

TRANSPORT STATEMENT

Grip-UK Ltd

The Climbing Hangar, Unit 8a Stadium Way, Reading

March 2022

Transport Statement
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1 Introduction

- 1.1 This Transport Statement (TS) has been prepared by Vectos on behalf of Grip-UK Ltd to consider the highways and transport issues relating to a planning application for the change of use from land use class E(g)(iii) (light industrial) to an indoor climbing centre (Use Class E(d)), at Unit 8a Stadium Trade and Business Park, Reading, RG30 6BX.

Scope of Report

- 1.2 This TS will consider the following:
- The site and local transport conditions;
 - Access to the site by sustainable modes of transport;
 - Proposed parking and servicing arrangements, including a parking accumulation assessment to consider the on-site car parking supply and demand in more detail; and
 - Proposed net trip impact associated with the site, and likely effects upon the surrounding transport network.

Report Purpose

- 1.3 This TS will appraise the Local Highway and Planning Authority, Reading Borough Council (RBC), of the anticipated implications of the proposed change of use development.
- 1.4 It will demonstrate that the site is suitably located in terms of sustainable modes of travel and that the development will not have a significant negative impact upon the operation of the surrounding highway network. It will demonstrate that the site access arrangements and on-site parking provision are appropriate for the size and type of development.

National Planning Policy Framework (NPPF)

- 1.5 The latest National Planning Policy Framework (NPPF) was published in July 2021 by the Ministry of Housing, Communities and Local Government, replacing the previous versions published in 2012, 2018 and 2019. The NPPF sets out the government's planning policies for England and how these are expected to be applied. At the heart of the Framework is a presumption in favour of sustainable development.
- 1.6 As part of promoting sustainable transport, paragraph 110 of the revised NPPF states that in assessing applications for development, it should be ensured that:

“a) Appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;

b) Safe and suitable access to the site can be achieved for all users;

c) The design of streets, parking areas, other transport elements and the content of associated standards reflects current national guidance, including the National Design Guide and the National Model Design Code; and

d) Any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree”.

1.7 Finally, the NPPF notes that, *“Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe”.*

1.8 In the following sections of this TS report, we have demonstrated that the proposed indoor climbing centre at Stadium Trade and Business Park accords with the guidance set out in the NPPF, and that the transport impact of the development on the area around the site will not be severe.

Report Structure

1.9 The remainder of the report is structured as follows:

- **Section 2** considers the site location and baseline transport conditions in the vicinity of the site, including a review of the highway safety record;
- **Section 3** provides an audit of the accessibility of the site by sustainable transport modes;
- **Section 4** details the development proposals including parking provision and servicing arrangements, and sets out the trip generation analysis;
- **Section 5** details the parking accumulation for the proposals; and
- **Section 6** provides a summary and conclusion.

2 Site Location and Baseline Transport Conditions

Site Location

- 2.1 The proposed development site is Unit 8a at the Stadium Trade and Business Park, and the unit is in the area of the trade park that consists of Units 1 to 8b. The trade park is currently occupied primarily by a variety of home improvements, hardware shops/showrooms and autocentres that surround a shared parking area.
- 2.2 The site is accessed from Stadium Way in the north, which forms a priority junction with Scours Lane and wider vehicle access is via the Scours Lane/Oxford Road priority T-junction. The location of the site in the context of the surrounding highway network is shown in **Figure 2.1**, and the detailed site plan is included at **Appendix A**.

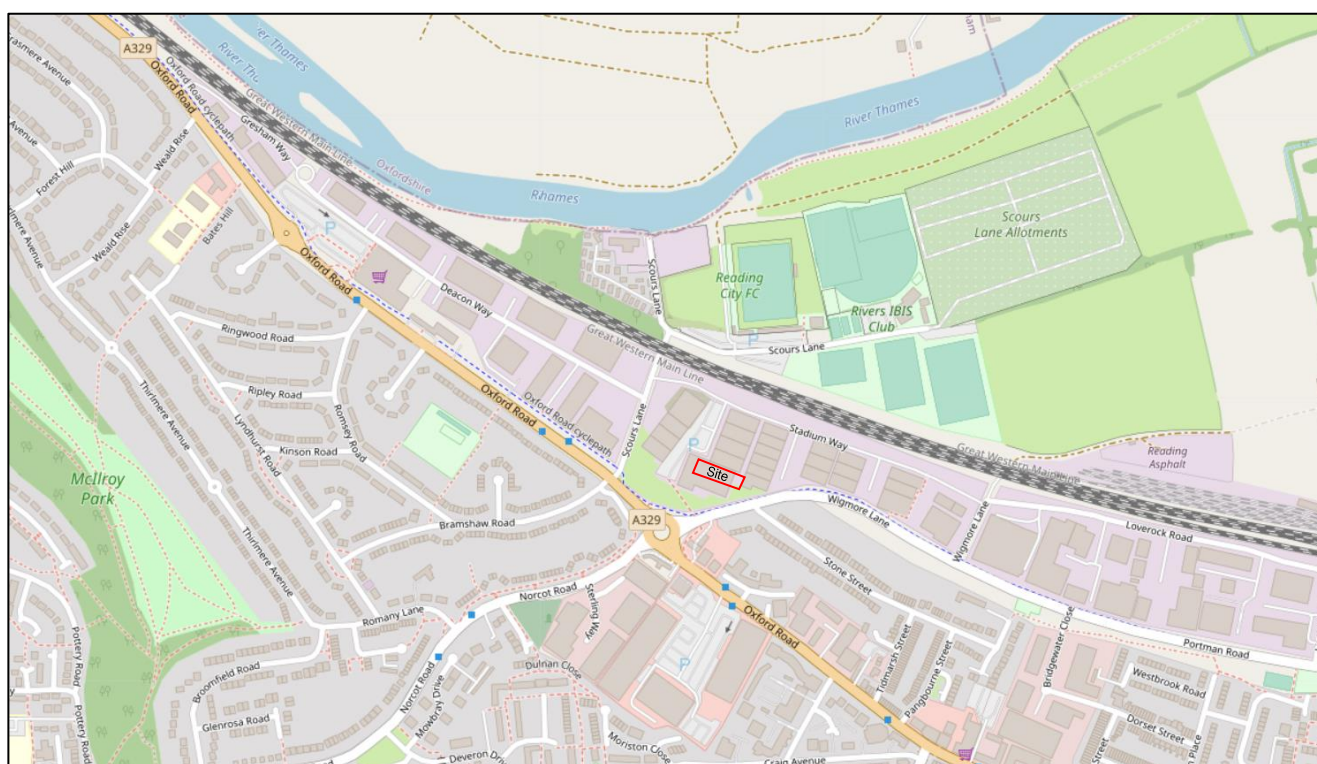


Figure 2.1: Site Location (Source: OpenStreetMap)

- 2.3 The immediate area in the vicinity generally comprises of business uses which are located within the wider trade parks that are bounded by the Great Western Main Line to the north. Residential communities are located in the surrounding area to the south, east and west, with Reading Town Centre within around 3km to the southeast of the site.
- 2.4 As mentioned earlier, vehicular access into the site is taken from Stadium Way to the north, via the Scours Lane/Stadium Way priority junction. Scours Lane provides access onto the A329 Oxford Road to the south at a priority crossroads junction, with Bramshaw Road forming the opposite minor arm. Oxford Road/Scours Lane junction comprises of Keep Clear markings to assist with the safe operation of the junction. Oxford Road is a key radial route into Reading Town Centre to the southeast and it routes to Pangbourne to the northwest. In the immediate vicinity of the site Oxford Road meets Wigmore Lane/Norcot Road at a four-arm priority roundabout junction. There will be no

alterations to these existing access arrangements as part of this application, that have been in operation for many years. A secondary access onto Stadium Way and into the site is provided via Wigmore Lane to the east.

- 2.5 Stadium Way is subject to a 10mph speed limit and there are also traffic calming measures in place (speed bumps), and the wider road network is subject to a 30mph speed limit. There is some footway provision on Stadium Way, with footways with street lighting provided on Scours Lane, Oxford Road and Wigmore Lane in the vicinity of the site and uncontrolled and controlled pedestrian facilities are located at key pedestrian desire lines.

Highway Safety Record

- 2.6 A review of the road accident data has been undertaken with reference to the Crashmap online database for the most recent five-year period for which data is available (2016 – 2020). The accident plot is shown in **Figure 2.2**.

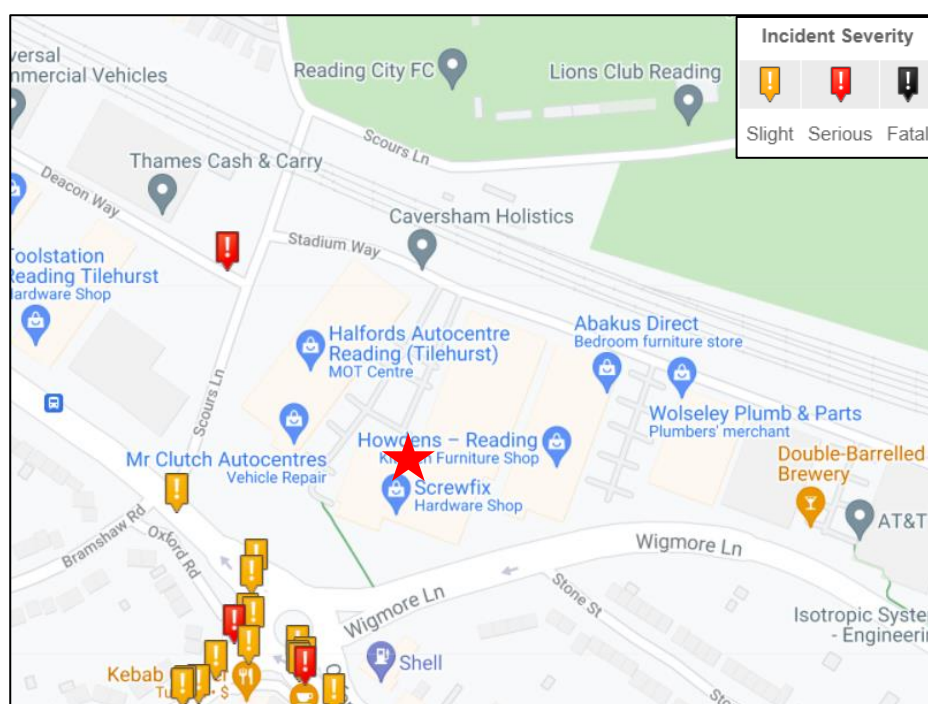


Figure 2.2: Accident Location Plot (Source: Crashmap)

- 2.7 As shown in **Figure 2.2**, there has been one accident at the Oxford Road/Scours Lane priority junction, which was 'slight' in severity and involved two vehicles only. One 'serious' accident has occurred on Deacon Way, involving a cyclist. As described earlier in this chapter, the site is located just north of a large priority controlled roundabout junction, which is a primary route into/out of Reading Town Centre. It is considered that the number and pattern of recorded accidents is not unusual or a cause of concern for a section of highway with such characteristics, and the proposed change of use development at Unit 8a will not result in a significant increase in traffic generation at this junction.
- 2.8 Furthermore, there is no record of any accidents at the Scours Lane/Stadium Way priority junction (main access and egress junction for the site), which will be retained under the proposal.

- 2.9 It is therefore concluded that there are no known highway layout features that contribute to the occurrence of accidents in the vicinity of the site and no safety issues that need to be addressed as part of the development proposal. There is no highway safety concern with regards the existing access arrangements that have been in use for many years.

3 Accessibility Audit

- 3.1 The development site benefits from proximity to sustainable transport infrastructure, presenting the opportunity for users and staff members to benefit from a variety of non-car modes. The opportunity to access the site via walking, cycling and public transport is considered within this chapter.

Walking

- 3.2 The Institution of Highways and Transportation (IHT) 'Guidelines for Providing for Journeys on Foot', (May 2000), states that, "*walking accounts for a quarter of all journeys and four fifths of journeys of less than 1.6km*". It is suggested that 2km (25-minute walk) is an 'acceptable' walking distance, and up to 400m is a desirable walking distance to bus stops.
- 3.3 A 2km walk distance extends to a wide catchment with large populations, including the areas of Kentwood, Norcot, Dee Park and Battle, including multiple local bus corridors and Tilehurst Train Station to the northwest. Hence, a significant number of residential communities and key transport nodes are within an 'acceptable' walk distance of the site, bringing the opportunity for a wide range of users and staff to access the site on foot. The illustrative 2km catchment is shown in **Figure 3.1**.

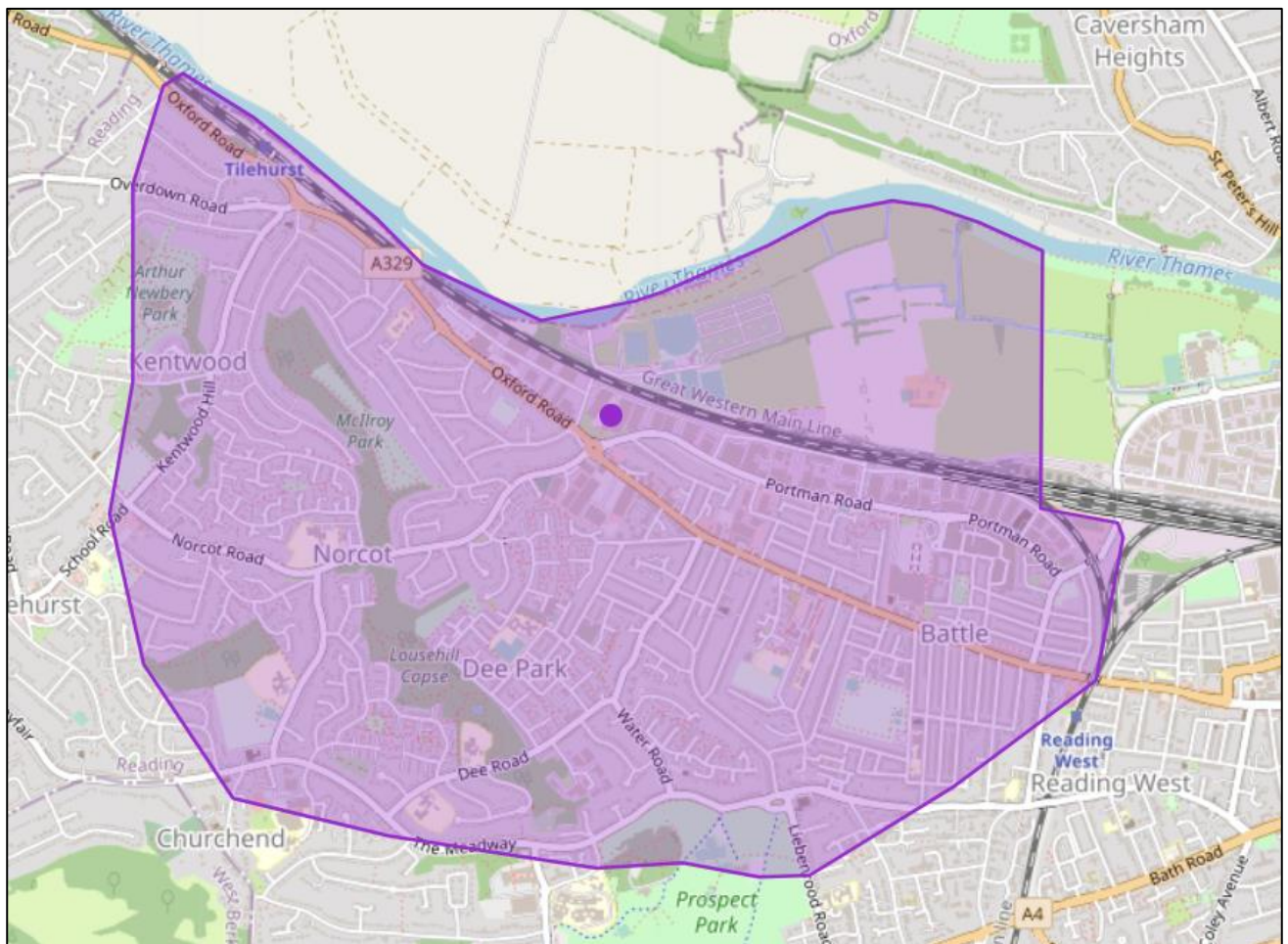


Figure 3.1: 2km Walking Catchment from Proposal Site (Source: OpenStreetMap)

- 3.4 Accessibility to the site for pedestrians is facilitated as it is within an area with good quality pedestrian infrastructure. The roads that surround the site are street-lit with good standard footways that are generally around 2m in width. Many footways in the vicinity of the site are setback from the roadside by a grass verge, improving pedestrian safety and the environment in the area. There are opportunities to cross Oxford Road at the priority roundabout junction (**Figure 3.2**), and further north at a signalised crossing (**Figure 3.3**), with those using the site able to benefit from this provision.



Figure 3.2: Pedestrian Facilities at the Oxford Road Roundabout (Source: Google Streetview)



Figure 3.3: Controlled Pedestrian Facilities on Oxford Road (Source: Google Streetview)

- 3.5 Scours Lane comprises of footways on both sides of the carriageway up to the junction with Stadium Way and these connect into the provision along Oxford Road. There is intermittent footway provision along the south side of Stadium Way and a grass verge to the north. The area of the trade park in which the site is located has a pedestrian only route to the south from the southern end of the car park, providing direct and convenient access to the main adjoining highway (Oxford Road/Wigmore Lane) as shown in **Figure 3.4**. This route connects to a zebra crossing and a shared footway / cycleway that runs along the north side of Wigmore Lane, which provide access to the wider network of footways and crossing points for pedestrian routes in the surrounding area.



Figure 3.4: Pedestrian Only Route/Cut-through from Trade Park onto Wigmore Lane (Source: Google Streetview)

Cycling

- 3.6 Cycling is increasingly being recognised as a viable alternative to the car and there has been sustained growth in cycling as both a mode of travel and leisure activity. The Department for Transport (DfT) 'Local Transport Note 1/20 Cycling Infrastructure Design' states that, *"two out of every three personal trips are less than five miles in length – an achievable distance to cycle for most people"*. Using these guidelines an 8km (five mile) isochrone plan has been created illustrating areas accessible to the proposed development site by bicycle – refer to **Figure 3.5**.

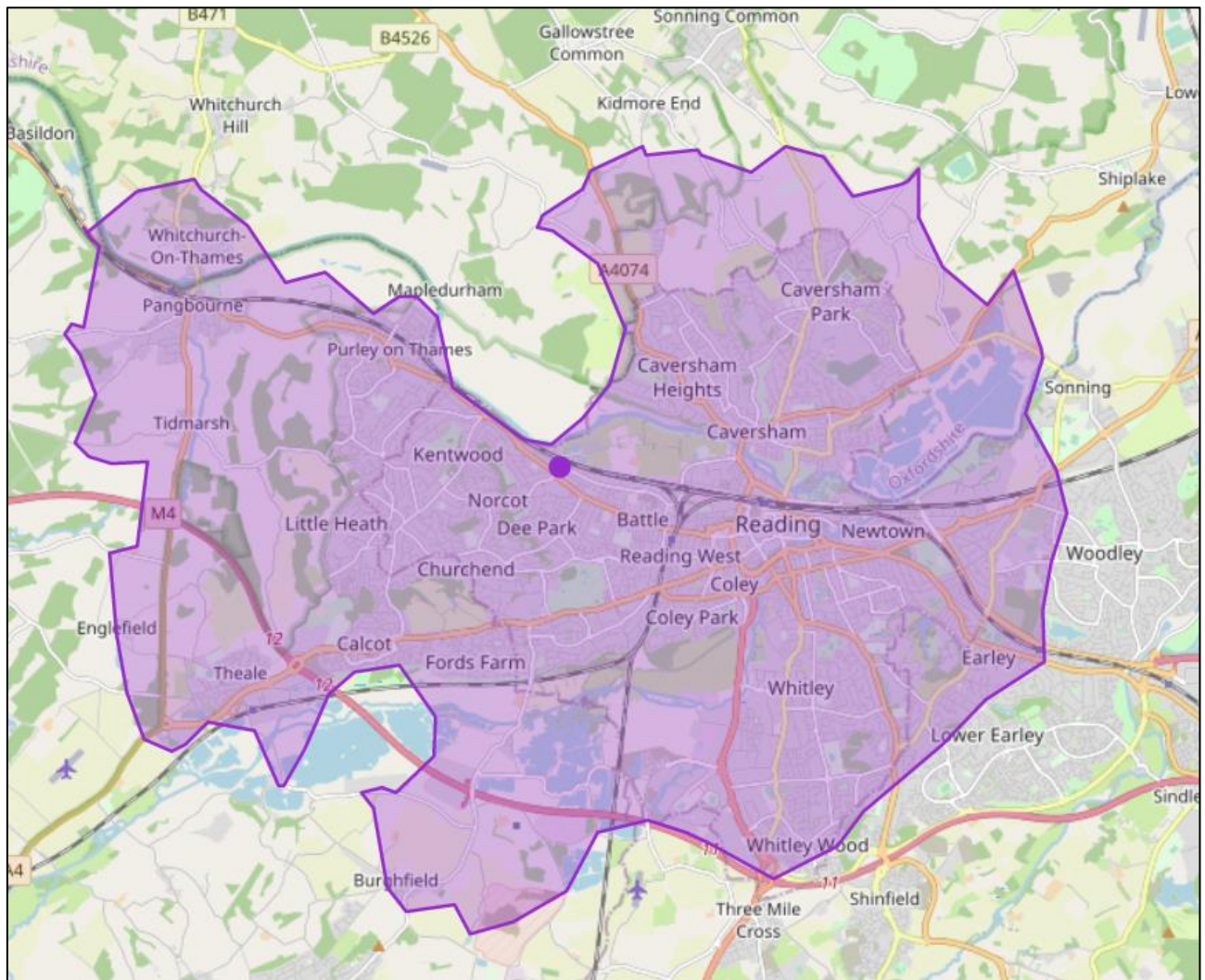


Figure 3.5: 8km Cycle Catchment from Proposal Site (Source: OpenStreetMap)

- 3.7 The 8km catchment encompasses all of Reading Town Centre along with wider surrounding suburban areas including Caversham, Whitley, Little Heath, Purley on Thames, Pangbourne and Calcot. This 8km catchment would equate to a journey of around 40 minutes at a leisurely cycle speed of around 12km per hour.
- 3.8 The cycle pathways and cycle routes in the vicinity of the site are presented in **Appendix B** (Reading Local Cycle Routes Plan). There is an on-road segregated cycle lane along Oxford Road from Tilehurst Train Station in the northwest to the Oxford Road/Wigmore Lane priority roundabout junction adjacent to the site, with on-carriageway cycle lane provision on Oxford Road to the east of the roundabout. This route forms part of the Oxford Road Cyclepath that consists of a combination of cycle lanes and safe cycle routes providing access into Reading Town Centre, and there is also a shared footway / cycleway that runs along the north side of Wigmore Lane to the east of the site.
- 3.9 Reading Town Centre and surrounding areas have a well-established network of cycle infrastructure that connects to key public transport nodes and extends to surrounding suburban communities. The adjoining cycle network will help to encourage cycling as a form of access for the site for users and staff.

- 3.10 The site will also be provided with cycle parking facilities that will further encourage travel via this mode.

Bus

- 3.11 Guidance published by the IHT 'Planning for Public Transport in Developments', recommends that the maximum distance to a bus stop from new development should be 400m – roughly equating to a five-minute walk.
- 3.12 A number of bus stops are provided within 400m of the site, with the closest bus stops located circa. 240m from the site on Oxford Road to the south of the priority roundabout intersection (bus stops: Norcot Junction). These stops are around a 3-minute walk from the site and the bus stops to the west of Scours Lane (bus stops: Cold Store) are approximately 300m away, which is around 3-4 minutes walking. The access to these two pairs of bus stops in the vicinity of the site is facilitated via the comprehensive network of footways and crossing points. The Norcot Junction bus stops consist of shelter, timetable and seating provision, and the Cold Store stops have flag posts, hardstanding areas and timetable information. **Figure 3.6** below shows the location of the nearby bus stops in relation to the site.

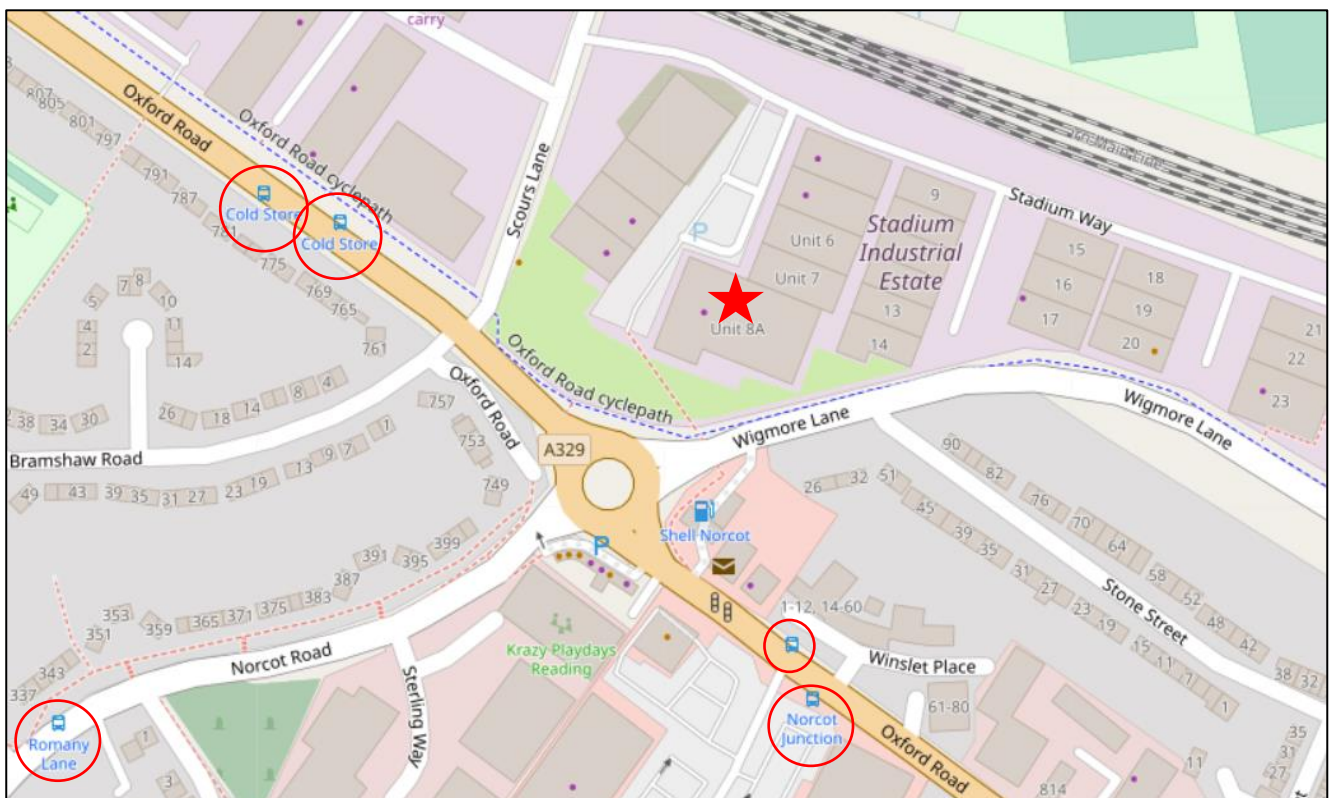


Figure 3.6: Bus Stops in the Vicinity of the Site (Source: OpenStreetMap)

- 3.13 These stops are served by a number of public bus services, which are summarised in **Table 3.1** overleaf.

Service	Route	Typical Weekday Frequency (per hr)	Typical Saturday Frequency (per hr)	Typical Sunday Frequency (per hr)
16 Sky Blue	Central Reading – Purley	3	3	2
	Purley – Central Reading	3	3	2
143	Reading, Friar Street – Goring, Railway Station	7 x Day	5 x Day	-
	Goring, Railway Station – Reading, Friar Street	7 x Day	5 x Day	-
17 Purple	Wokingham Road – Central Reading, Oxford Rd	6/7	6	5/6
	Central Reading, Oxford Rd – Wokingham Road	6/7	6	5/6
85/89/BB3/91	School Service (1 Weekday x Day in each Direction)			

Table 3.1: Local Bus Services

- 3.14 As can be seen from **Table 3.1**, the proposed development site would benefit from a high level of access to bus facilities, with buses, in particular 17 Purple and 16 Sky Blue offering a high frequency of services to Reading Town Centre where there is access to other bus services and the railway network via Reading Train Station, as well as a range of local connections to other residential communities / towns. This would provide opportunities for many staff and users to access the site by bus.

Rail

- 3.15 The closest railway stop to the site is Tilehurst Train Station which is located circa. 1.9km to the northwest of the site (approximately 24-minute walk / 10-minute cycle). Tilehurst Station is served by services running between London Paddington and Didcot Parkway, with additional services between Reading and Oxford. Journey times are circa. 25 minutes to Didcot Parkway, 45 minutes to Oxford, 1 hour to London Paddington and 5 minutes to Reading. Services are frequent with typically daily frequencies of at least 2 services every hour in each direction.
- 3.16 Tilehurst Station is located within an ‘acceptable’ walk and cycle distance from the site. As discussed, Oxford Road has a cycle lane towards Tilehurst Station, which will assist accessibility by cycling to/from the station.
- 3.17 Reading West Station is located around 2.1km to the southeast (approximately 26-minute walk / 10-minute cycle). This station is served by local services between Reading and Basingstoke or Newbury. Trains take circa. 3 minutes to Reading, 20 minutes to Basingstoke and 25 minutes to Newbury.
- 3.18 Reading (Central) Station is located circa. 3.7km to the east. Reading Station has direct and frequent services to many local and regional destinations that run 7 days a week. Reading Station can be accessed as part of a multi-modal journey either via cycle or bus travel from the stops that are located adjacent to the site.
- 3.19 Hence, the proposed development site is accessible by rail and could therefore be used by those accessing the site (staff and users).

Chapter Summary

- 3.20 Being located to the northwest of Reading, the site is considered to be located in an accessible location in terms of opportunities for travel by sustainable transport modes, providing staff and users with a number of viable alternatives to car use for making journeys to and from the site. It is anticipated that a proportion of staff members and site users will travel to the site sustainably, and not use the private car.

4 Development Proposals & Trip Generation

Built Proposals

- 4.1 The proposal is for the change of use from land use class E(g)(iii) (light industrial) to an indoor climbing centre (Use Class E(d)) that will be operated by The Climbing Hangar. The proposal will utilise 1,350sq.m of floor space (1,240sq.m ground floor and 110sq.m mezzanine) and will consist of the following:
- Climbing Space;
 - Small ancillary management office;
 - Reception;
 - Staff room;
 - Café / community area;
 - Changing rooms, lockers and toilet facilities;
 - Hold wash/storeroom;
 - External bin area; and
 - 16 car parking spaces and 24 cycle parking spaces (12 external spaces and 12 internal spaces).
- 4.2 Refer to **Appendix A** for the proposed site layout.

Access

- 4.3 There will be no alterations to the existing access and egress arrangements as part of this application. As discussed, access will be taken from Stadium Way in the north via a priority T-junction, and Stadium Way runs west to east between Scours Lane and Wigmore Lane providing access to the site and wider trade and business park. A review of Google Earth suggests that the trade park hardstanding has recently been resurfaced in this part of the site. It is considered that the existing highway provision is suitable to serve the development proposal at Unit 8a with it being a long established operational access arrangement.
- 4.4 The main pedestrian entrance will be located on the northern elevation of the site in the existing roller shutter opening, providing access to the reception and seating area. Five secondary entrance points will be provided around the site for staff / emergency / fire use only. There is an existing footway on the site's western elevation that connects to the footway at the southern end of the car park.

Staffing & Opening Times

- 4.5 There is potential for there to be up to 15 full-time members of staff and 15 part-time members of staff, who will work varying shifts. Staff will be recruited locally where possible.

4.6 It is understood that the indoor climbing centre will operate during the following times:

- Monday – Friday: 06.30 to 22:00; and
- Saturday / Sunday: 09:00 – 20:00.

Car Parking Provision

4.7 It is important to recognise that parking is provided for Unit 8a and the wider the trade and business park, which has been in place for many years.

4.8 However, RBC do set maximum car parking standards in the Supplementary Planning Document (SPD) Revised Parking Standards and Design Document (adopted 31st October 2011). The site is located within Zone 3 and the standards for D2 Leisure Uses are presented in **Figure 4.1** below.

	Maximum Parking Standards			
	Zone 1	Zone 2	Zone 3	Zone 4
Places of Public Assembly & Leisure Facilities 1 per m² unless indicated				
D2 Bowling Alley	*	*	1.5 per lane	**
D2 Cinema/ Conference Facilities	*	*	1 per 7.5 seats	**
D2 Golf Courses	N/A	N/A	N/A	4 Spaces per hole
D2 Golf Driving Range	N/A	Determined with Travel Plan	1.5 Spaces per tee/ bay	1.5 Spaces per tee/ bay
D2 Playing Fields (Including associated changing facilities)	N/A	12 spaces per Ha of pitch area	12 spaces per Ha of pitch area	12 spaces per Ha of pitch area
D2 Indoor/ Outdoor Sports complexes (General)	See Below	See Below	See Below	See Below
D2 Sports Halls	1 space per 10 fixed seats & 1 space per 50 m ²	1 space per 7.5 fixed seats & 1 space per 40 m ²	1 space per 5 fixed seats & 1 space per 35 m ²	1 space per 5 fixed seats & 1 space per 30 m ²
D2 Swimming Pools	1 space per 7.5 fixed seats & 1 space per 15 m ² pool area	1 space per 7.5 fixed seats & 1 space per 15 m ² pool area	1 space per 5 fixed seats & 1 space per 10 m ² pool area	**
D2 Health Clubs/ Gymnasiums	-	1 space per 35 m ²	1 space per 30 m ²	**
D2 Squash Courts	1 space per court	1 space per court	1 space per court	1 space per court
D2 Tennis Courts	1 space per court	1 space per court	1 space per court	1 space per court
Stadia	Considered on individual merit	Considered on individual merit	Considered on individual merit	Considered on individual merit

* Public parking will be provided in line with the Central Reading Parking Strategy 2004.

** Dealt with on a case by case basis, as long as the use is considered acceptable in this area, in accordance with Core Strategy Policies.

Figure 4.1: Reading Borough Council (D2 Leisure Use) (Source: RBC)

- 4.9 As is shown in **Figure 4.1**, there are no specific parking standards for indoor climbing centres. However, it is considered that the most analogous use would be for D2 Indoor/Outdoor Sports complexes (General), where parking is set at a maximum of 1 space per 5 fixed seats and one space per 35m², hence the proposal could be provided with up to 39 car parking spaces.
- 4.10 The site will be supported by the availability of 16 existing on-site parking spaces all of the time that are adjacent to the site (as per the lease agreement for Unit 8a and as shown on the plans in **Appendix A**).
- 4.11 The car parking provision is in accordance with the maximum recommended standards, while meeting the operational needs of the development, which will see demand for parking from users and members of staff. It should be noted that in this area of the trade park there is a wider area of car parking around Unit 8a, and the majority of the other businesses are operational in traditional business hours and therefore the wider car parking is not expected to be fully utilised during later evening and weekend times when The Climbing Hangar will be open.

Accessible Provision

- 4.12 Disabled parking for all development should be provided at a rate of 3 disabled spaces or 5% of total capacity (whichever is greater).
- 4.13 Due to the scale and nature of the development, 5% of total parking capacity is considered an appropriate provision for accessible spaces. It is proposed that one parallel parking space at the northwest corner of Unit 8a will to be allocated and marked as a disabled parking bay. This disabled space is located close to the site entrance for convenience.

Cycle Parking

- 4.14 In accordance with RBC's standards, the proposed development (D2 Indoor / Outdoor Sports Facilities (General)) should be provided with a minimum of one space per 6 members of staff.
- 4.15 The proposal will provide a total of 24 cycle parking spaces. 12 spaces will be located adjacent to the main site entrance and a further 12 spaces will be provided within the site as standing bike spaces. Changing room and shower facilities are to be provided on the first floor – refer to **Appendix A**.
- 4.16 The cycle parking provision is in excess of the Council's cycle parking standards and will ensure that the provision will cater for both staff and user cycle parking demand, while aiming to encourage more users / employees to travel via this mode.

Delivery and Servicing

- 4.17 The servicing arrangements of the proposed indoor climbing centre will be minimal. It is expected that servicing will mainly be deliveries to serve the café, administrative requirements and waste collection. Deliveries are anticipated to be a few vehicle trips per week and will be undertaken from the existing roads and access routes through the surrounding car park. Servicing vehicles will enter and exit via Stadium Way, which comprises of a carriageway suitable for large vehicles.

- 4.18 Large vehicles have been accessing the site as part of its current consented use for many years, hence there is no concern for the proposed servicing arrangements.
- 4.19 **Drawing VN222202-TR100 Rev A** shows a large refuse vehicle servicing the site successfully from the existing car park area. A smaller emergency vehicle such as a fire tender and transit type vehicles would also be able to easily access to/from this part of the site.

Trip Generation Exercise

- 4.20 To determine the vehicle trip impact of the development proposal, appropriate vehicular trip rates have been obtained from the TRICS database. Trips generated by the extant building use are also a material consideration and have been accounted for in the trip generation and netting out calculations. This provides a robust basis for assessing the likely highway impact associated with the proposed development.
- 4.21 Trip rates have been calculated using sites in the United Kingdom excluding Greater London and Ireland, with care taken to match the location characteristics of the development site.
- 4.22 Due to the nature of the proposed development, both the weekday and weekend peak hours have been assessed.

Trip Generation: Existing

- 4.23 To established suitable trip rates for the existing light industrial land use, reference has been made to the latest version of the TRICS database (2022, v7.8.4). The 02- Employment, C-Industrial Unit classification has been used to identify trips generated by the site's existing use, with sites within wider industrial estates selected.
- 4.24 Trip rates for the existing use have been forecast based on Gross Floor Area (1,350sq.m). **Table 4.1** shows a breakdown of vehicle trip rates for the extant use of the site during the weekday network AM (08:00 – 09:00) and PM (17:00 – 18:00) peak hours. Weekend vehicular trip rate data is not available for the existing land use and hence it is assumed that such operations would not be open Saturday/Sunday.

Industrial Unit	Existing Trip Generation					
	Trip Rate Per 100sq.m			Trip Generation: 1,350sq.m		
	Arr	Dep	Two-way	Arr	Dep	Two-way
Weekday						
AM Network Peak	0.623	0.047	0.670	8	1	9
PM Network Peak	0.024	0.308	0.332	0	4	5
Weekend						
N/A						

Figure 4.1: Extant Vehicle Trips: Industrial Unit (note: may be some arithmetic errors due to rounding)

- 4.25 The full TRICS output file can be found in **Appendix C** of this report.

Trip Generation: Proposed

- 4.26 The trip generation associated with the proposed 1,350sq.m indoor climbing centre (Use Class E(d)) has been forecast using the TRICS database. As there are no indoor climbing centre sites in the database, a search has been undertaken for the 07-Leisure, U-Play Centre classification, which is considered to represent the most analogous land use in TRICS. It should be noted that this approach has been applied and accepted to anticipate trips rates for other recent climbing and bouldering centre planning applications elsewhere in the UK.
- 4.27 **Table 4.2** shows a breakdown of vehicle trip rates for the site's proposed use during the weekday network AM (08:00 – 09:00) and PM (17:00 – 18:00) peak hours. The weekend peak hour (1400-1500) has also been assessed.

Leisure/Play Centre	Proposed Trip Generation					
	Trip Rate Per 100sq.m			Trip Generation: 1,350sq.m		
	Arr	Dep	Two-way	Arr	Dep	Two-way
Weekday						
AM Network Peak	0.000	0.000	0.000	0	0	0
PM Network Peak	0.375	0.491	0.866	5	7	12
Weekend						
Proposal Peak Hour	0.448	0.470	0.918	6	6	12

Figure 4.2: Proposed Vehicle Trips: Leisure Use (note: may be some arithmetic errors due to rounding)

- 4.28 The full TRICS output files can be found in **Appendix D** of this report.

Net Trip Generation Forecast

- 4.29 A trip comparison between the extant and proposed land uses has been undertaken and presented in **Table 4.3** below.

Net Traffic Impact During Peak Periods			
	Arr	Dep	Two-way
AM	-8	-1	-9
PM	+5	+3	+8
Weekend	+6	+6	+12

Figure 4.3: Net Traffic Impact (note: may be some arithmetic errors due to rounding)

- 4.30 From the analysis set out in the table above, it is evident that the proposed change of use to an indoor climbing centre would result in a decrease of nine vehicles during the weekday AM network peak and a minimal increase of eight vehicles in the network PM peak. This would result in around one extra vehicle movement every 7 – 8 minutes in the weekday PM peak, and this small number of additional vehicle movements would not result in a noticeable change in the traffic conditions on the roads that serve the site. In addition, vehicle trips in the weekend peak hour are forecast to change

by around 12 additional trips, which is considered to be a negligible increase that will have no discernible effect upon highway capacity.

- 4.31 In summary, the proposed development will have no negative effect on the operation of the adjoining road network and there will be no severe traffic or highway safety impacts.

5 Car Parking Accumulation

Car Parking Proposals

- 5.1 The proposed indoor climbing centre will be supported by the provision of 16 allocated car parking spaces in the immediate vicinity of the site. This level of provision is seen as appropriate and consistent with other Climbing Hangar facilities across the UK.
- 5.2 As discussed, the trade park consists of several units; Units 1 to Unit 8b, which are all situated around a large parking area consisting of a total of around 100 spaces.

Car Parking Demand

- 5.3 To further consider the appropriateness of the car parking provision a car parking demand profile has been prepared. This analysis has been based upon the proposed weekday and weekend trip rates presented in **Section 4**.
- 5.4 The resultant car parking demand profile for the proposed development is presented in **Table 5.1** (Weekday) and **Table 5.2** (Weekend). For robustness, it has been assumed that two vehicles would arrive and be parked up before 07:00 i.e. staff members to set up, prepare café etc, and this has been factored into the parking accumulation analysis.

Time	Weekday		
	Arrivals	Departures	Accumulation
07:00-08:00	0	0	2
08:00-09:00	0	0	2
09:00-10:00	4	1	5
10:00-11:00	12	5	12
11:00-12:00	9	6	15
12:00-13:00	7	9	13
13:00-14:00	10	9	14
14:00-15:00	8	9	12
15:00-16:00	7	8	11
16:00-17:00	9	13	7
17:00-18:00	5	7	5
18:00-19:00	0	5	0
19:00-20:00	0	0	0

Table 5.1: Car Parking Accumulation Profile (Weekday)

- 5.5 As is shown from **Table 5.1**, the maximum weekday accumulation would be 15 cars parked.
- 5.6 **Table 5.2** shows the resultant car parking demand profile (Weekend).

Time	Weekend		
	Arrivals	Departures	Accumulation
07:00-08:00	0	0	2
08:00-09:00	0	0	2
09:00-10:00	2	0	4
10:00-11:00	6	1	9
11:00-12:00	7	4	12
12:00-13:00	5	5	12
13:00-14:00	6	5	13
14:00-15:00	6	6	13
15:00-16:00	3	6	9
16:00-17:00	2	6	5
17:00-18:00	3	3	5
18:00-19:00	0	1	4
19:00-20:00	0	0	4

Table 5.2: Car Parking Accumulation Profile (Weekend)

5.7 As is shown in **Table 5.2**, the maximum weekend accumulation would be 13 cars.

Chapter Summary

- 5.8 The results demonstrate that the proposed development is forecast to experience a maximum parking demand of 15 spaces on a weekday.
- 5.9 A review of the projected car parking accumulation of the indoor climbing centre development has demonstrated that the provision of 16 spaces is likely to be sufficient to meet this forecast demand.
- 5.10 The 16 spaces will provide an appropriate level of car parking to serve the proposed development to minimise the risk of any overspill parking occurring on the adjoining highway.
- 5.11 It should also be noted that in this area of the trade park there is a wider area of car parking around Unit 8a, and the majority of the other businesses are operational in traditional business hours and therefore the wider car parking is not expected to be fully utilised during later evening and weekend times when The Climbing Hangar will be open.

6 Conclusions

- 6.1 This TS report has been prepared by Vectos on behalf of Grip-UK Ltd to consider the highways and transport issues relating to a planning application for the change of use from land use class E(g)(iii) (light industrial) to an indoor climbing centre (Use Class E(d)), at Unit 8a Stadium Trade and Business Park, Reading, RG30 6BX.
- 6.2 The findings of the report are summarised as follows:
- The proposal site meets the transport policy goals set out in the NPPF, being a sustainable development and location;
 - The site is very well connected to public transport services and lies within a comprehensive walking and cycling network in very close proximity to the site;
 - Travel by bus and rail represents a convenient option for journeys to and from the site for staff and site users;
 - The site will be supported by the provision of 16 car parking spaces. Parking provision is in line with Reading Borough Council's standards and is considered appropriate for the operational needs of the proposed development, which is anticipated to see a maximum parking demand for 15 spaces based on a TRICS car parking accumulation exercise;
 - The site will be provided with a total of 24 cycle parking spaces (12 external and 12 internal);
 - The proposed vehicle trips during the weekday peak periods are expected to decrease by nine vehicles in the AM peak hour and increase by eight vehicles in the PM peak hour, compared to the extant use. Vehicle trips in the weekend peak hour are forecast to change by around 12 additional trips,
 - The above net changes in traffic movements as a result of the development proposals for Unit 8a are considered to be negligible, and will have no discernible effect upon highway capacity on the surrounding network;
 - There is no highway safety concern with regard to the recent accident record on the adjacent road network;
 - The existing access and egress arrangements to the site via Stadium Way will remain the same under the proposal, that have been in operation for many years; and
 - Deliveries and servicing will be infrequent with the proposed arrangements considered appropriate utilising the existing highway layout adjacent to the site.
- 6.3 It is concluded that the development proposals would not adversely impact on the safe and efficient operation of the local highway network. **It is therefore concluded that the development is acceptable from a transport and highway perspective.**

- 6.4 As such, there are no reasons for refusal of the planning application on highways and transportation grounds.



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REV.	DETAILS	DRAWN	CHECKED	DATE

Notes:
1. This is not a construction drawing and is intended for illustrative purposes only.
2. White lining is indicative only.

Allocated Parking Spaces

Total: 16 Spaces

Phoenix 2 Duo (P2-15W with Elite 6x4 chassis)
Overall Length 11.200m
Overall Width 2.530m
Overall Body Height 3.751m
Min Body Ground Clearance 0.304m
Track Width 2.500m
Lock to lock time 4.00s
Kerb to Kerb Turning Radius 9.500m

Climbing Hangar, Reading

Swept Path Analysis: Large Refuse Vehicle

Grip-UK Ltd

vectos.
4th Floor Oxford Place, 61 Oxford Street, Manchester, M1 6EQ
0161 228 1008 e: manchester@vectos.co.uk

DRAWN: EG
CHECKED: PT
DATE: 01.03.22
SCALES: 1/250 at A3

DRAWING NUMBER: VN222202-TR100
REVISION: A

Appendix A



TCH Reading 511
ARCHITECTURAL EMPORIUM Ltd
EMAIL: mail@architectural-emporium.co.uk
WEB: www.architectural-emporium.co.uk
ADDRESS: 13 Hope St, Liverpool, L1 9BQ
PHONE: +44 (0)151 363 0000



- North Point



- Application Site Edge in red

Rev E: 23.02.22
Boundary updated

FOR: APPROVAL
CHECKED BY: TW | DRAWN BY: AJ
SCALE: 1:500
PAPER SIZE: A3
JOB: TCH READING

0.001_Rev E
FIRST ISSUE: 09.12.21
EXISTING SITE PLAN



TCH Reading 511

ARCHITECTURAL EMPORIUM Ltd
EMAIL: mail@architectural-emporium.co.uk
WEB: www.architectural-emporium.co.uk
ADDRESS: 13 Hope St, Liverpool, L1 9BQ
PHONE: +44 (0)151 363 0000



- North Point



- Application Site Edge in red

1 car parking space used to provide cycle parking.

Rev G: 28.02.22
Cycle parking updated

FOR: APPROVAL	
CHECKED BY: TW	DRAWN BY: AJ
SCALE: 1:200	
PAPER SIZE: A3	
JOB: TCH READING	

2.001_Rev G

FIRST ISSUE: 09.12.21

PROPOSED SITE PLAN



TCH Reading 511

ARCHITECTURAL EMPORIUM Ltd
EMAIL: mail@architectural-emporium.co.uk
WEB: www.architectural-emporium.co.uk
ADDRESS: 13 Hope St, Liverpool, L1 9BQ
PHONE: +44 (0)151 363 0000

1 car parking spaces used
to provide cycle parking.

Windows to be fitted with
opaque film and built up
to where required.

Glazed Screen and Doors
in existing Roller Shutter
opening.

Existing fire doors
expanded.

Potential extra 12
standing bike spaces

CYCLE ST
12 SPACES

BINS



STORE
12.5sqm

CLUB
1.5sqm

RECEPTION
8sqm

CAFE
SERVILE
2sqm

RECEPTION
8sqm

CAFE
SERVILE
2sqm

RECEPTION
8sqm

CAFE
SERVILE
2sqm

RECEPTION
8sqm

CAFE
SERVILE
2sqm

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CAFE
SERVILE
2sqm

RECEPTION
8sqm

CAFE
SERVILE
2sqm

RECEPTION
8sqm

CAFE
SERVILE
2sqm

RECEPTION
8sqm

CAFE
SERVILE
2sqm

SEATING / 16 STORAGE CUBES

RETAIL WALL

STAIRS

STAIRS

STAIRS

STAIRS

STAIRS

STAIRS

STAIRS

STAIRS

STAIRS

STAIRS

STAIRS

STAIRS

STAIRS

STAIRS

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STAIRS

STAIRS

STAIRS

STAIRS

STAIRS

CLIMBING AREA
970sqm

Existing Staircases to
be retained.

New full height wall
separating climbing
area.

Climbing Walls by
Specialist
Subcontractor.

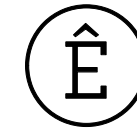
Key:

- Existing Walls
- Proposed Walls
- Existing Wall removed

Rev F: 28.02.22
Cycle parking updated

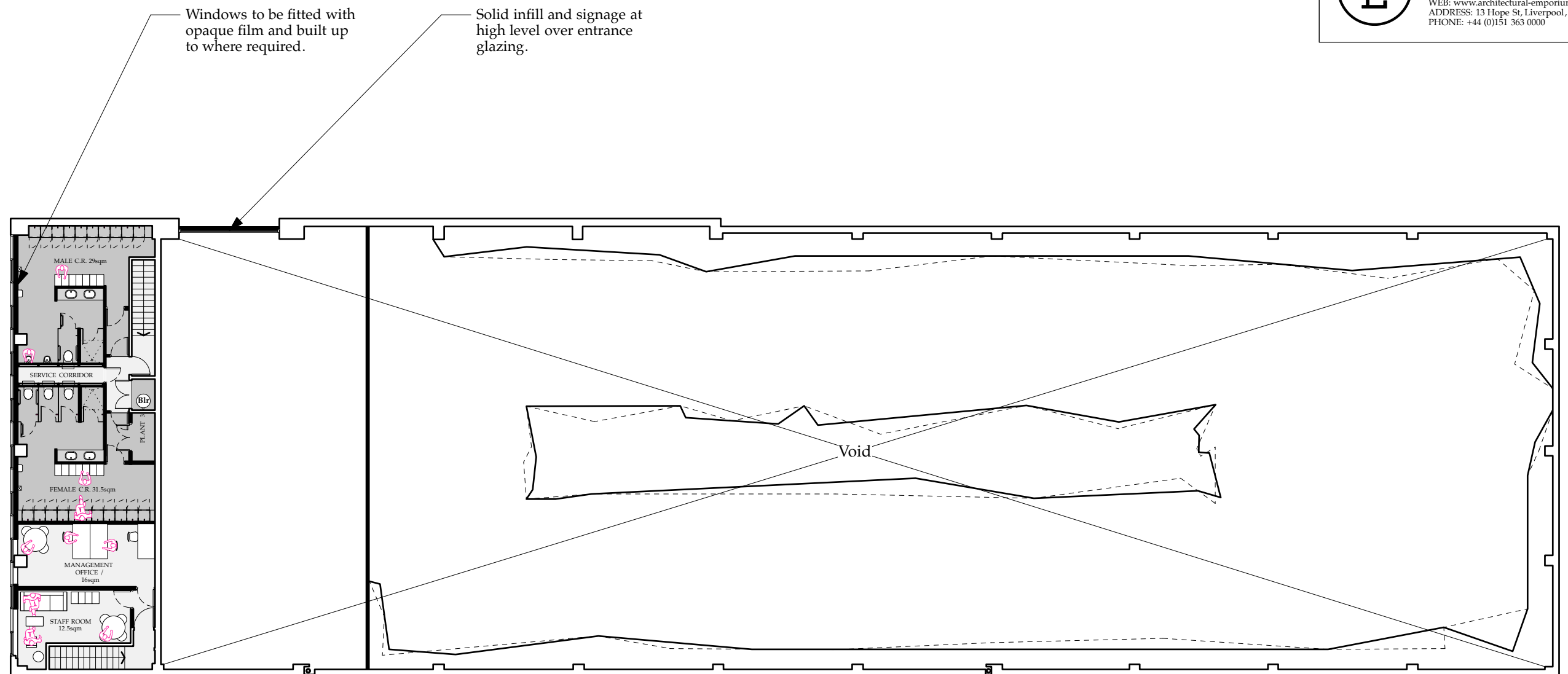
FOR: APPROVAL
CHECKED BY: TW | DRAWN BY: AJ
SCALE: 1:200
PAPER SIZE: A3
JOB: TCH READING

2.100_Rev F
FIRST ISSUE: 09.12.21
PROPOSED GROUND FLOOR PLAN



TCH Reading 511

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01 Proposed First Floor Plan

Key:

- Existing Walls
- Proposed Walls
- Exsiting Wall removed

Rev E: 28.02.22
Cycle parking updated

FOR: APPROVAL	
CHECKED BY: TW	DRAWN BY: AJ
SCALE: 1:200	
PAPER SIZE: A3	
JOB: TCH READING	

2.101_Rev E

FIRST ISSUE: 09.12.21

PROPOSED FIRST FLOOR PLAN

Appendix B

KEY

- Town Centre
- Strategic
- Orbital
- Local
- Leisure
- Third Thames Crossing
- LCWIP Boundary

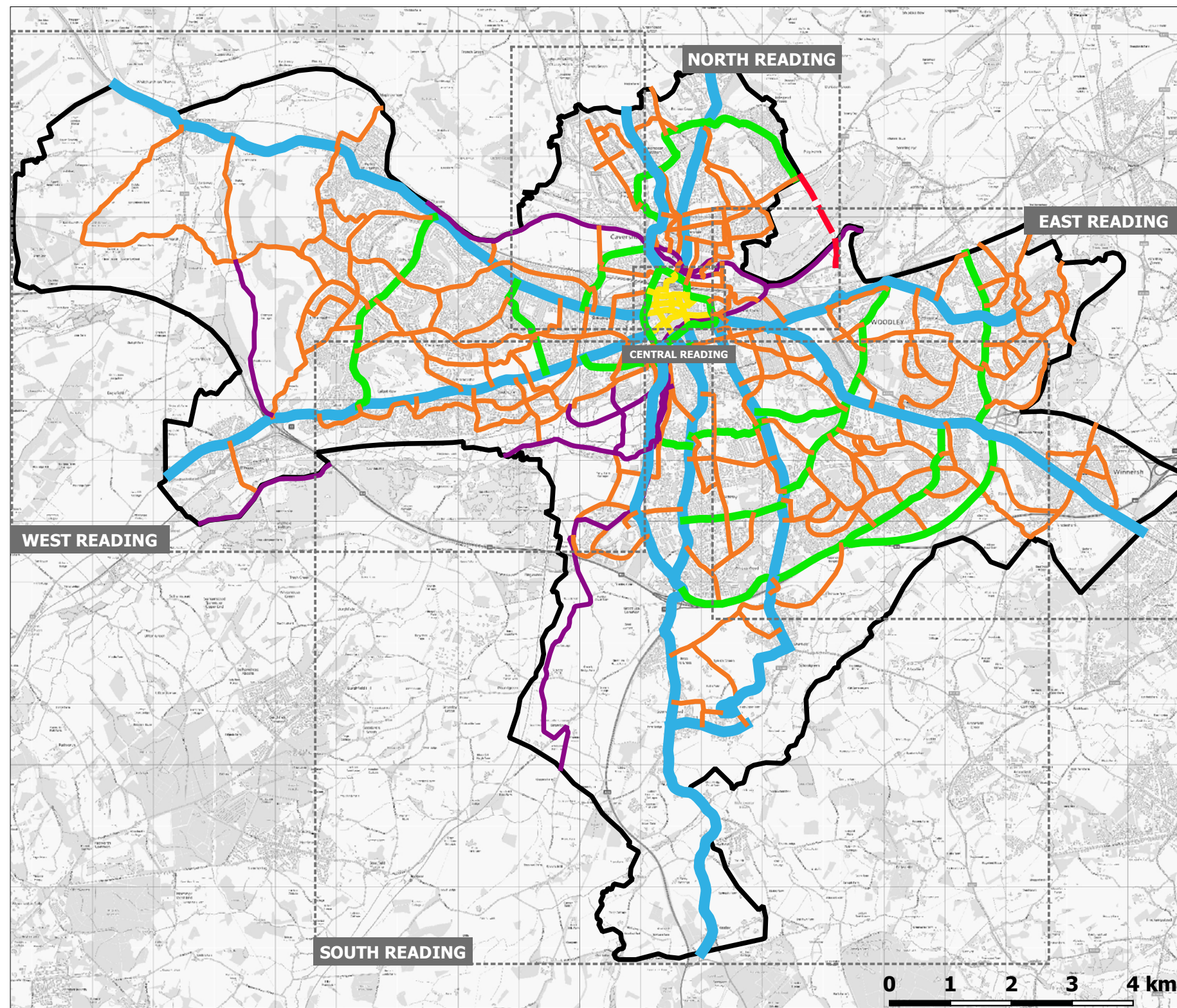


Reading's Joint Local Cycling
and Walking
Infrastructure Plan (LCWIP)

LCWIP CYCLE ROUTES - FULL NETWORK

Drawn: LP Date: April 2020

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Appendix C

Calculation Reference: AUDIT-715001-220224-0222

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
 Category : C - INDUSTRIAL UNIT
TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	HC HAMPSHIRE	1 days
04	EAST ANGLIA	
	NF NORFOLK	1 days
05	EAST MIDLANDS	
	DS DERBYSHIRE	1 days
06	WEST MIDLANDS	
	WM WEST MIDLANDS	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

Primary Filtering selection:

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

Parameter: Gross floor area
 Actual Range: 150 to 14125 (units: sqm)
 Range Selected by User: 600 to 3000 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/13 to 30/06/21

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
Thursday	4 days
Friday	1 days

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

Selected survey types:

Manual count	6 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)	4
Edge of Town	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	6
-----------------	---

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:

Not Known 6 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®.

Filter by Site Operations Breakdown:

All Surveys Included

Population within 500m Range:

All Surveys Included

Population within 1 mile:

20,001 to 25,000 2 days

25,001 to 50,000 4 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 2 days

125,001 to 250,000 2 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

1.1 to 1.5 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 6 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 6 days

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

Covid-19 Restrictions Yes At least one survey within the selected data set was undertaken at a time of Covid-19 restrictions

LIST OF SITES relevant to selection parameters

1	DS-02-C-02 PONTEFRAC STREET DERBY	ENGINEERED PRODUCTS	DERBYSHIRE
	Suburban Area (PPS6 Out of Centre) Industrial Zone Total Gross floor area: 2600 sqm Survey date: THURSDAY 25/06/15		Survey Type: MANUAL
2	HC-02-C-01 JAYS CLOSE BASINGSTOKE	ENGINEERING COMPANY	HAMPSHIRE
	Edge of Town Industrial Zone Total Gross floor area: 3000 sqm Survey date: THURSDAY 16/06/16		Survey Type: MANUAL
3	LC-02-C-04 CHORLEY ROAD BLACKPOOL LITTLE CARLETON	POWDER COATINGS	LANCASHIRE
	Edge of Town Industrial Zone Total Gross floor area: 1010 sqm Survey date: THURSDAY 20/06/19		Survey Type: MANUAL
4	NF-02-C-04 FLETCHER WAY NORWICH UPPER HELLESDON	EXHIBITION DESIGN & MANUF.	NORFOLK
	Suburban Area (PPS6 Out of Centre) Industrial Zone Total Gross floor area: 690 sqm Survey date: THURSDAY 14/11/19		Survey Type: MANUAL
5	TV-02-C-02 PARKVIEW ROAD WEST HARTLEPOOL	FLUID ENGINEERING	TEES VALLEY
	Suburban Area (PPS6 Out of Centre) Industrial Zone Total Gross floor area: 1050 sqm Survey date: FRIDAY 04/09/20		Survey Type: MANUAL
6	WM-02-C-04 STOURVALE ROAD STOURBRIDGE LYE	FOUNDRY	WEST MIDLANDS
	Suburban Area (PPS6 Out of Centre) Industrial Zone Total Gross floor area: 4324 sqm Survey date: TUESDAY 21/11/17		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.

MANUALLY DESELECTED SURVEYS

Site Ref	Survey Date	Reason for Deselection
CF-02-C-02	06/10/16	Not within Estate
DV-02-C-02	06/07/17	Not within Estate
LC-02-C-03	06/11/18	Not within Estate
NF-02-C-03	07/11/19	Too Small

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
TOTAL 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	6	2112	0.308	6	2112	0.055	6	2112	0.363
08:00 - 09:00	6	2112	0.623	6	2112	0.047	6	2112	0.670
09:00 - 10:00	6	2112	0.252	6	2112	0.150	6	2112	0.402
10:00 - 11:00	6	2112	0.181	6	2112	0.118	6	2112	0.299
11:00 - 12:00	6	2112	0.110	6	2112	0.087	6	2112	0.197
12:00 - 13:00	6	2112	0.142	6	2112	0.158	6	2112	0.300
13:00 - 14:00	6	2112	0.197	6	2112	0.276	6	2112	0.473
14:00 - 15:00	6	2112	0.134	6	2112	0.189	6	2112	0.323
15:00 - 16:00	6	2112	0.079	6	2112	0.126	6	2112	0.205
16:00 - 17:00	6	2112	0.032	6	2112	0.355	6	2112	0.387
17:00 - 18:00	6	2112	0.024	6	2112	0.308	6	2112	0.332
18:00 - 19:00	6	2112	0.008	6	2112	0.166	6	2112	0.174
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.090			2.035			4.125

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.

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Parameter summary

Trip rate parameter range selected:	150 - 14125 (units: sqm)
Survey date range:	01/01/13 - 30/06/21
Number of weekdays (Monday-Friday):	10
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	4
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 D

Calculation Reference: AUDIT-715001-220209-0217

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 07 - LEISURE
 Category : U - PLAY CENTRE
TOTAL VEHICLES

Selected regions and areas:

03	SOUTH WEST	
	DV DEVON	1 days
05	EAST MIDLANDS	
	LE LEICESTERSHIRE	1 days
	NT NOTTINGHAMSHIRE	1 days
06	WEST MIDLANDS	
	WM WEST MIDLANDS	1 days

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

Primary Filtering selection:

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

Parameter: Gross floor area
 Actual Range: 725 to 3500 (units: sqm)
 Range Selected by User: 566 to 12000 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 07/01/06 to 07/10/17

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
Friday	2 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:

Suburban Area (PPS6 Out of Centre)	3
Neighbourhood Centre (PPS6 Local 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:

Industrial Zone	1
Commercial Zone	1
Residential 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.

Secondary Filtering selection:

Use Class:

E(d) 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 500m Range:

All Surveys Included

Population within 1 mile:

20,001 to 25,000 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:

125,001 to 250,000 1 days

250,001 to 500,000 3 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 2 days

1.1 to 1.5 2 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.

PTAL Rating:

No PTAL Present 4 days

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

LIST OF SITES relevant to selection parameters

1	DV-07-U-01	PLAY CENTRE	DEVON
	TAMERTON FOLIOT ROAD		
	PLYMOUTH		
	CROWNHILL		
	Neighbourhood Centre (PPS6 Local Centre)		
	Industrial Zone		
	Total Gross floor area:	1500 sqm	
	Survey date: TUESDAY	27/10/09	Survey Type: MANUAL
2	LE-07-U-01	PLAY CENTRE	LEICESTERSHIRE
	EVINGTON VALLEY ROAD		
	LEICESTER		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Gross floor area:	725 sqm	
	Survey date: TUESDAY	04/11/14	Survey Type: MANUAL
3	NT-07-U-01	PLAY CENTRE	NOTTINGHAMSHIRE
	BOTANY AVENUE		
	MANSFIELD		
	BOTANY COMMERCIAL CEN.		
	Suburban Area (PPS6 Out of Centre)		
	Commercial Zone		
	Total Gross floor area:	3500 sqm	
	Survey date: FRIDAY	30/06/06	Survey Type: MANUAL
4	WM-07-U-01	PLAY CENTRE	WEST MIDLANDS
	BRISTOL ROAD SOUTH		
	BIRMINGHAM		
	NORTHFIELD		
	Suburban Area (PPS6 Out of Centre)		
	No Sub Category		
	Total Gross floor area:	1200 sqm	
	Survey date: FRIDAY	14/09/07	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/U - PLAY CENTRE

TOTAL 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	1	1200	0.000	1	1200	0.000	1	1200	0.000
08:00 - 09:00	2	2350	0.000	2	2350	0.000	2	2350	0.000
09:00 - 10:00	4	1731	0.303	4	1731	0.101	4	1731	0.404
10:00 - 11:00	4	1731	0.924	4	1731	0.404	4	1731	1.328
11:00 - 12:00	4	1731	0.635	4	1731	0.419	4	1731	1.054
12:00 - 13:00	4	1731	0.505	4	1731	0.635	4	1731	1.140
13:00 - 14:00	4	1731	0.708	4	1731	0.664	4	1731	1.372
14:00 - 15:00	4	1731	0.563	4	1731	0.650	4	1731	1.213
15:00 - 16:00	4	1731	0.491	4	1731	0.606	4	1731	1.097
16:00 - 17:00	4	1731	0.650	4	1731	0.939	4	1731	1.589
17:00 - 18:00	4	1731	0.375	4	1731	0.491	4	1731	0.866
18:00 - 19:00	4	1731	0.029	4	1731	0.390	4	1731	0.419
19:00 - 20:00	2	2500	0.000	2	2500	0.000	2	2500	0.000
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:		5.183			5.299			10.482	

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.

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Parameter summary

Trip rate parameter range selected: 725 - 3500 (units: sqm)
Survey date range: 07/01/06 - 07/10/17
Number of weekdays (Monday-Friday): 4
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.

Calculation Reference: AUDIT-715001-220209-0231

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 07 - LEISURE
 Category : U - PLAY CENTRE
TOTAL VEHICLES

Selected regions and areas:

04	EAST ANGLIA	
	CA CAMBRIDGESHIRE	1 days
05	EAST MIDLANDS	
	LN LINCOLNSHIRE	1 days
06	WEST MIDLANDS	
	WO WORCESTERSHIRE	1 days

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

Primary Filtering selection:

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

Parameter: Gross floor area
 Actual Range: 850 to 12000 (units: sqm)
 Range Selected by User: 566 to 12000 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 07/01/09 to 07/10/17

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:

Saturday	2 days
Sunday	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:

Suburban Area (PPS6 Out of Centre)	2
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:

Industrial Zone	2
Residential 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:

E(d) 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 500m Range:

All Surveys Included

Population within 1 mile:

10,001 to 15,000 1 days

20,001 to 25,000 2 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

125,001 to 250,000 2 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

1.1 to 1.5 2 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.

PTAL Rating:

No PTAL Present 3 days

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

LIST OF SITES relevant to selection parameters

1	CA-07-U-01	PLAY CENTRE	CAMBRIDGESHIRE
	PADHOLME ROAD EAST		
	PETERBOROUGH		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	1200 sqm	
	Survey date: SATURDAY	17/10/09	Survey Type: MANUAL
2	LN-07-U-01	PLAY CENTRE	LINCOLNSHIRE
	CROSS STREET		
	LINCOLN		
	CANWICK HILL		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Gross floor area:	850 sqm	
	Survey date: SATURDAY	07/10/17	Survey Type: MANUAL
3	WO-07-U-01	PLAY CENTRE	WORCESTERSHIRE
	BROMYARD ROAD		
	WORCESTER		
	HENWICK		
	Suburban Area (PPS6 Out of Centre)		
	Industrial Zone		
	Total Gross floor area:	12000 sqm	
	Survey date: SUNDAY	25/05/14	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/U - PLAY CENTRE

TOTAL 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	1	12000	0.000	1	12000	0.000	1	12000	0.000
08:00 - 09:00	1	12000	0.000	1	12000	0.000	1	12000	0.000
09:00 - 10:00	3	4683	0.157	3	4683	0.014	3	4683	0.171
10:00 - 11:00	3	4683	0.427	3	4683	0.071	3	4683	0.498
11:00 - 12:00	3	4683	0.520	3	4683	0.278	3	4683	0.798
12:00 - 13:00	3	4683	0.384	3	4683	0.370	3	4683	0.754
13:00 - 14:00	3	4683	0.448	3	4683	0.391	3	4683	0.839
14:00 - 15:00	3	4683	0.448	3	4683	0.470	3	4683	0.918
15:00 - 16:00	3	4683	0.242	3	4683	0.477	3	4683	0.719
16:00 - 17:00	3	4683	0.142	3	4683	0.463	3	4683	0.605
17:00 - 18:00	3	4683	0.192	3	4683	0.228	3	4683	0.420
18:00 - 19:00	2	6425	0.016	2	6425	0.047	2	6425	0.063
19:00 - 20:00	1	850	0.000	1	850	0.000	1	850	0.000
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.976			2.809			5.785

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Parameter summary

Trip rate parameter range selected: 850 - 12000 (units: sqm)
Survey date range: 07/01/09 - 07/10/17
Number of weekdays (Monday-Friday): 0
Number of Saturdays: 2
Number of Sundays: 1
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.

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