



Proposed Residential Development

816 Oxford Road,
Reading, RG30 1EL

Transport Statement prepared
on behalf of John Filbee
Properties Ltd

March 2022

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Client Name: John Filbee Properties Ltd

Project Manager: Zac Michaelides

Author: Zac Michaelides

Produced By: **Milestone Transport Planning Limited**
Abbey House, 282 Farnborough Road, Farnborough, Hants, GU14 7NA - Tel: 01483 397888
Gateshead IBC, Mulgrave Terrace, Gateshead, Tyne & Wear, NE8 1AN - Tel: 0191 3387220

Email: mail@milestonetp.co.uk
Web: www.milestonetp.co.uk

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Drawing No.'s

- | | |
|--------------------|--|
| 21148 / 001 Rev A | Proposed Access Arrangements |
| 21148 / TK01 Rev A | Swept-Path Analysis: Private Car |
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| 21148 / TK04 | Swept-Path Analysis: Fire Tender Vehicle |

1. Introduction

Scope of Transport Statement

- 1.1
- This Transport Statement (TS) has been prepared by Milestone Transport Planning (MTP) on behalf of John Filbee Properties Ltd (*the applicant*) to consider the highways and transport implications of a development proposal comprising the demolition of existing light industrial buildings (Use Class E) and site clearance followed by construction of residential dwellings (Use Class C3) with associated amenity space, car parking, bin and cycle storage at 816 Oxford Road, Reading, RG30 1EL.

- 1.2
- As shown in Figure 1, the site is situated off the north-eastern side of the A329 Oxford Road, approximately 230-metres south-east of the Norcot roundabout junction and circa 1.6-kilometres north-west of Reading West rail station. The site comprises a collection of vacant 1 to 2-storey light industrial buildings with associated car parking and is currently served by a crossover measuring circa 35-metres wide.

Figure 1 Site Location (Source: OpenStreetMap)



- 1.3
- The purpose of the TS is to establish the multi-modal trip generating potential of the development proposals and associated impact on the local highway and transport networks over the course of a typical weekday as well as during the AM (08:00 – 09:00) and PM (17:00 – 18:00) peak hour periods. It further assesses the proposed access, parking, delivery, and servicing arrangements in light of various national and local planning design guidance publications.

- 1.4 To inform the scope of the TS, a pre-application response from, the Local Planning Authority, Reading Borough Council (RBC) was received on 18th June 2021; a copy of the response is attached at Appendix 1 of this report. The key outcomes relating to the transport planning and highways aspects of the scheme, which arose from the pre-application discussions are summarised below:
- RBC's Planning Officer stated that if a reduced amount of parking is proposed a comprehensive assessment of car ownership data would be required.
 - RBC's Planning Officer recognised that the level of parking required is largely as a result of the large sized units, another requirement for this location. Accordingly, it was stated that *"...planning officers are likely to show flexibility on the parking requirements (i.e. accept a lower than policy required provision) should the justification for a lower provision be made..."*.
 - Regarding access arrangements, it was requested that all unrequired accesses will need to be reinstated and realigned with the footway and new accesses will require visibility splays of 2.4 x 90-metres to be illustrated on plans.
- 1.5 This report has been prepared in accordance with relevant national and local planning policies, most notably, the National Planning Policy Framework (NPPF) and Reading Borough Council's 'Adopted Local Plan' (November 2019). Further reference is made to the Ministry of Housing, Communities & Local Government's Planning Practice Guidance on 'Travel Plans, Transport Assessments and Statements in Decision Making' (2014) and the Department for Transport's (DfT's) 'Manual for Streets' (MfS1 publication (March 2007).
- 1.6 The report concludes that the development proposals would not have a "severe" impact on the local highway and transport networks, particularly to the conditions of amenity, capacity, and severity.

Report Structure

- 1.7 The remainder of the TS is structured as follows:
- Section 2 evaluates the development proposals in light of current national and local planning policies, to demonstrate compliance with the core principles.
 - Section 3 assesses the baseline highways and transport conditions within the vicinity of the site, its accessibility to local amenities, and opportunities for future households to travel by sustainable modes for a variety of journey purposes.
 - Section 4 describes the development proposals including the access, parking, delivery, and servicing strategy in context with national and local best practice design guidance.
 - Section 5 assesses the trip generating potential of the development proposal in comparison with the site's existing operation to establish the net impact on the surrounding local highway and transport networks.
 - Section 6 summarises the report's main findings, clearly stating that the development proposals would not have a "severe" impact on the local highway and transport networks, particularly to the conditions of amenity, capacity, and severity.

2. Planning Policy Context

- 2.1 An important consideration in the promotion of the development site is how it conforms to transport policies at both National and Local Government level.

National Planning Policy Framework (NPPF, 2021)

- 2.2 Promoting sustainable transport is a key thread of the NPPF and para. 104 highlights the importance of considering transport issues from the earliest stages of development proposals to ensure that:
- The potential impacts on transport networks can be assessed;
 - Opportunities from existing and proposed transport infrastructure, changing transport technology and usage are realised;
 - Opportunities to promote walking, cycling and public transport use are identified and pursued;
 - The environmental impacts of traffic and transport infrastructure are identified, assessed, and considered – identifying opportunities for avoiding and mitigating any adverse effects and for net environmental gains;
 - Patterns of movement, streets, parking, and other transport considerations are integral to the design of schemes and contribute to making high quality places.
- 2.3 Paragraph 105 goes on to state that: *"The planning system should actively manage patterns of growth...Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes..."*.
- 2.4 Para. 110 requires that when assessing specific allocations for development it is important to ensure that:
- Appropriate opportunities to promote sustainable transport modes have been taken up;
 - Safe and suitable access to the site can be achieved for all users;
 - 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
 - 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.
- 2.5 Para. 111 continues to state that *"...developments should only be prevented or refused on highway grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe"*.
- 2.6 Para. 112 requires that applications for development should:
- First, give priority to pedestrian and cycle movements, both within the scheme and with neighbouring areas;
 - Second, so far as is possible, facilitate access to high quality public transport, maximising catchment areas to services and implementing appropriate facilities to encourage use;
 - Address the needs of people with disabilities and reduced mobility;

- Create places that are safe, secure, and attractive which minimise conflicts between pedestrians, cyclists and vehicles;
- Allow for the efficient delivery of goods and access by service and emergency vehicles; and
- Be designed to enable charging of plug-in and other ultra-low emission vehicles.

National Planning Practice Guidance (March 2014)

- 2.7 The National Planning Practice Guidance (NPPG) was first published in March 2014 for the purposes of providing additional information in support of the NPPF. In addition to other planning matters, the NPPG contains specific guidance on *'Travel Plans, Transport Assessments and Statements in decision-making'*.
- 2.8 The guidance states that these documents should *"primarily focus on evaluating the potential transport impacts of a development proposal"* and that they *"can be used to establish whether the residual transport impacts of a proposed development are likely to be 'severe', which may be a reason for refusal, in accordance with the National Planning Policy Framework."* More specifically, the NPPG states that *"Travel Plans, Transport Assessments and Statements can positively contribute to:*
- *Encouraging sustainable travel;*
 - *Lessening traffic generation and its detrimental impacts;*
 - *Reducing carbon emissions and climate impacts;*
 - *Creating accessible, connected, inclusive communities;*
 - *Improving health outcomes and quality of life;*
 - *Improving road safety; and*
 - *Reducing the need for new development to increase existing road capacity or provide new roads."*

Reading Borough Local Plan (2019)

- 2.9 Policy TR1 entitled *"Achieving the Transport Strategy"* requires that development should contribute to meeting the objectives of the Local Transport Plan (LTP) and a commitment to implement measures to promote and improve sustainable transport facilities, such as through provision to encourage walking, cycling and the use of public transport. It also requires development to make appropriate provision for works and contributions to ensure an adequate level of accessibility and safety by all modes of transport from all parts of a development.
- 2.10 In the context of the emerging development proposals, the Current LTP (2011-2026) requires development to:
- Facilitate more physically active travel for journeys in a healthy environment.
 - Ensure that the transport network operates safely and efficiently to meet the needs of all users
 - Align transport and land use planning to enable sustainable travel choices, improve mobility, reduce the need to travel and preserve the natural environment.

- 2.11 The supporting text to Policy TR1 reiterates the importance of users and visitors to the development being able to make sustainable travel choices using non-car modes of transport, including walking, cycling and the use of public transport. It also states that all developments will be assessed for their impact upon the transport network and to deliver appropriate mitigation, where required.
- 2.12 Policy TR3 entitled *"Access, Traffic and Highway-Related Matters"* states that the Council will give due consideration to the effect of new or altered access on safety, congestion and the environment and that development will only be permitted where:
- Accesses and works to the highway comply with the adopted standards of the Transport Authority.
 - The development will not have a material detrimental impact on the functioning of the transport network.
 - The proposals will not be detrimental to the safety of users of the transport network, including pedestrians and cyclists.
 - The proposals will not generate regular movement of heavy goods vehicles (HGVs) on unsuitable roads, or on roads without easy access to the Classified Highway Network.
 - Off-street servicing will be provided.
- 2.13 The support text to Policy TR3 reinforces the importance of ensuring that proposals will not interfere with the free flow of traffic on the highway and that there will be no risk to the safety of people using that road including vulnerable groups such as pedestrians (including mobility-impaired users), cyclists and motorcyclists. The proximity of other accesses is also significant.
- 2.14 Policy TR4 entitled *"Cycle Routes and Facilities"* requires development to, where possible, improve access for cyclists to, from and within the development and to integrate cycling through the provision of new facilities such as cycle hire points and cycle parking.
- 2.15 Policy TR5 entitled *"Car and Cycle Parking and Electric Vehicle Charging"* requires development to provide car parking and cycle parking to a level that reflects the accessibility credentials of the site. It also states that for residential developments, all new houses with dedicated off-street parking should provide electric vehicle charging points.
- 2.16 Finally, within the local plan the site is specifically allocated for development, so long as the development:
- *"Address air quality impacts on residential use;*
 - *Address noise impacts on residential use;*
 - *Address any contamination on site; and*
 - *Ensure appropriate back-to-back separation from existing residential."*

Summary

- 2.17 The following sections of the TS will demonstrate the acceptability of the development proposals in context with national, regional, and local transport planning policies. The report will conclude that the development proposals would not result in a residual cumulative impact on the local highway network that could be considered 'severe' in the context of the NPPF and the Reading Borough Council's (RBC) Local Plan.

3. Baseline Conditions

Site Location

- 3.1 As previously mentioned, the site is allocated within the Reading Borough Local Plan for residential development, the site is situated off the north-eastern side of the A329 Oxford Road, approximately 230-metres south-east of the Norcot roundabout junction and circa 1.6-kilometres north-west of Reading West rail station.
- 3.2 The site comprises a collection of vacant 1 to 2-storey light industrial buildings with associated car parking. The site boundaries are formed by the A329 Oxford Road to the south-west, residential flats and houses to the north / west, and small industrial units accessed from the A329 Oxford Road to the south-east. The site in context with the local area and highway network is shown in Figure 2.

Figure 2 Site Context Plan (Source: OpenStreetMap)

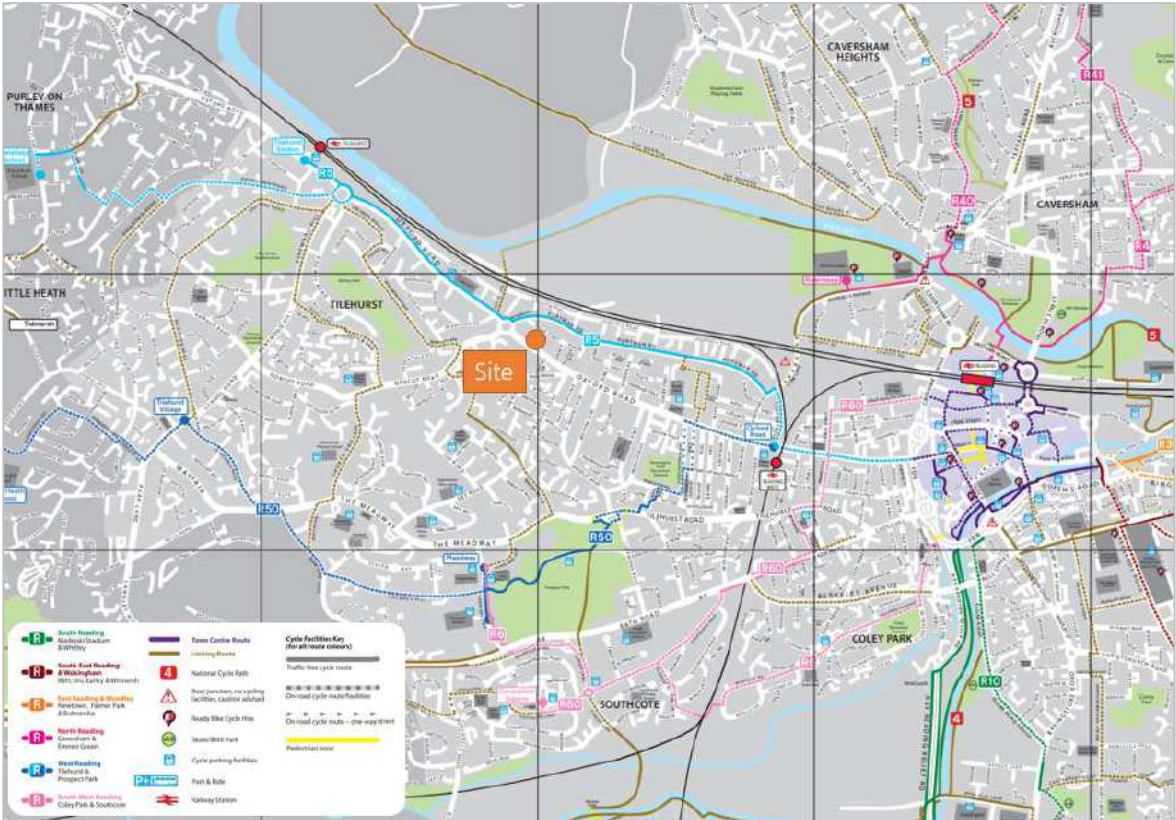


Accessibility by Foot & Cycle

- 3.3 The site is located within an established urban area of West Reading and as such benefits from being accessible on-foot and cycle via the extensive provision of pedestrian and cycle infrastructure.
- 3.4 The A329 Oxford Road is provided with lit continuous footways on either side of the carriageway. At the site's frontage these footways vary in width from 2.0 to >5.0-metres in width. Residential and commercial properties fronting both sides of the A329 Oxford Road are provided with dropped kerbs.

- 3.5 Approximately 60-metres north-west of the site the A329 Oxford Road is provided with an uncontrolled pedestrian crossing which benefits from dropped kerbs, tactile paving, and a pedestrian refuge island. Further north-west, at the Norcot roundabout, footways are largely segregated from the carriageway by grass verges and guardrails. Wigmore Lane, Norcot Road and Bramshaw Road all benefit from lit, continuous footways on both sides of the carriageway.
- 3.6 Furthermore, the A329 Oxford Road, is provided with a traffic signal-controlled crossing, approximately 230-metres south-east of the site, providing access to a range of local amenities.
- 3.7 Regarding cycling infrastructure, there are numerous local, regional, and national recognised routes for cyclists within the vicinity of the site. As shown in Figure 3, the A329 and Wigmore Lane form part of the West Reading Cycle Route 5 which connects with Tilehurst in the north-west to Reading West rail station and Reading town centre to the east.

Figure 3 Local Cycle Network (Source: Reading Cycle Route Network Map)

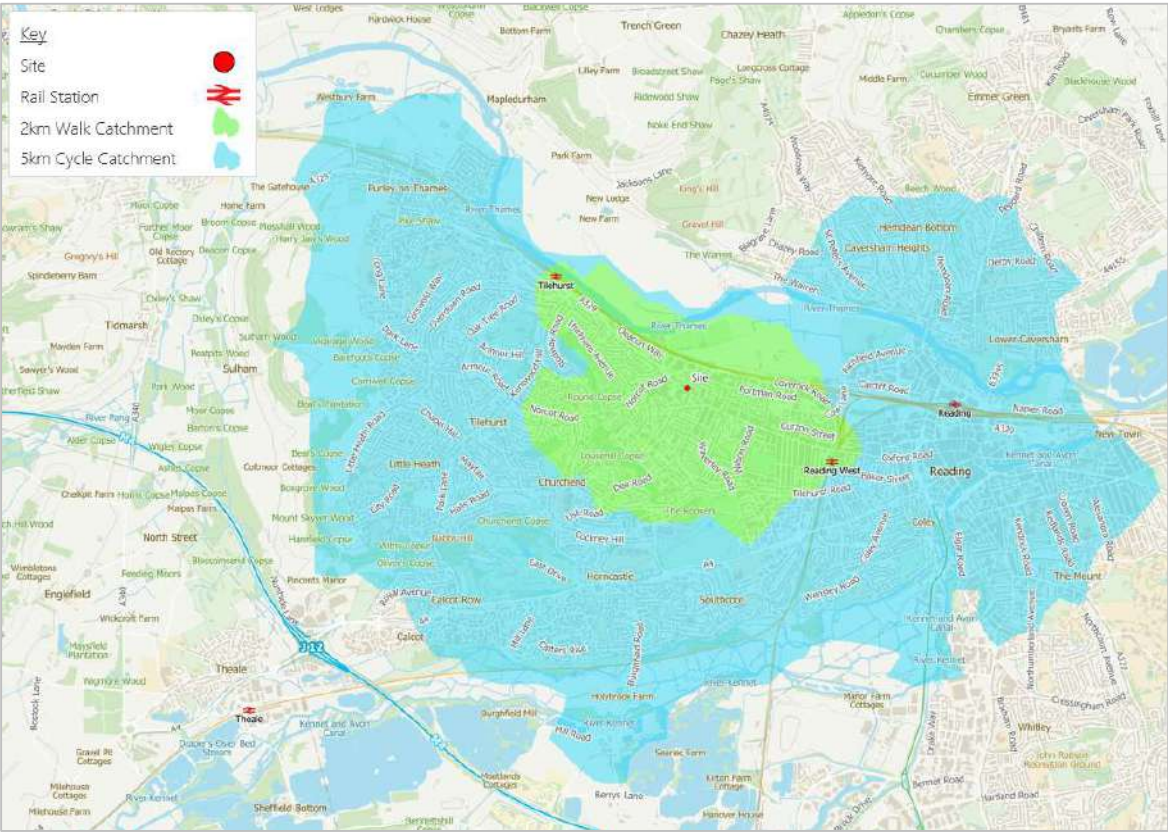


- 3.8 Where cycle routes are not defined, carriageway widths within the vicinity of the subject site are wide enough to accommodate both cyclists and vehicles and visibility is generally of a good level aiding inter-visibility between cyclists and vehicles.
- 3.9 Within various national, regional, and local planning policy and best practice guidance documents, the 'active' modes of walking and cycling are recognised as having the potential to replace short journeys undertaken by private car.

- 3.10
- The Chartered Institute of Highways and Transportation’s (CIHT’s) publication ‘*Providing for Journeys on Foot*’ (2000) states the average length of a walk journey is 1.0-kilometre. It further suggests a preferred maximum walking distance of 2.0-kilometres for commuting / school journeys and 1.2-kilometres for other journey destinations. Other national planning guidance / best practice publications have previously recommended a maximum distance of 5.0-kilometres for reasonably fit individuals to cycle to / from workplace destinations.

- 3.11
- Figure 4 illustrates the potential 2.0-kilometre walk and 5.0-kilometre cycle catchment areas of the subject site which shows that both Tilehurst and Reading West rail stations are accessible on foot. Whilst Reading town centre is accessible by cycle.

Figure 4 Walk & Cycle Catchment (Source: OS Open Data)



Proximity of Local Amenities

- 3.12
- A key consideration of assessing the accessibility of the subject site is its proximity to a range of local services and facilities. As shown in Table 3.1, the subject site is conveniently within the CIHT’s maximum recommended walk (i.e. 2.0-kilometres) and cycle (5.0-kilometres) distances of a range of local amenities, which are likely to cater for the convenience, educational, healthcare and leisure needs of future households.

Table 3.1 Summary of Local Amenities

Type of Amenity	Destination	Distance	Walk Journey Time	Cycle Journey Time
Convenience	Norcot Post Office & Off Licence	150-metres	2-minutes	1-minute
	Tesco Extra	1.1-kilometres	14-minutes	4-minutes
Leisure and Fitness	The Gym Group Reading West	270-metres	4-minutes	1-minute
	Oxford Road Recreation Ground	550-metres	8-minutes	2-minutes
Healthcare	Groveland Pharmacy	250-metres	4-minutes	1-minute
Education	Wilson Primary School	1.0-kilometre	13-minutes	4-minutes
	Battle Primary Academy	1.4-kilometres	19-minutes	5-minutes
	Cranbury College	1.6-kilometres	20-minutes	6-minutes
Employment	Stadium Industrial Estate	400-metres	5-minutes	1-minute
Retail	Reading Retail Park	150-metres	2-minutes	1-minute

Public Transport Accessibility

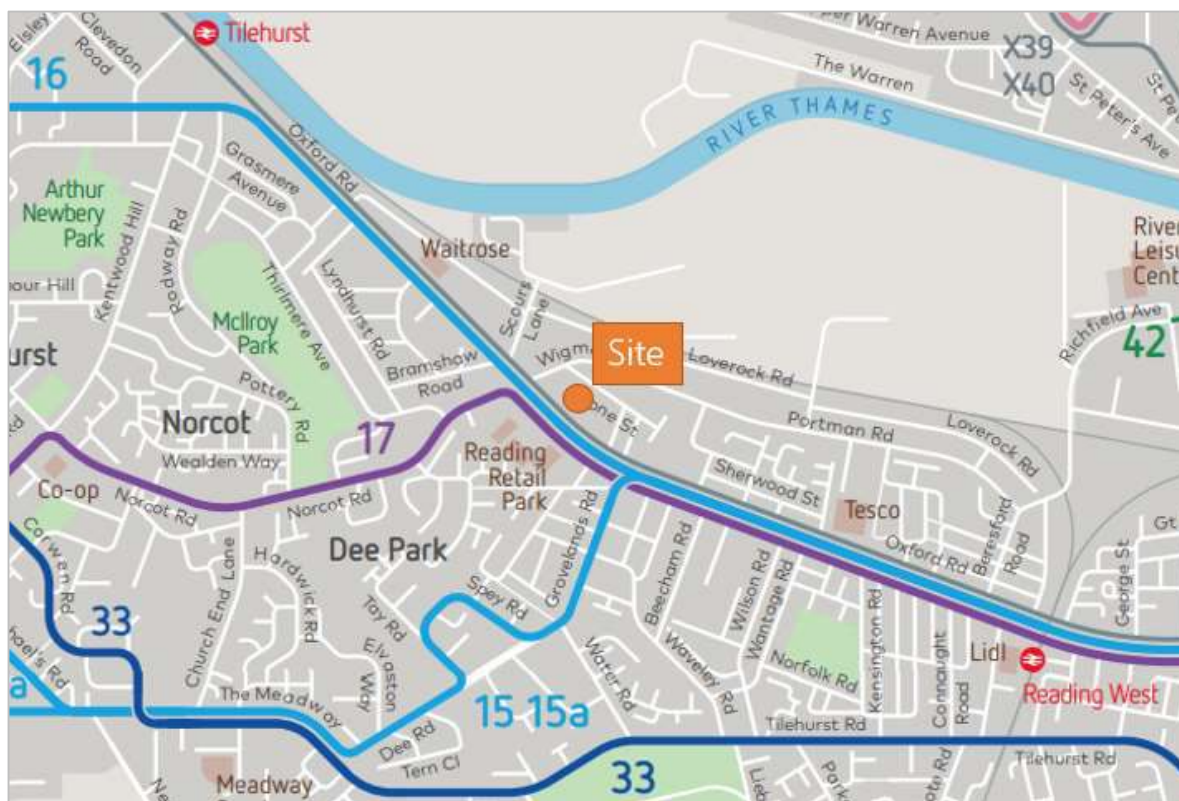
Bus

- 3.13 The site is well located to Reading Buses high frequency 'Premier Route'. The nearest bus stops are situated along the A329 Oxford Road within 100-metres of the site. These stops are served by bus route no.'s 16, 17 and 143 which provide frequent access to a number of local destinations including Reading Town Centre, Reading West rail station, Goring High Street, and Purley.
- 3.14 A summary of local bus services, including frequencies and destinations is presented in Table 3.2 with the network map in the vicinity of the site shown in Figure 5.

Table 3.2 Summary of Local Bus Services - A329 Oxford Road

Route No.	Daytime Frequency (per hour)			Route
	Monday - Friday	Saturday	Sunday	
16 (Sky Blue)	3	3	2	Central Reading - Purley
17 (Purple)	7	6	5	Wokingham - Tilehurst via Central Reading
143	6 services daily	5 services daily	-	Reading - Upper Basildon / Goring via Purley & Pangbourne

Figure 5 Local Public Transport Network



Rail

- 3.15 Tilehurst rail station, operated by Great Western Railway, is located approximately 1.7-kilometres north-west of the subject site (i.e. a 21-minute walk-time or 5-minute cycle). The station is staffed and provided with 20 secure cycle parking spaces located adjacent to the station entrance. Consequently, there is potential for future households to travel by cycle and rail as part of a multimodal journey to / from various workplace destinations.
- 3.16 Tilehurst rail station is mostly served by stopping services between London Paddington and Didcot Parkway with some additional services on weekdays running between Reading and Oxford in the morning and evening peak times. The typical off-peak service is every 30-minutes in each direction Monday to Saturday and hourly on Sundays. Typical journey times are approximately 25-minutes to Didcot Parkway, 45-minutes to Oxford, 5-minutes to Reading, and just over 60-minutes to London Paddington.
- 3.17 Reading West rail station is located 1.7-kilometres south-east from the site. The station is served by local services operated by Great Western Railway between Reading and Basingstoke or Newbury.
- 3.18 During the weekday daytime the station is served by two trains an hour on the Basingstoke route, plus one on the Newbury route. Trains are less frequent on Sundays and in the evenings. Trains take some 3-minutes to reach Reading, 20-minutes to reach Basingstoke, 25-minutes to reach Newbury and just over 30-minutes to reach London

Car Club Bays

- 3.19 There is also a Co Wheels Car Club car located on the A329 Oxford Road circa 1.0-kilometre south-east of the site (13-minute walk time). This will provide the opportunity for residents who only need occasional access to a car not to own one.

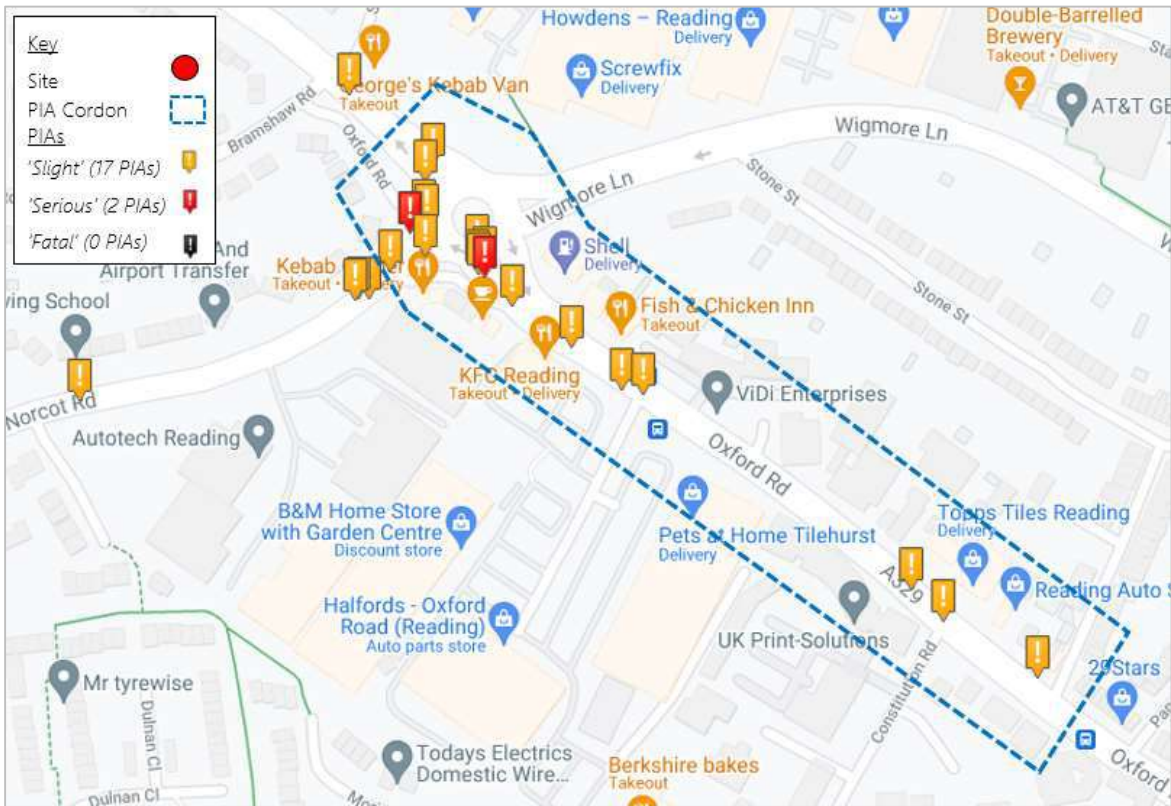
Surrounding Highway Network

- 3.20 The A329 Oxford Road is a two-way single carriageway road, that at the site's frontage, measures circa 10.0-metres in width and contains a south-eastbound bus lane. The A329 Oxford Road is a classified red route road and as such there is no parking or waiting at any time except for buses. The A329 Oxford Road is subject to a 30-mph speed limit.
- 3.21 Vehicular access to the existing light industrial buildings and associated car parking is currently by a dropped kerb crossover off the north-eastern side of the A329 Oxford Road measuring circa 35-metres wide at the carriageway edge.
- 3.22 Approximately 2.5-kilometres south-east of the site, the A329 Oxford Road junctions with Bedford Road and A329 Chatham Street which in turn provides access to the A329 at a four-arm grade separated roundabout junction. The A329 forms part of the strategic road network (SRN), as well as being one of the main arterial routes through Reading. To the south the A329 becomes the A33, before providing access to Junction 11 of the M4 at a grade-separated junction.

Highway Safety

- 3.23 To enable a review of road safety in the vicinity of the site, Personal Injury Accident (PIA) / collision data for the latest five-year period ending 31st December 2020 was obtained from the 'Crashmap' website. PIAs are classified as '*slight*', '*serious*' and '*fatal*' depending on the severity of the injuries sustained. Analysis has been undertaken to ascertain whether there are any trends in the types or location of recorded accidents on the local highway network within the vicinity of the site.
- 3.24 The study area for the PIA analysis comprised a 500-metre section of the A329 Oxford Road, including minor road junctions and the 4-arm Norcot roundabout junction to the north-west of the site.
- 3.25 Figure 6 reveals that within the defined study area there were a total of 19 PIAs including 2 (11%) classified as '*serious*' and the remaining 17 (89%) as '*slight*'. There were no '*fatal*' PIAs. Analysis has been undertaken to ascertain whether there are any trends in the nature, location, and severity of recorded PIAs on the local highway network.
- 3.26 The first '*serious*' incident occurred along the A329 Oxford Road, on the north-westbound approach to the Norcot roundabout, approximately 200-metres north-west of the site. The incident involved 2 vehicles, one of which was a young driver. The second '*serious*' incident occurred along Norcot Road and involved a collision between a car and a cyclist. These two '*serious*' incidents occurred 18-months apart from one another.
- 3.27 In terms of collision type within the study area, a total of 4 (21%) incidents involved cyclists (one of which was classified as '*serious*'), 1 (5%) involved a pedestrian, and 14 (74%) incidents involved motorised vehicles.

Figure 6 PIA Location Plan (Source: Crashmap)



- 3.28 There would appear to be no discernible patterns or specific clusters of incidents suggesting there are no distinctive issues attributable to defective road conditions, poor visibility or other physical characteristics associated with the road layout.
- 3.29 In light of the immaterial vehicular traffic generating potential of the development proposals it is anticipated that the existing trend / pattern of PIAs with regards to severity would not be exacerbated. Consequently, it is concluded that the development proposals would have no adverse impact on highways safety within the vicinity of the site.

Summary

- 3.30 The site benefits from being accessible on-foot and by cycle to a range of local destinations. The site also benefits from access to frequent public transport services operating along the A329 Oxford Road corridor as well as Tilehurst and Reading West rail stations.
- 3.31 In accordance with the underlying principles of the NPPF, future households will be afforded opportunities to travel by public transport and the 'active' modes of walking and cycling, in favour of the private car.

4. Proposed Development

Overview

- 4.1 The development proposals comprise the demolition of existing light industrial buildings (Use Class E) and site clearance followed by construction of residential dwellings (Use Class C3) with associated amenity space, car parking, bin and cycle storage at 816 Oxford Road, Reading, RG30 1EL.
- 4.2 As shown in Table 4.1, the residential dwellings consist of two separate blocks. Block A comprises a five-storey building with 17 apartments. Whilst Block B comprises 3 townhouses and 3 apartments.

Table 4.1 **Schedule of Accommodation**

Unit Type	Block A	Block B	TOTAL
1 Bedroom 2 Person Apartments	4	1	5
2 Bedroom 3 Person Apartments	6	1	7
2 Bedroom 4 Person Apartments	-	2	2
3 Bedroom 5 Person Apartments	7	-	7
4 Bedroom 7 Person Houses	-	3	3
TOTAL	17	7	24

- 4.3 A proposed site plan (Drawing No. 19014-PL-03) prepared by Weston & Co Architects Ltd is attached at Appendix 2 of this report.

Proposed Access Arrangements

Vehicular

- 4.4 As shown on the proposed site layout plan, it is intended that the development proposals would be served via the existing dropped kerb access onto Oxford Road. As part of the development proposals, the dropped kerb access would lead into a 4.1-metre wide access road which will run north-east towards the private parking courtyard.
- 4.5 As part of the pre-application response, RBC stated that *"All unrequired accesses will need to be reinstated and realigned with the footway and new accesses will require visibility splays of 2.4m x 90m to be illustrated on plans"*.
- 4.6 Drawing No. 21148 / 001 Rev A (attached), demonstrates that the vehicular access can achieve 2.4 x 90-metre visibility splays in both directions in accordance with RBC's request. Therefore, it is considered that vehicle drivers would be afforded sufficient intervisibility with other road users, thereby enabling safe manoeuvres to be undertaken at the junction with Oxford Road.
- 4.7 Drawing No. 21148 / TK01 Rev A (attached) demonstrates that two private vehicles would be able to simultaneously access / egress the proposed access in a safe and convenient manner.

Pedestrian / Cycle

- 4.8 Pedestrian access to Block A would be achieved via the provision of 1.5-metre wide footways connecting the site to the existing pedestrian infrastructure off the north-eastern side of Oxford Road. While, Block B will be accessed via a 1.0-metre wide footway adjacent to the site's vehicular access road.
- 4.9 Direct and convenient access to the dedicated cycle storage areas for each of the Blocks would be via the private parking courtyard area.

Proposed Parking Arrangements

Car

- 4.10 Within RBC's 'Revised Parking Standards and Design Supplementary Planning Document' (October 2011), a zonal approach based on four levels of accessibility is applied to deriving parking provision for each type of development.
- 4.11 Oxford Road is a classified red route road located within Zone 3, Secondary Core Area. These areas are typically within 400-metres of Reading Buses high frequency 'Premier Route'. As shown in Section 3, these areas are provided with high quality bus routes to and from a range of local destinations.
- 4.12 The Supplementary Planning Document (October 2011) specifies the following standards for development proposals within Zone 3:
- C3 Dwelling Flat 1 / 2-Bed = 1.5 spaces
 - C3 Dwelling Flat ≥3-Bed = 2 spaces
 - C3 Dwelling House ≥4-Bed = 2 spaces
 - Visitor parking = 1 space per 4 dwellings (flats only)
- 4.13 Consequently, the standards advise a total of 47 car parking spaces (including 6 visitor spaces) for the development proposals.
- 4.14 The development proposal will be provided with a total of 20 car parking spaces located within the private parking courtyard off the north-eastern side of Oxford Road; 3 (15%) of which will be provided with electric vehicle charging points. The provision of 20 car parking spaces would equate to a unit to parking space ratio of 0.83. In light of RBC's adopted car parking standards, this would represent a shortfall of circa 27 car parking spaces.
- 4.15 Within the pre-application response, RBC stated that *"Planning Officers recognise that the level of parking required is largely as a result of the large sized units, another requirement for this location. Accordingly, planning officers are likely to show flexibility on the parking requirements (i.e. accept a lower than policy required provision) should the justification for a lower provision be made..."*.

- 4.16 It is widely recognised that the availability of car parking spaces (both on / off-site) is a key determinant on where people choose to live. Generally, individuals that do not possess a car are more likely to self-select themselves in locations, which are accessible on-foot and by cycle to local public transport services and a range of amenities. Given the site's excellent accessibility credentials and the fact that the development proposal is more likely to appeal to individuals intending to downsize or first-time buyers, the proposed level of on-site car parking is considered appropriate.
- 4.17 The pre-application response continued to state that *"...within the immediate area there are existing apartment blocks (Winslet Place and Branagh Court), which would give good comparable data on car ownership levels in the area and therefore these should be included within any assessment."*
- 4.18 From reviewing historic satellite imagery, it is clear that by circa 2006 both Winslet Place and Branagh Court developments were fully built out. Therefore, both developments would have been included within the 2011 Census.
- 4.19 Table 4.2 outlines a comparison of car ownership per accommodation type within the Reading 006B lower super output area (LSOA), in which the site and the Winslet Place development is located. As well as the Reading 008D LSOA, in which the Branagh Court development is located. A full copy of the 2011 Census output is appended at Appendix 3 of this report.

Table 4.2 Car Ownership per Household Data for the 2011 Census Period

Lower Layer Super Output Area	Whole House or Bungalow	Flat, Maisonette or Apartment	All Accommodation Types
Reading 006B (inc. Site and Winslet Place)	0.95	0.66	0.85
Reading 008D (inc. Branagh Court)	1.12	0.78	0.97
Average	1.035	0.72	0.91

- 4.20 Table 4.2 reveals the average car ownership per household within the Reading 006B in the 2011 Census is 0.85. For private houses this average rises to 0.95, whilst for flats, marionettes, and apartments it falls to 0.66.
- 4.21 To also account for the Branagh Court development an average has been taken between the Reading 006B and Reading 008D LSOAs. Following this, the average car ownership data for both LSOAs rises to 1.035 for private houses and 0.72 for flats, marionettes, and apartments.
- 4.22 This equates to the development proposal likely producing demand for 18 car parking spaces (3 for the private houses / 15 for the apartments). Therefore, the likely demand for residential car parking would be accommodated within the development proposal and there would be no levels of additional on-street parking demand.
- 4.23 Each car parking space will be provided to minimum dimensions of 2.5 x 5.0-metres. As shown on Drawing No. 21148 / TK01 Rev A (attached), private cars are able to access / egress the proposed car parking bays in a safe and convenient manner.

Cycle

- 4.24 Guidance on cycle parking standards for development proposals are set out within RBC's '*Revised Parking Standards and Design Supplementary Planning Document*' (October 2011), which specify the following:
- C3 Dwelling Flat 1 / 2-Bed = 0.5 spaces
 - C3 Dwelling Flat ≥3-Bed = 1 space
 - C3 Dwelling House ≥4-Bed = 2 spaces
- 4.25 When applying the above standards to the development proposals, a total of 20 cycle parking spaces (i.e. 14 communal spaces for the apartments and 6 spaces for the houses) would be required.
- 4.26 As shown on the proposed site plan, the level of cycle parking proposed is in excess of the minimum standards. A total of 28 covered and secure long-stay spaces will be provided in two separate stores for the apartments. Whilst the private houses will be provided with covered and secure cycle stores within the rear gardens of both the proposed residential units.

Proposed Delivery and Servicing Arrangements

- 4.27 Given the small-scale nature of the development proposals, the number of service vehicles would be low and restricted to weekly collections of refuse / recycling and occasional home deliveries.
- 4.28 In order to demonstrate that the proposed 4.1-metre wide internal access road and internal layout of the development proposal can accommodate the movement of large delivery / servicing vehicles in a safe and convenient manner, the swept-path of a large refuse vehicle measuring 2.25-metres in width and 9.62-metres in width was tracked using AutoCAD software.
- 4.29 As shown in Drawing No. 21148 / TK02 (attached), it is evident that the refuse vehicle van can safely enter and exit the development proposal in a forward gear. The refuse vehicle would be required to undertake a turning manoeuvre within the private car park as shown within the drawing. This manoeuvre can be undertaken in a safe and convenient manner without overrunning areas of footway, parking areas or soft landscaping.
- 4.30 The development proposals would provide adequate bin stores within the curtilage of each property. Whilst two communal bin stores would be provided for the proposed apartments located in Block A and B, respectively. To comply with the DfT's '*MfS1*' publication these would be conveniently located within the maximum carry distance of 30-metres for residents. Drawing No. 21148 / TK02, demonstrates that a refuse vehicle can safely manoeuvre to within 10-metres of the proposed bin stores, as recommended in RBC's '*Waste Management Guidelines for Property Developers, Architects, Planners and Contractors (2019)*' guidance.
- 4.31 Regarding delivery vehicles, Drawing No. 21148 / TK03 (attached) demonstrates that a large delivery vehicle measuring 8.01-metres in length and 2.10-metres in width can enter and exit the development proposal in a safe and convenient manner.
- 4.32 Consequently, it is concluded that the proposed site layout is acceptable from a delivery and servicing perspective.

Emergency Access Arrangements

- 4.33 Drawing No. 21148 / TK04 (attached) demonstrates that a fire tender vehicle measuring 7.7-metres in length and 2.43-metres in width can enter and exit the development proposal in a safe and convenient manner.

Construction Logistics

- 4.34 In order to minimise disturbance to local residents and the operation of the local highway network, a number of mitigating measures will be implemented and enforced throughout the duration of the construction period, the details of which will be provided within a Construction Method Statement (CMS). A summary of what the CMS will include:

- Restricted hours to avoid peak arrival and departure periods on the local road network;
- Measures to protect existing footways and marked pedestrian routes using barriers / signage, as appropriate;
- Protection of any statutory services equipment;
- Monitoring of vehicle movements, speeds, and turning using banksmen;
- Routing of any construction traffic, the preferred routes to / from the subject site will be advised. The routes will be assigned to direct and strategic roads and as such drivers will be expected to comply with the preferred routing method;
- Details of any reinstatement works required following completion of works; and
- Communication Strategy with neighbours.

5. Potential Trip Generation and Net Impact Assessment

- 5.1 This section of the report presents a multi-modal comparison between existing and proposed movements associated with the site's permitted use, to establish the net impact on the local highway and transport networks over the course of a typical weekday and during the AM (08:00 – 09:00) and PM (17:00 – 18:00) peak hour periods.

Permitted Use

- 5.2 The site comprises existing light industrial units with a combined floor area of circa 1,184 sq.m under Use Class E - Commercial, Business and Service & sub-category E(g)(iii) Industrial processes. As such, the existing units could be occupied by for any industrial processes which can be carried out in a residential area without causing detriment to the amenity of the area. As such, when operational the units would have generated a significant number of vehicular movements over the course of a typical weekday.
- 5.3 However, given the amount of time that has elapsed since the units were operational and for the purposes of robustness, the multi-modal trip generation assessment does not include the site's previous trip generating characteristics (i.e. no '*netting-off*'), to establish the net impact. Consequently, the multi-modal movements in association with the development proposals are considered to be new to the local highway and transport networks.

Proposed Site Operation

- 5.4 The multi-modal trip rates and corresponding person movements, which are likely to be generated by each of the residential uses over the course of a typical weekday as well as during the AM and PM peak hour periods are presented separately in Tables 5.1 to 5.9.

Proposed Flats Privately Owned

- 5.5 The TRICS database (Version 7.8.3) was interrogated to identify sites exhibiting similar characteristics under the land use category '*03 Residential – C – Flats Privately Owned*'. The following search parameters were applied to further ensure that the data, selected for the TRICS assessment reflected the subject site's locational / operational characteristics.
- Selected Geographical Regions – South-East and South-West;
 - Selected Survey Days – Weekdays-only; and
 - Selected Locations – Suburban Area and Edge of Town.
- 5.6 A summary of the person trip rates and corresponding movements for '*Flats Privately Owned*' is presented in Table 5.1, whilst a copy of the TRICS outputs is provided at Appendix 4 of this report.
- 5.7 Table 5.1 reveals that the flats privately owned component of the development proposal would have the potential to generate in the region of 116 two-way person trips over the course of a typical weekday including 15 and 14 during the AM and PM peak hour periods respectively.

Table 5.1 Person Trip Rates / Generation – ‘Flats Privately Owned’ (21-Units)

Time Period	Trip Rates (per dwelling)			Total Person Movements		
	Arrivals	Departures	Total	Arrivals	Departures	Total
AM Peak Hour (08:00 – 09:00)	0.089	0.610	0.699	2	13	15
PM Peak Hour (17:00 – 18:00)	0.481	0.179	0.660	10	4	14
Daily (07:00 – 19:00)	2.722	2.798	5.520	57	59	116

- 5.8 To determine the likely multi-modal trip generating potential of the development proposals, the total person movements of the residential use have been cross referenced with ‘*Method of Travel to Work*’ data from the 2011 Census for the ‘*Reading 006*’ Middle Super Output Area (MSOA), which encompasses the site. This data was extracted from the Nomis website. The modal split of journeys to work is presented in Table 5.2, whilst a copy of the 2011 Census output is provided at Appendix 5 of this TS.

Table 5.2 2011 Census Method of Travel to Work Modal Split (Reading 006)

Mode	%	Mode	%
Car Driver	56%	Pedestrian	9%
Car Passenger	6%	Cycle	3%
Public Transport	24%	Other	2%

- 5.9 It is evident from reviewing Table 5.2 that over half (56%) of all households living within the area surrounding the site are dependent on travelling by private car for their journeys to / from various workplace destinations. Approximately, 24% of households regularly travel by public transport with an additional 12% by the ‘*active*’ modes of walking and cycling.
- 5.10 As shown in Table 5.3, the privately owned flats component of the development proposals would have the potential to generate a total of 116 two-way person trips over the course of a typical weekday. Approximately 65 of these would be undertaken by private car with an additional 27 by public transport. A total of 15 two-way trips would be undertaken by the ‘*active*’ modes of walking and cycling.

Table 5.3 Daily (07:00-19:00) Multi-Modal Trip Generation - '*Flats Privately Owned*' (21-Units)

Mode	Arrivals		Departures		Total	
	Trip Rate	No. Trips	Trip Rate	No. Trips	Trip Rate	No. Trips
Car Driver	1.532	32	1.575	33	3.107	65
Car Passenger	0.165	3	0.170	4	0.335	7
Public Transport Users	0.644	14	0.662	14	1.306	27
Pedestrians	0.248	5	0.255	5	0.502	11
Cyclists	0.088	2	0.091	2	0.179	4
Other	0.045	1	0.046	1	0.091	2
TOTAL	2.722	57	2.798	59	5.520	116

5.11 As shown in Table 5.4, the privately owned flats would have the potential to generate a total of 15 and 14 two-way person trips during the AM (08:00 – 09:00) and PM (17:00 – 18:00) peak hour periods, respectively. Approximately 8 of these trips would comprise private car trips respectively.

Table 5.4 AM & PM Peak Multi-Modal Trip Generation - '*Flats Privately Owned*' (21-Units)

Mode	AM Peak				PM Peak			
	Arrivals		Departures		Arrivals		Departures	
	Trip Rate	No. Trips	Trip Rate	No. Trips	Trip Rate	No. Trips	Trip Rate	No. Trips
Car Driver	0.050	1	0.343	7	0.271	6	0.101	2
Car Passenger	0.005	0	0.037	1	0.029	1	0.011	0
Public Transport Users	0.021	0	0.144	3	0.114	2	0.042	1
Pedestrians	0.008	0	0.056	1	0.044	1	0.016	0
Cyclists	0.003	0	0.020	0	0.016	0	0.006	0
Other	0.001	0	0.010	0	0.008	0	0.003	0
TOTAL	0.089	2	0.610	13	0.481	10	0.179	4

Proposed Houses Privately Owned

5.12 The TRICS database (Version 7.8.3) was interrogated to identify sites exhibiting similar characteristics under the land use category '*03 Houses – A – Houses Privately Owned*'. The aforementioned search parameters were also applied to further ensure that the data, selected for the TRICS assessment reflected the subject site's locational / operational characteristics.

- 5.13 A summary of the person trip rates and corresponding movements for '*Houses Privately Owned*' is presented in Table 5.5, whilst a copy of the TRICS outputs is provided at Appendix 6 of this report.
- 5.14 Table 5.5 reveals that the flats privately owned component of the development proposal would have the potential to generate in the region of 24 two-way person trips over the course of a typical weekday including 3 during the AM and PM peak hour periods respectively.

Table 5.5 Person Trip Rates / Generation – '*Houses Privately Owned*' (3-Units)

Time Period	Trip Rates (per dwelling)			Total Person Movements		
	Arrivals	Departures	Total	Arrivals	Departures	Total
AM Peak Hour (08:00 – 09:00)	0.211	0.862	1.073	1	3	3
PM Peak Hour (17:00 – 18:00)	0.615	0.278	0.893	2	1	3
Daily (07:00 – 19:00)	3.982	4.056	8.038	12	12	24

- 5.15 As shown in Table 5.6, the privately owned houses component of the development proposals would have the potential to generate a total of 24 two-way person trips over the course of a typical weekday. Approximately 14 of these would be undertaken by private car with an additional 6 by public transport. A total of 3 two-way trips would be undertaken by the '*active*' modes of walking and cycling.

Table 5.6 Daily (07:00-19:00) Multi-Modal Trip Generation – '*Houses Privately Owned*' (3-Units)

Mode	Arrivals		Departures		Total	
	Trip Rate	No. Trips	Trip Rate	No. Trips	Trip Rate	No. Trips
Car Driver	2.241	7	2.283	7	4.524	14
Car Passenger	0.242	1	0.246	1	0.488	1
Public Transport Users	0.942	3	0.959	3	1.901	6
Pedestrians	0.362	1	0.369	1	0.732	2
Cyclists	0.129	0	0.131	0	0.260	1
Other	0.066	0	0.067	0	0.133	0
TOTAL	3.982	12	4.056	12	8.038	24

- 5.16 As indicated in Table 5.7, the privately owned houses component of the development proposals would have the potential to generate in the order of 4 and 3 two-way person trip movements during the AM (08:00 – 09:00) and PM (17:00 – 18:00) peak hour periods, respectively. Of these, approximately one trip would comprise private car trips respectively.

Table 5.7 AM & PM Peak Multi-Modal Trip Generation - '*Houses Privately Owned*' (3-Units)

Mode	AM Peak				PM Peak			
	Arrivals		Departures		Arrivals		Departures	
	Trip Rate	No. Trips	Trip Rate	No. Trips	Trip Rate	No. Trips	Trip Rate	No. Trips
Car Driver	0.119	0	0.485	1	0.346	1	0.156	0
Car Passenger	0.013	0	0.052	0	0.037	0	0.017	0
Public Transport Users	0.050	0	0.204	1	0.145	0	0.066	0
Pedestrians	0.019	0	0.078	0	0.056	0	0.025	0
Cyclists	0.007	0	0.028	0	0.020	0	0.009	0
Other	0.003	0	0.014	0	0.010	0	0.005	0
TOTAL	0.211	1	0.862	3	0.615	2	0.278	1

Combined

- 5.17 When combining both the residential uses, it is evident from Tables 5.8 and 5.9 that the development proposals would have the potential to generate in the region of 140 two-way person trips over the course of a typical weekday including 18 and 17 during the AM and PM peak hour periods, respectively. The majority of these trips would be undertaken by private car.

Table 5.8 Daily (07:00 – 21:00) Combined Multi-Modal Trip generation (24-Units)

Mode	Arrivals	Departures	Total
Car Driver	39	40	79
Car Passenger	4	4	8
Public Transport Users	16	17	33
Pedestrians	6	6	13
Cyclists	2	2	5
Other	1	1	2
TOTAL	69	71	140

Table 5.9 AM & PM Peak Combined Multi-Modal Trip Generation (24-Units)

Mode	AM Peak (08:00-09:00)		PM Peak (17:00-18:00)	
	Arrivals	Departures	Arrivals	Departures
Car Driver	1	9	7	3
Car Passenger	0	1	1	0
Public Transport Users	1	4	3	1
Pedestrians	0	1	1	0
Cyclists	0	0	0	0
Other	0	0	0	0
TOTAL	3	15	12	5

Net Impact

5.18

It is evident that the development proposals would have the potential to an additional 79 two-way vehicular movements over the course of a typical weekday including 10 during the AM (08:00 – 09:00) and PM (17:00 – 18:00) peak hour periods respectively (i.e. one trip every 6-minutes). Such an increase would have an immaterial impact on the local highway network, particularly to the conditions of amenity, capacity and safety.

6. Summary & Conclusions

6.1 This TS has been prepared by MTP on behalf of John Filbee Properties Ltd (*the applicant*) to consider the highways and transport implications of a development proposal comprising the demolition of existing light industrial buildings (Use Class E) and site clearance followed by construction of residential dwellings (Use Class C3) with associated amenity space, car parking, bin and cycle storage at 816 Oxford Road, Reading, RG30 1EL.

6.2 A summary of the findings in this report are as follows:

- A range of local amenities are available and accessible on-foot and by cycle within the maximum recommended distances, prescribed by the CIHT.
- The subject site offers good connections to a network of pedestrian / cycle infrastructure including the Reading Cycle Route networks. There are 3 frequent bus services providing connection to a range of local destinations within easy walking distance of the subject site. Both Tilehurst and Reading West rail station are also easily accessible by foot and deliver high frequency services to Didcot Parkway, Oxford, London Paddington, and Basingstoke.
- The review of the PIA data reveals that there are no significant safety issues with the existing local highway network within the vicinity of the subject site. In light of the immaterial vehicular traffic generating potential of the development proposals, it is considered that the existing trend / pattern in regard to location, collision type and severity would not be exacerbated.
- The development proposal will be served via the existing dropped kerb access onto Oxford Road, which would lead into the proposed 4.1-metre wide access road. It has been demonstrated that two private vehicles would be able to simultaneously access / egress the proposed access in a safe and convenient manner.
- The proposed access can achieve the requested 2.4 x 90m visibility splays in both directions. Therefore, it is considered that vehicle drivers would be afforded sufficient intervisibility with other road users, thereby enabling safe manoeuvres to be undertaken at the junction with Oxford Road.
- The development proposals provide an appropriate level of car and cycle parking in accordance with RBC adopted parking standards and the likely demand from future residents. Further, swept-path analysis demonstrates that the design of the indicative layout can accommodate a private car in a safe and convenient manner.
- In order to minimise disturbance to local residents and the operation of the local highway network a CMS will be prepared during the application stage.
- All delivery and servicing activity including household waste and recycling collections would take place from within the private parking courtyard of the site. Swept-path analysis has been undertaken to demonstrate that the design of the internal access road and proposed turning head can accommodate a large refuse truck (commonly used by RBC), a fire tender vehicle, and a 7.5t box van (commonly used for deliveries) in a safe and convenient manner.
- The development proposal is anticipated to generate in the order of 79 two-way vehicle movements including 10 during the weekday AM (08:00 – 09:00) and PM (17:00 – 18:00) peak hour periods, respectively. When compared to the site's dormant use, such an increase would have an immaterial impact on the local highway network, particularly to the conditions of amenity, capacity, and safety.

- 6.3 Based on the findings within this Transport Statement and in the context of the guidelines within para. 111 of the NPPF, it is considered that there are no residual cumulative impacts in terms of highway safety or the operational capacity of the surrounding road network and therefore planning permission should not be withheld on transport grounds.

Appendix 1

Christopher Weston
Weston & Co Architects Ltd
Watlington House
44 Watlington Street
Reading
Berkshire
RG1 4RJ

Frances Martin
Executive Director for Economic Growth
and Neighbourhood Services

Civic Offices, Bridge Street,
Reading, RG1 2LU

☎ 0118 9373787

Our Ref: 210277/PREAPP

Direct: ☎ 07971 015688

e-mail: jonathan.markwell@reading.gov.uk

18th June 2021

Via email only to: christopher@weston-co.com

Your contact is: Mr Jonathan Markwell, Planning

Dear Mr Weston,

TOWN AND COUNTRY PLANNING ACT 1990

Enquiry Reference & Address: 210277/PREAPP - 816 Oxford Road, Reading, RG30 1EL

Proposal: Pre-application meeting with respect to the proposal to comprehensively redevelop the site, demolishing the existing commercial / light industrial buildings and replacing them with two residential blocks, one six-storeys in height (fronting Oxford Road) and one three-storeys in height (to the rear of the site) to provide 25 residential dwellings (5x1, 7x2, 12x3 and 1x4-bed units, of which 7 would be affordable housing units) and associated car parking, cycle and bin storage and landscaping.

Details of virtual pre-app meeting: 3.35pm - 4.45m on 17th June 2021, attended by: Jonathan Markwell (Reading Borough Council) & Christopher Weston (Weston & Co Architects Ltd).

List of other officers who have provided input, but did not attend the meeting itself: Myriam El Harouchy (GS Ecology - RBC Ecology consultants); Sarah Hanson (Natural Environment Officer); Alice Layzell (Senior Recycling and Enforcement Officer); Ross Jarvis (Senior Environmental Health Officer); Neg Hussain (Transport Development Control Officer).

Information considered for pre-app meeting: 19014.6.1_21.02.18_Pre App Enquiry Form; 19014.9.1_21.02.18_Pre-Application Statement; 19014-SK-10 Proposed Location & Block Plans; 19014-SK-11 Proposed Site Plan; 19014-SK-12 Proposed Site Section; 19014-SK-13 Block A Proposed Plans; 19014-SK-14 Block B Proposed Plans; 19014-SK-15B Block A Proposed Elevations; 19014-SK-16A Block B Proposed Elevations.

Thank you for your recent standalone meeting pre-application enquiry in relation to the above site. The level of detail within the pre-application submission is welcomed and appreciated, enabling detailed pre-application comments to be made.

The scheme was separately considered by the Reading Design Review Panel on 17th June 2021. The formal written comments from the panel will be forwarded onto you separately once they have been received.

Background information / context

Based on the [New Local Plan](#) policies, as adopted in November 2019, the following initial contextual information is noted:

- The site is specifically allocated for development within the local plan, as follows:

WR3I **816 OXFORD ROAD**
Development for residential.
Development should:

- ***Address air quality impacts on residential use;***
- ***Address noise impacts on residential use;***
- ***Address any contamination on site; and***
- ***Ensure appropriate back-to-back separation from existing residential.***

Site size: 0.23 ha 13-20 dwellings

- Within an Air Quality Management Area
- Potential contaminated land - garage use
- Smoke Control Zone
- Oxford Road is a classified road
- Within Kentwood ward

Within the past quarter of a century the following planning applications have been submitted at 816 Oxford Road:

010776 - Retrospective application for a 3m high galvanised metal fence. Refused 3/12/2001

041436 - Internally illuminated signs. Granted 20/12/2004.

051255 - Demolition of existing building and erection of A1 retail unit with associated parking. Withdrawn 9/8/2005.

051340 - Demolition of existing building and erection of A1 retail unit with associated parking (Resubmission of 05/00736/FUL). Granted 27/3/2006.

060131 - Change of use from temporary car wash to the erection of a modular office with car parking for use as a hire centre for temporary modular buildings with the display of temporary modular buildings (Sui Generis). Granted 19/10/2006.

060833 - Change of use from petrol station (Sui Generis) to car valeting (B1) for a temporary period of three years (retrospective). Granted 12/7/2006.

Land use principles

It is acknowledged that the site is allocated within the Reading Borough Local Plan, as referenced in the context section above.

Notwithstanding the site allocation for residential, the starting point in the assessment of any future redevelopment proposal at the site is the loss of the existing uses at the site. Policy EM3 relates to the loss of employment land and your future submission should include commentary as to how the proposals accord with the (i) to (vi) criteria within the policy. Owing to the site allocation it is anticipated that such commentary can be succinct, and a case is likely to be able to be made. Nevertheless, the onus is on you to demonstrate that in your future submission.

Should this be established, the principle of providing residential accommodation at the site would be welcomed in line with Policy H1 and the site allocation. The site allocation references several elements which any development should address, with your future submission being required to demonstrate these points, as well as all other typical elements any residential proposal would need to.

Demolition of existing buildings

The existing buildings are not considered to be of any specific or special architectural merit to warrant their retention. As such, the principle of demolishing the existing buildings at the site is considered to be acceptable.

Layout, urban structure and urban grain

The proposed two block approach, one fronting Oxford Road and the other to the rear, appears a reasonable one within the context of the site and surroundings. In particular, the layout of the neighbouring Winslet Place development from the early 2000's, together with the existing neighbouring context to the north, east and south all result in a two separate block pattern of development. The footprint of the Winslet Place development, together with the red line boundary of your site, means that it is accepted that it is not possible to follow this pattern of existing development to the west. The orientation of the nearest Winslet Place block means this is the nearest sensitive (i.e. residential) building, with the proposed inclusion of access at the nearest part of the prospective application site being a logical decision to create due separation at this point.

Questions are however posed in relation to standalone buildings being proposed for the bin storage areas and part of the cycle parking. First, it would be a better design solution had these facilities been provided as integral to the buildings they serve, rather than separate entities. From a security perspective it would also be far preferable for these structures to be integral too. Another issue is that these are proposed hard on the boundary with land to the east, potentially constraining any future development of that neighbouring site. Accordingly, this is one element where further thought should be given, with the preference for all associated facilities being provided within the envelope of the proposed buildings.

Height / massing

The information contained within your supporting statement is helpful in identifying the nearby context, which in-turn assists in justifying the proposed heights and massing proposed. It is clear that the proposals have attempted to take cues from the surrounding context to influence the proposed massing at different points of the proposed site. On the Oxford Road frontage it is acknowledged that the proposal would be taller than other nearby buildings on the north side of Oxford Road, where for example neighbouring Winslet Place is predominantly 4-storeys in height (with small sections being 5 storeys). Although the proposed Block A is sought to be 6 storeys in height, the top two-storeys are set back and staggered to minimise the impact. You have also demonstrated in the section plan the outline of the Branagh Court properties opposite, which are set on higher ground and are five storeys in height with pitched roofs too. Set within this context, it is considered that provided that the high-quality design of the proposals envisaged be fully demonstrated further in due course, the principle of an up to six storey building is likely to be able to be supported at this part of the site.

For Block B the proposed massing is three storeys, with a single pitched roof proposed to minimise the height towards Stone Street properties. The proposed massing is considered to successfully

integrate with the surrounding massing at Stone Street, Winslet Place and Block A, responding at the appropriate points to the existing context.

Accordingly, officers are largely content with the height and massing proposed, albeit this is considered to be at the uppermost limit of acceptability and any future increase is unlikely to be able to be supported or justified.

Density and mix

Based on the proposal for 25 dwellings on a 0.23ha site, this equates to a density of 108.7 dwellings per hectare. As per Policy H2, there are several factors which inform an appropriate density. In this instance the accessibility of the site and the need to maximise the efficiency of the land use are likely to be factors which count in favour of the anticipated density. Your future submission should include commentary seeking to justify the proposed density, bearing in mind the indicative density ranges specified at paragraph 4.4.8 of the supporting text to Policy H2. You should also be mindful of Policy CC6 too.

In terms of mix, the 5x1, 7x2, 12x3 and 1x4-bed units proposed fully accord with the Policy H2 expectation for over 50% 3-bed dwellings being provided. This is welcomed and supported, with it evident that a range of unit types are proposed.

In relation to the mix specific to the affordable units, the 3x1, 3x2 & 1x3-bed mix proposed again accords with the need referenced at figure 4.6 of the Local Plan. In due course a suitable tenure breakdown of the affordable units will also need to be demonstrated (see the [March 2021 adopted Affordable Housing SPD](#) for details).

In addition, as per Policy H2, you should explore making appropriate provision for plots as self-build - should you wish to explore this further, please contact officers to discuss further.

Linked to this, it is noted that the site allocation references the site is allocated for 13-20 dwellings, with your proposal of 25 units exceeding this. This is not an in-principle issue, as the figures within the local plan are indicative and various factors combine to ascertain an appropriate number of dwellings for each site (e.g. the need to make efficient use of land being one such factor).

Affordable housing

Regarding affordable housing, please see Policy H3 in the first instance. This clearly details that there would be a requirement for 30% of the on-site proposed units to be affordable housing. The recently published Affordable Housing SPD (March 2021) has clarified that the target tenure breakdown should be:

- Affordable rented accommodation at 'Reading affordable rent' levels - at least 62%;
- Affordable home ownership (shared ownership or another product) - maximum 38%.

Your submission has indicated that 7 of the proposed units would be affordable, equating to 28% on-site provision. This falls below the Policy H3 requirement, with this equating to a shortfall of 1 on-site unit in practice. In such instances, scheme viability can seek to justify a lower than policy compliant contribution. An open book approach to viability should be taken, with the onus on you to justify the lower contribution and this being subject to evaluation, as (separate from the application fee) funded by the applicant. The current initial fixed fee, as per paragraph 6.10 of the SPD, is £8,000 for a 15-29 unit scheme.

The tenure breakdown of the affordable housing offer has not been specified. You are strongly advised to consider the SPD in this regard, with particular reference to the 'Reading affordable rent' product.

It is also unclear from the submission where precisely the on-site affordable housing units would be located within the scheme (section 10 of your report specifies the affordable units were in bold, but 7 units were not shown in bold - based on our meeting on 17th June it is now assumed that the units are in Block B). This should be carefully considered, ideally with early input from registered providers to ensure it is suitable for their needs.

Any on-site affordable housing provision, financial payment and / or deferred contribution would be secured via s106 legal agreement as part of any future application. Given the relatively low level of on-site provision, a cascade mechanism (should a registered provider not take on the units in the future for whatever reason) would be included as part of the agreement, to offer the units for the Council to take on as affordable housing units, followed by a financial contribution (in line with the Policy H3 amount). In addition, given the anticipated high proportion of 3-bed units and to cover the eventuality of extensions/conversions of the blocks to create additional units in the future, a further obligation would ensure affordable housing contributions would be considered on a cumulative basis in that scenario (as per paragraph 4.36 of the SPD).

Design approach

The design approach is largely covered by separate comments provided by the Reading Design Review Panel, which as detailed above will follow separately. As discussed at the DRP meeting, there would be scope for the proposals to be re-assessed by DRP in the future. As mentioned, the DRP work on a rota basis and this panel is scheduled to formally meet again on 21st October 2021 and 24th February 2022. We discussed that this may not align with your emerging timescales and DRP verbally advised me that they would potentially be open to an interim re-review, re-assessing a further iteration of your proposals outside of the formal DRP meeting dates, albeit with a lesser number of members than the meeting on 17th June. If this is of interest to you, please let me know and this can be explored further. Alternatively, you may be content to work towards a further version of your scheme being prepared for further pre-application advice, with DRP input in October or February as part of this.

Notwithstanding the future DRP comments, planning officers have some initial comments too, which based on the discussion at the DRP meeting, also align with matters also raised by DRP:

- The general contemporary approach, utilising brickwork as the predominant material, is generally welcomed and it is likely to be considered as a suitable addition in principle to this part of Oxford Road.
- It is likely that there will be a need for some articulation on the side elevations of Block A (e.g. patterned brickwork, recessed brickwork mimicking bricked up windows or green walls) or otherwise the proposed massing may appear monolithic in longer views along Oxford Road
- Landscaping does not appear to have been given sufficient focus in the proposals and the position / size of trees will need to be carefully considered to ensure they do not restrict light to bedrooms, but at the same time be significant in their own right rather than being tokenistic (see separate comments from the Natural Environment Officer below).

Several more detailed points are also picked up in the later sections of this response too.

Quality of accommodation - internal layout and amenity-based comments

A series of initial comments are raised in relation to the quality of accommodation for future occupiers. As a starting point, it is positive that you have specified that all units will achieve the national space standards. This is a requirement of local policy H5 and your future submission should include a specific section demonstrating how the proposals meet each of the standards referenced at paragraph 4.4.42 of the supporting text to Policy H5. This should form part of a wider 'Policy H5 checklist assessment' document you should prepare as part of any submission, demonstrating in detail how the proposals accord with elements a) to f) of Policy H5. Below are a series of initial comments made in relation to the layout and related quality of accommodation points, which are requirements of Policy CC8:

- There is presently an under-provision of wheelchair user dwellings - $1/25 = 4\%$. Policy H5f requires at least 5% - so the proposals are required to provide at least 2 wheelchair user units within a 25-unit scheme. You will note the reference within the requirement to 'wheelchair adaptable' market units and 'wheelchair accessible' Council properties; your future submission should be clear in this regard.
- It is presently queried whether ground floor front doors are actually provided on the Block A Oxford Road elevation? It is considered that individual front doors serving each of the three units should be provided (with these being readily evident in visual design terms too), as well as the communal entrance point to the other units. At present there is little prominence given to the entrance from Oxford Road and it is considered this could/should be better defined to assist with truly activating the frontage to assist natural surveillance. For example, based on the floor plan unit A.01 is already proposed to be separately accessed, but there is no clear reference to this from the elevation plan; it is respectfully considered that the rear elevation entrance presently looks better defined than the front one.
- Bedroom 3 within unit A-03 is a single aspect room, almost on the boundary with the neighbouring site to the east. Accordingly, it is the potential to lack outlook and access to daylight/sunlight and solutions to this should be explored.
- Bedrooms 1 & 2 within unit A-03 could include limited outlook and access to day/sunlight owing to being north facing and being in close proximity to the proposed bin store. It is queried whether there will be a future desire for screening (to protect privacy of future occupiers from the bin store and car park) at this point, which may further worsen these impacts too?
- From experience, the provision of recessed balconies always results in potential daylight and sunlight issues for the internal rooms; this will need to be thoroughly tested at application stage. There is also a wider question as to how well the front amenity spaces will be used, given they front onto the busy Oxford Road (noting that Oxford Road is a classified road and within an Air Quality Management Area). As such, it is questioned whether the layout should be flipped, so as to explore providing the majority of amenity space on the quieter side of the building? It is acknowledged that this elevation being north / north-east facing may have influenced your decision to date?
- In terms of the shared amenity space to rear elevation of Block A at first and second floor level, there is potential for this to result in overlooking at close quarters to bedroom 3 of units A-04 and A-05. You are advised to explore steps to seek to mitigate this impact (e.g. reducing the footprint of the terrace and including soft landscaping in these areas instead), without harming levels of outlook or access to day/sunlight to these habitable rooms either.
- In terms of Block B, it is questioned why smaller units are served with individual rear gardens, whereas the larger units would (aside from those townhouses at either ends of the block) would only include balcony/terrace spaces? It would normally be expected for the larger units

to include dedicated garden spaces, rather than 1-bed units. It is noted that you explained at our meeting that this was dictated by seeking to provide these as on-site affordable housing units. You are nevertheless encouraged to explore flipping the internal composition of the units to provide the maisonettes at ground and first floor level?

- Moreover, on first glance of the elevation plans I was personally anticipating the Block B units to be a series of individual townhouses, rather than being a combination of flats and maisonettes. At the DRP meeting, this viewpoint was shared by several panel members too. The current arrangement results in inevitable issues of overlooking/lack of privacy to the rear amenity spaces of the ground floor flats from the maisonettes above. It is questioned why Block B is simply not proposed as a series of 7 x 3 or 4-bed townhouses, with any loss in number of units (in the scheme as a whole) potentially offset by changes to create smaller units within Block A?
- The current arrangement of Block B also results in the ground floor elevation looking overly dominated with 9 doors across the frontage. When also combined with the continuous row of parking proposed, there is a general feeling of the layout being cramped at this point, lacking in greenness and therefore perhaps not being as welcoming as it could/should be.
- It is also questioned why bike and bin stores are in a separate block, rather than individual facilities provided for each unit as one would usually anticipate to assist each future occupier? It is considered that these elements of the proposals are further considered and refined.
- Within Unit B.01, bedroom 2 is only served by rooflights, rather than any standard windows. This would result in unacceptable levels of outlook and access to day/sunlight, with the internal layout altered accordingly to address this shortcoming. It is noted that on the corresponding B.06 unit an en-site and expansive storage room is shown instead at this point.
- Concerns are raised in relation to the second floor rear (north elevation) Block B terraces overlooking the rear gardens of Stone Street. The short distance to the boundary, together with the second floor level, would provide clear overlooking/overbearing and the perception of a loss of privacy to the rear amenity spaces of Stone Street properties. Although the internal window to window distances are satisfactory, I would advise against provision of external terraces on this elevation due to the limited distance to the boundary.
- It is positive that the vast majority of units (22 / 25) appear to be dual aspect, with the exception being 3 south west facing single aspect units. In respect of these units, you are advised to be particularly mindful of overheating of these units (from their orientation and resultant sun impacts) and explore at an early stage ways to minimise and mitigate this. This applies to all south-west facing elevations. The opposite orientation of rooms, those facing north / north-east, should also be carefully considered in respect of providing sufficient levels of sunlight to these rooms too.
- Open space - it is acknowledged that the proposals make a sustained effort in seeking to provide individual (and in some instances shared) amenity space, bearing in mind Policy H10 and the guidance at paragraph 4.4.87 of the supporting text. This compares favourably with adjacent nearby developments.

Environmental Protection observations

Closely linked to quality of accommodation matters, initial observations have been sought and received from the Environmental Protection (EP) team. Several the matters identified in the site allocation, together with criteria for Policies H5 and CC8 can be evidenced through the matters initially commented on by EP below:

Noise impact on development

The front façade of the development is likely to be affected by road noise from the busy Oxford Road. A noise assessment should be submitted in support of applications for new residential proposed in noisy areas.

The noise assessment will be assessed against the recommendations for internal noise levels within dwellings and external noise levels within gardens / balconies in accordance with BS 8233:2014 and WHO guidelines for Community Noise. The report should identify any mitigation measures that are necessary to ensure that the recommended standard is met.

Where appropriate, the noise assessment data should also include noise events (L_AMax) and the design should aim to prevent noise levels from noise events exceeding 45dB within bedrooms at night. Noise levels above 45dB are linked with sleep disturbance.

It may be possible though clever design to reduce the need for additional noise mitigation measures, for example, ensuring that noise sensitive rooms are located on the quieter façades and bathrooms, kitchens, hallways and cupboards etc on the noisiest facades.

Noise mitigation is likely to focus on the weak point in the structure; glazing. Given that the acoustic integrity would be compromised should the windows be opened, ventilation details must also be provided, where mitigation relies on closed windows. Ventilation measures should be selected which do not allow unacceptable noise ingress and should provide sufficient ventilation to avoid the need to open windows in hot weather, however non-openable windows are not considered an acceptable solution due to the impact on living standards.

Internal noise criteria (taken from BS8233:2014)

Room	Design criteria	Upper limit
Bedrooms (23:00 to 07:00)	<30dB L _{Aeq} ,8hour	
Living rooms (07:00 - 23:00)	<35dB L _{Aeq} ,16hour	
Gardens & Balconies	<50dB L _{Aeq} ,T	<55dB L _{Aeq} ,T

Noise generating development

Applications which include noise generating plant when there are nearby noise sensitive receptors should be accompanied by an acoustic assessment carried out in accordance with BS4142:2014 methodology. It is possible that this development will include noisy mechanical plant such as air conditioning, a generator or an externally ventilated plant room. If these are proposed then a noise generating noise assessment should be undertaken.

The noise assessment needs to establish the predicted noise rating level taking account of any characteristic factors like tonality or impulsiveness of the noise. The rating level should be compared with the background noise level.

The noise policy (EN17) states for proposed new plant:

The noise source specific noise level (plant noise level) should be at least 10dBA below the existing background level as measured at the nearest noise sensitive receptor [and the rating level should not exceed the background level (as measured in accordance with BS4142:2014)].

Within Reading there is strong justification for requiring the plant specific noise level to be at least - 10dB below the measured background level. This is specifically to prevent the cumulative impact

from addition of plant over time which could result in background creeping up to levels which might cause adverse health impact, which is more likely in a densely occupied town such as Reading. Levels of -10dB ensure that the background level is not increased and nuisance is unlikely.

However, there may be some situations where this cannot be achieved there may be some flexibility where this is justifiable for example where there are very low background noise levels, etc.

Air Quality - Increased exposure

The proposed development is located within an air quality management area that we have identified with monitoring as being a pollution hot-spot (likely to breach the EU limit value for NO₂) and introduces new exposure / receptors. An assessment and/or mitigation measures should be provided as part of the application.

You will need to demonstrate sufficient mitigation measures are implemented to protect the residents from the effects of poor air quality.

Where the development involves converting an existing building and allowing a buffer zone is not an option then it may be that other mitigation can be applied. In the first instance this would be to implement measures to reduce the level at the facade of the property by creating a barrier between the property and the carriageway, such as close boarded fencing or planting vegetation.

If this is not possible then locating habitable rooms away from the source of pollution or the use of mechanical ventilation with the inlet on the clean side of the property may be acceptable. This list of potential measures is by no means an exhaustive list:

Mitigation against increased exposure:

- Mechanical ventilation - inlets from the 'clean' side of the development, long term maintenance needs to be addressed
- Buffer zones - consider increasing distance of the building façade from very busy roads
- Habitable rooms - consider placing stairwells, corridors and bathrooms on the façade fronting pollution source
- Mixed use - locate any sensitive uses on higher floors, allowing commercial use on lower elevations
- Balconies - consider avoiding use in areas of exceedance, especially on ground and first floor level
- Non-opening front windows - this should only be considered in certain circumstances, needs to be balanced against loss of freedom for future occupants

Reading Borough Council's Air Quality Policy DM19 requires that developments have regard to the need to improve air quality and reduce the effects of poor air quality through design, mitigation and where required planning obligations to be used to help improve local air quality.

Bin storage - pest proofing

There is a widespread problem in Reading with rats. This is exacerbated by poor waste storage which provides them with a food source. You should consider how bins will be stored and ensure that bin stores are designed in such a way as to minimise access from vermin.

Re-development of land - pest control

Where development will be taking place on sites with a former land use, particularly with a former drainage network, you are advised to ensure that former unused drains have been removed and / or properly capped or the proposed development may be at risk of rodent ingress.

It is likely that rats will occupy a cleared site. If there is a significant gap between site clearance and re-development, it is recommended that baiting be carried out to eradicate rats prior to redevelopment. This is to prevent rat populations which may be disturbed due to the redevelopment of the site causing subsequent problems to residents and businesses in the local area.

Contaminated Land

Ideally a 'phase 1' desk study should be submitted with applications for developments on sites with potentially contamination, such as this, to give an indication as to the likely risks and to determine whether further investigation is necessary.

Investigation must be carried out by a suitably qualified person to ensure that the site is suitable for the proposed use or can be made so by remedial action.

It is possible that the desk study will recommend further intrusive site investigation. If consent is given the further investigation will be required by condition, along with a condition for a remediation strategy and a condition for validation certification that remedial works have been successfully completed. The remediation strategy shall be submitted and approved prior to development and the validation certification prior to occupation. If no contamination is found by the intrusive investigations, then all conditions will be discharged.

Accordingly, you are strongly advised to take into full account all of the advice provided by the EP team and prepare any future application with these requirements in mind.

Transport/ highways considerations

The proposed development will consist of the demolition of the existing buildings and the erection of two new residential blocks to provide 25 new residential dwellings consisting of:

BLOCK A	BLOCK B
1 Bed x 1	1 Bed x 4
2 Bed x 5	2 Bed x 2
4 Bed x 9	3 Bed x 3
	4 Bed x 1

Oxford road is a classified road and a red route. It is located within Zone 3, Secondary Core Area, of the [Council's adopted Parking Standards and Design SPD](#). Typically, these areas are within 400m of a Reading Buses high frequency 'Premier Route', which provides high quality bus routes to and from Reading town centre and other local centre facilities.

In accordance with the adopted Parking SPD, the development would be required to provide the following parking and cycle provision.

Type of Dwelling	Zone 3 Parking requirements	Zone 3 Total Parking Provision	Zone 3 Cycle Spaces Requirements Per Dwelling	Zone 3 Total Cycle Provision
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C3 Dwelling House 3+ Bed (2)	2.0	4	2.0	4
C3 Dwelling Flat 1-2 Bed (12)	1.5	18	0.5	6
C3 Dwelling Flat 3+ Bed (11)	2.0	22	1.0	11
Visitor Parking (flats only)	1 space per 10 dwellings	2	0	
TOTAL		46		21

The dimensions of the parking spaces and forecourt depths conform to the Council standards. However, the submitted Planning Statement states that 25 car parking spaces are proposed (1 for each unit), this falls considerably short of the Council's current parking standards in these locations. The proposed development is located in an area that is currently unrestricted and therefore overspill parking could occur. The development would therefore need to provide parking that is in accordance with the Council's required standards. Alternatively, if a reduced amount is proposed officers would require a comprehensive assessment of car ownership data to ensure this complies with Policy. For information, any car ownership data should represent the local area of the development and the size of units proposed.

It should be noted that recent changes to the Local Transport Plans States that developments should provide car parking and cycle parking that is appropriate to the accessibility of locations within the Borough to sustainable transport facilities, particularly public transport.

Planning Officers recognise that the level of parking required is largely as a result of the large sized units, another requirement for this location. Accordingly, planning officers are likely to show flexibility on the parking requirements (i.e. accept a lower than policy required provision) should the justification for a lower provision be made/submitted by you. This needs to be an evidence-based rationale, rather than simply being sought to be agreed with officers (as you mentioned may be the case at our meeting).

Subsequent to our meeting, I sought further clarity from my transport colleagues, who further advised:

Any subsequent planning application would need to be submitted with a Transport Statement and this will need to include car ownership data for the area to ascertain what level of car parking should be provided. It is noted that within the immediate area there are existing apartment blocks (Winslet Place and Branagh Court), which would give good comparable data on car ownership levels in the area and therefore these should be included within any assessment. The Highway Authority would not be able to 'just agree' a reduced figure.

At our meeting it was also referenced that the provision of car-club spaces could be another element you may wish to explore providing at the site. Subsequent to the meeting I discussed this specific point with my Transport colleagues, who consider that there may be some inherent difficulties with a car club in this specific instance, as follows:

In this case given the levels of parking provided to the surrounding apartment blocks and the extensive areas of unrestricted parking, alongside the fact that the proposed development is quite modest in scale, I do not believe that a car club would generate a significant demand that would warrant it viable in the long run. Therefore, this would not be sufficient mitigation for the Highway Authority to accept a reduction in car parking on the site. This is not to say that residents would not wish to own a car or make use of a vehicle, only that car clubs also require the demand to be from sources outside of any development to make them viable in the long term (based on our experiences).

If you do subsequently propose a car club, clear justification and future management of this would need to be clearly explained within the Transport Statement, for officers to then further assess this.

In line with Policy TR5, Development should make the following provision for electric vehicle charging points:

- Within communal car parks for residential or non-residential developments of at least 10 spaces, 10% of spaces should provide an active charging point.

These should be specified on the floor and elevation plans submitted with your future application.

Accesses will need to be provided in line with the Geometric Design Guidance for Accesses on to classified roads and a license will need to be obtained to undertake all works on the public highway. All unrequired accesses will need to be reinstated and realigned with the footway and new accesses will require visibility splays of 2.4m x 90m to be illustrated on plans.

If a full application is submitted, tracking diagrams would be required illustrating delivery vehicles entering and turning on site and leaving in forward gear.

Cycle storage should be provided in accordance with the Council's current Parking standards which should be covered, secure Sheffield type stands. The cycle storage area should be fully accessible, full details of the type of provision would be required if a full application were to be submitted.

In terms of bin storage, please see the separate specialist comments received from Alice Layzell below. Notwithstanding this, Transport Planning also advise that bin storage should comply with Manual for Street and British Standard 5906: 2005 for Waste Management in buildings to avoid the stationing of service vehicles on the carriageway for excessive periods. Bin storage has been illustrated on submitted plans in 2 locations. It should be noted that these should not be located further than 10m from where the vehicle can wait to undertake collection. It should also be noted Schedule 1, Part H of the Building Regulations 2000 defines locations for the storage and collection of waste. One key point in the approved document at part H includes that residents should not be required to carry waste more than 30m (excluding any vertical distance) to the storage point.

A Construction Method Statement will be required for this development and the proposed work should be in accordance with the Borough's Guidance Notes for Activities on the Public Highway.

You may wish to provide these details at application stage (in particular if a contractor has already been appointed - it is acknowledged that if a contractor is not appointed, this will limit your ability to provide detail at application stage) to avoid the need for this pre-commencement condition in full:

No development shall commence on site, including any works of demolition, until a site specific Demolition and Construction Method Statement has been submitted to and been approved in writing by the Local Planning Authority. The Statement shall provide for WHERE REQUIRED:

- a) Space on site where vehicles of site operatives and visitors can be parked with details of how site operatives and visitors will be required to make use of the parking area provided;
- b) Location on site for storage of plant and materials used in constructing the development;
- c) The erection and maintenance (including removal of any graffiti or fly posters) of security hoarding around the site;
- d) Identification of any footpath closures or road closures needed during construction;
- e) Required wheel washing facilities on site;
- f) A scheme for recycling waste resulting from the construction works.
- g) Measures for controlling the use of site lighting whether required for safe working or for security purposes;
- h) Required measures to control the emission of dust, dirt and other airborne pollutants during demolition and construction; [Environmental Protection (EP) REQUIREMENT]
- i) Provisions to be made for the control of noise coming from the site during demolition and construction; [EP REQUIREMENT]
- j) Full details of pest control measures following any demolition required. Where necessary, capping of drains/sewers and baiting arrangements. [EP REQUIREMENT]

The measures within the approved Statement shall be adhered to throughout the demolition and construction period unless otherwise agreed in writing by the Local Planning Authority.

Owing to the nature of the proposed works, there may also be several bespoke elements (beyond those noted above) required in this instance. This will be able to be ascertained at the time of your submission. However, you should be mindful of the above should you wish to avoid this being a pre-commencement condition (should the subsequent application be supported).

Energy/ sustainability considerations

Reading Borough Council has declared a Climate Emergency and set out its commitment to working to achieve a carbon neutral Reading by 2030. Elected members are particularly conscious of schemes meeting the more stringent policies the new local plan details (in comparison with the old local plan superseded in 2019).

As per Policy H5 the accommodation is required to be zero carbon, with the challenge of this target not to be underestimated. The [December 2019 Sustainability SPD](#) goes into detail as to the level / nature of information to be submitted. In particular, should the proposals not be zero carbon, then a carbon offsetting financial contribution will be required, as secured within the S106 Legal Agreement.

Furthermore, as per Policy CC4, there will be a requirement for the consideration of decentralised energy provision within the site. Again, please refer to the SPD regarding the level and nature of information required to be submitted. Please note that typically new major applications with energy requirements (such as your emerging scheme) will be sought to be independently reviewed on behalf of the local planning authority at the time of the future application, with this funded by you. Please see the 'other matters' section below for more details.

The above requirements will be incorporated within likely separate sustainability and energy statements submitted as part of your future application, with these elements frontloaded in your considerations to ensure that sustainability and energy requirements are at the forefront of your overall approach to the site. Your present submission appears to be silent in terms of sustainability and energy matters, with it advised that they are prioritised from the earliest opportunity.

Other matters

Natural Environment - The Council's Natural Environment Officer confirms that the site sits on a 'Treed corridor' (as defined in the [2021 Adopted Tree Strategy](#)) and within the AQMA; hence tree planting/greening must be an integral part of the development to meet the aims of the Tree Strategy.

Site allocation Policy WR3L also supports the need for greening by virtue of the need to address air quality and noise impacts - trees can help with both.

With reference to the Pre-Application Statement dated 18 February 2021, ref 19014.9.1_21.02.18, the layout is shown as below:



Block A - up to 6 storeys; Block B - 3 Storeys

The Statement says: *The courtyard will include space for communal and private external amenity space, along with parking provision and access to bin and cycle storage.* The Natural Environment officer is not clear how this area could be defined as providing 'amenity space' as it appears to be a car park with thin soft strips behind Block A and in front of Block B, neither of which seem particularly 'useable' or desirable places to be? Clarity will be required on submission of a future application to demonstrate that the residents of Block A, in particular, will have sufficient, 'usable' amenity space.

The Statement includes the following in relation to landscape principles:

Landscaping

It is proposed to create a soft landscaped set-back from the Oxford Road footway which will include new native species tree planting to bring environmental and visual enhancement to the street scene.

Native species tree planting will also be included within the car parking court to soften the appearance of this hard landscaped area and also encourage biodiversity.

A soft landscape buffer will also be proposed at the rear of the site along the north western boundary with the rear gardens of the terraced housing along Stone Street.

The landscaping proposals are illustrative at this stage for the purposes of the preapplication enquiry. A detailed landscaping proposals would be prepared as part of the later full planning application process.

An illustrative layout is provided, as below:



The inclusion of tree planting on the Oxford Road frontage is positive and would be a requirement, albeit it does appear fairly narrow so wouldn't, for example, mirror the treed frontage of the site opposite. It is yet to be demonstrated that there is sufficient space for meaningful tree planting that aids air quality (filtering pollution) and of sufficient size to also function as a noise barrier. You will need to consider this in any future application where landscape principles should be confirmed, including a planting palette.

Landscape principles should refer to the aims and guidance in the Tree Strategy with regard to e.g. species, diversity, size, wildlife value, tolerance of the specific site conditions (including use in pollution filtering/tolerance) and maximise the species size.

You should also include additional greening, given the comments above, in the form of green walls and roofs as also supported by policy.

It is noted there are tree(s) overhanging from Stone Street which will need to be considered in a brief (detailed/concise but size appropriate) Tree Survey and Arboricultural Impact Assessment. It is stressed that this should be succinct given the small number of 'existing' trees to consider.

SuDs/drainage should be considered at an early stage with total redevelopment of the site enabling creative solutions, as supported by policy and Reading Climate Emergency Strategy:

In relation to relevant policy:

CC2: SUSTAINABLE DESIGN AND CONSTRUCTION

Proposals for new development, including the construction of new buildings and the redevelopment and refurbishment of existing building stock, will be acceptable where the design of buildings and site layouts use energy, water, minerals, materials and other natural resources appropriately, efficiently and with care and take account of the effects of climate change.

To meet these requirements:

- *All non-residential development or conversions to residential should incorporate water conservation measures so that predicted per capita consumption does not exceed the appropriate levels set out in the applicable BREEAM standard. Both residential and non-residential development should include recycling greywater and rainwater harvesting where systems are energy and cost effective.*

CC3: ADAPTATION TO CLIMATE CHANGE

All developments will demonstrate how they have been designed to incorporate measures to adapt to climate change. The following measures shall be incorporated into development:

- *All development shall minimise the impact of surface water runoff from the development in the design of the drainage system, and where possible incorporate mitigation and resilience measures for any increases in river flooding levels as a result of climate change*

Reading Climate Emergency Strategy includes a 'water theme' section and states:

Water Theme Action Plan: Reading will aim to become the most water aware and water efficient town in the UK, going beyond national targets. We will achieve this by developing and implementing a dedicated communications and education strategy and delivering a range of water saving improvements in Reading's homes and businesses. Climate change will also increase the risk of flooding: significantly from the River Thames and from urban storm water. We will help residents and businesses understand these risks and to get ready for them.

The aforementioned policies CC2 & CC3 refer to water conservation and minimising run-off. It should be remembered that the development will significantly increase water usage (compared to existing) and significantly increase the production of grey water and foul sewer requirements. In addition, the landscaping will require water to ensure establishment and continued survival. Given that water is a finite resource that is likely to have control measures enforced in the future as a result of climate change (hotter, drier summers), added to the finite capacity of Thames Water to process dirty water, all development must include creative measures to minimise use of 'clean' water and reduce output into the sewers (which includes grey water), particularly in view of likely increases 'storm' events. Without this the borough as a whole (taking into account other significant developments) will have to cope with limitations on water supply in drought conditions, flooding, probable increased discharge of sewerage into water courses and failure of soft landscaping.

The drainage should be designed to harvest rainwater and direct this to water the landscaping; storing it for this purpose during high rainfall or when watering is not required (winter for example). Greywater should also be considered for this use in addition to/as well as recycling for use within the dwellings. Policy and aims of the adopted Climate Emergency Strategy supports these measures hence you should consider their stance on this and provide details on submission on an application.

Ecology - There is a risk that the proposals may affect protected species (particularly bats and nesting birds) and an ecological appraisal (comprising an extended Phase 1 Habitat and Species Scoping Survey, and any phase 2 surveys) will need to be submitted prior to the determination of the application as detailed below:

Survey requirements

Surveys should be carried out by suitably experienced ecologists who are a member of a professional organisation such as the Chartered Institute of Ecology and Environmental Management and / or are licensed or accredited by Natural England to survey protected species.

Extended phase 1 habitat & protected species scoping survey

An Extended Phase 1 Habitat Survey is a standardised technique for environmental audit and involves classifying and if required mapping habitats on and adjacent to the application site. The survey is then 'extended' and any features or habitats that are likely to be of importance for notable or protected species, and or prove to be a constraint to development are investigated further and described.

Phase 2 ecology surveys

If the surveys show that the site contains habitats suitable for protected species further surveys for species such as reptiles may need to be carried out

Bat survey

A presence / absence bat survey is normally undertaken in two stages, firstly a preliminary roost assessment (or bat roost potential survey), whereby the inside and outside (from ground level) of the building and any trees to be removed is thoroughly searched for bats and signs of bats, this survey can be undertaken at any time of year. If no signs of bats and few features such as cracks and crevices in which bats could roost are found and the building and/or trees have negligible potential to host roosting bats then further surveys will not be required. However, if bats are found or the buildings and/or trees have features suitable for use by roosting bats, further emergence and or dawn surveys during the bat active season (i.e. between May and the end of August/ sub optimally until mid-October) may need to be carried out to confirm the presence or absence of bats and, if bats are present, to characterise the roost and establish mitigation requirements.

Ecological enhancements

In accordance with para 175 of the NPPF which reads “opportunities to incorporate biodiversity improvements in and around developments should be encouraged” biodiversity enhancements (such as swift bricks) and wildlife friendly landscaping scheme will need to be provided. These should be considered from the outset and shown on the submitted plans.

Waste and Recycling Services comments

My colleague in the Environmental and Commercial Services team, Alice Layzell, advises the following in terms of bin storage requirements:

- For Block A (15 dwellings) the development would need 2x180 litre food waste bins, 3x1100 recycling, and 2x1100 general waste.
- For Block B (10 dwellings) the development would be 1x240 food waste bin, 2x1100 recycling, and 1x1100 + 1x360 general waste bin.

It is considered likely that Block A can fit in the above, but it is considered unlikely that the current set up for bin store for block B would fit the above.

For Block A, it would be suggested that the bins are accessed from the car park side, rather than alongside the car park space. Whilst at this stage the officer is unsure on the exact measurements, it appears unlikely that there would be sufficient access without the chance of hitting the car which is in the space.

Also, all bins need to be within 10 metres. So, it would be suggested for Block B that the bin store is switched with the cycle store, so that the bins are within that. All bins must be accessible, for collection, but also for residents to use well. So, by having two bins behind each other would not work on a day to day basis with residents, as well as our collections. This bin store needs to have sufficient space that all bins are accessible on collection days. Should you wish to discuss specific bin storage requirements further, please advise me and I can pass this onto Alice for further comment.

SuDS - as a likely future major development, this is a mandatory national information requirement as part of your future proposal. Should you wish to outline your intended strategy for consideration at pre-application stage, this could be discussed further.

Crime Prevention Design Advisor comments

As discussed, the CPDA who has covered the Reading area for many years recently left TVP and no permanent replacement has been appointed at the time of writing. As such, officers are struggling to

obtain comments, with CPDAs from nearby areas understandably prioritising live major developments in the town centre. Accordingly, I do not anticipate receiving comments on this pre-application submission in the near future. I apologise for this. In the circumstances, I have revisited previous comments provided by the CPDA in the past year for comparable proposals (more specifically multi-storey apartment blocks with shared entrances) and included some of the generic guidance provided in those cases for your information:

Defensible space ground floor windows: Clear demarcate between public and private space can have a significant impact on privacy, security and safety. However, the “residential privacy” of ground floor apartments should be considered. In general, setbacks or defensible space with appropriate boundary (identifying ownership) should be provided to ensure that residents are offered appropriate levels of privacy and that windows do not open up over footpaths or public realm.

Lighting: No external lighting is presently shown, although it is acknowledged that this is likely to be advanced as the scheme develops. From a CPDA perspective, detailed lighting plans compliant with BS5489 should be proposed. Please note that bollard lighting is purely for wayfinding. It does not project sufficient light at the right height making it difficult to recognise facial features and can increase in the fear of crime.

CCTV: It is unclear whether this is proposed at this stage. It is recommended from a CPDA perspective that where natural surveillance of concealed and secluded areas cannot be achieved, CCTV (formal surveillance) should be considered. CCTV can have a positive impact on crime, especially when implemented as part of a wider package. CCTV is most effective when combined with good lighting and designed to counter a set of offences, and supported by management, continuous monitoring and adequate response.

Residential blocks Communal entrance and Access control

Recessed doorways: Recessed communal entrances could provide a focal point or location for individuals to meet and congregate. Given the required lighting associated with a communal entrance, the proposed design could facilitate anti-social behaviour. It is strongly recommended that any recess should be no more than 600mm, as this would reduce opportunities for Crime, ASB and reducing the fear of crime.

Entrance lobby: To minimise excessive permeability into and through a residential block it would be ideal for a secondary internal access controlled communal entrance door be included creating a secure airlock lobby at ground floor level.

Postal services: Letterboxes for apartments are a contentious issue and can lead to the security of the apartments being undermined. Unrestricted postal delivery access (to individual front doors of flats) provides a legitimate excuse for unauthorised individuals to be in private areas where they have no right to be, this in turn raises the fear of crime and provides opportunity for ASB and criminal activity. It is therefore recommended that residential post boxes are provided within the ground floor airlock lobby area. ‘Trades’ buttons must not be provided as they can facilitate unrestricted or unauthorised access into private residential areas, (providing opportunities for crime and ASB). (best practice <https://www.securedbydesign.com/> Homes 2019)

Access control: To ensure that the opportunity to create a safe and sustainable community is not missed TVP will request that access control into and throughout the residential block be dealt with via condition, and ask that the applicant consider the following (or a similarly worded) condition. Such a condition will help to ensure that the development achieves the highest standards of design in

terms of safety and security, safe guarding future residents. Creating 'Safe and accessible environments where crime and disorder, and the fear of crime will not undermine quality of life or community cohesion'.

Condition:

Prior to commencement of works, a detailed robust access control strategy shall be submitted for approval by the authority. The development (and subsequent access control system) shall be carried out in accordance with the approved details, and shall not be occupied or used until the authority has received confirmation of that said details.

To aid the applicant the following as an aid to achieving this condition is provided:

- 1. External Communal entrances:** All external and internal Communal entrance doors meet the requirements of the minimum physical security requirements of LPS1175 Issue 8 B3
 - i. Developments with more than two floors are required to have a visitor door entry system and access control system.
 - ii. All external and internal Communal entrance doors access will be controlled via an electronic remote release locking systems with audio/ visual intercom links to each apartment. This will allow residents to communicate with their visitors without having to open their front door and speak to them face-to-face as this allows them to filter who is allowed into the building and up into their flat..
 - iii. The system will be required to record and store images for a minimum of 30 days.
 - iv. Tradesperson's release mechanisms are not permitted as they have been proven to be a cause of ASB and unlawful access to residential areas
 - v. Post boxes to be located as shown on plans (outer air lock lobby of each core)
- 2. Compartmentalisation:** The Access control system must provide compartmentalisation of each floor within the development, and from the parking level, and cover each of the following;
- 3. Secure communal lobbies:** Any internal door sets should meet the same specification as above be access controlled (ground floor and residential floor lobbies)

I would advise that it would be prudent to take the above advice into account when advancing your proposals despite the official response from the CPDA at Thames Valley Police being outstanding at the time of writing.

S106 Legal Agreements

The proposal will require a Section 106 Legal Agreement, possibly including the following:

- on-site affordable housing, with any shortfall in policy requirements being met by a financial contribution and deferred mechanism & related affordable housing matters
- A carbon offsetting financial contribution (should the proposals not be zero carbon), as per the Sustainability SPD formula.
- Employment, Skills and Training Plan, as detailed below.

Employment, Skills & Training Plans (ESPs) - as a major development of this nature it is anticipated that a construction phase ESP will be required, as secured via s106 legal agreement. Please see [the SPD](#) for more detailed commentary in this regard. You are advised to specify in your application submission your preferred approach to the ESP (either an actual ESP or a financial contribution, as detailed within the SPD). As such, frontloading discussions with Reading UK CIC (who facilitate ESPs on behalf of the local planning authority) would be welcomed and encouraged.

Berkshire Fire and Rescue Service - Given the understandable increased focus on fire regulations in recent years, although this does not form a statutory requirement, elected members expect / ask questions regarding the fire strategy for developments of this type. Accordingly, your future Design and Access statement should explicitly reference the precise steps which you are committed to adhering to in this regard. This is with view to this being directly reported in any future officer committee report. As such, engaging BFRS at pre-application stage would be encouraged.

CIL - It appears certain, given the proposed uses and increases in floorspace proposed, that the proposed development will be CIL liable. Please note that [the charging schedule](#) is subject to indexation, with the 2021 rate for residential is £156.71. Should you wish to undertake discussions with officers regarding the likely future liability, please submit marked up plans indicating the methodology behind the existing and proposed floorspace figures, with this also differentiating the different uses existing/proposed (which would attract different CIL rates).

Wider consultation - It is considered that a programme of wider stakeholder and public consultation should take place for a proposal of this nature; it is considered essential that this should be undertaken at pre-application stage - please see [pages 14-16 of the SCI](#) for more information. As a minimum, nearby landowners / occupiers / tenants and Kentwood ward councillors should be engaged.

Validation requirements - At this earliest of opportunities, it is advised that the supporting documents at the time of any future application submission is outlined within the [local validation checklist](#) document. At this juncture I anticipate the following will be required:

Part 1: Mandatory national information requirements (Forms, Ownership certificates/declaration/ site plan, block plan, fee, CIL form and plans, SuDS, Design and Access Statement)

Part 2:

1. Affordable Housing Statement
2. Air quality assessment
4. Contaminated land survey & report
5. Daylight/sunlight assessment (impact on nearby residential occupiers AND future occupiers)
6. Ecological survey and reports (see Ecology section above)
7. Energy efficiency statements
9. External lighting (if proposed)
11. Heads of Terms proposal
13. Landscape principles
14. Materials details
15. Noise & vibration impact assessment (see Environmental Protection section above)
16. Open Space Statement
17. Planning Statement
18. Plans and drawings
20. Sustainability Statements
22. Transport Statement
23. Tree Survey
24. Utilities surveys and proposals (see also the SuDS part 1 requirements above)
25. Vehicle (including cycle) parking and waste collection details
27. Viability appraisal (if applicable)

In addition, a number of bespoke elements are also referenced as being required:

- Loss of existing uses justification (can be included within the Planning Statement)
- Policy H5 assessment (preference for this to be a standalone document)
- Specific commentary detailing how the proposals will adhere to fire regulations (can be included within the Planning Statement)
- Statement of community involvement

Additional fees at application stage - Beyond the standard application fee, it is also noted at this initial stage that the local planning authority would seek for the prospective applicant to fund any independent reviews of technical information relating to daylight/sunlight/overshadowing and sustainability/energy matters (at pre-application and application stage). For your information, BRE has regularly undertaken independent reviews for the local planning authority on day/sun matters. Based on my most recent experiences, you can anticipate the fees to be in the region of £1-3,000. Element Energy has regularly undertaken independent reviews for the local planning authority on sustainability/energy matters. Based on my most recent experiences, you can anticipate the fees to be in the region of £5-10,000.

There is also a separate fee for pre-application/application stage viability discussions, should the amount of affordable housing proposed be below that required by policy. These fees have already been detailed above.

Concluding remarks

In conclusion at this stage, it is considered that the pre-application proposals represent an encouraging initial proposal for the site. There are a number of areas where changes, refinements and further information is required in order for the emerging proposal to be in a position to be able to be supported by officers at application stage. The onus naturally falls on you to reflect on this advice in order to further develop the scheme. None of the issues raised in this response are considered to be insurmountable, with it anticipated that the feedback provided can be incorporated to hopefully advance a proposal which officers are able to support at application stage. Please contact me should you wish to undertake further pre-application discussions with officers (which could be tailored to solely discuss some matters, as desired) and potentially Reading DRP too.

Please note that the advice contained within this letter is that of an officer of the Borough Council and is provided without prejudice to the decision of the Borough Council, in the event of a formal application for planning permission. This advice is in good faith and will not over-ride the formal consideration of a planning application by the Council.

Yours sincerely

Jonathan Markwell

Jonathan Markwell (via email only)
Principal Planning Officer

Appendix 2



Appendix 3

LC4415EW - Accommodation type by car or van availability by number of usual residents aged 17 or over in household

ONS Crown Copyright Reserved [from Nomis on 14 July 2021]

population	All households
units	Persons
date	2011
area type	2011 super output areas - lower layer
area name	E01016382 : Reading 006B
no of usual residents in households	All categories: Number of usual residents aged 17 or over in household

Cars or Vans	All categories: Accommodation type	Whole house or bungalow	Flat, maisonette, apartment, caravan or other mobile or temporary structure
No cars or vans in household	238	141	97
1 car or van in household	324	206	118
2 or more cars or vans in household	135	118	17
Total	697	465	232

Cars	594	442	152
Car Ownership	0.85	0.95	0.66



In order to protect against disclosure of personal information, records have been swapped between different geographic areas. Some counts will be affected, particularly small counts at the lowest geographies.

LC4415EW - Accommodation type by car or van availability by number of usual residents aged 17 or over in household
ONS Crown Copyright Reserved [from Nomis on 30 November 2021]

population All households
units Persons
date 2011
area type 2011 super output areas - lower layer
area name E01016398 : Reading 008D
no of usual residents in households All categories: Number of usual residents aged 17 or over in household

Cars or Vans	All categories: Accommodation type	Whole house or bungalow	Flat, maisonette, apartment, caravan or other mobile or temporary structure
No cars or vans in household	189	78	111
1 car or van in household	389	205	184
2 or more cars or vans in household	165	126	39
Total	743	409	334
Cars	719	457	262
Car Ownership	0.97	1.12	0.78



In order to protect against disclosure of personal information, records have been swapped between different geographic areas. Some counts will be affected, particularly small counts at the lowest geographies.

Appendix 4

Calculation Reference: AUDIT-740101-211004-1016

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

02	SOUTH EAST	
BD	BEDFORDSHIRE	3 days
HF	HERTFORDSHIRE	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:	No of Dwellings
Actual Range:	62 to 175 (units:)
Range Selected by User:	6 to 175 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/13 to 10/06/21

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	3 days
Thursday	1 days

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

Selected survey types:

Manual count	4 days
Directional ATC Count	0 days

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

Selected Locations:

Edge of Town Centre	4
---------------------	---

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	2
Built-Up Zone	1
No Sub Category	1

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

Secondary Filtering selection:

Use Class:

C3 4 days

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

Population within 500m Range:

All Surveys Included

Population within 1 mile:

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:

50,001 to 75,000 2 days

125,001 to 250,000 1 days

250,001 to 500,000 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 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:

Yes 1 days

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 4 days

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

LIST OF SITES relevant to selection parameters

1	BD-03-C-01	BLOCKS OF FLATS	BEDFORDSHIRE
	WING ROAD		
	LEIGHTON BUZZARD		
	LINSLADE		
	Edge of Town Centre		
	Residential Zone		
	Total No of Dwellings:	175	
	Survey date: TUESDAY	15/05/18	Survey Type: MANUAL
2	BD-03-C-02	BLOCKS OF FLATS	BEDFORDSHIRE
	STANBRIDGE ROAD		
	LEIGHTON BUZZARD		
	Edge of Town Centre		
	Residential Zone		
	Total No of Dwellings:	62	
	Survey date: TUESDAY	15/05/18	Survey Type: MANUAL
3	BD-03-C-03	BLOCKS OF FLATS	BEDFORDSHIRE
	COURT DRIVE		
	DUNSTABLE		
	Edge of Town Centre		
	No Sub Category		
	Total No of Dwellings:	146	
	Survey date: TUESDAY	15/05/18	Survey Type: MANUAL
4	HF-03-C-03	BLOCK OF FLATS	HERTFORDSHIRE
	SHENLEY ROAD		
	BOREHAMWOOD		
	Edge of Town Centre		
	Built-Up Zone		
	Total No of Dwellings:	91	
	Survey date: THURSDAY	14/11/19	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 SITES

Site Ref	Reason for Deselection
DC-03-C-02	Coastal location
EX-03-C-01	Coastal location
EX-03-C-02	Coastal location
HF-03-C-01	Survey undertaken during COVID-19 lockdown
HF-03-C-05	Survey undertaken during COVID-19 lockdown

MILESTONE TRANSPORT PLANNING WEY COURT, MARY ROAD GUILDFORD

Licence No: 740101

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

MULTI-MODAL TOTAL VEHICLES

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	4	119	0.034	4	119	0.186	4	119	0.220
08:00 - 09:00	4	119	0.049	4	119	0.190	4	119	0.239
09:00 - 10:00	4	119	0.051	4	119	0.074	4	119	0.125
10:00 - 11:00	4	119	0.055	4	119	0.074	4	119	0.129
11:00 - 12:00	4	119	0.051	4	119	0.074	4	119	0.125
12:00 - 13:00	4	119	0.095	4	119	0.093	4	119	0.188
13:00 - 14:00	4	119	0.068	4	119	0.063	4	119	0.131
14:00 - 15:00	4	119	0.053	4	119	0.057	4	119	0.110
15:00 - 16:00	4	119	0.091	4	119	0.068	4	119	0.159
16:00 - 17:00	4	119	0.127	4	119	0.065	4	119	0.192
17:00 - 18:00	4	119	0.186	4	119	0.086	4	119	0.272
18:00 - 19:00	4	119	0.245	4	119	0.114	4	119	0.359
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.105			1.144			2.249

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:	62 - 175 (units:)
Survey date range:	01/01/13 - 10/06/21
Number of weekdays (Monday-Friday):	4
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	1
Surveys manually removed from selection:	5

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

MILESTONE TRANSPORT PLANNING WEY COURT, MARY ROAD GUILDFORD

Licence No: 740101

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

MULTI-MODAL TAXIS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	4	119	0.002	4	119	0.004	4	119	0.006
08:00 - 09:00	4	119	0.006	4	119	0.004	4	119	0.010
09:00 - 10:00	4	119	0.000	4	119	0.002	4	119	0.002
10:00 - 11:00	4	119	0.002	4	119	0.002	4	119	0.004
11:00 - 12:00	4	119	0.002	4	119	0.002	4	119	0.004
12:00 - 13:00	4	119	0.004	4	119	0.004	4	119	0.008
13:00 - 14:00	4	119	0.000	4	119	0.000	4	119	0.000
14:00 - 15:00	4	119	0.000	4	119	0.000	4	119	0.000
15:00 - 16:00	4	119	0.002	4	119	0.002	4	119	0.004
16:00 - 17:00	4	119	0.002	4	119	0.002	4	119	0.004
17:00 - 18:00	4	119	0.004	4	119	0.004	4	119	0.008
18:00 - 19:00	4	119	0.000	4	119	0.000	4	119	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.024			0.026			0.050

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.

MILESTONE TRANSPORT PLANNING WEY COURT, MARY ROAD GUILDFORD

Licence No: 740101

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

MULTI-MODAL OGVS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	4	119	0.000	4	119	0.000	4	119	0.000
08:00 - 09:00	4	119	0.000	4	119	0.000	4	119	0.000
09:00 - 10:00	4	119	0.000	4	119	0.000	4	119	0.000
10:00 - 11:00	4	119	0.000	4	119	0.000	4	119	0.000
11:00 - 12:00	4	119	0.002	4	119	0.000	4	119	0.002
12:00 - 13:00	4	119	0.000	4	119	0.002	4	119	0.002
13:00 - 14:00	4	119	0.000	4	119	0.000	4	119	0.000
14:00 - 15:00	4	119	0.000	4	119	0.000	4	119	0.000
15:00 - 16:00	4	119	0.000	4	119	0.000	4	119	0.000
16:00 - 17:00	4	119	0.000	4	119	0.000	4	119	0.000
17:00 - 18:00	4	119	0.000	4	119	0.000	4	119	0.000
18:00 - 19:00	4	119	0.000	4	119	0.000	4	119	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.002			0.002			0.004

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.

MILESTONE TRANSPORT PLANNING WEY COURT, MARY ROAD GUILDFORD

Licence No: 740101

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

MULTI-MODAL CYCLISTS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	4	119	0.000	4	119	0.008	4	119	0.008
08:00 - 09:00	4	119	0.002	4	119	0.017	4	119	0.019
09:00 - 10:00	4	119	0.000	4	119	0.000	4	119	0.000
10:00 - 11:00	4	119	0.004	4	119	0.000	4	119	0.004
11:00 - 12:00	4	119	0.004	4	119	0.006	4	119	0.010
12:00 - 13:00	4	119	0.000	4	119	0.000	4	119	0.000
13:00 - 14:00	4	119	0.004	4	119	0.002	4	119	0.006
14:00 - 15:00	4	119	0.004	4	119	0.002	4	119	0.006
15:00 - 16:00	4	119	0.004	4	119	0.000	4	119	0.004
16:00 - 17:00	4	119	0.002	4	119	0.000	4	119	0.002
17:00 - 18:00	4	119	0.006	4	119	0.004	4	119	0.010
18:00 - 19:00	4	119	0.004	4	119	0.000	4	119	0.004
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.034			0.039			0.073

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.

MILESTONE TRANSPORT PLANNING WEY COURT, MARY ROAD GUILDFORD

Licence No: 740101

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

MULTI-MODAL VEHICLE OCCUPANTS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	4	119	0.034	4	119	0.293	4	119	0.327
08:00 - 09:00	4	119	0.059	4	119	0.357	4	119	0.416
09:00 - 10:00	4	119	0.057	4	119	0.097	4	119	0.154
10:00 - 11:00	4	119	0.068	4	119	0.108	4	119	0.176
11:00 - 12:00	4	119	0.065	4	119	0.101	4	119	0.166
12:00 - 13:00	4	119	0.133	4	119	0.146	4	119	0.279
13:00 - 14:00	4	119	0.099	4	119	0.078	4	119	0.177
14:00 - 15:00	4	119	0.068	4	119	0.070	4	119	0.138
15:00 - 16:00	4	119	0.137	4	119	0.095	4	119	0.232
16:00 - 17:00	4	119	0.209	4	119	0.086	4	119	0.295
17:00 - 18:00	4	119	0.316	4	119	0.114	4	119	0.430
18:00 - 19:00	4	119	0.437	4	119	0.154	4	119	0.591
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.682			1.699			3.381

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.

MILESTONE TRANSPORT PLANNING WEY COURT, MARY ROAD GUILDFORD

Licence No: 740101

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

MULTI-MODAL PEDESTRIANS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	4	119	0.015	4	119	0.065	4	119	0.080
08:00 - 09:00	4	119	0.025	4	119	0.086	4	119	0.111
09:00 - 10:00	4	119	0.053	4	119	0.051	4	119	0.104
10:00 - 11:00	4	119	0.055	4	119	0.025	4	119	0.080
11:00 - 12:00	4	119	0.021	4	119	0.038	4	119	0.059
12:00 - 13:00	4	119	0.044	4	119	0.034	4	119	0.078
13:00 - 14:00	4	119	0.040	4	119	0.036	4	119	0.076
14:00 - 15:00	4	119	0.032	4	119	0.046	4	119	0.078
15:00 - 16:00	4	119	0.065	4	119	0.053	4	119	0.118
16:00 - 17:00	4	119	0.051	4	119	0.049	4	119	0.100
17:00 - 18:00	4	119	0.061	4	119	0.044	4	119	0.105
18:00 - 19:00	4	119	0.065	4	119	0.070	4	119	0.135
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.527			0.597			1.124

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.

MILESTONE TRANSPORT PLANNING WEY COURT, MARY ROAD GUILDFORD

Licence No: 740101

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

MULTI-MODAL BUS/TRAM PASSENGERS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	4	119	0.000	4	119	0.053	4	119	0.053
08:00 - 09:00	4	119	0.002	4	119	0.124	4	119	0.126
09:00 - 10:00	4	119	0.000	4	119	0.036	4	119	0.036
10:00 - 11:00	4	119	0.011	4	119	0.011	4	119	0.022
11:00 - 12:00	4	119	0.015	4	119	0.011	4	119	0.026
12:00 - 13:00	4	119	0.023	4	119	0.023	4	119	0.046
13:00 - 14:00	4	119	0.019	4	119	0.032	4	119	0.051
14:00 - 15:00	4	119	0.034	4	119	0.019	4	119	0.053
15:00 - 16:00	4	119	0.105	4	119	0.027	4	119	0.132
16:00 - 17:00	4	119	0.034	4	119	0.017	4	119	0.051
17:00 - 18:00	4	119	0.076	4	119	0.017	4	119	0.093
18:00 - 19:00	4	119	0.072	4	119	0.017	4	119	0.089
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.391			0.387			0.778

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.

MILESTONE TRANSPORT PLANNING WEY COURT, MARY ROAD GUILDFORD

Licence No: 740101

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

MULTI-MODAL TOTAL RAIL PASSENGERS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	4	119	0.000	4	119	0.030	4	119	0.030
08:00 - 09:00	4	119	0.000	4	119	0.025	4	119	0.025
09:00 - 10:00	4	119	0.000	4	119	0.011	4	119	0.011
10:00 - 11:00	4	119	0.008	4	119	0.002	4	119	0.010
11:00 - 12:00	4	119	0.004	4	119	0.000	4	119	0.004
12:00 - 13:00	4	119	0.004	4	119	0.004	4	119	0.008
13:00 - 14:00	4	119	0.002	4	119	0.002	4	119	0.004
14:00 - 15:00	4	119	0.004	4	119	0.000	4	119	0.004
15:00 - 16:00	4	119	0.006	4	119	0.000	4	119	0.006
16:00 - 17:00	4	119	0.019	4	119	0.000	4	119	0.019
17:00 - 18:00	4	119	0.021	4	119	0.000	4	119	0.021
18:00 - 19:00	4	119	0.017	4	119	0.002	4	119	0.019
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.085			0.076			0.161

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.

MILESTONE TRANSPORT PLANNING WEY COURT, MARY ROAD GUILDFORD

Licence No: 740101

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

MULTI-MODAL PUBLIC TRANSPORT USERS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	4	119	0.000	4	119	0.082	4	119	0.082
08:00 - 09:00	4	119	0.002	4	119	0.150	4	119	0.152
09:00 - 10:00	4	119	0.000	4	119	0.046	4	119	0.046
10:00 - 11:00	4	119	0.017	4	119	0.013	4	119	0.030
11:00 - 12:00	4	119	0.015	4	119	0.011	4	119	0.026
12:00 - 13:00	4	119	0.027	4	119	0.027	4	119	0.054
13:00 - 14:00	4	119	0.023	4	119	0.034	4	119	0.057
14:00 - 15:00	4	119	0.036	4	119	0.019	4	119	0.055
15:00 - 16:00	4	119	0.114	4	119	0.027	4	119	0.141
16:00 - 17:00	4	119	0.053	4	119	0.017	4	119	0.070
17:00 - 18:00	4	119	0.097	4	119	0.017	4	119	0.114
18:00 - 19:00	4	119	0.093	4	119	0.019	4	119	0.112
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.477			0.462			0.939

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.

MILESTONE TRANSPORT PLANNING WEY COURT, MARY ROAD GUILDFORD

Licence No: 740101

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	4	119	0.049	4	119	0.449	4	119	0.498
08:00 - 09:00	4	119	0.089	4	119	0.610	4	119	0.699
09:00 - 10:00	4	119	0.110	4	119	0.194	4	119	0.304
10:00 - 11:00	4	119	0.143	4	119	0.146	4	119	0.289
11:00 - 12:00	4	119	0.105	4	119	0.156	4	119	0.261
12:00 - 13:00	4	119	0.205	4	119	0.207	4	119	0.412
13:00 - 14:00	4	119	0.167	4	119	0.150	4	119	0.317
14:00 - 15:00	4	119	0.139	4	119	0.137	4	119	0.276
15:00 - 16:00	4	119	0.321	4	119	0.175	4	119	0.496
16:00 - 17:00	4	119	0.314	4	119	0.152	4	119	0.466
17:00 - 18:00	4	119	0.481	4	119	0.179	4	119	0.660
18:00 - 19:00	4	119	0.599	4	119	0.243	4	119	0.842
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.722			2.798			5.520

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.

MILESTONE TRANSPORT PLANNING WEY COURT, MARY ROAD GUILDFORD

Licence No: 740101

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

MULTI-MODAL CARS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	4	119	0.027	4	119	0.167	4	119	0.194
08:00 - 09:00	4	119	0.038	4	119	0.177	4	119	0.215
09:00 - 10:00	4	119	0.040	4	119	0.065	4	119	0.105
10:00 - 11:00	4	119	0.046	4	119	0.061	4	119	0.107
11:00 - 12:00	4	119	0.034	4	119	0.059	4	119	0.093
12:00 - 13:00	4	119	0.078	4	119	0.070	4	119	0.148
13:00 - 14:00	4	119	0.059	4	119	0.053	4	119	0.112
14:00 - 15:00	4	119	0.046	4	119	0.053	4	119	0.099
15:00 - 16:00	4	119	0.072	4	119	0.053	4	119	0.125
16:00 - 17:00	4	119	0.108	4	119	0.051	4	119	0.159
17:00 - 18:00	4	119	0.158	4	119	0.076	4	119	0.234
18:00 - 19:00	4	119	0.236	4	119	0.108	4	119	0.344
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.942			0.993			1.935

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.

MILESTONE TRANSPORT PLANNING WEY COURT, MARY ROAD GUILDFORD

Licence No: 740101

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

MULTI-MODAL LGVS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	4	119	0.002	4	119	0.015	4	119	0.017
08:00 - 09:00	4	119	0.004	4	119	0.008	4	119	0.012
09:00 - 10:00	4	119	0.011	4	119	0.006	4	119	0.017
10:00 - 11:00	4	119	0.006	4	119	0.011	4	119	0.017
11:00 - 12:00	4	119	0.013	4	119	0.013	4	119	0.026
12:00 - 13:00	4	119	0.013	4	119	0.015	4	119	0.028
13:00 - 14:00	4	119	0.006	4	119	0.008	4	119	0.014
14:00 - 15:00	4	119	0.006	4	119	0.004	4	119	0.010
15:00 - 16:00	4	119	0.017	4	119	0.013	4	119	0.030
16:00 - 17:00	4	119	0.017	4	119	0.013	4	119	0.030
17:00 - 18:00	4	119	0.019	4	119	0.004	4	119	0.023
18:00 - 19:00	4	119	0.006	4	119	0.004	4	119	0.010
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.120			0.114			0.234

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.

MILESTONE TRANSPORT PLANNING WEY COURT, MARY ROAD GUILDFORD

Licence No: 740101

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

MULTI-MODAL MOTOR CYCLES

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	4	119	0.002	4	119	0.000	4	119	0.002
08:00 - 09:00	4	119	0.000	4	119	0.000	4	119	0.000
09:00 - 10:00	4	119	0.000	4	119	0.000	4	119	0.000
10:00 - 11:00	4	119	0.000	4	119	0.000	4	119	0.000
11:00 - 12:00	4	119	0.000	4	119	0.000	4	119	0.000
12:00 - 13:00	4	119	0.000	4	119	0.002	4	119	0.002
13:00 - 14:00	4	119	0.002	4	119	0.002	4	119	0.004
14:00 - 15:00	4	119	0.000	4	119	0.000	4	119	0.000
15:00 - 16:00	4	119	0.000	4	119	0.000	4	119	0.000
16:00 - 17:00	4	119	0.000	4	119	0.000	4	119	0.000
17:00 - 18:00	4	119	0.004	4	119	0.002	4	119	0.006
18:00 - 19:00	4	119	0.002	4	119	0.002	4	119	0.004
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.010			0.008			0.018

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.

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MILESTONE TRANSPORT PLANNING WEY COURT, MARY ROAD GUILDFORD

Licence No: 740101

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

MULTI-MODAL Servicing Vehicles

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	4	119	0.002	4	119	0.002	4	119	0.004
08:00 - 09:00	4	119	0.004	4	119	0.004	4	119	0.008
09:00 - 10:00	4	119	0.008	4	119	0.006	4	119	0.014
10:00 - 11:00	4	119	0.000	4	119	0.002	4	119	0.002
11:00 - 12:00	4	119	0.002	4	119	0.000	4	119	0.002
12:00 - 13:00	4	119	0.004	4	119	0.006	4	119	0.010
13:00 - 14:00	4	119	0.002	4	119	0.002	4	119	0.004
14:00 - 15:00	4	119	0.000	4	119	0.000	4	119	0.000
15:00 - 16:00	4	119	0.008	4	119	0.008	4	119	0.016
16:00 - 17:00	4	119	0.004	4	119	0.004	4	119	0.008
17:00 - 18:00	4	119	0.004	4	119	0.002	4	119	0.006
18:00 - 19:00	4	119	0.002	4	119	0.004	4	119	0.006
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.040			0.040			0.080

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.

Appendix 5

QS701EW - Method of travel to work

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populationAll usual residents aged 16 to 74
unitsPersons
area type2011 super output areas - middle layer
area nameE02003394 : Reading 006
rural urbanTotal

Method of Travel to Work		2011	%
Driving a car or van		1,911	56%
Passenger in a car or van		206	6%
Public Transport	Underground, metro, light rail, tram	6	0%
	Train	244	7%
	Bus, minibus or coach	553	16%
On foot		309	9%
Bicycle		110	3%
Other method of travel to work	Taxi	8	0%
	Motorcycle, scooter or moped	27	1%
	Other	21	1%
Total		3,395	100%

Work mainly at or from home	96
Not in employment	1,704



In order to protect against disclosure of personal information, records have been swapped between different geographic areas. Some counts will be affected, particularly small counts at the lowest geographies.

Appendix 6

Calculation Reference: AUDIT-740101-211004-1019

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
 Category : A - HOUSES PRIVATELY OWNED
 MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	ES	EAST SUSSEX 2 days
	HC	HAMPSHIRE 3 days
	HF	HERTFORDSHIRE 1 days
	KC	KENT 2 days
	SC	SURREY 2 days
	WS	WEST SUSSEX 3 days
03	SOUTH WEST	
	DC	DORSET 1 days
	DV	DEVON 2 days
	WL	WILTSHIRE 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: No of Dwellings
 Actual Range: 27 to 918 (units:)
 Range Selected by User: 8 to 918 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/13 to 16/06/21

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:

Monday	5 days
Tuesday	3 days
Wednesday	2 days
Thursday	5 days
Friday	2 days

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

Selected survey types:

Manual count	17 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)	5
Edge of Town	12

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	17
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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 17 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:

5,001 to 10,000	4 days
10,001 to 15,000	6 days
15,001 to 20,000	5 days
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:

5,001 to 25,000	3 days
25,001 to 50,000	1 days
75,001 to 100,000	3 days
100,001 to 125,000	1 days
125,001 to 250,000	8 days
250,001 to 500,000	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	14 days
1.6 to 2.0	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:

Yes	8 days
No	9 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	17 days
-----------------	---------

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

LIST OF SITES relevant to selection parameters

1	DC-03-A-08	BUNGALOWS	DORSET
	HURSTDENE ROAD		
	BOURNEMOUTH		
	CASTLE LANE WEST		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	28	
	Survey date: MONDAY	24/03/14	Survey Type: MANUAL
2	DV-03-A-02	HOUSES & BUNGALOWS	DEVON
	MILLHEAD ROAD		
	HONITON		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	116	
	Survey date: FRIDAY	25/09/15	Survey Type: MANUAL
3	DV-03-A-03	TERRACED & SEMI DETACHED	DEVON
	LOWER BRAND LANE		
	HONITON		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	70	
	Survey date: MONDAY	28/09/15	Survey Type: MANUAL
4	ES-03-A-03	MIXED HOUSES & FLATS	EAST SUSSEX
	SHEPHAM LANE		
	POLEGATE		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	212	
	Survey date: MONDAY	11/07/16	Survey Type: MANUAL
5	ES-03-A-05	MIXED HOUSES & FLATS	EAST SUSSEX
	RATTLE ROAD		
	NEAR EASTBOURNE		
	STONE CROSS		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	99	
	Survey date: WEDNESDAY	05/06/19	Survey Type: MANUAL
6	HC-03-A-21	TERRACED & SEMI-DETACHED	HAMPSHIRE
	PRIESTLEY ROAD		
	BASINGSTOKE		
	HOUNDMILLS		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	39	
	Survey date: TUESDAY	13/11/18	Survey Type: MANUAL
7	HC-03-A-22	MIXED HOUSES	HAMPSHIRE
	BOW LAKE GARDENS		
	NEAR EASTLEIGH		
	BISHOPSTOKE		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	40	
	Survey date: WEDNESDAY	31/10/18	Survey Type: MANUAL

MILESTONE TRANSPORT PLANNING WEY COURT, MARY ROAD GUILDFORD

Licence No: 740101

LIST OF SITES relevant to selection parameters (Cont.)

8	HC-03-A-23 CANADA WAY LIPHOOK	HOUSES & FLATS		HAMPSHIRE
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 62 Survey date: TUESDAY 19/11/19 Survey Type: MANUAL			
9	HF-03-A-03 HARE STREET ROAD BUNTINGFORD	MIXED HOUSES		HERTFORDSHIRE
	Edge of Town Residential Zone Total No of Dwellings: 160 Survey date: MONDAY 08/07/19 Survey Type: MANUAL			
10	KC-03-A-03 HYTHE ROAD ASHFORD WILLESBOROUGH	MIXED HOUSES & FLATS		KENT
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 51 Survey date: THURSDAY 14/07/16 Survey Type: MANUAL			
11	KC-03-A-04 KILN BARN ROAD AYLESFORD DITTON	SEMI-DETACHED & TERRACED		KENT
	Edge of Town Residential Zone Total No of Dwellings: 110 Survey date: FRIDAY 22/09/17 Survey Type: MANUAL			
12	SC-03-A-04 HIGH ROAD BYFLEET	DETACHED & TERRACED		SURREY
	Edge of Town Residential Zone Total No of Dwellings: 71 Survey date: THURSDAY 23/01/14 Survey Type: MANUAL			
13	SC-03-A-05 REIGATE ROAD HORLEY	MIXED HOUSES		SURREY
	Edge of Town Residential Zone Total No of Dwellings: 207 Survey date: MONDAY 01/04/19 Survey Type: MANUAL			
14	WL-03-A-02 HEADLANDS GROVE SWINDON	SEMI DETACHED		WILTSHIRE
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 27 Survey date: THURSDAY 22/09/16 Survey Type: MANUAL			
15	WS-03-A-04 HILLS FARM LANE HORSHAM BROADBRIDGE HEATH	MIXED HOUSES		WEST SUSSEX
	Edge of Town Residential Zone Total No of Dwellings: 151 Survey date: THURSDAY 11/12/14 Survey Type: MANUAL			

LIST OF SITES relevant to selection parameters (Cont.)

16	WS-03-A-08	MIXED HOUSES	WEST SUSSEX
	ROUNDSTONE LANE		
	ANGMERING		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	180	
	Survey date: THURSDAY	19/04/18	Survey Type: MANUAL
17	WS-03-A-11	MIXED HOUSES	WEST SUSSEX
	ELLIS ROAD		
	WEST HORSHAM		
	S BROADBRIDGE HEATH		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	918	
	Survey date: TUESDAY	02/04/19	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 SITES

Site Ref	Reason for Deselection
DV-03-A-01	Coastal location
ES-03-A-04	Coastal location
HF-03-A-04	Survey undertaken during the COVID-19 lockdown
KC-03-A-06	Coastal location
KC-03-A-07	Coastal location
SM-03-A-01	Coastal location
WS-03-A-09	Coastal location
WS-03-A-10	Coastal location
WS-03-A-12	Survey undertaken during the COVID-19 lockdown

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL TOTAL 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	17	149	0.068	17	149	0.314	17	149	0.382
08:00 - 09:00	17	149	0.135	17	149	0.411	17	149	0.546
09:00 - 10:00	17	149	0.155	17	149	0.179	17	149	0.334
10:00 - 11:00	17	149	0.126	17	149	0.167	17	149	0.293
11:00 - 12:00	17	149	0.140	17	149	0.158	17	149	0.298
12:00 - 13:00	17	149	0.153	17	149	0.151	17	149	0.304
13:00 - 14:00	17	149	0.167	17	149	0.165	17	149	0.332
14:00 - 15:00	17	149	0.166	17	149	0.191	17	149	0.357
15:00 - 16:00	17	149	0.263	17	149	0.180	17	149	0.443
16:00 - 17:00	17	149	0.278	17	149	0.160	17	149	0.438
17:00 - 18:00	17	149	0.377	17	149	0.162	17	149	0.539
18:00 - 19:00	17	149	0.324	17	149	0.159	17	149	0.483
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.352			2.397			4.749

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.

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Parameter summary

Trip rate parameter range selected:	27 - 918 (units:)
Survey date range:	01/01/13 - 16/06/21
Number of weekdays (Monday-Friday):	17
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	5
Surveys manually removed from selection:	9

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.

MILESTONE TRANSPORT PLANNING WEY COURT, MARY ROAD GUILDFORD

Licence No: 740101

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL TAXIS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	17	149	0.002	17	149	0.002	17	149	0.004
08:00 - 09:00	17	149	0.004	17	149	0.004	17	149	0.008
09:00 - 10:00	17	149	0.002	17	149	0.001	17	149	0.003
10:00 - 11:00	17	149	0.002	17	149	0.002	17	149	0.004
11:00 - 12:00	17	149	0.001	17	149	0.002	17	149	0.003
12:00 - 13:00	17	149	0.001	17	149	0.001	17	149	0.002
13:00 - 14:00	17	149	0.001	17	149	0.002	17	149	0.003
14:00 - 15:00	17	149	0.003	17	149	0.002	17	149	0.005
15:00 - 16:00	17	149	0.007	17	149	0.007	17	149	0.014
16:00 - 17:00	17	149	0.004	17	149	0.004	17	149	0.008
17:00 - 18:00	17	149	0.002	17	149	0.002	17	149	0.004
18:00 - 19:00	17	149	0.002	17	149	0.002	17	149	0.004
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.031			0.031			0.062

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.

MILESTONE TRANSPORT PLANNING WEY COURT, MARY ROAD GUILDFORD

Licence No: 740101

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL OGVS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	17	149	0.002	17	149	0.001	17	149	0.003
08:00 - 09:00	17	149	0.001	17	149	0.001	17	149	0.002
09:00 - 10:00	17	149	0.003	17	149	0.002	17	149	0.005
10:00 - 11:00	17	149	0.002	17	149	0.003	17	149	0.005
11:00 - 12:00	17	149	0.000	17	149	0.000	17	149	0.000
12:00 - 13:00	17	149	0.000	17	149	0.000	17	149	0.000
13:00 - 14:00	17	149	0.002	17	149	0.001	17	149	0.003
14:00 - 15:00	17	149	0.002	17	149	0.002	17	149	0.004
15:00 - 16:00	17	149	0.002	17	149	0.002	17	149	0.004
16:00 - 17:00	17	149	0.000	17	149	0.001	17	149	0.001
17:00 - 18:00	17	149	0.001	17	149	0.000	17	149	0.001
18:00 - 19:00	17	149	0.000	17	149	0.001	17	149	0.001
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.015			0.014			0.029

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

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

MILESTONE TRANSPORT PLANNING WEY COURT, MARY ROAD GUILDFORD

Licence No: 740101

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL PSVS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	17	149	0.002	17	149	0.002	17	149	0.004
08:00 - 09:00	17	149	0.002	17	149	0.002	17	149	0.004
09:00 - 10:00	17	149	0.001	17	149	0.002	17	149	0.003
10:00 - 11:00	17	149	0.001	17	149	0.001	17	149	0.002
11:00 - 12:00	17	149	0.001	17	149	0.001	17	149	0.002
12:00 - 13:00	17	149	0.001	17	149	0.001	17	149	0.002
13:00 - 14:00	17	149	0.001	17	149	0.001	17	149	0.002
14:00 - 15:00	17	149	0.001	17	149	0.001	17	149	0.002
15:00 - 16:00	17	149	0.002	17	149	0.002	17	149	0.004
16:00 - 17:00	17	149	0.001	17	149	0.001	17	149	0.002
17:00 - 18:00	17	149	0.002	17	149	0.001	17	149	0.003
18:00 - 19:00	17	149	0.000	17	149	0.000	17	149	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.015			0.015			0.030

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.

MILESTONE TRANSPORT PLANNING WEY COURT, MARY ROAD GUILDFORD

Licence No: 740101

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL CYCLISTS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	17	149	0.006	17	149	0.010	17	149	0.016
08:00 - 09:00	17	149	0.007	17	149	0.019	17	149	0.026
09:00 - 10:00	17	149	0.001	17	149	0.003	17	149	0.004
10:00 - 11:00	17	149	0.004	17	149	0.004	17	149	0.008
11:00 - 12:00	17	149	0.003	17	149	0.005	17	149	0.008
12:00 - 13:00	17	149	0.005	17	149	0.003	17	149	0.008
13:00 - 14:00	17	149	0.002	17	149	0.000	17	149	0.002
14:00 - 15:00	17	149	0.004	17	149	0.003	17	149	0.007
15:00 - 16:00	17	149	0.007	17	149	0.004	17	149	0.011
16:00 - 17:00	17	149	0.012	17	149	0.010	17	149	0.022
17:00 - 18:00	17	149	0.014	17	149	0.005	17	149	0.019
18:00 - 19:00	17	149	0.011	17	149	0.008	17	149	0.019
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.076			0.074			0.150

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.

MILESTONE TRANSPORT PLANNING WEY COURT, MARY ROAD GUILDFORD

Licence No: 740101

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL VEHICLE OCCUPANTS

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	17	149	0.078	17	149	0.414	17	149	0.492
08:00 - 09:00	17	149	0.152	17	149	0.649	17	149	0.801
09:00 - 10:00	17	149	0.187	17	149	0.233	17	149	0.420
10:00 - 11:00	17	149	0.158	17	149	0.223	17	149	0.381
11:00 - 12:00	17	149	0.180	17	149	0.205	17	149	0.385
12:00 - 13:00	17	149	0.195	17	149	0.189	17	149	0.384
13:00 - 14:00	17	149	0.225	17	149	0.208	17	149	0.433
14:00 - 15:00	17	149	0.214	17	149	0.236	17	149	0.450
15:00 - 16:00	17	149	0.429	17	149	0.229	17	149	0.658
16:00 - 17:00	17	149	0.411	17	149	0.232	17	149	0.643
17:00 - 18:00	17	149	0.534	17	149	0.225	17	149	0.759
18:00 - 19:00	17	149	0.459	17	149	0.229	17	149	0.688
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.222			3.272			6.494

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.

MILESTONE TRANSPORT PLANNING WEY COURT, MARY ROAD GUILDFORD

Licence No: 740101

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL PEDESTRIANS

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	17	149	0.018	17	149	0.039	17	149	0.057
08:00 - 09:00	17	149	0.051	17	149	0.160	17	149	0.211
09:00 - 10:00	17	149	0.050	17	149	0.043	17	149	0.093
10:00 - 11:00	17	149	0.033	17	149	0.043	17	149	0.076
11:00 - 12:00	17	149	0.027	17	149	0.026	17	149	0.053
12:00 - 13:00	17	149	0.024	17	149	0.021	17	149	0.045
13:00 - 14:00	17	149	0.024	17	149	0.030	17	149	0.054
14:00 - 15:00	17	149	0.037	17	149	0.039	17	149	0.076
15:00 - 16:00	17	149	0.128	17	149	0.050	17	149	0.178
16:00 - 17:00	17	149	0.063	17	149	0.028	17	149	0.091
17:00 - 18:00	17	149	0.048	17	149	0.044	17	149	0.092
18:00 - 19:00	17	149	0.050	17	149	0.041	17	149	0.091
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.553			0.564			1.117

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.

MILESTONE TRANSPORT PLANNING WEY COURT, MARY ROAD GUILDFORD

Licence No: 740101

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL BUS/TRAM PASSENGERS

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	17	149	0.002	17	149	0.029	17	149	0.031
08:00 - 09:00	17	149	0.002	17	149	0.024	17	149	0.026
09:00 - 10:00	17	149	0.004	17	149	0.012	17	149	0.016
10:00 - 11:00	17	149	0.008	17	149	0.007	17	149	0.015
11:00 - 12:00	17	149	0.005	17	149	0.006	17	149	0.011
12:00 - 13:00	17	149	0.006	17	149	0.007	17	149	0.013
13:00 - 14:00	17	149	0.004	17	149	0.004	17	149	0.008
14:00 - 15:00	17	149	0.008	17	149	0.006	17	149	0.014
15:00 - 16:00	17	149	0.027	17	149	0.010	17	149	0.037
16:00 - 17:00	17	149	0.018	17	149	0.005	17	149	0.023
17:00 - 18:00	17	149	0.011	17	149	0.002	17	149	0.013
18:00 - 19:00	17	149	0.012	17	149	0.001	17	149	0.013
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.107			0.113			0.220

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.

MILESTONE TRANSPORT PLANNING WEY COURT, MARY ROAD GUILDFORD

Licence No: 740101

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL TOTAL RAIL PASSENGERS

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	17	149	0.001	17	149	0.012	17	149	0.013
08:00 - 09:00	17	149	0.000	17	149	0.008	17	149	0.008
09:00 - 10:00	17	149	0.000	17	149	0.004	17	149	0.004
10:00 - 11:00	17	149	0.000	17	149	0.003	17	149	0.003
11:00 - 12:00	17	149	0.000	17	149	0.001	17	149	0.001
12:00 - 13:00	17	149	0.002	17	149	0.002	17	149	0.004
13:00 - 14:00	17	149	0.001	17	149	0.001	17	149	0.002
14:00 - 15:00	17	149	0.001	17	149	0.000	17	149	0.001
15:00 - 16:00	17	149	0.001	17	149	0.000	17	149	0.001
16:00 - 17:00	17	149	0.003	17	149	0.000	17	149	0.003
17:00 - 18:00	17	149	0.008	17	149	0.001	17	149	0.009
18:00 - 19:00	17	149	0.007	17	149	0.000	17	149	0.007
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.024				0.032	0.056	

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

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

MILESTONE TRANSPORT PLANNING WEY COURT, MARY ROAD GUILDFORD

Licence No: 740101

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL COACH PASSENGERS

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	17	149	0.000	17	149	0.001	17	149	0.001
08:00 - 09:00	17	149	0.000	17	149	0.002	17	149	0.002
09:00 - 10:00	17	149	0.000	17	149	0.000	17	149	0.000
10:00 - 11:00	17	149	0.000	17	149	0.000	17	149	0.000
11:00 - 12:00	17	149	0.000	17	149	0.000	17	149	0.000
12:00 - 13:00	17	149	0.000	17	149	0.000	17	149	0.000
13:00 - 14:00	17	149	0.000	17	149	0.000	17	149	0.000
14:00 - 15:00	17	149	0.000	17	149	0.000	17	149	0.000
15:00 - 16:00	17	149	0.002	17	149	0.000	17	149	0.002
16:00 - 17:00	17	149	0.000	17	149	0.000	17	149	0.000
17:00 - 18:00	17	149	0.000	17	149	0.000	17	149	0.000
18:00 - 19:00	17	149	0.000	17	149	0.000	17	149	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.002			0.003			0.005

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.

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MILESTONE TRANSPORT PLANNING WEY COURT, MARY ROAD GUILDFORD

Licence No: 740101

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL PUBLIC TRANSPORT USERS

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	17	149	0.004	17	149	0.042	17	149	0.046
08:00 - 09:00	17	149	0.002	17	149	0.034	17	149	0.036
09:00 - 10:00	17	149	0.004	17	149	0.016	17	149	0.020
10:00 - 11:00	17	149	0.008	17	149	0.010	17	149	0.018
11:00 - 12:00	17	149	0.005	17	149	0.007	17	149	0.012
12:00 - 13:00	17	149	0.008	17	149	0.009	17	149	0.017
13:00 - 14:00	17	149	0.004	17	149	0.005	17	149	0.009
14:00 - 15:00	17	149	0.009	17	149	0.007	17	149	0.016
15:00 - 16:00	17	149	0.030	17	149	0.010	17	149	0.040
16:00 - 17:00	17	149	0.022	17	149	0.005	17	149	0.027
17:00 - 18:00	17	149	0.019	17	149	0.004	17	149	0.023
18:00 - 19:00	17	149	0.019	17	149	0.001	17	149	0.020
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.134			0.150			0.284

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.

MILESTONE TRANSPORT PLANNING WEY COURT, MARY ROAD GUILDFORD

Licence No: 740101

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES 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	17	149	0.106	17	149	0.505	17	149	0.611
08:00 - 09:00	17	149	0.211	17	149	0.862	17	149	1.073
09:00 - 10:00	17	149	0.242	17	149	0.294	17	149	0.536
10:00 - 11:00	17	149	0.202	17	149	0.279	17	149	0.481
11:00 - 12:00	17	149	0.215	17	149	0.243	17	149	0.458
12:00 - 13:00	17	149	0.231	17	149	0.222	17	149	0.453
13:00 - 14:00	17	149	0.255	17	149	0.242	17	149	0.497
14:00 - 15:00	17	149	0.264	17	149	0.284	17	149	0.548
15:00 - 16:00	17	149	0.595	17	149	0.294	17	149	0.889
16:00 - 17:00	17	149	0.507	17	149	0.274	17	149	0.781
17:00 - 18:00	17	149	0.615	17	149	0.278	17	149	0.893
18:00 - 19:00	17	149	0.539	17	149	0.279	17	149	0.818
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.982			4.056			8.038

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.

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MILESTONE TRANSPORT PLANNING WEY COURT, MARY ROAD GUILDFORD

Licence No: 740101

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL CARS

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	17	149	0.051	17	149	0.279	17	149	0.330
08:00 - 09:00	17	149	0.110	17	149	0.379	17	149	0.489
09:00 - 10:00	17	149	0.127	17	149	0.158	17	149	0.285
10:00 - 11:00	17	149	0.099	17	149	0.140	17	149	0.239
11:00 - 12:00	17	149	0.120	17	149	0.132	17	149	0.252
12:00 - 13:00	17	149	0.127	17	149	0.128	17	149	0.255
13:00 - 14:00	17	149	0.137	17	149	0.135	17	149	0.272
14:00 - 15:00	17	149	0.139	17	149	0.158	17	149	0.297
15:00 - 16:00	17	149	0.231	17	149	0.146	17	149	0.377
16:00 - 17:00	17	149	0.248	17	149	0.135	17	149	0.383
17:00 - 18:00	17	149	0.334	17	149	0.140	17	149	0.474
18:00 - 19:00	17	149	0.302	17	149	0.143	17	149	0.445
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.025			2.073			4.098

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.

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MILESTONE TRANSPORT PLANNING WEY COURT, MARY ROAD GUILDFORD

Licence No: 740101

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL LGVS

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	17	149	0.011	17	149	0.028	17	149	0.039
08:00 - 09:00	17	149	0.017	17	149	0.021	17	149	0.038
09:00 - 10:00	17	149	0.022	17	149	0.016	17	149	0.038
10:00 - 11:00	17	149	0.022	17	149	0.021	17	149	0.043
11:00 - 12:00	17	149	0.018	17	149	0.023	17	149	0.041
12:00 - 13:00	17	149	0.024	17	149	0.020	17	149	0.044
13:00 - 14:00	17	149	0.026	17	149	0.025	17	149	0.051
14:00 - 15:00	17	149	0.021	17	149	0.025	17	149	0.046
15:00 - 16:00	17	149	0.020	17	149	0.021	17	149	0.041
16:00 - 17:00	17	149	0.024	17	149	0.016	17	149	0.040
17:00 - 18:00	17	149	0.034	17	149	0.017	17	149	0.051
18:00 - 19:00	17	149	0.016	17	149	0.012	17	149	0.028
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.255			0.245			0.500

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.

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MILESTONE TRANSPORT PLANNING WEY COURT, MARY ROAD GUILDFORD

Licence No: 740101

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL MOTOR CYCLES

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	17	149	0.000	17	149	0.002	17	149	0.002
08:00 - 09:00	17	149	0.000	17	149	0.004	17	149	0.004
09:00 - 10:00	17	149	0.001	17	149	0.000	17	149	0.001
10:00 - 11:00	17	149	0.001	17	149	0.000	17	149	0.001
11:00 - 12:00	17	149	0.000	17	149	0.000	17	149	0.000
12:00 - 13:00	17	149	0.000	17	149	0.000	17	149	0.000
13:00 - 14:00	17	149	0.000	17	149	0.001	17	149	0.001
14:00 - 15:00	17	149	0.001	17	149	0.002	17	149	0.003
15:00 - 16:00	17	149	0.001	17	149	0.001	17	149	0.002
16:00 - 17:00	17	149	0.001	17	149	0.002	17	149	0.003
17:00 - 18:00	17	149	0.004	17	149	0.000	17	149	0.004
18:00 - 19:00	17	149	0.003	17	149	0.001	17	149	0.004
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.012			0.013			0.025

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Drawings



Notes

1. Do not scale from this drawing. All dimensions shown are in metres unless noted otherwise.
2. This drawing has been based upon Ordnance Survey information produced by others and Milestone Transport Planning cannot be held responsible for any discrepancies which may arise because of it.

Ordnance Survey Licence number: 100057360

Drawing Revisions				
Rev:	Drm:	Date:	Details	Chk:
-	ZM	19/08/2021	First issue	MS
A	ZM	30/11/2021	Revised layout	MS

Client	
John Filbee Properties Ltd	

Project	
816 Oxford Road, Reading, RG30 1EL	

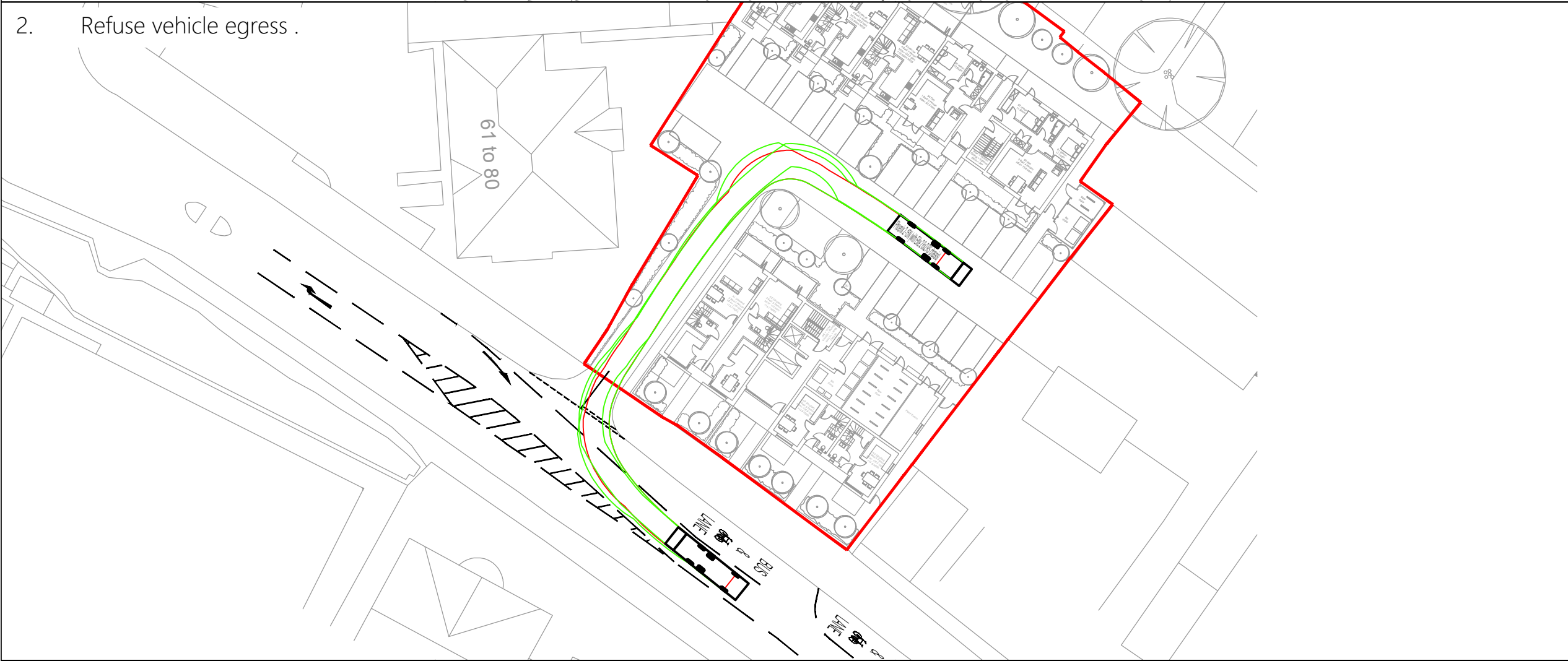
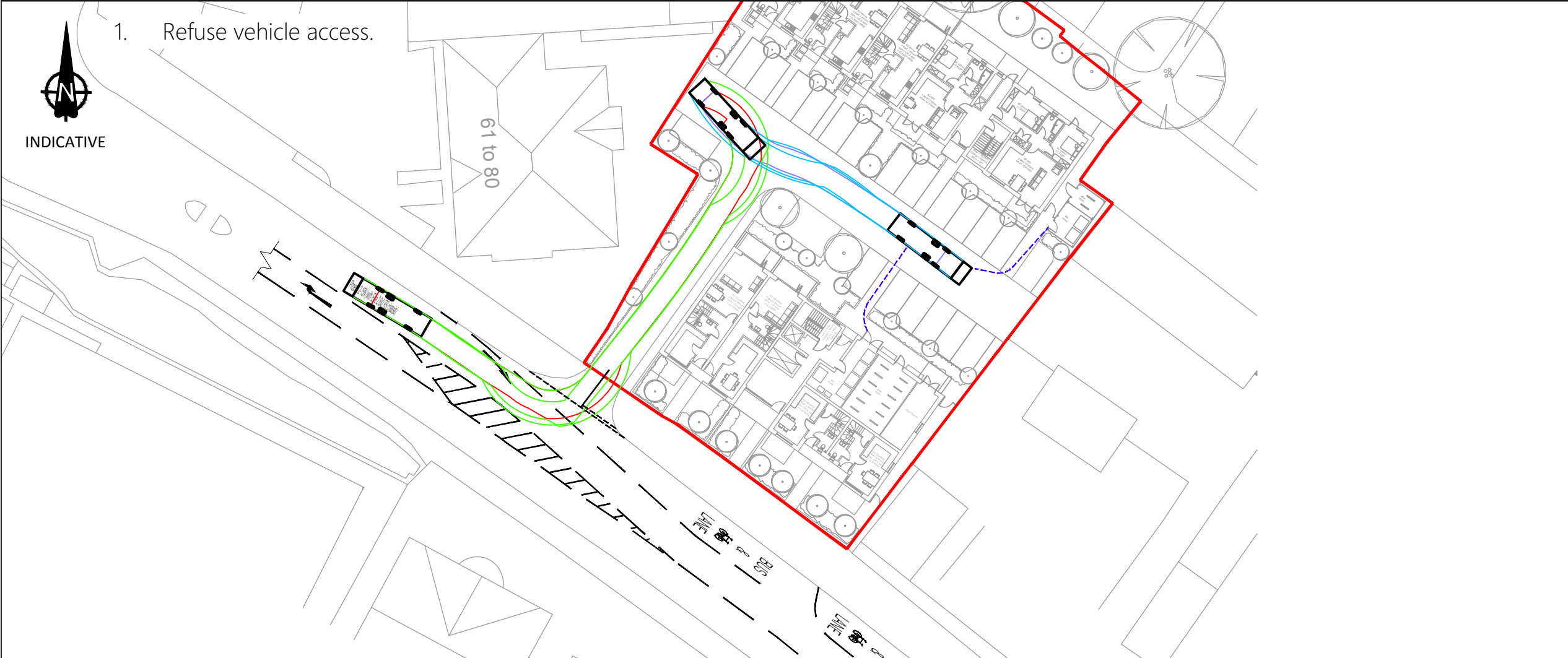
Title	
Proposed Access Arrangements	

MILESTONE TRANSPORT PLANNING	
Abbey House, 282 Farnborough Rd, Farnborough, Hants GU14 7NA Tel: 01483 397888 Gateshead IBC, Mulgrave Terrace, Gateshead, NE8 1AN Tel: 0191 338 7220	

Drawing Number:	
21148 / 001	

Scale:	
1:500 @ A3	

Revision:	
A	



Notes

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Key

9.62

1.665

3.3

1.35

Phoenix 2-15N (with Elite 2 6x2 RS chassis)

Overall Length

9.620m

Overall Width

2.250m

Overall Body Height

3.707m

Min Body Ground Clearance

0.260m

Track Width

2.250m

Lock to lock time

4.00s

Kerb to Kerb Turning Radius

7.100m

Waste Operative Carry Distance (<10.0-metres)

Ordnance Survey Licence number: 100057360

Drawing Revisions

Rev:	Drn:	Date:	Details	Chk:
-	ZM	29/11/2021	First issue	MS

Client

John Filbee Properties Ltd

Project

816 Oxford Road, Reading, RG30 1EL

Title

Swept-Path Analysis: Refuse Vehicle

MILESTONE

TRANSPORT PLANNING

Abbey House, 282 Farnborough Rd, Farnborough, Hants GU14 7NA

Tel: 01483 397888

Gateshead IBC, Mulgrave Terrace, Gateshead, NE8 1AN

Tel: 0191 338 7220

web: www.milestonetp.co.uk

Drawing Number:

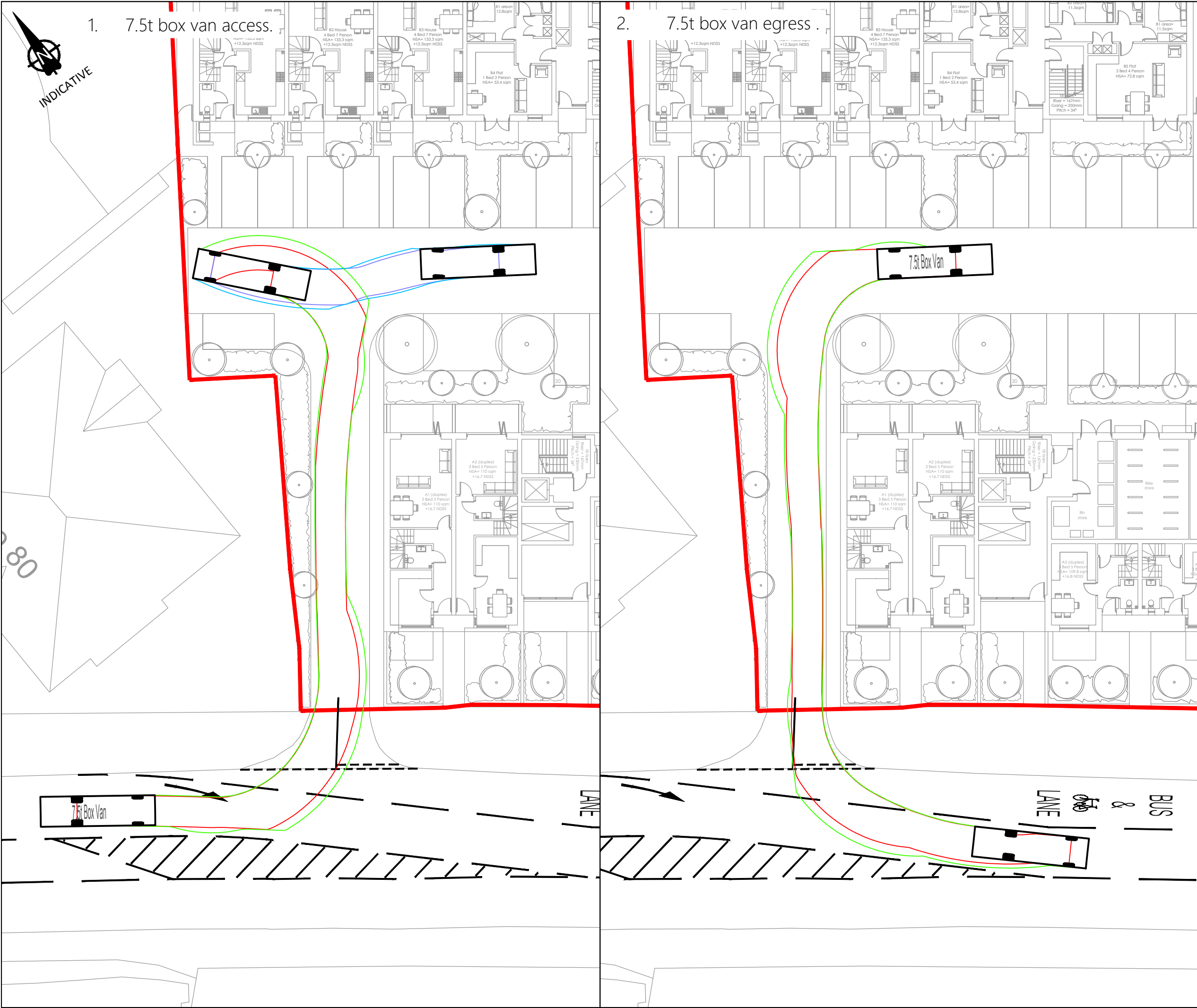
21148 / TK02

Scale:

1:500 @ A3

Revision:

-



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Key

7.5t Box Van
Overall Length 8.01m
Overall Width 2.100m
Overall Body Height 3.556m
Min Body Ground Clearance 0.351m
Track Width 2.064m
Lock to lock time 4.00s
Kerb to Kerb Turning Radius 7.400m

Ordnance Survey Licence number: 100057360

Rev:	Drn:	Date:	Details	Chk:
-	ZM	29/11/2021	First issue	MS

Client

John Filbee Properties Ltd

Project

816 Oxford Road, Reading, RG30 1EL

Title

Swept-Path Analysis: 7.5t Box Van

MILESTONE
TRANSPORT PLANNING

Abbey House, 282 Farnborough Rd, Farnborough, Hants GU14 7NA
Tel: 01483 397888
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Drawing Number:

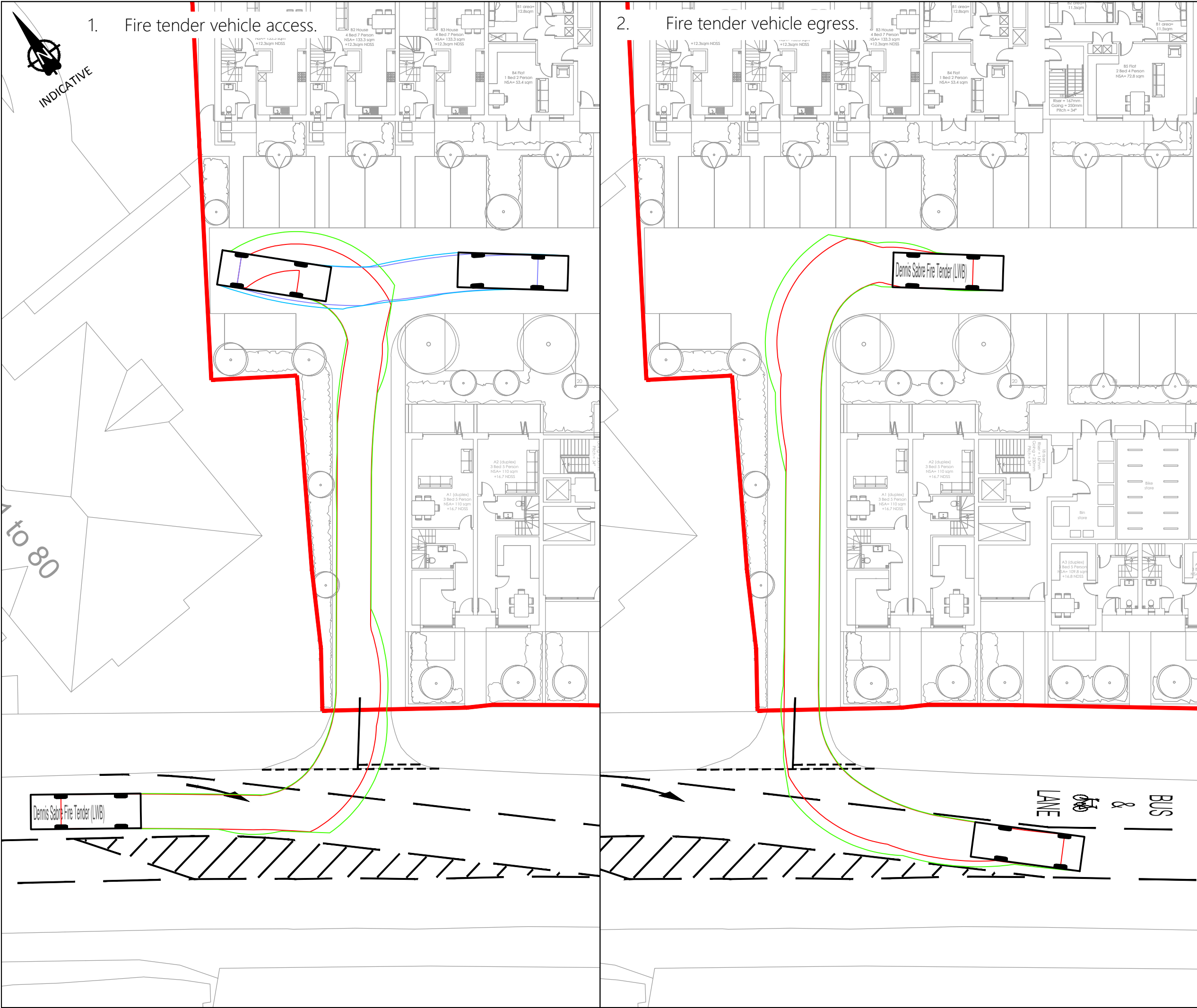
21148 / TK03

Scale:

1:250 @ A3

Revision:

-



Notes

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2.

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Key