Transport Statement

Chandigrah, Summerhouse Lane
Harefield, Uxbridge

On behalf of Lynda Nye-Rashkova

Bellamy Roberts

Document Control Sheet

Lynda Nye-Rashkova
BelleVarna Developments Ltd
Maracus Cottage
Springwell Lane
Harefield
UB9 6PG

Bellamy Roberts
Clover House
Western Lane
Odiham
Hants RG29 1TU
Tel: 01256 703355

Report Issue No.	Status	Date	Author	Authorised
ITR/RK/6274/TS.1	1st Draft	9th May 2025	RK	ITR
TS.2/6274/RK/ITR	Final	16th June 2025	RK	ITR

Bellamy Roberts

Contents

Sections

Appendices

Bellamy Roberts

1 Introduction

1.1 Bellamy Roberts has been instructed by MCA Architects on behalf of Lynda Nye-Rashkova to prepare a Transport Statement for a planning application at Chandigrah in Harefield.

1.2 The proposal seeks to erect two dwellings and relocate the access serving the existing site.

Planning History

1.3 An application for the erection of 4 dwellings following the demolition of the existing equestrian storage buildings on land adjacent to Chandigrah was refused planning permission by the London Borough of Hillingdon on 9th January 2024 (App Ref: 1131/APP/2023/3251) for four reasons:

1. *The site is in the Green Belt where there is a general presumption against any development other than that essential for agriculture or that falling within any of the exceptions set out in Paragraph 154g) of the NPPF (2023).*
2. *Due to the scale and proportions of the development and the significant loss of trees within the site, the development would harmfully erode the open and verdant appearance of the site and degrade the integrity of the landscape character.*
3. *In the absence of a full ecological assessment relevant to the description of development, the applicant has failed to demonstrate that the development would not affect ecology and biodiversity.*
4. *Due to the proximity and siting of Bedroom 2 window of Unit 3, the occupiers of Unit 4 would experience significant loss of privacy and overlooking of their private amenity space*.

1.4 The Highway Authority raised no concerns to the scheme stating that they are "*satisfied that the proposal would not discernibly exacerbate congestion and would not raise any measurable highway safety concerns*".

1.5 Although the Planning Authority refused the application, the proposal was granted planning permission on 21st February 2025 following an appeal (Appeal Ref: APP/R5510/W/24/3341154).

1.6 None of the reasons for refusal provided by the Local Planning Authority were related to highway issues. While the Inspector acknowledged that local residents had expressed concerns regarding highway safety, it was noted that a swept path analysis had been conducted (and was satisfactory). The Highway Authority raised no objections concerning vehicle access or movements, nor did they express any concerns about additional traffic on local roads or the impact on pedestrian and highway safety. Consequently, the Inspector stated they had no reason to disagree with the Highway Authority's assessment.

Scope of Report

1.7 This report has been prepared to assess the impact of the proposed development in highway and transport terms in light of the Inspector's views and decision. In this regard it has considered the scheme in relation to national and local planning policy, the sustainability of the site in terms of accessibility by means other than the private car, the suitability and safety of the access arrangement and car and cycle parking, with reference to the LPA's standards. The report has also interrogated the TRICS database to consider the traffic generated by the proposed use.

1.8 The report also takes into account the comments made by the County Highway Authority and the Planning Inspector for the neighbouring scheme when assessing the impact of the proposal.

2 Policy Review

2.1 It is understood that the proposed development needs to accord with the appropriate National, Regional and Local Policies, and this Transport Statement has sought guidance from the following documents.

National Planning Policy Framework (NPPF)

2.2 National Planning Policy Framework (NPPF) was revised and published in December 2024 and sets out the Government's current planning policies guidance on how these are expected to be applied in transport terms.

2.3 Under the heading of 'Considering Development Proposals', paragraph 115 sets out the four key transport requirements:

> *"In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:*
>
> *a) sustainable transport modes are prioritised taking account of the vision for the site, the type of development and its location;*
>
> *b) safe and suitable access to the site can be achieved for all users;*
>
> *c) the design of streets, parking areas, other transport elements and the content of associated standards reflects current national guidance, including the National Design Guide and the National Model Design Code; and*
>
> *d) any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree through a vision-led approach."*

2.4 Paragraph 116 identifies situations where development should be refused on transport grounds noting that:

> *"Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network, following mitigation, would be severe, taking into account all reasonable future scenarios".*

2.5 Paragraph 117 then states that within the context of applications for development should:

a) *give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use;*

b) *address the needs of people with disabilities and reduced mobility in relation to all modes of transport;*

c) *create places that are safe, secure and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;*

d) *allow for the efficient delivery of goods, and access by service and emergency vehicles; and*

e) *be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations*".

2.6 Paragraph 118 states that "*all developments that will generate significant amounts of movement should be required to provide a travel plan, and the application should be supported by a vision-led transport statement or transport assessment so that the likely impacts of the proposal can be assessed and monitored".*

Planning Practice Guidance (PPG)

2.7 Planning Practice Guidance (PPG) are guidance documents aimed to ensure consistent and effective application of planning regulations and principles across all disciplines. PPG discusses the role of Travel Plans, Transport Assessments and Statements.

2.8 Paragraph 002 from PPG states that "*Travel Plans, Transport Assessments and Statements are all ways of assessing and mitigating the negative transport impacts of development in order to promote sustainable development. They are required for all developments which generate significant amounts of movements".*

2.9 Paragraph 015 states that "*the scope and level of detail in a Transport Assessment or Statement will vary from site to site but the following should be considered when settling the scope of the proposed assessment:*

- An *analysis of the injury accident records on the public highway in the vicinity of the site access for the most recent 3-year period, or 5-year period if the proposed site has been identified as within a high accident area".*

London Borough of Hillingdon Local Plan Part 2 – Development Management Policies (adopted 16 January 2020)

2.10 **Policy DMT 1**: Management Transport Impacts states:

A) "Development proposals will be required to meet the transport needs of the development and address its transport impacts in a sustainable manner. In order for developments to be acceptable they are required to:

i) be accessible by public transport, walking and cycling either from the catchment area that it is likely to draw its employees, customers or visitors from and/or the services and facilities necessary to support the development;

ii) maximise safe, convenient and inclusive accessibility to, and from within developments for pedestrians, cyclists and public transport users;

iii) provide equal access for all people, including inclusive access for disabled people;

iv) adequately address delivery, servicing and drop-off requirements; and

v) have no significant adverse transport or associated air quality and noise impacts on the local and wider environment, particularly on the strategic road network.

B) *Development proposals will be required to undertake a satisfactory Transport Assessment and Travel Plan if they meet or exceed the appropriate thresholds. All major developments that fall below these thresholds will be required to produce a satisfactory Transport Statement and Local Level Travel Plan. All these plans should demonstrate how any potential impacts will be mitigated and how such measures will be implemented*".

2.11 Policy DMT 2: Highways Impacts states that "*development proposals must ensure that:*

i) safe and efficient vehicular access to the highway network is provided to the Council's standard;

ii) they do not contribute to the deterioration of air quality, noise or local amenity or safety of all road users and residents;

iii) safe, secure and convenient access and facilities for cyclists and pedestrian are satisfactorily accommodated in the design of highway and traffic management schemes;

iv) impacts on local amenity and congestion are minimised by routing through traffic by the most direct means to the strategic road network, avoiding local distributor and access roads; and

v) *there are suitable mitigation measures to address any traffic impacts in terms of capacity and functions of existing and committed roads, including along roads or through junctions which are at capacity*".

2.12 Policy DMT 6: Vehicle Parking states the following:

A) *"Development proposals must comply with the parking standards outlined in Appendix C Table 1 in order to facilitate sustainable development and address issues relating to congestion and amenity. The Council may agree to vary these requirements when:*

i) the variance would not lead to a deleterious impact on street parking provision, congestion or local amenity; and/or

ii) a transport appraisal and travel plan has been approved and parking provision is in accordance with its recommendations.

B) *All car parks provided for new development will be required to contain conveniently located reserved spaces for wheelchair users and those with restricted mobility in accordance with the Council's Accessible Hillingdon SPD".*

Policy Summary

2.13 The applicant has addressed the items set out in this policy section and the scheme will demonstrate that the following can be achieved:

- Appropriate opportunities to promote sustainable transport modes have been taken up;

- Safe and suitable access to the site and internal layout will be achieved for all users;
- Any significant impacts from the development on the transport network and in terms of capacity and congestion or on highway safety will be effectively mitigated to an acceptable degree; and
- The proposal will follow the guidelines set out in the NPPF, PPG, and the London Borough of Hillingdon Local Plan.

2.14 It will be shown within this report that all the above policies and requirements associated with this development are met.

3 Site Location & Local Highway Network

Site Location

3.1 The application site is accessed via private access road, and a shared access from Bellevue Terrace, immediately south of the application site. The land within the application site is vacant.

3.2 An extract of the site location plan is provided in Figure 1, and the full plan is presented at **Appendix 1**.

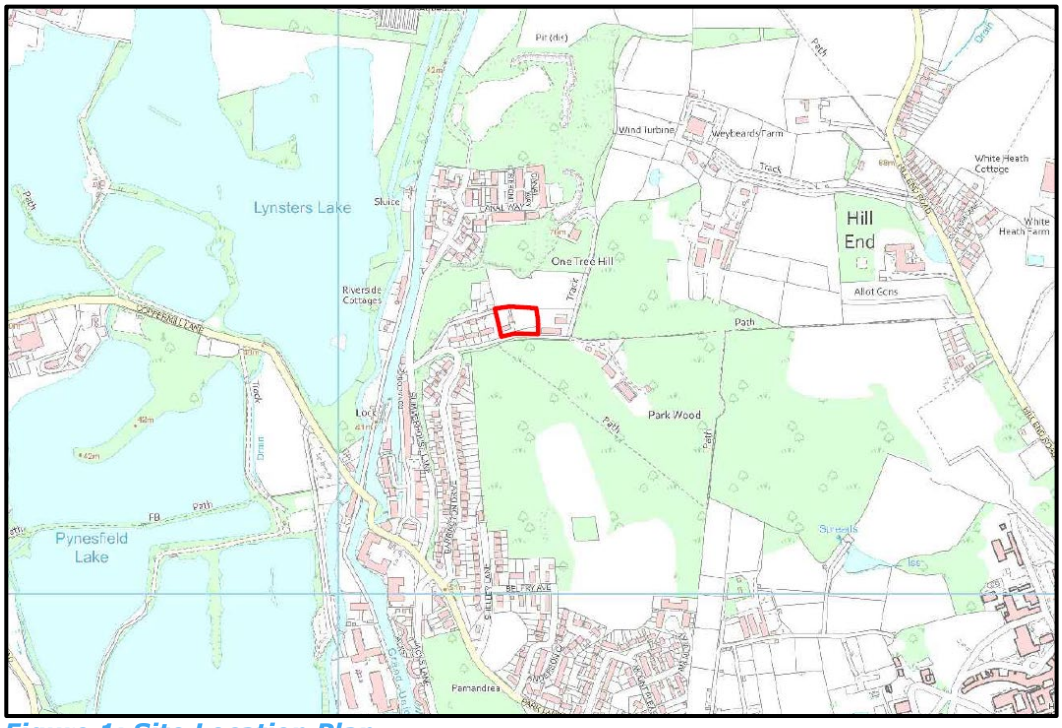


Figure 1: Site Location Plan

Local Highway Network

3.3 The private access road runs broadly east/west for some 200m and serves several residential properties including the application site without footways. Bellevue Terrace the access road to the site is also designated as a public footpath.

3.4 Bellevue Terrace carriageway width varies across its length. The carriageway width is approximately 2.7m along the western half of the site frontage, narrowing to approximately 2.5m width along the eastern half of the site frontage. The road is relatively straight and affords good visibility for all road users. The road is lightly trafficked, particularly east of the junction with Barrington Drive, where traffic is generated from only two existing properties, Chandigrah and Parkwood Farm Kennels. The remaining existing properties have vehicular access from the rear and not off Bellevue Terrace.

3.5 From the west, Bellevue Terrace connects to Summerhouse Lane. Bellevue Terrace separates into two arms, both named Bellevue Terrace, circa 35m from the Summerhouse Lane junction. The northern arm serves properties no.1 to 12 where car parking associated with these properties is provided. The southern arm continues 35m eastward before arriving at the Barringdon Drive junction on the south side of the carriageway. The southern arm continues east past Barringdon Drive for another 90 metres before reaching the shared site access with Chandigrah. The southern arm of Bellevue Terrace continues for a further 130m east of the shared access before reaching Parkwood Farm Kennels.

3.6 Bellevue Terrace has a footway on its south side for 80m between Summerhouse Lane and Barringdon Drive which continues onto the aforementioned roads. The southern arm of Bellevue Terrace then acts as a shared surface east of the Barringdon Drive junction. According to Manual for Streets this is likely to work well where the volume of motor traffic is below 100 vehicles per hour at peak hours, such as is the case in this stance. The footway and shared surface on Bellevue Terrace are classified as part of the U9 Public Rights of Way footpath, which connects to the pedestrian network on Hill End Road c.700m to the east from the site and Summerhouse Lane in the west.

Personal Injury Accident Data

3.7 Personal Injury (PIA) Accident data has been obtained from CrashMap for the highway network in the vicinity of the application site.

3.8 Planning Practice Guidance (PPG) identifies that an assessment for the most recent 3-year period, or 5-year period if the site has been identified in a high

accident area, should be undertaken. For robustness, accident data for the most recent 5-year period has been obtained (2019-2023).

3.9 The accidents are classed into three categories: 'slight', 'serious', and 'fatal'. The definitions of which are provided as follows:

- **Slight Injury** - Injuries of a minor nature such as sprains, bruises or cuts not judged to be severe, or slight shock requiring only roadside attention (medical treatment is not pre-requisite for an injury to be defined as slight).
- **Serious Injury** - Injuries for which a person is detained in hospital as an impatient or any of the following injuries, whether or not a person is detained in hospital; fractures, concussion, internal injuries, severe cuts and lacerations, severe general shock requiring medical treatment and injuries which result in death 30 days after the collision. A serious category therefore covers a very broad range of injury.
- **Fatal Injury** - Injuries which cause death either immediately or at any time up to 30 days after the collision.

3.10 The results obtained from CrashMap can be seen in Figure 2.

Figure 2: Summary of Accident Data (CrashMap)

3.11 The collision data collected from CrashMap shows that no collisions have been recorded at or near the vicinity of the site. As such, there are no existing safety issues on the local highway network at the existing access serving the site.

Summary

3.12 In summary, the application site is well located to take advantage of the existing local highway network. A review of personal accident data from CrashMap does not identify any specific road safety problems within the local highway network.

4 The Proposal

4.1 This application is for two new four bedroom dwellings.

Vehicular Access and Internal Layout

4.2 A vehicular access was approved under the planning application for the adjacent site (Ref: 1131/APP/2023/3251) to serve four dwellings.

4.3 This proposal seeks to relocate the approved access approximately 9m to the west with access still onto Bellevue Terrace and serve the approved four dwelling scheme and the two now proposed.

4.4 The posted speed limit along Bellevue Terrace is 20mph, although this is likely to be in excess of the speed that vehicles are likely to typically travel in this area. In accordance with Table 7.1 of Manual for Streets (MfS), the commensurate visibility splays are 2.4m x 25m. A plan showing that visibility is achievable at the proposed access is presented at **Appendix 2**.

4.5 A bin collection point will be provided to serve the two dwellings. To ensure that the proposed access can continue to accommodate the movements of a refuse vehicle, swept path analysis has been conducted at the proposed access and internal layout and is presented at **Appendix 3**.

4.6 This demonstrates that refuse vehicles can manoeuvre within the distances set out in Manual for Streets (30m for residents and 25m for waste collection operatives).

4.7 Paragraph 6.7.2 of MfS states: "*The Building Regulation requirement B5 (2000) concerns 'Access and Facilities for the Fire Service'. Section 17, 'Vehicle Access', includes the following advice on access from the highway:*

- *There should be a minimum carriageway width of 3.7m between kerbs;*
- *There should be vehicle access for pump appliance within 45m of single family houses;*

- *There should be vehicle access for a pump appliance within 45m of every dwelling entrance for flats/maisonettes;*
- *A vehicle access route may be a road or other route; and*
- *fire service vehicles should not have to reverse more than 20m*

4.8 Swept path analysis confirms that a fire tender can access within 45m of all entrances and is not required to reverse more than 20m. The swept path analysis is presented at Appendix 3.

Parking Standards

4.9 The adopted parking standards are outlined in Appendix C of the Hillingdon Local Plan.

Car Parking Standards

4.10 The minimum standard car parking bay dimensions are 2.4m x 4.8m. The maximum car parking standard for dwellings with curtilage are 2 spaces per dwelling.

4.11 The scheme proposes 2 spaces per dwelling in accordance with the standards.

4.12 One electric vehicle charging point will be provided per dwelling in accordance with Building Regulations.

Cycle Parking Standards

4.13 The maximum cycle parking standard is 2 spaces for 3 or more bedroom dwellings.

4.14 Cycle parking facilities will be provided within the curtilage of each dwelling in secure, covered, and lockable sheds.

5 Accessibility Audit

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

- Most people will walk to a destination that is less that one mile (circa 1.6 kilometres) – Planning for Walking, 2015;
- The bicycle is a potential mode of transport for all journeys under five miles (circa 8 kilometres) – Planning for Cycling 2015; and
- Walking distances to bus stops should not exceed 400 metres, whilst people are prepared to walk twice as far to rail stations – Planning for Walking, 2015.

5.2 A recent Appeal decision achieving four dwellings accepted tis greater distance. For example APP/R3658/W/24/3352222 paragraph 20.

5.3 The Department for Transport's 'Manual for Streets identifies 'walking neighbourhoods' as being "characterised by having a range of facilities within 10 minutes (up to about 800 metres) walking distance of residential area which residents may access comfortably on foot". However, MfS does not consider 800 metres to be maximum walking distance, and the publication contends that walking can be used to access a variety of destinations within a range of up to 2 kilometres. Further, 81% of all trips that cover a maximum distance of 1 mile are completed on foot (National Travel Survey, 2023. See Figure 3.

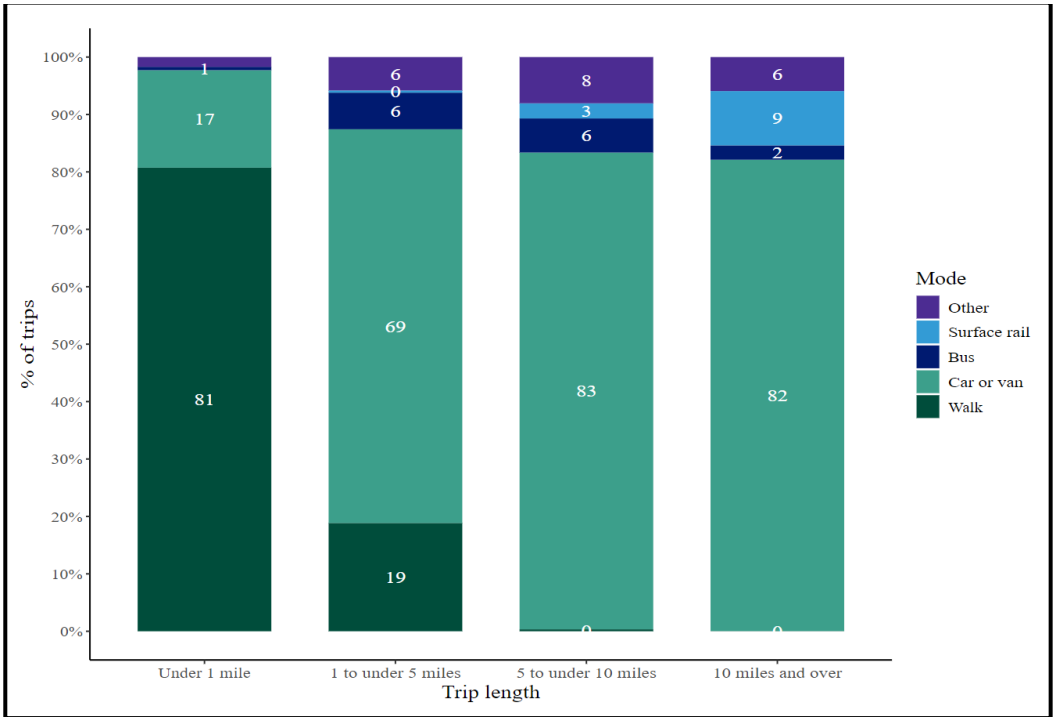


Figure 3: National Travel Survey, England (2023)

Walking

5.4 It is recognised that walking is the most important mode at the local level and offers the greatest potential to replace short car trips, particularly those under 2km. The quoted distance of one mile (1.6km) is not the *maximum* that people are prepared to walk, indeed it is clear from the National Travel Survey (NTS) data that approximately 19% of journeys between 1 to 5 miles (1.6km to 8km) are undertaken on foot.

5.5 A pedestrian isochrone is presented at **Appendix 4**. This plan illustrates the location of facilities and amenities that are within 2km walk distance from the site.

5.6 The pedestrian isochrone shows that there are a range of facilities including, but not limited to, pubs, nurseries, primary schools, library, doctor, pharmacy, shops, and post office, which are all within 2km walking distance from the site.

5.7 The site benefits from the abundance of Public Rights of Way (PRoW) in the vicinity of the site. Footpath U9 runs parallel along the southern side of the site

and provides a convenient route to Hill End. A plan showing the PRoW in the vicinity of the site is presented at **Appendix 5**.

Cycling

5.8 The cycle isochrone is presented at **Appendix 6** and illustrates the cycling (8km) distance relative to the site access. It can be seen that areas including Harefield, Gerrards Cross, Watford, Harrow, and Ruislip are all within cycling distance from the site.

5.9 The isochrone also clearly shows that there are many railway and underground stations within cycling distance.

Public Transport

Bus Services

5.10 The closest bus stop is located on Shelley Lane, approximately 700m south walking distance from the site via Barrington Drive and Park Lane. The bus stop is equipped with a bus layby, lighting provision, bus flag and timetable. The U9 service runs between Uxbridge Station and Harefield Hospital.

5.11 A summary of the U9 bus service is provided in Table 1 and a plan showing the bus route is presented at **Appendix 7**.

Table 1: Summary of Bus Service

Route No.	Route Summary	Monday-Friday			Saturday			Sunday		
		First	Last	Freq	First	Last	Freq	First	Last	Freq
U9	Uxbridge Station – Harefield Hospital	0539	2050	2/hr	0540	2050	2/hr	0740	2050	1/hr
	Harefield Hospital – Oxbridge Station	0605	2115	2/hr	0605	2115	2/hr	0805	2115	1/hr

Rail Services

5.12 The site benefits from two railway stations being within cycling distance: Denham railway station and Rickmansworth railway station.

5.13 Denham railway station is located within approximately 5km cycling distance south of the site. The station is equipped with 158 car parking spaces and 5

cycle stands. Services to and from the station are operated by Chiltern Railways.

5.14 A summary of the destination, duration, and frequency of direct services from Denham railway station is summarised in Table 2.

Table 2: Summary of Denham Railway Station Services

Destination	Duration	Frequency
London Marylebone	32 minutes	2/hour
High Wycombe	21 minutes	1/hour

5.15 Rickmansworth station provides train services to Aylesbury and London Marylebone which are operated by Chiltern Railways. This station is approximately 1.4km southeast walking distance from the site. This station is equipped with 12 cycle stands and CitiPark car park which can accommodate 140 cars.

5.16 A summary of the destination, duration, and frequency of trains from here is summarised in Table 3.

Table 3: Summary of Rickmansworth Railway Station Services

Destination	Duration	Frequency
Aylesbury	36 minutes	2/hour
London Marylebone	26 minutes	2/hour

Underground Services

5.17 Rickmansworth station provides the overground Metropolitan line to Amersham, Chesham, Watford, Aldgate, Baner Street and Wembley Park. The station is approximately 1.4km southeast walking distance from the site.

5.18 Service and status updates of the overground can be found on the (TfL) website (**https://tfl.gov.uk/tube-dlr-overground/status/**).

Summary

5.19 In summary, the application site is well located to take advantage of the existing local highway network and public transport network within Harefield and the surrounding areas.

5.20 Bus stops are located within walking distance from the site which provides access to Harefield Hospital and Oxbridge Station.

5.21 It is evident that the application site is located in an accessible area with genuine opportunities for residents and visitors of the site to travel to/from the application site using sustainable modes of transport.

6 Traffic Generation

6.1 To determine the impact of the proposal in traffic generation terms, the TRICS database (7.11.4) has been interrogated. The full TRICS output of the proposed development is presented at **Appendix 8**.

6.2 The proposed development has been categorised as 'houses privately owned' within the TRICS database. The trip rates have used the following parameters:

Land Use	Residential
Category	Houses Privately Owned
Regions	England (excluding Greater London)
Range	6 to 40 units
Date Range	01/01/16 to 18/09/24
Locations	Suburban Area, Edge of Town

Surveys undertaken during a weekday

6.3 The calculated trip rates and subsequent traffic generation for the proposed development of nine dwellings is summarised in Table 4.

Table 4: Proposed Trip Rates and Traffic Generation

Time	Trip Rate (per dwelling)			Traffic Generation (2 dwellings)		
	Arr	Dep	2-Way	Arr	Dep	2-Way
Morning Peak 0800-0900	0.257	0.400	0.657	0	1	**1**
Evening Peak 1700-1800	0.410	0.229	0.639	1	0	**1**
Daily 0700-2100	2.604	2.521	5.125	5	5	**10**

6.4 The proposed development is anticipated to generate approximately one vehicle movement during both the morning and evening peak periods. Over the course of the day (07:00–21:00), it is expected to generate a total of 10 two-way vehicle movements.

6.5 This level of traffic generation is negligible and is likely to fall well within the normal daily fluctuations experienced on the local highway network.

6.6 Additionally, the Highway Authority, in assessing the neighbouring scheme involving the erection of four dwellings, noted that the "*potential uplift is considered marginal in generation terms and therefore can be absorbed within the local road network without notable detriment to traffic congestion and road safety*." That scheme was projected to generate twice the peak hour vehicle movements of the current proposal.

6.7 In light of the analysis above, the traffic associated with the proposed development is not expected to have a significant impact on the local highway network and would not give rise to any material concerns regarding capacity or road safety at nearby junctions.

7 Summary & Conclusions

Summary

7.1 Bellamy Roberts has been instructed by MCA Architects on behalf of Lynda Nye-Rashkova to prepare a Transport Statement in support of the proposed residential development at Chandigrah.

7.2 Having undertaken an analysis of the local highway network, it has been demonstrated that the development would not result in an unacceptable impact on highway safety, and the residual cumulative impacts on the road would not be severe. The proposal would result in a negligible level of traffic generated and will be insignificant when dissipated on the local highway network.

7.3 Swept path analysis for a refuse vehicle and fire tender at the proposed site access and internal layout demonstrate that the site can accommodate the movements of these vehicles which are not required to reverse excessive distances and can enter and exit in a forward gear.

7.4 A review of accident data of the local highway using CrashMap demonstrates that there are no existing highway safety issues on the local highway network.

7.5 Car and cycle parking is provided in accordance with the Hillingdon Local Plan.

7.6 It has been demonstrated that the site is sustainably located whereby future residents and visitors to the site can access facilities using sustainable travel modes without placing a reliance on a private car.

Conclusions

7.7 It has been demonstrated that:

- The site is sustainably located in terms of accessibility with a wide range of facilities within walking/cycling distance from the site;
- There are genuine opportunities for residents and visitors to travel to and from the development site using sustainable modes of transport;

- The access has been designed to be safe and suitable to serve all users;
- The local highway network and strategic road network can accommodate the traffic generated by the site during the peak periods without resulting in a severe residual cumulative impact.

APPENDICES

APPENDIX 1

Site Location Plan

Notes

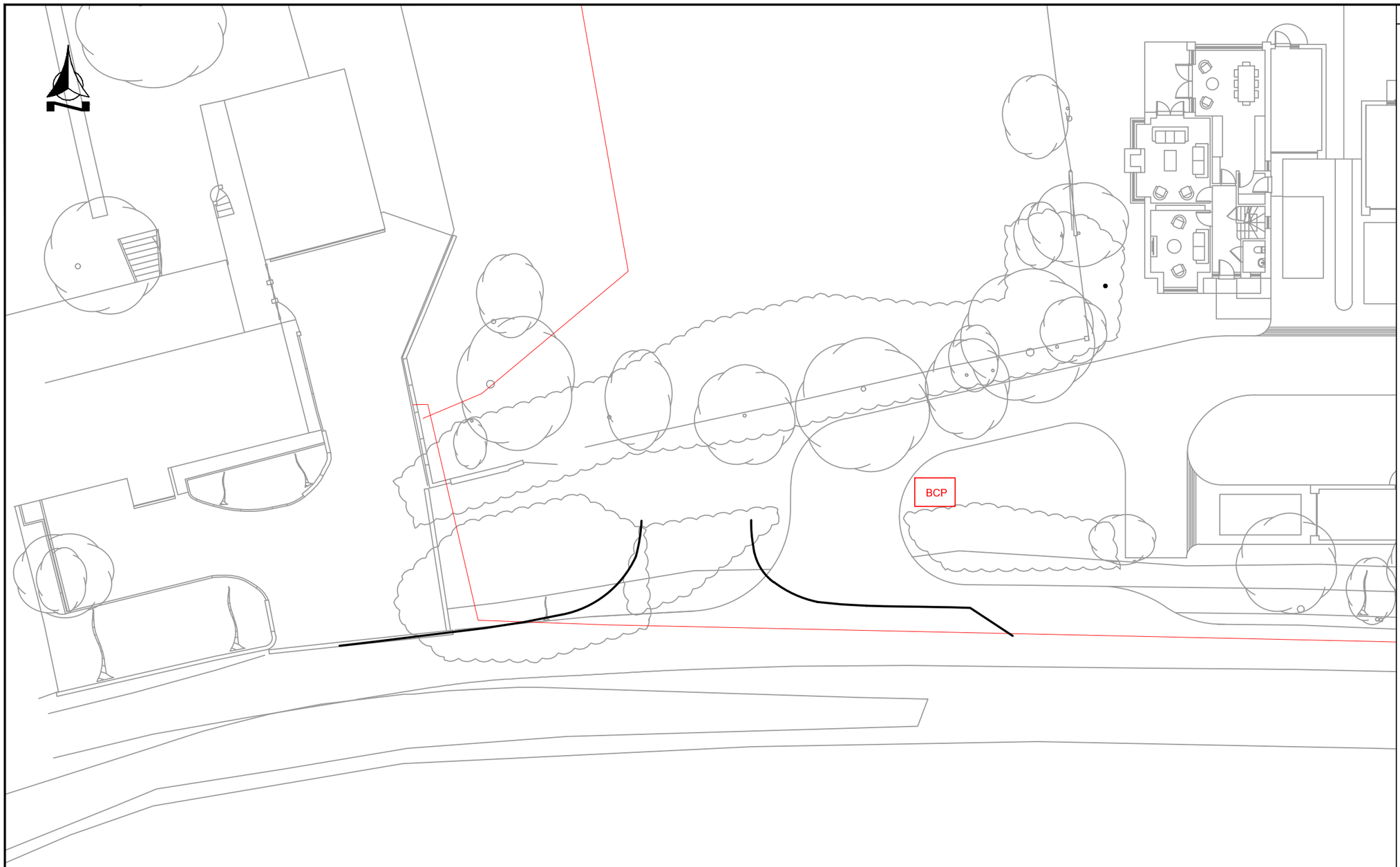
Site

Bellamy Roberts
Clover House
Western Lane
Odiham
Hampshire, RG29 1TU
Tel: 01256 703355
Email: info@bellamyroberts.co.uk

CLIENT	Lynda Nve-Rashkova
PROJECT	Chandigrah 2
TITLE	Site Location Plan
DRAWN BY	MB
DESIGN BY	-
CHK BY	RK
DATE	14/05/25
DRAWING No.	6274 / 301
REV No.	
SCALE	NTS @ A3

APPENDIX 2

Access Visibility



Notes

Bellamy Roberts
Clover House
Western Lane
Odiham
Hampshire, RG29 1TU
Tel: 01256 703355
Email: info@bellamyroberts.co.uk

CLIENT
Ms Nye, Mr Rashkov & Mrs Merdinyan

PROJECT
Chandigrah, Summerhouse Lane, Harefield

TITLE
Suggested Access

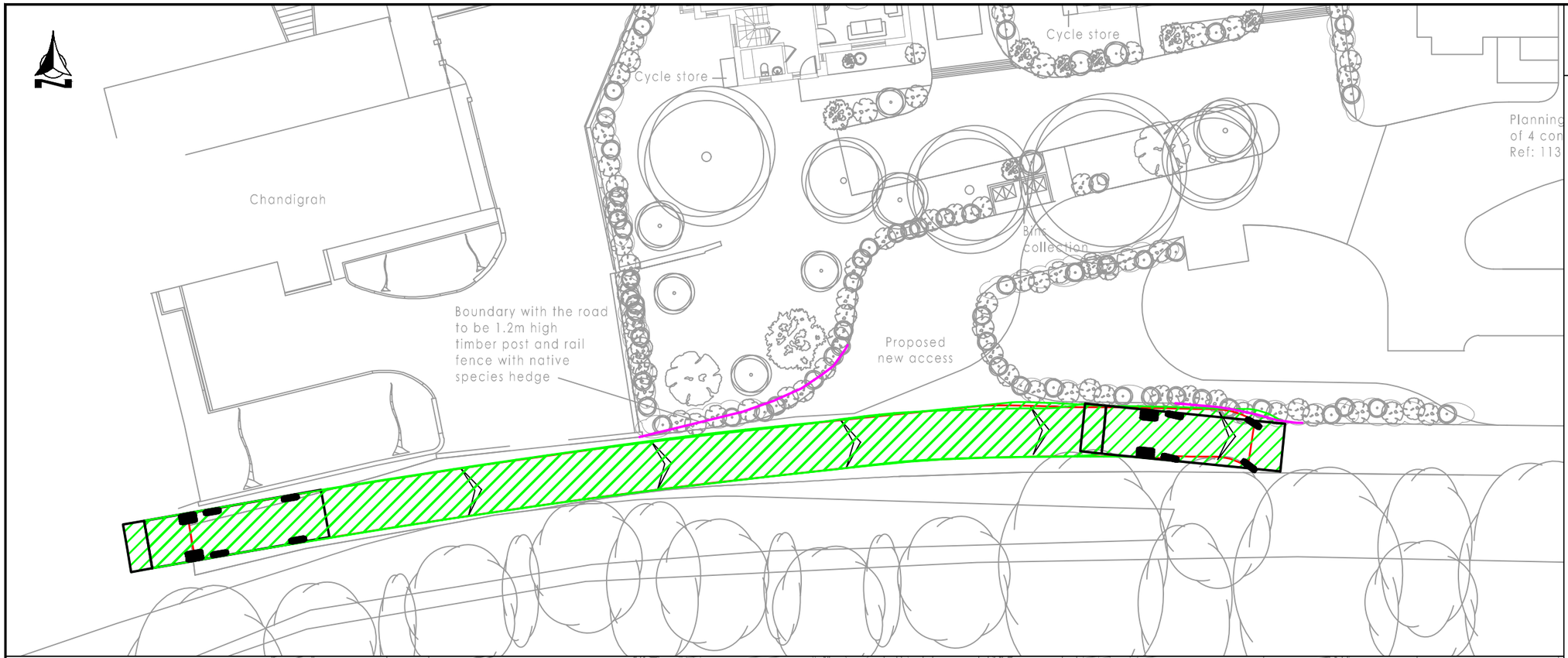
DRAWN BY	DESIGN BY	CHK BY
MB	-	IR

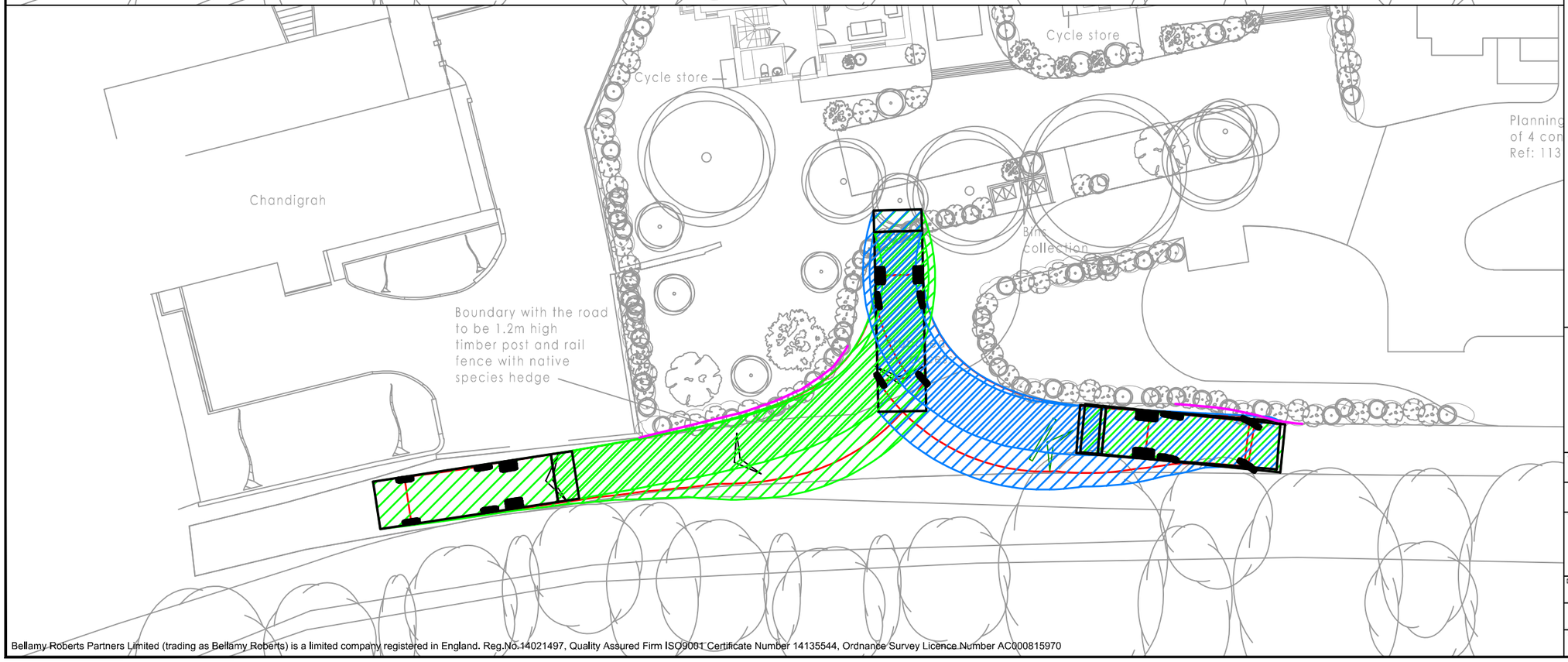
DATE	DRAWING No.	REV No.
28/04/25	6274 / 001	

SCALE
1:250 @ A3

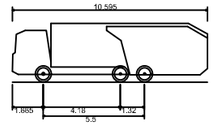
APPENDIX 3

Swept Path Analysis





Notes



Phoenix 2-23W (with Elite 2 6x2MS chassis)

Overall Length	10.595m
Overall Width	2.530m
Overall Body Height	3.205m
Min Body Ground Clearance	0.410m
Track Width	2.500m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	10.150m

Bellamy Roberts
Clover House
Western Lane
Odiham
Hampshire, RG29 1TU
Tel: 01256 703355
Email: info@bellamyroberts.co.uk

CLIENT: Lynda Nve-Rashkova

PROJECT: Chandigrah 2

TITLE: Refuse Access Tracking

DRAWN BY	DESIGN BY	CHK BY
MB	-	RK

DATE	DRAWING No.	REV No.
14/05/25	6274 / 201	

SCALE: 1:250 @ A3

APPENDIX 4

Pedestrian Isochrone

Notes

Site

Pedestrian Isochrones

- 400m
- 800m
- 2000m

Bellamy Roberts
Clover House
Western Lane
Odiham
Hampshire, RG29 1TU
Tel: 01256 703355
Email: info@bellamyroberts.co.uk

CLIENT	Lynda Nve-Rashkova
PROJECT	Chandigrah 2
TITLE	Pedestrian Isochrones

DRAWN BY	DESIGN BY	CHK BY
MB	-	RK

DATE	DRAWING No.	REV No.
14/05/25	6274 / 302	

SCALE NTS @ A3

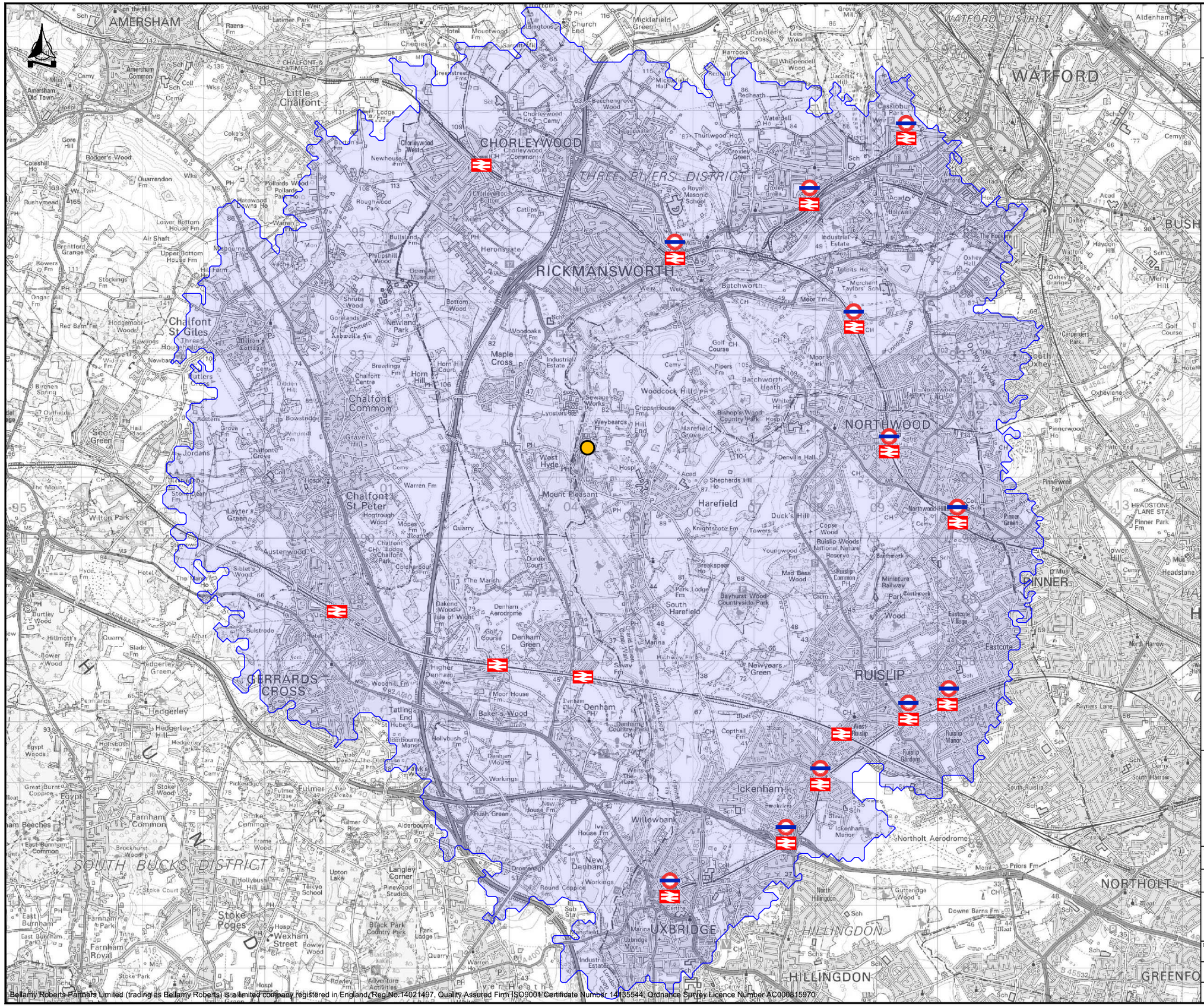
APPENDIX 5

PRoW


HILLINGDON
LONDON
Lynsters Lake
Aqueduct
Pit (dis)
Springwell Farm
Clearview Lodge
SPRINGWELL LANE
Track
Path
U1
U2
U5
U7
U8
U9
Drain
Wind Turbine
Weybeards Farm
88m
White Heath Cottage
White Heath Farm
Hill End
Allot Gdns
HILL END ROAD
Sluice
CANAL WAY
LINDEN SQ
70m
One Tree Hill
Riverside Cottage
ROYAL DOCK
BARRINGTON DRIVE
Fark Wood
Spreads
Iss
Pol Sta
COPPERMILL LANE
40m
41m
51m
FB
Patn
Track
SHELLEY LANE
BELTRY AVE

APPENDIX 6

Cycle Isochrone



Notes

Site

Cycle Isochrone

8km

Facilities

Train Station

Underground Station

Bellamy Roberts
Clover House
Western Lane
Odiham
Hampshire, RG29 1TU
Tel: 01256 703355
Email: info@bellamyroberts.co.uk

CLIENT	Lynda Nve-Rashkova
PROJECT	Chandigrah 2
TITLE	Cycle Isochrone

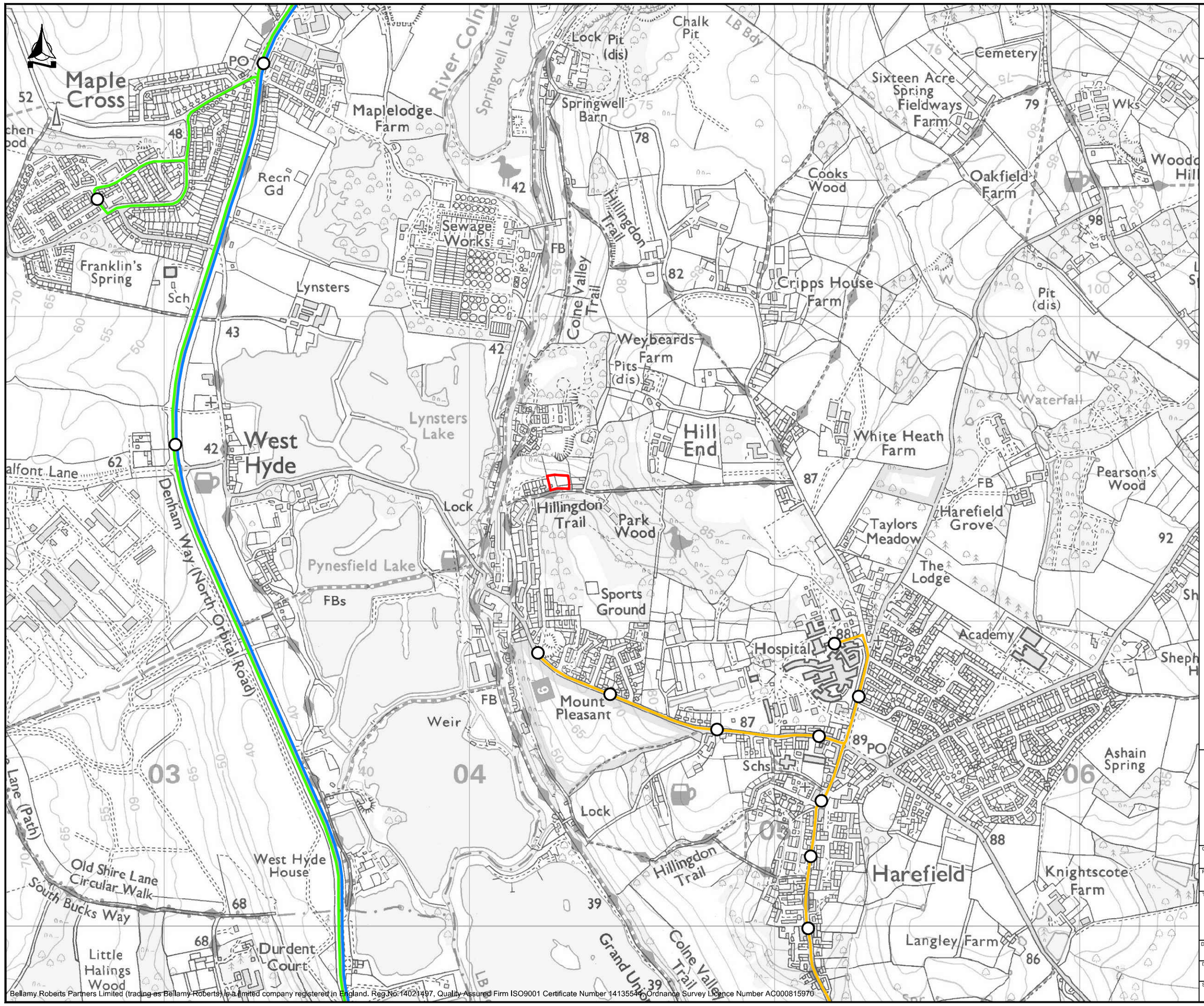
DRAWN BY	DESIGN BY	CHK BY
MB	-	RK

DATE	DRAWING No.	REV No.
14/05/25	6274 / 303	

SCALE: NTS @ A3

APPENDIX 7

Bus Routes



Notes

- Site
- Bus Stop

Bus Routes

- U9
- 724
- 951

Bellamy Roberts
Clover House
Western Lane
Odiham
Hampshire, RG29 1TU
Tel: 01256 703355
Email: info@bellamyroberts.co.uk

CLIENT	Lynda Nve-Rashkova
PROJECT	Chandigrah 2
TITLE	Bus Routes

DRAWN BY	DESIGN BY	CHK BY
MB	-	RK

DATE	DRAWING No.	REV No.
14/05/25	6274 / 304	

SCALE: NTS @ A3

APPENDIX 8

TRICS Output

BELLAMY ROBERTS WESTERN LANE ODIHAM Licence No: 200601

Calculation Reference: AUDIT-200601-250512-0510

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

01	GREATER LONDON		
	EN	ENFIELD	1 days
02	SOUTH EAST		
	HF	HERTFORDSHIRE	1 days
	MW	MEDWAY	1 days
03	SOUTH WEST		
	DC	DORSET	1 days
04	EAST ANGLIA		
	NF	NORFOLK	1 days
06	WEST MIDLANDS		
	ST	STAFFORDSHIRE	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: 8 to 26 (units:)
Range Selected by User: 6 to 30 (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: 01/01/16 to 18/09/24

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	2 days
Wednesday	4 days

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

Selected survey types:

Manual count	5 days
Directional ATC Count	1 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 undertaking using machines.

Selected Locations:

Edge of Town	6

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	6

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

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included	3 days - Selected
Servicing vehicles Excluded	6 days - Selected

Secondary Filtering selection:

Use Class:

C3	6 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:
All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:

1,001 to 5,000	2 days
5,001 to 10,000	1 days
10,001 to 15,000	1 days
20,001 to 25,000	2 days

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

Population within 5 miles:

5,001 to 25,000	1 days
25,001 to 50,000	1 days
75,001 to 100,000	1 days
125,001 to 250,000	2 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	2 days
1.1 to 1.5	4 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	3 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	5 days
1a (Low) Very poor	1 days

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

LIST OF SITES relevant to selection parameters

1 DC-03-A-10 MIXED HOUSES DORSET
ADDISON CLOSE
GILLINGHAM

Edge of Town
Residential Zone
Total No of Dwellings: 26
Survey date: WEDNESDAY *09/11/22* *Survey Type: MANUAL*

2 EN-03-A-02 DETACHED HOUSES ENFIELD
DUCHY ROAD
HADLEY WOOD

Edge of Town
Residential Zone
Total No of Dwellings: 9
Survey date: WEDNESDAY *14/09/22* *Survey Type: MANUAL*

3 HF-03-A-05 TERRACED HOUSES HERTFORDSHIRE
HOLMSIDE RISE
WATFORD
SOUTH OXHEY
Edge of Town
Residential Zone
Total No of Dwellings: 8
Survey date: MONDAY *05/06/23* *Survey Type: MANUAL*

4 MW-03-A-02 MIXED HOUSES MEDWAY
OTTERHAM QUAY LANE
RAINHAM

Edge of Town
Residential Zone
Total No of Dwellings: 19
Survey date: MONDAY *06/06/22* *Survey Type: MANUAL*

5 NF-03-A-10 MIXED HOUSES & FLATS NORFOLK
HUNSTANTON ROAD
HUNSTANTON

Edge of Town
Residential Zone
Total No of Dwellings: 17
Survey date: WEDNESDAY *12/09/18* *Survey Type: DIRECTIONAL ATC COUNT*

6 ST-03-A-08 DETACHED HOUSES STAFFORDSHIRE
SILKMORE CRESCENT
STAFFORD
MEADOWCROFT PARK
Edge of Town
Residential Zone
Total No of Dwellings: 26
Survey date: WEDNESDAY *22/11/17* *Survey Type: MANUAL*

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

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
BO-03-A-01	covid19

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
TOTAL VEHICLES
Calculation factor: 1 DWELLS
Estimated TRIP rate value per 2 DWELLS shown in shaded columns
BOLD print indicates peak (busiest) period

	ARRIVALS				DEPARTURES				TOTALS			
Time Range	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate
00:00 - 01:00												
01:00 - 02:00												
02:00 - 03:00												
03:00 - 04:00												
04:00 - 05:00												
05:00 - 06:00												
06:00 - 07:00												
07:00 - 08:00	6	18	0.095	0.190	6	18	0.210	0.419	6	18	0.305	0.609
08:00 - 09:00	6	18	0.257	0.514	6	18	0.400	0.800	6	18	0.657	1.314
09:00 - 10:00	6	18	0.095	0.190	6	18	0.210	0.419	6	18	0.305	0.609
10:00 - 11:00	6	18	0.086	0.171	6	18	0.114	0.229	6	18	0.200	0.400
11:00 - 12:00	6	18	0.200	0.400	6	18	0.181	0.362	6	18	0.381	0.762
12:00 - 13:00	6	18	0.152	0.305	6	18	0.210	0.419	6	18	0.362	0.724
13:00 - 14:00	6	18	0.210	0.419	6	18	0.171	0.343	6	18	0.381	0.762
14:00 - 15:00	6	18	0.152	0.305	6	18	0.200	0.400	6	18	0.352	0.705
15:00 - 16:00	6	18	0.248	0.495	6	18	0.171	0.343	6	18	0.419	0.838
16:00 - 17:00	6	18	0.210	0.419	6	18	0.124	0.248	6	18	0.334	0.667
17:00 - 18:00	6	18	0.410	0.819	6	18	0.229	0.457	6	18	0.639	1.276
18:00 - 19:00	6	18	0.267	0.533	6	18	0.190	0.381	6	18	0.457	0.914
19:00 - 20:00	1	9	0.111	0.222	1	9	0.111	0.222	1	9	0.222	0.444
20:00 - 21:00	1	9	0.111	0.222	1	9	0.000	0.000	1	9	0.111	0.222
21:00 - 22:00												
22:00 - 23:00												
23:00 - 24:00												
Total Rates:			2.604	5.204			2.521	5.042			5.125	10.246

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

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

Parameter summary

Trip rate parameter range selected:	8 - 26 (units:)
Survey date date range:	01/01/16 - 18/09/24
Number of weekdays (Monday-Friday):	6
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	2
Surveys manually removed from selection:	1

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

HIGHWAY, TRANSPORTATION AND
INFRASTRUCTURE CONSULTANTS

Experience and expertise working together