

Proposed Mixed Use Development Comprising Safari Tents, Change of Use from Stables to Café / Shop Bar & Change of Use from Agricultural Barn to Storage and Ancillary Parking / Other Facilities.

Bowling Bank Farm, Worthenbury, Wrexham

Highways Technical Note 01

Prepared on behalf of:

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1.0 INTRODUCTION

1.1 Purpose of This Report

1.1.1 AXIS have been instructed by Mr Hopkins to provide highway-related advice in relation to a proposed mixed-use development at Bowling Bank Farm, Mulsford Lane, Worthenbury near Wrexham.

1.1.2 The scheme comprises the following main elements:-

- i) Erection of 16 'Safari' tents for a 'glamping' experience;
- ii) Conversion of existing stables to include a café / bar / shop;
- iii) Conversion of a barn storage facility (for tent storage); and,
- iv) Provision of a parking area (comprising some 28 spaces), sewage facilities, electricity substation and landscaping.

1.1.3 The proposals were the subject of a recent pre-application enquiry with the local highway authority at Wrexham Borough County Council (WCBC). WCBC provided a written response on 27th March 2019, a copy of which is contained in **Appendix 1** to the rear of this report.

1.1.4 WCBC Highways raised a number of issues that this report seeks to address. These issues include:-

- i) Junction visibility from the site access should ideally be achievable for a distance of 56m in both directions from a 2.4m minor road visibility setback distance. WCBC note that visibility is restricted to the east by a hedgerow;
 - ii) As a result, WCBC indicate that they would not be able to support an application which results in any significant vehicular intensification of the site access;
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- iii) WCBC would wish to see any gates into the site pushed back a minimum of 10m from the edge of Mulsford Lane and any access to be a minimum of 5.5m wide. WCBC also recommend that the access is also surfaced with hard-bound material (such as bitmac) for a minimum of 10m from the highway;
 - iv) WCBC consider that there is a section of Mulsford Lane between the site and Frog Lane which is too narrow to accommodate a scheme of the size proposed, and so Mulsford Lane would therefore benefit from a scheme of widening;
 - v) WCBC indicate that the level of achievable forward visibility for vehicles turning right from Frog Lane into Mulsford Lane is approximately 40m and therefore 'not ideal';
 - vi) As a result, WCBC would not be able to support an application which results in any significant vehicular intensification of the Frog Lane / Mulsford Lane junction;
 - vii) WCBC would wish to see further details provided (TRICS data) to substantiate the traffic forecasts included in the pre-application submission;
 - viii) Any proposed development of this nature would need to provide adequate parking and turning facilities within the curtilage of the site, and that a comparison should be carried out with the WCBC's adopted car parking standards;
 - ix) The Public Right of Way (PROW) network must not be interfered with; and,
 - x) The site may well be deemed to be unsustainable in transport terms.
- 1.1.5 This Highways Technical Note has therefore been prepared to address the above concerns and to set out the traffic and transport-related implications of the proposed development.

1.2 Structure of This Report

- 1.2.1 This report is structured as follows:-
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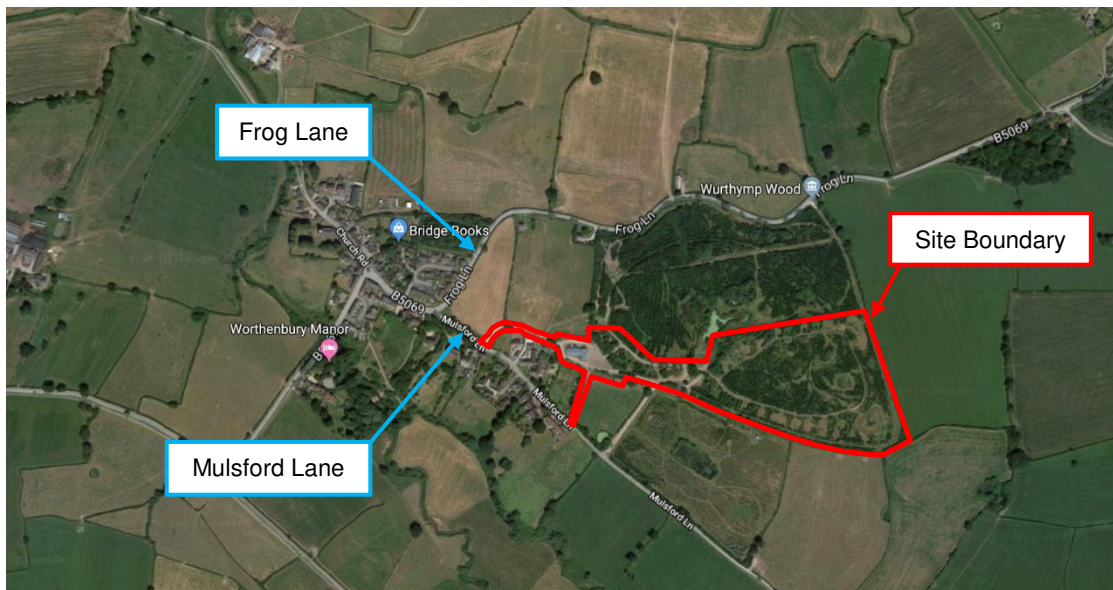
- i) Chapter 2 sets out the existing highway-related conditions at and around the site;
 - ii) Chapter 3 sets out the highway-related aspects of the proposed development, including details on site access arrangements, accessibility and parking;
 - iii) Chapter 4 sets out the traffic forecasts associated with the proposed development; and,
 - iv) Chapter 5 sets out the summary and conclusions.
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2.0 EXISTING CONDITIONS

2.1 General

- 2.1.1 The site is located within Bowling Bank Farm which is situated to the north of Mulsford Lane in Worthenbury, within the County of Wrexham. The site location is shown on **Plan 2.1** below:-

Plan 2.1 – Site Location – Local Highway Network



- 2.1.2 The site is located to the east of Worthenbury village, approximately 7.4km south east of Wrexham. Bowling Bank Farm is surrounded by agricultural land to the north, south and east.
- 2.1.3 The farm comprises a main agricultural building, ancillary agricultural structures, extensive areas planted with a mixture of young trees, access tracks and tracks formerly used as gallops. There are areas amongst the woodland that have been left unplanted and these would be used to locate the safari tents now proposed. Mature trees and hedgerows also feature in the site and along the site boundaries.

Site Access Arrangements

- 2.1.4 The farm is accessed via a simple priority-controlled junction onto the northern side of Mulsford Lane which is shown on the image below:-

Plan 2.2 – Existing Site Access



2.1.5 AXIS visited the site on the 23rd April 2019 to take detailed measurements and observations of the local highway network. These measurements have been used to refine the accuracy of digital Ordnance Survey Mastermap of the local highway network that has also been used when assessing the proposals.

2.1.6 The wider farm site can also be accessed from Frog Lane to the north-east, although this access will only be available to visitors on foot / bicycle.

2.2 Local Highway Network

2.2.1 Mulsford Lane is an unclassified lane which is subject to a 30mph speed limit. It can be most closely described as a village lane in the vicinity of the site, providing a connection between Frog Lane to the west and an unnamed lane to the south-east (which routes to the hamlet of Sarn).

2.2.2 Near the site access, the carriageway width varies between 5.1m and 7.0m. However, the carriageway width reduces to between around 4.3m-4.5m along an approximate 70m long section of the short link between the site access and Frog Lane to the west.

- 2.2.3 There is a footway on the southern side of Mulsford Lane measuring between around 1.1m and 1.2m in width. On the northern side, to the east of the site access there is a footway measuring 1.6m in width, whilst to the west of the access there is a verge measuring between around 1m-3m in width.
- 2.2.4 The B5069 Frog Lane is situated some 100m to the west of the site access and forms the main road link through the village of Worthenbury, providing a connection to Threapwood and beyond to the east and Bangor-on-Dee to the west.
- 2.2.5 In the vicinity of its junction with Mulsford Lane, Frog Lane is subject to a 30mph speed limit and features a single lighting column. The carriageway width varies between 5.2m and 7.2m.
- 2.2.6 There is a footway on the southern side of Frog Lane, west of its junction with Mulsford Lane, measuring around 1.5m in width. To the north-east of the junction, and on the opposite side of Frog Lane, there are verges of varying width.

2.3 Achievable Junction and Forward Visibility

Site Access / Mulsford Lane Junction

- 2.3.1 The level of achievable junction visibility from the existing site access has been measured on-site from a 2.4m minor arm visibility setback distance along the centreline of the site access, in accordance with the advice in Technical Advice Note 18 (TAN18).
- 2.3.2 The achievable junction visibility is set out in **Table 2.1** below, whilst **Plan 2.3** shows photographs of the available visibility in each direction:-

Table 2.1 – Achievable Junction Visibility Splays From Site Access

Direction	Achievable Visibility Splay
To Left (East)	20.3m / 56m+ (See below analysis)
To Right (West)	56m+

Plan 2.3 – Junction Visibility from Existing Site Access



- 2.3.3 **Table 2.1** above includes 2 measurements for the level of junction visibility that is achievable to the left from the access to the nearside channel line. This is because the curvature of Mulsford Lane creates a small 'blind spot' in this direction, which results in it being possible to see the nearside channel twice – i.e. at one position closer (20.5m) to the access, and then again at 56m+.
- 2.3.4 This effect has been shown more clearly on **Drawing 2316-02-D02A** to the rear of this report. The drawing shows a narrow slither of the carriageway (hatched in green) that it is not possible to see from a position 2.4m setback along the centreline of the site access.
- 2.3.5 However, this is considered to be acceptable given that:-
-

- i) The 'blind spot' becomes more visible from only slightly smaller minor arm visibility setback distances. In other words, if a driver waiting to emerge from the site access 'edges out' only a small distance, the blind spot disappears;
 - ii) The 'blind spot' area that is masked to drivers is only a very narrow slither that is too small to fully mask any oncoming vehicles, even in the unlikely event that they would be on the wrong side of the road at this location (e.g. overtaking). This is demonstrated on the drawing through the inclusion of swept paths showing a car overtaking another car;
 - iii) The marginal shortfall in visibility is in the non-leading direction;
 - iv) Actual speeds along Mulsford Lane have been observed on site to be much less than the 37mph that would otherwise be commensurate with the 56m visibility splay requirement mentioned in WCBC's pre-application comments;
 - v) Mulsford Lane is also very lightly trafficked given that it forms a connection between very lightly populated rural areas; and,
 - vi) The level of intensification that results from the proposed development (see Chapter 4 later for detailed traffic forecasts) is relatively low and cannot be deemed to be significant.
- 2.3.6 Therefore, it is considered that WCBC's pre-application comments on junction visibility from the site access have been satisfactorily addressed.

Frog Lane / Mulsford Lane Junction

- 2.3.7 The level of achievable forward visibility available for drivers turning right from Frog Lane into Mulsford Lane has also been measured on site.
- 2.3.8 The level of achievable visibility is measured to be between around 38m to 43m, depending on where the right turning vehicle is positioned on Frog Lane, as shown on **Plans 2.4 and 2.5** below:-
-

Plan 2.4 – Forward Visibility for Right Turning Vehicles Into Mulsford Lane



Plan 2.5 – Forward Visibility Towards Right Turning Vehicles Into Mulsford Lane



- 2.3.9 The achievable forward visibility has been plotted on **Drawing 2316-02-D01** to the rear of this report.
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2.4 Speed Survey

- 2.4.1 To determine whether the maximum 43m forward visibility splay is satisfactory, AXIS have commissioned a speed survey to be carried out on Frog Lane on the southbound approach to the Frog Lane / Mulsford Lane junction.
- 2.4.2 The survey was carried out by way of an automatic traffic counter (ATC) placed by TrafficSense, an independent traffic survey sub-consultant company. The ATC was placed some 40m to the north of Mulsford Lane (commensurate with the stopping sight distance for an assumed design speed of 30mph) to establish the actual 85th percentile design speed on the southbound approach.
- 2.4.3 The ATC was placed on Friday 17th May 2019 and collected a full 24 hours' worth of data, collecting 604 samples (or 3 times the minimum sample size recommended in DMRB TA22/81).
- 2.4.4 The raw ATC results are contained in **Appendix 2** and demonstrate that the southbound 85th percentile design speed of Frog Lane on the approach to the Mulsford Lane junction is 31.1mph (average speed = 28.3mph).
- 2.4.5 With reference to interpolated TAN18 / Manual for Streets (MfS) design guidance / stopping sight distance (SSD) standards, a 31.1mph design speed equates to an SSD requirement of 43m.
- 2.4.6 As mentioned earlier, and depending on where a right turning vehicle is positioned when turning into Mulsford Lane, it is possible for up to around 43m forward visibility to be achievable towards approaching southbound vehicles.
- 2.4.7 The arrangement of the junction is therefore considered to be acceptable given that:-
- i) For those vehicles that might not be positioned in the optimum location when turning right, the shortfall in achievable forward visibility is still only very marginal;
 - ii) Highway Code SSDs would suggest only 24m is required, not 43m (as per MfS / TAN18). This therefore represents the absolute minimum distance that vehicles actually require to stop at 31mph, based on the Government's figures;
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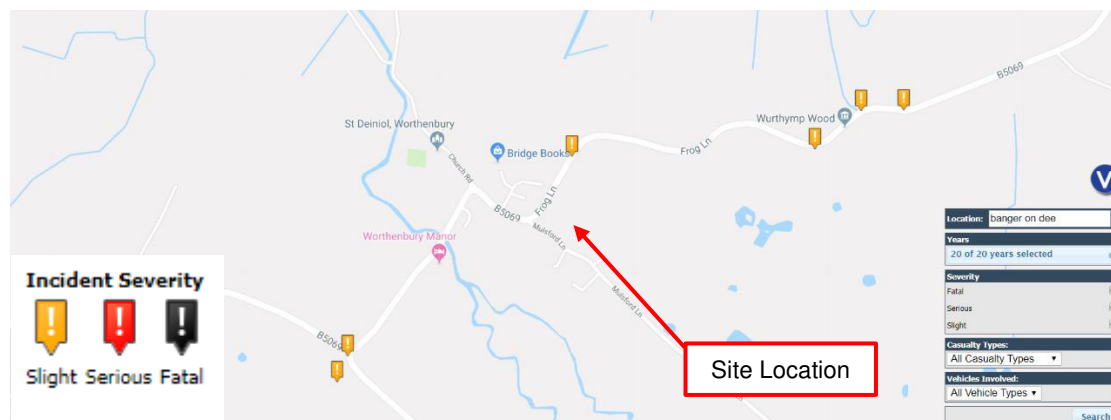
- iii) Frog Lane is very lightly trafficked, as evidenced from the ATC results in **Appendix 2**;
- iv) No wet weather adjustment (-2.5mph) has been made to the speed survey results (as per DMRB TA22/81 guidance), even though it is understood conditions were dry on the survey day; and,
- v) The level of intensification that results from the proposed development (see Chapter 4 later for detailed traffic forecasts) is relatively low and cannot be deemed to be significant. This will be diluted further still when split directionally at the Frog Lane / Mulsford Lane junction.

2.4.8 Therefore, it is considered that WCBC's pre-application comments on forward visibility at the Frog Lane / Mulsford Lane junction have been satisfactorily addressed.

2.5 Road Safety Record

2.5.1 The road safety record of the local highway network around the site has been examined for the most recently available **20-year period** ending 31st December 2018 inclusive, using the online Crashmap resource. The location and severity of the personal-injury accidents are shown below: -

Plan 2.6 – Road Safety Plan



2.5.2 20 years have been selected due to the fact that no personal injury accidents have occurred within or around the village in the most-recently available 5-year period, therefore the longer period has been selected in order to demonstrate how safely the network in and around the village has operated.

- 2.5.3 Road safety does not therefore present a material concern in the context of the proposed development.

3.0 PROPOSED DEVELOPMENT

3.1 General

3.1.1 As mentioned earlier, the proposed development comprises the following main elements:-

- i) Erection of 16 'Safari' tents for a 'glamping' experience;
- ii) Conversion of existing stables to include a café / bar / shop;
- iii) Conversion of a barn storage facility (for tent storage); and,
- iv) Provision of a parking area (comprising some 28 spaces), sewage facilities, electricity substation and landscaping.

3.1.2 The proposed site layout plan is contained in **Appendix 3**.

3.2 Site Access Arrangements

3.2.1 The site will be accessed via the existing site access location which will be widened slightly to 5.5m, as per WCBC's pre-application comments (see **Appendix 1**).

3.2.2 Similarly, and to accord with other pre-application comments provided by WCBC, the site access junction will be resurfaced and any gates will be set back a minimum of 10m from the edge of the public highway to allow ample waiting space for any vehicles. The junction bellmouth will be designed to ensure that no surface water run-off will be allowed to flow into highway drains.

3.2.3 These improvements are shown indicatively on **Drawing 2316-02-D02A** to the rear of this report. It is considered that further details can be provided in due course at the detailed design / S278 stage, as appropriate.

3.2.4 With regard to junction visibility splays, this is already addressed in **Section 2.3** earlier in this report. In summary, the minor shortfall in achievable junction visibility from the access is considered to be negligible in nature and will not lead to a material decrease in highway safety.

- 3.2.5 In addition to the improvements to the existing site access junction, a new separate pedestrian access will be provided, connecting the main body of the site (near the café / bar / shop block) to Mulsford Lane. This is shown on the plan in **Appendix 3**.

3.3 Off-Site Works

- 3.3.1 It is noted that WCBC have suggested that a section of Mulsford Lane between the site access and Frog Lane *“would benefit from a scheme of carriageway widening”*.

- 3.3.2 The widening of this section is not considered to be necessary based on the following:-

- i) Whilst a relatively short 70m or so section of Mulsford Lane is comparatively narrow, nonetheless two-way car movement is still possible along the constrained section;
 - ii) AXIS have measured the section to be around 4.3m wide at its narrowest point. With reference to Figure 7.1 within Manual for Streets (extract on **Plan 3.1** below), this width still allows two cars to pass one another (MfS indicates 4.1m is sufficient);
 - iii) The level of background traffic flow on Mulsford Lane can only be described as extremely light;
 - iv) Similarly, the level of intensification that results from the proposed development (see Chapter 4 later for detailed traffic forecasts) is relatively low and cannot be deemed to be significant; and,
 - v) This section of Mulsford Lane effectively acts as a traffic calming feature and so it is considered to be beneficial to road safety from this perspective.
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Plan 3.1 – Figure 7.1 Extract from Manual for Streets (Carriageway Widths)

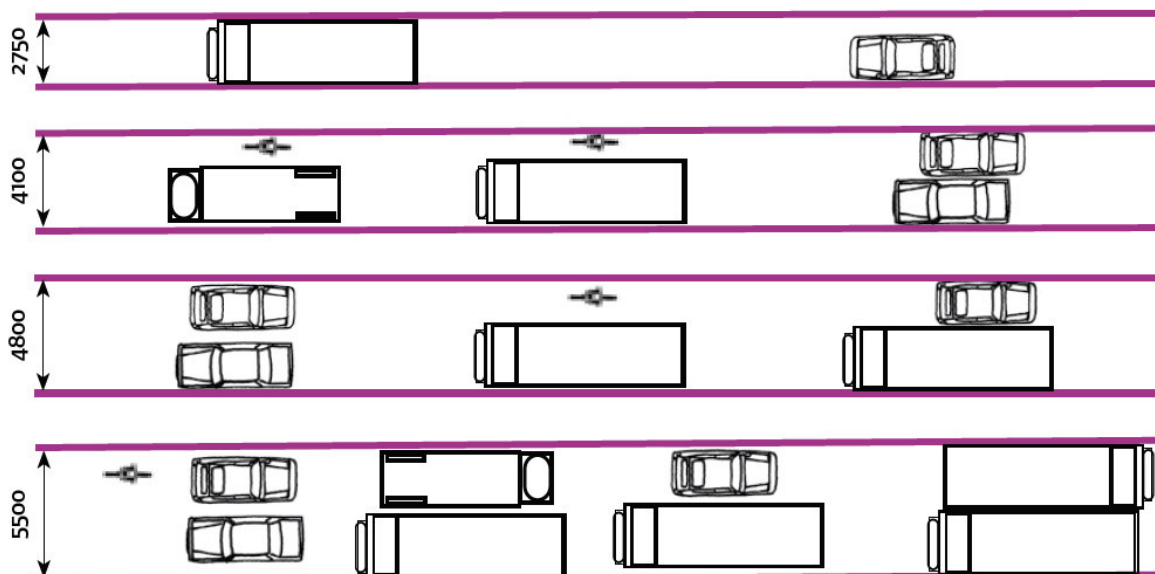


Figure 7.1 Illustrates what various carriageway widths can accommodate. They are not necessarily recommendations.

3.3.3 Similarly, **Section 2.4** earlier also addresses WCBC's pre-application concerns regarding forward visibility for right turning traffic into Mulsford Lane from Frog Lane.

3.3.4 Therefore, no off-site highway improvement works are considered to be necessary as part of the proposed development.

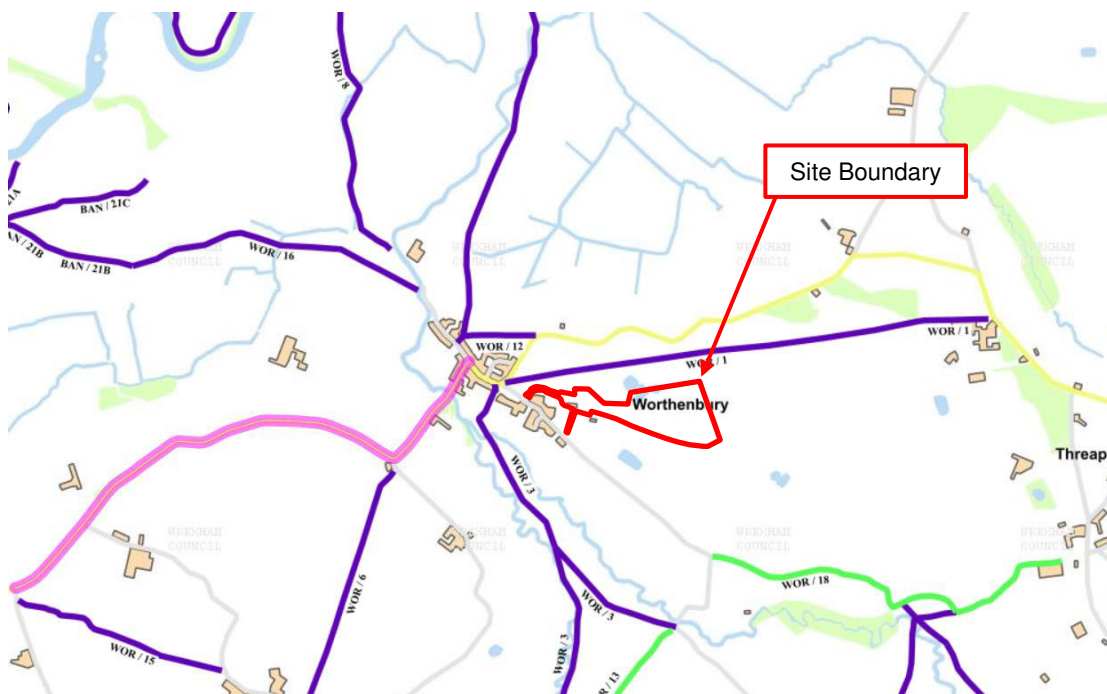
3.4 Accessibility

3.4.1 The nature of the proposed development and surrounding woodland is likely to attract holidaymakers interested in taking a relaxing, secluded break within the attractive woodland surroundings of the farm, which, when combined with the quality safari glamping accommodation that is proposed, will result in off-site trips being minimised and a tendency for more guests to stay on the site during their stay (i.e. when compared to say, a 'normal' holiday accommodation site elsewhere in the borough).

3.4.2 Visitors will be encouraged to stay on site further still by the proposed bar, café and shop facilities that are proposed on-site.

- 3.4.3 Nonetheless, it is likely that prospective holidaymakers staying at the development would inevitably be interested in off-site leisure pursuits at some point during their stay, including taking trips around the area by foot / cycle.
- 3.4.4 As shown on **Plan 3.2** below, there are a variety of walking routes in the area that would encourage trips out on foot. Public footpath WOR/1 runs to the north of the site, and a number of other footpaths converge on the village from all directions. The local highway network is lightly trafficked and therefore presents an attractive / safe network of lanes to walk along, where it is necessary to do so.

Plan 3.2 – Public Right of Way Network Around Site



- 3.4.5 In addition, electric bikes would be available for visitors to use and they would be allowed to access the site via Frog Lane to the north-east of the site. From Frog Lane, glamping visitors would be able to access National Cycle Route 70 which is located approximately 1km to the east of the Frog Lane site entrance.

3.5 Car Parking

- 3.5.1 As mentioned earlier the proposed site layout features 31 car parking spaces.
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- 3.5.2 As requested by WCBC in their pre-application response, this level of parking / development mix has been compared to the adopted car parking standards within LPGN13. This is set out in **Table 3.1** below:

Table 3.1 – Parking Standard Compliance

Proposed Use Element	Car Parking Standard Requirement (Maximum) (LPGN16)	Development Provision	Compliance
Pub (45m ²)	1 car space per 4m ² public floor space Equates to up to 11 spaces	11	✓
Shop (26.9m ²)	1 car space per 15m ² gross floor space Equates to up to 2 spaces	1	✓
Safari Tents (16no of)	No suitable standard provided. Assume 1 space per unit (i.e. 16 spaces) plus up to 1 space per on-site staff member (i.e. up to 3 spaces)	19	✓
Tent Storage	<i>Ancillary to primary use/s (i.e. no external demand generated)</i>		
Cafe (36.75m ²)	<i>Ancillary to primary use/s (i.e. no external demand generated)</i>		

- 3.5.3 As demonstrated above, the scheme is compliant with the maximum car parking standards set out in WCBC's LPGN 16 document. The provision includes 3 no. bays to mobility standard (i.e. 10%, as per LPGN 16).
- 3.5.4 In practice, none of the car parking spaces will be allocated to any particular element, and furthermore it is expected that the pub and shop elements will be partially ancillary to the primary holiday accommodation use (i.e. a large portion of the custom for the pub / shop elements will originate from people staying in the safari tents at the site, similar to how many holiday accommodation sites operate).
- 3.5.5 Therefore, sharing of parking space will inevitably occur, leading to an efficient use of land, and helping to ensure that no off-site overspill parking will take place.

4.0 TRIP GENERATION FORECASTS

4.1 Introduction

4.1.1 This chapter considers the traffic-generating potential of the proposed development using trip rates from the industry-standard TRICS database.

4.2 Proposed Uses Trip Generation

4.2.1 TRICS is the industry-standard tool for calculating the anticipated future trip demands of a proposed development. The database contains multi-modal surveys of various land uses at multiple destinations across the UK, including pub, holiday accommodation and shop land uses.

4.2.2 The methodology used in this assessment is as follows:-

- i) Weekday trip rates for the pub, safari tent and shop land use elements have been obtained from TRICS;
- ii) The tent storage and café elements are assumed to be wholly ancillary to the other primary uses and it is therefore considered unlikely that these elements will generate any material off-site vehicular trips or demand for parking;
- iii) The pub and shop elements will also be partially ancillary to the primary holiday accommodation use. Furthermore, these elements are relatively low key in terms of their size and nature, and so even where off-site demand is generated, it is much more likely to be from a local regular customer base from within the village who would invariably arrive on foot. Therefore, a 'linked trip' allowance has been made for these elements through factoring the trip forecasts by 50%.

4.2.3 The TRICS search was undertaken for each element using all relevant sites across Wales, England (excluding Greater London) and Scotland.

4.2.4 Various location and other search criteria have been applied to ensure the TRICS survey sites provide representative trip rates for the proposed development location, including weekday surveys only. The TRICS outputs, which include the full search criteria, are included within **Appendix 4** to the rear of this report.

4.2.5 **Table 4.1** below summarises the trip rates obtained:-

Table 4.1 – Vehicular Trip Rates (Gross)

TRICS-Based Weekday Vehicular Trip Rates (Gross – no Linked Trip Discount Applied)						
Use Element	AM Peak (8-9am)		PM Peak (17-18pm)		Daily	
	Arr	Dep	Arr	Dep	Arr	Dep
Pub (45m2)	0.000	0.000	4.335	3.498	45.195	44.899
Shop (26.9m2)	5.644	5.594	7.178	8.069	86.216	87.036
Safari Tents (16no of)	0.032	0.037	0.141	0.079	1.077	1.104
Tent Storage	Ancillary to primary use/s (i.e. no external demand generated)					
Cafe (36.75m2)	Ancillary to primary use/s (i.e. no external demand generated)					

4.2.6 Applying the above trip rates to the quantum of uses proposed at the scheme results in the following gross level of forecast vehicular trips:

Table 4.2 – Vehicular Trip Generation Forecasts (Gross)

Weekday Trip Generation Calculations (Gross – no Linked Trip Discount Applied)						
Use Element	AM Peak (8-9am)		PM Peak (17-18pm)		Daily	
	Arr	Dep	Arr	Dep	Arr	Dep
Pub (45m2)	0	0	2	2	20	20
Shop (26.9m2)	2	2	2	2	23	23
Safari Tents (16no of)	1	1	2	1	17	18
Tent Storage	Ancillary to primary use/s (i.e. no external demand generated)					
Cafe (36.75m2)	Ancillary to primary use/s (i.e. no external demand generated)					
Gross Totals	2	2	6	5	61	61

- 4.2.7 As indicated earlier, the proposed shop and pub elements are expected to be partially ancillary uses to the primary use which is the holiday accommodation (safari tents) element of the scheme. Therefore, **Table 4.3** below sets out the linked trip allowances that have been applied to the gross trip forecasts:-

Table 4.3 – Linked Trip Allowances

Linked Trip Allowances						
Use Element	AM Peak (8-9am)		PM Peak (17-18pm)		Daily	
	Arr	Dep	Arr	Dep	Arr	Dep
Pub (45m2)	50%	50%	50%	50%	50%	50%
Shop (26.9m2)	50%	50%	50%	50%	50%	50%
Safari Tents (16no of)	100%	100%	100%	100%	100%	100%
Tent Storage	Ancillary to primary use/s (i.e. no external demand generated)					
Cafe (36.75m2)	Ancillary to primary use/s (i.e. no external demand generated)					

- 4.2.8 Applying the above linked trip allowances to the gross forecast trips set out earlier (**Table 4.2**) results in the following level of forecast vehicular trips:-

Table 4.4 – Trip Generation Forecasts

Weekday Trip Generation Calculations (Linked Trip Discount Applied)						
Use Element	AM Peak (8-9am)		PM Peak (17-18pm)		Daily	
	Arr	Dep	Arr	Dep	Arr	Dep
Pub (45m2)	0	0	1	1	10	10
Shop (26.9m2)	1	1	1	1	12	12
Safari Tents (16no of)	1	1	2	1	17	18
Tent Storage	Ancillary to primary use/s (i.e. no external demand generated)					
Cafe (36.75m2)	Ancillary to primary use/s (i.e. no external demand generated)					
Gross Totals	1	1	4	3	39	39

- 4.2.9 The calculations demonstrate that the traffic generating potential of the scheme is relatively low. In the weekday AM peak hour, the scheme is expected to generate only 2 two-way trips, whilst in the PM peak, 7 two-way trips are anticipated.
- 4.2.10 Volumetrically, this equates to only 1 additional vehicle movement every half an hour in the AM peak and around one additional movement every 10 minutes in the PM peak. It is expected that this would be imperceptible to local residents or in terms of its impact on the local highway network.
- 4.2.11 This analysis lends weight to the view that there is no justification for any off-site improvements to Mulsford Lane or Frog Lane to accommodate the modest traffic flows generated by the proposals.

4.3 WCBC Comments on Trip Rates

- 4.3.1 The figures set out above are based on the same analysis that was included in pre-application submissions to WCBC, and on which WCBC Highways provided its comments dated 27th March 2019 (see **Appendix 1**).
 - 4.3.2 It is noted that WCBC Highways commented that the holiday accommodation figures appear to assume that any occupants of the tents would not visit any other off-site shops / attractions, and only leave and return to the site once per day, which may be unrealistic.
 - 4.3.3 Whilst ostensibly this may appear to be the case, the trip rates from similar sites within the TRICS database take account of all daily trips associated with these types of schemes, by definition, and therefore such trips are already included in the trip forecasts set out above. These are based on 'holiday accommodation' units – the closest land use match in the TRICS database to what is proposed. The fact they show low traffic generation numbers is simply a reflection how these sites tend to operate in practice.
 - 4.3.4 It should perhaps also be noted that full occupancy of such a development is, in practice, very difficult to achieve for prolonged periods for various reasons (e.g. market demand, closure for maintenance, natural turnover etc). Holiday accommodation units are not always 100% occupied and not all occupants can be expected to go off / on site (by car) everyday a number of times.
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4.3.5 **Section 3.4** earlier illustrates the opportunities for holidaymakers to walk and cycle around the local area without needing to utilise a vehicle for off-site trips.

4.4 **Weekend Trips**

4.4.1 The same trip rate analysis carried out above for a weekday has been compared to the trip-generating potential of the scheme on a typical weekend day as well, using the same TRICS-base approach. The analysis indicates that the scheme would generate a very similar level of trips on weekend days as it would on a typical weekday, therefore the above analysis will present a worst-case analysis given that background traffic is generally marginally higher on weekdays.

5.0 SUMMARY AND CONCLUSIONS

- 5.1.1 AXIS have been instructed by Mr Hopkins to provide highway-related advice in relation to a proposed mixed-use development at Bowling Bank Farm, Mulsford Lane, Worthenbury.
 - 5.1.2 The scheme comprises the erection of 16 'Safari' tents, the conversion of existing stables to include a café / bar / shop, the conversion of a barn storage facility (for tent storage), the provision of a parking area with 31 spaces, sewage facilities, electricity substation and landscaping.
 - 5.1.3 The proposals were the subject of a recent pre-application enquiry with the local highway authority at WCBC. WCBC provided a written response on 27th March 2019 which contained a series of comments regarding the highway-related aspects of the proposals. This Highways Technical Note has been prepared to address the comments and to set out the traffic and transport-related implications of the proposed development.
 - 5.1.4 The site is located to the east of Worthenbury village, approximately 7.4km south east of Wrexham. Bowling Bank Farm is surrounded by agricultural land to the north, south and east. The farm as a whole comprises a main agricultural building, ancillary agricultural structures, extensive areas planted with a mixture of young trees, access tracks and tracks formerly used as gallops.
 - 5.1.5 The farm is accessed via a simple priority-controlled junction onto the northern side Mulsford Lane. The level of achievable junction visibility from the existing site access has been measured on-site from a 2.4m minor arm visibility setback distance along the centreline of the site access, in accordance with the advice in TAN18.
 - 5.1.6 Junction visibility to the west from the access is achievable to above 56m, in accordance with WCBC's stated requirements in their pre-application comments. Visibility to the east is not fully achievable to this standard because the curvature of Mulsford Lane creates a small 'blind spot' in this direction, which results in it being possible to see the nearside channel twice – i.e. at one position closer (20.5m) to the access, and then again at 56m+.
-

5.1.7 Effectively, this means that it is not possible to see a narrow slither of the carriageway from a position 2.4m setback along the centreline of the site access.

5.1.8 However, this is considered to be acceptable given that:-

- i) The 'blind spot' becomes more visible from only slightly smaller minor arm visibility setback distances. In other words, if a driver waiting to emerge from the site access 'edges out' only a small distance, the blind spot disappears;
- ii) The 'blind spot' area that is masked to drivers is only a very narrow slither that is too small to fully mask any oncoming vehicles, even in the unlikely event that they would be on the wrong side of the road at this location (e.g. overtaking). This is demonstrated on a drawing attached to this report.
- iii) The marginal shortfall in visibility is in the non-leading direction;
- iv) Actual speeds along Mulsford Lane have been observed on site to be much less than the 37mph that would otherwise be commensurate with the 56m visibility splay requirement mentioned in WCBC's pre-application comments;
- v) Mulsford Lane is also very lightly trafficked given that it forms a connection between very lightly populated rural areas; and,
- vi) The level of intensification that results from the proposed development is relatively low and cannot be deemed to be significant.

5.1.9 Therefore, it is considered that WCBC's pre-application comments on junction visibility at the site access junction have been satisfactorily addressed.

5.1.10 The level of achievable forward visibility available for drivers turning right from Frog Lane into Mulsford Lane has also been measured on site. It is measured to be between around 38m to 43m, depending on where the right turning vehicle is positioned on Frog Lane.

5.1.11 To determine whether the maximum 43m forward visibility splay is satisfactory, AXIS commissioned an ATC speed survey on the southbound approach to the Frog Lane / Mulsford Lane junction, which demonstrates that the southbound 85th percentile design speed is 31.1mph (average speed = 28.3mph).

- 5.1.12 With reference to interpolated TAN18 / Manual for Streets (MfS) design guidance / stopping sight distance (SSD) standards, a 31.1mph design speed equates to an SSD requirement of 43m.
- 5.1.13 The arrangement of the junction is therefore considered to be acceptable given that:-
- i) For those vehicles that might not be positioned in the optimum location when turning right; the shortfall in achievable forward visibility is still only very marginal;
 - ii) Highway Code SSDs would suggest only 24m is required, not 43m (as per MfS / TAN18). This therefore represents the absolute minimum distance that vehicles actually require to stop at 31mph, based on the Government's figures;
 - iii) Frog Lane is very lightly trafficked, as evidenced from the ATC results attached to this report;
 - iv) No wet weather adjustment (-2.5mph) has been made to the speed survey results (as per DMRB TA22/81 guidance), even though it is understood conditions were dry on the ATC survey day; and,
 - v) The level of intensification that results from the proposed development is relatively low and cannot be deemed to be significant. This will be diluted further still when split directionally at the Frog Lane / Mulsford Lane junction.
- 5.1.14 Therefore, it is considered that WCBC's pre-application comments on forward visibility at the Frog Lane / Mulsford Lane junction have been satisfactorily addressed.
- 5.1.15 The road safety record of the local highway network has been examined for the most recently available **20-year period** ending 31st December 2018 inclusive, using the online Crashmap resource.
- 5.1.16 The accident record indicates that very few accidents have occurred within the village in this period, and none near the site itself. Road safety does not therefore present a material concern in the context of the proposed development.
-

- 5.1.17 The site will be accessed via the existing site access location which will be widened slightly to 5.5m, as per WCBC's pre-application comments.
- 5.1.18 Similarly, and to accord with other pre-application comments provided by WCBC, the site access junction will be resurfaced and any gates will be set back a minimum of 10m from the edge of the public highway to allow ample waiting space for any vehicles. The junction bellmouth will be designed to ensure that no surface water run-off will be allowed to flow into highway drains.
- 5.1.19 In addition to the improvements to the existing site access junction, a new separate pedestrian access will be provided, connecting the main body of the site (near the café / bar / shop block) to Mulsford Lane.
- 5.1.20 It is noted that WCBC have suggested that a section of Mulsford Lane between the site access and Frog Lane "*would benefit from a scheme of carriageway widening*".
- 5.1.21 The widening of this section is not considered to be necessary based on the following:-
- i) Whilst a relatively short 70m or so section of Mulsford Lane is comparatively narrow, nonetheless two-way car movement is still possible along the constrained section;
 - ii) AXIS have measured the section to be around 4.3m wide at its narrowest point. With reference to Figure 7.1 within Manual for Streets, this width still allows two cars to pass one another (MfS indicates 4.1m is sufficient);
 - iii) The level of background traffic flow on Mulsford Lane can only be described as extremely light;
 - iv) Similarly, the level of intensification that results from the proposed development is relatively low and cannot be deemed to be significant; and,
 - v) This section of Mulsford Lane effectively acts as a traffic calming feature and so it considered to be beneficial to road safety from this perspective.
-

- 5.1.22 There are a variety of walk routes in the area that would encourage trips out on foot. Public footpath WOR/1 runs to the north of the site, and a number of other footpaths converge on the village from all directions. The local highway network is lightly trafficked and therefore presents an attractive / safe network of lanes to walk along, where it is necessary to do so.
- 5.1.23 In addition, electric bikes would be available for visitors to use and they would be allowed to access the site via Frog Lane to the north-east of the site. From Frog Lane, glamping visitors would be able to access National Cycle Route 70 which is located approximately 1km to the east of the Frog Lane site entrance
- 5.1.24 The proposed level of 31 car parking spaces has been compared to the adopted car parking standards within this report. Assuming that the tent storage and café elements will be ancillary to the primary uses proposed on-site, and that in the absence of suitable standards, 1 space per safari tent and staff member will be appropriate, the analysis demonstrates that the scheme is compliant with the maximum car parking standards set out in WCBC's LPGN 16 document.
- 5.1.25 The trip-generating potential of the scheme has been estimated with reference to suitable trip rates from the industry-standard TRICS database.
- 5.1.26 The calculations demonstrate that the traffic generating potential of the scheme is relatively low. In the weekday AM peak hour, the scheme is expected to generate only 2 two-way trips, whilst in the PM peak, 7 two-way trips are forecast.
- 5.1.27 Volumetrically, this equates to only 1 additional vehicle movement every half an hour in the AM peak and around one additional movement every 10 minutes in the PM peak. It is expected that this would be imperceptible to local residents or in terms of its impact on the local highway network.
- 5.1.28 This analysis lends weight to the view that there is no justification for any off-site improvements to Mulsford Lane or Frog Lane.
- 5.1.29 Having regard to the above, it is therefore concluded that there can be no highways or transport reasons to resist granting planning permission and it is commended to WCBC for approval.
-

**APPENDIX 1 - LHA PRE-CONSULTATION RESPONSE DATED 27TH MARCH
2019**

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Rhif Cyswllt/Contact No
E-bost/E-mail

PRE/2019/018
27th March 2019
Mr P Palmer
01978 729688
phil.palmer@wrexham.gov.uk

FAO: L. Mackey

Dear Sir / Madam

Location: Land off Mulsford Lane, Worthenbury, Wrexham.

Development: Proposed erection of 16 no. safari tents (comprising change of use to D2), conversion of existing stables to a café, shop and bar (comprising change of use to mixed A1 and A3), conversion of existing barn to storage for the safari tents (comprising change of use to D2) and provision of car parking, landscaping and other ancillary development.

Town & Country Planning (Development Management Procedure – Wales) Order 2012

Access

I refer to your enquiry / letter dated 13/03/2019 in respect of the above.

The proposed development site is located off Mulsford Lane which is an unclassified road subject to a 30mph speed limit.

Any proposed / access along this section would normally be required to provide visibility splays of 2.4 x 56m in both directions measured to the nearside edge of the adjoining highway in accordance with Manual for Streets.

Visibility from the existing / proposed access serving the development site is adequate in the north westerly direction providing splays in excess of 2.4 x 56m measured to the nearside edge. However, visibility in the south easterly direction is inadequate providing a splay of approximately 2.4 x 20m measured to the nearside edge. Visibility is restricted in this direction by the existing 1.3m high hedgerow fronting the adjoining property (3rd party land).

I would therefore not be able to support any proposed development that is likely to result in any significant increase in vehicle movements utilising this existing access.



This access is currently around 15m wide reducing to 6.6m wide at approximately 11m behind the adjoining carriageway. The access is surfaced with loose bound materials. Any proposed access serving the development site would require a minimum width of 5.5m with any gates being setback a minimum distance of 10m behind the adjoining highway. I would recommend that the access is surfaced with hard bound materials eg/ bitmac for a minimum distance of 10m behind the adjoining highway.

No private surface water run-off shall be allowed to flow onto the adjoining highway. I would recommend that an Aco drain or similar is constructed across the proposed access to intercept any such run-off.

The proposed access serving the site was previously approved in respect of planning consent ref: P/2012/0188 for a water bottling and packaging business. This consent included a condition for the widening of the first section of Mulsford Lane including a passing place. I understand that the proposed business was never established so these improvements were not implemented. I understand that this business would have generated no more than 24 vehicle movements per day.

I assume that the main route to / from the site would be via the B5069 Frog Lane / Mulsford Lane junction. This section of Mulsford Lane is typically only 4.1m wide and cannot easily accommodate the simultaneous passage of 2 no. vehicles and is considered too narrow to support a development of this size. Current highway standards would normally require a minimum carriageway width along this section of 5.5m. The section of Mulsford Lane leading from the proposed access to the site up to the junction with the B5069 Frog Lane would benefit from a scheme of carriageway widening.

Accessing the site from the village to the north west, involves vehicles having to turn right off the B5069 onto Mulsford Lane.

The B5069 is a classified road subject to a 30mph speed limit. Based on speeds of 30mph, Manual for Streets would normally require any proposed junction in this location to provide visibility splays of 2.4 x 56m in both directions measured to the nearside edge of the adjoining highway.

The existing junction provides visibility splays in excess of 2.4 x 56m in both directions.

Any proposed junction in this location would also normally be required to provide adequate forward visibility for vehicles waiting to turn right onto Mulsford Lane to vehicles approaching from the north east providing a stopping sight distance of 56m.

Forward visibility to vehicles approaching from the north east is restricted by the existing bend providing a forward visibility splay of approximately 40m. Making the right turn on this bend onto Mulsford Lane is therefore not ideal given the limited available forward visibility.

Given the lack of forward visibility at this junction, I would not be able to support any proposed development that is likely to result in any significant increase in vehicle movements in this location.

Traffic Generation

The proposed development includes 16 no. safari tents, a café, shop and bar.

The submitted Design and Access Statement includes a summary of weekday vehicle movements which appear to equate to a total of 122 two-way daily vehicle movements. However, the actual raw TRICs data for each element of the development does not appear to have been submitted. I would recommend that this data is provided.

The applicant has indicated that a number of the anticipated daily movements could be reduced as some trips would be linked trips and as a result has suggested a total of 78 two-way daily vehicle movements.

The submitted figures appear to assume that any occupants of the tents would not visit any other local shops for provisions or other attractions and only leave and return to the site once per day which may well be unrealistic. It is not clear as to whether the submitted figures take into account any vehicle movements in respect of servicing the site ie/ deliveries, post, laundry etc.

Parking and Turning Provision

Any proposed development of this nature would need to provide adequate parking and turning facilities within the curtilage of the site. I would recommend that the applicant provides proposed floor areas / proposed class uses for each element of the development to compare with the requirements of LPGN 16.

The submitted layout plan appears to indicate the provision of 28 spaces plus an overflow car park. There would appear to be ample parking / turning space available at the site.

Public Footpath

Public Footpath No. 1 – Worthenbury passes to the north of the development site and must not be interfered with. I would recommend the applicant discusses any development proposals with the WCBC Public Rights of Way Section.

Worthenbury village itself appears to have no public amenities ie/ post office, public house, shops, surgeries etc. There is also no bus service operating through the village.

The development site may therefore be considered to be in an unsustainable location for a development of this size. The proposed development site would therefore not appear to meet the requirements of the settlement policies (3.4) detailed in TAN 18.

You are advised that the above comments are those of an officer of the council and do not commit the Council in any way with regard to the determination of any formal planning application that may be submitted. You are also advised that the above comments take account of policies and guidance adopted by the Council at the present time and which remain open to continuous review.

Yours faithfully,



Planning Control Manager



APPENDIX 2 - ATC RESULTS

Automatic Classified Counts, Worthenbury

LOCATION: FROG LANE

Direction : SOUTHBOUND

Friday 17/05/2019	VEHICLE CLASSIFICATION													TOTAL
Hr Ending	1	2	3	4	5	6	7	8	9	10	11	12	13	
1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	1	0	0	0	0	0	0	0	0	0	0	0	1
6	1	0	0	0	0	0	0	0	0	0	0	0	0	1
7	1	1	0	0	0	0	0	0	0	0	0	0	0	2
8	27	3	0	0	0	0	0	0	0	0	0	0	0	30
9	38	11	1	0	0	0	0	0	0	0	0	1	0	51
10	27	9	0	0	0	0	0	0	0	0	0	1	0	37
11	23	7	1	0	0	0	0	0	0	0	0	0	0	31
12	19	0	0	0	0	0	0	0	1	0	0	2	0	22
13	24	5	0	0	0	0	0	0	0	0	0	0	0	29
14	25	7	0	0	0	0	0	0	0	0	0	0	0	32
15	39	6	0	0	1	0	0	3	0	0	0	2	0	51
16	48	7	0	0	1	0	0	3	0	0	0	0	0	59
17	68	10	0	0	3	0	0	1	0	0	0	0	0	82
18	58	10	0	0	1	0	0	0	0	0	0	0	0	69
19	46	3	0	0	1	0	0	0	0	0	0	0	0	50
20	12	2	0	0	1	0	0	1	0	0	0	0	0	16
21	20	1	0	0	0	0	0	0	0	0	0	0	0	21
22	5	2	0	0	0	0	0	0	0	0	0	0	0	7
23	3	2	0	0	0	0	0	0	0	0	0	0	0	5
24	6	1	0	0	0	0	0	0	0	0	0	0	0	7
7-19	442	78	2	0	7	0	0	7	1	0	0	6	0	543
6-22	480	84	2	0	8	0	0	8	1	0	0	6	0	589
6-24	489	87	2	0	8	0	0	8	1	0	0	6	0	601
0-24	491	88	2	0	8	0	0	8	1	0	0	6	0	604

Direction : NORTHBOUND

Friday 17/05/2019	VEHICLE CLASSIFICATION													TOTAL
Hr Ending	1	2	3	4	5	6	7	8	9	10	11	12	13	
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	2	0	0	0	0	0	0	0	0	0	0	0	0	2
7	11	0	0	0	0	0	0	0	0	0	0	1	0	12
8	37	9	0	0	0	0	0	0	0	0	0	0	0	46
9	49	6	0	0	0	0	0	0	0	0	0	0	0	55
10	28	2	0	0	0	0	0	0	0	0	0	0	0	30
11	17	4	1	0	0	0	0	0	0	0	0	1	0	23
12	22	7	0	0	0	0	0	0	0	0	0	0	0	29
13	19	6	0	0	2	0	0	0	0	0	0	0	0	27
14	30	8	0	0	1	0	0	1	0	0	0	1	0	41
15	52	8	0	0	2	0	0	0	0	0	0	1	0	63
16	49	7	0	0	3	0	0	0	0	0	0	0	0	59
17	62	6	0	0	0	0	0	1	0	0	0	0	0	69
18	43	5	0	0	0	0	0	0	0	0	0	2	0	50
19	35	3	0	0	0	0	0	0	0	0	0	0	0	38
20	25	2	0	0	0	0	0	0	0	0	0	0	0	27
21	11	1	0	0	0	0	0	0	0	0	0	0	0	12
22	11	3	0	0	0	0	0	0	0	0	0	0	0	14
23	8	2	0	0	0	0	0	0	0	0	0	0	0	10
24	5	1	0	0	0	0	0	0	0	0	0	0	0	6
7-19	443	71	1	0	8	0	0	2	0	0	0	5	0	530
6-22	501	77	1	0	8	0	0	2	0	0	0	6	0	595
6-24	514	80	1	0	8	0	0	2	0	0	0	6	0	611
0-24	516	80	1	0	8	0	0	2	0	0	0	6	0	613

survey and presentation by **trafficsense** Ltd.

Automatic Classified Counts, Worthenbury

LOCATION: FROG LANE

Direction : SOUTHBOUND

Friday 17/05/2019	VEHICLE SPEED (MPH)												TOTAL
Hr Ending	0-10	11-20	21-30	31-35	36-40	41-45	46-50	51-55	56-60	61-70	71-80	81-120	
1	0	0	1	0	0	0	0	0	0	0	0	0	1
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	1	0	0	0	0	0	0	0	0	0	1
6	0	0	1	0	0	0	0	0	0	0	0	0	1
7	0	0	1	1	0	0	0	0	0	0	0	0	2
8	0	0	18	11	1	0	0	0	0	0	0	0	30
9	0	2	43	5	1	0	0	0	0	0	0	0	51
10	0	2	31	4	0	0	0	0	0	0	0	0	37
11	0	1	21	8	1	0	0	0	0	0	0	0	31
12	0	0	20	2	0	0	0	0	0	0	0	0	22
13	1	1	20	6	1	0	0	0	0	0	0	0	29
14	0	5	21	6	0	0	0	0	0	0	0	0	32
15	0	18	29	4	0	0	0	0	0	0	0	0	51
16	0	16	36	5	2	0	0	0	0	0	0	0	59
17	0	15	53	13	1	0	0	0	0	0	0	0	82
18	0	10	50	9	0	0	0	0	0	0	0	0	69
19	0	0	41	8	1	0	0	0	0	0	0	0	50
20	0	2	12	2	0	0	0	0	0	0	0	0	16
21	0	1	15	5	0	0	0	0	0	0	0	0	21
22	0	0	4	2	1	0	0	0	0	0	0	0	7
23	0	0	4	1	0	0	0	0	0	0	0	0	5
24	0	1	1	5	0	0	0	0	0	0	0	0	7
7-19	1	70	383	81	8	0	0	0	0	0	0	0	543
6-22	1	73	415	91	9	0	0	0	0	0	0	0	589
6-24	1	74	420	97	9	0	0	0	0	0	0	0	601
0-24	1	74	423	97	9	0	0	0	0	0	0	0	604

Direction : NORTHBOUND

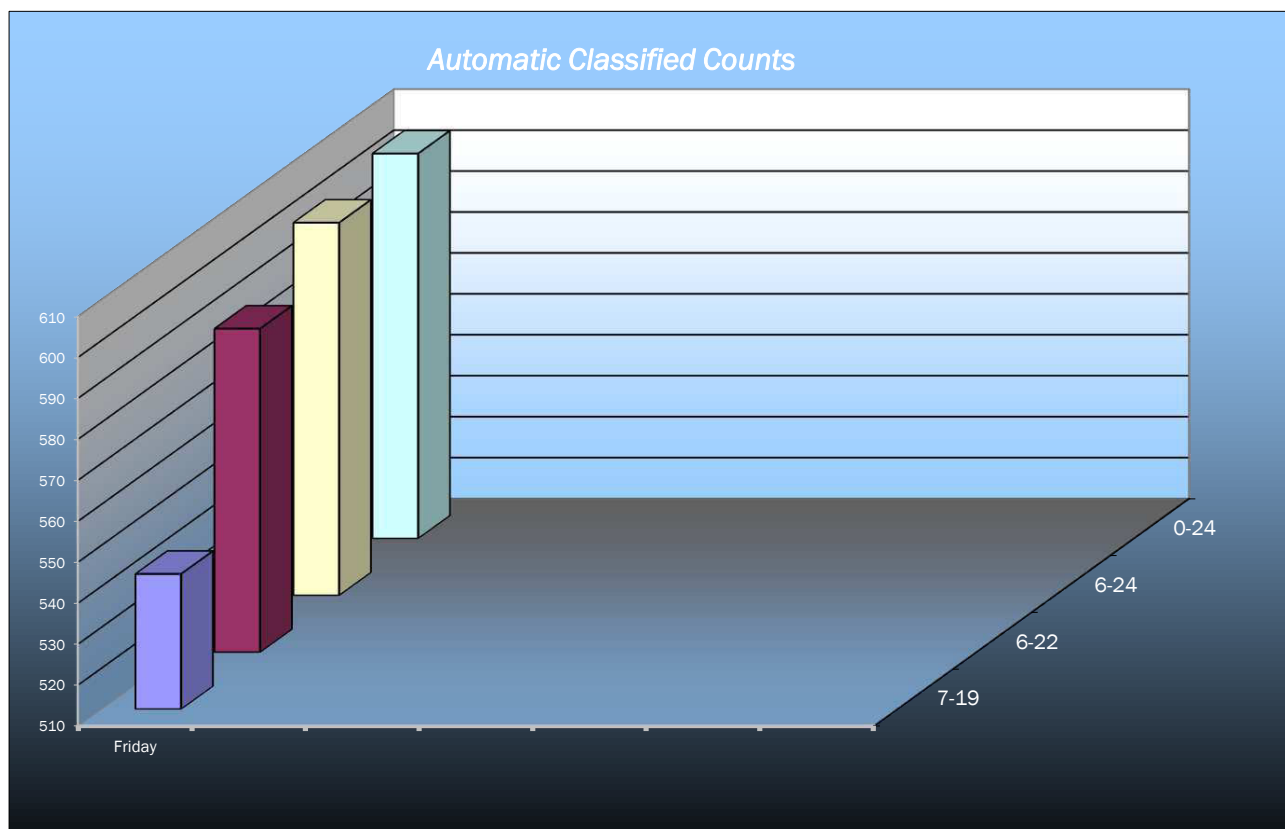
Friday 17/05/2019	VEHICLE SPEED (MPH)												TOTAL
Hr Ending	0-10	11-20	21-30	31-35	36-40	41-45	46-50	51-55	56-60	61-70	71-80	81-120	
1	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	2	0	0	0	0	0	0	0	0	0	2
7	0	0	6	5	1	0	0	0	0	0	0	0	12
8	0	1	40	5	0	0	0	0	0	0	0	0	46
9	0	2	46	6	1	0	0	0	0	0	0	0	55
10	0	3	21	6	0	0	0	0	0	0	0	0	30
11	0	2	19	2	0	0	0	0	0	0	0	0	23
12	0	2	21	5	1	0	0	0	0	0	0	0	29
13	0	2	23	2	0	0	0	0	0	0	0	0	27
14	0	3	35	3	0	0	0	0	0	0	0	0	41
15	0	5	55	3	0	0	0	0	0	0	0	0	63
16	0	6	46	7	0	0	0	0	0	0	0	0	59
17	0	11	55	3	0	0	0	0	0	0	0	0	69
18	0	5	37	8	0	0	0	0	0	0	0	0	50
19	0	2	28	5	3	0	0	0	0	0	0	0	38
20	0	1	21	5	0	0	0	0	0	0	0	0	27
21	0	1	8	3	0	0	0	0	0	0	0	0	12
22	0	1	9	4	0	0	0	0	0	0	0	0	14
23	0	0	9	1	0	0	0	0	0	0	0	0	10
24	0	1	3	2	0	0	0	0	0	0	0	0	6
7-19	0	44	426	55	5	0	0	0	0	0	0	0	530
6-22	0	47	470	72	6	0	0	0	0	0	0	0	595
6-24	0	48	482	75	6	0	0	0	0	0	0	0	611
0-24	0	48	484	75	6	0	0	0	0	0	0	0	613

Automatic Classified Counts, Worthenbury

LOCATION: FROG LANE

Direction : SOUTHBOUND

VEHICLE FLOWS									
Hr Ending	Friday 17-May-19							WEEKDAY AVERAGE	WEEK AVERAGE
1	1							1	1
2	0							0	0
3	0							0	0
4	0							0	0
5	1							1	1
6	1							1	1
7	2							2	2
8	30							30	30
9	51							51	51
10	37							37	37
11	31							31	31
12	22							22	22
13	29							29	29
14	32							32	32
15	51							51	51
16	59							59	59
17	82							82	82
18	69							69	69
19	50							50	50
20	16							16	16
21	21							21	21
22	7							7	7
23	5							5	5
24	7							7	7
7-19	543							543	543
6-22	589							589	589
6-24	601							601	601
0-24	604							604	604



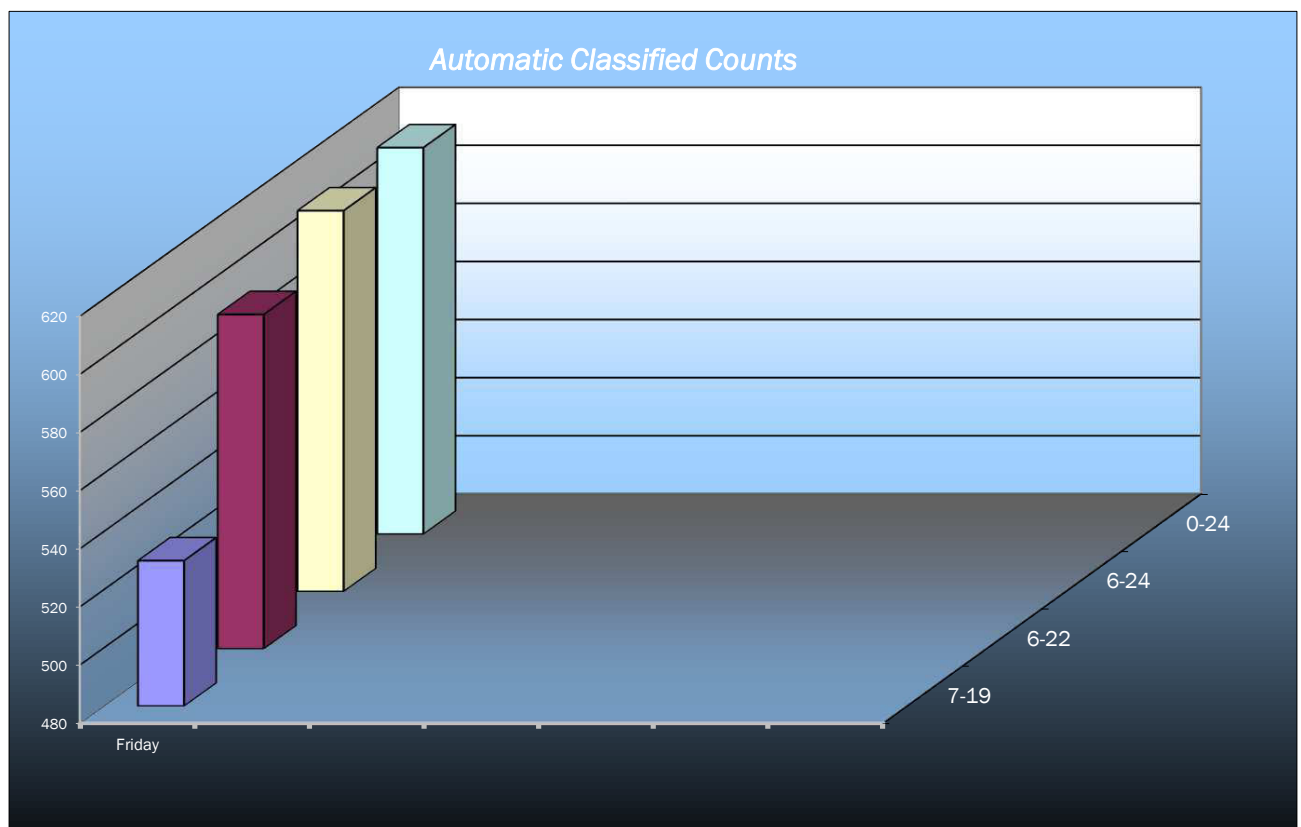
survey and presentation by **trafficsense** Ltd.

Automatic Classified Counts, Worthenbury

LOCATION: FROG LANE

Direction : NORTHBOUND

NORTHBOUND									
Hr Ending	Friday 17-May-19							WEEKDAY AVERAGE	WEEK AVERAGE
1	0							0	0
2	0							0	0
3	0							0	0
4	0							0	0
5	0							0	0
6	2							2	2
7	12							12	12
8	46							46	46
9	55							55	55
10	30							30	30
11	23							23	23
12	29							29	29
13	27							27	27
14	41							41	41
15	63							63	63
16	59							59	59
17	69							69	69
18	50							50	50
19	38							38	38
20	27							27	27
21	12							12	12
22	14							14	14
23	10							10	10
24	6							6	6
7-19	530							530	530
6-22	595							595	595
6-24	611							611	611
0-24	613							613	613



Automatic Classified Counts, Worthenbury

LOCATION: FROG LANE

Direction : SOUTHBOUND

AVERAGE SPEEDS							
Hr Ending	Friday 17-May-19	Saturday 18-May-19	Sunday 19-May-19	Monday 20-May-19	Tuesday 21-May-19	Wednesday 22-May-19	Thursday 23-May-19
1	25.5	-	-	-	-	-	-
2	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-
5	25.5	-	-	-	-	-	-
6	25.5	-	-	-	-	-	-
7	29.3	-	-	-	-	-	-
8	28.7	-	-	-	-	-	-
9	26.1	-	-	-	-	-	-
10	25.8	-	-	-	-	-	-
11	27.5	-	-	-	-	-	-
12	26.2	-	-	-	-	-	-
13	26.4	-	-	-	-	-	-
14	25.3	-	-	-	-	-	-
15	22.6	-	-	-	-	-	-
16	23.8	-	-	-	-	-	-
17	25.0	-	-	-	-	-	-
18	25.0	-	-	-	-	-	-
19	27.0	-	-	-	-	-	-
20	25.2	-	-	-	-	-	-
21	26.8	-	-	-	-	-	-
22	29.4	-	-	-	-	-	-
23	27.0	-	-	-	-	-	-
24	29.4	-	-	-	-	-	-
10-12	26.8	-	-	-	-	-	-
14-16	23.2	-	-	-	-	-	-
0-24	26.3	-	-	-	-	-	-

85TH PERCENTILE							
Hr Ending	Friday 17-May-19	Saturday 18-May-19	Sunday 19-May-19	Monday 20-May-19	Tuesday 21-May-19	Wednesday 22-May-19	Thursday 23-May-19
1	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-
7	34.6	-	-	-	-	-	-
8	32.7	-	-	-	-	-	-
9	29.6	-	-	-	-	-	-
10	29.2	-	-	-	-	-	-
11	31.9	-	-	-	-	-	-
12	28.4	-	-	-	-	-	-
13	32.3	-	-	-	-	-	-
14	30.5	-	-	-	-	-	-
15	28.2	-	-	-	-	-	-
16	29.8	-	-	-	-	-	-
17	30.4	-	-	-	-	-	-
18	29.7	-	-	-	-	-	-
19	30.1	-	-	-	-	-	-
20	29.7	-	-	-	-	-	-
21	31.0	-	-	-	-	-	-
22	34.6	-	-	-	-	-	-
23	30.4	-	-	-	-	-	-
24	36.2	-	-	-	-	-	-
10-12	30.2	-	-	-	-	-	-
14-16	29.0	-	-	-	-	-	-
0-24	31.1	-	-	-	-	-	-

7 DAY AVERAGE SPEED	26.3
7 DAY AVERAGE 85th PERCENTILE	31.1

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Automatic Classified Counts, Worthenbury

LOCATION: FROG LANE

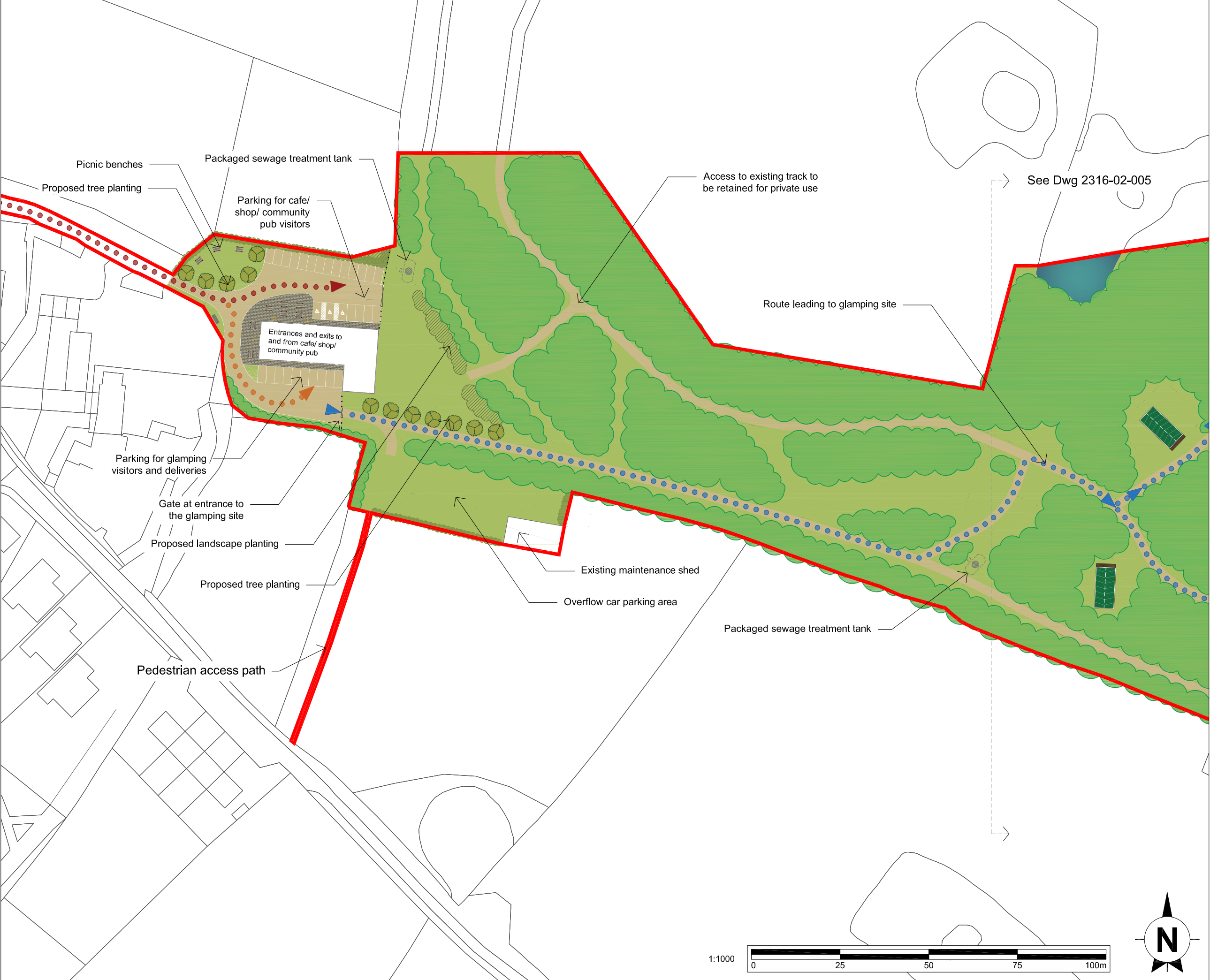
Direction : NORTHBOUND

AVERAGE SPEEDS							
Hr Ending	Friday 17-May-19	Saturday 18-May-19	Sunday 19-May-19	Monday 20-May-19	Tuesday 21-May-19	Wednesday 22-May-19	Thursday 23-May-19
1	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-
6	25.5	-	-	-	-	-	-
7	29.7	-	-	-	-	-	-
8	26.1	-	-	-	-	-	-
9	26.2	-	-	-	-	-	-
10	26.0	-	-	-	-	-	-
11	25.3	-	-	-	-	-	-
12	26.5	-	-	-	-	-	-
13	25.3	-	-	-	-	-	-
14	25.3	-	-	-	-	-	-
15	25.1	-	-	-	-	-	-
16	25.4	-	-	-	-	-	-
17	24.2	-	-	-	-	-	-
18	25.7	-	-	-	-	-	-
19	26.9	-	-	-	-	-	-
20	26.5	-	-	-	-	-	-
21	26.5	-	-	-	-	-	-
22	26.9	-	-	-	-	-	-
23	26.3	-	-	-	-	-	-
24	26.3	-	-	-	-	-	-
10-12	25.9	-	-	-	-	-	-
14-16	25.2	-	-	-	-	-	-
0-24	26.1	-	-	-	-	-	-

85TH PERCENTILE							
Hr Ending	Friday 17-May-19	Saturday 18-May-19	Sunday 19-May-19	Monday 20-May-19	Tuesday 21-May-19	Wednesday 22-May-19	Thursday 23-May-19
1	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-
6	25.5	-	-	-	-	-	-
7	34.2	-	-	-	-	-	-
8	28.9	-	-	-	-	-	-
9	29.7	-	-	-	-	-	-
10	30.7	-	-	-	-	-	-
11	29.0	-	-	-	-	-	-
12	31.2	-	-	-	-	-	-
13	28.8	-	-	-	-	-	-
14	28.7	-	-	-	-	-	-
15	28.3	-	-	-	-	-	-
16	29.5	-	-	-	-	-	-
17	28.4	-	-	-	-	-	-
18	30.1	-	-	-	-	-	-
19	31.8	-	-	-	-	-	-
20	30.2	-	-	-	-	-	-
21	31.4	-	-	-	-	-	-
22	31.7	-	-	-	-	-	-
23	28.6	-	-	-	-	-	-
24	32.8	-	-	-	-	-	-
10-12	30.1	-	-	-	-	-	-
14-16	28.9	-	-	-	-	-	-
0-24	30.0	-	-	-	-	-	-

7 DAY AVERAGE SPEED	26.1
7 DAY AVERAGE 85th PERCENTILE	30.0

APPENDIX 3 - PROPOSED SITE LAYOUT PLAN



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Follow any figured dimensions - do not scale for construction purposes. IF IN DOUBT ASK.

Revision History		Date
A	Red line amended	05/06/19
B	Parking updated	06/07/19

Site boundary

Grassland clearing

Existing woodland planting

Proposed hedge planting

Proposed landscape planting/ hedge

Existing pond

Packaged sewage treatment tank

DNO kiosk

Access route to glamping area

Access to parking area for use of cafe/ shop/ community pub

Access to parking area for use of glamping site

Shared vehicle and pedestrian access to glamping site using existing tracks

Existing track to be retained for private use

Proposed tree planting

Picnic bench

Safari tent

Chester Office Well House Farm Bretton Chester CH4 8DH		South Manchester Office Camilla House 76 Water Lane Wilmslow SK9 5BS		axis
0844 8700 007 - www.axisped.co.uk				
client: --				
project: BOWLING BANK FARM				
drawing title: SITE LAYOUT SITE ENTRANCE				
date: January 2019		drawn by: A*	checked: FR	
drawing number: 2316-02-004		status: --		
scale(s): 1:1000@A3		rev: B		
planning environment design				

APPENDIX 4 - TRICS PRINTOUTS

Calculation Reference: AUDIT-339901-190301-0357

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 01 - RETAIL
 Category : O - CONVENIENCE STORE

VEHICLESSelected regions and areas:

04	EAST ANGLIA	
	CA CAMBRIDGESHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	SY SOUTH YORKSHIRE	1 days
	WY WEST YORKSHIRE	1 days
10	WALES	
	CF CARDIFF	2 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: 306 to 539 (units: sqm)
 Range Selected by User: 70 to 1500 (units: sqm)

Parking Spaces Range: Selected: 0 to 31 Actual: 0 to 31

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/10 to 07/04/17

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	2 days
Wednesday	1 days
Friday	2 days

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

Selected survey types:

Manual count	5 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:

Neighbourhood Centre (PPS6 Local Centre)	5
--	---

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:

Commercial Zone	1
Residential Zone	3
High Street	1

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

Secondary Filtering selection:Use Class:

A1	5 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®.

Secondary Filtering selection (Cont.):Population within 1 mile:

5,001 to 10,000	1 days
10,001 to 15,000	1 days
15,001 to 20,000	2 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
125,001 to 250,000	2 days
250,001 to 500,000	2 days

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

Car ownership within 5 miles:

0.6 to 1.0	2 days
1.1 to 1.5	3 days

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

Petrol filling station:

Included in the survey count	0 days
Excluded from count or no filling station	5 days

This data displays the number of surveys within the selected set that include petrol filling station activity, and the number of surveys that do not.

Travel Plan:

No	5 days
----	--------

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	5 days
-----------------	--------

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

LIST OF SITES relevant to selection parameters

1	CA-01-O-01	CO-OP	CAMBRIDGESHIRE
	MAYORS WALK		
	PETERBOROUGH		
	NETHERTON		
	Neighbourhood Centre (PPS6 Local Centre)		
	Residential Zone		
	Total Gross floor area:	375 sqm	
	Survey date: MONDAY	17/10/11	Survey Type: MANUAL
2	CF-01-O-01	TESCO EXPRESS	CARDIFF
	BUTE STREET		
	CARDIFF		
	CARDIFF BAY		
	Neighbourhood Centre (PPS6 Local Centre)		
	Commercial Zone		
	Total Gross floor area:	450 sqm	
	Survey date: WEDNESDAY	18/07/12	Survey Type: MANUAL
3	CF-01-O-02	CO-OPERATIVE	CARDIFF
	HEOL-Y-DERI		
	CARDIFF		
	RHIWBINA		
	Neighbourhood Centre (PPS6 Local Centre)		
	Residential Zone		
	Total Gross floor area:	350 sqm	
	Survey date: FRIDAY	07/10/16	Survey Type: MANUAL
4	SY-01-O-02	SAINSBURY'S LOCAL	SOUTH YORKSHIRE
	ECCLESALL ROAD		
	SHEFFIELD		
	Neighbourhood Centre (PPS6 Local Centre)		
	High Street		
	Total Gross floor area:	306 sqm	
	Survey date: FRIDAY	14/12/12	Survey Type: MANUAL
5	WY-01-O-02	CO-OPERATIVE	WEST YORKSHIRE
	AINSTY ROAD		
	WETHERBY		
	Neighbourhood Centre (PPS6 Local Centre)		
	Residential Zone		
	Total Gross floor area:	539 sqm	
	Survey date: MONDAY	26/09/16	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.

Axis 76 Water Lane Wilmslow

Licence No: 339901

TRIP RATE for Land Use 01 - RETAIL/O - CONVENIENCE STORE

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	3	421	2.057	3	421	1.661	3	421	3.718
07:00 - 08:00	5	404	4.901	5	404	4.950	5	404	9.851
08:00 - 09:00	5	404	5.644	5	404	5.594	5	404	11.238
09:00 - 10:00	5	404	5.099	5	404	5.099	5	404	10.198
10:00 - 11:00	5	404	5.743	5	404	5.495	5	404	11.238
11:00 - 12:00	5	404	5.495	5	404	5.446	5	404	10.941
12:00 - 13:00	5	404	5.792	5	404	5.990	5	404	11.782
13:00 - 14:00	5	404	5.495	5	404	5.396	5	404	10.891
14:00 - 15:00	5	404	6.436	5	404	6.040	5	404	12.476
15:00 - 16:00	5	404	7.228	5	404	6.733	5	404	13.961
16:00 - 17:00	5	404	6.040	5	404	6.040	5	404	12.080
17:00 - 18:00	5	404	7.178	5	404	8.069	5	404	15.247
18:00 - 19:00	5	404	8.069	5	404	7.673	5	404	15.742
19:00 - 20:00	5	404	5.594	5	404	5.842	5	404	11.436
20:00 - 21:00	5	404	3.168	5	404	3.416	5	404	6.584
21:00 - 22:00	5	404	2.277	5	404	2.525	5	404	4.802
22:00 - 23:00	1	375	0.000	1	375	1.067	1	375	1.067
23:00 - 24:00									
Total Rates:			86.216				87.036	173.252	

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:	306 - 539 (units: sqm)
Survey date date range:	01/01/10 - 07/04/17
Number of weekdays (Monday-Friday):	5
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

Calculation Reference: AUDIT-339901-190301-0359

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
 Category : J - HOLIDAY ACCOMMODATION

VEHICLESSelected regions and areas:

02	SOUTH EAST	
	ES EAST SUSSEX	1 days
03	SOUTH WEST	
	DC DORSET	3 days
05	EAST MIDLANDS	
	DS DERBYSHIRE	1 days
06	WEST MIDLANDS	
	WM WEST MIDLANDS	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	NY NORTH YORKSHIRE	1 days
10	WALES	
	PS POWYS	1 days
	VG VALE OF GLAMORGAN	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: Number of units
 Actual Range: 86 to 799 (units:)
 Range Selected by User: 31 to 9700 (units:)

Parking Spaces Range: Selected: 29 to 5000 Actual: 29 to 5000

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/00 to 15/08/16

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

Selected survey days:

Monday	2 days
Tuesday	1 days
Thursday	1 days
Friday	5 days

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

Selected survey types:

Manual count	9 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:

Neighbourhood Centre (PPS6 Local Centre)	4
Free Standing (PPS6 Out of Town)	5

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:

Village	5
Out of Town	4

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

Secondary Filtering selection:Use Class:

Not Known	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®.

Population within 1 mile:

1,000 or Less	2 days
1,001 to 5,000	6 days
5,001 to 10,000	1 days

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

Population within 5 miles:

5,001 to 25,000	3 days
25,001 to 50,000	1 days
50,001 to 75,000	3 days
100,001 to 125,000	1 days
125,001 to 250,000	1 days

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

Car ownership within 5 miles:

0.6 to 1.0	5 days
1.1 to 1.5	1 days
1.6 to 2.0	3 days

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

Travel Plan:

Not Known	5 days
No	4 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	9 days
-----------------	--------

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

LIST OF SITES relevant to selection parameters

1	DC-03-J-03	CARAVAN PARK	DORSET
	PRESTON ROAD NEAR WEYMOUTH PRESTON Neighbourhood Centre (PPS6 Local Centre) Village Total Number of units: 799 Survey date: FRIDAY 24/08/01 Survey Type: MANUAL		
2	DC-03-J-04	CARAVAN PARK	DORSET
	PRESTON ROAD NEAR WEYMOUTH PRESTON Neighbourhood Centre (PPS6 Local Centre) Village Total Number of units: 353 Survey date: FRIDAY 26/07/02 Survey Type: MANUAL		
3	DC-03-J-05	CAMPING/CARAVAN	DORSET
	STATION ROAD MORETON Free Standing (PPS6 Out of Town) Out of Town Total Number of units: 122 Survey date: FRIDAY 11/07/08 Survey Type: MANUAL		
4	DS-03-J-01	CARAVAN PARK	DERBYSHIRE
	MAIN ROAD THULSTON ELVASTON Free Standing (PPS6 Out of Town) Village Total Number of units: 152 Survey date: FRIDAY 29/07/11 Survey Type: MANUAL		
5	ES-03-J-01	CARAVAN PARK	EAST SUSSEX
	EASTBOURNE ROAD EASTBOURNE PEVENSEY BAY Neighbourhood Centre (PPS6 Local Centre) Village Total Number of units: 305 Survey date: THURSDAY 02/08/01 Survey Type: MANUAL		
6	NY-03-J-01	CAMPING & CARAVANNING	NORTH YORKSHIRE
	BAR LANE NEAR BOROUGHBRIDGE ROECLIFFE Neighbourhood Centre (PPS6 Local Centre) Village Total Number of units: 163 Survey date: TUESDAY 16/09/08 Survey Type: MANUAL		
7	PS-03-J-01	CAMPING/CARAVAN	POWYS
	HAY ROAD NEAR BRECON Free Standing (PPS6 Out of Town) Out of Town Total Number of units: 115 Survey date: FRIDAY 19/07/02 Survey Type: MANUAL		
8	VG-03-J-01	CARAVAN PARK	VALE OF GLAMORGAN
	FONTYGARY ROAD NEAR BARRY RHOOSE Free Standing (PPS6 Out of Town) Out of Town Total Number of units: 494 Survey date: MONDAY 22/07/02 Survey Type: MANUAL		
9	WM-03-J-01	CARAVAN PARK	WEST MIDLANDS
	MILL LANE NEAR COVENTRY ASTON CANTLOW Free Standing (PPS6 Out of Town) Out of Town Total Number of units: 86 Survey date: MONDAY 08/06/09 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 03 - RESIDENTIAL/J - HOLIDAY ACCOMMODATION

VEHICLES**Calculation factor: 1 UNITS****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. UNITS	Trip Rate	No. Days	Ave. UNITS	Trip Rate	No. Days	Ave. UNITS	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	1	305	0.010	1	305	0.023	1	305	0.033
07:00 - 08:00	9	288	0.013	9	288	0.024	9	288	0.037
08:00 - 09:00	9	288	0.032	9	288	0.037	9	288	0.069
09:00 - 10:00	9	288	0.044	9	288	0.077	9	288	0.121
10:00 - 11:00	9	288	0.055	9	288	0.129	9	288	0.184
11:00 - 12:00	9	288	0.066	9	288	0.131	9	288	0.197
12:00 - 13:00	9	288	0.070	9	288	0.107	9	288	0.177
13:00 - 14:00	9	288	0.081	9	288	0.081	9	288	0.162
14:00 - 15:00	9	288	0.100	9	288	0.080	9	288	0.180
15:00 - 16:00	9	288	0.097	9	288	0.075	9	288	0.172
16:00 - 17:00	9	288	0.100	9	288	0.079	9	288	0.179
17:00 - 18:00	9	288	0.141	9	288	0.079	9	288	0.220
18:00 - 19:00	9	288	0.105	9	288	0.073	9	288	0.178
19:00 - 20:00	5	166	0.070	5	166	0.058	5	166	0.128
20:00 - 21:00	5	166	0.059	5	166	0.029	5	166	0.088
21:00 - 22:00	4	186	0.034	4	186	0.022	4	186	0.056
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.077			1.104			2.181

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:	86 - 799 (units:)
Survey date date range:	01/01/00 - 15/08/16
Number of weekdays (Monday-Friday):	11
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

Calculation Reference: AUDIT-339901-190301-0333

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 06 - HOTEL, FOOD & DRINK
 Category : I - PUBLIC HOUSE (WITHOUT RESTAURANT)

VEHICLESSelected regions and areas:

02 SOUTH EAST	
HC HAMPSHIRE	1 days
05 EAST MIDLANDS	
NR NORTHAMPTONSHIRE	1 days
06 WEST MIDLANDS	
WO WORCESTERSHIRE	1 days
08 NORTH WEST	
GM GREATER MANCHESTER	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: 175 to 550 (units: sqm)
 Range Selected by User: 120 to 750 (units: sqm)

Parking Spaces Range: Selected: 0 to 81 Actual: 0 to 81

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/90 to 10/07/16

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

Selected survey days:

Tuesday	1 days
Friday	3 days

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

Selected survey types:

Manual count	4 days
Directional ATC Count	0 days

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

Selected Locations:

Edge of Town	2
Neighbourhood Centre (PPS6 Local Centre)	2

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

Selected Location Sub Categories:

Residential Zone	2
Village	1
High Street	1

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

Secondary Filtering selection:Use Class:

A4	4 days
----	--------

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

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Secondary Filtering selection (Cont.):Population within 1 mile:

1,000 or Less	1 days
10,001 to 15,000	1 days
25,001 to 50,000	2 days

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

Population within 5 miles:

5,001 to 25,000	1 days
75,001 to 100,000	1 days
125,001 to 250,000	1 days
250,001 to 500,000	1 days

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

Car ownership within 5 miles:

1.1 to 1.5	4 days
------------	--------

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

Travel Plan:

No	4 days
----	--------

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	4 days
-----------------	--------

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

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LIST OF SITES relevant to selection parameters

1	GM-06-I-01	PUBLIC HOUSE	GREATER MANCHESTER
	SYKE ROAD ROCHDALE		
	Edge of Town Residential Zone		
	Total Gross floor area:	175 sqm	
	Survey date: <i>TUESDAY</i>	25/11/14	Survey Type: <i>MANUAL</i>
2	HC-06-I-01	PUBLIC HOUSE	HAMPSHIRE
	PORTSWOOD ROAD SOUTHAMPTON WESTWOOD PARK Neighbourhood Centre (PPS6 Local Centre) High Street		
	Total Gross floor area:	550 sqm	
	Survey date: <i>FRIDAY</i>	16/11/07	Survey Type: <i>MANUAL</i>
3	NR-06-I-01	PUBLIC HOUSE	NORTHAMPTONSHIRE
	ZION HILL NEAR NORTHAMPTON WALGRAVE Neighbourhood Centre (PPS6 Local Centre) Village		
	Total Gross floor area:	190 sqm	
	Survey date: <i>FRIDAY</i>	18/05/07	Survey Type: <i>MANUAL</i>
4	WO-06-I-01	PUBLIC HOUSE	WORCESTERSHIRE
	WOLVERLEY ROAD KIDDERMINSTER FRANCHE Edge of Town Residential Zone		
	Total Gross floor area:	400 sqm	
	Survey date: <i>FRIDAY</i>	05/05/06	Survey Type: <i>MANUAL</i>

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 06 - HOTEL, FOOD & DRINK/I - PUBLIC HOUSE (WITHOUT RESTAURANT)

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	1	400	1.000	1	400	2.750	1	400	3.750
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									
08:00 - 09:00									
09:00 - 10:00									
10:00 - 11:00	3	380	1.228	3	380	0.702	3	380	1.930
11:00 - 12:00	4	329	1.597	4	329	0.989	4	329	2.586
12:00 - 13:00	4	329	3.498	4	329	1.369	4	329	4.867
13:00 - 14:00	4	329	2.586	4	329	3.042	4	329	5.628
14:00 - 15:00	4	329	2.662	4	329	2.890	4	329	5.552
15:00 - 16:00	4	329	2.814	4	329	2.966	4	329	5.780
16:00 - 17:00	4	329	3.878	4	329	2.890	4	329	6.768
17:00 - 18:00	4	329	4.335	4	329	3.498	4	329	7.833
18:00 - 19:00	4	329	4.715	4	329	4.030	4	329	8.745
19:00 - 20:00	4	329	4.411	4	329	4.411	4	329	8.822
20:00 - 21:00	4	329	5.171	4	329	4.335	4	329	9.506
21:00 - 22:00	4	329	4.106	4	329	4.715	4	329	8.821
22:00 - 23:00	4	329	2.129	4	329	3.270	4	329	5.399
23:00 - 24:00	4	329	1.065	4	329	3.042	4	329	4.107
Total Rates:			45.195			44.899			90.094

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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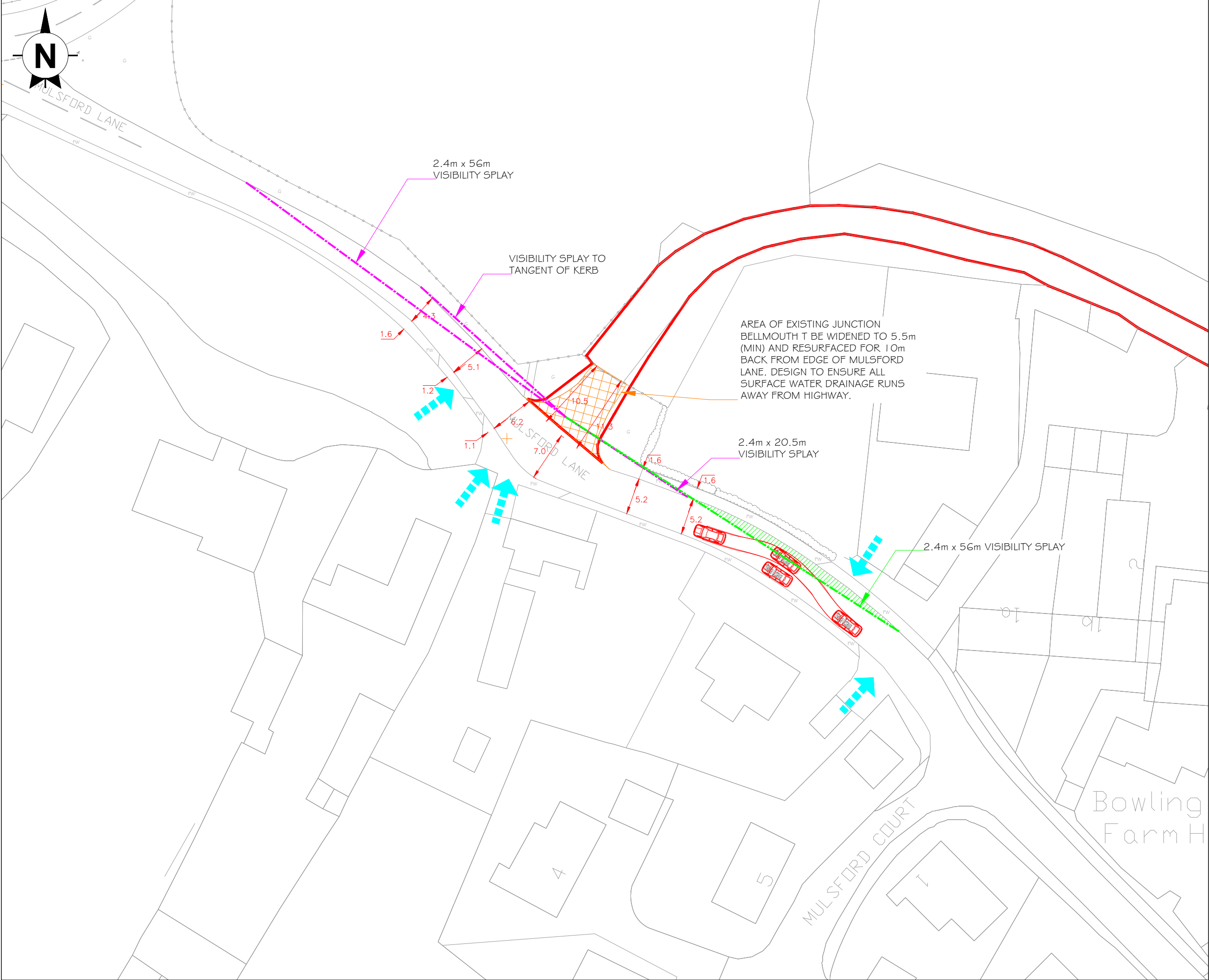
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Parameter summary

Trip rate parameter range selected:	175 - 550 (units: sqm)
Survey date date range:	01/01/90 - 10/07/16
Number of weekdays (Monday-Friday):	4
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

DRAWING 2316-02-D02A - VISIBILITY FROM MULSFORD LAND ACCESS



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Revision History		Date
A	SCALE CHANGED. ADDITIONAL VISI SHOWN	14.05.19

KEY

EXISTING DRIVEWAYS

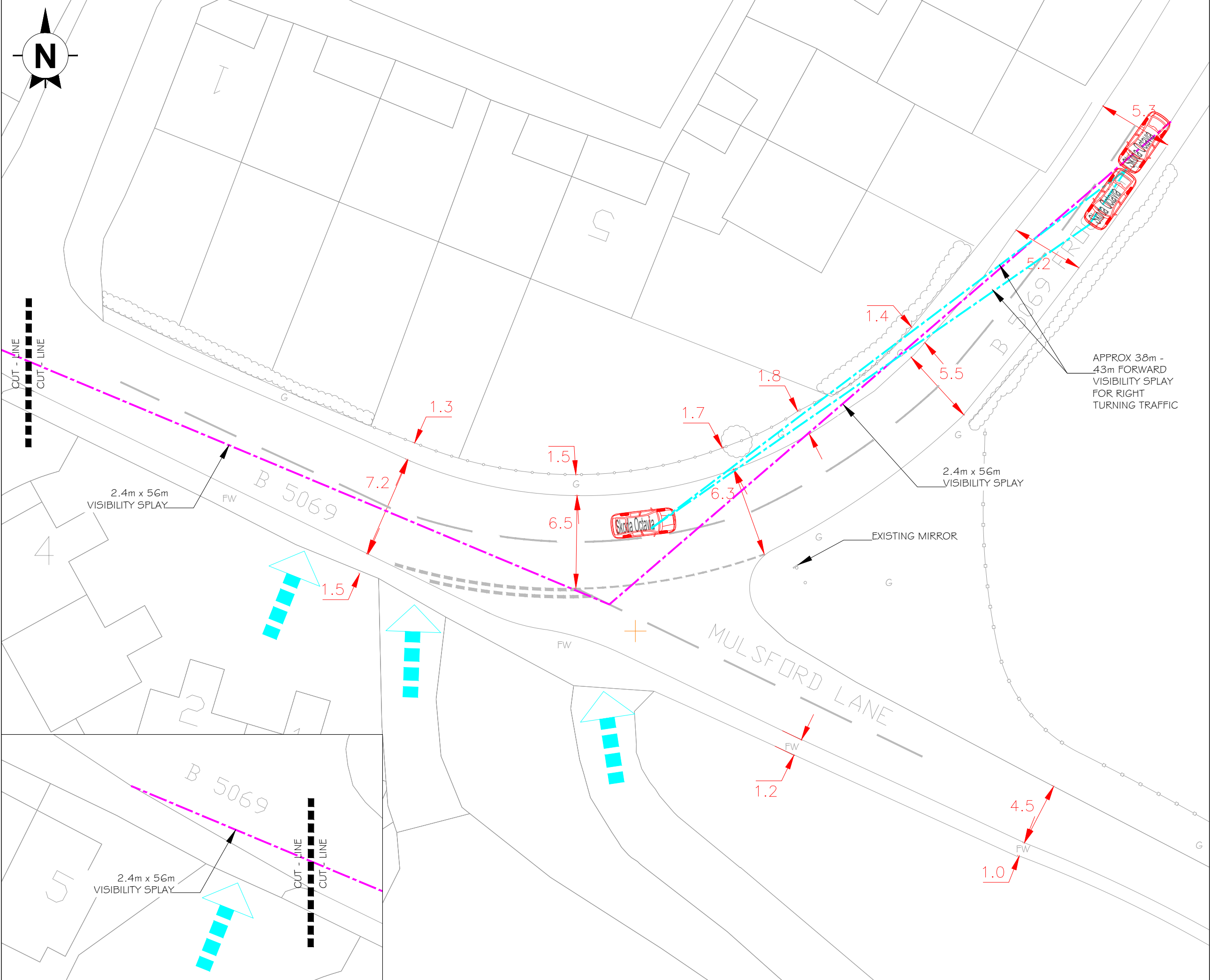
GRASS G

FOOTWAY FW

NOTE - ORDNANCE SURVEY (OS) MAPPING AMENDED TO REFLECT OBSERVED GROUND CONDITIONS DURING A SITE VISIT MADE BY AXIS.

Chester Office: Well House Barns Bruton CH4 5DH		South Manchester Office: Canella House 76 Water Lane Wilmslow SK9 5BB	
0844 8700 007 - www.axisped.co.uk			
client: -			
project: WORTHENBURY GLAMPING			
drawing title: VISIBILITY FROM MULSFORD LANE ACCESS			
date: APRIL 2019		drawn by: BA	checked: LK
drawing number: 2316-02-D02		status: --	
scale(s): 1:500@A3		rev: A	
planning environment design			

**DRAWING 2316-02-D01 - FORWARD VISIBILITY FOR RIGHT TURNING
VEHICLES INTO MULSFORD LANE**

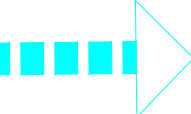


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Revision History		Date

KEY

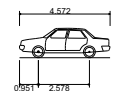
EXISTING DRIVEWAYS 

GRASS G

FOOTWAY FW

NOTE - ORDNANCE SURVEY (OS) MAPPING AMENDED TO REFLECT OBSERVED GROUND CONDITIONS DURING A SITE VISIT MADE BY AXIS.

DESIGN VEHICLE



Skoda Octavia
Overall Length 4.572m
Overall Width 1.769m
Overall Body Height 1.488m
Min Body Ground Clearance 0.249m
Max Track Width 1.713m
Lock to lock time 4.00s
Kerb to Kerb Turning Radius 5.100m

client:		axis
-		
project: WORTHENBURY GLAMPING		
drawing title: FORWARD VISIBILITY FOR RIGHT TURNING VEHICLES INTO MULSFORD LANE		
date: APRIL 2019	drawn by: BA	checked: LK
drawing number: 2316-02-D01	status: --	
scale(s): 1:250@A3	rev: --	
planning environment design		