

Robin Ashley Architects LLP

**Proposed Retail Unit & Residential
Development**

2 Bedford Road, Reading

Transport Statement

May 2018

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Client Commission

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LTP PROJECT TEAM

As part of our commitment to quality the following team of transport professionals was assembled specifically for the delivery of this project. Relevant qualifications are shown and CVs are available upon request to demonstrate our experience and credentials.

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PROPOSED RETAIL UNIT & RESIDENTIAL DEVELOPMENT

2 BEDFORD ROAD, READING

TRANSPORT STATEMENT

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I. INTRODUCTION

I.1 Background

- 1.1.1 Local Transport Projects Ltd (LTP) has been commissioned to produce a Transport Statement (TS) in support of a planning application for a proposed development of six residential units and one retail unit at 2 Bedford Road. Reading Borough Council (RBC) is the local planning and highway authority for the site.

I.2 Scope

- 1.2.1 The scope of this TS is written in accordance with the Government's 'National Planning Policy Framework' (DCLG, 2012), and the accompanying 'Planning Practice Guidance' (DCLG, 2014). This TS addresses the pre-application feedback from RBC Highways (Natalie Lucas), with the scope outlined below:

- **Introduction & Description of Proposals:**
 - Description of the development site, including location and existing access arrangements;
 - Summary of relevant planning and allocation history for the site;
 - Description of the proposed development including site layout, pedestrian/cycle facilities and proposed access arrangements.
- **Site Assessment:**
 - Site assessments to determine existing traffic conditions, such as posted speed limits, road restrictions, highway geometry, on-street parking restrictions and any other relevant features of the local area;
 - Assessment of the sustainable transport infrastructure (pedestrian, cycle and public transport) local to the site.
- **Road Casualty Appraisal:** Examination of road collision records (5-year study period) and assessment of the road safety impact of the proposed development on the local highway network.
- **Traffic Impact:**
 - Calculation of the projected trip generation for the proposed development.
 - Assessment of the likely traffic impact of the proposed development on the operation of the local highway network. This will involve assessing the traffic generation of the proposals against the typical threshold for assessment (30 two-way traffic flows).
- **Access, Parking & Internal Layout:** Description of the proposed access arrangements, including justification for the proposed parking provision and details of the bin storage areas as requested by RBC.
- **Conclusions:** Conclusions summarising the outcomes of the TS, including a commentary on the suitability of the proposals in terms of traffic impact and road safety.

1.2.2 The TS report has been prepared in accordance with the above scope and reference has been made to the following documents where appropriate:

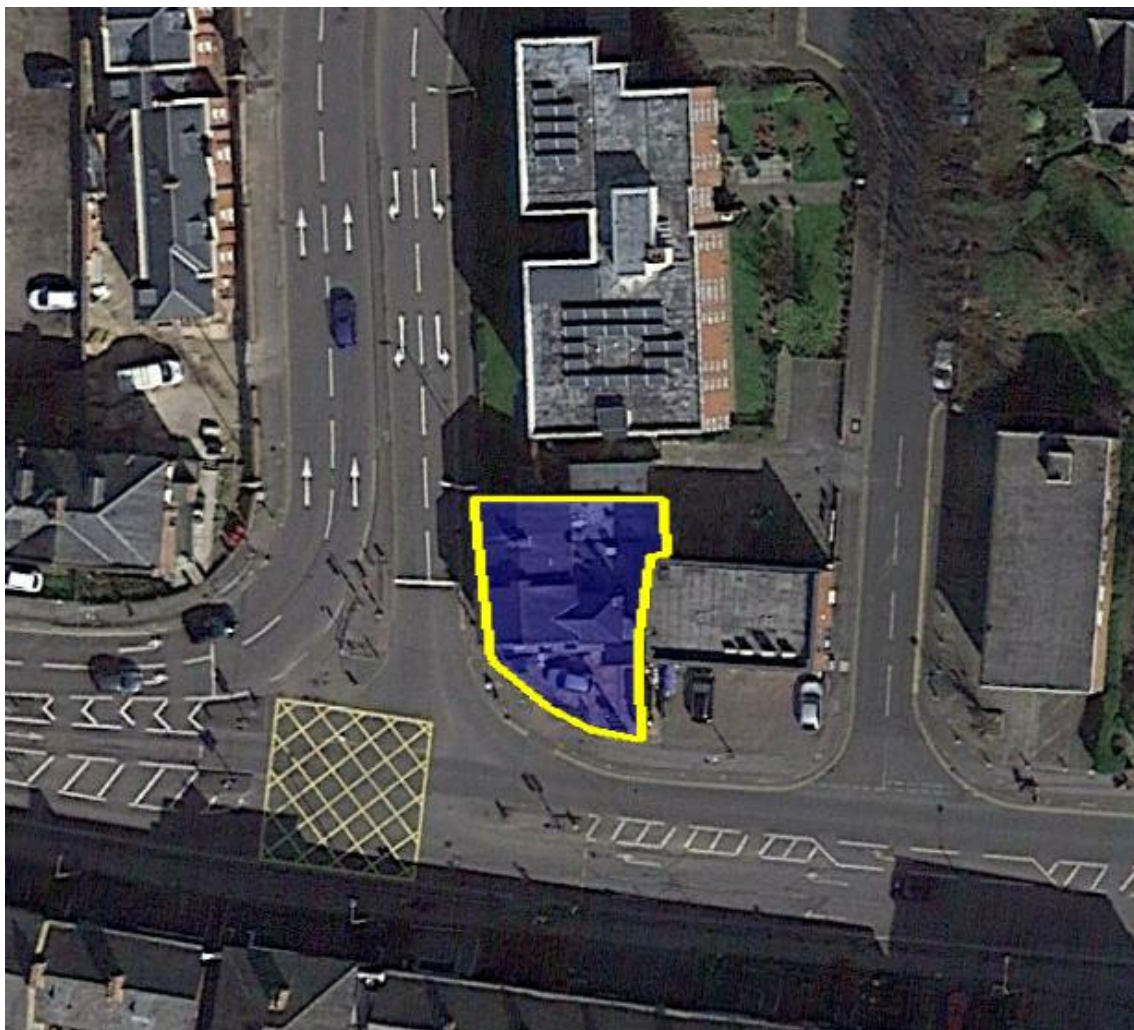
- Cycling In Reading: Route Map and Facilities Guide (RBC, 2016a);
- Reading Borough Local Plan: Consultation on Issues and Options (RBC, 2016b);
- Planning Practice Guidance (DCLG, 2014);
- National Planning Policy Framework (DCLG, 2012);
- Reading Borough Local Development Framework: Sites and Details Policies Document (RBC, 2012);
- Local Transport Plan 3: Strategy 2011-2026 (RBC, 2011a);
- Reading Borough Local Development Framework: Revised Parking Standards and Design (RBC, 2011b);
- Manual for Streets 2: Wider Application of the Principles (CIHT, 2010);
- Guidance on Transport Assessment (DfT, 2007a); and
- Manual for Streets (DfT, 2007b).

2. SITE BACKGROUND

2.1 Site Location

- 2.1.1 The proposed development site is situated approximately 450m west of Reading town centre and is located approximately 550m to the east of Reading West Rail Station, and 1km south-west of Reading Rail Station. Reading is a town with a population of approximately 155,700 (based on the 2011 Census). The site is bound by residential flats to the north, Richer Sounds retail store and Trinity Place to the east, Oxford Road to the south and Bedford Road to the west. The approximate boundary of the development site is highlighted in Figure 1:

Figure 1: Site Location



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2.2 Development Proposals & Access Arrangements

- 2.2.1 The proposals involve part redevelopment, refurbishment and expansion of the site. The proposals involve the provision of one retail unit and 6 residential units (flats). The site is currently occupied by a public house. As part of the proposals, the public house located at 2 Bedford Road is expected to be demolished to make way for a single retail unit on the ground floor and 6 residential units (flats) in total across the first, second, third and fourth levels. Further details regarding the development proposals are provided on the site layout plan attached in Appendix 1. The overall development would result in a net increase of 6 flats and 1 retail unit, with the loss of a public house. No vehicle parking is proposed for the new development unit, with only existing informal parking for the adjacent Richer Sounds store to be retained, see Section 5.3.
- 2.2.2 Pedestrian access to the site is expected to be provided via Oxford Road. Currently there are footways provided on both sides of Oxford Road. The footway on the northern side of Oxford Road measures approximately 2.1m in width and is expected to provide direct access to the flats and retail unit.
- 2.2.3 It is expected that refuse vehicles would wait on Oxford Road or Trinity Place when serving the site, with the site refuse collection point proposed to be located to the south of the building on the Oxford Road frontage. Refuse vehicles would be able to utilise the existing turning head to enter and exit Trinity Place in a forward gear, if required.
- 2.2.4 Cycle parking provision for the residential development and retail unit is expected to be provided in accordance with the requirements of RBC Highways, with sufficient provision to accommodate the demand generated by the proposed development. The development is understood to be providing 3 'Sheffield' hoops which will accommodate 6 cycle parking spaces to the south of the building and 4 bike stands within the residential entrance hallway which will accommodate 4 cycle parking spaces; with space for 10 cycles in total at the site.

2.3 Allocation Status & Planning History

- 2.3.1 The development site does not currently form a preferred site within the Reading Borough Local Development Framework, Sites and Detailed Policies Document (RBC, 2012).
- 2.3.2 It is understood that there have been no relevant planning applications relating to the proposed development site.

3. SITE ASSESSMENT

3.1 Introduction

- 3.1.1 This section provides a summary of the transport infrastructure local to the application site and the opportunities for sustainable modes of travel to/from the proposed development site. An assessment of the local highway network in the vicinity of the development site is provided below.

3.2 Local Highway Network

- 3.2.1 Oxford Road is a two-way single carriageway that is approximately 6.2km in length and is generally approximately 7.3m in width. Within the vicinity of the site Oxford Road connects with Bedford Road at a signalised T-junction to the west of the site (Photo 1). On the approach to the junction from the Oxford Road eastern approach there is a dedicated right turn lane. The approximate width of the Oxford Road carriageway (including the refuge island) within the vicinity of the site is approximately 13.5m wide. There are two lanes on the Oxford Road western approach to the signalised junction, both for left-turning traffic only, with a separate lane for straight forward movements by buses, cyclists, powered two wheelers and taxis only. Within the vicinity of the site Oxford Road is subject to a 30mph speed limit. There are No Waiting At Any Time (NWAAT) restrictions (double yellow lines) on both sides of Oxford Road.

Photo 1: Oxford Road/Bedford Road Signalised Junction



- 3.2.2 Bedford Road is dual carriageway that meets with Oxford Road to the south and Chatham Street to the north via a roundabout. Bedford Road has four lanes within the vicinity of the site, with carriageway widths of approximately 6.2m. Bedford Road is subject to a 30mph speed limit. There are NWAAT restrictions on both sides of Bedford Road. North of the Bedford Road/Chatham Street roundabout within the vicinity of the Bedford Road/Battle Street junction, Bedford Road narrows to a two-way single carriageway that measures approximately 10.7m in width.

- 3.2.3 To the east of the site lies Trinity Place which is a two-way single carriageway that measures approximately 5.7m in width and is subject to a 30mph speed limit (Photo 2). Trinity Place is subject to NWAAT restrictions lines on both sides of the carriageway. On the eastern side of Trinity Place there are NWAAT restrictions in the form of double yellow lines for approximately 50m, with on-street parking north of the NWAAT for approximately four vehicles, from Monday – Saturday (08:00-18:30 hours) for 30 minutes with no return available within 1 hour (Photo 3). Trinity Place to the north serves residential accommodation and a private car park. There is a turning area on Trinity Place which allows vehicles to access and egress Trinity Place in a forward gear.

Photo 2: Trinity Place



Photo 3: On-Street Parking on Trinity Place



3.3 Pedestrian Provision

- 3.3.1 Guidance from Chartered Institution of Highways & Transportation (CIHT) suggests a preferred maximum walking distance of 2km for a number of trips, including commuting and school trips (IHT, 2000).
- 3.3.2 The proposed development site is located within a 2km walking distance of a number of local trip attractors, as outlined within Table 1.

Table 1: Key Local Amenities by Foot

Trip Attractor	Walking Route	Approximate Walking Distance*
Education		
Oxford Road Primary School	Oxford Road	250m
The University of Reading, London Road Campus	Oxford Road-Broad Street-King Street-Duke Street-London Street-Queen's Road-Sidmouth Street-London Road	1.7km
The Abbey School	Oxford Road-St Mary's Butts-Bridge Street-Southampton Street-Crown Street-Kendrick Road	1.9km
Retail/Public House/Restaurants		
The Nags Head	Oxford Road-Russell Street	<100m
Tesco Express/Tesco Express	Oxford Road / Oxford Road-Russell Street-Tilehurst Road	250m/600m
The Jolly Fryer	Oxford Road	400m
Reading town centre	Oxford Road	450km
MTC Motorcycles	Oxford Road	450m
McDonald's	Oxford Road	550m
Rose & Thistle	Oxford Road-Lorne Street-Argyle Road	600m
Workhouse Coffee	Oxford Road	750m
West Reading Royal Mail Delivery Office	Oxford Road-Salisbury Road-Cow Lane-Portman Road-Ashmere Terrace-Loverock Road	1.3km
Health		
Western Elms Surgery	Oxford Road	650m
Oxford Road Pharmacy	Oxford Road	750m
The Berkshire Independent Hospital	Oxford Road-Russell Street-Coley Avenue-Wensley Road-Swallows Croft	1.5km
Medicare Clinics Reading	Oxford Road	1.6km
Parkside House Nursing Home – Bupa UK	Oxford Road-Prospect Street-Tilehurst Road-Southcote Road-Westcote Road-Parkside Road	1.7km
Worship		
Lifespring Church	Oxford Road	<100m
Church of the Holy Trinity	Oxford Road	<100m
Reading Central Mosque	Oxford Road-Waylen Street	200m
Emmanuel Methodist Church	Oxford Road-Chester Street-Sherwood Street	1.4km

Trip Attractor	Walking Route	Approximate Walking Distance*
Leisure		
Central Swimming Pool	Oxford Road-Bedford Road-Battle Street	200m
Oxford Road Community Garden	Oxford Road-Western Elms Avenue	750m
Kensington Park	Oxford Road-Edinburgh Road-Prince of Wales Avenue-Kensington Road-Norfolk Road	1.6km
Rivermead Leisure Complex	Oxford Road-Salisbury Avenue- Cow Lane-Richfield Avenue	1.7km
Christchurch Meadows	Oxford Road-Bedford Road-Great Knollys Street-Caversham Road-Vastern Road-De Montfort Road-Thames Path	1.9km
King Meadow	Oxford Road-Broad Street-Queen Victoria Square-Station Road-Blagrave Street-Forbury Road-Vastern Road-King's Meadow Road-Napier Road	2.0km
Transport		
Reading West Rail Station	Oxford Road	550m
Reading Rail Station/ Northern Interchange	Oxford Road-Broad Street-Queen Victoria Street-Station Road	1.0km

*Walking distances are approximate (measured along footways, rather than as the crow flies) and have been measured from the proposed access on Oxford Road.

3.3.3 Table 1 shows that the proposed development site is located within a reasonable walking distance (up to 2km) of a number of local amenities and Reading town centre (Photo 4). The proposed development site is located close to good pedestrian routes and is served by excellent pedestrian infrastructure with various footways within the area, which connect the site to key local amenities in Reading.

3.3.4 Within the immediate vicinity of the site there is footway provision on both sides of Oxford Road, Trinity Place, and Bedford Road. The northern and southern footways within the vicinity of the site on Oxford Road are approximately 2.1m and 2.2m wide respectively, and provide direct access to Reading town centre approximately 450m east of the site.

Photo 4: Reading Town Centre



- 3.3.5 The pedestrian infrastructure within the vicinity of the site is well developed. A staggered puffin crossing is located to the west of the site on Bedford Road. A puffin crossing is also located to the south of the site on Oxford Road, and a number of refuge islands are located east of the site along Oxford Road. On Bedford Road, north of the Bedford Road/ Chatham Street roundabout there is a zebra crossing (Photo 5). There are dropped kerbs and tactile paving at most local junctions.

Photo 5: Zebra Crossing on Bedford Road



- 3.3.6 The proposed internal pedestrian routes are expected to be of adequate width, with step free access between the site and the local footway network. It is therefore considered that the site can be suitably accessed on foot by all users, including those accompanied by young children and the mobility impaired.

3.4 Cycle Provision

- 3.4.1 Cycling is a low cost and healthy alternative to car use, which can substitute for short car trips, or can form part of a longer journey by public transport. The DfT state that *“in common with other modes, many utility cycle journeys are under three miles (5km), although, for commuter journeys, a trip distance of over five miles (8km) is not uncommon”* (DfT, 2008).
- 3.4.2 There are local cycle clubs including Reading Cycling Club (RCC, 2017) and public cycling events, such as the London to Reading Bike Ride (BHF, 2017). RBC offers Bikeability to all schools across Reading to encourage children in year, 5, 6 and 7 to gain confidence and skills to ride bikes on the road safely. Within the Reading area there are also local hire bike schemes such as ‘Ready Bike’ (Ready Bike, 2017) and ‘Brompton Bike Hire’ (RBC, 2016a). Reading caters for cyclists with cycle parking facilities such as ‘Sheffield’ hoops located in the town centre and outside of Reading Rail Station (Photo 6). A variety of scenic routes are accessible via the National Cycle Network routes.

Photo 6: Cycling Facilities outside of Reading Rail Station

- 3.4.3 The proposed development site is located within a reasonable cycle ride, up to 5km (approximately 15 minutes at the average cycling speed of 12mph) of the entire built-up area of Reading.
- 3.4.4 The National Cycle Network (NCN) (Route 4) can be accessed via Katesgrove Lane which lies approximately 2.1km to the east of the site. NCN Route 4, is a long distance route between London and Fishguard via Reading, Bristol, Newport, Swansea, Carmarthen, tenby, Haverfordwest and St. Davids. Furthermore, NCN Route 5 can be accessed via Napier Road, 1.8km north of the site. The NCN Route 5 connects Reading and Holyhead via Oxford. The NCN Route 23 can be accessed via Brook Drive which lies approximately 4.5km to the south of the site. The NCN Route 23 runs from Reading to Basingstoke. The NCN routes offer leisure routes for cyclists in the Reading area. It is understood that a new NCN route linking Reading and Windsor via Wokingham, Bracknell and Ascot is to be delivered for 2016/17 and 2017/18 (RBC, 2016a).
- 3.4.5 Reading has its own cycle routes. R60 and R5 pass within the immediate vicinity of the site. R60 is a two-way cycle route that runs from Coronation Square to Great Knolly's Street. Within the vicinity of the site, R60 travels along Tilehurst Road (approximately 550m to the south of the site) before travelling north along Prospect Street (approximately 210m south-west of the site). The route also runs in the opposite direction via Prospect Street before travelling Tilehurst Road. R5 is a two-way cycle route that runs from Tilehurst Station to Oxford Road (located to the south of the site) before meeting the town centre.
- 3.4.6 It is considered that the local highway network provides a suitable environment to encourage cycling trips to/from the site. There are designated cycle/bus/taxi lanes within the vicinity of the site, including on Oxford Road, which allow for sustainable modes of travel. The proposed development is to provide 3 'Sheffield' hoops, which will accommodate 6 cycle parking spaces to the south of the building and 4 bike stands within the residential entrance hallway which will accommodate 4 cycle parking spaces; with space for 10 cycles in total at the site.

3.5 Public Transport Provision

3.5.1 Advice within 'Guidelines for Public Transport in Development' (IHT, 1999) states that the generally acceptable maximum walking distance that a bus stop should be located from a development site is 400m. The nearest bus stops to the proposed development are on Oxford Road, which provide travel in both directions and are situated approximately 115m (eastbound/westbound) and 185m (eastbound) east of the site (Photo 7). Furthermore, there are bus stops approximately 185m (eastbound) and 270m (westbound) west of the site. The bus stops on Oxford Road have raised kerbs and provide a shelter with seating, as well as a real-time bus information display.

Photo 7: Westbound Bus Stop on Oxford Road



3.5.2 Details of the bus services operating within the vicinity of the site are provided in Table 2:

Table 2: Local Bus Services

Service No.	Route	Daytime Frequency * (Mon-Sat)
1 Jet Black	Newbury Bus Station (Bay A)-Newbury Parkway (Stop P)-Turnpike Estate-Newbury West Berkshire Community Hospital-Thatcham Broadway-Thatcham-Woolhampton-Lower Padworth-Theale-Calcot Sainsbury's (Stop 2)-Calcot-Horncastle Burghfield Road- Reading West, opp Waylen Street - Reading Cheapside-Reading Station Road (stop SD)-Reading Blagrove Street (Stop EP)	Every 30 minutes
26 Yellow	Calcot, IKEA- Calcot, Sainsbury's-Dwyer Road Boundary-Coronation Square- Reading West, opp Waylen Street -Reading Station (Stop EK)	Mon-Fri: Every 10 minutes Sat: Every 12 minutes
143	Whitechurch Hill-Pangbourne-Purley on Thames-Kentwood-Norcot-Norcot Junction- Reading West, adj St George Street- Reading West, opp Waylen Street - Reading Cheapside (Stop CV)- Reading Valpy Street (Stop EQ)	Every two hours
144	Goring-Streatley-Lower Basildon-Beale Wildlife Park-Pangbourne-Purley on Thames-Kentwood-Reading West Rail Station- Reading West, opp Waylen Street -Reading, Belgrave Street (Stop EP)	One service per day in each direction
BB3	Woodcote, opp Langtree School-Crays Pond-Goring-Streatley-Lower Basildon-Beale Wildlife Park-Pangbourne-Purley on Thames-Kentwood-Norcot-Norcot Junction- Reading West, adj St	School term-time only – service to Langtree School

Service No.	Route	Daytime Frequency * (Mon-Sat)
	George Street-Reading West, opp Waylen Street -Reading Cheapside (Stop CV)-Reading Valpy Street (Stop EQ)	
Lime 2/2a	The Street, Mortimer Station-Mortimer, Glenapp Garage-Burghfield, The Close, Burghfield, Mans Hill, Burghfield, Hatch Gale, Bath Road, Burghfield Road- Reading West, opp Waylen Street -Central Reading, Cheapside (Stop CV), Central Reading, Station Road (Stop SD)	Every 30 minutes
Royal Blue 33	Normanstead Road-Stratford Way, Hildens Drive, Warborough Avenue, Tilehurst Triangle, Tilehurst Road, Waverley Road- Reading West, opp Waylen Street Central Reading, Station Road (Stop SD)	Every 10 minutes
143A	Woodcote-Crays Pond-Whitechurch Hill-Pangbourne-Upper Basildon-Pagthorne-Purley on Thames-Kentwood-Norcot-Norcot Junction- Reading West, opp Waylen Street -Reading Cheapside (Stop CV)- Reading Valpy Street (Stop EQ)	2 services per day
Community Link 18	Kentwood Oak Tree Road-Reading West Pond House-Prospect Park, Waverley Road Reading West, opp Waylen Street Reading Cheapside (Stop CV)-Reading West Street (Stop CU)-Reading Friar Street (Stop FL)	Only Operates 3 services after 17:00 hours
Purple 17	Tilehurst-Reading West, Pond House- Reading West, adj St George Street-Reading West, opp Waylen Street -Reading Friar Street (Stop FN)-Reading Blagrove Street (Stop EO)-Whiteknights	Every 7 minutes
Sky Blue 15/15a/16	Calcot, IKEA-Calcot, Sainsbury's-Tilehurst, The Water Tower-St Michael's Road (Stop Z)-Tay Road-Dee Road, Fire Station-Pond House- Reading West, adj St George Street-Reading West, opp Waylen Street -Central Reading, Station Road (Stop SD)	Every 15 minutes Sat: Every 20 mins
TG6	Theale Green School-Kettering Close-Churchward Walk-Kennet Valley School-Coronation Square-Berkeley Avenue- Reading West, adj St George Street -Reading West Rail Station-Norcot Junction-The Victoria-Kentwood Circle	School term-time only
15T	Theale Green School Bus Park-Calcot, IKEA-Calcot, Sainsbury's-Tilehurst, adj Water Tower-Tilehurst Triangle (Stop Z)-Dee Road Estate, opp Dee Road Fire Station-Reading West, adj Pond House- Reading West, opp Waylen Street -Reading Station Road (Stop SD)	School term-time only
26L	Little Heath School-Calcot, Sainsbury's-Southcote, Dwyer Road Boundary (Adj 42)-Southcote, adj Coronation Square- Reading West, opp Waylen Street -Reading, Belgrave Street (Stop EK)	School term-time only
26T	Theale Green School Bus Park- Sainsbury's Calcot-Southcote, Dwyer Road Boundary (Adj 42)-Southcote, adj Coronation Square- Reading West, opp Waylen Street -Reading, Belgrave Street (Stop EK)	School term-time only

*Refers to the general daytime service between 08:00 and 17:00

3.5.3 Table 2 demonstrates that a number of services are available including buses to various suburbs across Reading and Reading town centre itself. The services provide a useful link to local amenities.

- 3.5.4 The nearest rail station is in Reading West, an approximately 550m walk west of the site. Reading West Rail Station accommodates Great Western Railway services. The station has two services every hour to Reading and Basingstoke. Services to Newbury are hourly. Reading Rail Station is located an approximately 1km walk to the north-east of the proposed development site (Photo 8) Reading Rail Station accommodates Great Western Railway and CrossCountry Trains services. CrossCountry provide hourly direct services to Newcastle, two direct services per hour to Southampton Central, two indirect services to Cheltenham Spa, four direct services per day to Basingstoke and six direct services per hour to Oxford. The Great Western Railway provide four direct services per hour to London Paddington, two direct services per hour to Bristol Temple Mead, and Great Malvern and a direct hourly service to Western-Super-Mare.

Photo 8: Reading Rail Station



4. ROAD CASUALTY APPRAISAL

4.1 Collision Record

4.1.1 Personal Injury Collision (PIC) data for the highway network local to the site for the most recent available extended five-year study period (01/01/2012 to 30/09/2017) was obtained via a search of the Department for Transport's (DfT) road safety data (DfT, 2018); the 2017 PIC data is currently provisional and therefore subject to change.

4.1.2 A total of 26 collisions occurred within the study area, which includes Oxford Road, Trinity Place, Bedford Road, Chatham Street and a number of junctions within the vicinity of the site. The extents of the study area and location of the collisions are indicated on the plan attached as Appendix 2.

4.1.3 Table 3 below outlines the collision history of the study area:

Table 3: Collision History

Year	1	2	3	4	5	6 (partial)	
From	01/01/2012	01/01/2013	01/01/2014	01/01/2015	01/01/2016	01/01/2017	Total
To	31/12/2012	31/12/2013	31/12/2014	31/12/2015	31/12/2016	30/09/2017	
Fatal	-	-	-	-	-	-	0
Serious	-	-	-	-	-	1	1
Slight	2	6	5	5	5	2	25
Total	2	6	5	5	5	3	26

4.1.4 The collision records show that the number of collisions per year has remained relatively low during the study period. There was one Killed or Seriously Injured (KSI) collision recorded during the study period, resulting in a severity ratio of 3.8%.

4.2 Collision Conditions

4.2.1 Table 4 below summarises the collisions by road surface, weather and lighting conditions:

Table 4: Collision Conditions

Road Surface	Collisions	%
Dry	19	73.1%
Wet/Damp	7	26.9%
Weather	Collisions	%
Fine	24	92.3%
Rain	2	7.7%
Lighting	Collisions	%
Daylight	20	76.9%
Dark	6	23.1%

4.2.2 As illustrated in Table 4, the majority of collisions did not occur with adverse road surface, weather or lighting conditions.

4.3 Collision Times

4.3.1 Table 5 below summarises the collisions by the time of year:

Table 5: Collisions by Time of Year

Time of Year	Collisions	%
Winter (Dec-Feb)	6	23.1%
Spring (Mar-May)	8	30.8%
Summer (Jun-Aug)	4	15.4%
Autumn (Sep-Nov)	8	30.8%

4.3.2 Table 5 shows that a peak of just under a third of the collisions (30.8%) occurred in both the spring and autumn months respectively.

4.3.3 Table 6 below summarises the collisions by day of week and also the time of day:

Table 6: Collisions by Day & Time

	Morning (06:00- 11:00)	Lunch (11:00- 14:00)	Afternoon (14:00- 19:00)	Evening (19:00- 01:00)	Night (01:00- 06:00)	Total	%
Monday	-	-	1	1	-	2	7.7%
Tuesday	-	-	1	1	-	2	7.7%
Wednesday	3	1	-	1	-	5	19.2%
Thursday	-	-	3	-	-	3	11.5%
Friday	2	-	2	2	-	6	23.1%
Saturday	-	1	1	3	-	5	19.2%
Sunday	-	2	0	0	1	3	11.5%
Total	5	4	8	8	1	26	
%	19.2%	15.4%	30.8%	30.8%	3.8%		

4.3.4 Table 6 illustrates that there was a spread of collisions across different times of the day, with just under a third of the collisions (30.8%) occurring in both the afternoon and evening periods respectively. The highest proportion of collisions (23.1%) occurred on a Friday.

4.4 Collision Locations

4.4.1 The locations of the 26 study collisions (shown on the plot attached as Appendix 2) can be summarised as follows:

- 11 PICs occurred at the Oxford Road/Russell Street junction;
- 6 PICs occurred along Oxford Road (not at a junction);
- 4 PICs occurred at the Oxford Road/Prospect Street junction;
- 3 PICs occurred at the Oxford Road/Bedford Road junction;
- 1 PIC occurred at the Bedford Road/Chatham Street roundabout; and
- 1 PIC occurred at the Trinity Place/Oxford Road junction.

4.5 Casualties

- 4.5.1 A total of 33 casualties resulted from the 26 recorded injury collisions during the study period. Table 7 below provides a breakdown of the casualties according to the mode of travel and age group:

Table 7: Casualty Road User Groups

Road User Group	Age (years)						Total	%
	0 to 15	16 to 20	21 to 25	26 to 45	46 to 65	66 +		
Car Driver	-	1	-	1	1	-	3	9.1%
Car Passenger	-	1	-	2	-	-	3	9.1%
Minibus/Bus Passenger	-	1	-	2	-	-	3	9.1%
Taxi Occupant	-	-	2	1	-	-	3	9.1%
Pedal-cyclist	-	2	-	7	2	-	11	33.3%
Pedestrian	1	-	-	5	2	2	10	30.3%
Total	1	5	2	18	5	2	33	
%	3.0%	15.2%	6.1%	54.5%	15.2%	6.1%		

- 4.5.2 Table 7 shows that 9.1% of the casualties were car drivers, with 9.1% of casualties recorded as car passengers. Furthermore, 33.3% of casualties were pedal-cyclists. The highest casualty road user group were those aged between 26 and 45 years, accounting for 54.5% of casualties.

4.6 Road Safety Impact

- 4.6.1 A total of 26 collisions, resulting in 33 casualties, have occurred within the study area during the five-year study period. Analysis of the study collisions has not revealed any identifiable existing collision issues associated with the expected movements of the proposed development, therefore it is considered that there are no existing road safety issues pertinent to the development of the site.
- 4.6.2 The proposals should not have a detrimental road safety impact on the local transport network and should not adversely affect the safety of pedestrians and cyclists.

5. TRIP GENERATION & TRAFFIC IMPACT

5.1 Person Trip Generation – Residential Development

5.1.1 The TRICS database is a nationally recognised collection of traffic counts and trip generation statistics for calculating trip rates at development sites. The TRICS database (v7.3.4) has been interrogated to find suitable data to assist in projecting the person trip generation of the proposed residential development.

5.1.2 In order to derive reflective trip rates, person trip generation statistics within the ‘*Flats Privately Owned*’ category (03-C) of the TRICS database have been interrogated. To ensure that only trip generation statistics for comparable sites were used in calculations, the TRICS sites were filtered to the following criteria:

- Survey type: Multi-modal sites;
- Size: up to 25 dwellings;
- TRICS location type: Town Centre and Edge of Town Centre;
- Regions: England only, excluding Greater London sites;
- Weekday survey data only (exclusion of Saturday and Sunday surveys); and
- Recent survey data only (exclusion of surveys undertaken prior to 01/01/09).

5.1.3 As there were less than 20 comparable sites in the database after filtering (2 survey sites), mean trip rates (as weighted and calculated by the TRICS software) have been used to project the person trip generation of the proposed development, in accordance with good practice guidelines (TCL, 2016). The person trip generation of the site has been predicted based on the person trip rates derived from the comparable TRICS sites, summarised in Table 8 and shown in full as Appendix 3:

Table 8: Projected Person Trip Generation

Flats Privately Owned (03-C)	AM Peak (08:00-09:00)		PM Peak (17:00-18:00)	
	Arrivals	Departures	Arrivals	Departures
Person Trip Rates (per dwelling)	0.115	0.346	0.731	0.154
Proposed Person Trips (6 dwellings)	1	2	4	1
Proposed Two-Way Person Trips (6 dwellings)	3		5	

5.1.4 The projected person trip generation predictions indicate that the development could generate 3 two-way person trip movements during the AM peak hour, with 5 two-way person trip movements during the PM peak hour.

- 5.1.5 It is expected that, with the excellent public transport available within the vicinity of the site, residents use the frequent bus services outlined in Table 2, which provide access to Reading town centre and other local places. There are designated cycle/bus/taxi lanes within the vicinity of the site which allow for sustainable modes of travel. 3 'Sheffield' hoops which will accommodate 6 cycle parking spaces to the south of the building and 4 bike stands within the residential entrance hallway which will accommodate 4 cycle parking spaces. It is acknowledged that there will be no on-site vehicle parking and so there will be no vehicle traffic generated by the site, with any vehicles required to park off-site. Due to this, the residential development should not have a material impact on the highway network.

5.2 Projected Retail Unit Traffic Generation

- 5.2.1 The proposed redevelopment scheme also includes an element of retail use on the ground floor of the site, comprising one retail unit. Although the use of the retail unit is unknown at this stage, it is expected that it will provide amenities for the local community (e.g. convenience store).
- 5.2.2 Given the expected localised use of the retail unit, and that no new customer parking is to be provided within the immediate vicinity, it is considered that the unit would generate a negligible number of vehicle trips, particularly during the weekday peak hours. With very good public transport connections (see Section 3.5) within the vicinity of the site it is expected that a number of those travelling to the unit would use public transport. Any vehicle trips generated by the unit are expected to link with existing trips to Reading town centre. On-street parking is available in a number of locations within the proximity of the site, as outlined in Section 5.3. It is therefore expected that very few vehicle trips generated by the proposed retail unit will be new to the highway network.
- 5.2.3 It is acknowledged that if the consented public house reopened it could be expected to generate a much higher number of vehicle trips than the current proposals.

5.3 Parking Requirements

- 5.3.1 The development proposals do not include any new parking provision for the residential and retail elements of the site. It is noted in the pre-application response from RBC Highways (Natalie Lucas) that *"The site is located in Zone 2, the primary core area but on the periphery of the central core area that lies at the heart of Reading Borough Council, consisting primarily of retail and commercial office developments with good transport hubs"*.
- 5.3.2 It is noted in the pre-application response from RBC that Zone 2 developments are expected to provide 1 space per unit. However, due to the nature of the site and its close proximity to the town centre, with excellent links to public transport and local public car parks, it has been advised by RBC Highways that Zone 1 parking standards can be used – 0.5 spaces per 1-2 bedroom flat. Zone 1 is outlined in the *'Revised parking Standards and Design Supplementary Planning Document'* (RBC, 2011b) as:

- 5.3.3 “This area lies at the very heart of Reading Borough, consisting primarily of retail and commercial office developments, with limited residential. The area is defined as having the best transport hubs, with both the main railway station and also bus interchanges at the station and within Friar Street and other streets surrounding the town centre. This area also contains the largest proportion of public car parking spaces. Further development in this area is anticipated to be of a similar nature to the existing provision, but will include some high-density residential. Typically retail units generate shorter term parking and in core areas commercial office facilities can be served well by rail and bus links” (RBC, 2011b).
- 5.3.4 Although no residential parking spaces are to be provided as part of the development, it is considered to be acceptable for a number of reasons, as detailed below.
- 5.3.5 The site is located in a sustainable location on the western edge of Reading town centre. It is an approximate 450m walk west of Reading town centre and the site has four bus stops within 300m of the site access on Oxford Road, accommodating frequent services to a variety of local areas. Furthermore, there are cycle lanes within the vicinity of the site that provide access to the local amenities, including places of employment and educational facilities as noted in Table 1. It is therefore considered that the site provides good opportunities for sustainable travel.
- 5.3.6 When on-site it was noted that 2 vehicles were parked in front of the vacant public house (Photo 9). It is understood that the existing informal car parking at the Richer Sounds retail unit is to be retained. The parking arrangements for the site and the adjacent Richer Sounds retail unit does not appear to have created a road safety issue, with no collisions occurring within the immediate vicinity of the site within the last 5 years.

Photo 9: Existing Informal Site Parking



- 5.3.7 As noted in the pre-application response from RBC Highways, parking for the retail element of the site would not be required for a small convenience store. Although the exact use of the proposed new retail/occupier is unknown at this stage, it is expected that they will provide amenities for the local community (e.g. a convenience store).

- 5.3.8 On-street parking is available within close proximity to the site. On the eastern side of Trinity Place on-street parking is available for approximately four vehicles, from Monday-Saturday (08:00-18:30 hours) for 30 minutes with no return available within 1 hour. To the north of the site on-street parking is available on a number of streets including Battle Street between Bedford Street and Great Knollys Street (Photo 10), between 08:00-20:00 hours for permit holders, or up to two hours free parking with no return within two hours. Along Oxford Road there is on-street parking available on both sides of the road to the east of the site. On-street parking along Oxford Road is available from Monday-Sunday (08:00-18:30 hours) for 30 minutes with no return available within the hour. It is likely that customers visiting the retail unit will utilise the on-street parking within the vicinity of the site.

Photo 10: On-Street Parking on Battle Street



- 5.3.9 There are a number of car parks within the vicinity of the site, they include:
- Q-Park Chatham Place Multi-Storey Car Park, approximately 300m east of the site (Photo 11);
 - Cattle Market Car Park, approximately 600m north of the site;
 - NCP Multi-Storey Car Park Reading, approximately 900m east of the site; and
 - The Holybrook Multi-Storey Car Park, approximately 950m east of the site.

Photo 11: Q-Park Chatham Place Multi-Storey Car Park



- 5.3.10 As noted in the pre-application response and in accordance with the adopted Parking Supplementary Planning Document (RBC, 2011b), the development is to provide a minimum of 0.5 cycle storage spaces per flat. The development is understood to be providing 3 'Sheffield' hoops which will accommodate 6 cycle parking spaces to the south of the building and 4 bike stands within the residential entrance hallway which will accommodate 4 cycle parking spaces. It is expected that residents may also keep their bikes locked up in their flats.

5.4 Impact on the Transport Network

- 5.4.1 The development is not expected to have a material impact on the highway network as residents are likely to use the excellent public transport facilities within the vicinity of the site, walk or cycle, with any vehicle accessing the site required to park off-site. The projected person trip generation predictions indicate that the development could generate 3 two-way person trip movements during the AM peak hour, with 5 two-way person trip movements during the PM peak hour. The total number of two-way person trips that could be generated in 12 hours (07:00-19:00 hours) is 36. It is expected that the retail unit would generate a negligible number of vehicle trips, given the expected community use of the store. Furthermore, it is acknowledged that if the public house reopened it could be expected to generate a much higher number of daily vehicle trips than the current proposals. It is expected that particularly during the weekday peak hours. Any vehicle trips generated by the unit are expected to link with existing trips to Reading town centre. It is therefore considered that very few vehicle trips generated by the proposed unit will be new to the highway network.
- 5.4.2 Based on the assessments detailed in this TS, it is considered that the proposed development should not have a detrimental impact on the operation of the local highway network, or the transport infrastructure for other modes. Therefore, as the impact of the proposals is not expected to be severe, the proposals are considered to be in accordance with the NPPF, which states that *"development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe"* (DCLG, 2012).

6. CONCLUSIONS

- 6.1.1 This Transport Statement (TS) provides an appraisal of the transport aspects for a proposed residential development of six residential units and one retail unit at 2 Bedford Road.
- 6.1.2 The proposed development site is situated approximately 450m west of Reading town centre and is located approximately 550m to the east of Reading West Rail Station and 1km south-west of Reading Rail Station. The proposed development site is located close to good pedestrian routes and is served by excellent pedestrian infrastructure with various footways within the area, which connect the site to key local amenities in Reading.
- 6.1.3 The site is located within a reasonable cycle ride of the majority of the built-up area of Reading. The National Cycle Network (NCN) can be accessed in Reading, in particular the NCN Route 4, NCN Route 5 and NCN Route 23. The nearest bus stops to the proposed development are on Oxford Road, which provide travel in both directions and are situated approximately 115m (eastbound/westbound) and 185m (eastbound) east of the site. Furthermore, there are bus stops approximately 185m (eastbound) and 270m (westbound) west of the site. The bus stops on Oxford Road provide access to a number of services, including services to various suburbs across Reading and Reading town centre itself.
- 6.1.4 The nearest rail station is in Reading West, an approximately 550m walk west of the site. Reading West Rail Station accommodates Great Western Railway services. The station has two services every hour to Reading and Basingstoke. Services to Newbury are hourly. Reading Rail Station is located an approximately 1km walk to the north-east of the proposed development site. Reading Rail Station accommodates Great Western Railway and CrossCountry Trains services. CrossCountry provide hourly direct services to Newcastle, two direct services per hour to Southampton Central, two indirect services to Cheltenham Spa, four direct services per day to Basingstoke and six direct services per hour to Oxford. The Great Western Railway provide four direct services per hour to London Paddington, two direct services per hour to Bristol Temple Meads, and Great Malvern and a direct hourly service to Western-Super-Mare.
- 6.1.5 A road casualty study showed that 26 Personal Injury Collisions (PICs) occurred within the study area around the proposed development site during the extended 5-year study period. Analysis of the study collisions has not revealed any identifiable existing collision issues associated with the expected movements generated by the proposed development, therefore it is considered that there are no existing road safety issues pertinent to the development of the site. The proposals should not have a detrimental road safety impact on the local transport network and should not adversely affect the safety of pedestrians and cyclists.

- 6.1.6 The person trip generation of the proposed development has been projected using the nationally recognised TRICS database. The person trip projections indicate that the proposed residential development could generate 3 two-way person trips during the AM peak hour, with 5 during the PM peak hour. The total number of two-way person trips that could be generated in 12 hours (07:00-19:00 hours) is 36. It is expected that the retail unit would generate a negligible number of vehicle trips, particularly during the weekday peak hours. Furthermore, it is acknowledged that if the public house reopened it could be expected to generate a much higher number of daily vehicle trips than the current proposals. Any vehicle trips generated by the unit are expected to link with existing trips to Reading town centre. It is therefore considered that very few vehicle trips generated by the proposed unit will be new to the highway network, with a low number of trips by other modes too.
- 6.1.7 On-street parking is available within close proximity to the site. On the eastern side of Trinity Place on-street parking is available for approximately four vehicles, from Monday-Saturday (08:00-18:30 hours) for 30 minutes with no return available within 1 hour. To the north of the site on-street parking is available on a number of streets including Battle Street between Bedford Street and Great Knollys Street, between 08:00-20:00 hours for permit holders, or up to two hours free parking with no return within two hours. Along Oxford Road there is on-street parking available on both sides of the road to the east of the site. On-street parking along Oxford Road is available from Monday-Sunday (08:00-18:30 hours) for 30 minutes with no return available within the hour. It is likely that customers visiting the retail unit will utilise the on-street parking within the vicinity of the site. A number of multi-storey car parks are available within a 1km walk of the site, with the nearest being Q-Park Chatham Place Multi-Storey Car Park, approximately 300m east of the site.
- 6.1.8 Residents are expected to use sustainable modes of travel as the site is located within close proximity to good bus and rail services. It is considered that the local highway network provides a suitable environment to encourage cycling trips to/from the site. There are designated cycle/bus/taxi lanes within the vicinity of the site, including on Oxford Road, which allow for sustainable modes of travel. As part of the development 3 'Sheffield' Hoops are to be provided to the south of the proposed building, which will accommodate 6 cycle parking spaces and 4 bike stands within the residential entrance hallway which will accommodate 4 cycle parking spaces; with space for 10 cycles in total at the site.
- 6.1.9 Based on the person trip generation projections, it is considered that the proposed development should not have a detrimental impact on the operation of the local highway network. The relevant test is that development "*should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe*" (DCLG, 2012). The projections of this TS indicate that the proposed scheme will not have a severe transport impact, therefore the proposed development is in accordance with the '*National Planning Policy Framework*' (DCLG, 2012).
- 6.1.10 It is concluded from the assessments of this TS that the proposed development would not be expected to have a detrimental impact in road safety, traffic and highway terms.

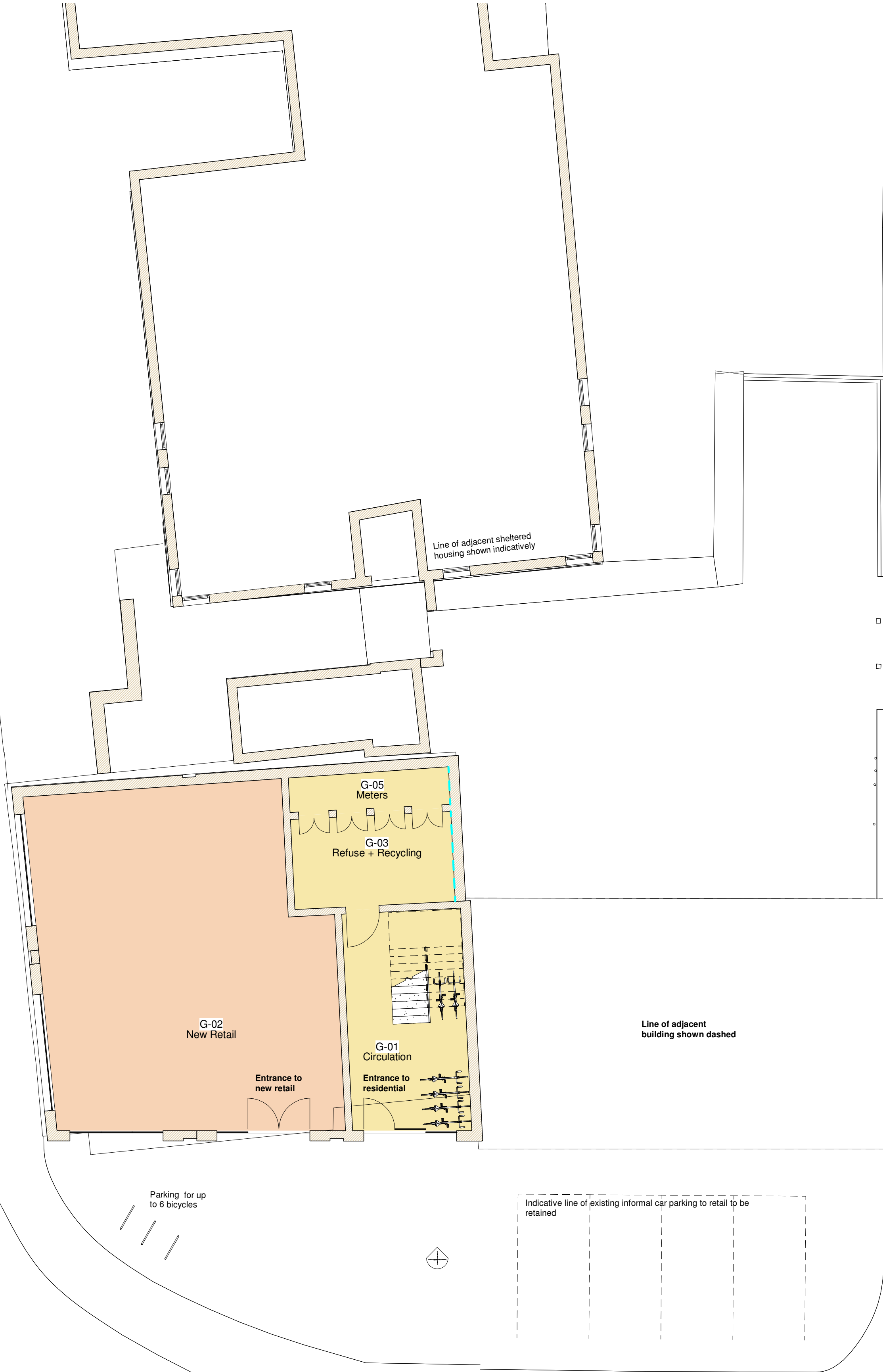
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Appendix I – Site Layout Plan

Bedford Road

Trinity Place



Line of Oddfellows Hall shown indicatively

Rev	Description	Date
A	Sheets re-numbered for standalone scheme	15-08-17
B	Retail unit in accordance with approved scheme	26-09-17
C	New scheme	22-12-17
D	Prelim issue of reduced scheme	27-04-18
E	Alterations	01-05-18
F	Alterations	02-05-18

Information is incorporated from a number of sources and the veracity of the drawing is restricted accordingly. Existing buildings and other context have been shown commensurate to planning purposes, the nature of the application and information / access available.



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PROJECT
Oxford Road - Reading

DRAWING
Ground floor plan

CLIENT
JR Properties

ISSUED FOR
Preliminary

DRAWN BY DJU	CHECKED BY DJU	DATE 04/28/16
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PROJECT NUMBER 15-035	SCALE (@ A1) 1 : 100
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DRAWING NUMBER 321	REV F
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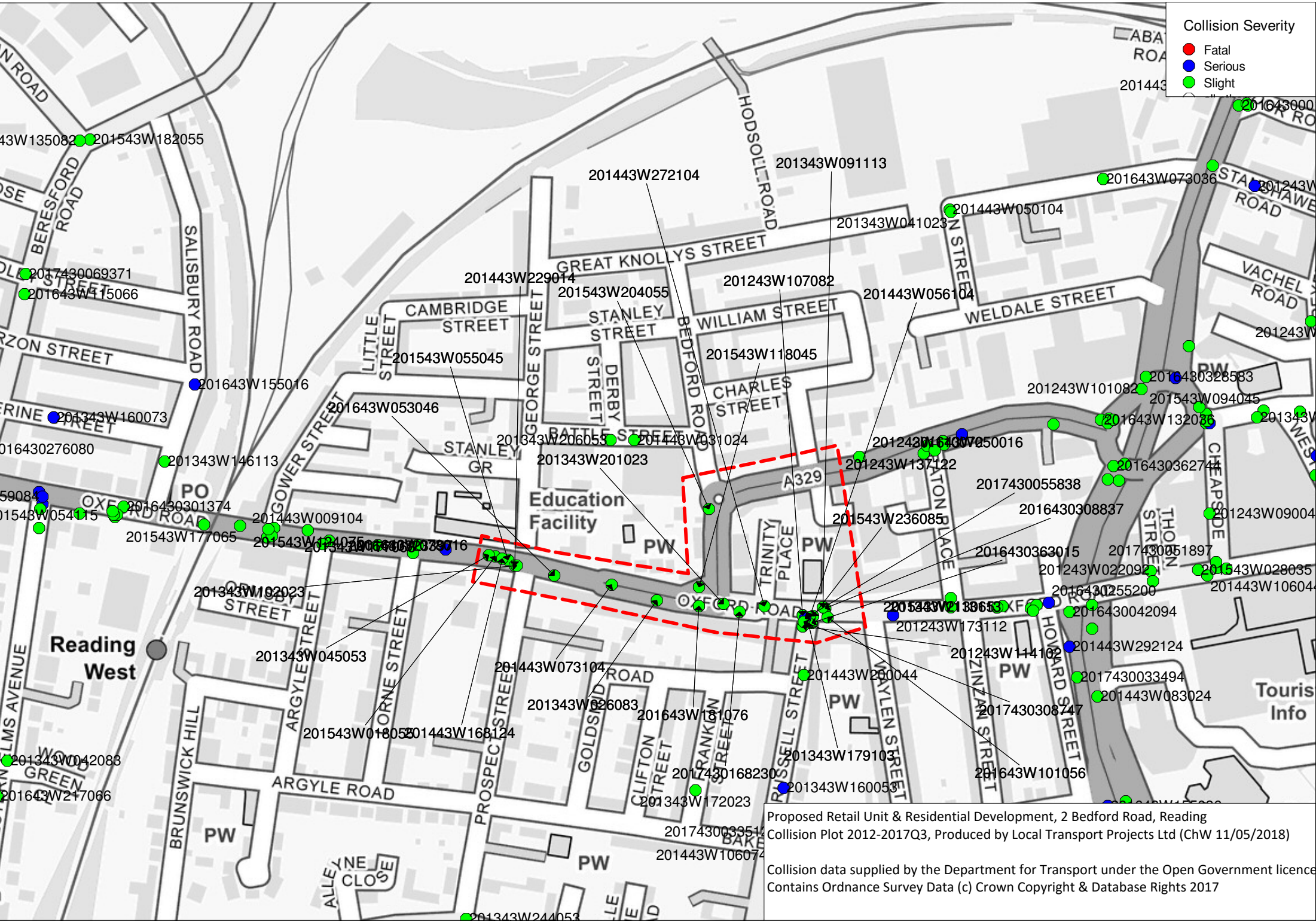
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Taking this into account, this drawing may be scaled only for the purposes of planning approval.
All dimensions are to be checked on site + any queries referred prior to carrying work out.
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Appendix 2 – PIC Study Data

Collision Severity

- Fatal
- Serious
- Slight



Proposed Retail Unit & Residential Development, 2 Bedford Road, Reading
 Collision Plot 2012-2017Q3, Produced by Local Transport Projects Ltd (ChW 11/05/2018)
 Collision data supplied by the Department for Transport under the Open Government licence
 Contains Ordnance Survey Data (c) Crown Copyright & Database Rights 2017

Appendix 3 – TRICS Output

Projected Person Trip Generation

Person Trip Rates (per dwelling)

Time	IN	OUT	TOTAL
07:00-08:00	0.038	0.346	0.384
08:00-09:00	0.115	0.346	0.461
09:00-10:00	0.077	0.269	0.346
10:00-11:00	0.154	0.346	0.500
11:00-12:00	0.192	0.385	0.577
12:00-13:00	0.308	0.500	0.808
13:00-14:00	0.231	0.231	0.462
14:00-15:00	0.308	0.154	0.462
15:00-16:00	0.154	0.038	0.192
16:00-17:00	0.385	0.192	0.577
17:00-18:00	0.731	0.154	0.885
18:00-19:00	0.423	0.192	0.615

TOTAL	3.116	3.153	6.269
--------------	--------------	--------------	--------------

6 dwellings
Person Trips

IN	OUT	TOTAL
0	2	2
1	2	3
0	2	2
1	2	3
1	2	3
2	3	5
1	1	2
2	1	3
1	0	1
2	1	3
4	1	5
3	1	4

AM Peak

PM Peak

18	18	36
-----------	-----------	-----------

TRICS v7.3.4 MM, Mean 03-C, 6 to 25 dwellings, England only (exc. GL & Ireland), Town Centre and Edge of Town Centre, exc. Sat/Sun, 07+ (10)

Calculation Reference: AUDIT-342901-170418-0407

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
 Category : C - FLATS PRIVATELY OWNED
MULTI-MODAL VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	EX ESSEX	1 days
08	NORTH WEST	
	GM GREATER MANCHESTER	1 days

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

Secondary Filtering selection:

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

Parameter:	Number of dwellings
Actual Range:	6 to 20 (units:)
Range Selected by User:	6 to 25 (units:)

Public Transport Provision:

Selection by:	Include all surveys
---------------	---------------------

Date Range:	01/01/09 to 13/05/14
-------------	----------------------

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	1 days
Friday	1 days

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

Selected survey types:

Manual count	2 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
Edge of Town Centre	1

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

Selected Location Sub Categories:

Residential Zone	1
Built-Up Zone	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.

Secondary Filtering selection:

Use Class:

C3

2 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:

25,001 to 50,000

2 days

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

Population within 5 miles:

125,001 to 250,000

1 days

500,001 or More

1 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

1 days

1.1 to 1.5

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

2 days

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

PTAL Rating:

No PTAL Present

2 days

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

LIST OF SITES relevant to selection parameters

1	EX-03-C-01	FLATS		ESSEX
	WESTCLIFF PARADE			
	WESTCLIFF			
	SOUTHEND-ON-SEA			
	Edge of Town Centre			
	Residential Zone			
	Total Number of dwellings:	6		
	Survey date: TUESDAY	22/10/13		Survey Type: MANUAL
2	GM-03-C-03	BLOCK OF FLATS		GREATER MANCHESTER
	FAIRFIELD STREET			
	MANCHESTER			
	Town Centre			
	Built-Up Zone			
	Total Number of dwellings:	20		
	Survey date: FRIDAY	14/10/11		Survey Type: MANUAL

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

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

MULTI-MODAL 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	2	13	0.038	2	13	0.038	2	13	0.076
08:00 - 09:00	2	13	0.077	2	13	0.154	2	13	0.231
09:00 - 10:00	2	13	0.000	2	13	0.115	2	13	0.115
10:00 - 11:00	2	13	0.077	2	13	0.038	2	13	0.115
11:00 - 12:00	2	13	0.115	2	13	0.000	2	13	0.115
12:00 - 13:00	2	13	0.000	2	13	0.077	2	13	0.077
13:00 - 14:00	2	13	0.038	2	13	0.038	2	13	0.076
14:00 - 15:00	2	13	0.000	2	13	0.000	2	13	0.000
15:00 - 16:00	2	13	0.000	2	13	0.000	2	13	0.000
16:00 - 17:00	2	13	0.115	2	13	0.000	2	13	0.115
17:00 - 18:00	2	13	0.000	2	13	0.000	2	13	0.000
18:00 - 19:00	2	13	0.038	2	13	0.038	2	13	0.076
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.498			0.498			0.996

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:	6 - 20 (units:)
Survey date range:	01/01/09 - 13/05/14
Number of weekdays (Monday-Friday):	2
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	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

MULTI-MODAL TOTAL PEOPLE

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	2	13	0.038	2	13	0.346	2	13	0.384
08:00 - 09:00	2	13	0.115	2	13	0.346	2	13	0.461
09:00 - 10:00	2	13	0.077	2	13	0.269	2	13	0.346
10:00 - 11:00	2	13	0.154	2	13	0.346	2	13	0.500
11:00 - 12:00	2	13	0.192	2	13	0.385	2	13	0.577
12:00 - 13:00	2	13	0.308	2	13	0.500	2	13	0.808
13:00 - 14:00	2	13	0.231	2	13	0.231	2	13	0.462
14:00 - 15:00	2	13	0.308	2	13	0.154	2	13	0.462
15:00 - 16:00	2	13	0.154	2	13	0.038	2	13	0.192
16:00 - 17:00	2	13	0.385	2	13	0.192	2	13	0.577
17:00 - 18:00	2	13	0.731	2	13	0.154	2	13	0.885
18:00 - 19:00	2	13	0.423	2	13	0.192	2	13	0.615
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.116			3.153			6.269

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.

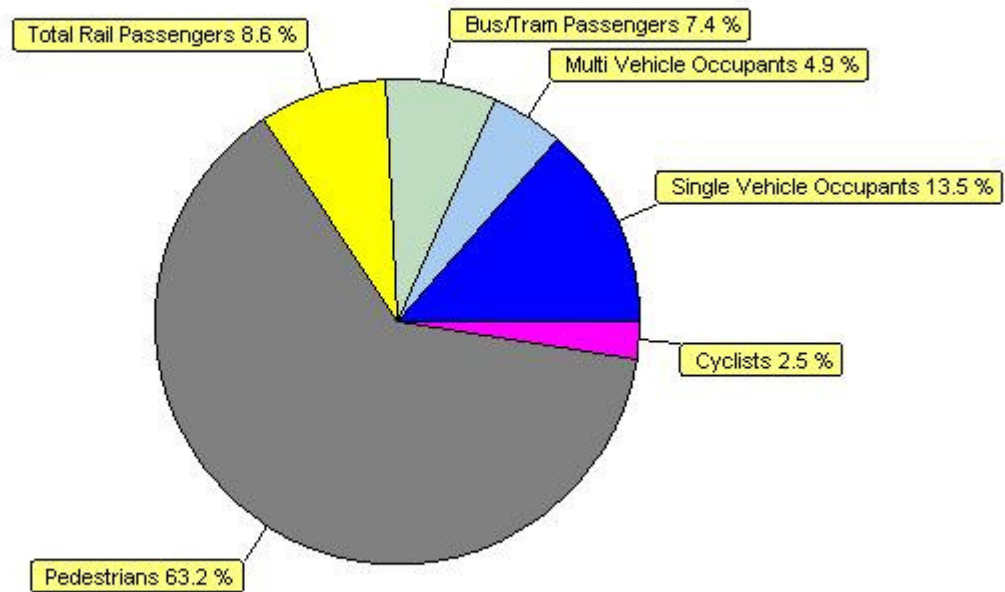
To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected 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:	6 - 20 (units:)
Survey date range:	01/01/09 - 13/05/14
Number of weekdays (Monday-Friday):	2
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	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.

Modal Split Percentages



Time Range/Peak Period Selection

Direction: Totals / Use All Times