

PROPOSED B8 WAREHOUSE UNIT

BRIDGE ROAD NORTH, WREXHAM

TRANSPORT STATEMENT

Prepared on behalf of:



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1.0 INTRODUCTION

- 1.1 This Transport Statement (TS) has been prepared by AXIS on behalf of C4 Consulting to consider highways and transport matters related to a detailed planning application for a 4,148sqm GFA B8 warehouse unit with ancillary B1 office on land off Bridge Road North, Wrexham.
- 1.2 This report has been prepared to inform the Local Highway Authority, Wrexham County Borough Council (WCBC), of highway matters associated with the development proposals and to outline the design and nature of the site access arrangements. In addition, the report also considers the accessibility of the site via alternative, more sustainable travel modes to the private car such as walking, cycling and public transport.
- 1.3 The report has been prepared to reflect guidance set out in Planning Policy Wales 'Technical Advice Note 18: Transport'. This guidance identifies that developments that generate significant trip generation should be supported by a formal Transport Assessment report. Given that the proposed development falls below the threshold for requiring a Transport Assessment (>10,000sqm GFA for distribution and warehousing), it is considered that the production of a simple Transport Statement report is appropriate in this case.
- 1.4 The core structure of the remainder of this Transport Statement is as follows:
- A review of the site location and an audit of the existing characteristics of the immediate highway layout to the site, existing site conditions / land use, consideration of highway safety matters and a review of site accessibility via alternative travel modes to the private car.
 - A review of the key proposed development elements & site access strategy and proposed measures to encourage sustainable travel to / from the site.
 - An assessment of the future traffic levels anticipated to be generated by the development scheme.

- Summary and conclusions.

2.0 SITE LOCATION AND EXISTING CONDITIONS

2.1 Site Location

- 2.1.1 The strategic location of the proposal site is illustrated in **Figure TS1** to this report. This plan identifies the location of the site within Wrexham Industrial Estate, to the east of the main built up area of Wrexham.

2.2 Existing Site Conditions

- 2.2.1 The proposal site represents a vacant piece of land located within an existing industrial area. The site is bounded by greenfield lane to the north, an industrial unit to the east, Bridge Road North to the south, and offices to the west. The local highway network in proximity to the site is presented in **Figure TS2** to this report.

2.3 Local Highway Network

Existing Site Access

- 2.3.1 The application site is currently undeveloped and is not served by an existing formal vehicular access point. However, the road which provides access to the adjacent offices (located off Ash Road South) runs to the sites western boundary, forming a stub. This access stub is currently gated to prevent unauthorised access onto the site.

Wider Network Connections

- 2.3.2 Access to the site is proposed via Bridge Road North, located on the southern boundary of the site. Bridge Road North is circa 7.3m wide, with 2m footways provided on both sides of the carriageway. This road is subject to a 40mph speed limit, and street lighting is provided. This road is a main route running in a loop through Wrexham Industrial Estate, and provides access to a number of industrial premises.

- 2.3.3 Bridge Road North meets Redwither Road and Bridge Road at a staggered crossroads junction circa 370m west of the proposed site access. Redwither Road is subject to a 40mph speed limit, has a width of circa 10m and provides footways on both sides of the carriageway. This road provides a route around the southern and western perimeters of Wrexham Industrial Estate, also providing access to a number of industrial units.
- 2.3.4 Bridge Road North meets Ash Road North at a priority T-junction circa 1.3km north of the proposed site access point (Bridge Road North being known as Abbey Road at this location). Ash Road North runs through the north western section of Wrexham Industrial Estate, and is subject to a 40mph speed limit. This road has a width of circa 7m, and footways are provided on both sides of the carriageway.
- 2.3.5 The Industrial Estate Road is a dual carriageway, subject to a 70mph speed limit. This road is one of the main routes into the main built up area of Wrexham via the A534.
- 2.3.6 Considering the above, the site offers excellent connection to surrounding areas and key highway links to support the proposed development.

2.4 **Road Safety: Review of Personal Injury Accident Records**

- 2.4.1 Personal Injury Accident (PIA) data for the immediate local highway network to the proposal site has been obtained by Axis using Crashmap.co.uk, which provides details of all PIA events attended by the police. The data is approved by the National Statistics Authority and reported on by the Department for Transport (DfT) each year. Data has been obtained for the most recently available five-year search period in line with standard practice, covering January 2012 – December 2016. Provisional data for January – September 2017 has also been included for robustness.
- 2.4.2 PIA data has been obtained for the immediate route of Bridge Road North. A location plan of all incidents recorded within this search area is included as **Figure TS3** to this report.

2.4.3 Review of the historical accident information identifies that just no injury accidents were recorded within the study area during the five-year search period.

2.4.4 Considering the above, it is not considered that there are any prevailing material road safety issues that would bring the proposed development into question.

2.5 **Site Sustainability & Accessibility**

2.5.1 Local and national development policy documents identify two primary sustainable transport objectives when considering the location of new development:

- Reducing the need to travel, especially by private car;
- Promoting accessibility to a range of sustainable travel options.

2.5.2 The proposal site is considered to enjoy some locational characteristics that would assist in encouraging trips to / from the development to be made by a range of sustainable alternative travel options to the private car. The site is located within a reasonable walking distance of existing public transport connections and is served by local walking / cycling connections. It is considered that these features would provide some opportunities to encourage staff and visitors to the site to utilise sustainable alternative transport modes to the private car.

2.5.3 The nature of local sustainable transport connections available within the immediate catchment of the proposal site are summarised in the paragraphs below.

Access to Public Transport

2.5.4 The nearest bus stop to the proposal site is located circa 60m west of the proposed site access point (north east bound only) on Bridge Road North. The closest bus stop in the opposite direction is located circa 440m south west of

the site on Bridge Road. Both of these stops provide bus shelters and flagposts displaying service information.

- 2.5.5 Details of the bus service frequencies and connections available from these stops are summarised in **Table TS2.1** below.

Table TS2.1: Bus Service Summary for Stops within the Vicinity of the Proposal Site

Service	Route	Days of operation	One Way Hourly Frequency		
			Peak	Daytime	Evening
1E	Wrexham Industrial Estate – Wrexham – Rhosddu – Caego – New Broughton - Brynteh	Mon – Fri	7:43 only	-	-
41 / 41A	Wrexham – The Dunks - Wrexham Industrial Estate	Mon - Sat	1	1	0

- 2.5.6 Review of **Table TS2.1** demonstrates that the local bus stops to the proposal site are served by a regular bus service (41/41A), with one bus every hour in each direction, and providing connections to local destinations within Wrexham.

Accessibility by Walking and Cycling

- 2.5.7 National policy guidance notes that walking and cycling travel modes have the potential to substitute for short car trips (2km and 5km journey catchments respectively), particularly if supported by good quality infrastructure. The location of the proposal site is considered to allow for some opportunities for walk / cycle access for locally based staff / visitor trips, with Bridge Road North being served by high standard footway infrastructure.
- 2.5.8 **Figure TS4** to this report illustrates the extent of dedicated cycleway and footpath connections to the site. Review of this plan identifies that there are a number of footpaths connecting Wrexham Industrial Estate with the main built up area of Wrexham to the west of the site.
- 2.5.9 **Figures TS5** and **TS6** to this report illustrate 2km and 5km travel catchments from the proposal site respectively. This exercise illustrates that the majority of Wrexham Industrial Estate is within an acceptable walking distance. The 5km cycle catchment, meanwhile, incorporates the eastern section of the

residential areas of Wrexham, as well as other smaller neighbouring settlements including Bowling Bank, Talwrn, Sutton Green and Ridleywood.

Summary

- 2.5.10 Overall it is concluded that the proposal site represents an appropriate location for the development of a B8 unit with ancillary office, having access to public transport services and being served by walking and cycling connections, providing opportunities for locally based staff and visitor journeys to be made via sustainable alternative travel options to the private car.

3.0 REVIEW OF THE DEVELOPMENT PROPOSALS

3.1 Development Proposals

- 3.1.1 The proposal scheme is for one 3,368m² GFA B8 warehouse unit with ancillary 780m² GFA B1 office (i.e. 4,148sqm total). The scheme also includes for vehicle access and servicing arrangements, car parking and associated enabling / ancillary site works. An illustrative masterplan of the proposal is available within **C4 Consulting Drawing C4C-B1-Z1-A1-01-P2-00-001-B**, with floorplans provided within **C4 Consulting Drawing C4C-B1-ZZ-A1-20-P2-00-001-C**.

3.2 Highway Access Arrangements & Servicing

Site Access

- 3.2.1 The proposed development would be served via a new T-junction connection off Bridge Road North from the southern boundary of the site. The access would have a width of 7.3m, with an entry and exit radii of 15m.
- 3.2.2 Visibility splays of 2.4m x 120m (suitable for access to a 40mph route such as Bridge Road North in accordance with TAN18) are available from the access junction. **Axis Drawing 2409-01-SK101** provides an illustration of the splays. The splay to the southwest has been measured to the nearside kerb, whilst the splay to the northeast has been measured to a 1m offset of the nearside kerb. This is considered entirely appropriate, as it is highly unlikely that vehicles would be travelling at speeds whilst grazing the kerb, and even if they were travelling at such speeds close to the kerb they would be visible from a 1m offset, as most motor vehicles are c2m wide. Furthermore, vehicles approaching the site access from the northeast would be travelling on the opposite side of the carriageway.
- 3.2.3 It is acknowledged that a bus shelter and lighting columns fall within splay. Manual for Streets (MfS) guidance (2007) sets out the following with reference to obstacles to visibility:

“The impact of other obstacles, such as street trees and street lighting columns, should be assessed in terms of their impact on the overall envelope of visibility. In general, occasional obstacles to visibility that are not large enough to fully obscure a whole vehicle of a pedestrian, including a child or wheelchair user, will not have a significant impact on road safety”. (MfS 2007)

- 3.2.4 Given that street lighting columns and a bus shelter, which is transparent, represent the only obstacles to visibility, and given the above MfS guidance, it is not considered that this would have an impact on road safety, and accordingly there is no requirement to relocate this infrastructure.
- 3.2.5 The Applicant has secured an agreement, subject to planning, to purchase the section of the strip of land lies within the visibility splay and falls between the application site and the highway. Additionally, the Applicant has agreed to enter into a Section 106 agreement with the adjacent landowner / LHA, to prohibit building on land within the visibility splay that is owned by a third party to the east of the application site.
- 3.2.6 A 2.0m footway is provided around the bellmouth. It is acknowledged that the LHA have requested that the footway is extended into the site, and a crossing point is provided at the narrowest point. This arrangement, however, would also require pedestrians to cross the internal car park access. It is therefore proposed that a ‘straight across’ crossing of the site access with dropped kerbs and tactile paving is provided, in order to follow the pedestrian desire line.

Servicing

- 3.2.7 The site layout has been designed to accommodate articulated HGV vehicle servicing to the service yard. **Axis Drawings 2409-01-ATR101-102** to this report includes details of HGV swept path assessment runs undertaken using industry standard Autodesk Vehicle Tracking software.

3.3 Car Parking

3.3.1 Proposed car parking supply to serve the development unit has been based on the WCBC's Local Planning Guidance Note No.16 'Parking Standards'. This document identifies the number of parking spaces considered appropriate for developments.

3.3.2 **Table TS3.1** below sets out the maximum parking standards, and the resultant parking provision required for the proposed development. As the application is for B8 development with B1, and the B1 element would be entirely ancillary, it is considered appropriate to apply B8 parking standards to the entire unit.

Table TS3.1: WCBC Car Parking Standards

Use Class	Car Parking Standard	Floor Area (sqm)	Required Spaces
B8	1 per 100m ²	4,148	41

3.3.3 The proposal scheme incorporates 41 car parking spaces (including 2 disabled bays), in accordance WCBC's maximum parking spaces. Furthermore, the proposed level of parking provision is considered to be sufficient for site operations, especially when considering the parking accumulation assessment presented in section 4.2.

3.3.4 The proposed car parking spaces have been assessed using Autodesk Vehicle Tracking software, which demonstrates that the car parking spaces can be accessed suitably by an estate car (see **Axis Drawing 2409-01-ATR103**).

3.3.5 It is considered that the proposal scheme provides an appropriate level of parking and would not generate any issues of overspill / fly parking across the public highway network.

3.3.6 A minimum of 4 cycle parking spaces are also proposed to be provided at the site. Such cycle parking provision is in accordance with WCBC standards, viz:

Table TS3.2: WCBC Cycle Parking Standards

Use Class	Cycle Parking Standard	Floor Area (sqm)	Required Spaces
B8	1 per 1,000m ²	4,148	4

3.4 Encouraging Sustainable Travel

3.4.1 The proposed unit would include for a basic food preparation area to avoid staff needing to travel off site during main break periods.

3.4.2 As identified above, a minimum of 4 no. cycle parking spaces are proposed to be provided on the site to encourage sustainable travel modes to / from the site.

4.0 PREDICTED TRAVEL DEMAND TO THE PROPOSAL SITE

4.1 Predicted Vehicle Trip Demand Levels

4.1.1 The vehicle trip demand associated with the proposed development scheme has been estimated via reference to trip rates and demand profiles derived from trip rate information for selected industrial unit sites held in the TRICS traffic generation database. TRICS is a widely accepted national database of historical trip demand data and contains observed traffic information for a large number of development-type sites and, as such, can be considered to produce reliable base trip rate data.

4.1.2 Average weekday trip rate estimates for industrial units (1,000 – 9,000sqm) derived from a representative sample (not including sites in Greater London or Eire) suggest the weekday peak hour vehicle trip rates as summarised in **Table TS4.1** below. Detailed TRICS output for the full daytime periods are provided in **Appendix TS1**.

Table TS4.1: Average Trip Rates and Trip Generation (4,148sqm)

Trip Rates	Trip Rate			Trip Demand (Vehicles)		
	Arrivals	Departs	Total	Arrivals	Departs	Total
AM Peak (08:00 – 09:00)	0.356	0.098	0.454	15	4	19
PM Peak (17:00 -18:00)	0.028	0.313	0.341	1	13	14
12 hour (07:00-19:00)	2.000	2.100	4.100	83	87	170

(Trips per 100sqm building GFA)
(all vehicles)

4.1.3 Review of **Table TS4.1** demonstrates that maximum hourly trip demand would be just 19 two-way vehicle movements in the 08:00-09:00 AM peak period (i.e. 15 in / 4 out), and 14 two-way vehicle movements in the 17:00-18:00 PM peak period (i.e. 1 in / 13 out). Such trip demand is equivalent to less than 1 vehicle movements every 3 minutes. Up to 170 two-way vehicle movements (83 in / 87 out) are anticipated over the core 12-hour period of 07:00-19:00. Such level of trip demand is not considered to be significant.

4.2 Car Parking Accumulation

- 4.2.1 A car parking accumulation exercise has been undertaken, using the TRICS trip rates identified above. The results of this exercise are provided in **Table TS4.2** below:

Table TS4.2: Car Parking Accumulation

Time	Trip Demand		Car Parking Accumulation
	Arrivals	Departures	
07:00-08:00	13	4	13
08:00-09:00	15	4	24
09:00-10:00	11	5	30
10:00-11:00	7	6	31
11:00-12:00	6	6	32
12:00-13:00	9	12	29
13:00-14:00	8	8	28
14:00-15:00	5	6	27
15:00-16:00	4	6	26
16:00-17:00	2	10	18
17:00-18:00	1	13	6
18:00-19:00	2	8	0

- 4.2.2 **Table TS4.2** above shows that the maximum car parking demand at the site would occur between 11:00 – 12:00, where a total of 32 cars would be parked in the car park. This exercise therefore demonstrates that the 41 proposed car parking spaces would be more than sufficient to accommodate the development and resultant car parking demand.

5.0 SUMMARY AND CONCLUSIONS

Introduction

- 5.1 This Transport Statement (TS) has been prepared by Axis on behalf of C4 Consulting to consider highways and transport matters related to a detailed planning application for a B8 warehouse unit with ancillary B1 office on land off Bridge Road North, Wrexham.

Site Location and Existing Conditions

- 5.2 The proposal site represents a vacant piece of land located within an existing industrial area (Wrexham Industrial Estate). The site is bounded by greenfield lane to the north, an industrial unit to the east, Bridge Road North to the south, and a group of offices to the west.
- 5.3 The application site is currently undeveloped and is not served by an existing formal vehicular access point. However, the road which provides access to the adjacent offices (located off Ash Road South) runs to the sites western boundary, forming a stub. This access stub is currently gated to prevent unauthorised access onto the site.
- 5.4 Access to the site is proposed via Bridge Road North, located on the southern boundary of the site. Bridge Road North is circa 7.3m wide, with 2m footways provided on both sides of the carriageway. This road is subject to a 40mph speed limit, and street lighting is provided.
- 5.5 Review of the historical accident information identifies that just no injury accidents were recorded within the study area during the five-year search period. Considering the above, it is not considered that there are any prevailing material road safety issues that would bring the proposed development into question.

Site Accessibility

- 5.6 It is considered that the proposal site represents an appropriate location for the development of a B8 unit with ancillary B1 use, having access to public transport services and being served by walking and cycling connections, providing opportunities for locally based staff and visitor journeys to be made via sustainable alternative travel options to the private car.

Development Proposals

- 5.7 The proposal scheme is for one 3,368m² GFA B8 warehouse unit with ancillary 780m² B1 office (4,148sqm total). The scheme also includes for vehicle access and servicing arrangements, car parking and associated enabling / ancillary site works.

Site Access & Car Parking

- 5.8 The proposed development would be served via a new T-junction connection off Bridge Road North from the southern boundary of the site. The access would have a width of 7.3m, with an entry and exit radii of 15m.
- 5.9 The proposal scheme incorporates 41 car parking spaces (including 2 disabled bays), this represents a level in accordance with WCBC's maximum parking spaces.
- 5.10 A minimum of 4 cycle parking spaces are also proposed to be provided at the site. Such cycle parking provision is in accordance with WCBC standards.

Predicted Development Trip Demand

- 5.11 Maximum hourly trip demand has been estimated to be just 19 two-way vehicle movements in the 08:00-09:00 AM peak period (i.e. 15 in / 4 out), and 14 two-way vehicle movements in the 17:00-18:00 PM peak period (i.e. 1 in / 13 out). Such trip demand is equivalent to less than 1 vehicle movements every 3 minutes. Up to 170 two-way vehicle movements (83 in / 87 out) are

anticipated over the core 12-hour period of 07:00-19:00. Such level of trip demand is not considered to be significant.

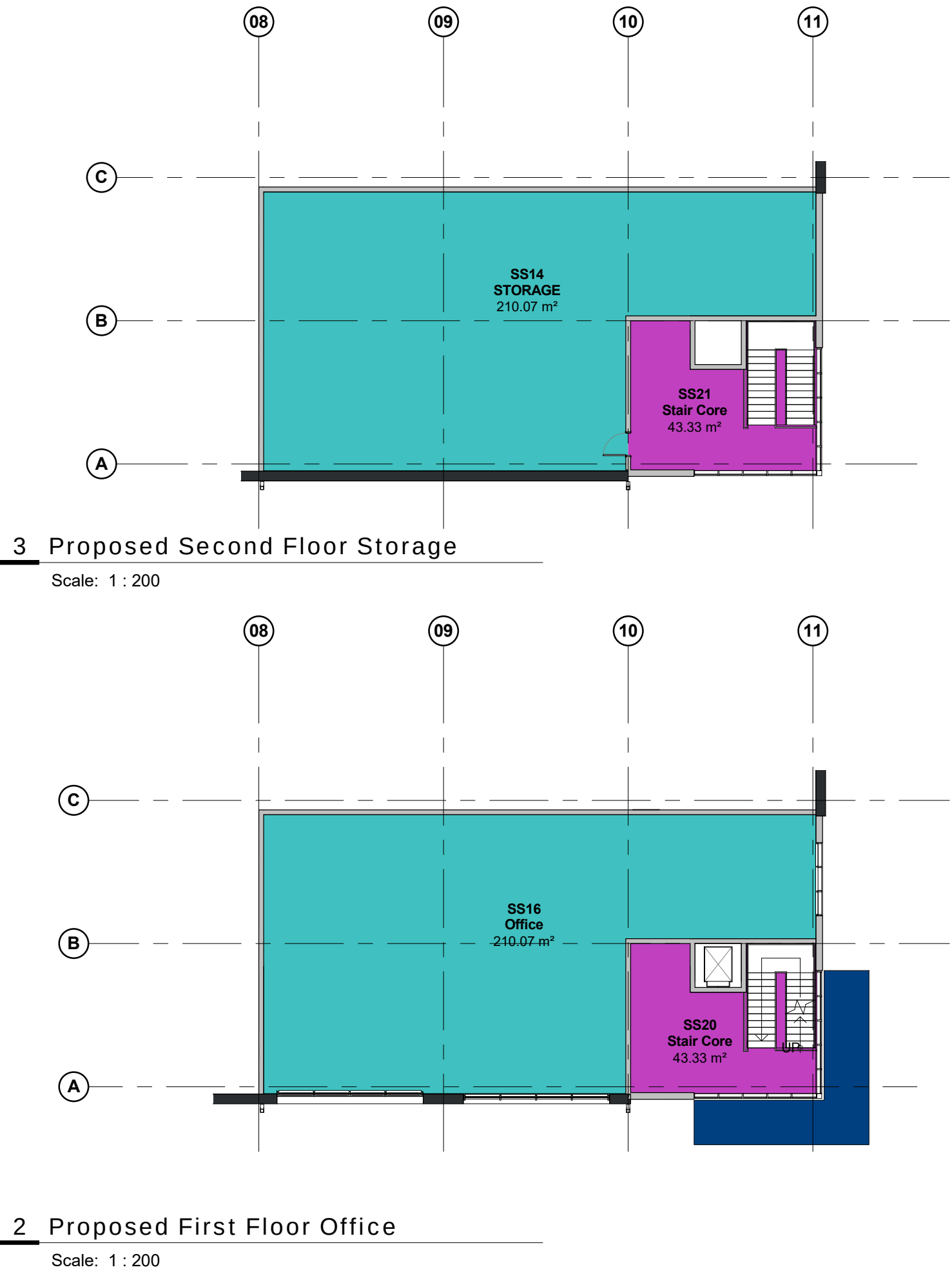
Summary

- 5.12 Given the above review of issues, it is considered that the proposal scheme represents an appropriate and sustainable development option. The proposal site is located within an established industrial area, and is accessible via a range of travel modes. Assessment of anticipated trip demand has also demonstrated that the proposals would not result in a significant impact on the local highway network. It is therefore concluded that there are no reasonable highway safety or capacity grounds for objection to the development scheme.



DRAWINGS

⚠ Hazard Identification		
ref	hazard	date



C	Office provision revised following information received from end user	RJ	27.06.18
B	Redesign and issued for Planning	TA	13.04.18
A	Issued for Planning	AG	27.02.18
rev	revision details	by	date

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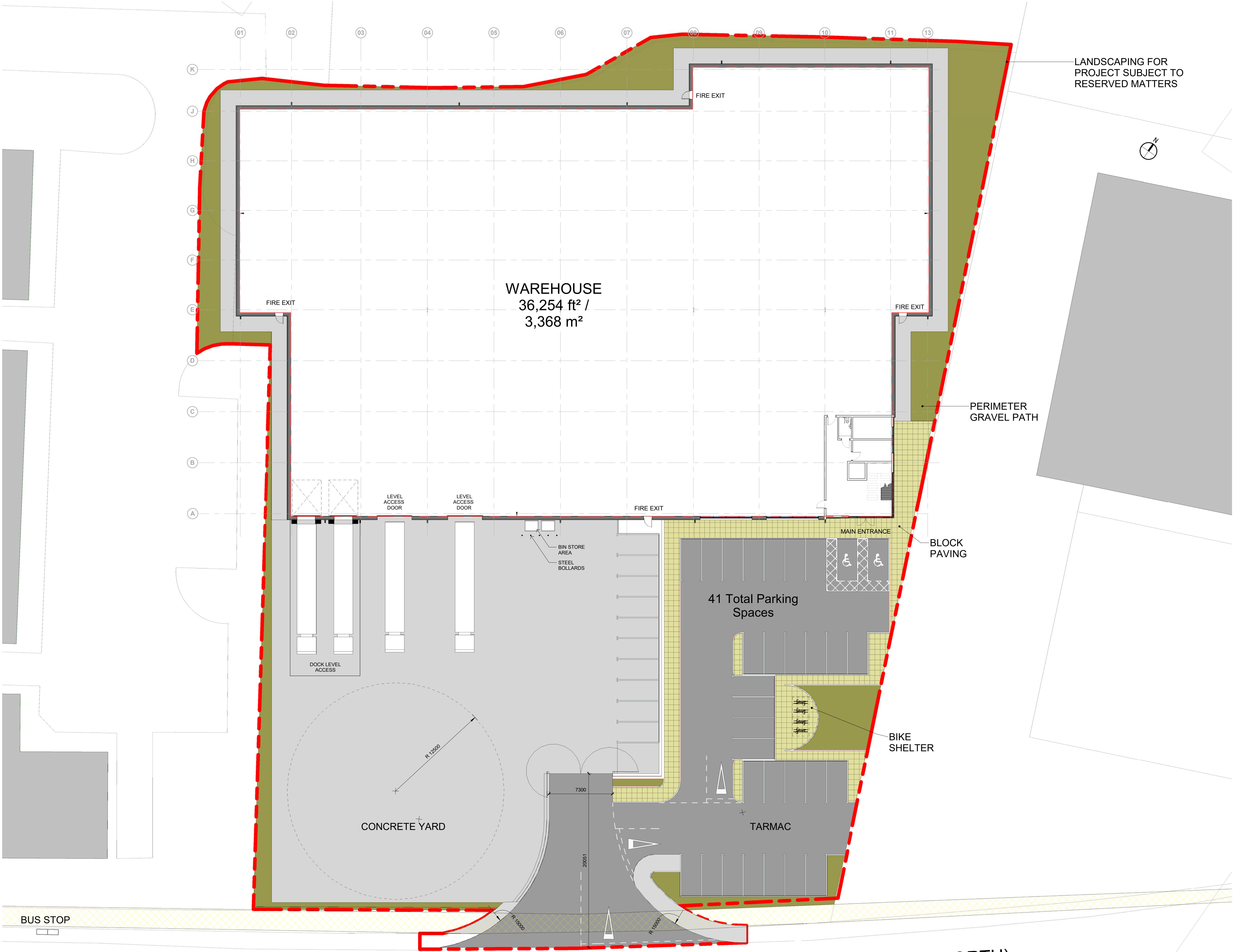
Project Management • Architecture • Building Surveying • Cost Consultancy

Client
Andrews Investment Ltd

Project
Bridge Road North
Wrexham Industrial Estate

Drawing Title
General Arrangement Plans

Drawn by	AG	Date	27.02.18
Checked by	TA	Date	27.02.18
Job no.	18-001	Scale	1 : 200 @ A1
Drg no.	C4C-B1-Z1-A1-20-P2-00-001	Revision	C



LANDSCAPING FOR
PROJECT SUBJECT TO
RESERVED MATTERS

Status **PLANNING**

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Hazard Identification		
ref	hazard	date

Area Schedule (GIA)		
Name	Total Areas (GIA)	
	Area Metric	Area Imperial
GIA GF	3,628 m²	39,050 ft²
GIA FF	260 m²	2,799 ft²
GIA SF	260 m²	2,799 ft²
Grand total	4,148 m²	44,648 ft²

Parking Schedule
Total

41
41

Site Area
Area

1.93 acres

B	GA Updated following end user information received.	RJ	27.06.18
A	Issued for planning	AG	27.02.18
rev	revision details	by	date

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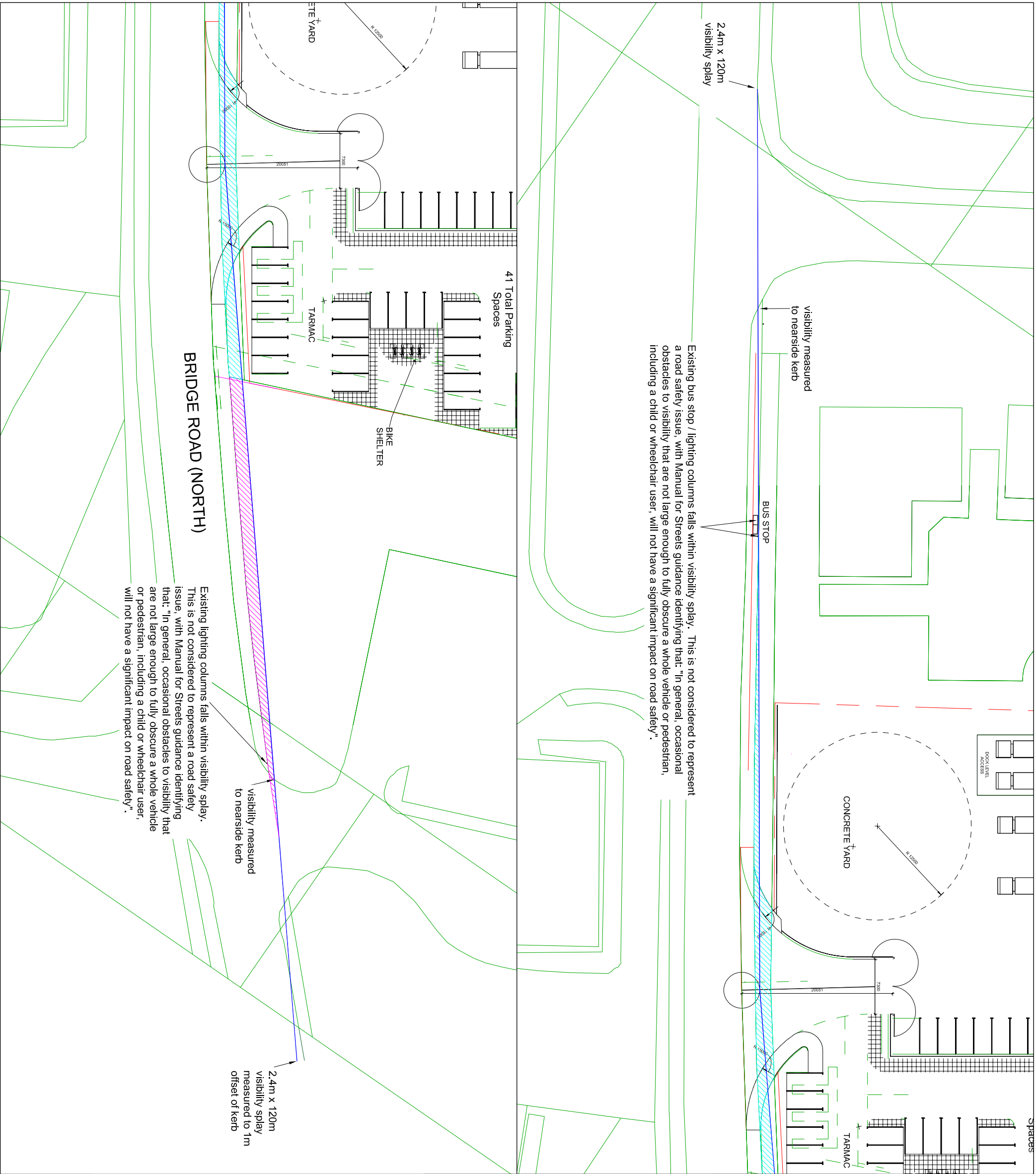
Project
Bridge Road North
Wrexham Industrial Estate

Drawing Title
Site Plan as Proposed

Drawn by	AG/TA	Date	22.02.18
Checked by	JEP	Date	26.02.18
Job no.	18-001	Scale	1 : 200 @ A1
Drg no.	C4C-B1-Z1-A1-01-P2-00-001	Revision	B

Diagonal Yellow Hatch
2.4m x 120m Visibility Splay

BRIDGE ROAD (NORTH)



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Revision History		Date
A	desc	date a
B	desc	date b
C	desc	date c
D	desc	date d
E	desc	date e
F	desc	date f
G	desc	date g
H	desc	date h
I	desc	date i
J	desc	date j

- Key**
- land to be purchased by applicant (subject to planning)
 - land to be subject to Section 106 agreement with the adjacent landowner / LHA, to prohibit building on land within the visibility splay

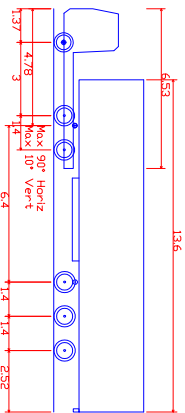
<i>Chester Office:</i> Well House Barns Wellington House Chester CH4 0DH		<i>South Manchester Office:</i> Cannella House 78 Wilmslow SK9 5BB		axis	
0844 8700 007 - www.axisped.co.uk					
client: C4 Consulting					
project: Bridge Road North, Wrexham					
drawing title: Visibility Splays					
scale(s): 1:500@A3		date: June 2018		drawn by: HM	checked: KG
drawing number: 2409-01-SK101					
xrefs:		status: Information			
		rev: -			
planning environment design					

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	Revision History	Date
A	desc	date a
3	desc	date b
2	desc	date c
1	desc	date d
0	desc	date e
=	desc	date f
=	desc	date g
3	desc	date h
1	desc	date i
1	desc	date j



Max Legal Length (UK)	Articulated Vehicle (16.5m)
Overall Length	16.500m
Overall Width	2.550m
Overall Body Height	3.661m
Max Body Ground Clearance	0.411m
Max Track Width	2.500m
Lock to lock time	6.00s
Lock to Kern	6.330m
Turning Radius	

<i>Chesler Office:</i> Well House Barns Barton Cheshire CH4 0DH	<i>South Manchester Office:</i> Camellia House 76 Water Lane Withinslow SK9 5EB	
0844 8700 007 - www.zalisped.co.uk		

C4 Consulting

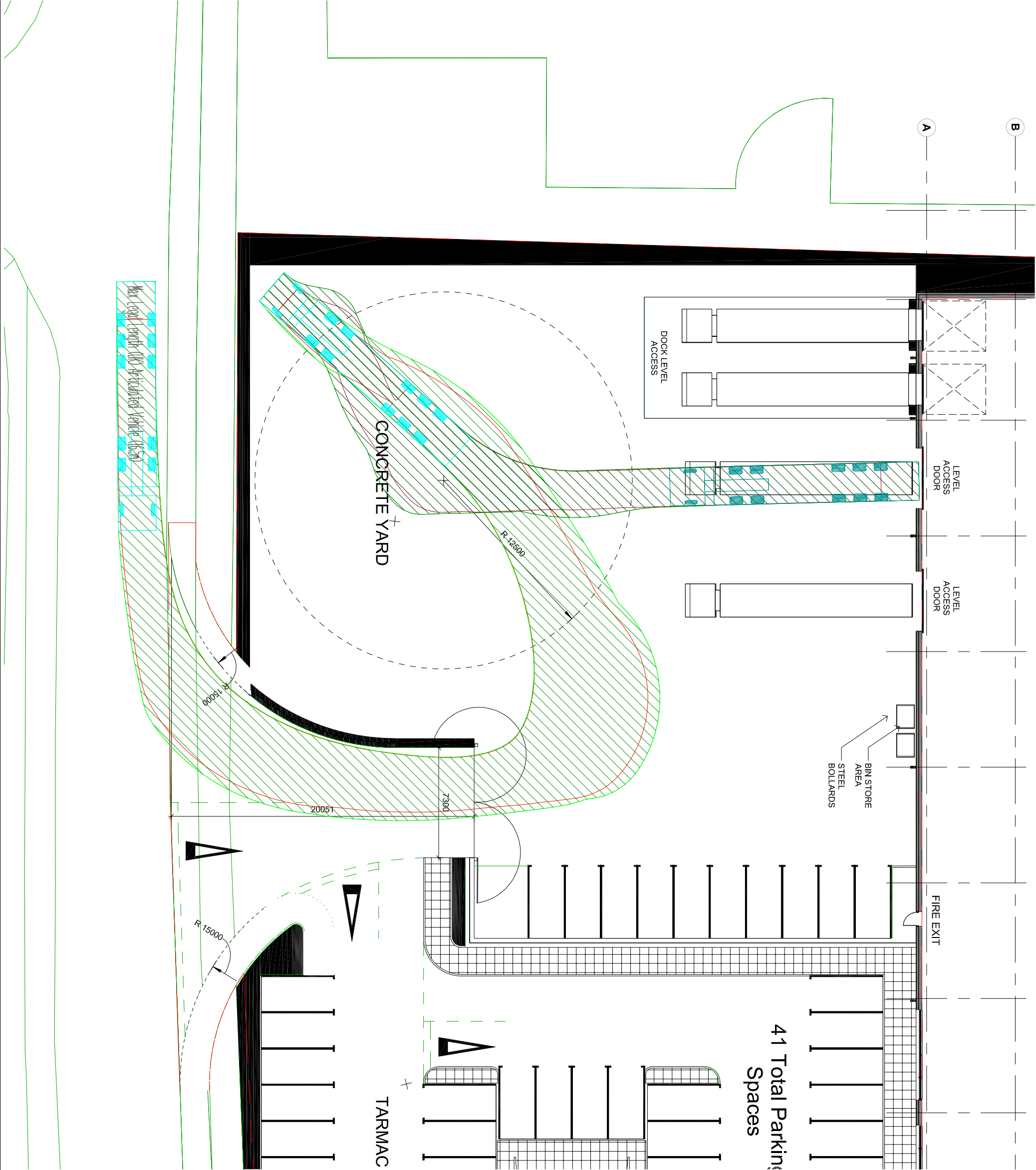
project: Bridge Road North, Wrexham

drawing title:

Swept Path Assessment Arctic Vehicle Entrance

scale(s): 1:250@A3	date: June 2018	drawn by:	checked:
drawing number: 2409-01-ATR101		HM	KG
xrefs:		status:	
		information	
		rev:	
		-	

planning environment design

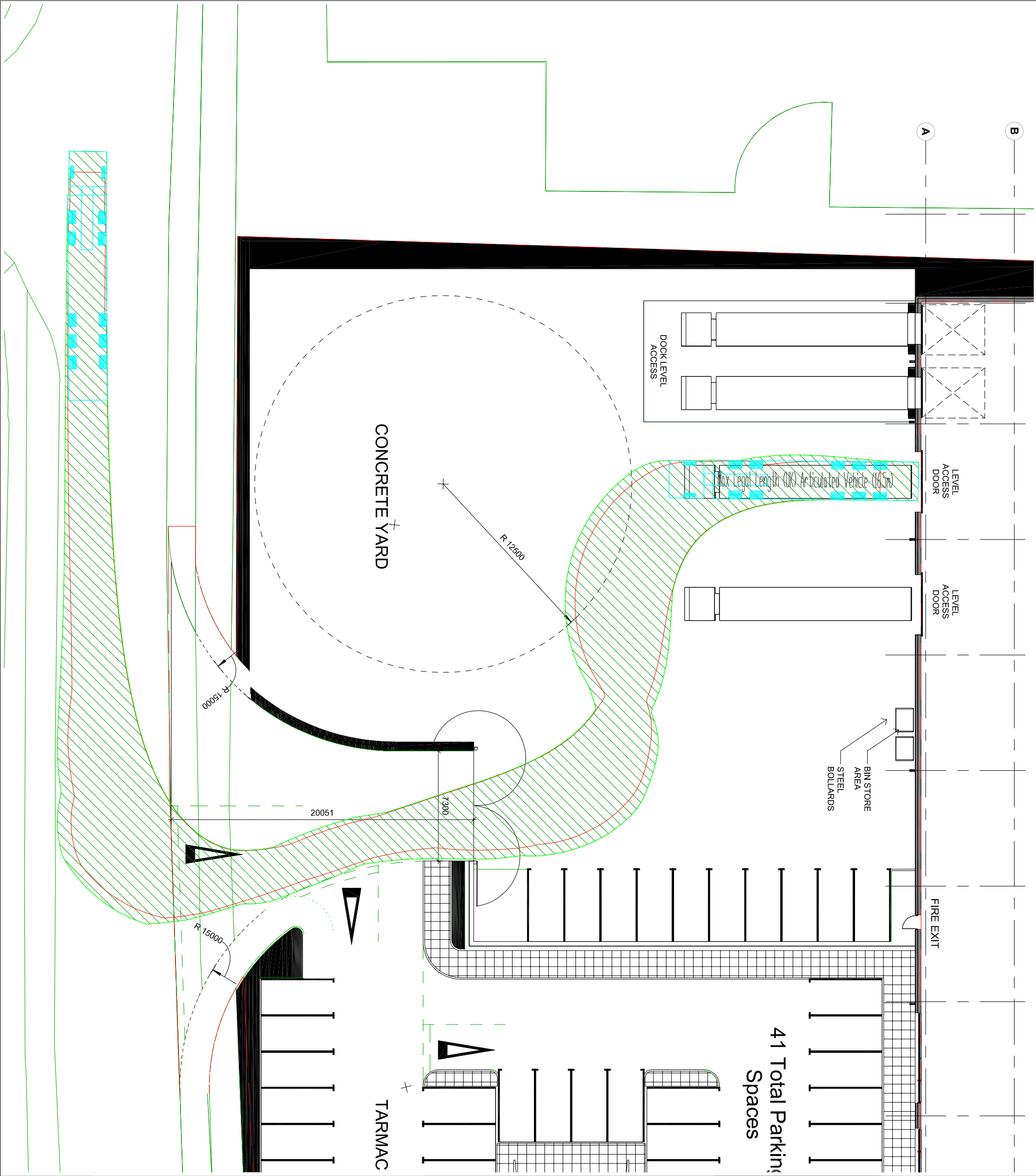
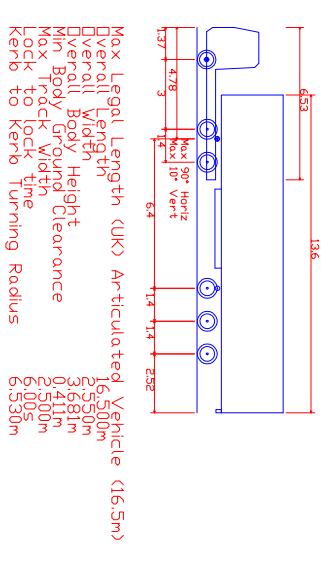


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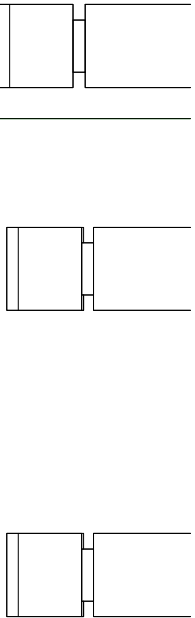
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Revision History		Date	
A	desc	date a	
B	desc	date b	
C	desc	date c	
D	desc	date d	
E	desc	date e	
F	desc	date f	
G	desc	date g	
H	desc	date h	
I	desc	date i	
J	desc	date j	

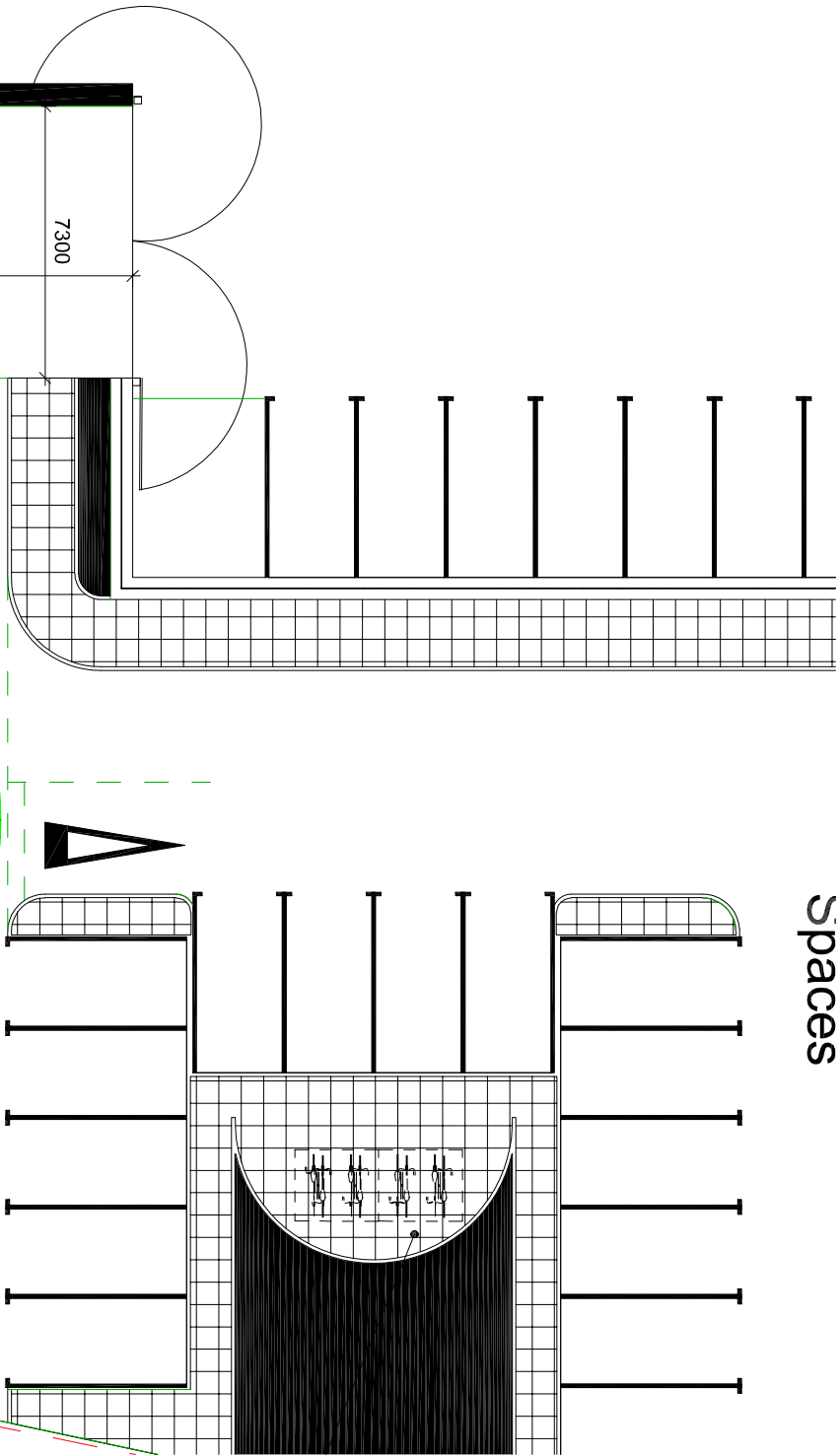


<i>Chester Office:</i> Well House Barrs Wellington House Chester CH4 0DH		<i>South Manchester Office:</i> Canalside House 78 Wilmslow Lane Wilmslow SK9 5BB		axis
0844 8700 007 - www.axisped.co.uk				
client: C4 Consulting				
project: Bridge Road North, Wrexham				
drawing title: Swept Path Assessment Artic Vehicle Exit				
scale(s): 1:250@A3		date: June 2018	drawn by:	checked:
drawing number: 2409-01-ATR102			HM	KG
xrefs:			status: Information	
			rev: -	
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LEVEL
ESS

Spaces



CONCRETE YARD

R 15000

R 15000

ESCAPE 1m (2006)

ESCAPE 1m (2006)

BRIDGE

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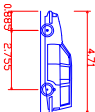
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• Revision History

• Date

A	desc	date a
B	desc	date b
C	desc	date c
D	desc	date d
E	desc	date e
F	desc	date f
G	desc	date g
H	desc	date h
I	desc	date i
J	desc	date j



Estate Car (2006)
Overall Length 4.71m
Overall Width 1.90m
Overall Height 1.44m
Min Body Ground Clearance 0.207m
Max Track Width 1.56m
Lock to lock time 5.950m
Kerb to Kerb Turning Radius

Chester Office:
Wendy Boston
Chester
CH4 0DH

South Manchester Office:
78 Wilton Lane
Wilmslow
SK9 5BB

axis

client: C4 Consulting

project: Bridge Road North, Wrexham

drawing title:

Swept Path Assessment
Estate Car

scale(s): 1:200@A3	date: June 2018	drawn by: HM	checked: KG
drawing number: 2409-01-ATR103		status: Information	
xrefs:		rev: -	

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FIGURES



Figure TS1

Site Location – Strategic Context

2409-01

Bridge Road North, Wrexham

June 2018

axis

Camellia House
76 Water Lane,
Wilmslow
Cheshire, SK9 5BB



Figure TS2

Site Location – Local Context

2409-01

Bridge Road North, Wrexham

June 2018



Camellia House
76 Water Lane,
Wilmslow
Cheshire, SK9 5BB

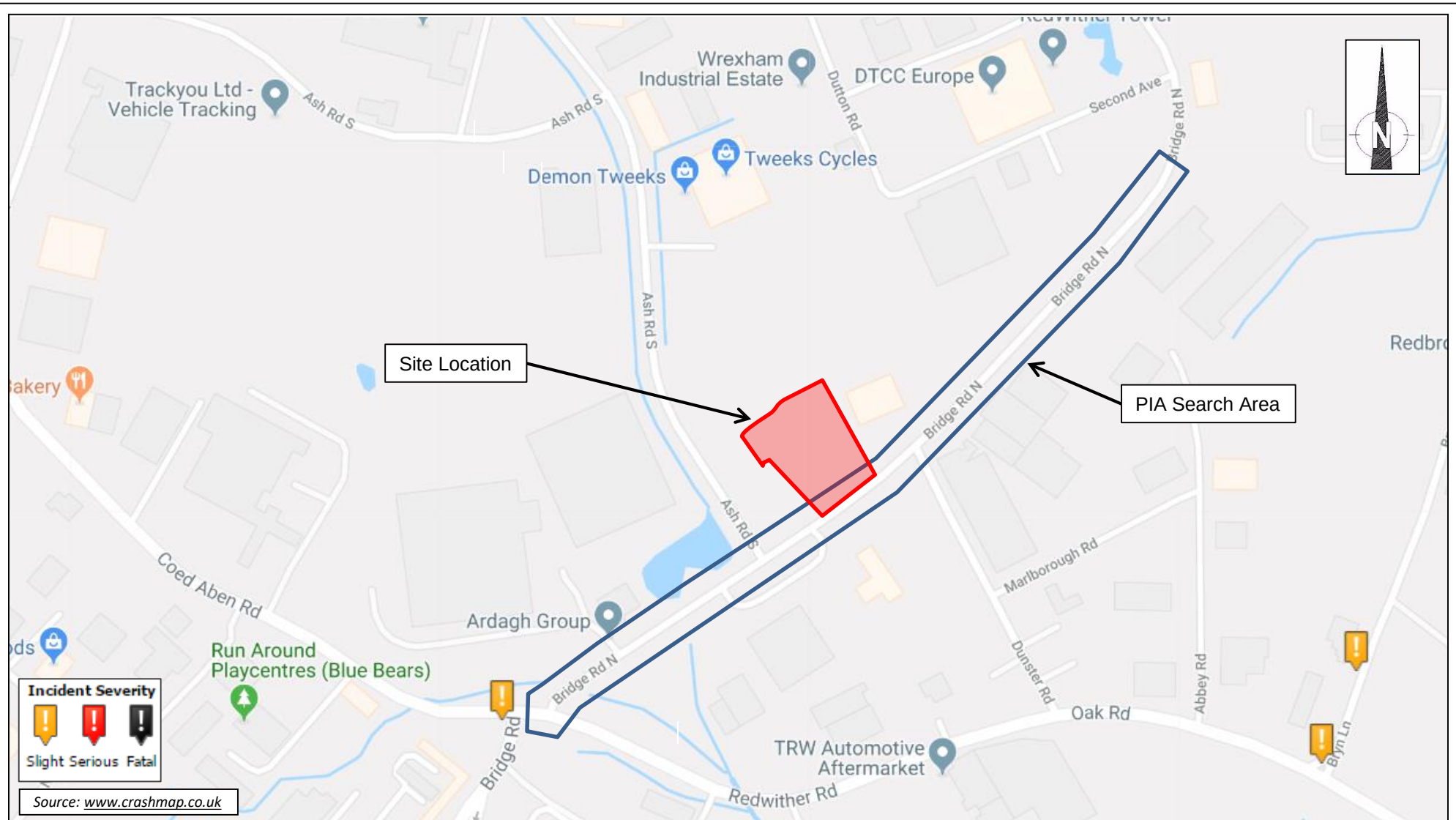


Figure TS3

Location of Recorded Personal Injury Accidents

2409-01

Bridge Road North, Wrexham

June 2018

axis

Camellia House
76 Water Lane,
Wilmslow
Cheshire, SK9 5BB

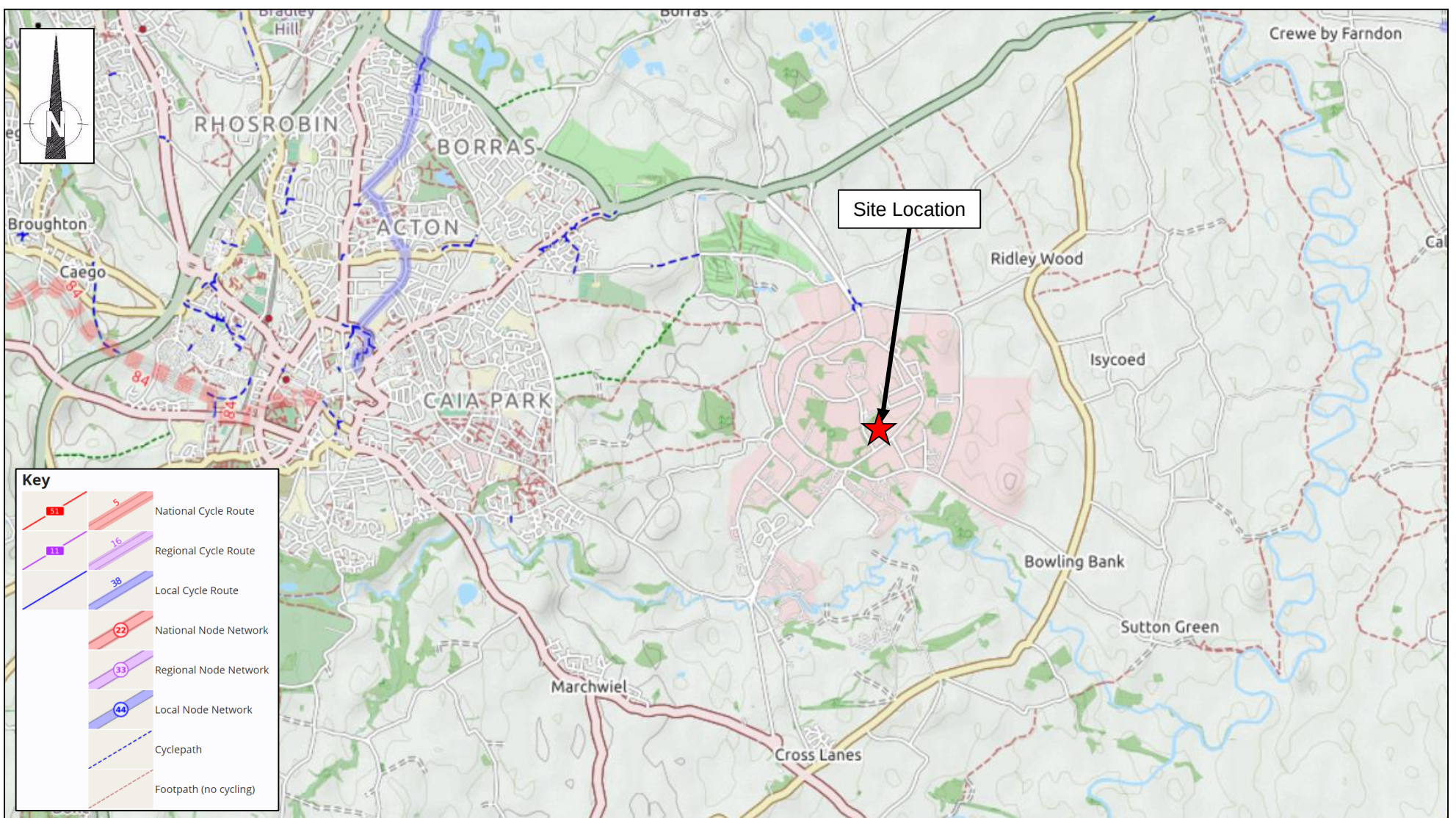


Figure TS4

Local Cycleway and Footpath Connections

2409-01

Bridge Road North, Wrexham

June 2018

axis

Camellia House
76 Water Lane,
Wilmslow
Cheshire, SK9 5BB

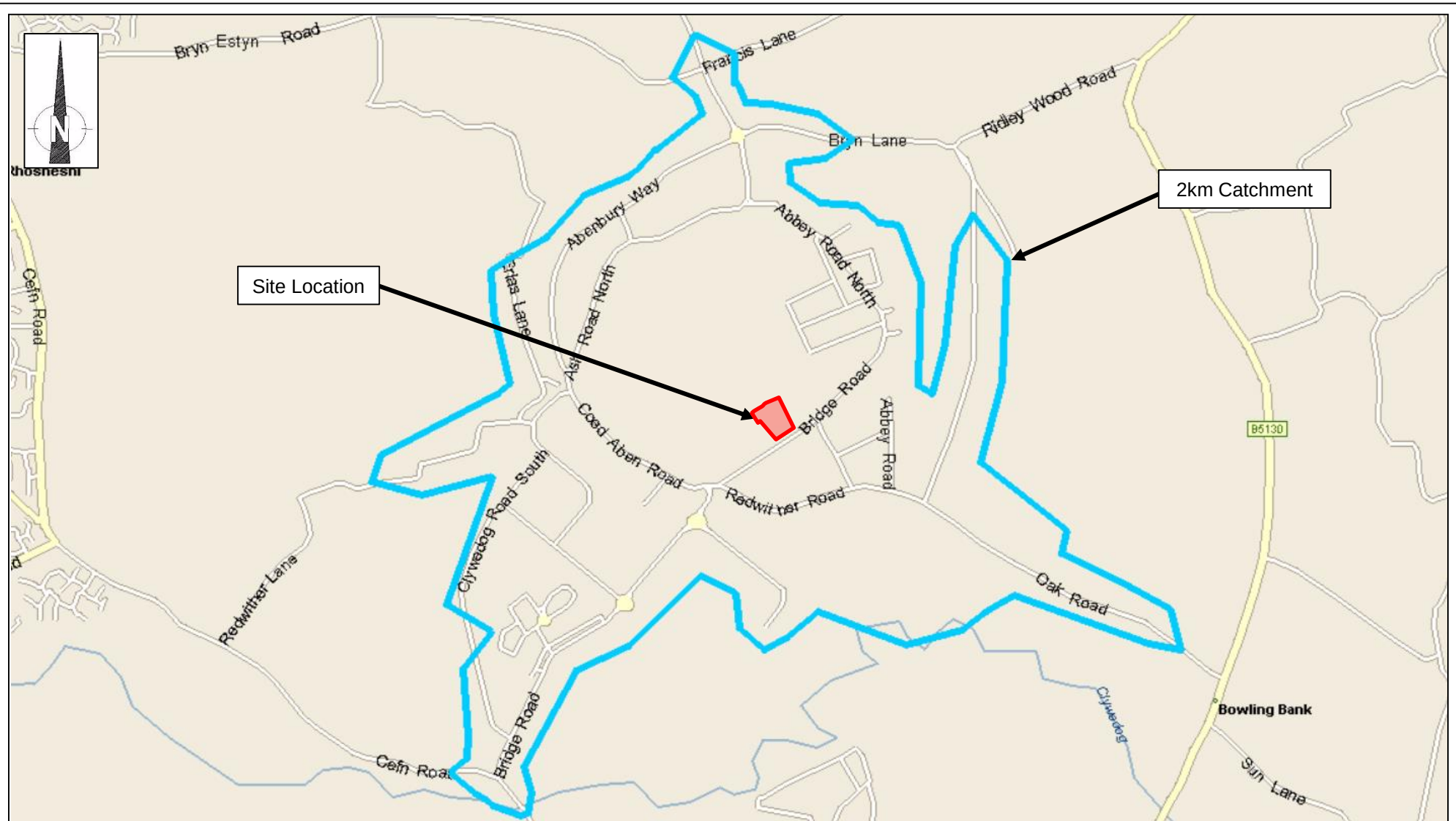


Figure TS5

2km Walking Catchment from the Proposal Site

2409-01

Bridge Road North, Wrexham

June 2018



Camellia House
76 Water Lane,
Wilmslow
Cheshire, SK9 5BB

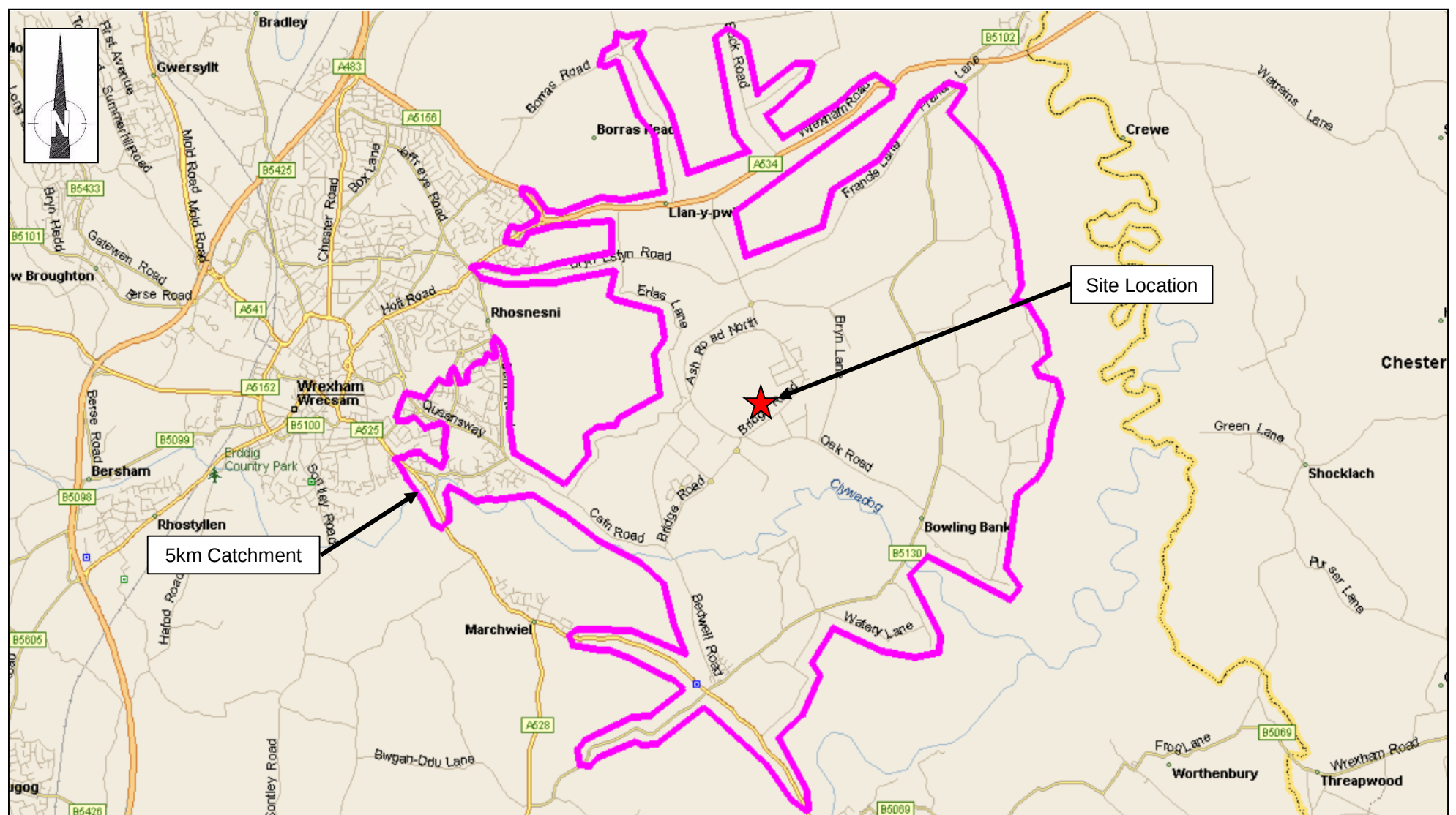


Figure TS6

5km Cycling Catchment from the Proposal Site

2409-01

Bridge Road North, Wrexham

June 2018

axis

Camellia House
76 Water Lane,
Wilmslow
Cheshire, SK9 5BB



APPENDICES



APPENDIX TS1

Calculation Reference: AUDIT-339901-180620-0642

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

02	SOUTH EAST	
	HC HAMPSHIRE	1 days
03	SOUTH WEST	
	BR BRISTOL CITY	1 days
	DV DEVON	1 days
04	EAST ANGLIA	
	SF SUFFOLK	1 days
05	EAST MIDLANDS	
	DS DERBYSHIRE	1 days
06	WEST MIDLANDS	
	HE HEREFORDSHIRE	1 days
	WM WEST MIDLANDS	1 days
08	NORTH WEST	
	CH CHESHIRE	2 days
17	ULSTER (NORTHERN IRELAND)	
	AN ANTRIM	1 days

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

Secondary Filtering selection:

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

Parameter: Gross floor area
 Actual Range: 1100 to 8100 (units: sqm)
 Range Selected by User: 1000 to 9000 (units: sqm)

Public Transport Provision:

Selection by: Include all surveys

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

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	1 days
Tuesday	3 days
Wednesday	1 days
Thursday	3 days
Friday	2 days

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

Selected survey types:

Manual count	10 days
Directional ATC Count	0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre)	3
Edge of Town	7

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	7
Commercial Zone	1
Development Zone	1
No Sub Category	1

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

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Secondary Filtering selection:

Use Class:

B1	6 days
B2	3 days

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

Population within 1 mile:

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

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

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

Car ownership within 5 miles:

0.6 to 1.0	2 days
1.1 to 1.5	8 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	10 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	10 days
-----------------	---------

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

1	AN-02-C-01	COMPOSITES	ANTRIM
	FERGUSON ROAD		
	LISBURN		
	Suburban Area (PPS6 Out of Centre)		
	No Sub Category		
	Total Gross floor area:	6500 sqm	
	Survey date: FRIDAY	19/06/15	Survey Type: MANUAL
2	BR-02-C-02	STAINLESS FITTINGS	BRISTOL CITY
	SOUTH LIBERTY LANE		
	BRISTOL		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	1475 sqm	
	Survey date: TUESDAY	22/09/15	Survey Type: MANUAL
3	CH-02-C-02	INDUSTRIAL MATERIALS	CESHIRE
	JUPITER DRIVE		
	CHESTER W. EMP. PARK		
	CHESTER		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	8100 sqm	
	Survey date: WEDNESDAY	19/11/14	Survey Type: MANUAL
4	CH-02-C-03	OFFICE FURNITURE	CESHIRE
	BRUNEL ROAD		
	LYME GREEN BUS. PARK		
	MACCLESFIELD		
	Edge of Town		
	Development Zone		
	Total Gross floor area:	6658 sqm	
	Survey date: MONDAY	19/09/16	Survey Type: MANUAL
5	DS-02-C-02	ENGINEERED PRODUCTS	DERBYSHIRE
	PONTEFRAC STREET		
	DERBY		
	Suburban Area (PPS6 Out of Centre)		
	Industrial Zone		
	Total Gross floor area:	2600 sqm	
	Survey date: THURSDAY	25/06/15	Survey Type: MANUAL
6	DV-02-C-02	ENERGY RECOVERY FACILITY	DEVON
	GRACE ROAD SOUTH		
	MARSH BARTON TRAD. EST.		
	EXETER		
	Suburban Area (PPS6 Out of Centre)		
	Industrial Zone		
	Total Gross floor area:	3513 sqm	
	Survey date: THURSDAY	06/07/17	Survey Type: MANUAL
7	HC-02-C-01	ENGINEERING COMPANY	HAMPSHIRE
	JAYS CLOSE		
	BASINGSTOKE		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	3000 sqm	
	Survey date: THURSDAY	16/06/16	Survey Type: MANUAL
8	HE-02-C-02	THERMAL PROCESSING	HEREFORDSHIRE
	COLLEGE ROAD		
	BURCOTT		
	HEREFORD		
	Edge of Town		
	Commercial Zone		
	Total Gross floor area:	1880 sqm	
	Survey date: TUESDAY	22/10/13	Survey Type: MANUAL
9	SF-02-C-01	JOINERY	SUFFOLK
	ANSON ROAD		
	MARTLESHAM HEATH		
	IPSWICH		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	1100 sqm	
	Survey date: FRIDAY	12/07/13	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

10	WM-02-C-03	INDUSTRIAL GLASS	WEST MIDLANDS
	DOWNING STREET		
	SMETHWICK		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	5070 sqm	
	Survey date: TUESDAY	06/11/12	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.

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TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
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	10	3990	0.323	10	3990	0.095	10	3990	0.418
08:00 - 09:00	10	3990	0.356	10	3990	0.098	10	3990	0.454
09:00 - 10:00	10	3990	0.256	10	3990	0.125	10	3990	0.381
10:00 - 11:00	10	3990	0.173	10	3990	0.133	10	3990	0.306
11:00 - 12:00	10	3990	0.155	10	3990	0.138	10	3990	0.293
12:00 - 13:00	10	3990	0.226	10	3990	0.291	10	3990	0.517
13:00 - 14:00	10	3990	0.185	10	3990	0.203	10	3990	0.388
14:00 - 15:00	10	3990	0.115	10	3990	0.143	10	3990	0.258
15:00 - 16:00	10	3990	0.095	10	3990	0.138	10	3990	0.233
16:00 - 17:00	10	3990	0.050	10	3990	0.233	10	3990	0.283
17:00 - 18:00	10	3990	0.028	10	3990	0.313	10	3990	0.341
18:00 - 19:00	10	3990	0.038	10	3990	0.190	10	3990	0.228
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:	2.000			2.100			4.100		

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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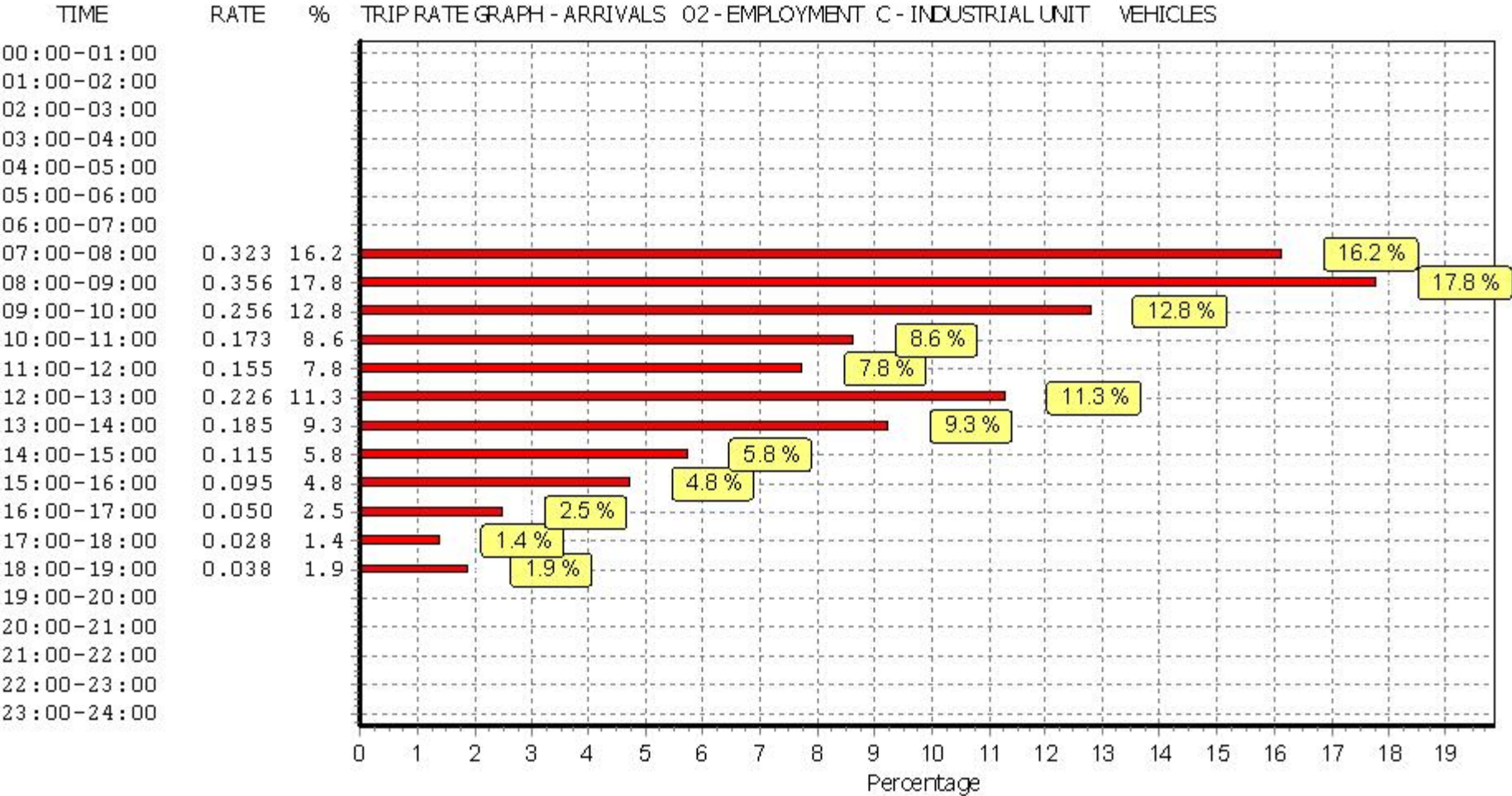
Parameter summary

Trip rate parameter range selected:	1100 - 8100 (units: sqm)
Survey date range:	01/01/10 - 06/07/17
Number of weekdays (Monday-Friday):	10
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	1
Surveys manually removed from selection:	0

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

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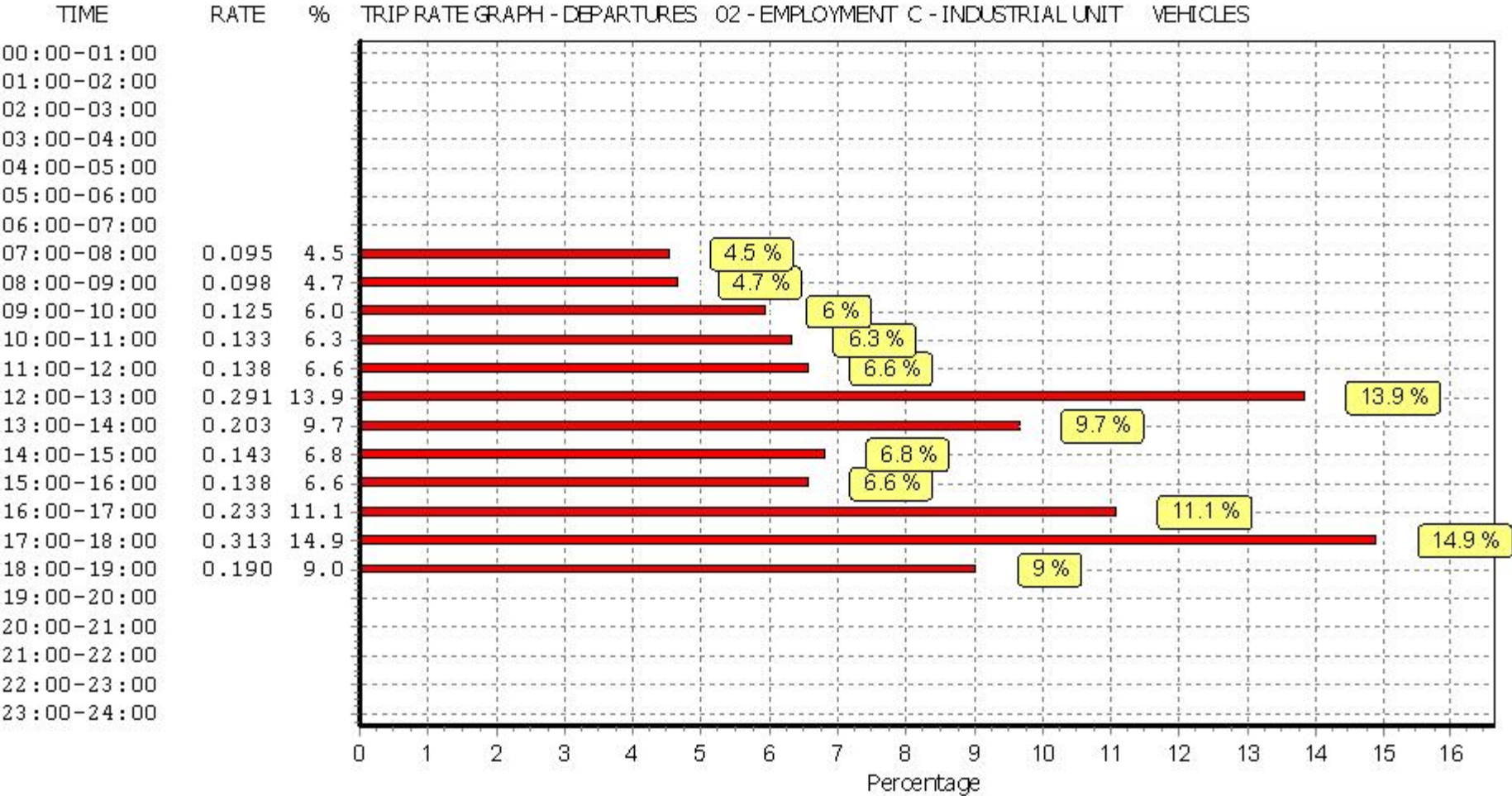
Licence No: 339901



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.

Axis 76 Water Lane Wilmslow

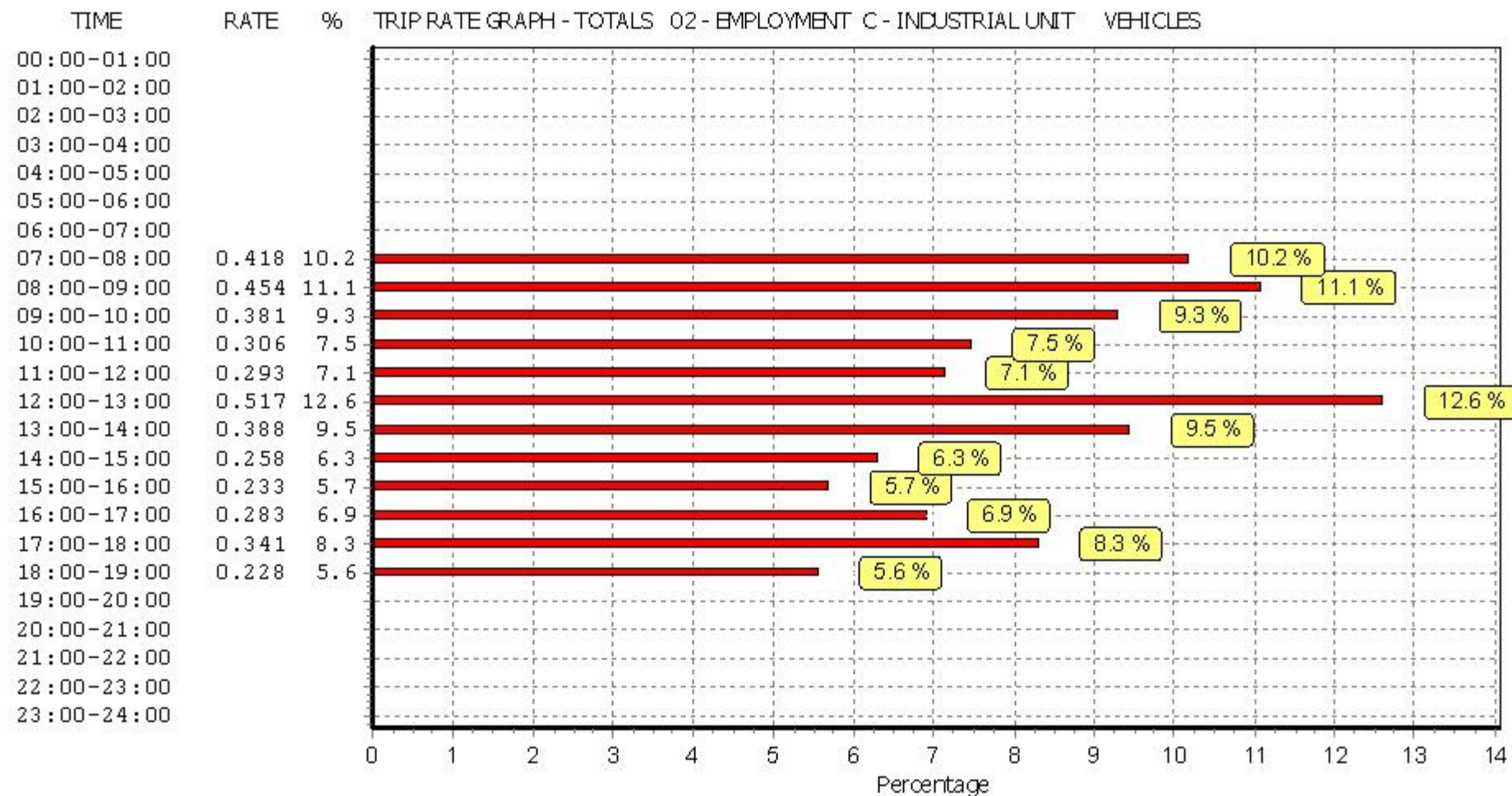
Licence No: 339901



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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Licence No: 339901



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.