA		SURREY
	QUEENS ROAD			
	WEYBRIDGE			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Gross floor area:	1700 sqm		
	Survey date: <i>TUESDAY</i>	18/10/05		Survey Type: <i>MANUAL</i>
10	TW-14-A-01	SAAB		TYNE & WEAR
	A191 WHITLEY ROAD			
	BELLWAY IND. ESTATE			
	NEWCASTLE			
	Edge of Town			
	Industrial Zone			
	Total Gross floor area:	1920 sqm		
	Survey date: <i>FRIDAY</i>	10/11/06		Survey Type: <i>MANUAL</i>
11	TW-14-A-02	RENAULT		TYNE & WEAR
	STONEYGATE CLOSE			
	GATESHEAD			
	Suburban Area (PPS6 Out of Centre)			
	Industrial Zone			
	Total Gross floor area:	2200 sqm		
	Survey date: <i>FRIDAY</i>	04/10/13		Survey Type: <i>MANUAL</i>
12	WM-14-A-02	HONDA		WEST MIDLANDS
	LONDON ROAD			
	WILLENHALL			
	COVENTRY			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Gross floor area:	951 sqm		
	Survey date: <i>TUESDAY</i>	14/02/06		Survey Type: <i>MANUAL</i>
13	WY-14-A-02	FORD		WEST YORKSHIRE
	MOORSIDE			
	MOORSIDE			
	NEAR HALIFAX			
	Edge of Town			
	No Sub Category			
	Total Gross floor area:	1870 sqm		
	Survey date: <i>WEDNESDAY</i>	14/09/05		Survey Type: <i>MANUAL</i>

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

TRIP RATE for Land Use 14 - CAR SHOW ROOMS/A - CAR SHOW ROOMS

VEHICLES**Calculation factor: 100 sqm****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	9	2749	0.214	9	2749	0.016	9	2749	0.230
08:00 - 09:00	13	2383	0.646	13	2383	0.278	13	2383	0.924
09:00 - 10:00	13	2383	0.588	13	2383	0.436	13	2383	1.024
10:00 - 11:00	13	2383	0.630	13	2383	0.565	13	2383	1.195
11:00 - 12:00	13	2383	0.555	13	2383	0.659	13	2383	1.214
12:00 - 13:00	13	2383	0.568	13	2383	0.520	13	2383	1.088
13:00 - 14:00	13	2383	0.552	13	2383	0.571	13	2383	1.123
14:00 - 15:00	13	2383	0.568	13	2383	0.597	13	2383	1.165
15:00 - 16:00	13	2383	0.571	13	2383	0.613	13	2383	1.184
16:00 - 17:00	13	2383	0.462	13	2383	0.652	13	2383	1.114
17:00 - 18:00	13	2383	0.278	13	2383	0.526	13	2383	0.804
18:00 - 19:00	13	2383	0.077	13	2383	0.197	13	2383	0.274
19:00 - 20:00	7	1744	0.082	7	1744	0.156	7	1744	0.238
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			5.791			5.786			11.577

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

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

Parameter summary

Trip rate parameter range selected:	875 - 9800 (units: sqm)
Survey date range:	01/01/05 - 04/10/13
Number of weekdays (Monday-Friday):	13
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 14 - CAR SHOW ROOMS/A - CAR SHOW ROOMS

OGVS**Calculation factor: 100 sqm****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	9	2749	0.008	9	2749	0.000	9	2749	0.008
08:00 - 09:00	13	2383	0.019	13	2383	0.026	13	2383	0.045
09:00 - 10:00	13	2383	0.010	13	2383	0.003	13	2383	0.013
10:00 - 11:00	13	2383	0.026	13	2383	0.019	13	2383	0.045
11:00 - 12:00	13	2383	0.016	13	2383	0.023	13	2383	0.039
12:00 - 13:00	13	2383	0.006	13	2383	0.013	13	2383	0.019
13:00 - 14:00	13	2383	0.013	13	2383	0.010	13	2383	0.023
14:00 - 15:00	13	2383	0.010	13	2383	0.010	13	2383	0.020
15:00 - 16:00	13	2383	0.006	13	2383	0.006	13	2383	0.012
16:00 - 17:00	13	2383	0.006	13	2383	0.003	13	2383	0.009
17:00 - 18:00	13	2383	0.000	13	2383	0.003	13	2383	0.003
18:00 - 19:00	13	2383	0.000	13	2383	0.000	13	2383	0.000
19:00 - 20:00	7	1744	0.000	7	1744	0.000	7	1744	0.000
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.120			0.116			0.236

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

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

Parameter summary

Trip rate parameter range selected: 875 - 9800 (units: sqm)
 Survey date range: 01/01/05 - 04/10/13
 Number of weekdays (Monday-Friday): 13
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 0

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

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
 Category : C - FLATS PRIVATELY OWNED

VEHICLESSelected regions and areas:

01 GREATER LONDON	
HK HACKNEY	1 days
08 NORTH WEST	
GM GREATER MANCHESTER	2 days
15 GREATER DUBLIN	
DL DUBLIN	1 days

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

Filtering Stage 2 selection:

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

Parameter: Number of dwellings
 Actual Range: 9 to 154 (units:)
 Range Selected by User: 8 to 372 (units:)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/05 to 16/09/13

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

Selected survey days:

Tuesday	2 days
Thursday	1 days
Friday	1 days

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

Selected survey types:

Manual count	4 days
Directional ATC Count	0 days

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

Selected Locations:

Town Centre	4
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This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Development Zone	1
Built-Up Zone	3

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

Filtering Stage 3 selection:Use Class:

C3

4 days

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

Population within 1 mile:

15,001 to 20,000

1 days

25,001 to 50,000

2 days

50,001 to 100,000

1 days

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

Population within 5 miles:

250,001 to 500,000

1 days

500,001 or More

3 days

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

Car ownership within 5 miles:

0.5 or Less

1 days

0.6 to 1.0

3 days

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

Travel Plan:

No

4 days

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

LIST OF SITES relevant to selection parameters

1	DL-03-C-03	BLOCKS OF FLATS	DUBLIN
	SUMMERHILL		
	DUBLIN		
	Town Centre		
	Development Zone		
	Total Number of dwellings:	65	
	Survey date: <i>TUESDAY</i>	27/02/07	Survey Type: <i>MANUAL</i>
2	GM-03-C-02	BLOCK OF FLATS	GREATER MANCHESTER
	WHITWORTH STREET W.		
	MANCHESTER		
	Town Centre		
	Built-Up Zone		
	Total Number of dwellings:	154	
	Survey date: <i>THURSDAY</i>	13/10/11	Survey Type: <i>MANUAL</i>
3	GM-03-C-03	BLOCK OF FLATS	GREATER MANCHESTER
	FAIRFIELD STREET		
	MANCHESTER		
	Town Centre		
	Built-Up Zone		
	Total Number of dwellings:	20	
	Survey date: <i>FRIDAY</i>	14/10/11	Survey Type: <i>MANUAL</i>
4	HK-03-C-02	BLOCK OF FLATS	HACKNEY
	HOXTON		
	SHOREDITCH		
	Town Centre		
	Built-Up Zone		
	Total Number of dwellings:	9	
	Survey date: <i>TUESDAY</i>	11/11/08	Survey Type: <i>MANUAL</i>

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

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

VEHICLES**Calculation factor: 1 DWELLS****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	4	62	0.000	4	62	0.028	4	62	0.028
08:00 - 09:00	4	62	0.008	4	62	0.028	4	62	0.036
09:00 - 10:00	4	62	0.008	4	62	0.024	4	62	0.032
10:00 - 11:00	4	62	0.016	4	62	0.016	4	62	0.032
11:00 - 12:00	4	62	0.012	4	62	0.004	4	62	0.016
12:00 - 13:00	4	62	0.008	4	62	0.012	4	62	0.020
13:00 - 14:00	4	62	0.012	4	62	0.020	4	62	0.032
14:00 - 15:00	4	62	0.016	4	62	0.016	4	62	0.032
15:00 - 16:00	4	62	0.008	4	62	0.008	4	62	0.016
16:00 - 17:00	4	62	0.028	4	62	0.008	4	62	0.036
17:00 - 18:00	4	62	0.028	4	62	0.008	4	62	0.036
18:00 - 19:00	4	62	0.012	4	62	0.008	4	62	0.020
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.156			0.180			0.336

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

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

Parameter summary

Trip rate parameter range selected: 9 - 154 (units:)
 Survey date range: 01/01/05 - 16/09/13
 Number of weekdays (Monday-Friday): 4
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 0

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

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

TAXIS**Calculation factor: 1 DWELLS****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	4	62	0.000	4	62	0.000	4	62	0.000
08:00 - 09:00	4	62	0.000	4	62	0.000	4	62	0.000
09:00 - 10:00	4	62	0.000	4	62	0.000	4	62	0.000
10:00 - 11:00	4	62	0.000	4	62	0.000	4	62	0.000
11:00 - 12:00	4	62	0.000	4	62	0.000	4	62	0.000
12:00 - 13:00	4	62	0.000	4	62	0.000	4	62	0.000
13:00 - 14:00	4	62	0.004	4	62	0.004	4	62	0.008
14:00 - 15:00	4	62	0.004	4	62	0.004	4	62	0.008
15:00 - 16:00	4	62	0.000	4	62	0.000	4	62	0.000
16:00 - 17:00	4	62	0.000	4	62	0.000	4	62	0.000
17:00 - 18:00	4	62	0.000	4	62	0.000	4	62	0.000
18:00 - 19:00	4	62	0.000	4	62	0.000	4	62	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.008			0.008			0.016

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

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

Parameter summary

Trip rate parameter range selected: 9 - 154 (units:)
 Survey date range: 01/01/05 - 16/09/13
 Number of weekdays (Monday-Friday): 4
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 0

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

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

OGVS**Calculation factor: 1 DWELLS****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	4	62	0.000	4	62	0.000	4	62	0.000
08:00 - 09:00	4	62	0.000	4	62	0.000	4	62	0.000
09:00 - 10:00	4	62	0.000	4	62	0.000	4	62	0.000
10:00 - 11:00	4	62	0.000	4	62	0.000	4	62	0.000
11:00 - 12:00	4	62	0.000	4	62	0.000	4	62	0.000
12:00 - 13:00	4	62	0.000	4	62	0.000	4	62	0.000
13:00 - 14:00	4	62	0.000	4	62	0.000	4	62	0.000
14:00 - 15:00	4	62	0.000	4	62	0.000	4	62	0.000
15:00 - 16:00	4	62	0.000	4	62	0.000	4	62	0.000
16:00 - 17:00	4	62	0.000	4	62	0.000	4	62	0.000
17:00 - 18:00	4	62	0.000	4	62	0.000	4	62	0.000
18:00 - 19:00	4	62	0.000	4	62	0.000	4	62	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:		0.000			0.000			0.000	

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

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

Parameter summary

Trip rate parameter range selected: 9 - 154 (units:)
 Survey date range: 01/01/05 - 16/09/13
 Number of weekdays (Monday-Friday): 4
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 0

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

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

PSVS**Calculation factor: 1 DWELLS****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	4	62	0.000	4	62	0.000	4	62	0.000
08:00 - 09:00	4	62	0.000	4	62	0.000	4	62	0.000
09:00 - 10:00	4	62	0.000	4	62	0.000	4	62	0.000
10:00 - 11:00	4	62	0.000	4	62	0.000	4	62	0.000
11:00 - 12:00	4	62	0.000	4	62	0.000	4	62	0.000
12:00 - 13:00	4	62	0.000	4	62	0.000	4	62	0.000
13:00 - 14:00	4	62	0.000	4	62	0.000	4	62	0.000
14:00 - 15:00	4	62	0.000	4	62	0.000	4	62	0.000
15:00 - 16:00	4	62	0.000	4	62	0.000	4	62	0.000
16:00 - 17:00	4	62	0.000	4	62	0.000	4	62	0.000
17:00 - 18:00	4	62	0.000	4	62	0.000	4	62	0.000
18:00 - 19:00	4	62	0.000	4	62	0.000	4	62	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.000			0.000			0.000

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

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

Parameter summary

Trip rate parameter range selected: 9 - 154 (units:)
 Survey date date range: 01/01/05 - 16/09/13
 Number of weekdays (Monday-Friday): 4
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 0

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

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

CYCLISTS**Calculation factor: 1 DWELLS****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	4	62	0.000	4	62	0.004	4	62	0.004
08:00 - 09:00	4	62	0.000	4	62	0.008	4	62	0.008
09:00 - 10:00	4	62	0.004	4	62	0.008	4	62	0.012
10:00 - 11:00	4	62	0.000	4	62	0.000	4	62	0.000
11:00 - 12:00	4	62	0.000	4	62	0.000	4	62	0.000
12:00 - 13:00	4	62	0.000	4	62	0.012	4	62	0.012
13:00 - 14:00	4	62	0.000	4	62	0.000	4	62	0.000
14:00 - 15:00	4	62	0.000	4	62	0.000	4	62	0.000
15:00 - 16:00	4	62	0.000	4	62	0.000	4	62	0.000
16:00 - 17:00	4	62	0.000	4	62	0.000	4	62	0.000
17:00 - 18:00	4	62	0.016	4	62	0.000	4	62	0.016
18:00 - 19:00	4	62	0.004	4	62	0.000	4	62	0.004
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.024			0.032			0.056

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

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

Parameter summary

Trip rate parameter range selected: 9 - 154 (units:)
 Survey date range: 01/01/05 - 16/09/13
 Number of weekdays (Monday-Friday): 4
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 0

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

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 06 - HOTEL, FOOD & DRINK

Category : A - HOTELS

VEHICLESSelected regions and areas:**01 GREATER LONDON**

GR GREENWICH 2 days

HK HACKNEY 2 days

HO HOUNSLOW 2 days

03 SOUTH WEST

DV DEVON 1 days

05 EAST MIDLANDS

DS DERBYSHIRE 1 days

NT NOTTINGHAMSHIRE 1 days

06 WEST MIDLANDS

WM WEST MIDLANDS 1 days

07 YORKSHIRE & NORTH LINCOLNSHIRE

WY WEST YORKSHIRE 1 days

09 NORTH

TV TEES VALLEY 1 days

10 WALES

CF CARDIFF 3 days

15 GREATER DUBLIN

DL DUBLIN 1 days

*This section displays the number of survey days per TRICS® sub-region in the selected set***Filtering Stage 2 selection:***This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.*

Parameter: Number of bedrooms

Actual Range: 82 to 224 (units:)

Range Selected by User: 4 to 483 (units:)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/05 to 24/06/13

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

Monday 6 days

Tuesday 4 days

Wednesday 5 days

Thursday 1 days

*This data displays the number of selected surveys by day of the week.*Selected survey types:

Manual count 16 days

Directional ATC Count 0 days

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

Town Centre 7

Edge of Town Centre 9

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

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

Filtering Stage 3 selection:Use Class:

C1

15 days

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

Population within 1 mile:

15,001 to 20,000

1 days

20,001 to 25,000

2 days

25,001 to 50,000

8 days

50,001 to 100,000

5 days

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

Population within 5 miles:

250,001 to 500,000

8 days

500,001 or More

8 days

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

Car ownership within 5 miles:

0.5 or Less

5 days

0.6 to 1.0

5 days

1.1 to 1.5

5 days

2.1 to 2.5

1 days

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

Travel Plan:

No

16 days

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

LIST OF SITES relevant to selection parameters

- | | |
|--|---|
| <p>1 CF-06-A-02 MACDONALD HOTEL
 EAST TYNDALL STREET
 ATLANTIC WHARF
 CARDIFF
 Edge of Town Centre
 Industrial Zone
 Total Number of bedrooms: 100
 Survey date: TUESDAY 17/10/06</p> | <p>CARDIFF</p> <p>Survey Type: MANUAL</p> |
| <p>2 CF-06-A-03 HOLIDAY INN EXPRESS
 LONGUEIL CLOSE

 CARDIFF
 Edge of Town Centre
 Residential Zone
 Total Number of bedrooms: 87
 Survey date: MONDAY 16/07/12</p> | <p>CARDIFF</p> <p>Survey Type: MANUAL</p> |
| <p>3 CF-06-A-04 TRAVELODGE
 THE FRIARY

 CARDIFF
 Town Centre
 Built-Up Zone
 Total Number of bedrooms: 96
 Survey date: MONDAY 16/07/12</p> | <p>CARDIFF</p> <p>Survey Type: MANUAL</p> |
| <p>4 DL-06-A-02 HOTEL
 AMIENS STREET
 CONNOLLY
 DUBLIN
 Edge of Town Centre
 Built-Up Zone
 Total Number of bedrooms: 175
 Survey date: WEDNESDAY 09/12/09</p> | <p>DUBLIN</p> <p>Survey Type: MANUAL</p> |
| <p>5 DS-06-A-02 JURY'S INN
 KING STREET

 DERBY
 Town Centre
 Commercial Zone
 Total Number of bedrooms: 213
 Survey date: TUESDAY 19/07/11</p> | <p>DERBYSHIRE</p> <p>Survey Type: MANUAL</p> |
| <p>6 DV-06-A-02 PREMIER INN
 SUTTON ROAD
 SUTTON HARBOUR
 PLYMOUTH
 Edge of Town Centre
 No Sub Category
 Total Number of bedrooms: 107
 Survey date: WEDNESDAY 21/10/09</p> | <p>DEVON</p> <p>Survey Type: MANUAL</p> |
| <p>7 GR-06-A-01 IBIS
 STOCKWELL STREET

 GREENWICH
 Town Centre
 No Sub Category
 Total Number of bedrooms: 82
 Survey date: MONDAY 19/10/09</p> | <p>GREENWICH</p> <p>Survey Type: MANUAL</p> |

LIST OF SITES relevant to selection parameters (Cont.)

8	GR-06-A-02	NOVOTEL	GREENWICH
	GREENWICH HIGH ROAD		
	GREENWICH		
	Edge of Town Centre		
	No Sub Category		
	Total Number of bedrooms:	151	
	Survey date: MONDAY	19/10/09	Survey Type: MANUAL
9	HK-06-A-01	EXPRESS HOL.INN	HACKNEY
	OLD STREET		
	SHOREDITCH		
	Town Centre		
	High Street		
	Total Number of bedrooms:	224	
	Survey date: THURSDAY	06/11/08	Survey Type: MANUAL
10	HK-06-A-02	HOTEL	HACKNEY
	GREAT EASTERN STREET		
	SHOREDITCH		
	Town Centre		
	Built-Up Zone		
	Total Number of bedrooms:	205	
	Survey date: WEDNESDAY	05/11/08	Survey Type: MANUAL
11	HO-06-A-01	DAYS HOTEL	HOUNSLOW
	LAMPTON ROAD		
	HOUNSLOW		
	Edge of Town Centre		
	Commercial Zone		
	Total Number of bedrooms:	96	
	Survey date: WEDNESDAY	16/06/10	Survey Type: MANUAL
12	HO-06-A-02	ETAP HOTEL	HOUNSLOW
	STAINES ROAD		
	HOUNSLOW		
	Edge of Town Centre		
	Retail Zone		
	Total Number of bedrooms:	148	
	Survey date: WEDNESDAY	16/06/10	Survey Type: MANUAL
13	NT-06-A-02	PREMIER INN	NOTTINGHAMSHIRE
	LONDON ROAD		
	NOTTINGHAM		
	Edge of Town Centre		
	Built-Up Zone		
	Total Number of bedrooms:	87	
	Survey date: MONDAY	24/06/13	Survey Type: MANUAL
14	TV-06-A-03	THISTLE	TEES VALLEY
	FRY STREET		
	MIDDLESBROUGH		
	Town Centre		
	Commercial Zone		
	Total Number of bedrooms:	132	
	Survey date: MONDAY	27/06/11	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

15	WM-06-A-01	HOTEL	WEST MIDLANDS
	LICHFIELD ROAD		
	WOLVERHAMPTON		
	Town Centre		
	No Sub Category		
	Total Number of bedrooms:	117	
	Survey date: TUESDAY	21/02/06	Survey Type: MANUAL
16	WY-06-A-01	EXPRESS BY HOL. INN	WEST YORKSHIRE
	THE LEISURE EXCHANGE		
	BRADFORD		
	Edge of Town Centre		
	No Sub Category		
	Total Number of bedrooms:	120	
	Survey date: TUESDAY	17/05/05	Survey Type: MANUAL

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

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/A - HOTELS

VEHICLES**Calculation factor: 1 BEDRMS****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. BEDRMS	Trip Rate	No. Days	Ave. BEDRMS	Trip Rate	No. Days	Ave. BEDRMS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	16	134	0.030	16	134	0.071	16	134	0.101
08:00 - 09:00	16	134	0.063	16	134	0.090	16	134	0.153
09:00 - 10:00	16	134	0.063	16	134	0.076	16	134	0.139
10:00 - 11:00	16	134	0.050	16	134	0.047	16	134	0.097
11:00 - 12:00	16	134	0.025	16	134	0.038	16	134	0.063
12:00 - 13:00	16	134	0.029	16	134	0.035	16	134	0.064
13:00 - 14:00	16	134	0.035	16	134	0.037	16	134	0.072
14:00 - 15:00	16	134	0.037	16	134	0.026	16	134	0.063
15:00 - 16:00	16	134	0.045	16	134	0.039	16	134	0.084
16:00 - 17:00	16	134	0.056	16	134	0.044	16	134	0.100
17:00 - 18:00	16	134	0.078	16	134	0.053	16	134	0.131
18:00 - 19:00	16	134	0.068	16	134	0.046	16	134	0.114
19:00 - 20:00	15	135	0.070	15	135	0.046	15	135	0.116
20:00 - 21:00	15	135	0.044	15	135	0.028	15	135	0.072
21:00 - 22:00	13	139	0.043	13	139	0.023	13	139	0.066
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.736			0.699			1.435

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

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

Parameter summary

Trip rate parameter range selected: 82 - 224 (units:)
 Survey date range: 01/01/05 - 24/06/13
 Number of weekdays (Monday-Friday): 16
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 1

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

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/A - HOTELS

OGVS**Calculation factor: 1 BEDRMS****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. BEDRMS	Trip Rate	No. Days	Ave. BEDRMS	Trip Rate	No. Days	Ave. BEDRMS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	16	134	0.002	16	134	0.003	16	134	0.005
08:00 - 09:00	16	134	0.002	16	134	0.002	16	134	0.004
09:00 - 10:00	16	134	0.004	16	134	0.004	16	134	0.008
10:00 - 11:00	16	134	0.001	16	134	0.001	16	134	0.002
11:00 - 12:00	16	134	0.001	16	134	0.001	16	134	0.002
12:00 - 13:00	16	134	0.001	16	134	0.001	16	134	0.002
13:00 - 14:00	16	134	0.001	16	134	0.001	16	134	0.002
14:00 - 15:00	16	134	0.000	16	134	0.001	16	134	0.001
15:00 - 16:00	16	134	0.000	16	134	0.000	16	134	0.000
16:00 - 17:00	16	134	0.000	16	134	0.000	16	134	0.000
17:00 - 18:00	16	134	0.001	16	134	0.001	16	134	0.002
18:00 - 19:00	16	134	0.000	16	134	0.000	16	134	0.000
19:00 - 20:00	15	135	0.001	15	135	0.000	15	135	0.001
20:00 - 21:00	15	135	0.000	15	135	0.000	15	135	0.000
21:00 - 22:00	13	139	0.000	13	139	0.000	13	139	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.014			0.015			0.029

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

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

Parameter summary

Trip rate parameter range selected: 82 - 224 (units:)
 Survey date date range: 01/01/05 - 24/06/13
 Number of weekdays (Monday-Friday): 16
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 1

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

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 07 - LEISURE

Category : R - CASINO

VEHICLESSelected regions and areas:**02 SOUTH EAST**

ES EAST SUSSEX 1 days

08 NORTH WEST

LC LANCASHIRE 1 days

09 NORTH

TV TEES VALLEY 1 days

*This section displays the number of survey days per TRICS® sub-region in the selected set***Filtering Stage 2 selection:***This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.*

Parameter: Gross floor area
 Actual Range: 450 to 6000 (units: sqm)
 Range Selected by User: 450 to 8000 (units: sqm)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/05 to 30/11/07

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

Wednesday 1 days
 Thursday 1 days
 Friday 1 days

*This data displays the number of selected surveys by day of the week.*Selected survey types:

Manual count 3 days
 Directional ATC Count 0 days

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

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

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

Development Zone 1
 Built-Up Zone 1
 No Sub Category 1

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

Filtering Stage 3 selection:Use Class:

D2

3 days

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

Population within 1 mile:

10,001 to 15,000

1 days

15,001 to 20,000

1 days

25,001 to 50,000

1 days

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

Population within 5 miles:

100,001 to 125,000

1 days

250,001 to 500,000

2 days

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

Car ownership within 5 miles:

0.6 to 1.0

3 days

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

Travel Plan:

No

3 days

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

LIST OF SITES relevant to selection parameters

1	ES-07-R-01	CASINO	EAST SUSSEX
	GRAND JUNCTION ROAD		
	BRIGHTON		
	Town Centre		
	Built-Up Zone		
	Total Gross floor area:	3100 sqm	
	Survey date: FRIDAY	30/11/07	Survey Type: MANUAL
2	LC-07-R-01	STANLEY CASINO	LANCASHIRE
	SOUTH PROMENADE		
	SAINT ANNES		
	BLACKPOOL		
	Suburban Area (PPS6 Out of Centre)		
	No Sub Category		
	Total Gross floor area:	450 sqm	
	Survey date: THURSDAY	06/10/05	Survey Type: MANUAL
3	TV-07-R-02	CASINO	TEES VALLEY
	AINTREE OVAL ROAD		
	STOCKTON-ON-TEES		
	Edge of Town		
	Development Zone		
	Total Gross floor area:	6000 sqm	
	Survey date: WEDNESDAY	19/09/07	Survey Type: MANUAL

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

TRIP RATE for Land Use 07 - LEISURE/R - CASINO

VEHICLES**Calculation factor: 100 sqm****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00	3	3183	0.346	3	3183	0.482	3	3183	0.828
01:00 - 02:00	3	3183	0.178	3	3183	0.471	3	3183	0.649
02:00 - 03:00	3	3183	0.199	3	3183	0.335	3	3183	0.534
03:00 - 04:00	2	4550	0.198	2	4550	0.374	2	4550	0.572
04:00 - 05:00	2	4550	0.077	2	4550	0.121	2	4550	0.198
05:00 - 06:00	1	3100	0.161	1	3100	0.355	1	3100	0.516
06:00 - 07:00	1	3100	0.000	1	3100	0.097	1	3100	0.097
07:00 - 08:00									
08:00 - 09:00									
09:00 - 10:00									
10:00 - 11:00									
11:00 - 12:00									
12:00 - 13:00									
13:00 - 14:00	1	3100	0.097	1	3100	0.000	1	3100	0.097
14:00 - 15:00	1	3100	0.161	1	3100	0.032	1	3100	0.193
15:00 - 16:00	1	3100	0.032	1	3100	0.097	1	3100	0.129
16:00 - 17:00	1	3100	0.000	1	3100	0.032	1	3100	0.032
17:00 - 18:00	2	4550	0.011	2	4550	0.000	2	4550	0.011
18:00 - 19:00	3	3183	0.262	3	3183	0.031	3	3183	0.293
19:00 - 20:00	3	3183	1.016	3	3183	0.178	3	3183	1.194
20:00 - 21:00	3	3183	0.471	3	3183	0.188	3	3183	0.659
21:00 - 22:00	3	3183	0.335	3	3183	0.545	3	3183	0.880
22:00 - 23:00	3	3183	0.513	3	3183	0.503	3	3183	1.016
23:00 - 24:00	3	3183	0.408	3	3183	0.565	3	3183	0.973
Total Rates:			4.465			4.406			8.871

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

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

Parameter summary

Trip rate parameter range selected:	450 - 6000 (units: sqm)
Survey date range:	01/01/05 - 30/11/07
Number of weekdays (Monday-Friday):	3
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 07 - LEISURE/R - CASINO

OGVS**Calculation factor: 100 sqm****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00	3	3183	0.000	3	3183	0.000	3	3183	0.000
01:00 - 02:00	3	3183	0.000	3	3183	0.000	3	3183	0.000
02:00 - 03:00	3	3183	0.000	3	3183	0.000	3	3183	0.000
03:00 - 04:00	2	4550	0.000	2	4550	0.000	2	4550	0.000
04:00 - 05:00	2	4550	0.000	2	4550	0.000	2	4550	0.000
05:00 - 06:00	1	3100	0.000	1	3100	0.000	1	3100	0.000
06:00 - 07:00	1	3100	0.000	1	3100	0.000	1	3100	0.000
07:00 - 08:00									
08:00 - 09:00									
09:00 - 10:00									
10:00 - 11:00									
11:00 - 12:00									
12:00 - 13:00									
13:00 - 14:00	1	3100	0.000	1	3100	0.000	1	3100	0.000
14:00 - 15:00	1	3100	0.000	1	3100	0.000	1	3100	0.000
15:00 - 16:00	1	3100	0.000	1	3100	0.000	1	3100	0.000
16:00 - 17:00	1	3100	0.000	1	3100	0.000	1	3100	0.000
17:00 - 18:00	2	4550	0.000	2	4550	0.000	2	4550	0.000
18:00 - 19:00	3	3183	0.000	3	3183	0.000	3	3183	0.000
19:00 - 20:00	3	3183	0.000	3	3183	0.000	3	3183	0.000
20:00 - 21:00	3	3183	0.000	3	3183	0.000	3	3183	0.000
21:00 - 22:00	3	3183	0.000	3	3183	0.000	3	3183	0.000
22:00 - 23:00	3	3183	0.000	3	3183	0.000	3	3183	0.000
23:00 - 24:00	3	3183	0.000	3	3183	0.000	3	3183	0.000
Total Rates:			0.000			0.000			0.000

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

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

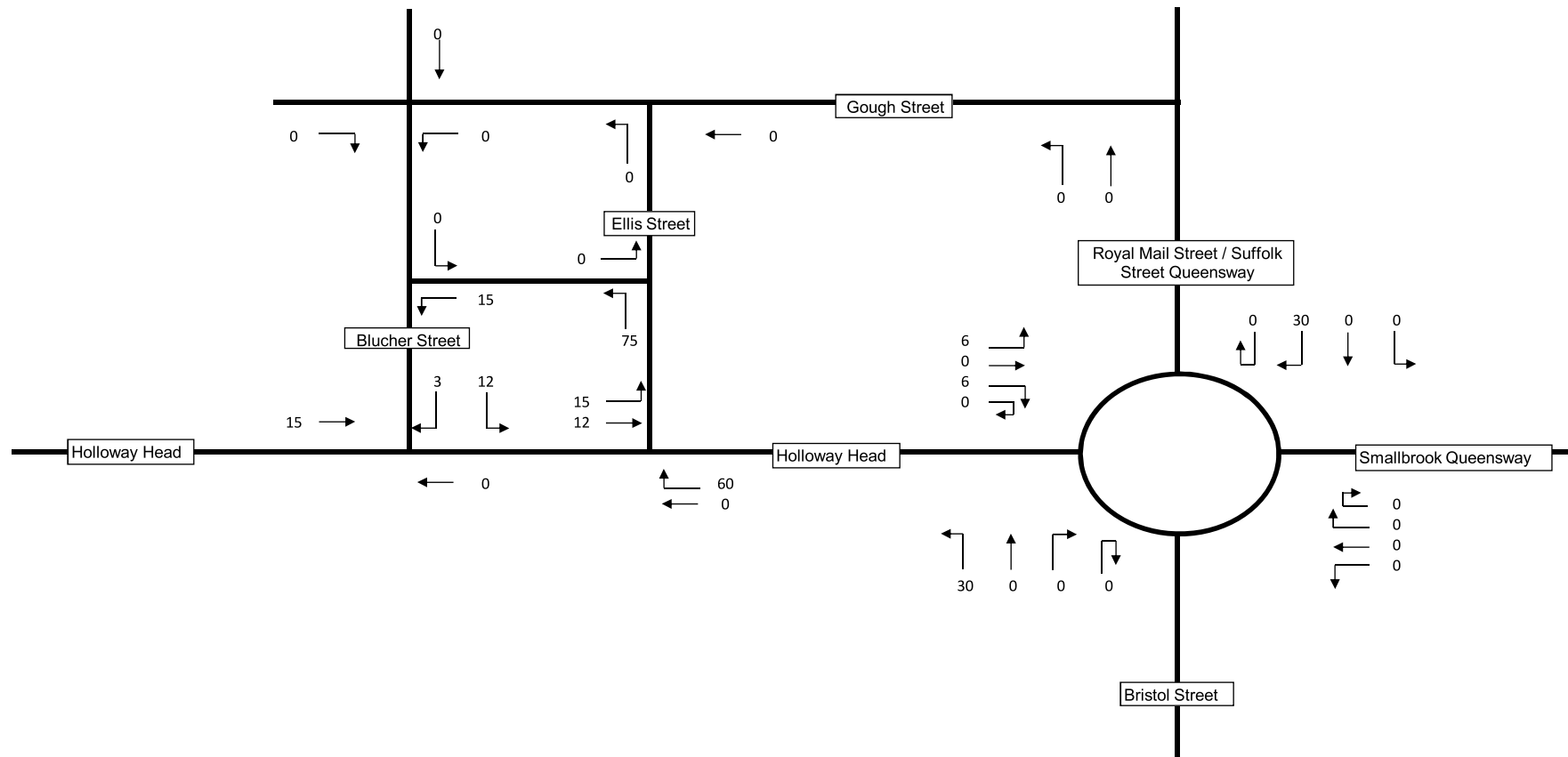
Parameter summary

Trip rate parameter range selected: 450 - 6000 (units: sqm)
 Survey date range: 01/01/05 - 30/11/07
 Number of weekdays (Monday-Friday): 3
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 0

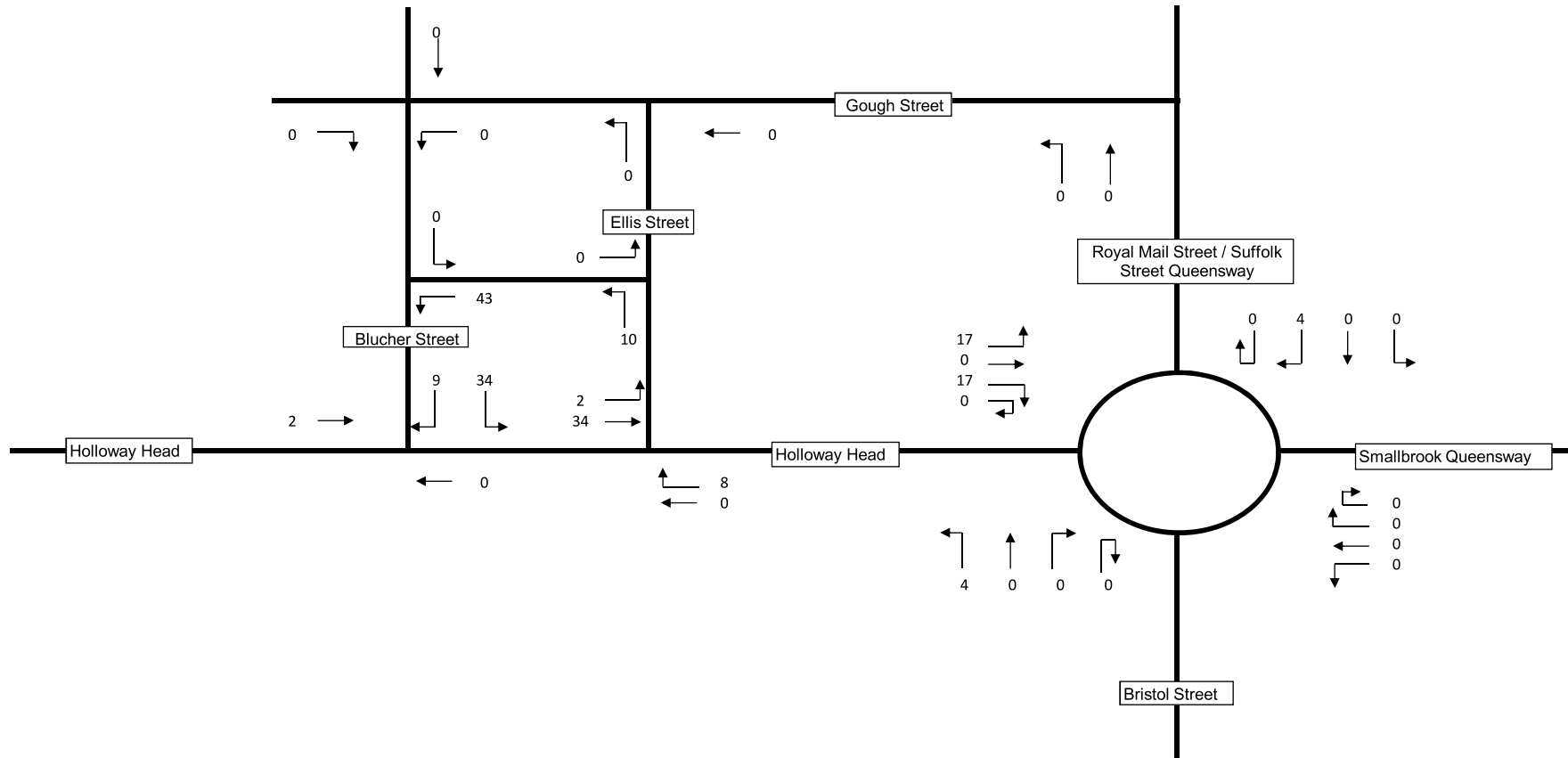
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected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

Appendix 7

Existing Office Flows



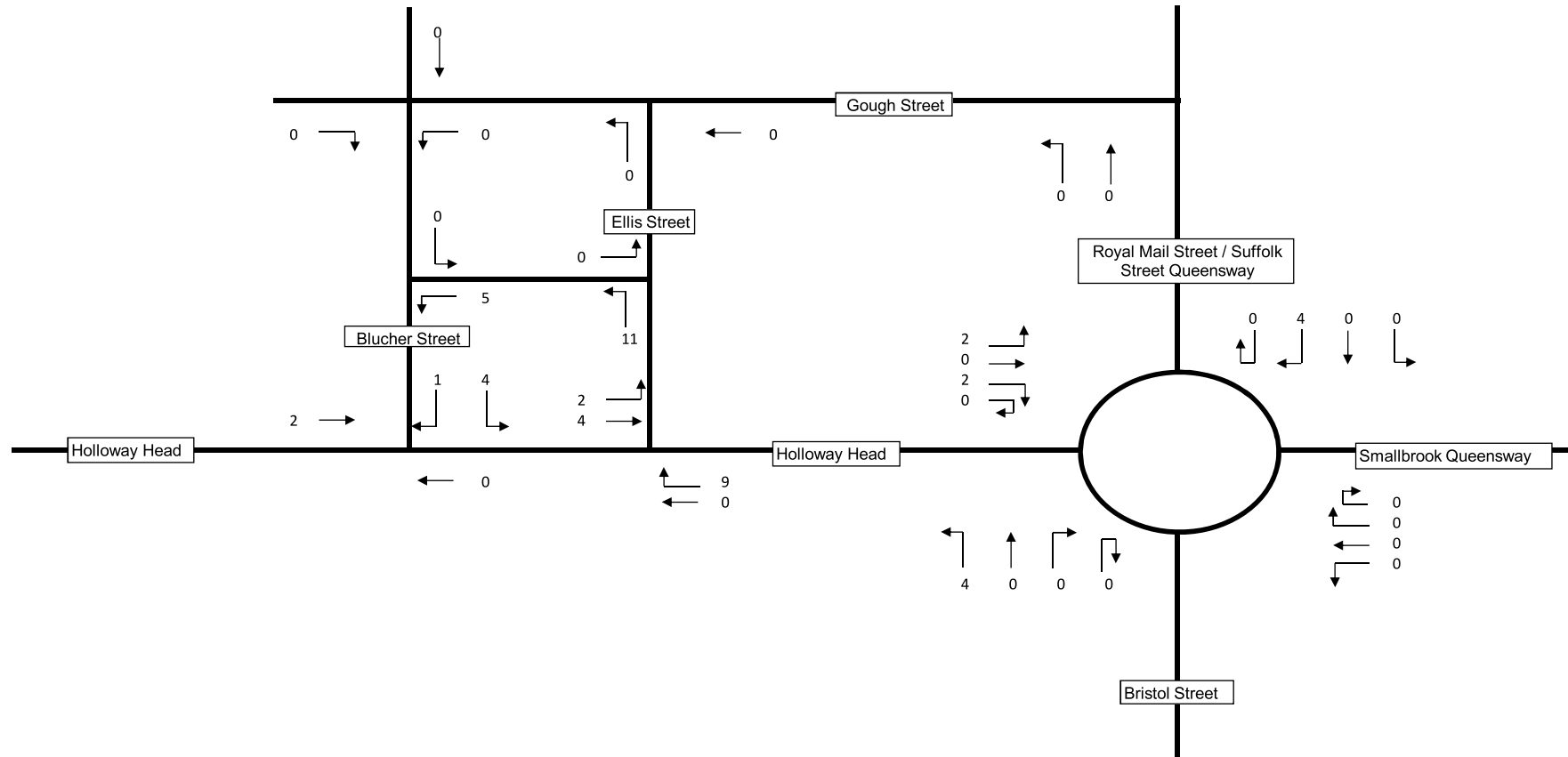
Proposed Development - Holloway Head, Birmingham
AM Peak - (08:00 - 09:00) - Existing Office Flows



0 Total Vehicles
(0) Heavy Vehicles

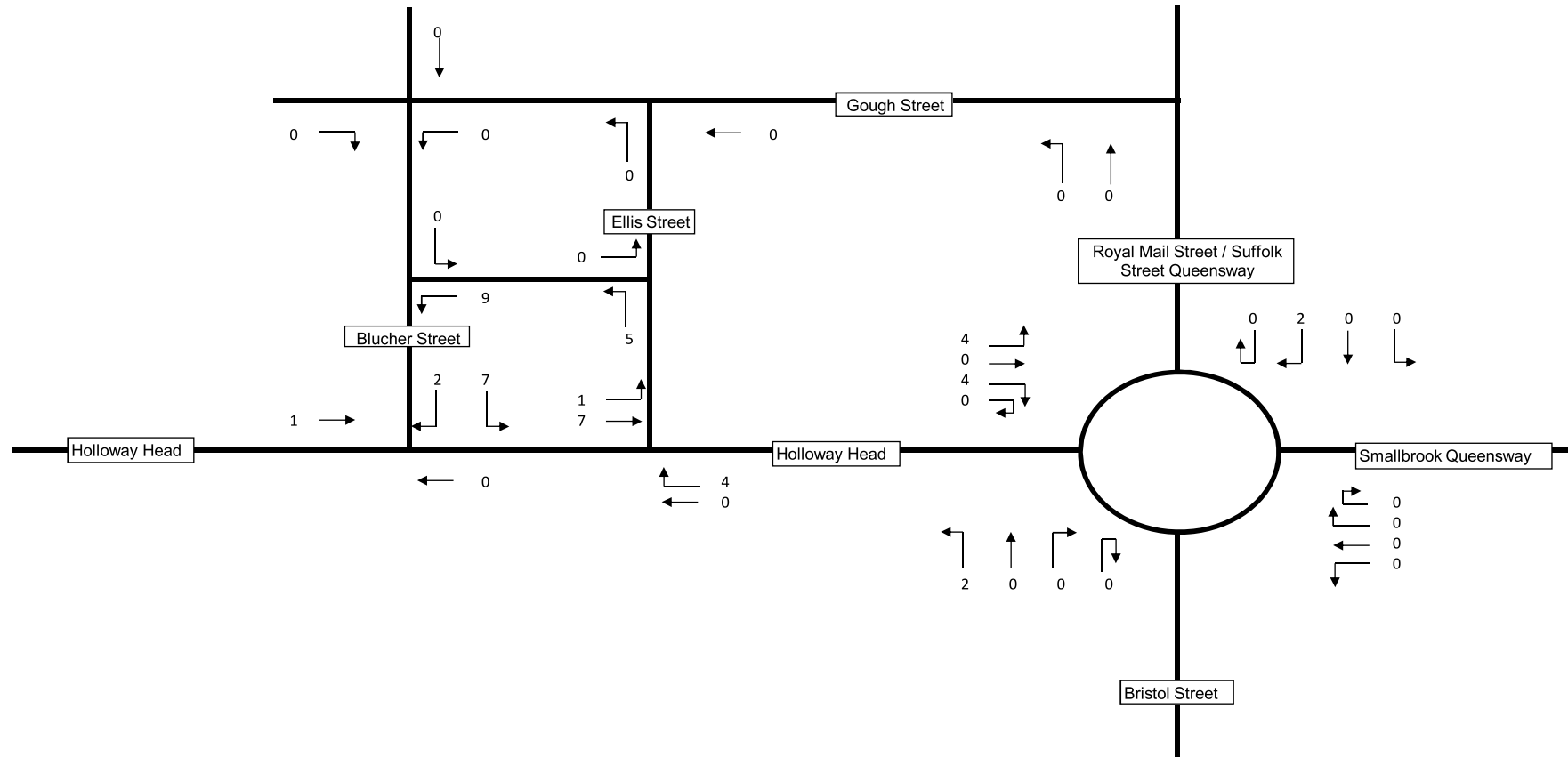
Proposed Development - Holloway Head, Birmingham
PM Peak - (17:00 - 18:00) - Existing Office Flows

Appendix 8 Existing Car Workshop/Sales Flows



0 Total Vehicles
(0) Heavy Vehicles

Proposed Development - Holloway Head, Birmingham
AM Peak - (08:00 - 09:00) - Existing Car Workshop / Sales Flows

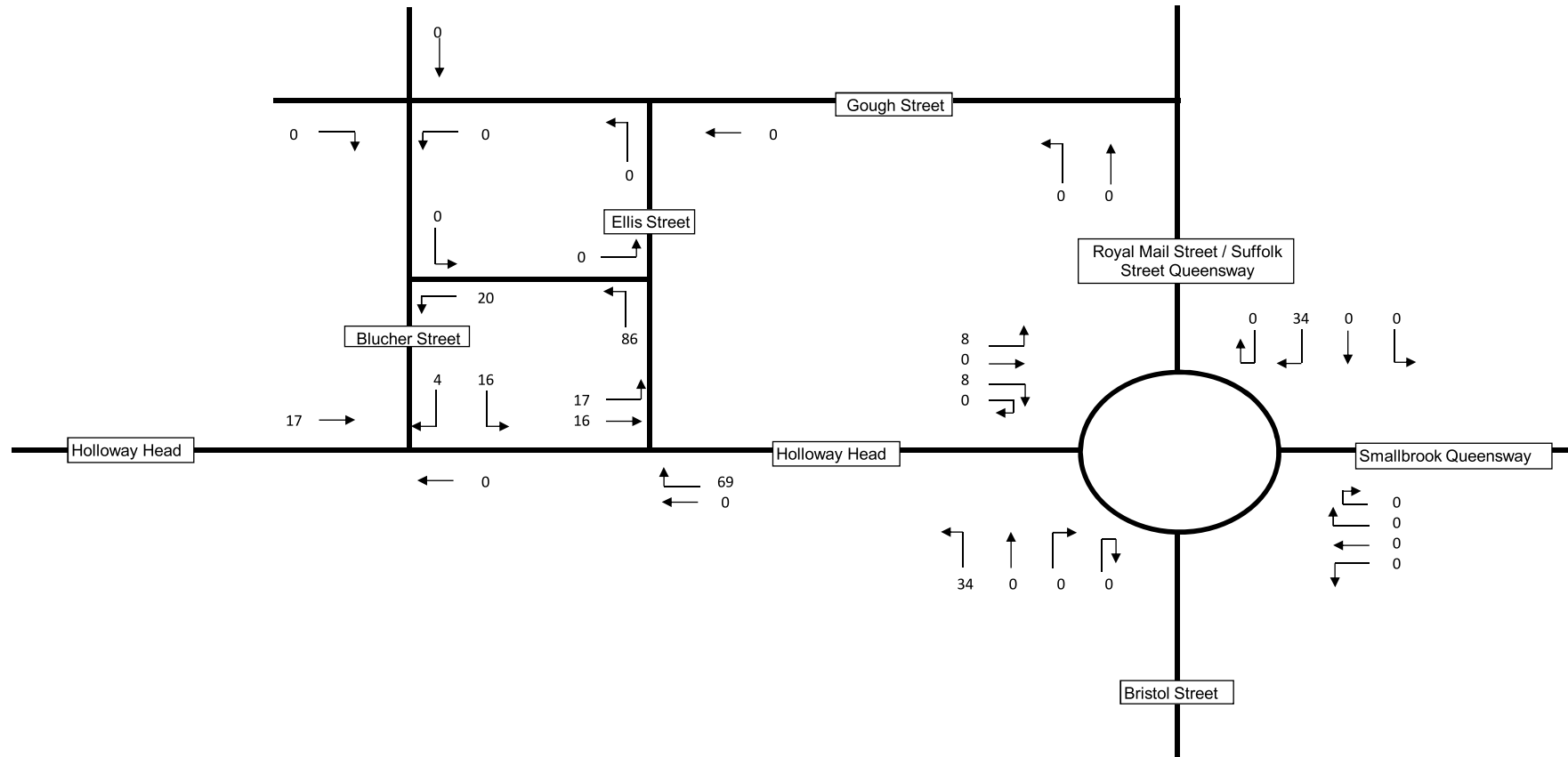


0 Total Vehicles
(0) Heavy Vehicles

Proposed Development - Holloway Head, Birmingham
PM Peak - (17:00 - 18:00) - Existing Car Workshop / Sales Flows

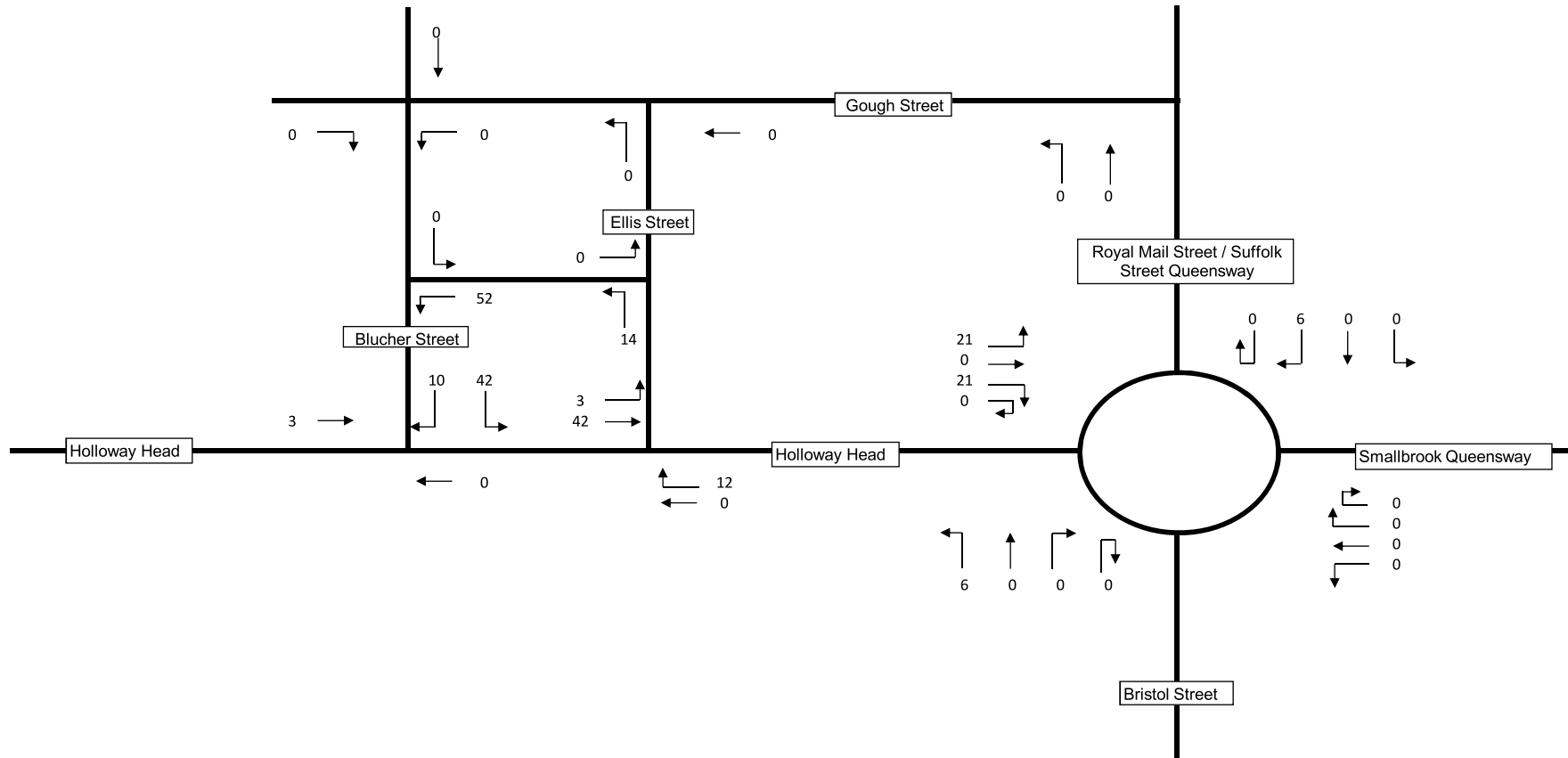
Appendix 9

Total Existing Site Flows



0 Total Vehicles
(0) Heavy Vehicles

Proposed Development - Holloway Head, Birmingham
AM Peak - (08:00 - 09:00) - Total Existing Site Use Flows

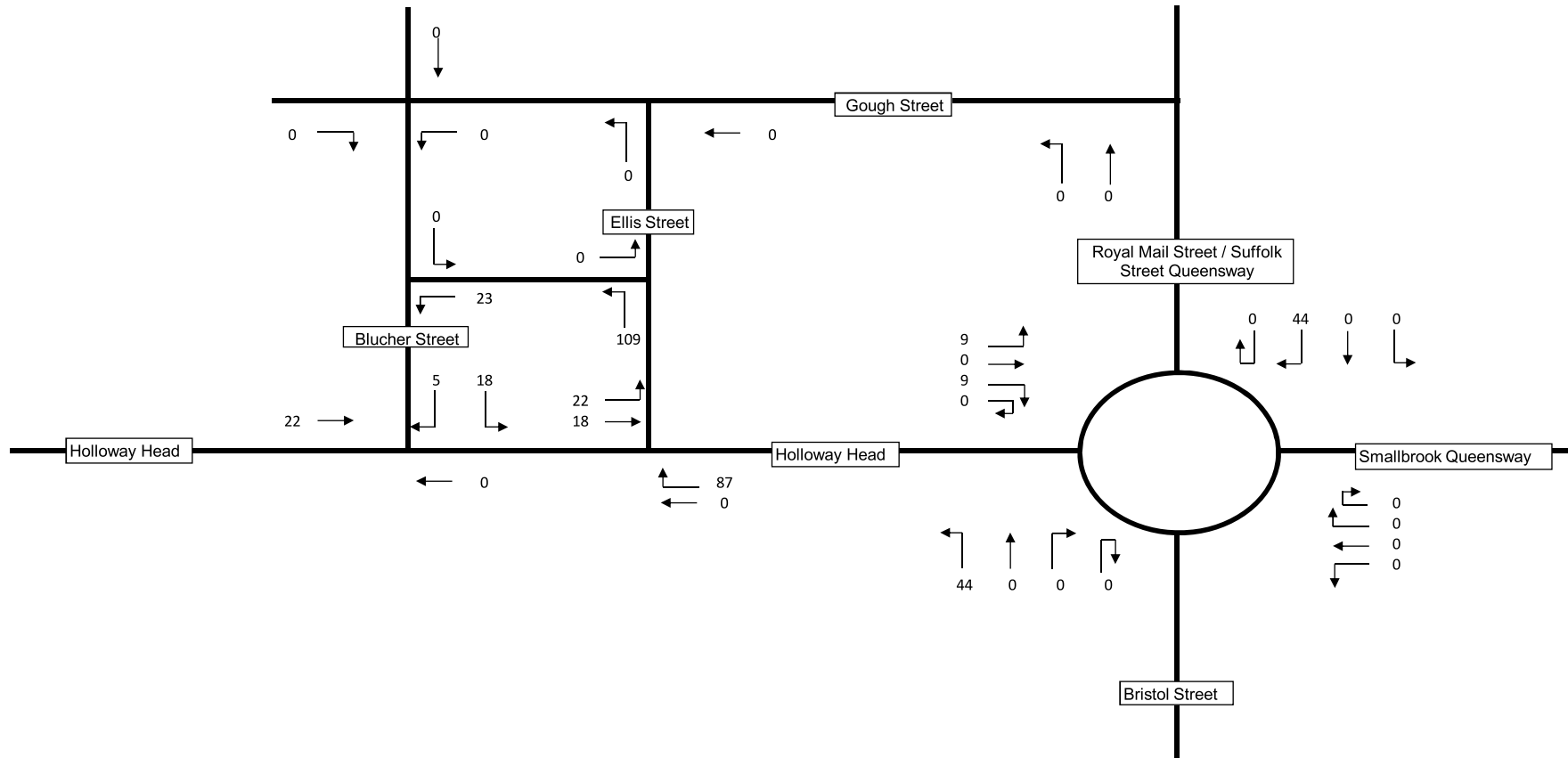


0 Total Vehicles
(0) Heavy Vehicles

Proposed Development - Holloway Head, Birmingham
PM Peak - (17:00 - 18:00) - Total Existing Site Use Flows

Appendix 10

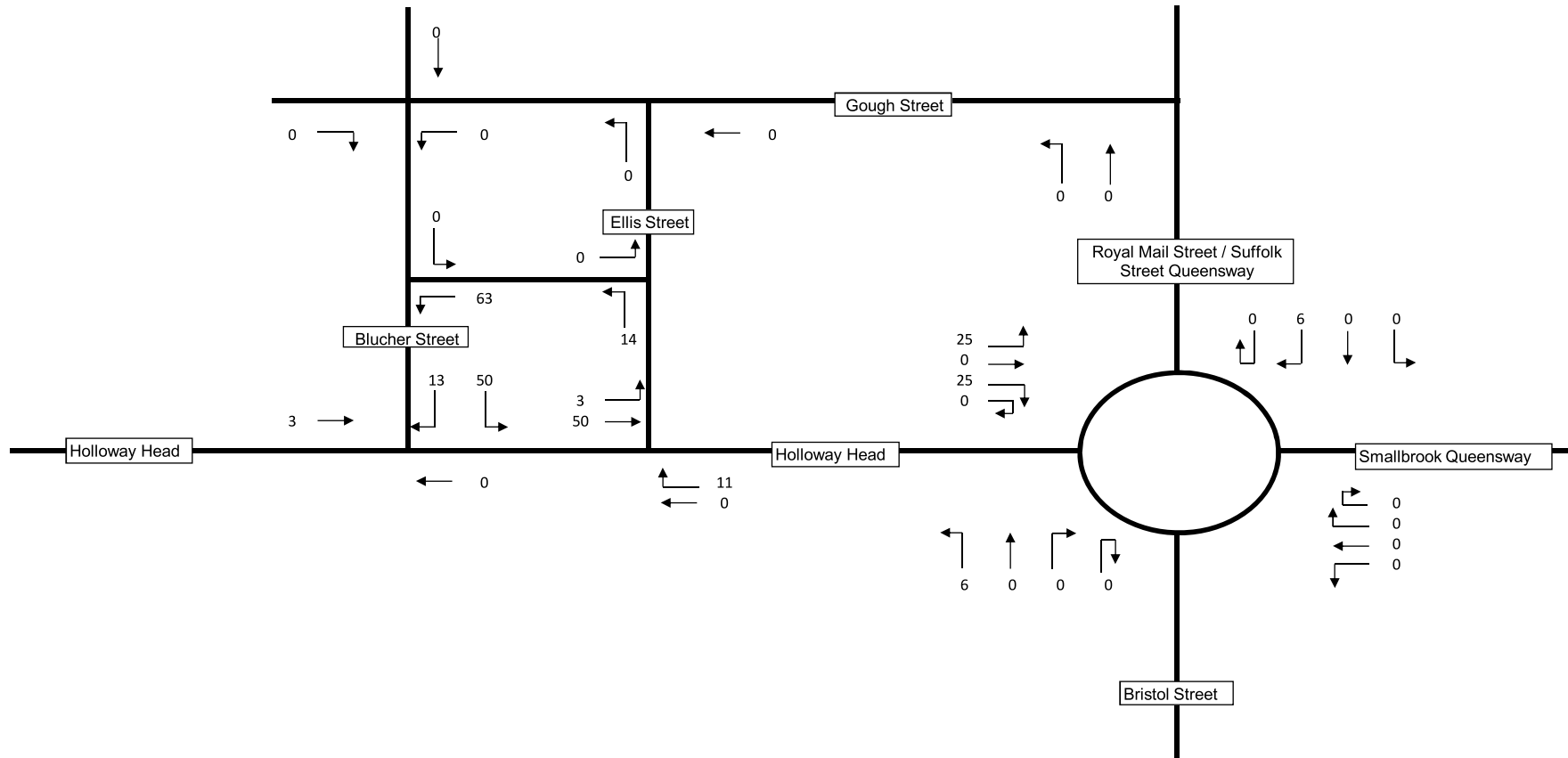
Total Extant Site Flows



0 Total Vehicles
(0) Heavy Vehicles

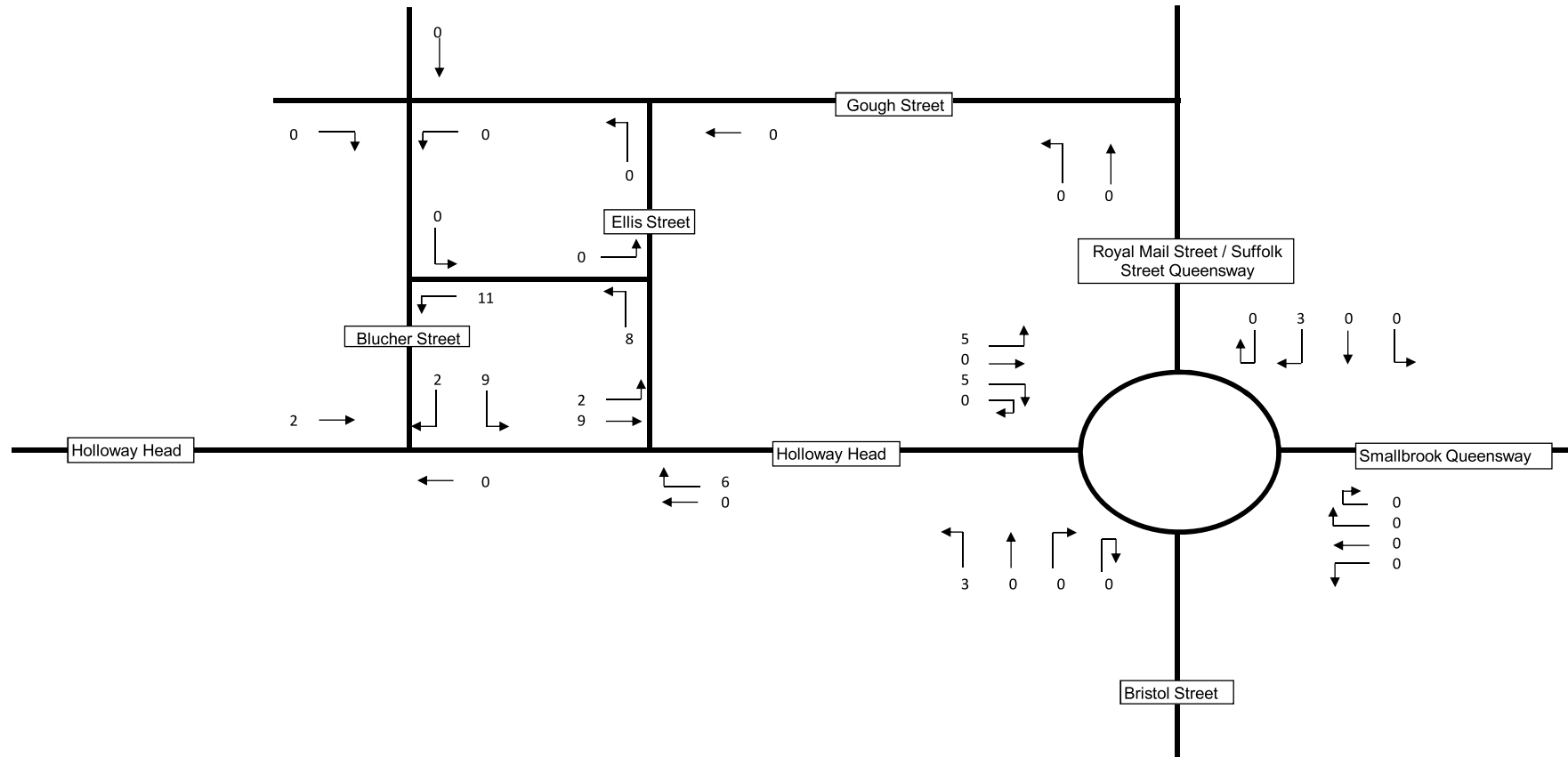
Proposed Development - Holloway Head, Birmingham

AM Peak - (08:00 - 09:00) - Extant Office Flows

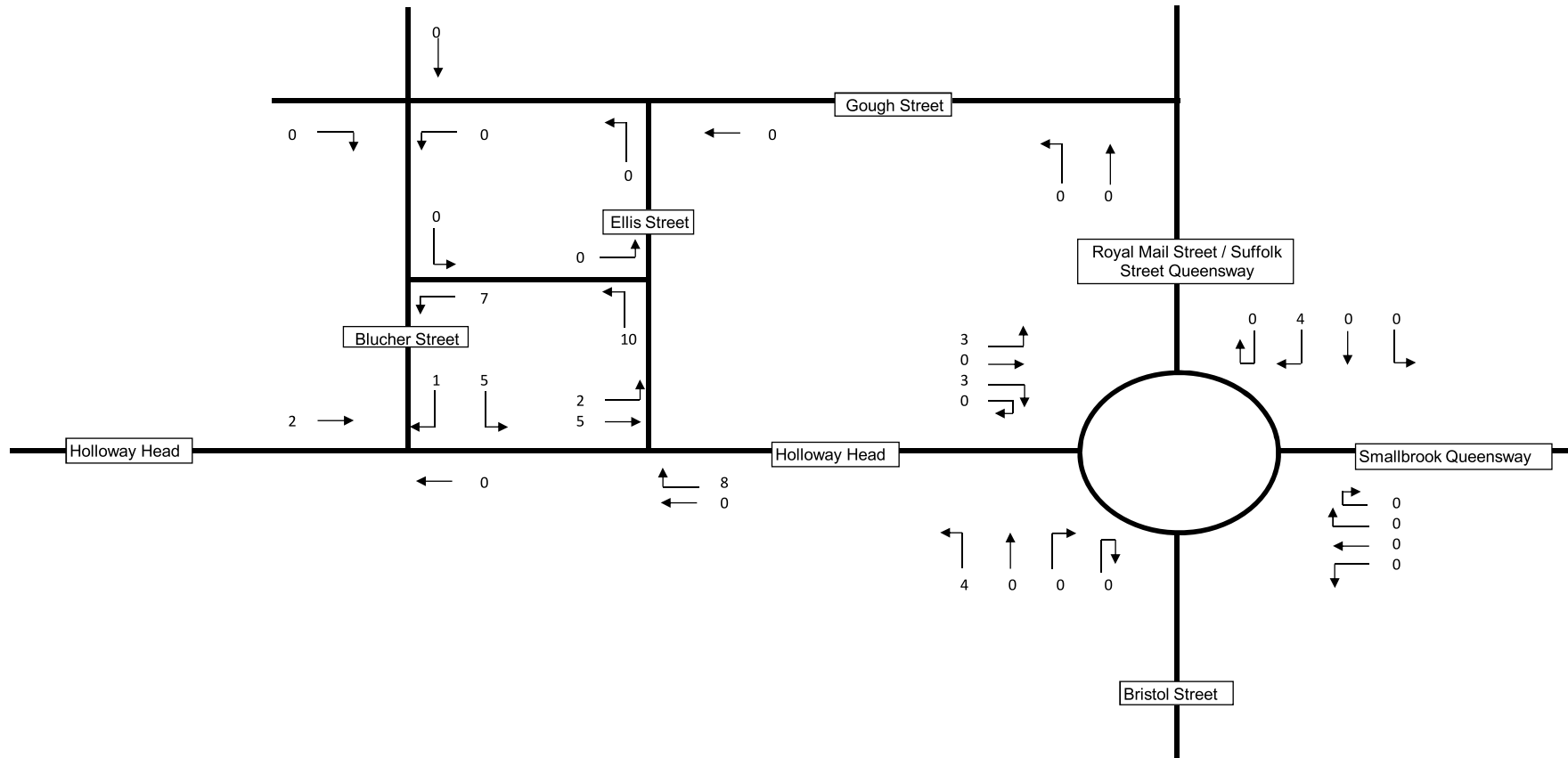


0 Total Vehicles
(0) Heavy Vehicles

Proposed Development - Holloway Head, Birmingham
PM Peak - (17:00 - 18:00) - Extant Office Flows



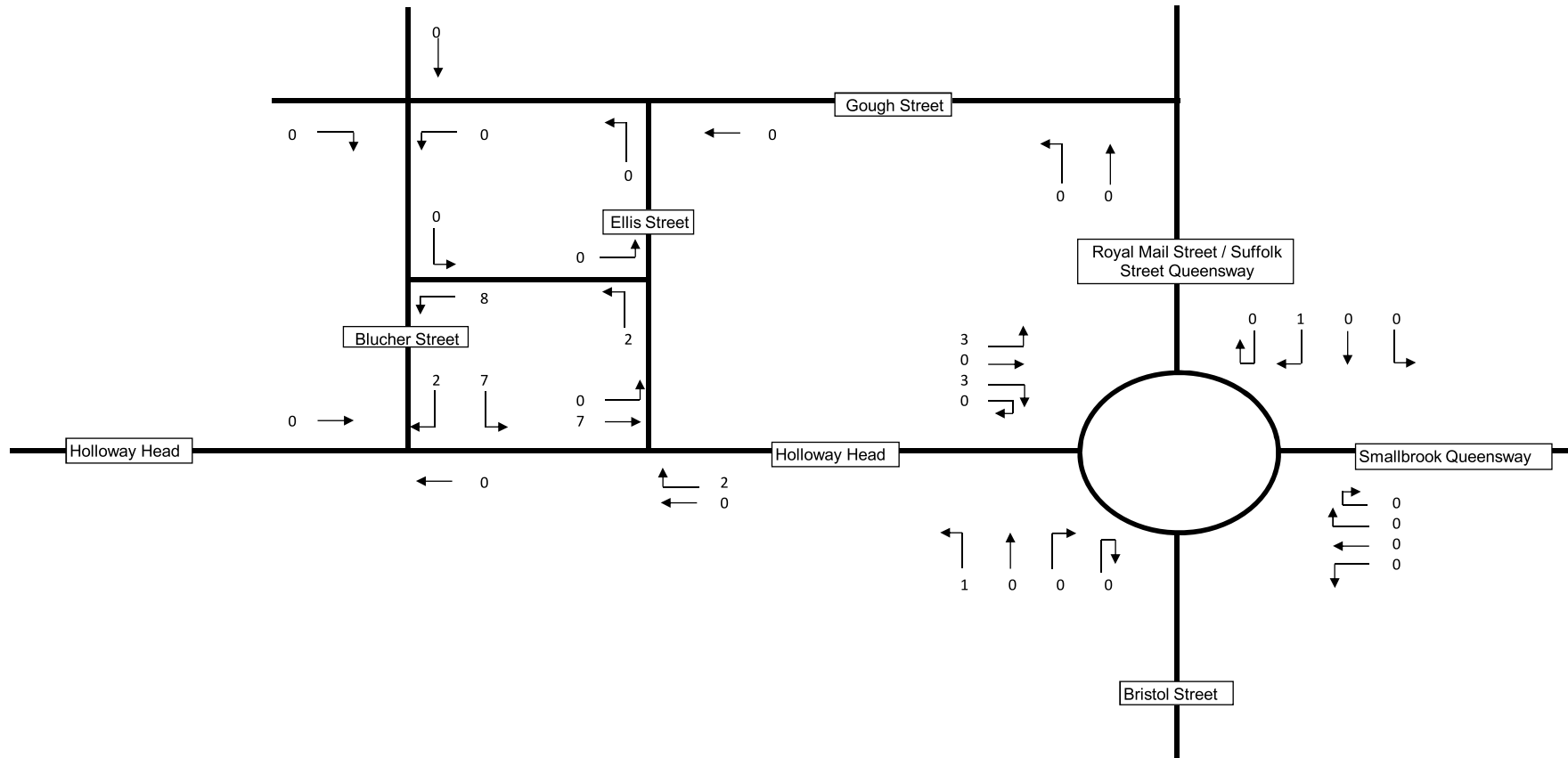
Proposed Development - Holloway Head, Birmingham
AM Peak - (08:00 - 09:00) - Extant Hotel Flows



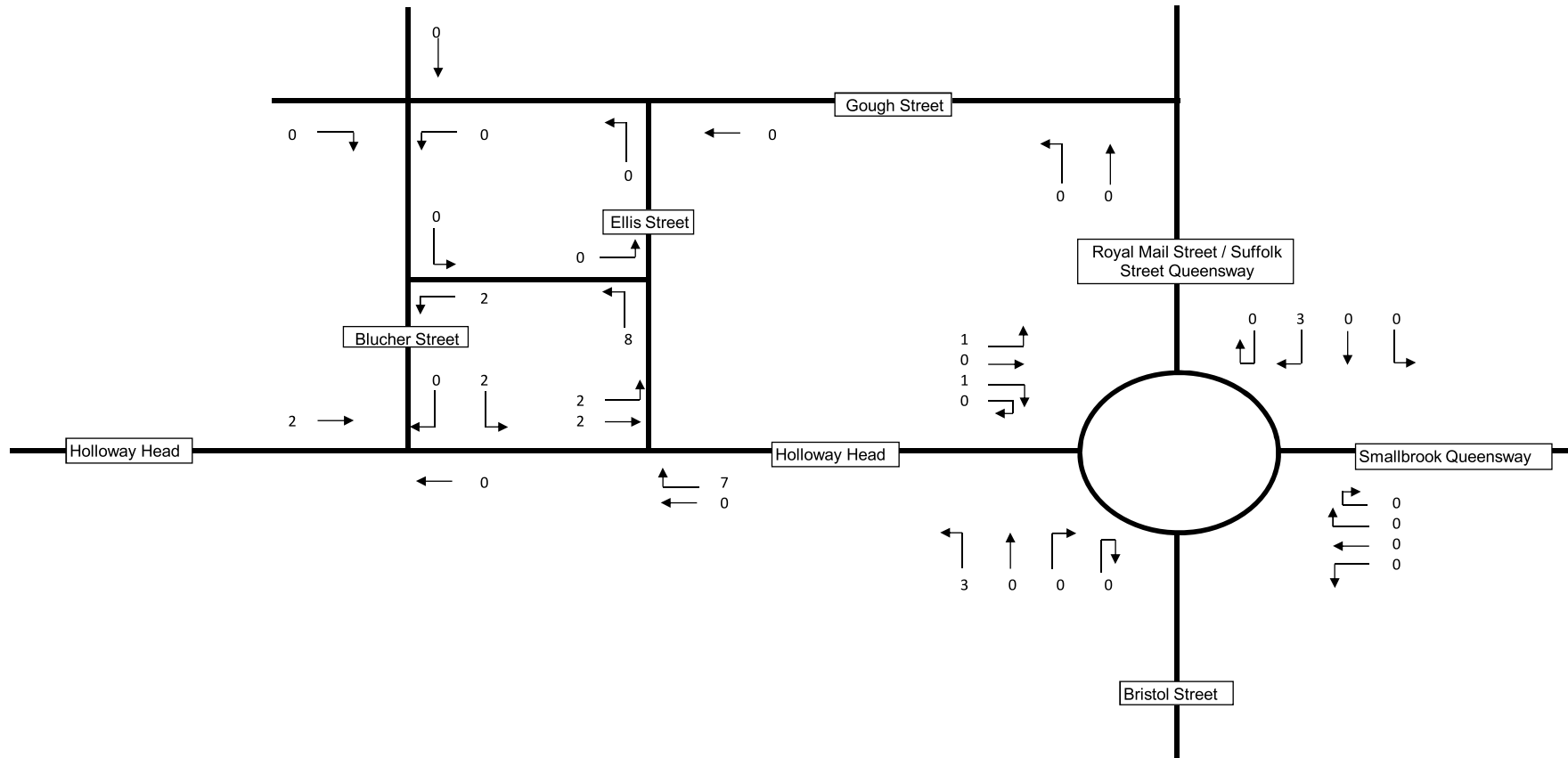
0 Total Vehicles
(0) Heavy Vehicles

Proposed Development - Holloway Head, Birmingham

PM Peak - (17:00 - 18:00) - Extant Hotel Flows

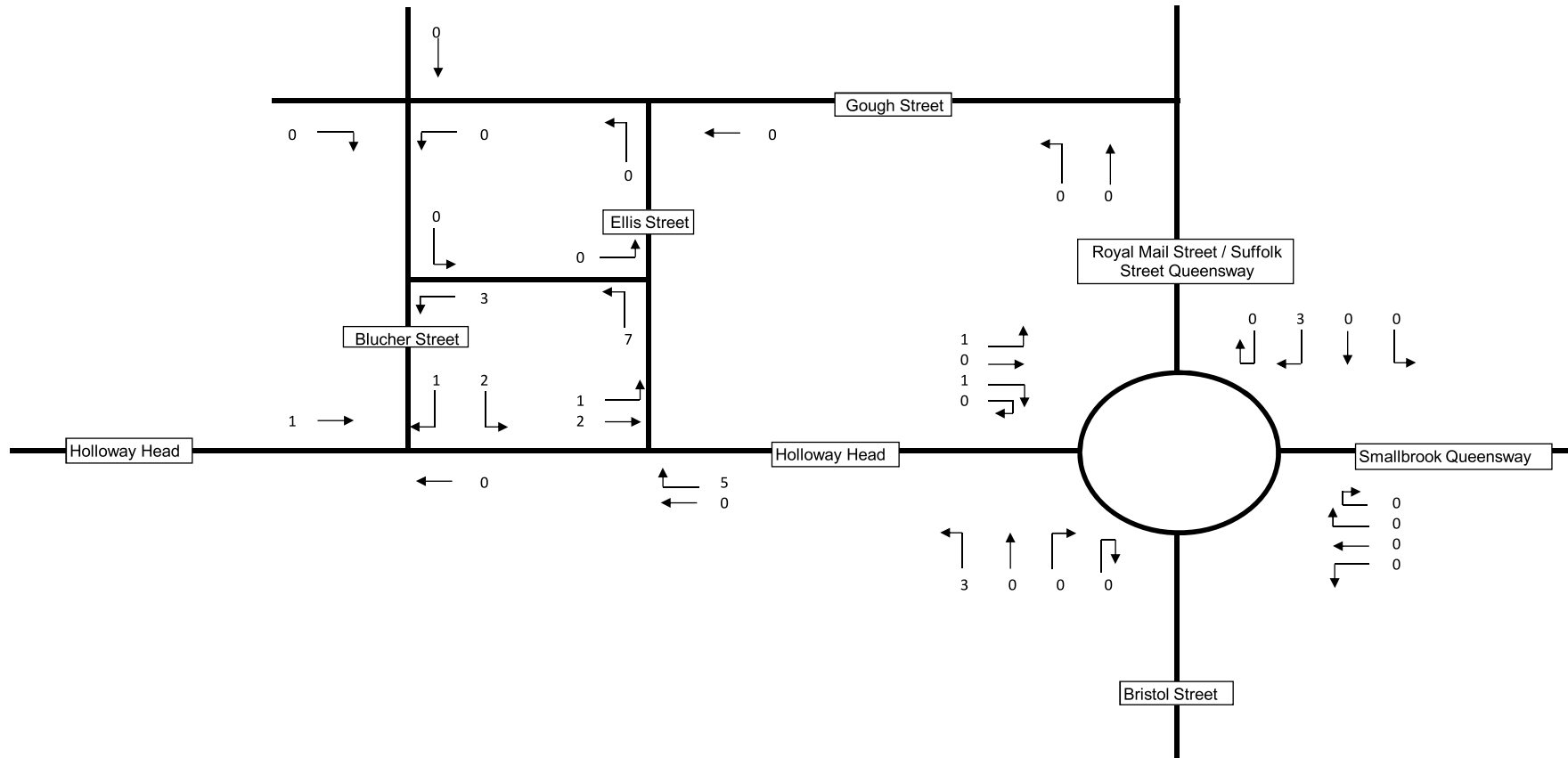


Proposed Development - Holloway Head, Birmingham
AM Peak - (08:00 - 09:00) - Extant Apartment Flows



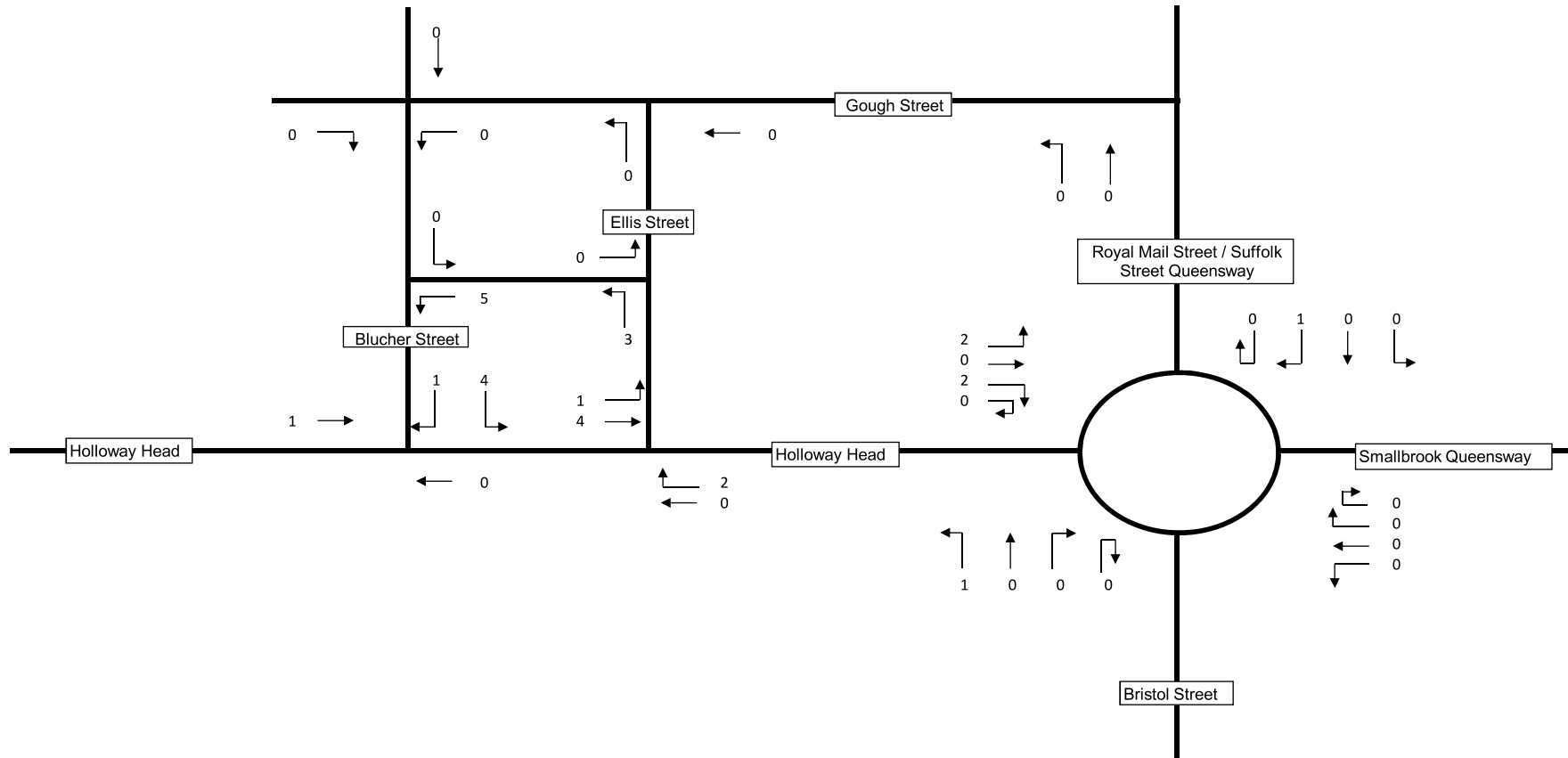
0 Total Vehicles
(0) Heavy Vehicles

Proposed Development - Holloway Head, Birmingham
PM Peak - (17:00 - 18:00) - Extant Apartment Flows

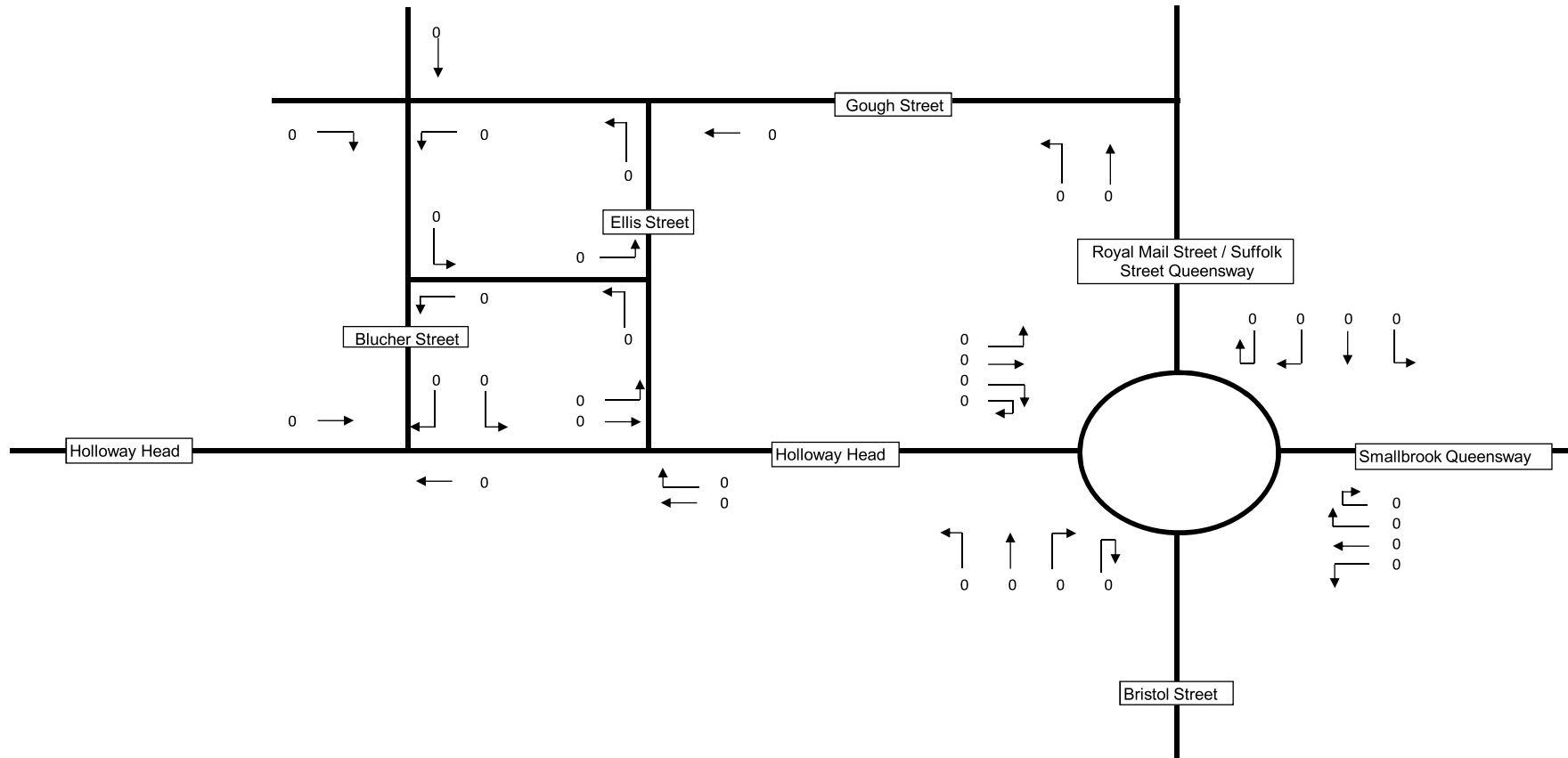


0 Total Vehicles
(0) Heavy Vehicles

Proposed Development - Holloway Head, Birmingham
AM Peak - (08:00 - 09:00) - Extant Car Showroom / Workshop Flows



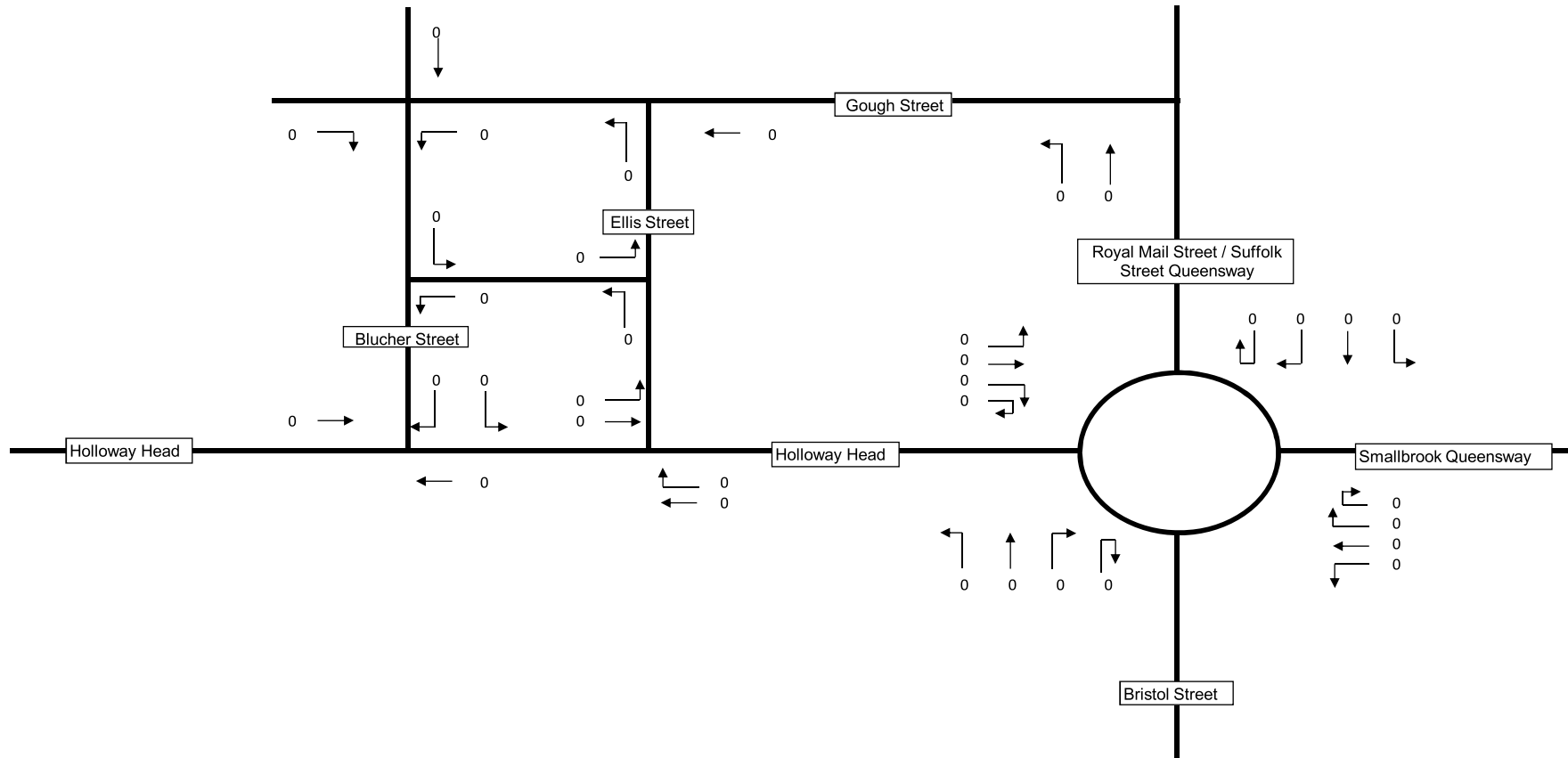
Proposed Development - Holloway Head, Birmingham
PM Peak - (17:00 - 18:00) - Extant Car Showroom / Workshop Flows



0 Total Vehicles
(0) Heavy Vehicles

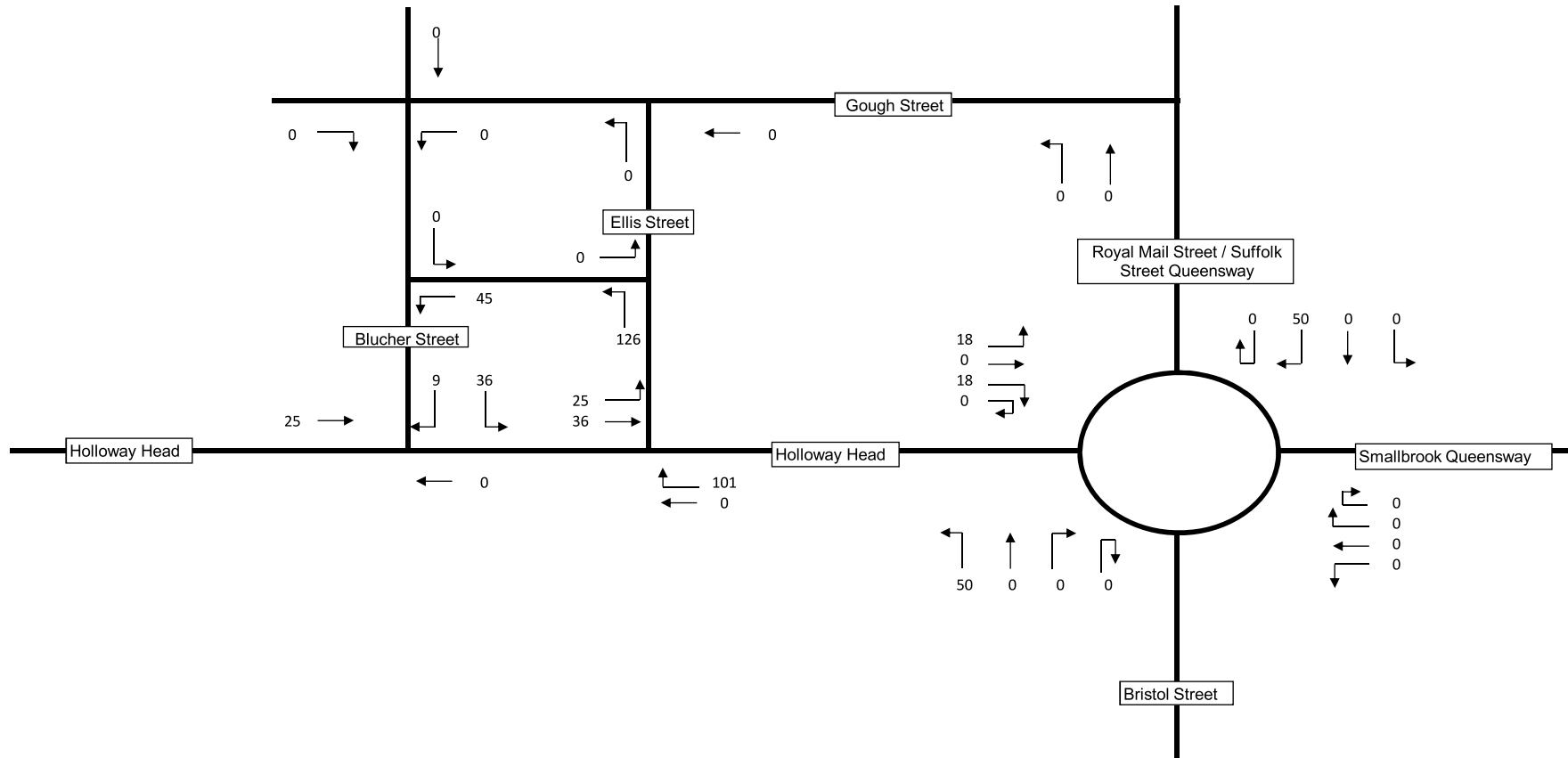
Proposed Development - Holloway Head, Birmingham

AM Peak - (08:00 - 09:00) - Extant Casino Flows



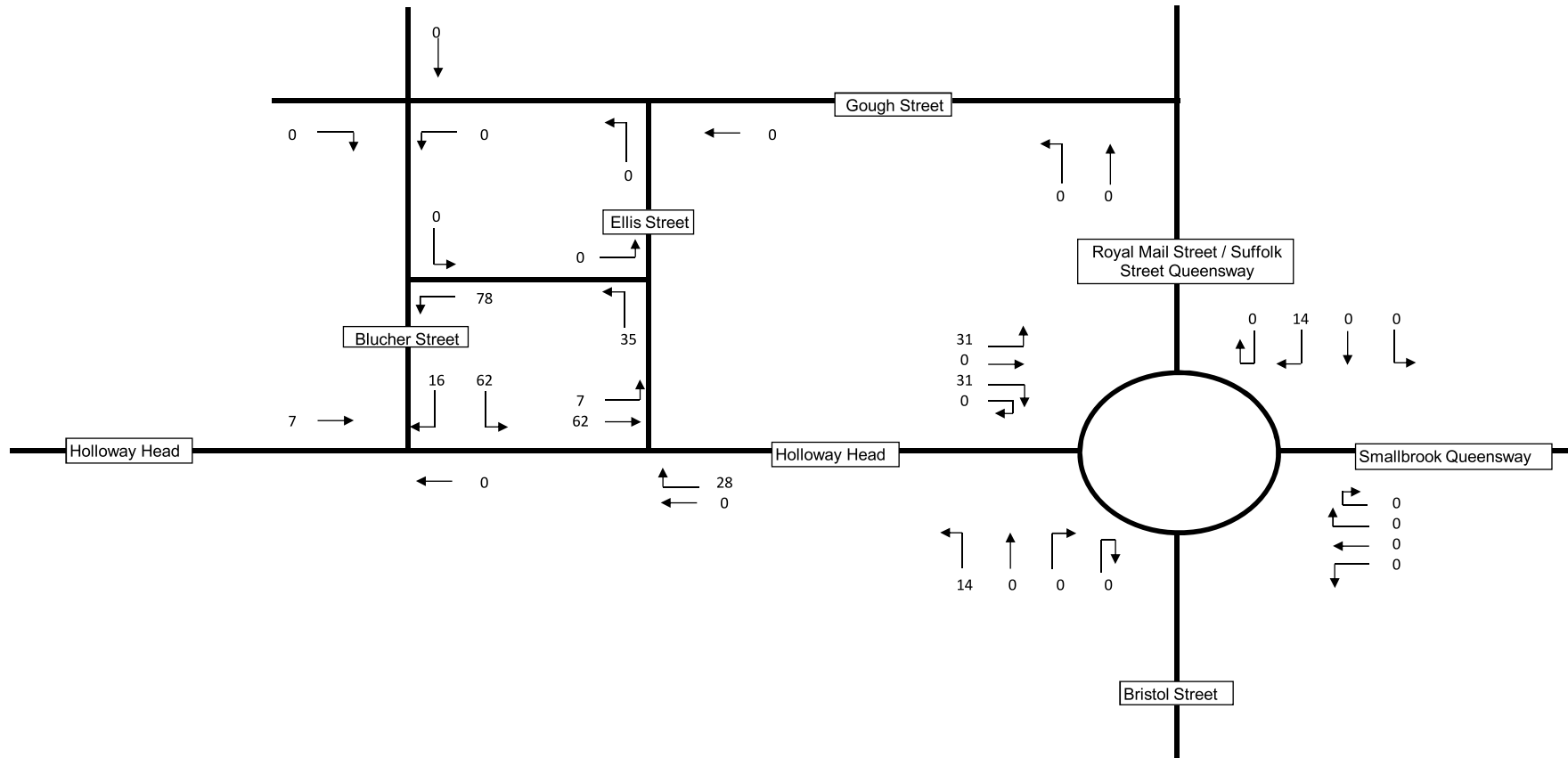
0 Total Vehicles
(0) Heavy Vehicles

Proposed Development - Holloway Head, Birmingham
PM Peak - (17:00 - 18:00) - Extant Casino Flows



0 Total Vehicles
(0) Heavy Vehicles

Proposed Development - Holloway Head, Birmingham
AM Peak - (08:00 - 09:00) - Total Extant Development Flows

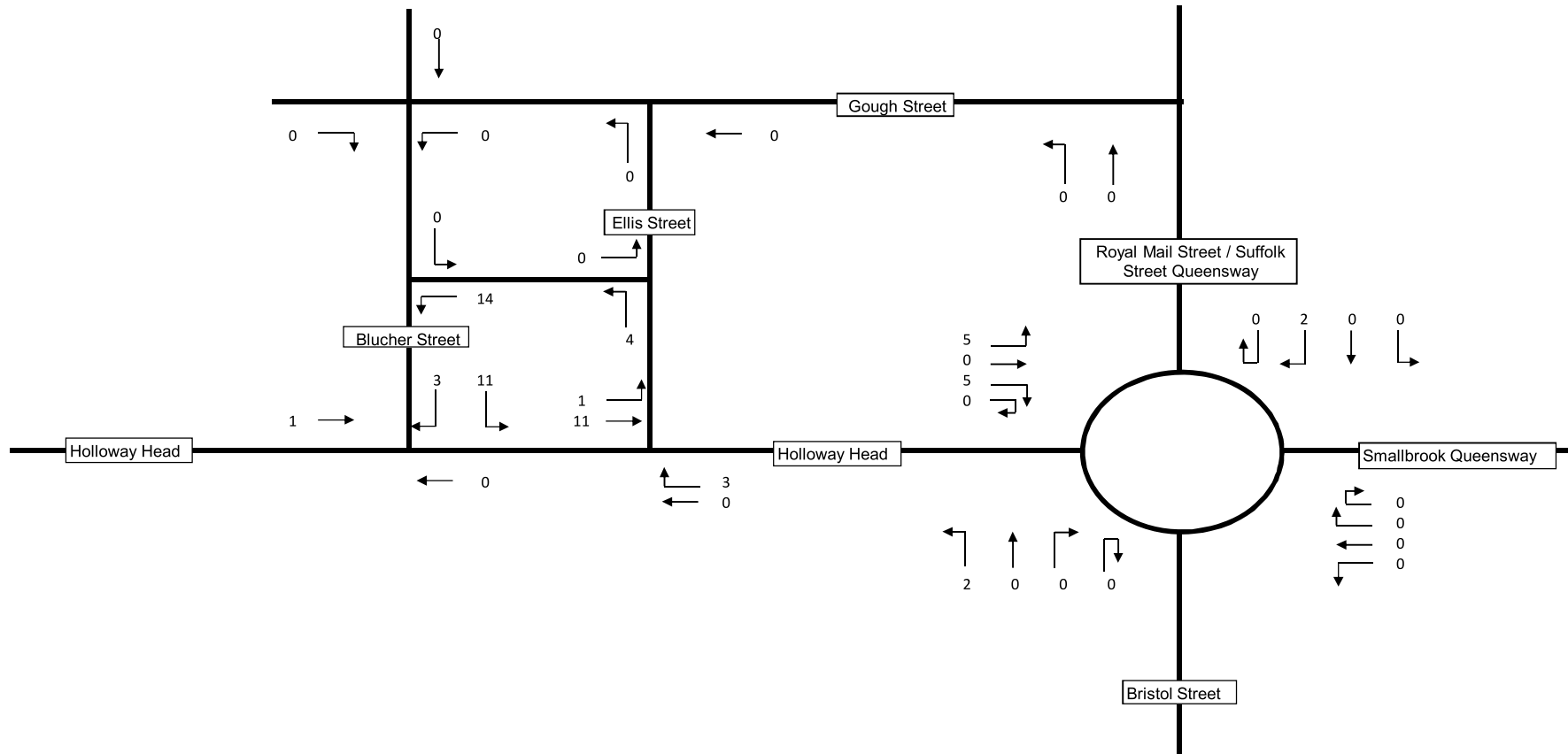


0 Total Vehicles
(0) Heavy Vehicles

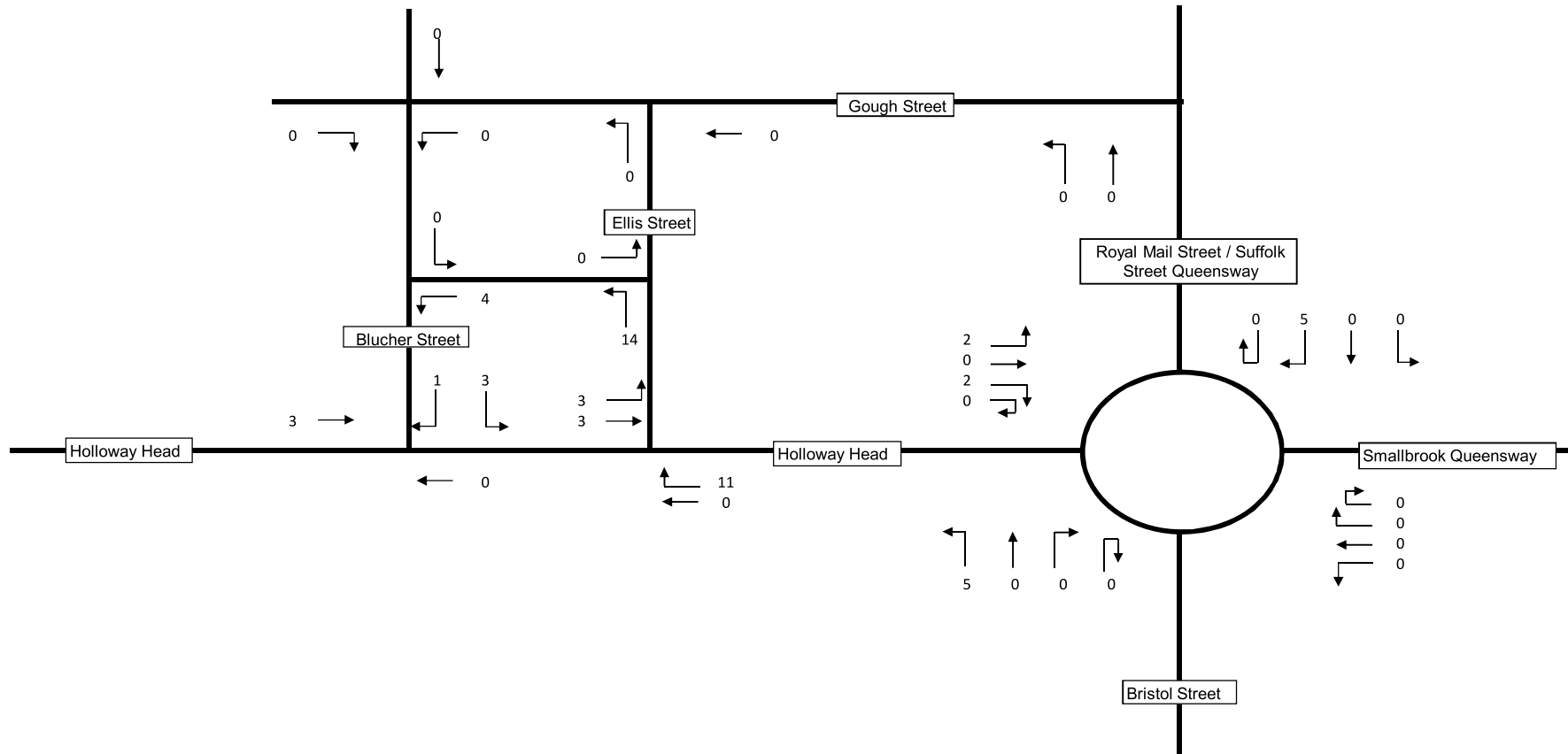
Proposed Development - Holloway Head, Birmingham
PM Peak - (17:00 - 18:00) - Total Extant Development Flows

Appendix 11

Total Proposed Site Flows



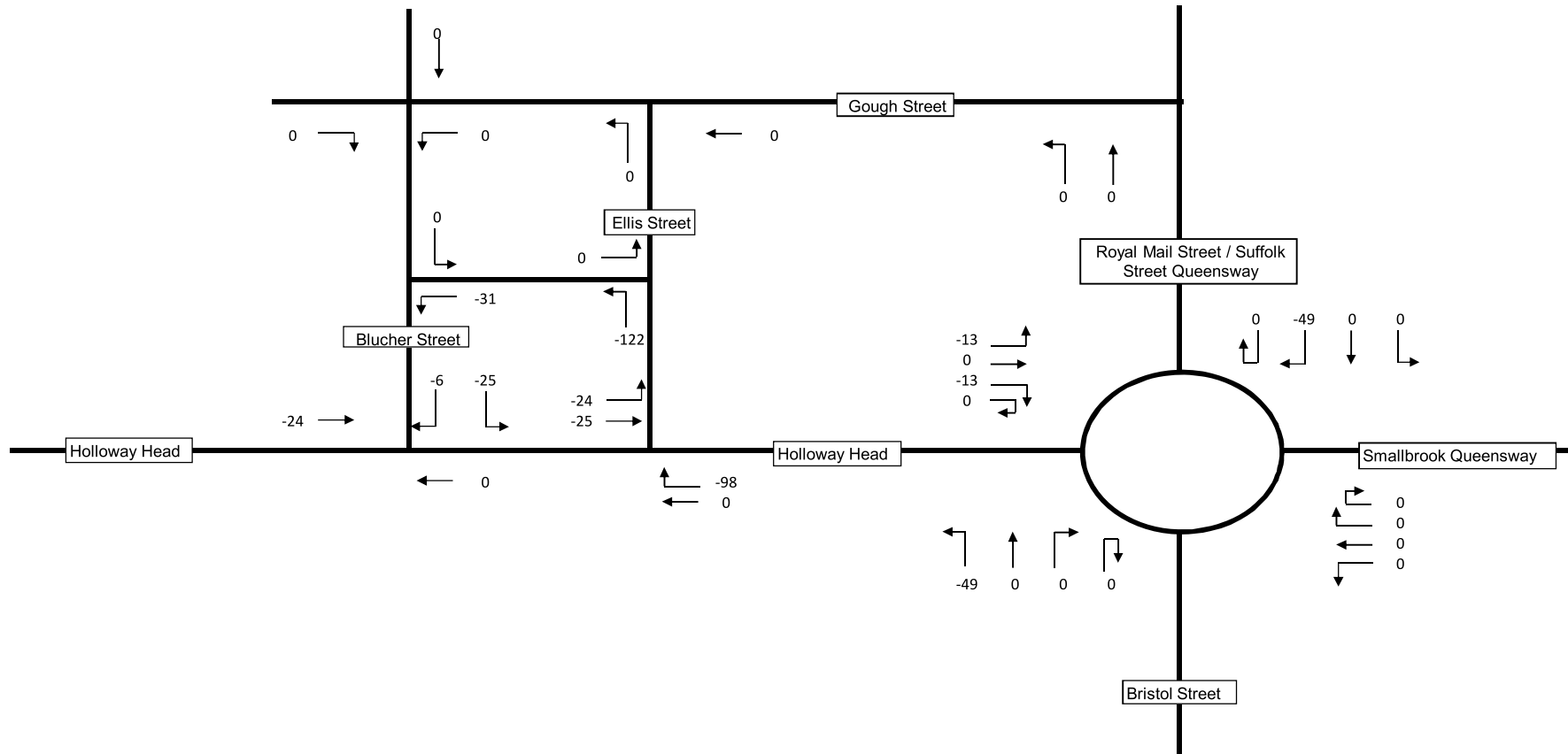
Proposed Development - Holloway Head, Birmingham
AM Peak - (08:00 - 09:00) - Proposed Apartment Flows



Proposed Development - Holloway Head, Birmingham
PM Peak - (17:00 - 18:00) - Proposed Apartment Flows

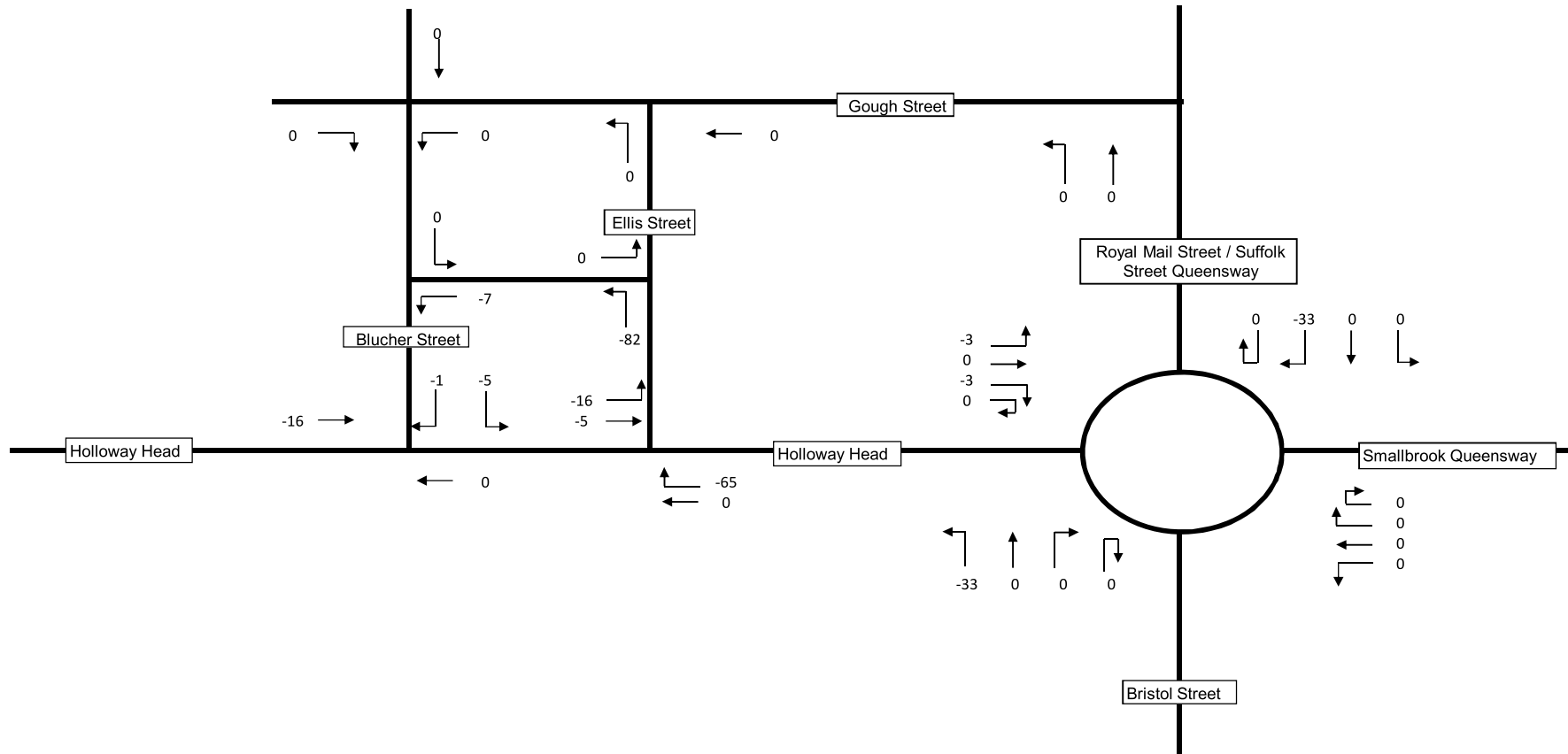
Appendix 12

Net Development Effect



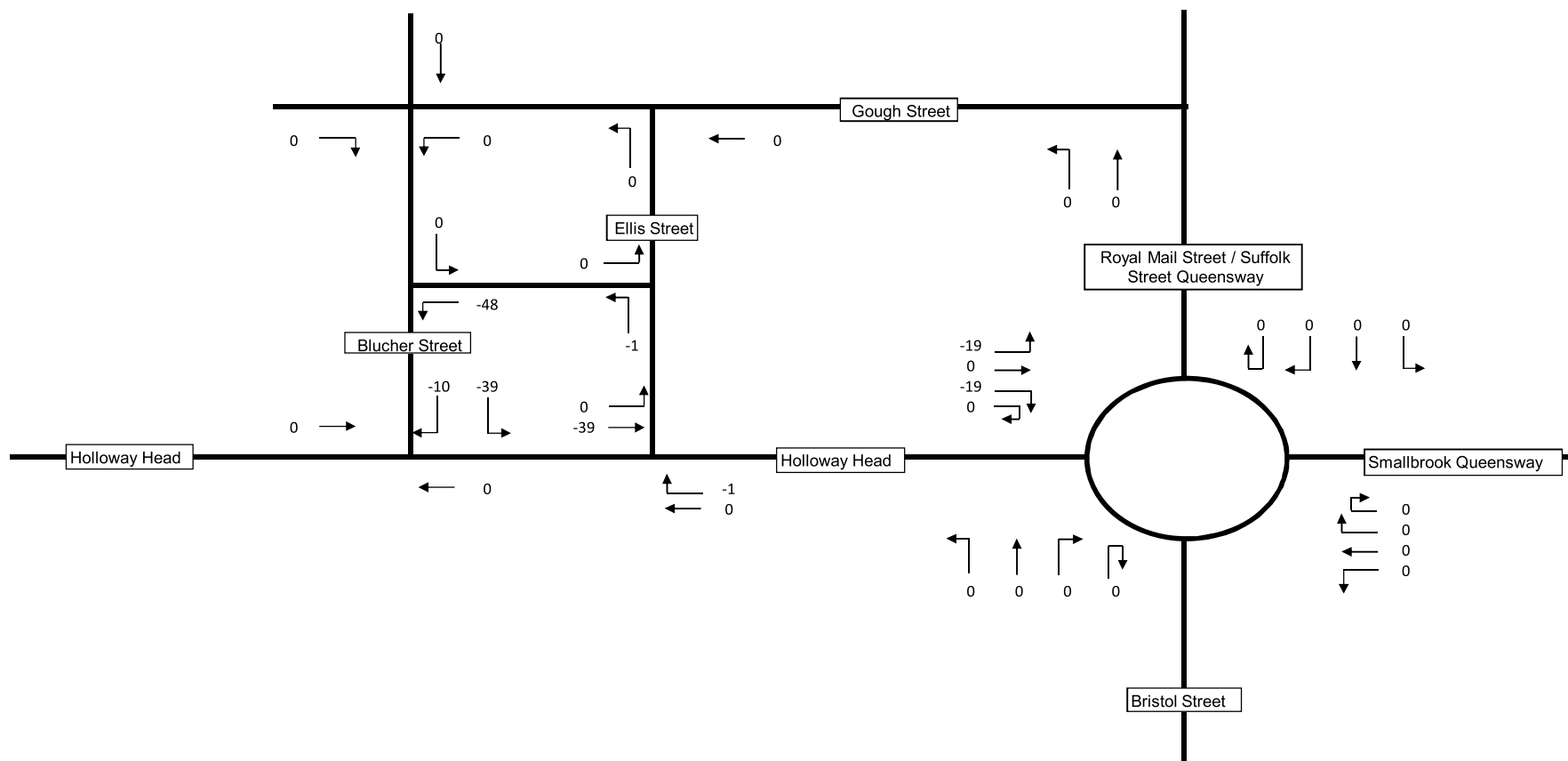
0 Total Vehicles
(0) Heavy Vehicles

Proposed Development - Holloway Head, Birmingham
AM Peak - (08:00 - 09:00) - Net Development (Proposed Subtract Extant)



0 Total Vehicles
(0) Heavy Vehicles

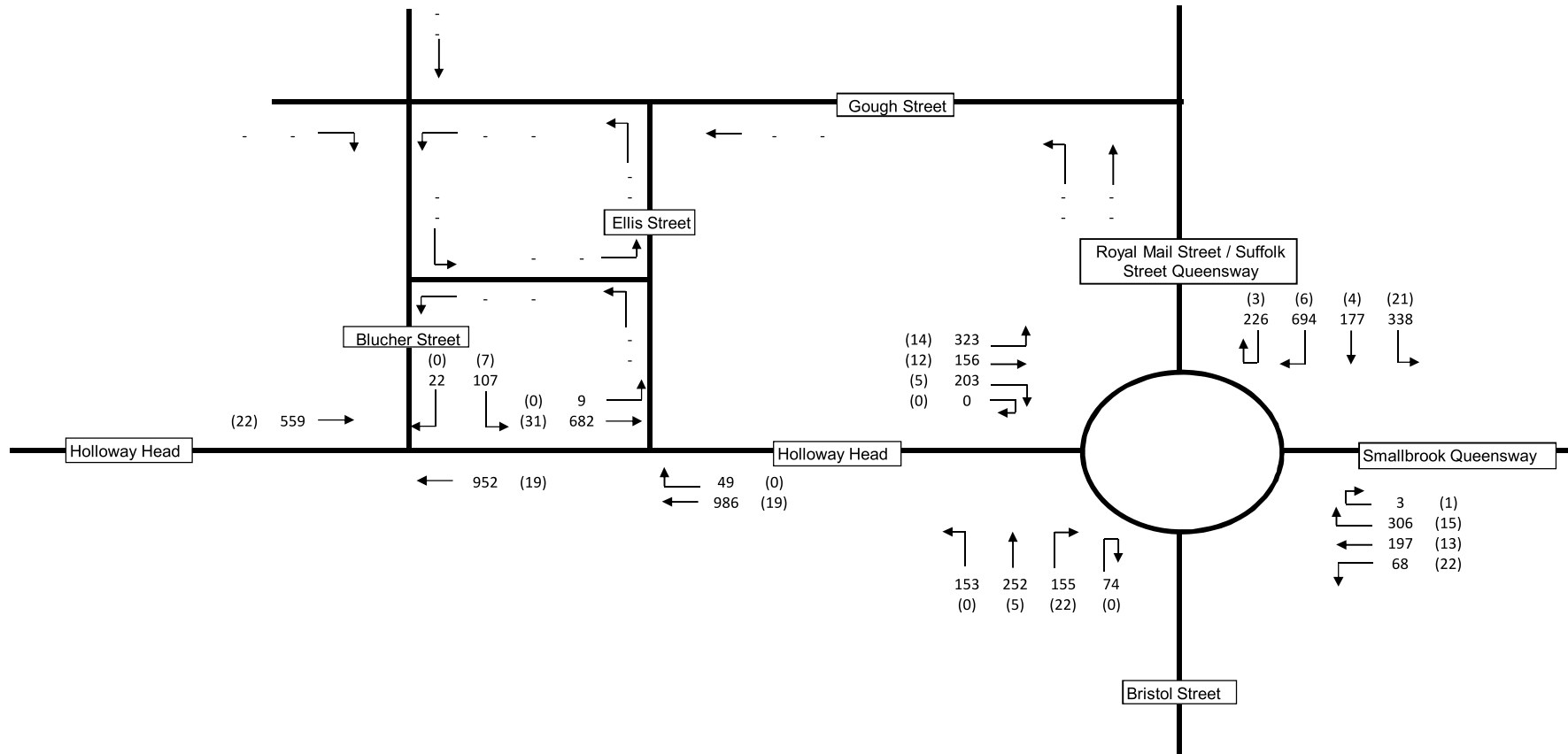
Proposed Development - Holloway Head, Birmingham
AM Peak - (08:00 - 09:00) - Net Development (Proposed Subtract Existing)



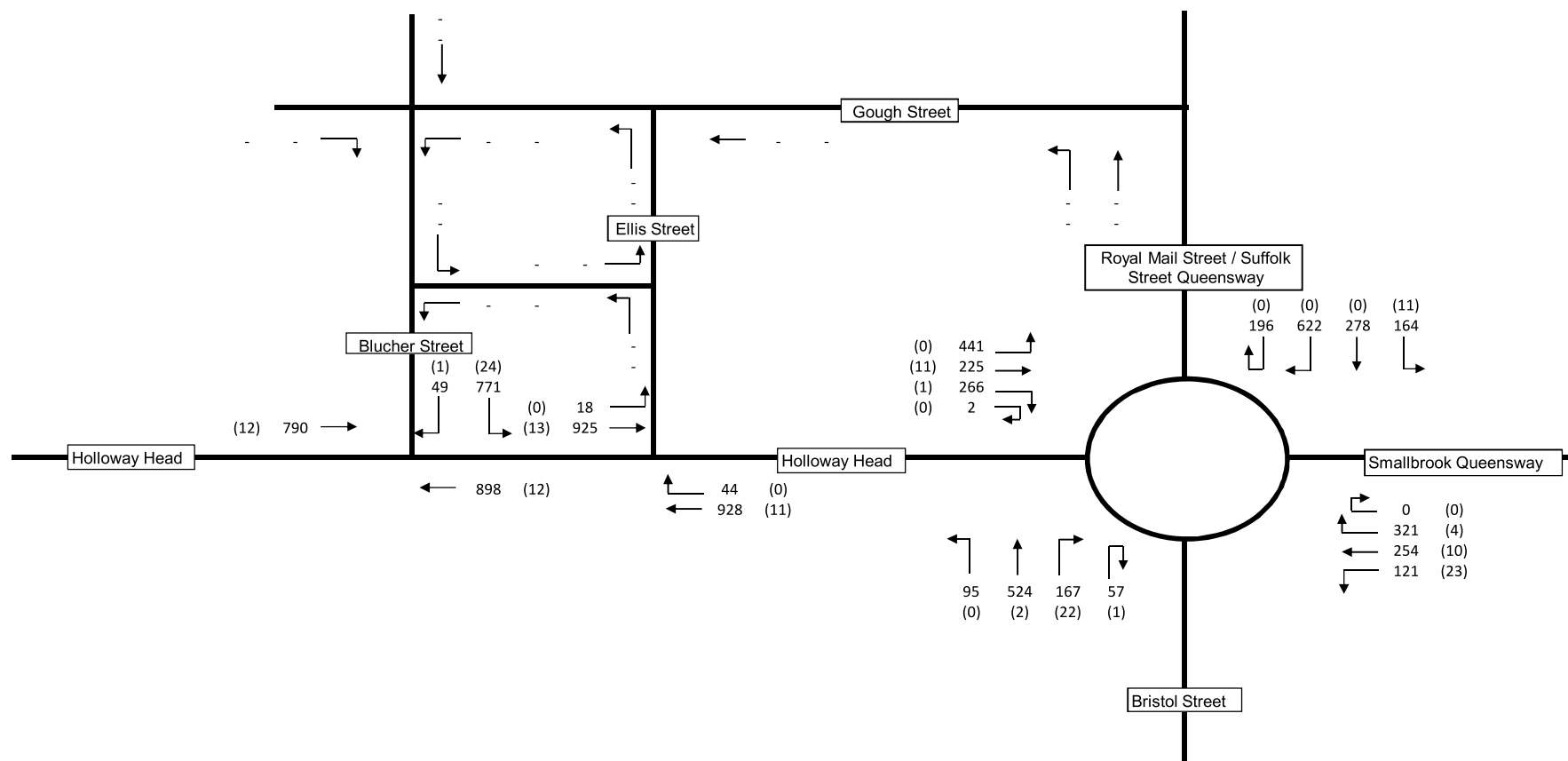
Proposed Development - Holloway Head, Birmingham

PM Peak - (17:00 - 18:00) - Net Development (Proposed Subtract Existing)

Appendix 13
2018/2020 Base Traffic
Flows with Development



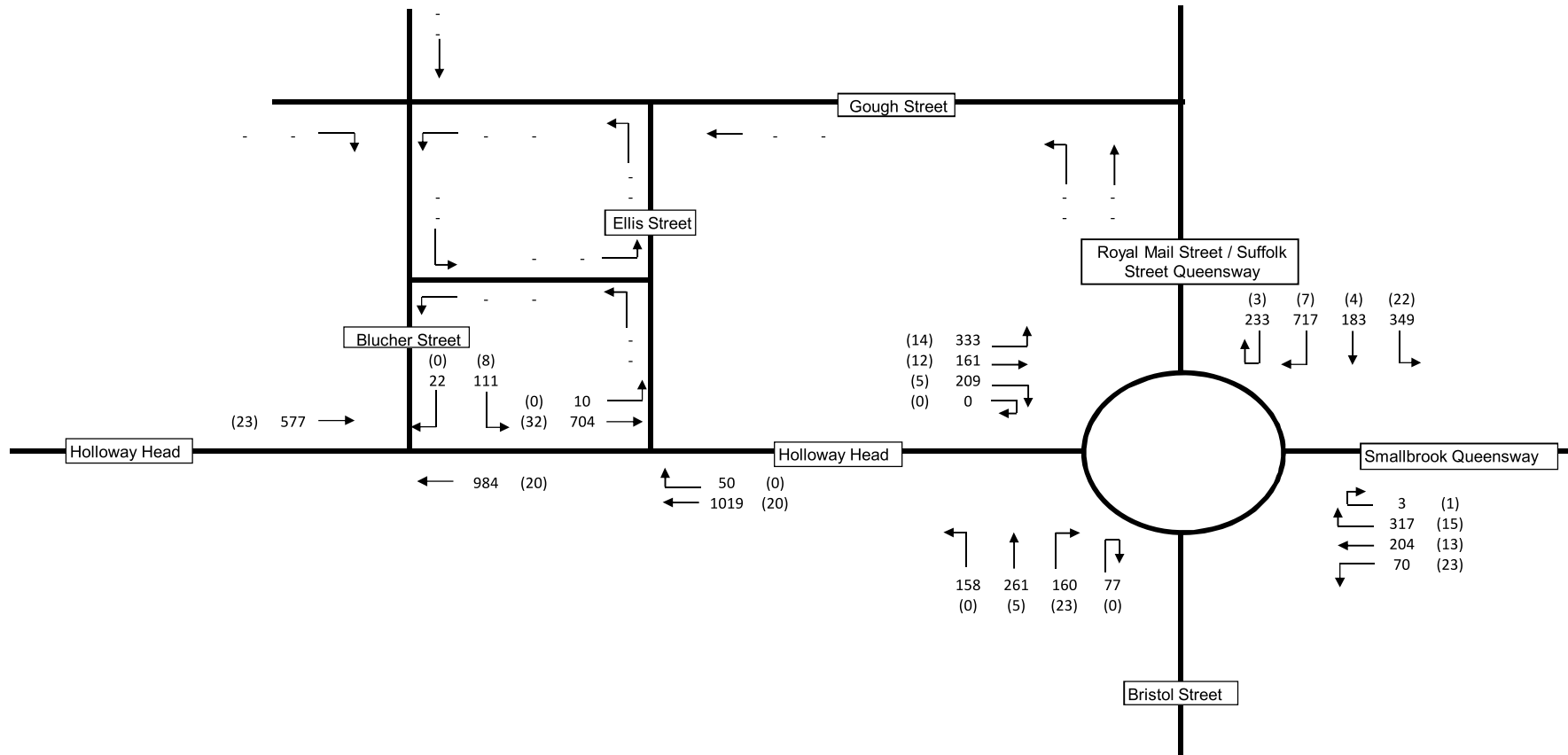
0 Total Vehicles
(0) Heavy Vehicles



0 Total Vehicles
(0) Heavy Vehicles

Proposed Development - Holloway Head, Birmingham

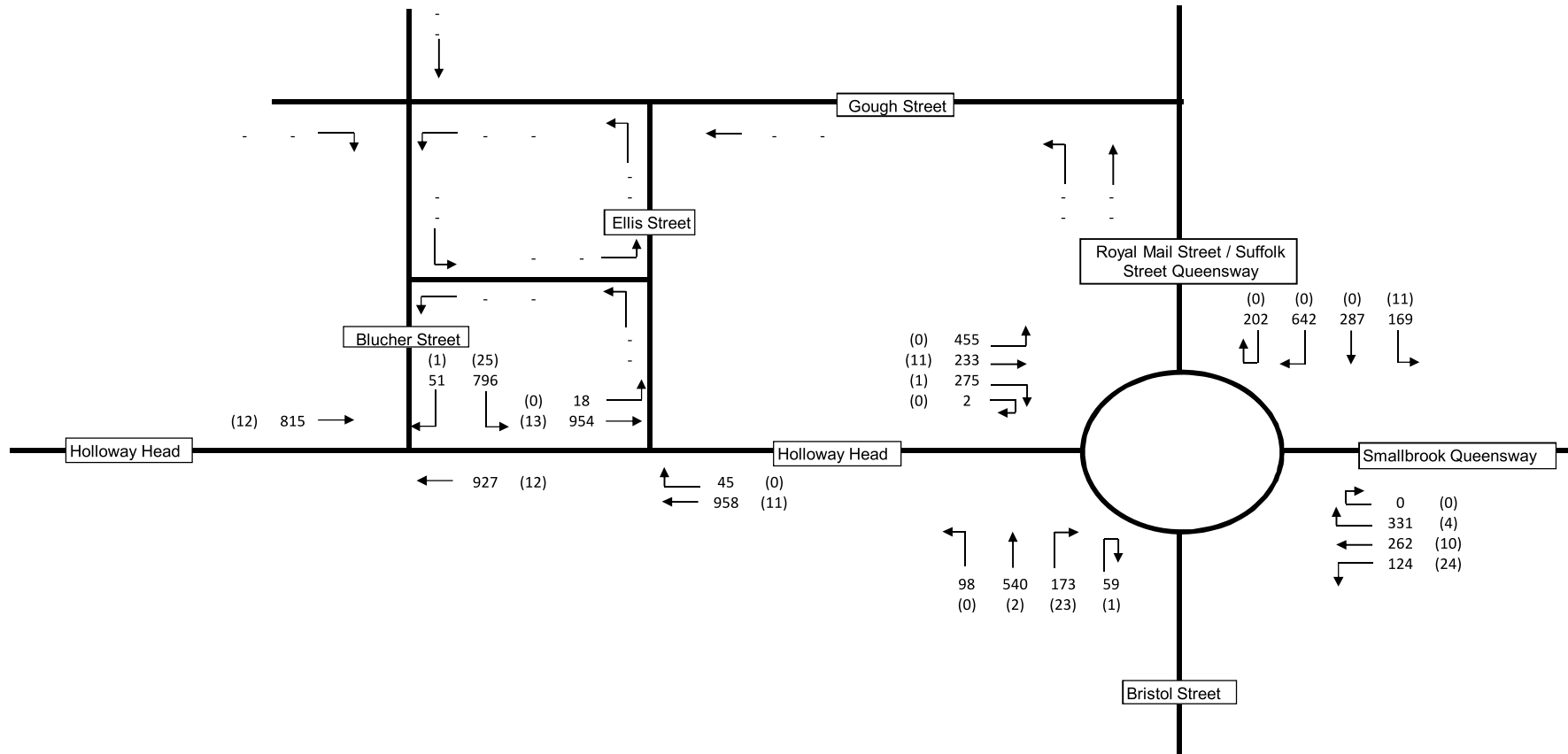
PM Peak - (17:00 - 18:00) - 2018 Base Traffic Flows with Proposed Development



0 Total Vehicles
(0) Heavy Vehicles

Proposed Development - Holloway Head, Birmingham
AM Peak - (08:00 - 09:00) - 2020 Base Traffic Flows with Proposed Development





0 Total Vehicles
(0) Heavy Vehicles