



Proposed Data Centre
Link Park
Heathrow

TRANSPORT STATEMENT

On behalf of
Link Park LLP

ITR/HC/5516/TS.1
December 2020

Experience and expertise working together

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1.0 INTRODUCTION

- 1.1 Bellamy Roberts LLP has been instructed by Link Park LLP to prepare a Transport Statement in support of the proposed (B8 - data centre) development at Link Park Heathrow, Thorney Mill Road, Buckinghamshire, UB7 7EZ.
- 1.2 The existing site is subject to lawful use for aggregate storage and distribution and asphalt recycling land uses. The scheme proposes a data centre of up to 55,000sqm (GEA) including ancillary offices, internal plant and equipment and substation.
- 1.3 The existing site is accessed from Thorney Mill Road via a wide bellmouth junction which is 'split' by kerbing to allow segregated 'side-by-side' access between different areas of the site and the adjacent Thorney Mill Sidings site. The proposed development will be accessed from Thorney Mill Road via a new bellmouth junction, approximately 25m east of the existing access arrangement. Access to the site from the existing access will be closed off however, access to the Thorney Mill Sidings site will remain.
- 1.4 The Transport Statement has been prepared to assess the impact of the proposed development in highway and transportation terms. In this regard it will consider the sustainability of the site in terms of accessibility by non-car modes of travel; the suitability of the proposed access arrangement, which will include relevant swept path analysis; the car and cycle parking with reference to the LPA standards; and the proposed levels of traffic generation.

The Structure of Report

Section 2: Provides an overview of national and local planning policies

Section 3: Describes the proposed development site location, provides an overview of the characteristics of the highway network and review of Collision data obtained from Crashmap.

Section 4: Describes the existing transport conditions within the vicinity of the site including opportunities to travel via walking, cycling and public transport.

- Section 5:** Describes the development proposals including staff, the proposed site access and parking provision (car and cycle).
- Section 6:** Considers the traffic generation (vehicles) of the scheme.
- Section 7:** Provides a summary of the Statement and concludes that:
- There are genuine opportunities for staff and visitors to travel to/from the application site using sustainable modes of transport.
 - The proposed site access and internal access road would be safe and suitable to serve all users.
 - The local highway network can accommodate the traffic generated by the site during peak periods without resulting in a severe residual cumulative impact on the network.

2.0 PLANNING POLICY

- 2.1 Bellamy Roberts LLP appreciates the development needs to generally accord with the appropriate National, Regional and Local Policies, and this Transport Assessment has sought guidance from the following documents.

National Planning Policy Framework (NPPF)

- 2.2 National Planning Policy Framework (NPPF) was revised and published in February 2019 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 108 sets out the three 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) *Appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;*

- b) Safe and suitable access to the site can be achieved for all users; and*
- c) 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.”*

2.4 Paragraph 109 identifies situations where development should be refused on transport grounds noting that:

“Development 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”.

2.5 Paragraph 110 then states that within the context of applications for development should:

- a) “Give priority first to pedestrians and cycle movements, both within the scheme and with neighbouring areas;*
- b) Second – so far as possible – to facilitating access the high quality public transport, with layouts that maximise the catchment area for bus, public transport services, and appropriate facilities that encourage public transport us;*
- c) Address the needs of people with disabilities and reduced mobility in relation to all modes of transport*
- d) Create places that are safe, secure and attractive – which minimises the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character in the design standards.*
- e) Allow the efficient delivery of goods, and access by service and emergency vehicles;*
- f) Be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations.”*

2.6 Paragraph 111 goes on to state 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 Transport Statement or Transport Assessment so that likely impacts of the proposal can be assessed.”*

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

National Planning Policy Guidance NPPG

- 2.8 The NPPG seeks to bring together planning guidance across all disciplines in an accessible way as well as to provide a clear link between guidance and the objectives of the NPPF. The NPPG discusses the role of transport plans and transport assessments/statements and how they relate to each other.

“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 movement and transport assessments and statements 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 (NPPF).”

Local Planning Policy

- 2.9 In April 2020 Buckinghamshire Council was formed and became the local planning authority for the area previously covered by four local planning authorities, including South Bucks District Council. Subsequently, the Chiltern and South Bucks Local Plan 2036 was withdrawn on 21 October 2020 and continues to leave the plan area without an up-to-date policy framework against which planning applications for new development can be considered.

- 2.10 The South Bucks Core Strategy and South Bucks District Local Plan were put in place in 2011 and 1999 respectively. The existing plans are therefore significantly out-of-date. This Report details policies from the aforementioned documents relevant to the application proposals however, a pragmatic approach should be taken when considering the appropriateness of these policies given their date of publishing.

South Bucks Core Strategy 2011

- 2.11 The Core Strategy sets a long-term vision, objectives and broad strategy for accommodating future development in the District in the period to 2026. Core Policy 7: Accessibility and Transport states:

“The Council will seek to improve accessibility to services and ensure a safe and sustainable transport network by supporting the rebalancing of the transport system in favour of more sustainable modes of transport, whilst recognising that in rural parts of the District, the car will remain the primary mode of travel.

This rebalancing will be achieved by:

- Focusing new development that generates substantial transport movements in locations that are accessible by public transport, walking and cycling.*
- Working with the highway authority, Rights of Way and Access Group, and others to improve transport choices for local residents, especially in rural parts of the District.*
- Encouraging safe and attractive improvements to pedestrian and cyclist routes and facilities.*
- Supporting the greater use of rail services, including improvements to parking at train stations and connecting bus services where viable.*
- Ensuring that the impact of new development on the road network is minimised and mitigated through the use of ‘mobility management’ measures such as Travel Plans, parking charges and car parking levels.*
- Supporting public transport schemes, including Crossrail, as long as there are strong environmental safeguards in place.*

Existing traffic congestion to the east of Beaconsfield will be addressed through a range of measures, which could include provision of an A355 / A40 Relief Road later in the Plan period. The adverse impacts associated with HGV movements in and around Iver Village and Richings Park will be addressed through land use changes. Should these prove unsuccessful, or other opportunities arise, further consideration will be given to the scope for provision of a relief road or other alternative means of access to the employment sites in the South of Iver Opportunity Area. Impacts on Junction 1 of the M40 will be kept under review, with mitigation measures, including infrastructure improvements, potentially being needed later in the Plan period.

Further details of the measures that will be taken to implement this policy, including when travel plans will be required and the application of new parking standards, will be addressed in the Development Management DPD."

South Bucks District Local Plan 1999

2.12

The South Bucks District Local Plan was adopted on 22 March 1999 as a statutory plan for the District. The document contains a range of policies which are applied by Council officers when assessing planning applications. Policy TR5 – Access, Highway Works and Traffic Generation states:

"In considering proposals involving a new or altered access onto the highway, works on the highway, the creation of a new highway or the generation of additional traffic the District Council will have regard to their effect on safety, congestion and the environment. Development will only be permitted where:

- a) the proposal complies with the standards of the relevant Highway Authority; and*
- b) the operational capacity of the highway would not be exceeded, or where the proposal would not exacerbate the situation on a highway where the operational capacity had already been exceeded; and*
- c) traffic movements, or the provision of transport infrastructure, would not have an adverse effect on the amenities of nearby properties on the use, quality or character of the locality in general, including rural lanes.*

Where off-site improvements to the highway are required to serve a development, the District Council will not grant permission unless the applicant enters into a planning obligation to secure the implementation of those works.

Proposals involving either the construction of a new site access, or a material increase in the use of an existing site access, directly onto the strategic highway network will not be acceptable if they would be likely to result in the encouragement of the use of the network for short local trips or compromise the safe movement and free flow of traffic on the network or the safe use of the road by others."

Policy Summary

- 2.13 The proposed development would be assessed against the relevant local and national transport policies, including the three key tests within NPPF and to demonstrate the following:
- Appropriate opportunities to promote sustainable transport modes have been taken up;
 - Safe and suitable access to the site can be achieved for all users; and
 - Any significant impacts from the development on the transport network and in terms of capacity and congestion or on highway safety can be cost effectively mitigated to an acceptable degree.

3.0 SITE LOCATION AND LOCAL HIGHWAY NETWORK

- 3.1 This section of the Transport Statement considers the location of the site and the operation of the local highway network. It also includes a review of collision data, obtained from Crashmap.

Site Location

- 3.2 The site is located in both the Iver Village & Richings Park Ward, within the County of Buckinghamshire, and West Drayton Ward, within the London Borough of Hillingdon, approximately 1km west of West Drayton. For clarity, a site location plan is attached at **Appendix 1**, and an extract is provided at Figure 1, below, for reference.



Figure 1: Site Location Plan

- 3.3 The western boundary of the site adjoins railway sidings. The sidings are connected to a railway that runs north to West Drayton and thence the national rail network.
- 3.4 To the north and east of the site is undeveloped land comprising woodland and the River Colne.
- 3.5 To the south east of the site is a yard and buildings occupied by a plant hire company. To the south of the site is Thorney Mill Road and on the other side of the road is Riverside Park, a residential estate.

Local Highway Network

- 3.1 The application site has a 50m frontage onto Thorney Mill Road. The section of Thorney Mill Road in the vicinity of the site access is subject to a 40mph speed limit and is approximately 7m wide, which is sufficient for two-way, free flowing traffic, as detailed at Figure 7.1 of MfS.
- 3.2 To the west, Thorney Mill Road meets the Richings Way and Thorney Lane South at a 3-arm mini-roundabout. Further west, Richings Way becomes North Park and then Parlaunt Road in Langley and is connected to the Junction 5 of the M4 via High Street (B470) and London Road (A4).

- 3.3 To the east, Thorney Mill Road is subject to a time-limited weight restriction (5t between 06:30-00:00) commencing 55m from the site access. Thorney Mill Road speed limit changes to 30mph and features a one-way traffic controlled shuttle operation with 7ft width restriction, approximately 170m and 275m east of the site access respectively. Thorney Mill Road weight restriction, speed limit and width restriction signage are shown in Photographs 1 and 2.

Photographs 1 and 2: Thorney Mill Road Weight Restriction, Speed Limit and Width Restriction Signage



- 3.4 Thorney Mill Road becomes Mill Road then The Green and Swan Road and connects the site to Station Road and West Drayton facilities. Access to/from Junction 4 of the M4 can also be achieved from the east, through West Drayton.
- 3.5 In the vicinity of the site access, a footway varying in width, c.1m at its narrowest, is present along the northern side of Thorney Mill Road. The footway continues on the northern side of the carriageway towards the east, providing access to the centre of West Drayton. Street lighting is provided for the full length of this route. The proposal will link to the existing footway on Thorney Mill Road, thereby providing a safe walking route from the site to the local facilities in West Drayton.

Personal Injury Accident Data

- 3.6 To determine whether there is an existing accident or safety problem with the local highway network, which may be exacerbated by the proposed development, personal injury accident data has been obtained from Crashmap for the most recent 3 year period available. The search area has included all roads within approximately 500m of the application site which has revealed that 4 collisions

have been recorded during this period. A plan showing the search area is provided at Figure 2.



Figure 2: Summary of Accident Data

3.7 Figure 2 reveals that all except 1 collision were recorded as 'slight' and they were spread across the surveyed area. No accidents have been recorded on Thorney Mill Road at the site access or in the immediate vicinity of the application site. The full collision data and summary of the 4 incidents is provided at **Appendix 2**.

3.8 There is no distinct pattern to the PIA survey data as accidents occurred at all times of day and year in varying conditions.

3.9 The recorded accidents are spread across the local highway network and are not confined to a particular location or manoeuvre. As such, there are no safety issues on the local highway network that the proposed development would exacerbate.

Summary

3.10 In summary, the application site is well located to take advantage of the existing local highway network and pedestrian network within West Drayton.

3.11 A review of the available personal injury accident data has been undertaken and does not identify any specific road safety problems with the local highway network.

4.0 SUSTAINABLE TRANSPORT CONNECTIONS

- 4.1 This section of the Transport Statement will consider the existing accessibility of the site and the modes of transport existing in the area.

Walking

- 4.2 In the vicinity of the site, a pedestrian footway varying in width, c.1m wide at its narrowest, is present along the northern side of Thorney Mill Road, connecting the site to bus stops and local facilities. Footways are of adequate width and street lighting is provided along the local highway network in the vicinity of the site access.
- 4.3 A pedestrian isochrone plan (attached at **Appendix 3**) shows the location of the site in relation to the nearest bus stops, railway station and local facilities.
- 4.4 Design Manual for Road and Bridges (DMRB) TA91/05 'Provision for Non-Motorised Users', states in paragraph 2.3 that *'walking is used to access a wide variety of destinations including educational facilities, shops, and places of work, normally within range of up to two miles. Walking and rambling can also be undertaken as a leisure activity, often over longer distances'*.
- 4.5 Paragraph 2.11 (TA91/05) states that *'cycling is used for accessing a variety of different destinations, including educational facilities, shops and places of work, up to a range of around 5 miles'*.
- 4.6 As such, providing the data centre development within a 2km radius of facilities available within West Drayton, including bus stops and West Drayton Railway Station, would provide a realistic opportunity for trips to be made using alternative modes of transport, including on foot as part of wider journey.

Cycling

- 4.7 Cycling also has the potential to substitute short car trips particularly, those under 5km. Furthermore, the research discussed in the preceding paragraphs suggested that a catchment of 5miles (8km) should be used for those cycling to employment uses.

4.8 A cycle isochrone plan (attached at **Appendix 4**) shows the location of the site in relation to public transport connections and facilities within cycling distance of the site.

4.9 Whilst there are no designated cycle facilities in the immediate vicinity of the site, it is considered the local highway network is of a suitable and safe standard to encourage cycle use.

Public Transport – Bus Services

4.10 The nearest bus stops to the site are located on Wise Lane and Mill Road, approximately 550m walk east of the site access for northbound and southbound services respectively Wise Lane and Mill Road bus stops shown in Photographs 3 and 4 respectively.

Photographs 3 and 4: Wise Lane and Mill Road Bus Stops



4.11 Table 1 below summarises the bus services available at this location along with their destination and frequency.

Table 1: Summary of Bus Services

Service	Route	Mon - Fri			Saturday			Sunday		
		First	Last	Max Freq.	First	Last	Max Freq.	First	Last	Max Freq.
U3	Heathrow Airport - West Drayton - Uxbridge	0524	0035	10-12min	0524	0035	10min	0524	0035	20min
U3	Uxbridge - West Drayton - Heathrow Airport	0442	0015	10-12min	0442	0015	12min	0442	0015	20min

4.12 Table 1 details that nearby bus stops are frequently serviced by route U3 to Heathrow Airport and Uxbridge. Journey times are approximately 15 and 30 minutes respectively. Route U3 also connects the site to West Drayton Railway Station.

4.13 A local bus route plan (attached at **Appendix 5**) shows the location of the site in relation to bus stops and path of bus routes.

Public Transport – Rail Services

4.14 West Drayton Railway Station is located approximately 1.8km northeast of the site. Bus service U3 provides frequent direct services to/from bus stops within the vicinity of the site and West Drayton Railway Station. Bus journeys between bus stops nearby the site and West Drayton Railway Station are approximately 5 minutes.

4.15 The railway station is on the Great Western main line. A ticket office, as well as self-service ticket machines, and secure cycle storage can be found at this station.

4.16 Services at West Drayton Railway Station are provided by Great Western Railway and TfL Rail, where 6 services are provided an hour to London Paddington and Reading during peak hours and off-peak hours. Table 2 gives a summary of the rail services available at West Drayton Railway Station.

Table 2: West Drayton Railway Station Services

Destination	Frequency			Average Duration
	Peak	Off-Peak	Sunday	
London Paddington	6 services an hour	3 services an hour	2 services an hour	20 minutes
Reading	6 services an hour	3 services an hour	2 services an hour	30 minutes
Didcot Parkway	1 service an hour	1 service an hour	No direct services	1 hour

Summary

4.17 In summary, the application site is located within walking and cycling distance of West Drayton facilities and easy access can be gained to the application site via sustainable travel modes.

- 4.18 Bus stops and West Drayton Railway Station are located in the vicinity of the proposed development site, providing access to frequent bus and rail services.
- 4.19 It is evident that the application site is located in an accessible area and there are genuine opportunities for staff and visitors to travel to/from the application site using sustainable modes of transport.

5.0 DEVELOPMENT PROPOSALS

- 5.1 This section of the Transport Statement details the development proposals including staff, site access and car and cycle parking provision.
- 5.2 The scheme proposes a data centre of up to 55,000sqm (GEA) including ancillary offices, internal plant and equipment and substation.
- 5.3 Although classified as B8 land use, the proposed data centre development will not function as a typical storage and distribution facility. The equipment used for data centre operation will be stored within data halls and will not move once set-up, subsequently this land use will not generate vehicle trips to/from the site typically found at a B8 storage and distribution land use.
- 5.4 The primary function of the proposals is to house computer equipment and whilst the proposals most relevant use class is B8, it will not function as a typical storage and distribution land use. The proposals however feature ancillary office space for staff to run the facility. This area will generate regular daily trips and parking demand.
- 5.5 To accurately assess the development proposals in highways and transportation terms, the proposed ancillary B1 office floor area has been utilised in calculating the parking demand and trip generation.
- Staff**
- 5.6 The proposed development is anticipated to employ a total of approximately 46 staff.

Access

- 5.7 The existing site is accessed from Thorney Mill Road via a wide bellmouth junction which is 'split' by kerbing to allow segregated 'side-by-side' access between different areas of the site and the adjacent Thorney Mill Sidings site.
- 5.8 The proposed development will be accessed from Thorney Mill Road via a new bellmouth junction. Access to the site from the existing access will be closed off however, access to the Thorney Mill Sidings site will remain. Access to the proposed development and the Thorney Mill Sidings site will therefore be achieved via two separate accesses, providing a betterment to access safety and operation and minimising the chance of driver error/confusion.
- 5.9 In the vicinity of the proposed site access location, Thorney Mill Road is subject to a speed limit of 40mph, and so the visibility requirements as set out in Design Manual for Roads and Bridges (DMRB) are appropriate in this instance. Commensurate visibility splays of 2.4m x 120m are therefore the desirable minimum, and these are shown on drawing 5516/001 Rev A. (see **Appendix 6**).
- 5.10 It is evident from the plan at Appendix 6 that the proposed visibility splays can be achieved within the adopted highway, i.e. they do not require third party land. A copy of the adopted highway boundary in this location is provided at **Appendix 7**.
- 5.11 Swept path analysis utilising a large refuse vehicle (11.2m) and fire tender has been undertaken to demonstrate the suitability of the proposed access arrangement, see **Appendix 8**.

Car and Cycle Parking

- 5.12 Whilst the B8 element of the proposals will not generate parking demand, as stated previously, it is the ancillary office use accommodating the staff to run the facility that will generate car and cycle parking demands. For this reason, the B1 Business – offices standard has been adopted. The total area of ancillary office is 1386sqm.
- 5.13 Car and cycle parking standards are detailed in the Buckinghamshire Countywide Parking Guidance (2015). Table 3 outlines the 'optimum' level of car parking provision to meet demand for the proposed ancillary office area.

Table 3: Car Parking Standards

Land Use	Zone 2	1386sqm
B1 Business – offices	1 space per 21sqm	66 spaces

5.14 Additional guidance states:

B1 Business – These optimum standards are designed to provide an appropriate level of parking across the county. However recent developments suggest higher levels may be required in certain areas. This may be due to specific to local circumstances and/or the geography of the district. Where this is the case, the flexibility allowed by the standards should be applied.

5.15 Considering the flexibility in the guidance stated, the proposal will provide 91 car parking spaces to accommodate all parking demand generated by the site.

5.16 Table 4 outlines the recommended minimum level of cycle parking provision for new developments.

Table 4: Cycle Parking Standards

Land Use	Cycle Standard	1386sqm
B1 Business - Offices	1 space per 250sqm	6 spaces

5.17 The proposal will provide a minimum of 6 safe and secure cycle parking spaces in accordance with the B1 Business – offices standard in the Buckinghamshire Countywide Parking Guidance (2015).

Summary

5.18 The proposal will be accessed via a new bellmouth junction from Thorney Mill Road.

5.19 It has been demonstrated that commensurate visibility splays can be provided at the proposed site access, in accordance with DMRB guidance and are within the adopted highway boundary.

5.20 Swept path analysis has been undertaken of the site access and demonstrates service vehicles can safely access and exit the site.

5.21 An appropriate level of car and cycle parking will be provided, taking on board the above paragraphs and interpretation of the B1 Business – offices standard in the Buckinghamshire Countywide Parking Guidance (2015), to accommodate the developments likely parking demand.

6.0 TRAFFIC GENERATION

6.1 This section of the Transport Statement establishes the impact of the proposed development in traffic generation terms.

Existing Traffic Generation

6.2 In order to determine the existing traffic generation associated with the lawful use for aggregate storage and distribution and asphalt recycling land uses at the proposed development site, traffic level figures have been utilised from weekday traffic survey information collected at the site entrance / Thorney Mill Road Junction in July 2012. This provides a 'snapshot' of weekday operation under lawful use in 2012.

6.3 The recorded traffic levels at the site entrance / Thorney Mill Road Junction are detailed in the Transport Assessment, reference: 2229-01-TA02 (Rev B), submitted under planning application reference: 17/02353/FUL. The subsequent recorded traffic levels at the site entrance / Thorney Mill Road Junction is summarised in Table 5.

Table 5: Summary of Existing Traffic Generation

Time Period	2012 Traffic Count Data		
	Cars/ LGVS	OGV1/ OGV2	Total
Morning Peak 0800-0900	22	29	51
Evening Peak 1700-1800	3	6	9
Daily Total	159	202	361

6.4 Table 5 reveals that the existing site generated in the region of 51 two-way movements during the morning peak hour and 9 two-way movements during the evening peak hour. Table 5 also details a daily trip generation of 361 two-way movements.

6.5 The survey data, summarised in Table 5, details that 56% of vehicles travelling to/from the site are classified as OGV1/ OGV2 during lawful use for aggregate storage and distribution and asphalt recycling land uses. Furthermore, all OGV1/ OGV2 vehicles will travel to/from the site to the west due to the time-limited weight restriction and width restriction in place on Thorney Mill Road, east of the site. It should be noted that the proposed development will generate negligible to no OGV1/ OGV2 traffic during operation.

Proposed Development Traffic Generation

6.6 As detailed in Section 5, the ancillary office element of the proposed development has been utilised to accurately assess the development proposals in highways and transportation terms.

6.7 To determine the impact of the proposed development in traffic generation terms, the TRICS (7.7.3) database has been reviewed. The site has been classified within TRICS as 'Office', within 'Edge of Town' locations. All sites within England and Wales have been considered.

6.8 To provide robust assessment, trip rates have been calculated for both 'Floor Area' and 'Number of Employees' primary filtering parameters within the TRICS database.

Floor Area

- 6.9 The calculated trip rate and subsequent traffic generation from the proposed development, utilising 1386sqm floor area, is summarised in Table 6, and the full TRICS output is provided at **Appendix 9**.

Table 6: Summary of Office Floor Area Trip Rate and Proposed Traffic Generation

Time Period	Trip Rate (per 100sqm)			Traffic Generation (1386sqm)		
	Arrivals	Departures	Two-way	Arrivals	Departures	Two-way
Morning Peak 0800-0900	1.671	0.157	1.828	24	2	26
Evening Peak 1700-1800	0.170	1.886	2.056	2	26	28
Daily Total	5.624	5.655	11.279	78	78	156

- 6.10 Table 6 details that the proposal will generate in the region of 26 two-way movements during the morning peak hour and 28 two-way movements during the evening peak hour. If spread evenly across the peak hour periods, this represents a vehicle approximately every 2 minutes. Table 6 also details a daily trip generation of 156 two-way movements.

Number of Employees

- 6.11 The calculated trip rate and subsequent traffic generation from the proposed development, assuming 46 employees, is summarised in Table 7, and the full TRICS output is provided at **Appendix 10**.

Table 7: Summary of Office Employees Trip Rate and Proposed Traffic Generation

Time Period	Trip Rate (per Employee)			Traffic Generation (46 Employees)		
	Arrivals	Departures	Two-way	Arrivals	Departures	Two-way
Morning Peak 0800-0900	0.281	0.026	0.307	13	1	14
Evening Peak 1700-1800	0.029	0.318	0.347	1	15	16
Daily Total	0.948	0.955	1.903	44	44	88

- 6.12 Table 7 details that the proposal, when assuming 46 employees onsite, will generate in the region of 14 two-way movements during the morning peak hour and 16 two-way movements during the evening peak hour. If spread evenly across

the peak hour periods, this represents a vehicle approximately every 4 minutes. Table 7 also details a daily trip generation of 88 two-way movements.

- 6.13 Table 6 and 7 detail that utilising floor area as a primary filtering parameter results in a greater predicted traffic generation than assuming 46 employees on site. To provide robust assessment, traffic generation from 1386sqm of office area will be utilised.

Net Traffic Generation

- 6.14 The subsequent net traffic generation of the proposed development, utilising traffic count data and TRICS assessment, is summarised in Table 8.

Table 8: Summary of Site Net Traffic Generation

Time Period	Net Traffic Generation		
	Arrivals	Departures	Two-way
Morning Peak 0800-0900	+2	-27	-25
Evening Peak 1700-1800	-1	+20	+19
Daily Total	-81	-124	-205

- 6.15 Table 8 details that the proposal will result in a decrease of 25 two-way movements during the morning peak hour and an increase of 19 two-way movements during the evening peak hour. The proposed traffic increase in evening peak hour is minimal, and will be well within daily fluctuations on Thorney Mill Road.
- 6.16 Table 8 also details a decrease in daily trips of 205 two-way movements. The proposed development will therefore result in an overall net reduction in traffic generated by the site across the day, resulting in a betterment to local highway network operation.

Traffic Distribution

- 6.17 The proposed development's net traffic generation has been distributed utilising a 65:35 ratio to/from east and west of the site access, as demonstrated in Table 9. This is considered the likely distribution of trips to/from the proposed development

given the location of local settlements and junctions on to the primary route network.

Table 9: Summary of Distributed Traffic Generation (65:35 – East: West)

Time Period	Trip Generation (1386sqm)	
	East	West
Morning Peak 0800-0900	-16	-9
Evening Peak 1700-1800	+12	+7
Daily Total	-133	-72

6.18 Table 9 demonstrates that the proposed development would result in a decrease of 16 and 9 two-way movements to/from the east and west respectively in the morning peak hour period and an increase of 12 and 7 two-way movements to/from the east and west respectively in the evening peak hour period. Table 9 also demonstrates a decrease of 133 and 72 two-way movements to/from the east and west respectively across the day.

6.19 An increase of 12 and 7 two-way movements to/from the east and west respectively in the evening peak hour period is a minimal level of traffic generation, and will be well within daily fluctuations on Thorney Mill Road. When this traffic is dissipated onto the local highway network, it will be imperceptible to existing users and cannot be deemed as being severe, under the terms set out in the NPPF.

Summary

6.20 The proposal will result in a decreased level of net daily traffic generated by the site, and minimal increases in evening peak hour traffic will be imperceptible to local users when dissipated on the local highway network.

6.21 The proposal will also generate negligible to no OGV1/ OGV2 traffic during operation.

7.0 SUMMARY AND CONCLUSIONS

- 7.1 Bellamy Roberts LLP has been instructed by Link Park LLP to prepare a Transport Statement in support of the proposed (B8 - data centre) development at Link Park Heathrow, Thorney Mill Road, Buckinghamshire, UB7 7EZ.
- 7.2 The existing site is subject to lawful use for aggregate storage and distribution and asphalt recycling land uses. The scheme proposes a data centre of up to 55,000sqm (GEA) including ancillary offices, internal plant and equipment and substation.
- 7.3 Personal Injury Accident data has been obtained from Crashmap which has shown there to be no accident or safety problem with the existing highway network.
- 7.4 The site is located in an accessible area, and there are genuine opportunities for site users to travel to/from the application site using sustainable modes of transport. The proposal will link to the existing footway on Thorney Mill Road, allowing safe and convenient access to the facilities and public transport services in West Drayton.
- 7.5 The proposed development will be accessed from Thorney Mill Road via a new bellmouth junction. Access to the site from the existing access will be closed off however, access to the Thorney Mill Sidings site will remain. Access to the proposed development and the Thorney Mill Sidings site will therefore be achieved via two separate accesses, providing a betterment to access safety and operation.
- 7.6 It has been demonstrated that the proposed access arrangement is safe and suitable to serve the proposed development and visibility is achievable within highway boundary, in accordance with Design Manual for Roads and Bridges guidance.
- 7.7 Swept path analysis demonstrates that the site is suitable to accommodate the size and type of vehicles servicing the site.

7.8 An appropriate level of car and cycle parking will be provided, with reference to the Buckinghamshire Countywide Parking Guidance (2015), to accommodate the developments likely parking demand.

7.9 The proposal will result in a decreased level of net daily traffic generated from recorded traffic levels during lawful use for aggregate storage and distribution and asphalt recycling land use. The proposed developments traffic generation will be imperceptible to local users when dissipated on the local highway network.

Conclusion

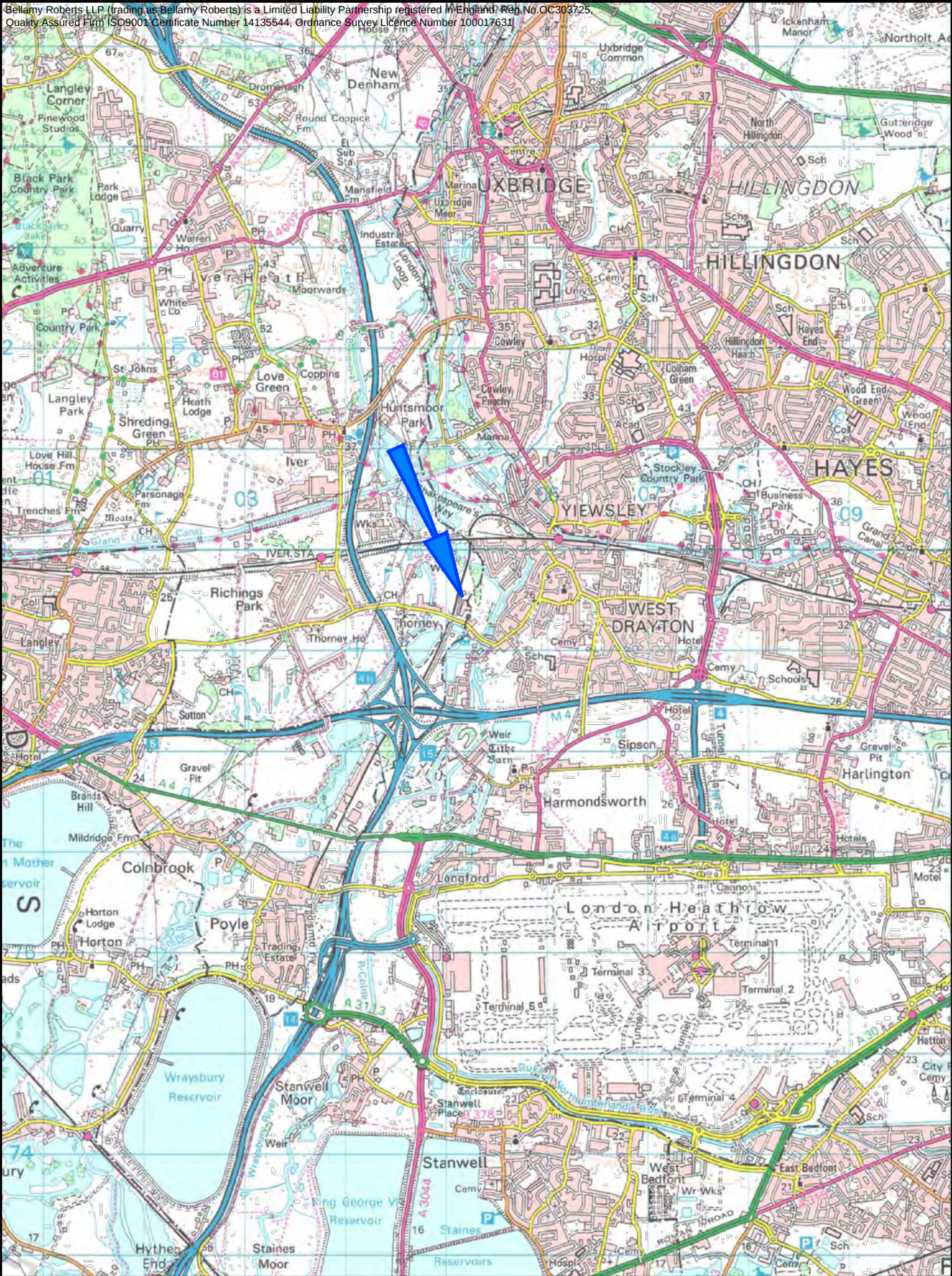
7.10 It has been demonstrated that:

- There are genuine opportunities for staff and visitors to travel to/from the application site using sustainable modes of transport.
- The proposed site access would be safe and suitable to serve all users.
- The local highway network can accommodate the traffic generated by the site without resulting in a severe residual cumulative impact on the network.

7.11 The scheme fully complies with relevant NPPF, Core Strategy and Local Plan policies and is therefore acceptable in transport and highway terms.

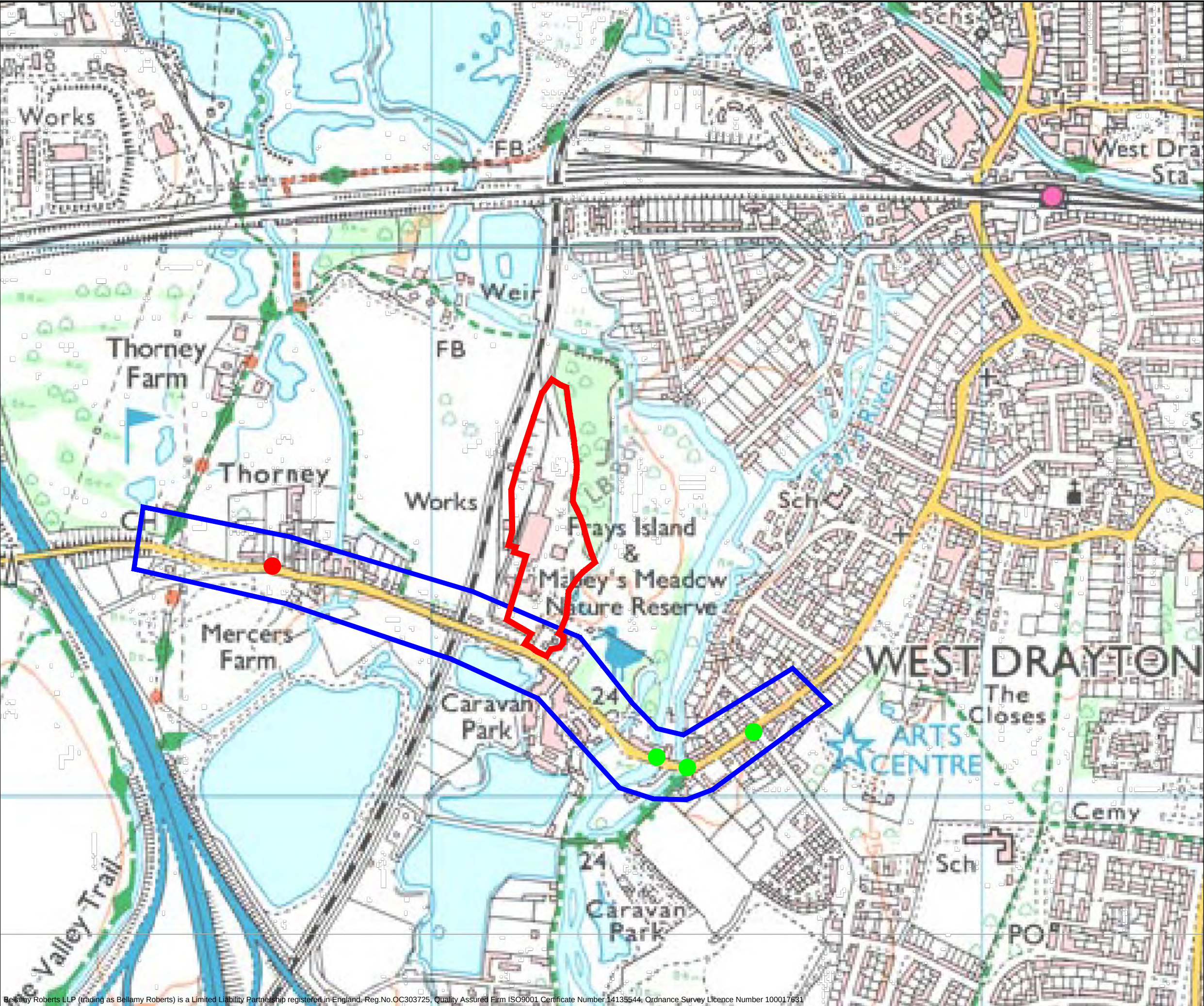
APPENDICES

APPENDIX 1



PROJECT Link Park		 Bellamy Roberts Clover House Western Lane Odiham Hampshire, RG29 1TU Tel: 01256 703355 Email: info@bellamyroberts.co.uk	DATE 12/11/20	DRAWN BY ARM
TITLE Site Location Plan			SCALE 1:50,000 @ A4	CHK BY ITR
			CLIENT -	
			DRAWING No. 5516 / 301	

APPENDIX 2



Notes

- Slight
- Serious



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

CLIENT

-

PROJECT

Link Park

TITLE

Area of Accident Data

DRAWN BY	ARM	DESIGN BY	-	CHK BY	ITR
DATE	13/11/20	DRAWING No.	5516 / 306		
SCALE	NTS @ A3	REV No.			

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Location: Link Park, Heathrow
Accidents between 2018 and 2020

Summary of Accidents

Year	No	%
2018	2	50
2019	2	50
2020		
Total	4	100

Month	No	%
Jan		
Feb		
Mar	1	25
Apr	1	25
May		
Jun		
Jul		
Aug	1	25
Sept		
Oct	1	25
Nov		
Dec		
Total	4	100

Day	No	%
Mon	1	25
Tues		
Wed	1	25
Thur		
Fri	2	50
Sat		
Sun		
Total	4	100

Hour Starting	No	%
00:00		
01:00		
02:00		
03:00		
04:00		
05:00		
06:00		
07:00		
08:00		
09:00		
10:00		
11:00	1	25
12:00	1	25
13:00		
14:00	1	25
15:00		
16:00	1	25
17:00		
18:00		
19:00		
20:00		
21:00		
22:00		
23:00		
Total	4	100

Severity	No	%
Fatal		
Serious	1	25
Slight	3	75
Total	4	100

Light Conditions	No	%
Light	4	100
Dark/Lit		
Dark/unlit		
Total	4	100

Road Surface	No	%
Wet	1	25
Dry	3	75
Ice/Snow		
Other		
Total	4	100

Casualties	No	%
Car Driver	5	71
Car Passenger	2	29
M/C		
P/C		
Ped		
HGV		
LGV		
PSV		
Other		
Total	7	100

Manoeuvre	No	%
Front impact	3	75
Rear impact	1	25
Lost control		
Failed to G/W		
Side Swipe		
Right turn		
Reversing		
Other		
Total	4	100

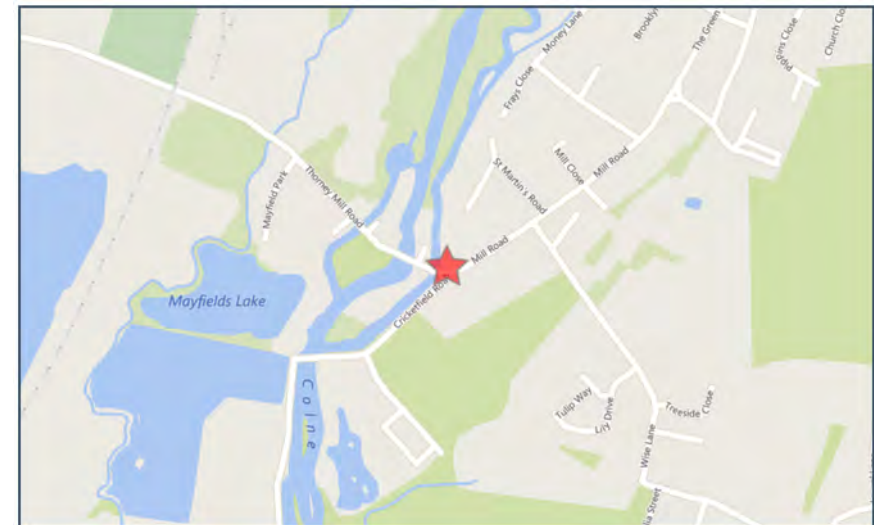


crashmap.co.uk

No

Crash Date: Monday, March 05, 2018 **Time of Crash:** 11:00:00 AM **Crash Reference:** 2018010094130

Highest Injury Severity:	Slight	Road Number:	U0	Number of Casualties:	1
Highway Authority:	Hillingdon	Number of Vehicles:	1	OS Grid Reference:	505460 179050
Local Authority:	Hillingdon London Borough				
Weather Description:	Fine without high winds				
Road Surface Description:	Dry				
Speed Limit:	30				
Light Conditions:	Daylight: regardless of presence of streetlights				
Carriageway Hazards:	None				
Junction Detail:	T or staggered junction				
Junction Pedestrian Crossing:	No physical crossing facility within 50 metres				
Road Type:	Single carriageway				
Junction Control:	Give way or uncontrolled				



For more information about the data please visit: www.crashmap.co.uk/home/Faq
To subscribe to unlimited reports using CrashMap Pro visit www.crashmap.co.uk/Home/Premium_Services



No

Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Maneuvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Car (excluding private hire)	19	Male	16 - 20	Vehicle proceeding normally along the carriageway, not on a bend	Front	Other	None	Other permanent object

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
1	1	Slight	Driver or rider	Male	16 - 20	Unknown or other	Unknown or other

For more information about the data please visit: www.crashmap.co.uk/home/Faq

To subscribe to unlimited reports using CrashMap Pro visit www.crashmap.co.uk/Home/Premium_Services

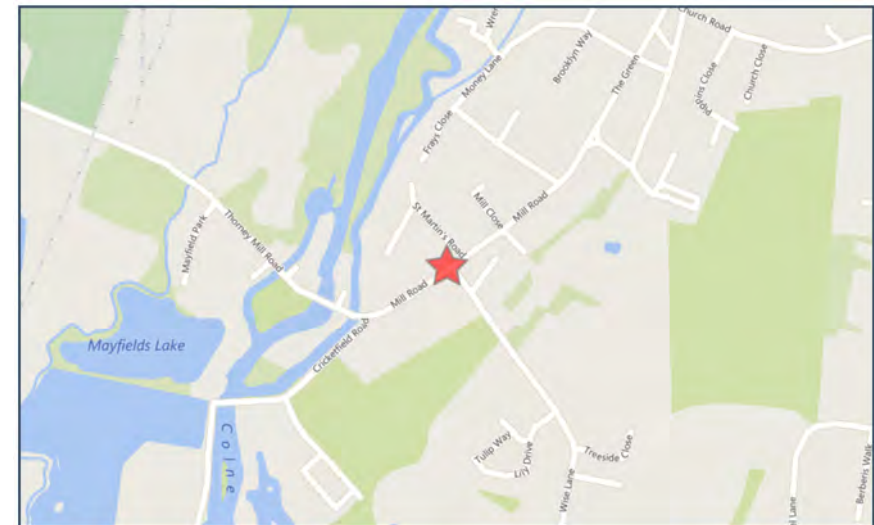


crashmap.co.uk

No

Crash Date: Wednesday, October 31, 2018 **Time of Crash:** 12:00:00 PM **Crash Reference:** 2018010142416

Highest Injury Severity:	Slight	Road Number:	U0	Number of Casualties:	1
Highway Authority:	Hillingdon			Number of Vehicles:	2
Local Authority:	Hillingdon London Borough			OS Grid Reference:	505580 179120
Weather Description:	Fine without high winds				
Road Surface Description:	Dry				
Speed Limit:	30				
Light Conditions:	Daylight: regardless of presence of streetlights				
Carriageway Hazards:	None				
Junction Detail:	T or staggered junction				
Junction Pedestrian Crossing:	No physical crossing facility within 50 metres				
Road Type:	Single carriageway				
Junction Control:	Give way or uncontrolled				



For more information about the data please visit: www.crashmap.co.uk/home/Faq
To subscribe to unlimited reports using CrashMap Pro visit www.crashmap.co.uk/Home/Premium_Services



No

Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Manoeuvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Car (excluding private hire)	-1	Male	46 - 55	Vehicle is waiting to turn right	Back	Other	None	None
2	Car (excluding private hire)	12	Male	Unknown	Vehicle is slowing down or stopping	Front	Other	None	None

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
1	1	Slight	Driver or rider	Male	46 - 55	Unknown or other	Unknown or other

For more information about the data please visit: www.crashmap.co.uk/home/Faq

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crashmap.co.uk

No

Crash Date: Friday, August 16, 2019

Time of Crash: 4:15:00 PM

Crash Reference: 2019010199959

Highest Injury Severity: Slight

Road Number: U0

Number of Casualties: 1

Highway Authority: Hillingdon

Number of Vehicles: 2

Local Authority: Hillingdon London Borough

OS Grid Reference: 505410 179078

Weather Description: Raining without high winds

Road Surface Description: Wet or Damp

Speed Limit: 30

Light Conditions: Daylight: regardless of presence of streetlights

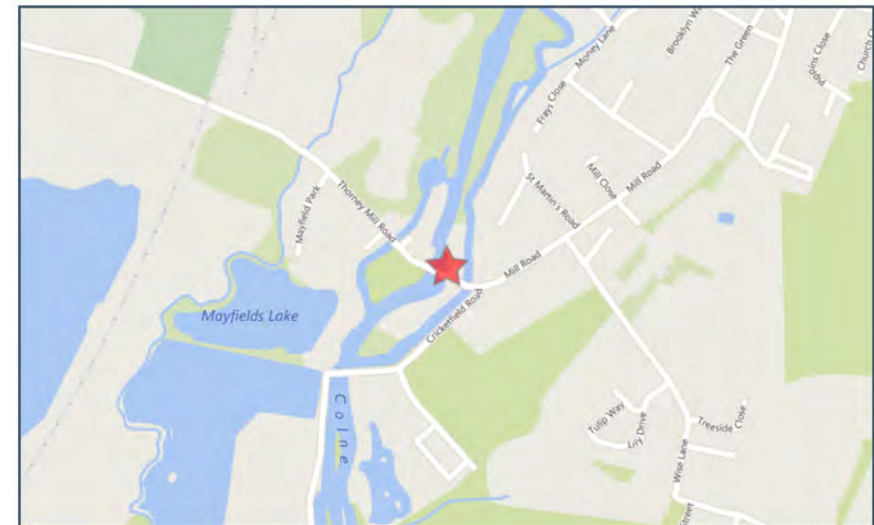
Carriageway Hazards: None

Junction Detail: Using private drive or entrance

Junction Pedestrian Crossing: No physical crossing facility within 50 metres

Road Type: Single carriageway

Junction Control: Give way or uncontrolled



For more information about the data please visit: www.crashmap.co.uk/home/Faq

To subscribe to unlimited reports using CrashMap Pro visit www.crashmap.co.uk/Home/Premium_Services



No

Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Manoeuvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Car (excluding private hire)	6	Male	16 - 20	Vehicle is waiting to proceed normally but is held up	Front	Other	None	None
2	Goods vehicle over 3.5 tonnes and under 7.5 tonnes mgw	17	Male	Unknown	Vehicle is reversing	Back	Journey as part of work	None	None

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
1	1	Slight	Driver or rider	Male	16 - 20	Unknown or other	Unknown or other

For more information about the data please visit: www.crashmap.co.uk/home/Faq

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crashmap.co.uk

No

Crash Date: Friday, April 05, 2019 **Time of Crash:** 2:54:00 PM **Crash Reference:** 2019430103811

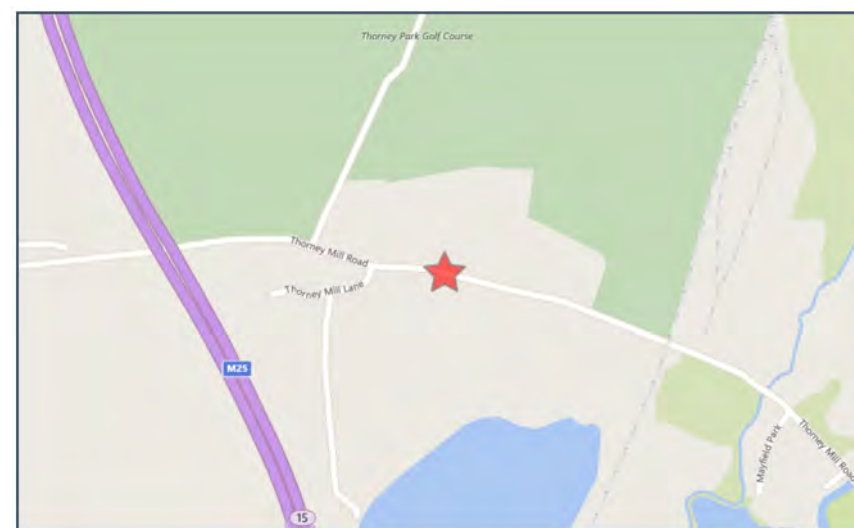
Highest Injury Severity: Serious
Highway Authority: Buckinghamshire
Local Authority: South Bucks District
Weather Description: Fine without high winds
Road Surface Description: Dry
Speed Limit: 40
Light Conditions: Daylight: regardless of presence of streetlights
Carriageway Hazards: None
Junction Detail: Not at or within 20 metres of junction
Junction Pedestrian Crossing: No physical crossing facility within 50 metres
Road Type: Single carriageway
Junction Control: Not Applicable

Road Number: U0

Number of Casualties: 4

Number of Vehicles: 3

OS Grid Reference: 504714 179408



For more information about the data please visit: www.crashmap.co.uk/home/Faq

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No

Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Maneuvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Car (excluding private hire)	-1	Male	Unknown	Vehicle proceeding normally along the carriageway, not on a bend	Did not impact	Journey as part of work	None	None
2	Car (excluding private hire)	-1	Male	26 - 35	Vehicle is passing another moving vehicle on its offside	Front	Other	None	Tree
3	Car (excluding private hire)	-1	Male	46 - 55	Vehicle proceeding normally along the carriageway, not on a bend	Front	Other	None	None

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
2	1	Serious	Driver or rider	Male	26 - 35	Unknown or other	Unknown or other
2	2	Serious	Vehicle or pillion passenger	Male	16 - 20	Unknown or other	Unknown or other
2	3	Serious	Vehicle or pillion passenger	Male	16 - 20	Unknown or other	Unknown or other
3	4	Slight	Driver or rider	Male	46 - 55	Unknown or other	Unknown or other

For more information about the data please visit: www.crashmap.co.uk/home/Faq

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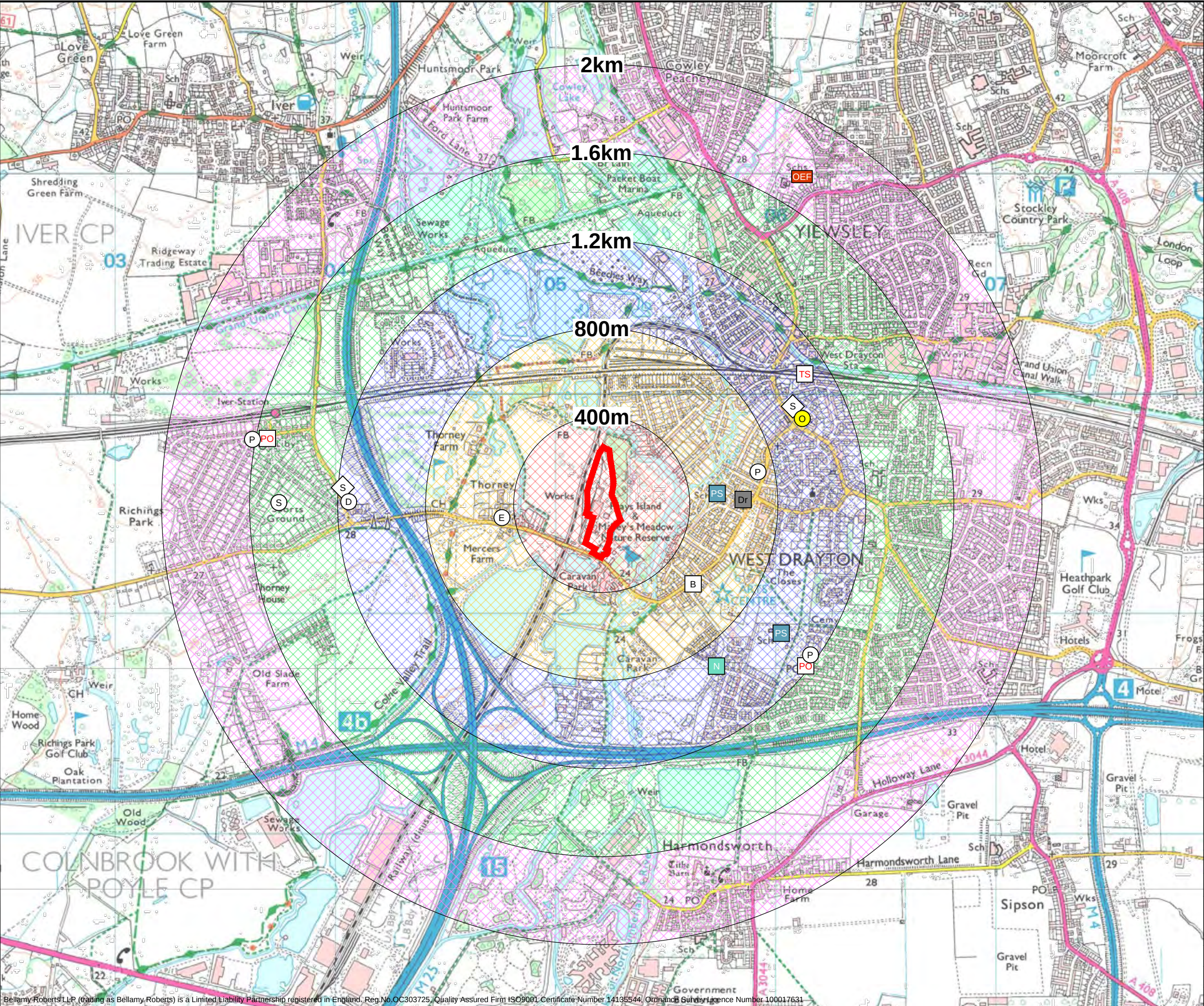
crashmap.co.uk

No

For more information about the data please visit: www.crashmap.co.uk/home/Faq

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APPENDIX 3



Notes

Walking Isochrones

- 0m - 400m
- 400m - 800m
- 800m - 1.2km
- 1.2km - 1.6km
- 1.6km - 2km

Facilities

- Dentist
- Doctor
- Optician
- Pharmacy
- Sport and Fitness
- Post Office
- Places to Eat/Drink
(Pubs, Restaurants etc.)
- Nursery
- Primary School
- Other Educational Facility
- Shops/Supermarket
- Train Station
- Bus Stop



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CLIENT

PROJECT
Link Park

TITLE

Pedestrian Isochrone

DRAWN BY
ARM

DESIGN BY
-

CHK BY
ITR

DATE
13/11/20

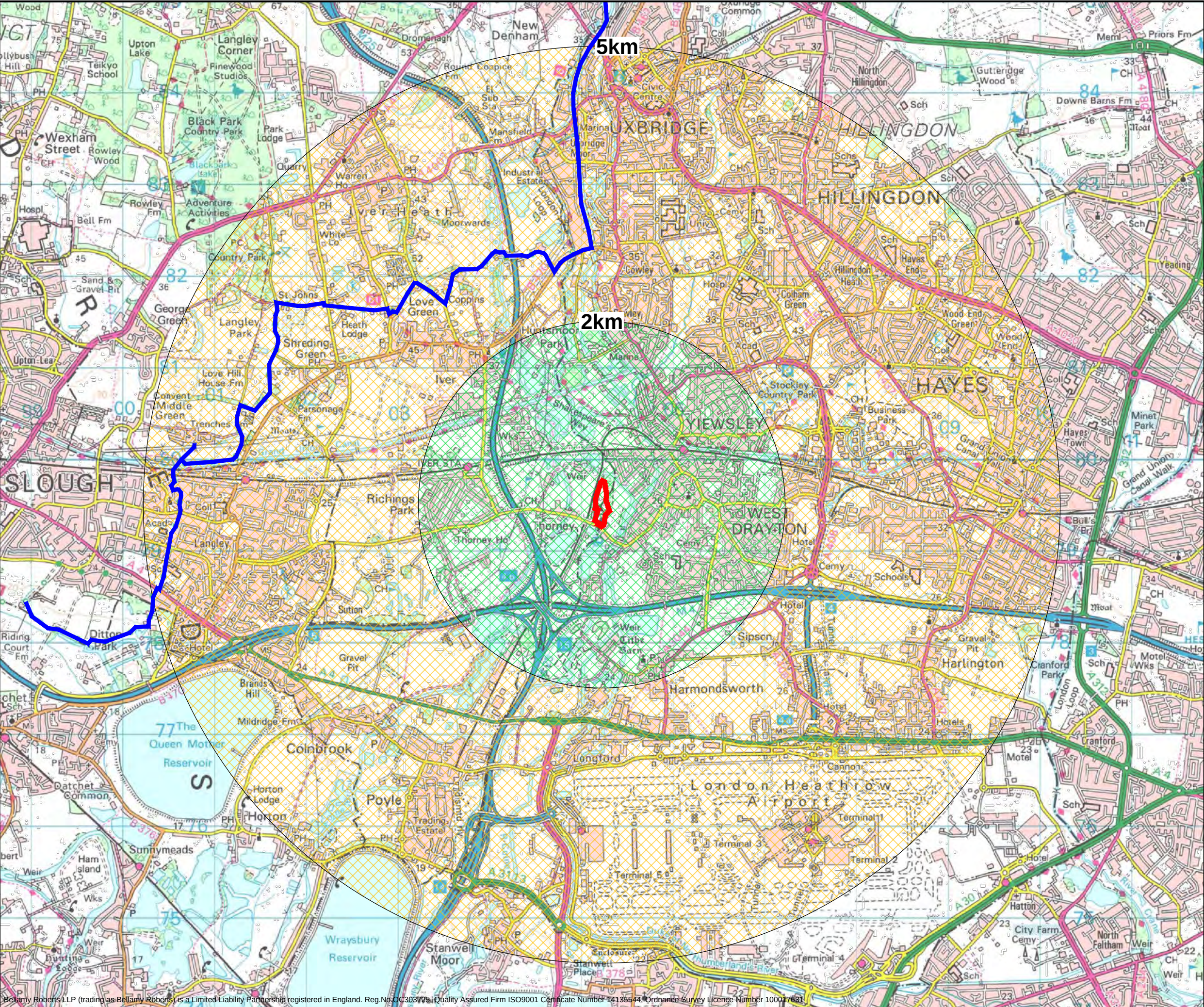
DRAWING No.

REV No.

SCALE
NTS @ A3

5516 / 302

APPENDIX 4



Notes

— National Cycle Route

Cycling Isochrones

▨ 0 - 2km

▨ 2 - 5km



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Tel: 01256 703355
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CLIENT -		
PROJECT Link Park		
TITLE Cycle Isochrone		
DRAWN BY ARM	DESIGN BY -	CHK BY ITR
DATE 13/11/20	DRAWING NO. 5516 / 303	
SCALE NTS @ A3	REV NO.	

APPENDIX 5



Notes	
	Path of Bus Route
	Location of Bus Stops
XX, XX	Direction of Bus Routes

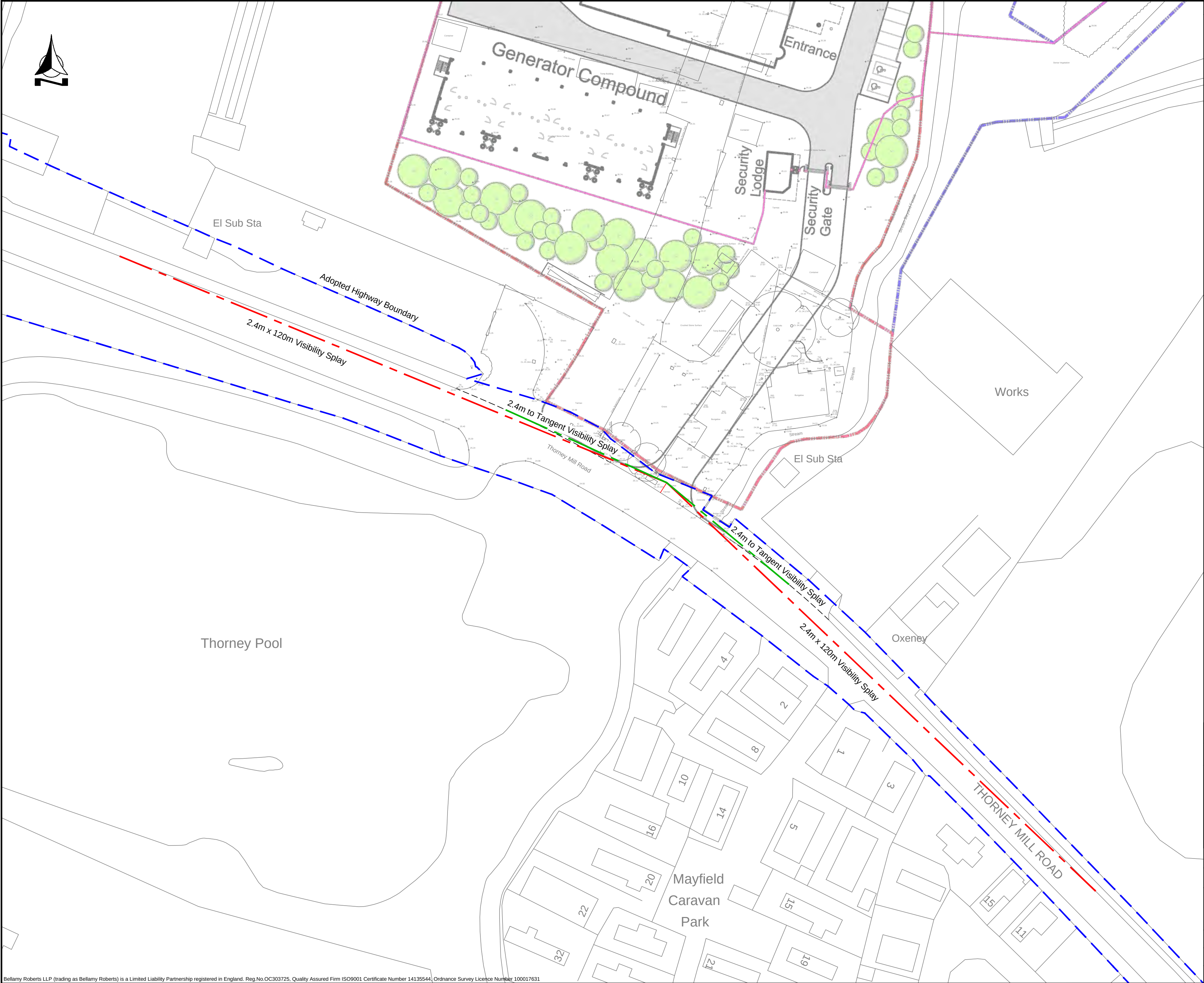
PROJECT	Link Park
TITLE	Local Bus Routes



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Tel: 01256 703355
Email: info@bellamyroberts.co.uk

DATE	13/11/20	DRAWN BY	ARM
SCALE	NTS @ A4	CHK BY	ITR
CLIENT		DRAWING No.	
		5516 / 305	
		REV No.	

APPENDIX 6



Notes

A

Access Layout Updated

ARM

19/11/20

ITR

REVISION

AMENDMENT

DRN

DATE

CHK



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

CLIENT
-

PROJECT
Link Park

TITLE
Access Visibility

DRAWN BY
ARM

DATE
11/11/20

SCALE
1:500 @ A1

DESIGN BY
-

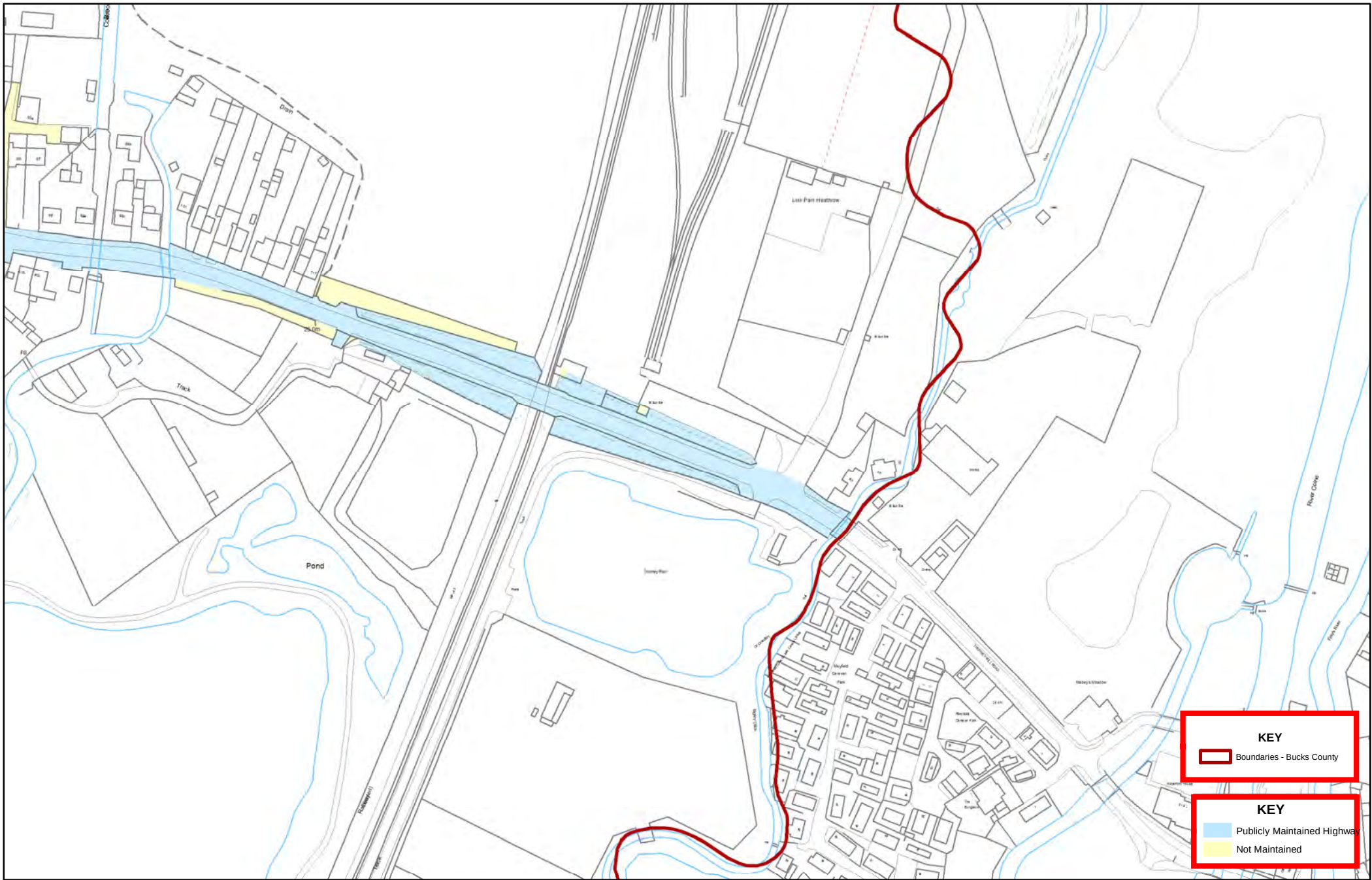
DRAWING No.
5516 / 001

CHK BY
ITR

REV No.
A

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APPENDIX 7

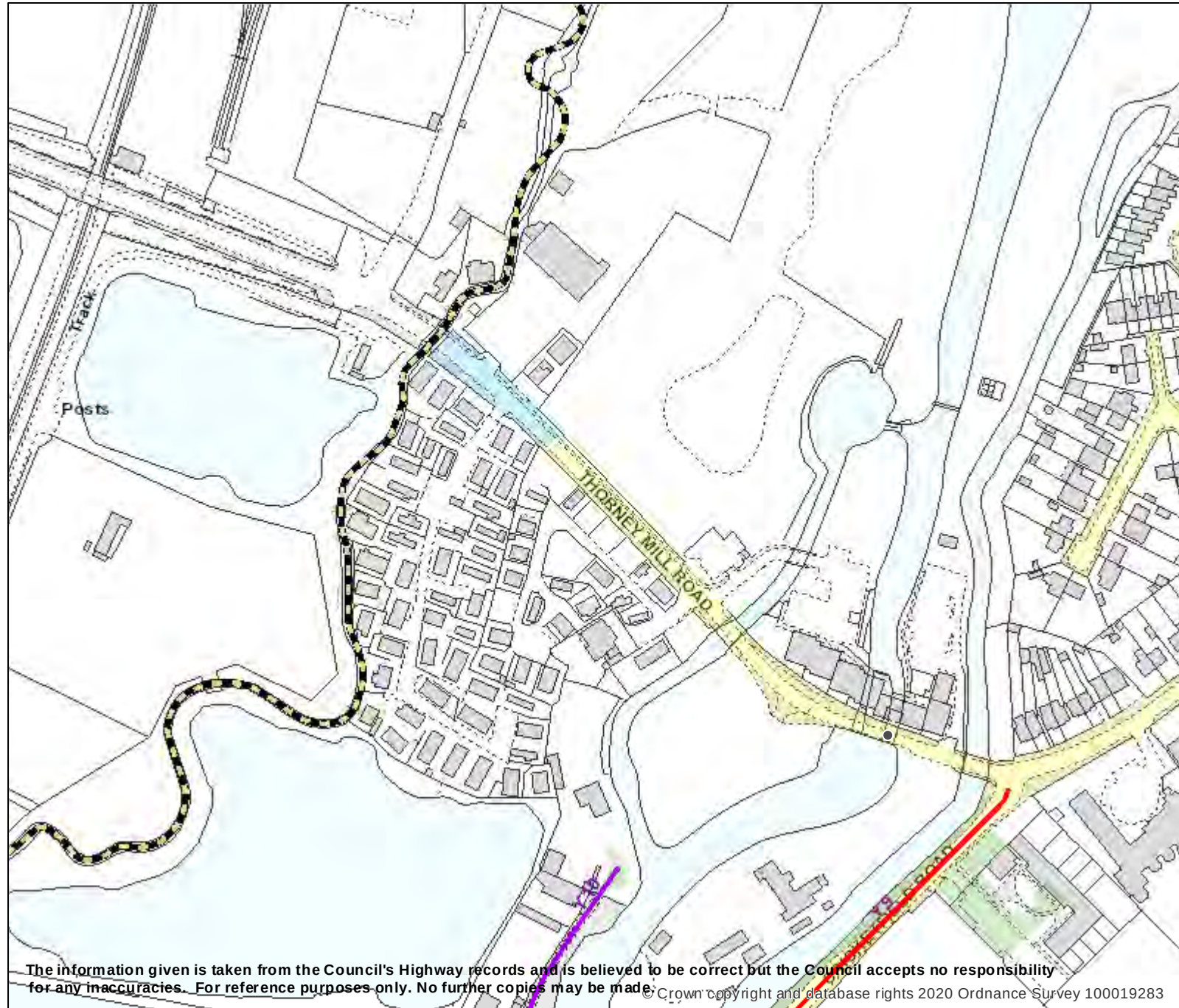


HIGHWAY EXTENTS PLAN

1:2,500

Highways Browser

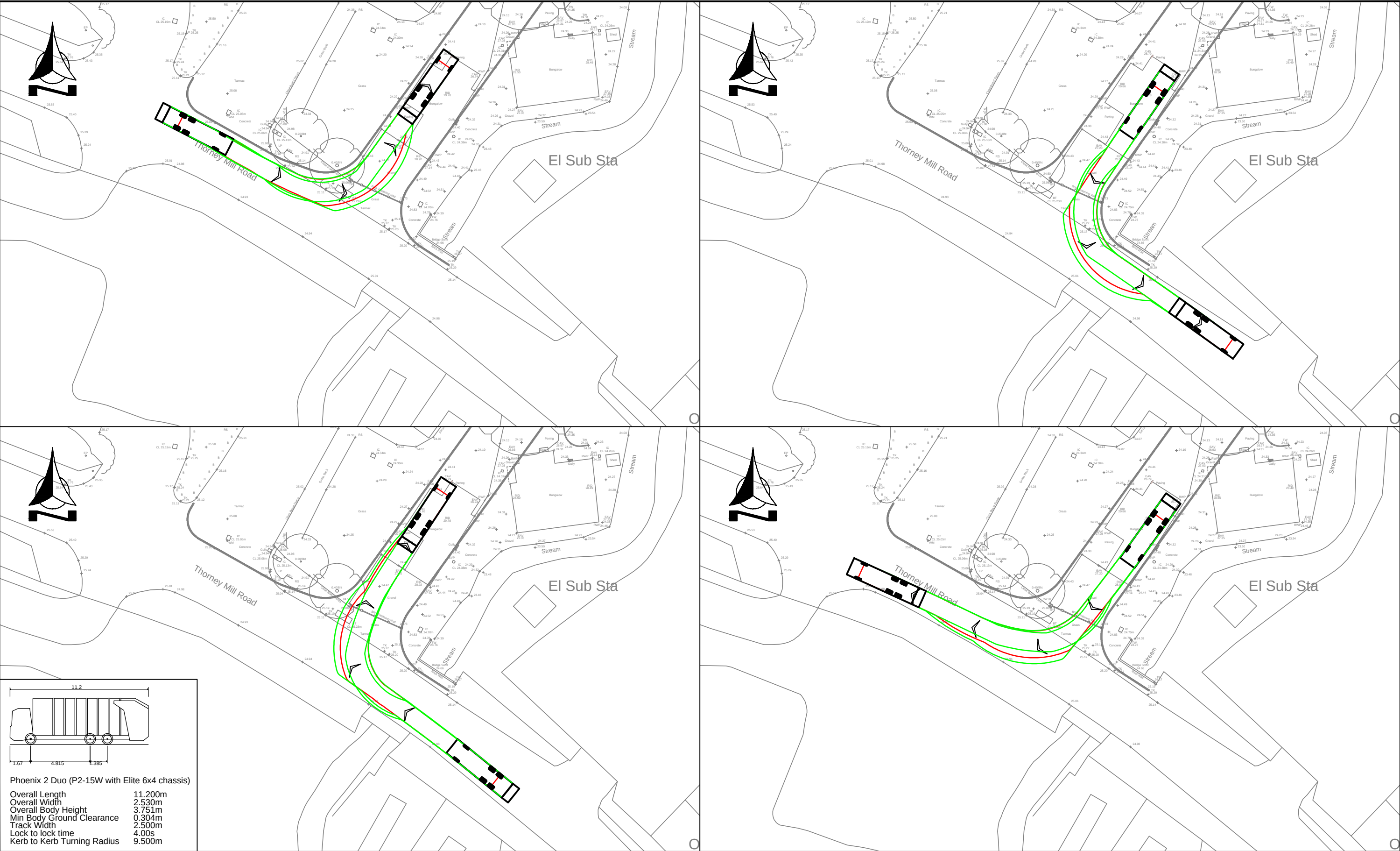
- Bridleway
- Byway Open To All Traffic
- Footpath
- Road Widening Line (Indicative only)
- Adopted Highway
- Housing Department Maintained
- Housing but right of way (not public)
- Privately maintained
- Section 38 or 228 -subject to adoption
- Other - see map notes
- Heathrow Airport
- Borough Boundary



Map Notes

0 0.125 0.25 km

APPENDIX 8

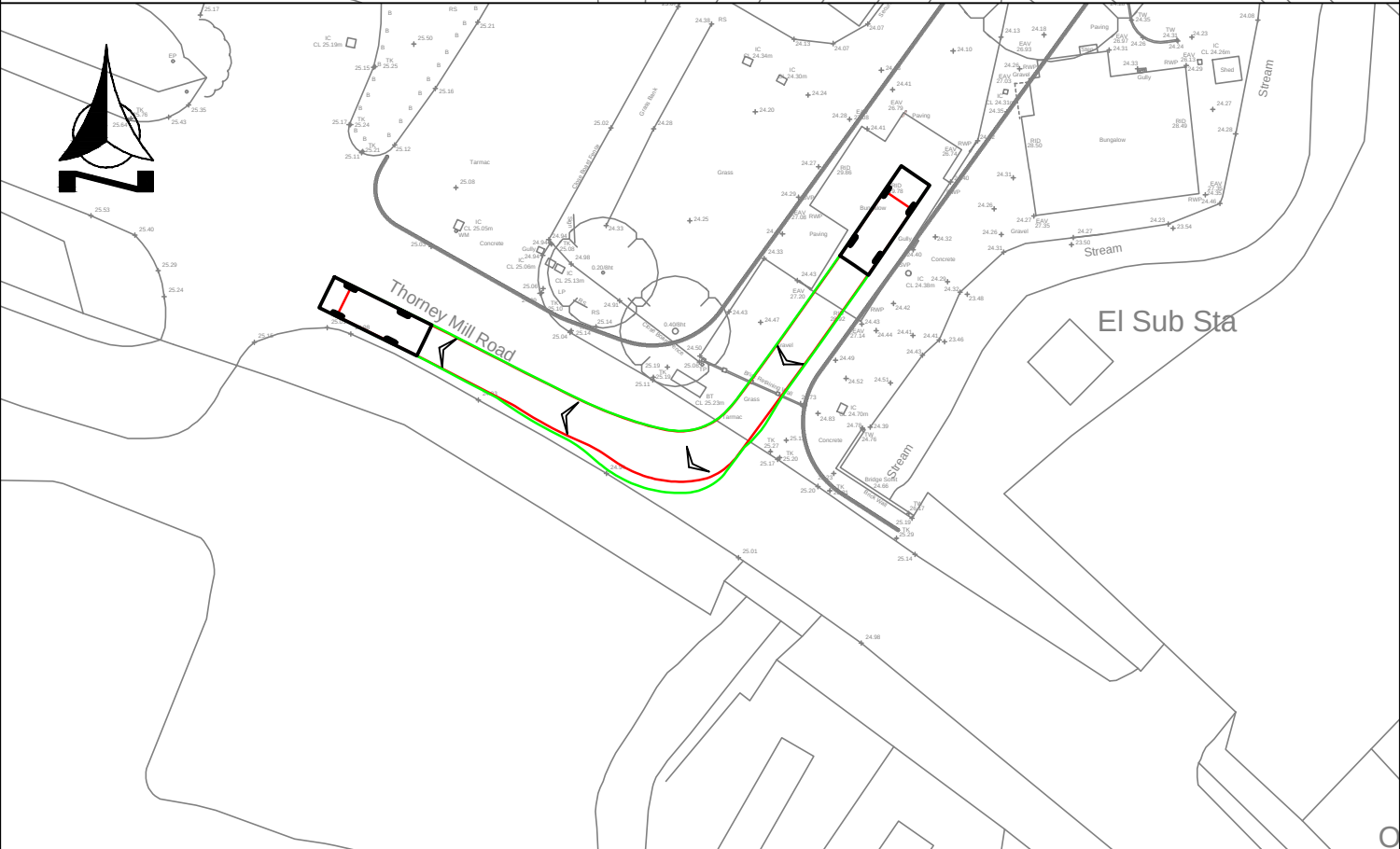
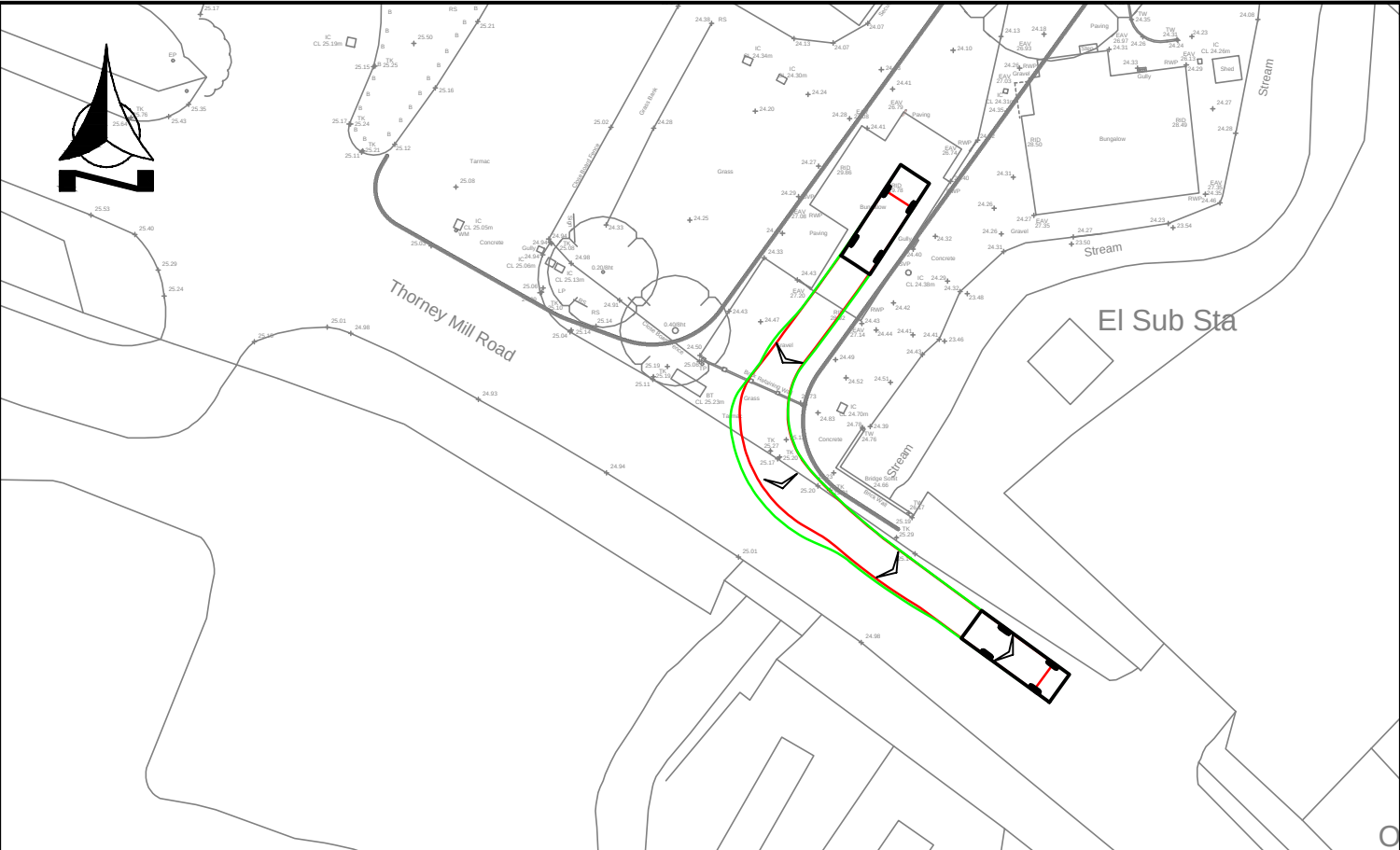
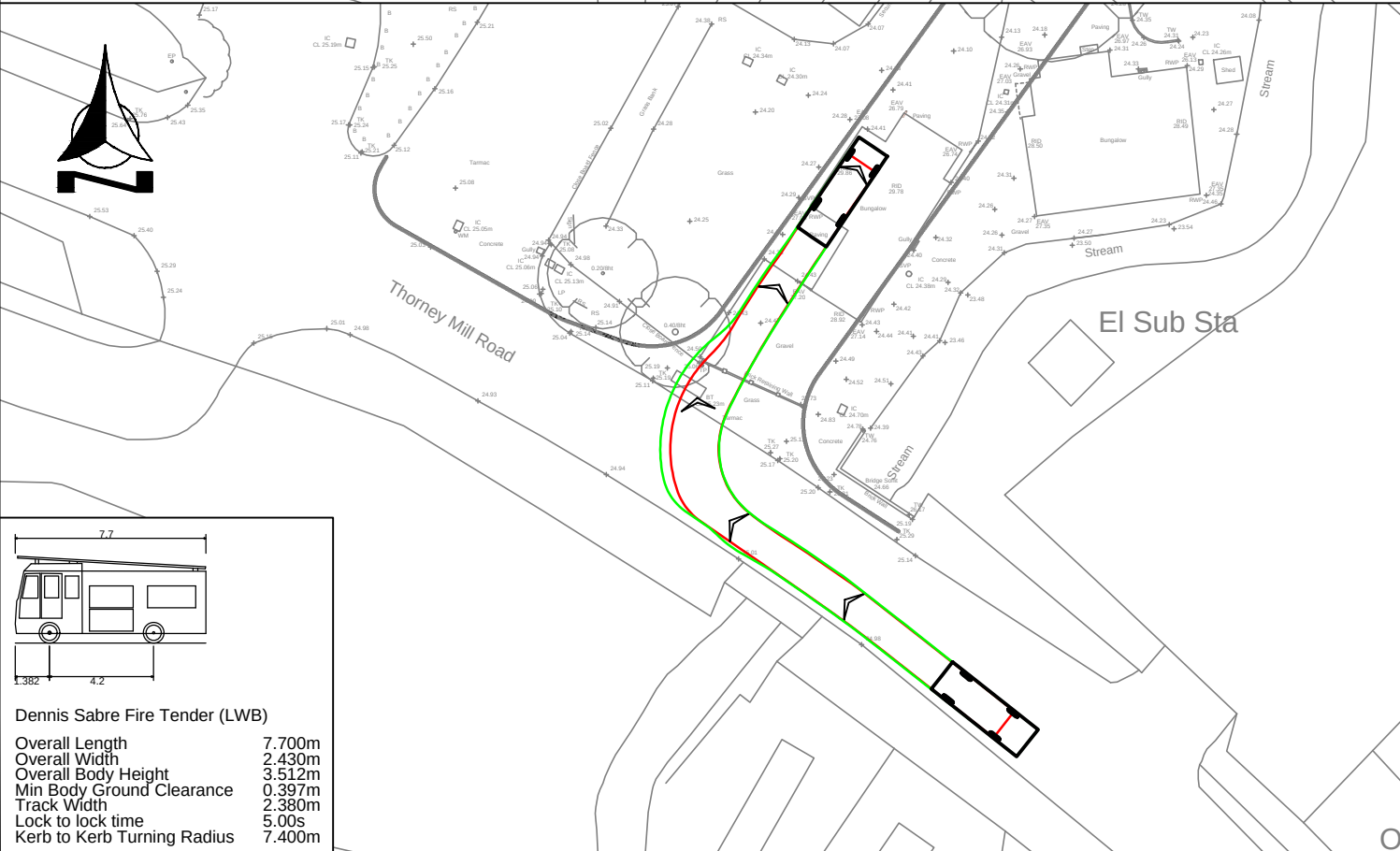
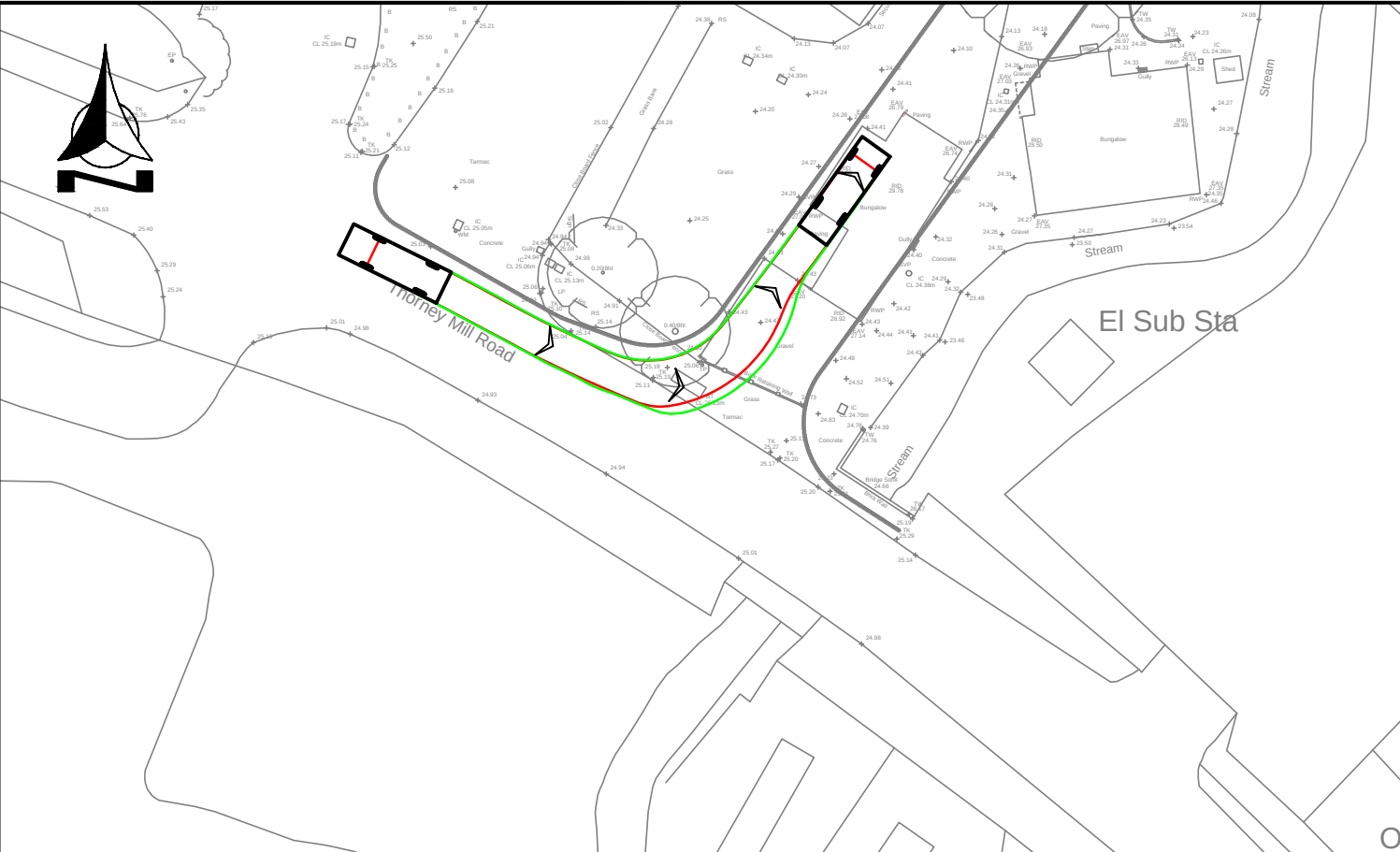


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Western Lane
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Hampshire, RG29 1TU
Tel: 01256 703355
Email: info@bellamyroberts.co.uk

CLIENT	-	DATE	27/11/20
PROJECT	Link Park	DESIGN BY	-
TITLE	AutoTRACK Profile Refuse Vehicle Access	DRAWN BY	ARM
DRAWING No.	5516 / 202	CHECKED BY	HC
		SCALE	1:500 @ A3
		REV No.	



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		PROJECT	Link Park	DESIGN BY	-
		TITLE	AutoTRACK Profile Fire Tender Access	DRAWN BY	ARM
				CHECKED BY	HC
				SCALE	1:500 @ A3
				REV No.	
		DRAWING No.	5516 / 201		

APPENDIX 9

Calculation Reference: AUDIT-200601-201112-1121

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
 Category : A - OFFICE
 TOTAL VEHICLES

Selected regions and areas:

03	SOUTH WEST	
	WL WILTSHIRE	1 days
04	EAST ANGLIA	
	CA CAMBRIDGESHIRE	1 days
	NF NORFOLK	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	WY WEST YORKSHIRE	1 days
08	NORTH WEST	
	MS MERSEYSIDE	1 days
09	NORTH	
	DH DURHAM	2 days
10	WALES	
	CO CONWY	1 days

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

Primary Filtering selection:

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

Parameter: Gross floor area
 Actual Range: 500 to 11250 (units: sqm)
 Range Selected by User: 178 to 175000 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/12 to 13/11/19

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	4 days
Wednesday	3 days
Thursday	1 days

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

Selected survey types:

Manual count	8 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	8
--------------	---

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

Selected Location Sub Categories:

Industrial Zone	1
Commercial Zone	3
Development Zone	1
Built-Up Zone	1
No Sub Category	2

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:

B1

8 days

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

Filter by Use Class Breakdown:

All Surveys Included

Population within 500m Range:

All Surveys Included

Population within 1 mile:

1,001 to 5,000	3 days
5,001 to 10,000	2 days
10,001 to 15,000	1 days
15,001 to 20,000	1 days
25,001 to 50,000	1 days

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

Population within 5 miles:

25,001 to 50,000	1 days
50,001 to 75,000	1 days
100,001 to 125,000	2 days
125,001 to 250,000	3 days
500,001 or More	1 days

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

Car ownership within 5 miles:

0.6 to 1.0	4 days
1.1 to 1.5	3 days
1.6 to 2.0	1 days

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

Travel Plan:

No

8 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

8 days

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

LIST OF SITES relevant to selection parameters

1	CA-02-A-06 LYNCH WOOD PETERBOROUGH	OFFICES	CAMBRIDGESHIRE
	Edge of Town Commercial Zone Total Gross floor area: 4040 sqm Survey date: WEDNESDAY 19/10/16		Survey Type: MANUAL
2	CO-02-A-01 NARROW LANE LLANDUDNO JUNCTION	GOVERNMENT OFFICES	CONWY
	Edge of Town Commercial Zone Total Gross floor area: 6186 sqm Survey date: WEDNESDAY 28/03/18		Survey Type: MANUAL
3	DH-02-A-02 DURHAM ROAD NEAR DURHAM BOWBURN	CONSTRUCTION COMPANY	DURHAM
	Edge of Town Industrial Zone Total Gross floor area: 2000 sqm Survey date: TUESDAY 27/11/12		Survey Type: MANUAL
4	DH-02-A-03 ALDERMAN BEST WAY DARLINGTON	ENGINEERING COMPANY	DURHAM
	Edge of Town No Sub Category Total Gross floor area: 3530 sqm Survey date: THURSDAY 18/10/18		Survey Type: MANUAL
5	MS-02-A-02 MOUNT PLEASANT LIVERPOOL	SCIENCE PARK OFFICES	MERSEYSIDE
	Edge of Town Built-Up Zone Total Gross floor area: 11250 sqm Survey date: TUESDAY 13/11/18		Survey Type: MANUAL
6	NF-02-A-04 WHITING ROAD NORWICH	BUILDING CONSULTANT	NORFOLK
	Edge of Town Commercial Zone Total Gross floor area: 500 sqm Survey date: WEDNESDAY 13/11/19		Survey Type: MANUAL
7	WL-02-A-01 THE CRESCENT AMESBURY SUNRISE WAY	PET INSURANCE COMPANY	WILTSHIRE
	Edge of Town Development Zone Total Gross floor area: 2500 sqm Survey date: TUESDAY 18/09/18		Survey Type: MANUAL
8	WY-02-A-05 PIONEER WAY CASTLEFORD WHITWOOD	OFFICES	WEST YORKSHIRE
	Edge of Town No Sub Category Total Gross floor area: 1230 sqm Survey date: TUESDAY 23/05/17		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.

BELLAMY ROBERTS WESTERN LANE ODIHAM

Licence No: 200601

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

TOTAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	8	3905	0.538	8	3905	0.102	8	3905	0.640
08:00 - 09:00	8	3905	1.671	8	3905	0.157	8	3905	1.828
09:00 - 10:00	8	3905	1.076	8	3905	0.166	8	3905	1.242
10:00 - 11:00	8	3905	0.349	8	3905	0.131	8	3905	0.480
11:00 - 12:00	8	3905	0.208	8	3905	0.166	8	3905	0.374
12:00 - 13:00	8	3905	0.391	8	3905	0.496	8	3905	0.887
13:00 - 14:00	8	3905	0.493	8	3905	0.387	8	3905	0.880
14:00 - 15:00	8	3905	0.288	8	3905	0.330	8	3905	0.618
15:00 - 16:00	8	3905	0.179	8	3905	0.375	8	3905	0.554
16:00 - 17:00	8	3905	0.198	8	3905	0.839	8	3905	1.037
17:00 - 18:00	8	3905	0.170	8	3905	1.886	8	3905	2.056
18:00 - 19:00	7	4287	0.063	7	4287	0.620	7	4287	0.683
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:		5.624			5.655			11.279	

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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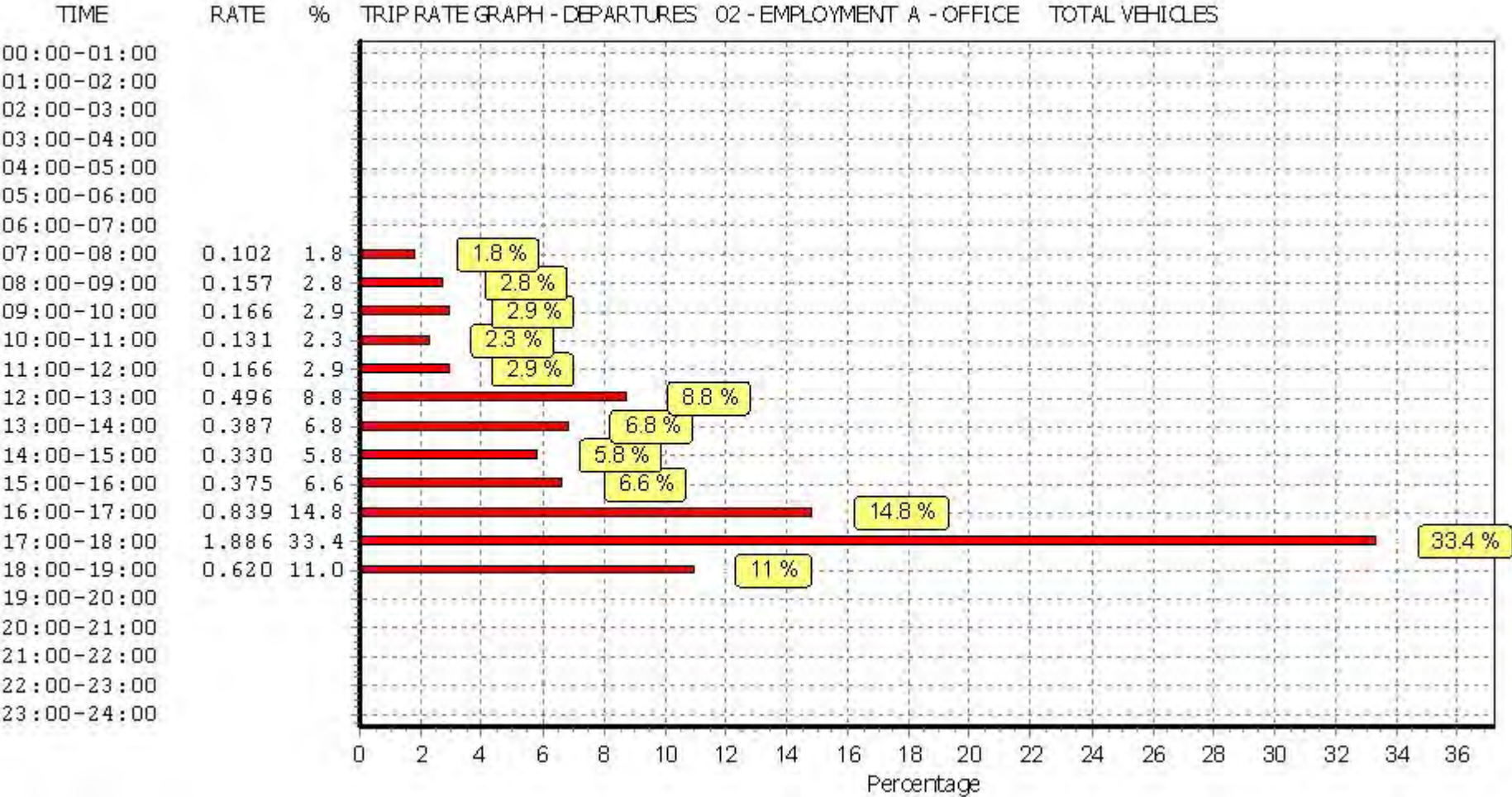
Parameter summary

Trip rate parameter range selected:	500 - 11250 (units: sqm)
Survey date range:	01/01/12 - 13/11/19
Number of weekdays (Monday-Friday):	8
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

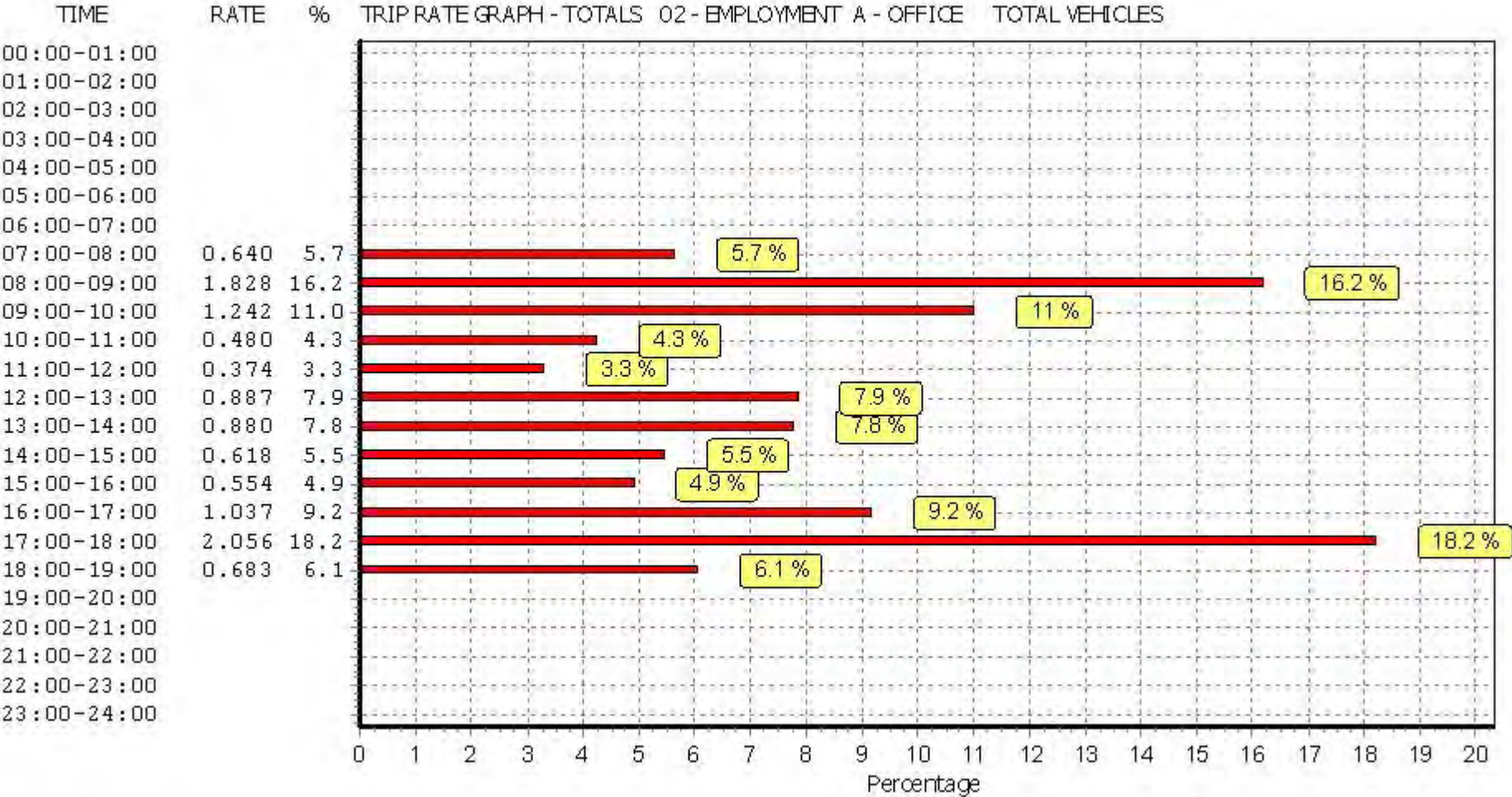
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected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



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.



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APPENDIX 10

Calculation Reference: AUDIT-200601-201124-1155

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT

Category : A - OFFICE

TOTAL VEHICLES

Selected regions and areas:

03	SOUTH WEST	
	WL WILTSHIRE	1 days
04	EAST ANGLIA	
	CA CAMBRIDGESHIRE	1 days
	NF NORFOLK	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	WY WEST YORKSHIRE	1 days
08	NORTH WEST	
	MS MERSEYSIDE	1 days
09	NORTH	
	DH DURHAM	2 days
10	WALES	
	CO CONWY	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 Employees
 Actual Range: 33 to 500 (units:)
 Range Selected by User: 0 to 9500 (units:)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/12 to 13/11/19

*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	4 days
Wednesday	3 days
Thursday	1 days

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

Manual count	8 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 8

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

Industrial Zone	1
Commercial Zone	3
Development Zone	1
Built-Up Zone	1
No Sub Category	2

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:

B1

8 days

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

Filter by Use Class Breakdown:

All Surveys Included

Population within 500m Range:

All Surveys Included

Population within 1 mile:

1,001 to 5,000	3 days
5,001 to 10,000	2 days
10,001 to 15,000	1 days
15,001 to 20,000	1 days
25,001 to 50,000	1 days

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

Population within 5 miles:

25,001 to 50,000	1 days
50,001 to 75,000	1 days
100,001 to 125,000	2 days
125,001 to 250,000	3 days
500,001 or More	1 days

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

Car ownership within 5 miles:

0.6 to 1.0	4 days
1.1 to 1.5	3 days
1.6 to 2.0	1 days

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

Travel Plan:

No

8 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

8 days

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

LIST OF SITES relevant to selection parameters

1	CA-02-A-06 LYNCH WOOD PETERBOROUGH	OFFICES	CAMBRIDGESHIRE
	Edge of Town Commercial Zone Total No of Employees: 400 Survey date: WEDNESDAY 19/10/16		Survey Type: MANUAL
2	CO-02-A-01 NARROW LANE LLANDUDNO JUNCTION	GOVERNMENT OFFICES	CONWY
	Edge of Town Commercial Zone Total No of Employees: 500 Survey date: WEDNESDAY 28/03/18		Survey Type: MANUAL
3	DH-02-A-02 DURHAM ROAD NEAR DURHAM BOWBURN	CONSTRUCTION COMPANY	DURHAM
	Edge of Town Industrial Zone Total No of Employees: 115 Survey date: TUESDAY 27/11/12		Survey Type: MANUAL
4	DH-02-A-03 ALDERMAN BEST WAY DARLINGTON	ENGINEERING COMPANY	DURHAM
	Edge of Town No Sub Category Total No of Employees: 69 Survey date: THURSDAY 18/10/18		Survey Type: MANUAL
5	MS-02-A-02 MOUNT PLEASANT LIVERPOOL	SCIENCE PARK OFFICES	MERSEYSIDE
	Edge of Town Built-Up Zone Total No of Employees: 400 Survey date: TUESDAY 13/11/18		Survey Type: MANUAL
6	NF-02-A-04 WHITING ROAD NORWICH	BUILDING CONSULTANT	NORFOLK
	Edge of Town Commercial Zone Total No of Employees: 33 Survey date: WEDNESDAY 13/11/19		Survey Type: MANUAL
7	WL-02-A-01 THE CRESCENT AMESBURY SUNRISE WAY	PET INSURANCE COMPANY	WILTSHIRE
	Edge of Town Development Zone Total No of Employees: 223 Survey date: TUESDAY 18/09/18		Survey Type: MANUAL
8	WY-02-A-05 PIONEER WAY CASTLEFORD WHITWOOD	OFFICES	WEST YORKSHIRE
	Edge of Town No Sub Category Total No of Employees: 115 Survey date: TUESDAY 23/05/17		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.

BELLAMY ROBERTS WESTERN LANE ODIHAM

Licence No: 200601

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

TOTAL VEHICLES

Calculation factor: 1 EMPLOY

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. EMPLOY	Trip Rate	No. Days	Ave. EMPLOY	Trip Rate	No. Days	Ave. EMPLOY	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	8	232	0.091	8	232	0.017	8	232	0.108
08:00 - 09:00	8	232	0.281	8	232	0.026	8	232	0.307
09:00 - 10:00	8	232	0.181	8	232	0.028	8	232	0.209
10:00 - 11:00	8	232	0.059	8	232	0.022	8	232	0.081
11:00 - 12:00	8	232	0.035	8	232	0.028	8	232	0.063
12:00 - 13:00	8	232	0.066	8	232	0.084	8	232	0.150
13:00 - 14:00	8	232	0.083	8	232	0.065	8	232	0.148
14:00 - 15:00	8	232	0.049	8	232	0.056	8	232	0.105
15:00 - 16:00	8	232	0.030	8	232	0.063	8	232	0.093
16:00 - 17:00	8	232	0.033	8	232	0.141	8	232	0.174
17:00 - 18:00	8	232	0.029	8	232	0.318	8	232	0.347
18:00 - 19:00	7	249	0.011	7	249	0.107	7	249	0.118
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.948			0.955			1.903

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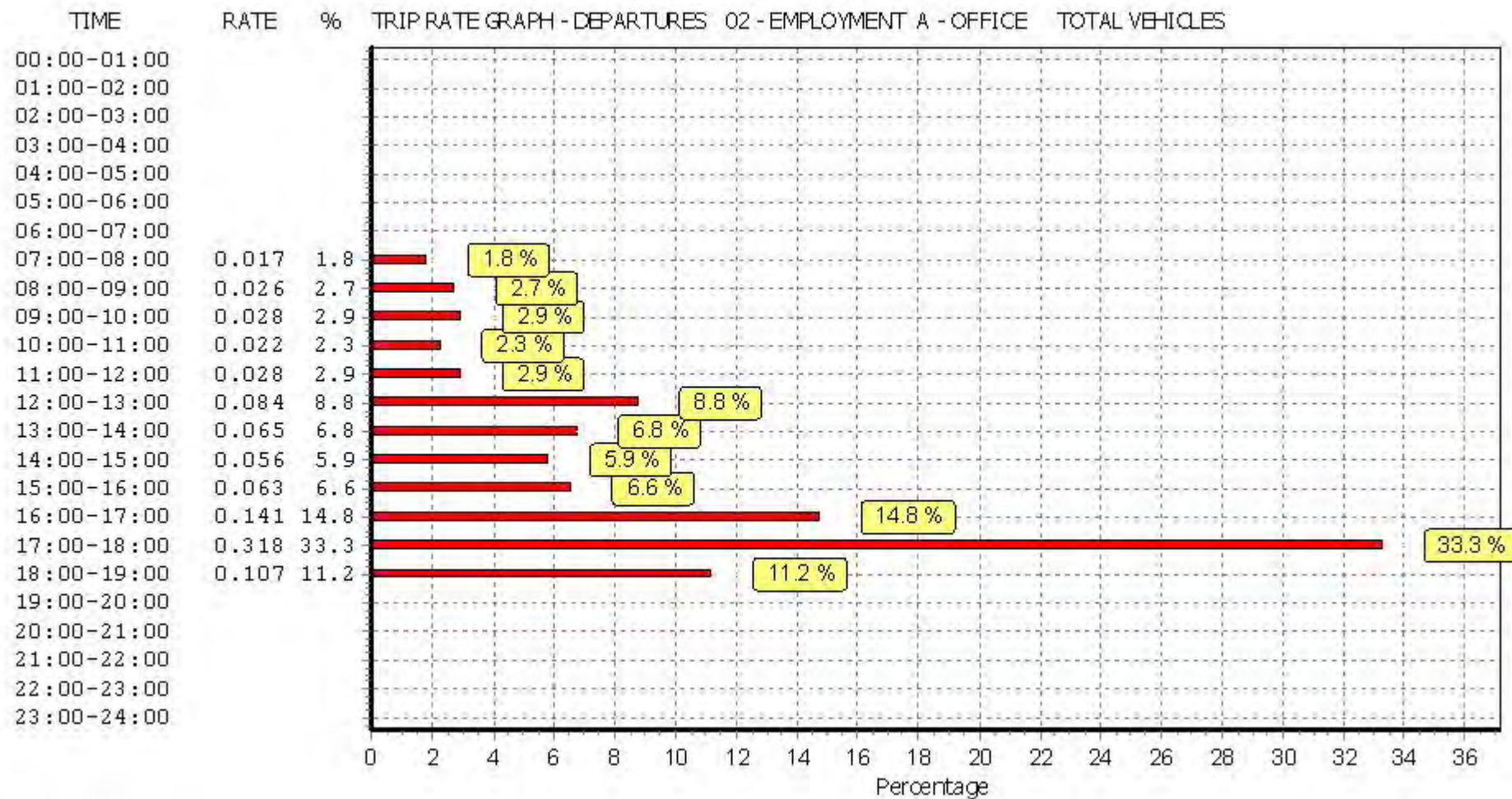
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Survey date date range:	01/01/12 - 13/11/19
Number of weekdays (Monday-Friday):	8
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

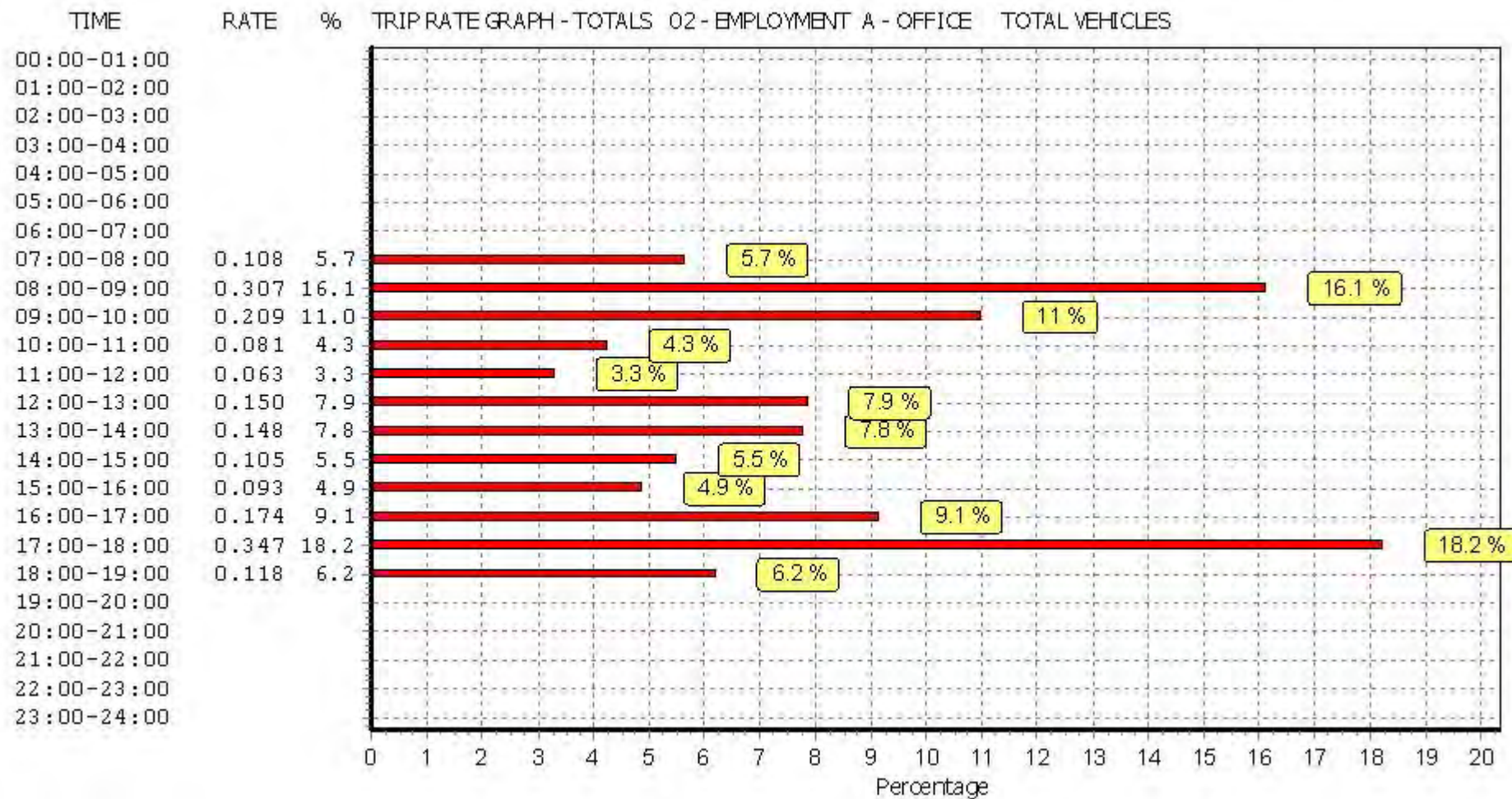
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