

**Bridge Road North,
Wrexham**

TRANSPORT STATEMENT

Report prepared for
JCP Investments

May 2023

Report Reference 1798/1/C



ASHLEY HELME
ASSOCIATES



Transport Statement

Bridge Road North, Wrexham

Client: JCP Investments
Report Ref: 1798/1/C
Status: Final
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Transport Statement

Bridge Road North, Wrexham

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1 Introduction

- 1.1 Ashley Helme Associates Limited (AHA) are appointed by JCP Investments to prepare a Transport Statement (TS) to support a planning application for a proposed development on Bridge Road North, Wrexham Industrial Estate (henceforth referred to as the Site). The location of the Site is indicated on Figure 1.1, in the context of the local highway network.

1.2 Existing Situation & Proposed Development

- 1.2.1 The Site is located on land to the north of Bridge Road North, adjacent to an existing industrial building occupied by Cool Point.
- 1.2.2 The proposed development comprises a single B8 unit with a total Gross Floor Area (GFA) of 5087sm. Vehicular access to the development will be provided via a new access on Bridge Road North and the existing Cool Point access on Bridge Road North will be closed. Pedestrian and cycle access will also be via Bridge Road North.

1.3 Scope of the Report

- 1.3.1 The issues addressed within this TS fall broadly into the following areas:
- Accessibility by non-car modes, and
 - Traffic Impact of the proposed development on the local highway network.
- 1.3.2 This TS report is an update to the report prepared in November 2022 following a change to the proposed scheme and also in response to comments received from Wrexham Borough Council (WBC) Highways Officers.
- 1.3.3 The local highway network is described in Chapter 2.
- 1.3.4 The proposed Site access arrangements and parking provision are outlined in Chapter 3.
- 1.3.5 The accessibility of the Site by choice of mode is considered in Chapter 4.
- 1.3.6 The estimate of the traffic generated by the proposed development is set out in Chapter 5.
- 1.3.7 The summary and conclusions of the TS are presented in Chapter 6.



2 Highway Network

- 2.1 The location of the Site is shown on Figure 1.1. The Site is located on land on the north side of Bridge Road North, Wrexham Industrial Estate.
- 2.2 Bridge Road North is a circa 7.3m wide single carriageway road and subject to a 40mph speed limit. There is continuous footway on both sides of the carriageway. The footway opposite the Site is separated from the main carriageway by grass verge. There is street lighting on the north (Site) side of Bridge Road North at the Site frontage. There is footway on the south side of the road to the east and west of the Site.
- 2.3 There is a general absence of waiting and loading restrictions on Bridge Road North in the vicinity of the Site.
- 2.4 Dunster Road forms the minor arm of a priority-controlled junction with Bridge Road North, opposite the existing Cool Point access. At its southern end, Dunster Road forms a priority-controlled junction with Redwither Road/Oak Road circa 300m south of the Site. Circa 500m to the west of the Site, Bridge Road North forms a priority-controlled junction with Redwither Road.

2.5 Collision Records

- 2.5.1 AHA purchased CrashMap data in preparation of the original TS report. The data covered the five-year period 2017-2021 for the roads in the immediate vicinity of the Site. There are two recorded collisions in the latest five-year period. The collision records are included in Appendix A.
- 2.5.2 There is one recorded collision on Bridge Road North, which was between a vehicle turning right out of an auxiliary road to the west of the Site, and a vehicle proceeding along Bridge Road North.
- 2.5.3 There is another recorded accident in the vicinity of the Site, although it is not clear from the records whether it is on Bridge Road North or Dunster Road. This collision was between a vehicle moving off, and another vehicle proceeding along the carriageway.
- 2.5.4 AHA has also reviewed the 2021 CrashMap data for the roads in the immediate vicinity of the Site (this data was not available at the time the original TS was prepared). This shows that no further collisions are recorded as occurring on the roads in the immediate vicinity of the Site.



- 2.5.5 The two recorded collisions appear to be in different locations and are different collision types. Therefore, the CrashMap data does not indicate a recurring collision type/problem in the vicinity of the Site.



3 Proposed Site Access and Parking Arrangements

3.1 Site Access

3.1.1 Following comments from Wrexham Borough Council (WBC) highways officers, it proposed to close the existing Cool Point access on Bridge Road North and create a new access to the east that will serve both Cool Point and the new unit.

3.1.2 The new access proposals on Bridge Road north are indicated on Drg No 1798/04 and comprises:

- 7.3m wide access road (initially circa 7.8m),
- 15m corner radii,
- 2.4m x 119m visibility splay to the left,
- 2.4m x 114m visibility splay to the right.

3.1.3 Vehicular Speeds

3.1.3.1 AHA commissioned an ATC survey on Bridge Road North in the vicinity of the proposed Site access. The ATC was located in the vicinity of the Site. The ATC survey was undertaken on seven consecutive days, starting on the 28 February and ending on the 6 March 2022. A copy of the ATC data is included in Appendix B.

3.1.3.2 The speed data results of the ATC survey on Bridge Road North are set out below:

20hr five day mean 85thile Speed

Eastbound	42.6mph,
Westbound	43.8mph.

3.1.3.3 Adopting the above design speeds, it is considered that Design Manual for Roads and Bridges (DMRB) stopping sight distances are appropriate in this location. On this basis, visibility splays of 2.4m x 117m to the left and 2.4m x 112m to the right are considered appropriate.

3.1.3.4 With regard to visibility, the WBC comments dated 26 November 2022 state:

“In (sic) understand that a speed survey was recently carried out along this section which determined 85th percentile speeds of 42.6mph for vehicles travelling eastbound and 43.8mph for vehicles travelling westbound.



Based on the above speeds any existing/proposed access would normally be required to provide visibility splays of 2.4m x 119m to the east and 2.4m x 114m to the west measured to the nearside edge of carriageway...."

- 3.1.3.5 AHA is unclear why WBC have requested an additional 2m to be added to the splays previously proposed. Unlike MfS visibility standards, it is not considered appropriate to apply a bonnet correction factor to DMRB standards. Notwithstanding this, as the requested visibility 'Y' distances are only 2m greater than those previously proposed, Drg No 1798/04 shows that 2.4m x 114 and 2.4m x 119m as requested by WBC.

3.1.3 Swept Path Analysis

- 3.1.3.1 AHA has undertaken swept path analysis of the proposed access arrangements adopting a 16.5m articulated HGV as the design vehicle.

- 3.1.3.2 The swept path analysis shown on Drg No 1798/SP/02 confirms that a 16.5m articulated HGV can enter and exit the Site in a forward gear, and turn within the Site. Drg No 1798/SP/02 also shows that a 16.5m articulated HGV can reverse into position where the loading bays are located.

- 3.1.3.3 With respect to the swept path tracking previously undertaken, WBC Highways Officers stated:

"The submitted swept path plans indicate the turning movements of a 16.5m long HGV entering, exiting and turning within the site. The proposed 12.5m diameter turning circle provided would appear very tight to the proposed parking spaces and could be impeded should any vehicle park slightly out of line. I also understand that 18.5m long trailer HGVs are now permitted on the road. I would recommend that swept paths details are also provided for such a vehicle and increased turning space is proposed which allows for a suitable clearance from parked vehicles / cars."

- 3.1.3.4 The Site access and the internal layout has changed since the previous comments were made and it is considered that the tracking of a 16.5m articulated vehicle shows the layout can accommodate this vehicle type. AHA has reviewed the tracking software, but this does not include an 18.5m longer trailer HGV within the software library. Based on the above comments, it seems that the WBC wish to ensure that the turning space is sufficient and that there is sufficient clearance from the parking spaces. The latest tracking of the 16.5m articulated vehicle shows that the vehicle can comfortably turn within the Site and this should give confidence that a slightly larger vehicle will also be able to turn within the Site.



3.2 Parking

3.2.1 Car Parking

3.2.1.1 The Wrexham Borough Council (WBC) parking standards are set out in Local Planning Guidance Note No 16. The maximum car parking for a B8 use is set out below:

- B8 Storage and Distribution: 1 space per 100sm.

3.2.1.2 The proposed development comprises a single B8 unit with a Gross Floor Area (GFA) of 5087sm. On this basis the maximum number of car park spaces that could be provided at the Site are:

- B8 Storage and Distribution: 51 spaces.

3.2.1.3 The proposed development includes 51 parking spaces, which meets WBC parking standards.

3.2.1.4 The WBC standards also require that a minimum of 10% of the total parking provision should be designated as disabled parking. On this basis the proposed development will provide 5 designated disabled parking spaces and these will be located close to the pedestrian entrances. This is indicated on the architect's plan.

3.2.1.5 The development also includes 3 Electric Vehicle parking spaces (one of these is shared with a disabled space), with charging points.

3.2.2 Cycle Parking

3.2.2.1 The Wrexham Borough Council (WBC) cycle parking standards are also set out in Local Planning Guidance Note No 16. The maximum cycle parking for a B8 use is set out below:

- B8 Storage and Distribution: 1 space per 1000sm,

3.2.2.2 The proposed development proposes 6 covered cycle parking spaces which is in excess of the minimum WCBC standards for a B8 use.

3.3 Summary

3.3.1 It is proposed that the development will be served by an existing access on Bridge Road North. The existing proposed access arrangements are indicated on Drg No 1798/04.



- 3.3.2 Visibility splays of 2.4m x 119m to the left and 2.4m x 114m to the right are shown on the access plan, as requested by WBC highways officers.
- 3.3.3 Drg No 1798/SP/02 presents the results of the swept path tracking exercise for the proposed access arrangements, adopting a 16.5m rigid articulated HGV as the design vehicle. It is demonstrated that the proposed access arrangements can suitably accommodate the movements of the design vehicle.
- 3.3.4 The proposed development includes 51 parking spaces, 5 of which will be designated disabled parking spaces. This meets WBC parking standards.
- 3.3.5 The proposed development proposes 6 covered cycle spaces. The development also includes 3 Electric Vehicle parking spaces, with charging points.



4 Accessibility By Non-Car Modes

4.1 Walk

- 4.1.1 It is established and acknowledged that walking is the most important mode of travel at the local level, and offers the greatest potential to replace short car trips, particularly under 2km.
- 4.1.2 Figure 4.1 presents the 400m, 800m, 1200m, 1600m and 2000m walk isochrones. Wrexham Industrial Estate is located approximately 4.5km east of the centre of Wrexham and the existing residential areas on the eastern edge of the town are beyond a 2km walk. However, the village of Pentre Maelor is within a 2000m walk of the Site. Residents living in the village have opportunity to commute to the Site on foot.
- 4.1.3 There are existing food outlets located on Bridge Road South, including a café and diner. These are within a 800m (10 minute) walk and will provide opportunity for employees of the Site to access these facilities by foot during breaks.
- 4.1.4 It is acknowledged that the location of the Site, within Wrexham Industrial Estate, is beyond a practical walking distance of the majority of residential areas in the local vicinity, with only Pentre Maelor within a reasonable walking distance. Nevertheless, within the industrial estate there are a number of amenities including a diner and café that are within a practical walk distance of the Site. This means that employees of the site will be able to access these facilities by foot during breaks without being required to undertake car trips.

4.2 Cycle

- 4.2.1 It is recognised that cycling also has potential to substitute for short car trips, particularly those under 5km, and to form part of a longer journey by public transport.
- 4.2.2 The CIHT guidance 'Cycle Friendly Infrastructure' (2004) states that:

"Most journeys are short. Three quarters of journeys by all modes are less than five miles (8km) and half under two miles (3.2km) (DOT 1993, table 2a). These are distances that can be cycled comfortably by a reasonably fit person."(para 2.3)



- 4.2.3 There are existing cycle routes within Wrexham Industrial Estate and these are shown on the Sustrans Wrexham cycling leaflet included in Appendix C. The leaflet includes the off-road and advisory cycle routes within the industrial estate. Clywedog Road East and Clywedog Road South (between Clywedog Road East and Clywedog Road North) are advisory cycle routes that provide a route to Cefn Road via ErLas Lane and Redwither Lane. There is a shared footway/cycleway on the north side of Cefn Road between Redwither Lane and Queensway. Therefore, Wrexham Industrial Estate and the Site benefit from a good cycle connection to Wrexham.
- 4.2.4 Figure 4.2 presents the 2000m and 5000m cycle isochrones for the Site. Almost all of Wrexham Industrial Estate is within a 2km cycle ride of the Site, which provides employees opportunity to access the facilities within the estate by cycle during breaks.
- 4.2.5 Parts of the western side of Wrexham are within a 5km cycle ride of the Site. The villages of Marchwiel and Cross Lanes are also within a 5km cycle ride of the Site.
- 4.2.6 It is clear that the Site is within a practical cycle ride of the western side of Wrexham. This provides opportunity for employees to cycle to/from work.

4.2.7 Cycle Parking

- 4.2.7.1 Cycle storage will be provided as part of the proposed development, offering practical assistance and encouragement for employees to cycle to/from the proposed development. This is complemented by showers and changing facilities within the proposed building.

4.3 Public Transport

- 4.3.1 The option for public transport journeys to/from the Site is by bus.
- 4.3.2 The closest bus stop to the Site is on Bridge Road North along the Site frontage. The stop is on the north (eastbound) side of the road. There are no bus stops of the south (westbound) side of the road as there are no westbound services on Bridge Road North. The bus stop comprises a flag attached to a lighting column. There is a bus stop circa 200m to the west of this stop which also has a waiting shelter, seating, timetable information, and a raised kerb for low floor access. This provides an alternative stop within a short walk of the Site for passengers that require these facilities.



- 4.3.3 There is continuous footway and street lighting between the Site access and both of these stops. The walk route to the stop to the west of the Site requires crossing of an access to an industrial building occupied by Cable Services Group. This access has dropped kerbs and tactile paving close to the pedestrian desire line.
- 4.3.4 The 41 service between Wrexham Bus Station and Wrexham Industrial Estate calls at the stop on Bridge Road North. The 41 operates at a 30 minute frequency, Monday to Saturday. The first service departs Wrexham bus station at 0525, and arrives at the stop closest to the Site at 0543. The last service of the day departs the stop closest to the Site at 2144, and arrives a Wrexham Bus Station at 2237. These services therefore cover typical commuting times, and are likely to cover the typical opening hours of the proposed development.
- 4.3.5 The typical journey time between Wrexham Bus Station and the Site on the outward journey is 18 minutes. The typical journey time on the return journey is longer being 28 minutes. The reason the journey time is greater on the return journey is that the service operates a circular route around Wrexham Industrial Estate. However, the journey times in both directions provide a good opportunity for commuting journeys to/from the Site to be undertaken by bus.
- 4.3.6 The 41 service calls at Wrexham Bus Station, providing good opportunity for interchange to a range of bus services throughout Wrexham area.
- 4.3.7 The 42W bus service calls at a stop on Bridge Road that is within an 800m walk of the Site. The 42W also operates between Wrexham Bus Station and Wrexham Industrial Estate. It operates two service in the mornings on Mondays to Fridays.

4.4 Summary

- 4.4.1 It is acknowledged that the location of the Site within Wrexham Industrial Estate limits the opportunity of employees to commute to work by foot. The village of Pentre Maelor is within a 2000m (25 minute) walking distance of the Site, but the majority of residential areas in and around Wrexham are beyond a realistic walking distance for commuting journeys.
- 4.4.2 However, it is demonstrated that the Site is accessible by cycle, with existing cycle routes linking Wrexham to the industrial estate and additional routes within the industrial estate itself. This provides good opportunity for employees of the Site to cycle to/from the place of work. Cycle parking will be provided at the Site as part of the proposed development.



- 4.4.3 Similarly, the Site is accessible by public transport. The 41 route provides a 30 minute service between Wrexham and the industrial estate. The nearest stop is at the Site frontage. The 41 service calls at Wrexham Bus Station, providing good opportunity for interchange with other services.



5 Traffic Impact

5.1 Peak Periods

- 5.1.1 The times when the combination is greatest, of traffic generated by the proposed development and the existing highway network traffic, are the weekday AM & PM peak hours. The TS includes quantitative analysis of the traffic impact of the proposed development for these periods.

5.2 Proposed Development

- 5.2.1 The proposed development comprises a single B8 unit with a total Gross Floor Area (GFA) of 5087sm.

- 5.2.2 AHA prepared TS report 1717/1/C for a B1(c)/B2/B8 development on Wrexham Industrial Estate in October 2020. In preparation of that report, AHA reviewed trip rates for both Warehousing units and industrial units. The B8 Warehouse trip rates are set out below:

USE	ARR	DEP	2-WAY	ARR	DEP	2-WAY
Warehouse	0.426	0.196	0.622	0.175	0.404	0.579.

- 5.2.3 A copy of these TRICS data is included in Appendix D. AHA adopted these trip rates in an earlier version of this TS report. However, with regard to these trip rates WBC Highways states that:

“The submitted TRICS data (14 no. sites for both class uses) includes a number of sites ie/ edge of town location - 10 no. sites). However, I would consider Wrexham Industrial Estate to be classed as more freestanding or neighbourhood centre type locations therefore in less sustainable locations. I would suggest that more relevant sites are submitted.”

- 5.2.4 The application previously proposed two B1(c)/B2/B8 units and the original TS report was prepared on that basis. The development now proposes a single B8 warehouse unit. In response to the WBC comments, a new TRICS interrogation has been undertaken for a warehouse use for freestanding or neighbourhood sites. There are only two sites that meet this location criteria as follows:

- Lidl Distribution, 49,081sm GFA, Exeter,
- Amazon Depot, 4836sm GFA, Newport.

- 5.2.5 The Lidl site is nearly ten times the size of the warehouse proposed at the Site and it is considered that this is not a suitable survey to adopt for this site. That leaves only the Amazon depot in



Newport. The AM and PM trip rates for 0800-0900 and 1700-1800 derived from the site survey are set out below:

USE	ARR	DEP	2-WAY	ARR	DEP	2-WAY
Warehouse	0.537	0.372	0.909	0.310	0.144	0.454.

5.2.6 A copy of the TRICS data is included in Appendix D. Review of the above shows that the AM peak hour trip rates are higher than those previously adopted, but the PM peak hour rates are lower. Therefore, for robustness, the higher AM trips are adopted from the Newport site and the previously adopted PM warehouse trip rates are retained.

5.2.7 The consequent estimate of traffic (in vehicles) generated by the proposed development in the AM and PM peak hours is:

	ARR	DEP	2-WAY
AM	27	19	46
PM	9	20	29.

5.2.5 Review of the above shows that the proposed development is estimated to generate 46 two-way movements in the AM peak hour and 29 two-way movements in the PM peak hour.

5.3 Traffic Impact

5.3.1 It is demonstrated that the traffic impact of the proposed development is modest, being only 46 two-way movements in the AM peak hour and 29 two-way movements in the PM peak hour.

5.3.3 With regard to the previous assessment of the traffic impact of the proposed development, WBC highways stated that:

“The submitted data indicates Class B8 use as generating the highest trip rates in the AM and PM peak hours ie/ AM 2 way – 30 trips, PM 2 way – 28 trips which is not considered to have any detrimental impact on the highway network. However, as the access is a shared access, the traffic generation from the existing factory unit (Coolpoint) should also be included in this study.”

5.3.4 These comments relate to the previous proposals and this assessment has now been updated (see above). However, it is assumed that the point relating to the Cool Point unit remains. AHA does not have any traffic data for the existing Cool Point unit. This unit benefits from a planning permission and is already generating traffic on the local highway network. On this basis, AHA is of the view that this does not need to form part of the traffic impact assessment for the proposed warehouse. It should also be recognised that the levels of traffic likely to be generated by the Cool Point unit will also be modest. It has a relatively modest parking area that can



accommodate circa 40 spaces. Therefore, the combined traffic generated by the proposed development and the existing use is likely to be less than 100 vehicles in the AM and PM peak hours and can be easily accommodated by the proposed access.

- 5.3.5 WBC Highways Officers have also requested that details of the AADT flows on Bridge Road North are also provided for comparison with the estimate of the traffic generated by the proposed development. The week day average AM and PM peak hour flows as well as the average 24 hour flows for weekdays are set out below:

Period	Eastbound	Westbound	Two-way
AM Peak	109	99	208
PM peak	121	88	209
24hour Weekday	1107	1050	2157.

- 5.3.6 The ATC was located to the east of the existing Cool Point access. Review of the above shows that the directional flows are fairly evenly split on North Bridge Road, with about 51% of traffic travelling in an eastbound direction and 49% in a westbound direction, based upon the 24-hour flows. Therefore, it seems reasonable to assume the development traffic will have a similar split and this will reduce the impact of the development traffic on Bridge Road North.

- 5.3.7 The % increase in traffic generated by the proposed development in the AM peak hour (assuming 51% of traffic arrives/departs from/to the east) on Bridge Road North is 11.5%. In the PM peak hour, this figure is 7.2%.

- 5.3.8 TRICS provides an estimate of the 12-hour flows generated by use classes, but not 24 hours. The average weekday flows between 0700-1900 on Bridge Road North recorded by the ATC were 1794. On this basis, the 24-hour flows are 20% higher than the 12-hour flows. Therefore, a 20% uplift is applied to the 12-hour TRICS trip generation rates to convert these to 24-hour trip rates. As set out previously, the trip rates adopted for the AM and PM peak hours are from two separate TRICS interrogations. The AM trip rates are based on the single Newport site and the PM rates are based on those warehouse trip generation rates previously adopted. Review of this TRICS data shows that the Newport site has the highest 12-hour trip rates, being 7.666 (two-way). On this basis the proposed development is estimated to generate 390 two-way trips in the 12-hour period (0700-1900) and 468 two-way trips in a 24-hour period, applying a 20% uplift. Based on these assumptions, the proposed development is estimated to generate a 11.1% increase in traffic flows on Bridge Road North in a 24-hour period (this again assumes 51% of traffic arrives/depart from/to the east).

- 5.3.9 It is considered that the traffic generated by the proposed warehouse unit will not have a detrimental impact on the local highway network.



6 Summary and Conclusions

- 6.1 Ashley Helme Associates Limited (AHA) are appointed by JCP Investments to prepare a Transport Statement (TS) to support a planning application for a proposed development on Bridge Road North, Wrexham Industrial Estate (henceforth referred to as the Site).

6.2 Existing Situation & Proposed Development

- 6.2.1 The proposed development comprises a single B8 unit with a total Gross Floor Area (GFA) of 5087sm. Vehicular access to the development will be provided via a new access on Bridge Road North and the existing Cool Point access on Bridge Road North will be closed. Pedestrian and cycle access will also be via Bridge Road North.

6.3 Access Arrangements

- 6.3.1 Following comments from Wrexham Borough Council (WBC) highways officers, it proposed to close the existing Cool Point access on Bridge Road North and create a new access to the east that will serve both Cool Point and the new unit.

- 6.3.2 The new access proposals on Bridge Road north are indicated on Drg No 1798/04 and comprises:

- 7.3m wide access road (initially circa 7.8m),
- 15m corner radii,
- 2.4m x 119m visibility splay to the left,
- 2.4m x 114m visibility splay to the right.

- 6.3.2 Visibility splays of 2.4m x 119m to the left and 2.4m x 114m to the right are shown on the access plan, as requested by WBC highways officers.

6.3.3 Swept Path Tracking

- 6.3.3.1 The swept path analysis shown on Drg No 1798/SP/02 confirms that a 16.5m articulated HGV can enter and exit the Site in a forward gear, and turn within the Site. Drg No 1798/SP/02 also shows that a 16.5m articulated HGV can reverse into position where the loading bays are located.



6.3.4 Car Parking

- 6.3.4.1 The proposed development includes 51 parking spaces, 5 of which will be designated disabled parking spaces. This meets WBC parking standards. The proposed development proposes 6 covered cycle spaces. The development also includes 3 Electric Vehicle parking spaces, with charging points.

6.3.5 Cycle Parking

- 6.3.5.1 The proposed development proposes 6 covered cycle parking spaces. This is in excess of the WCBC minimum standard.

6.4 Sustainability

- 6.4.1 It is acknowledged that the location of the Site within Wrexham Industrial Estate limits the opportunity of employees from the majority of Wrexham to commute to work on foot.
- 6.4.2 However, it is demonstrated that the Site is accessible by cycle, with existing cycle routes linking Wrexham to the industrial estate and additional routes within the industrial estate itself. This provides good opportunity for employees of the Site to cycle to/from the place of work. Cycle parking will be provided at the Site as part of the proposed development.
- 6.4.3 Similarly, the Site is accessible by public transport. The 41 bus service provides a 30 minute service between Wrexham and the industrial estate. The nearest stop is along the Site frontage. Furthermore, the 41 services provide access to Wrexham Bus Station providing opportunity for interchange to a wide range of bus routes.

6.5 Traffic Impact

- 6.5.1 The estimate of traffic (in vehicles) generated by the proposed development in the AM and PM peak hours is:

	ARR	DEP	2-WAY
AM	27	19	46
PM	9	20	29.

- 6.5.2 It is demonstrated that the traffic impact of the proposed development is modest, being only 46 two-way movements in the AM peak hour and 29 two-way movements in the PM peak hour.

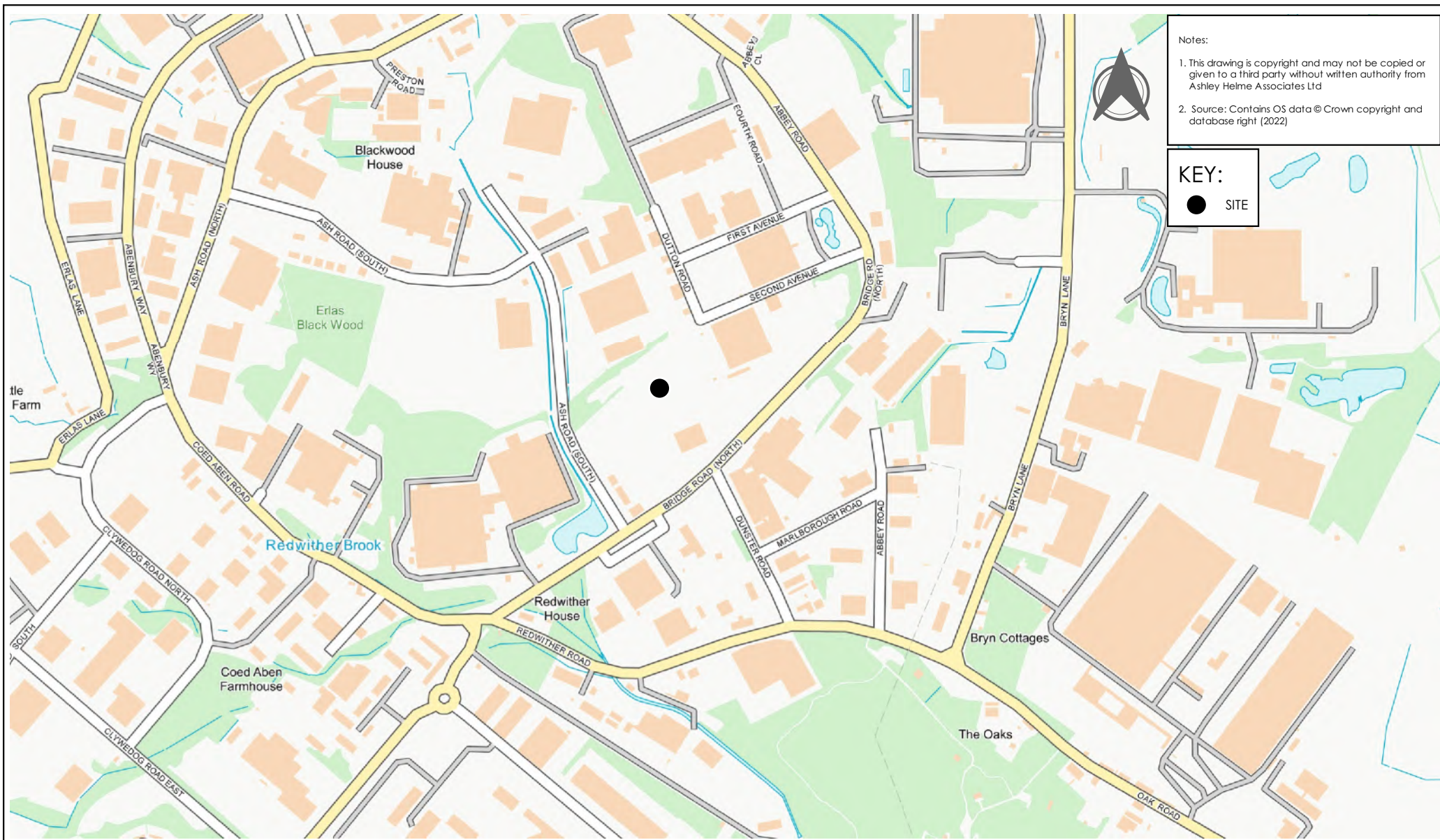


- 6.5.3 The % increase in traffic generated by the proposed development in the AM peak hour (assuming 51% of traffic arrives/departs from/to the east) on Bridge Road North is 11.5%. In the PM peak hour, this figure is 7.2%.
- 6.5.4 The proposed development is estimated to generate a 11.1% increase in traffic flows on Bridge Road North in a 24-hour period.
- 6.5.5 It is considered that the traffic generated by the proposed warehouse unit will not have a detrimental impact on the local highway network.

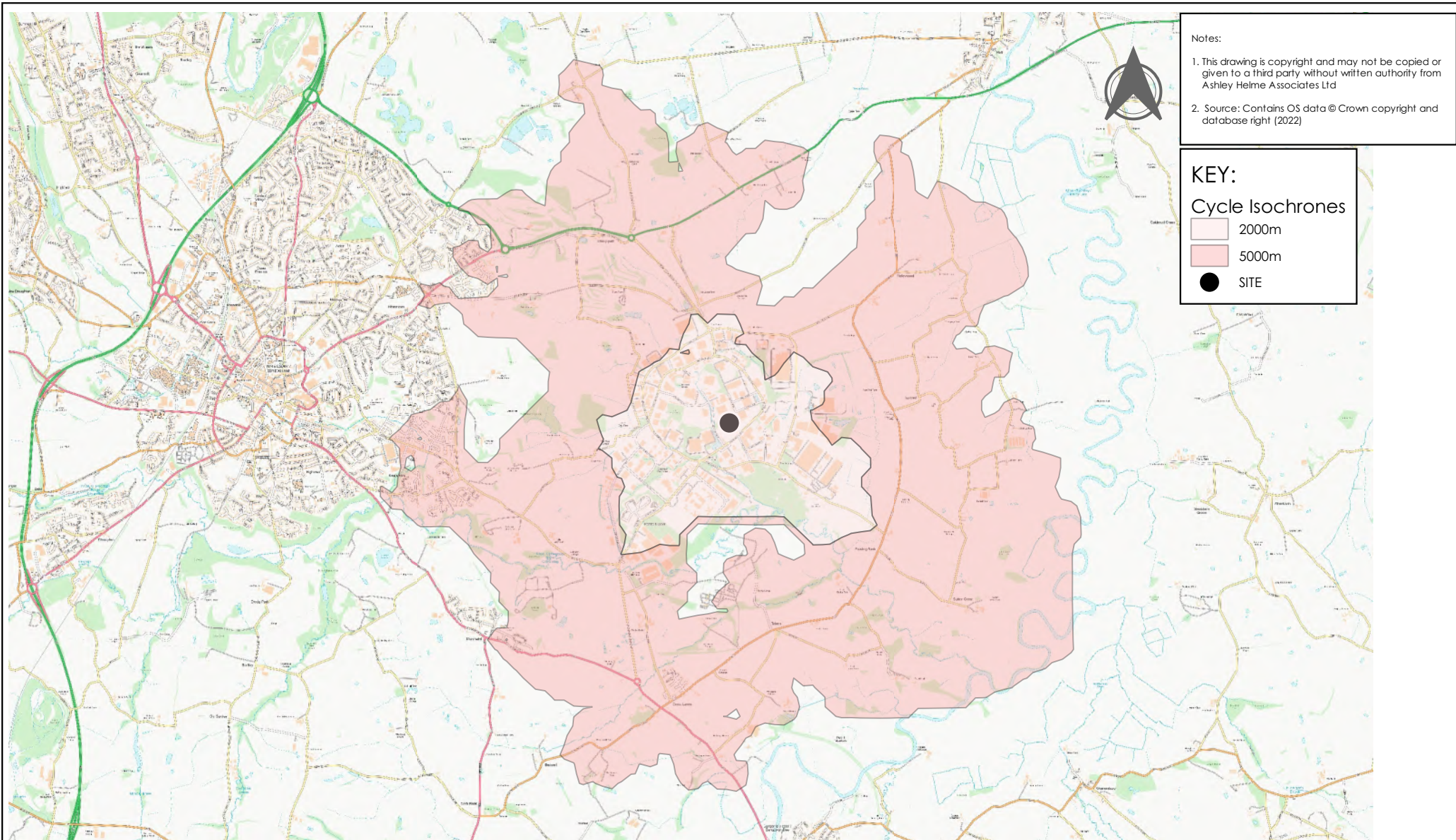
6.6 Summary

- 6.6.1 It is concluded that the proposed development is in accordance with local and national policies and that there are no highways/transportations for refusal of planning permission.

Figures



Project: BRIDGE ROAD NORTH, WREXHAM	Title: LOCATION PLAN	FIGURE 1.1		
Client: CAULMERT		Date: FEBRUARY 2022	Scale: NTS	



Project:
BRIDGE ROAD NORTH, WREXHAM

Client:
CAULMERT

Title:
CYCLE ISOCHRONES

FIGURE 4.2

Date:
FEBRUARY 2022

Scale:
NTS





crashmap.co.uk

Validated Data

Crash Date: Tuesday, December 05, 2017 **Time of Crash:** 4:50:00 PM **Crash Reference:** 201760V183515

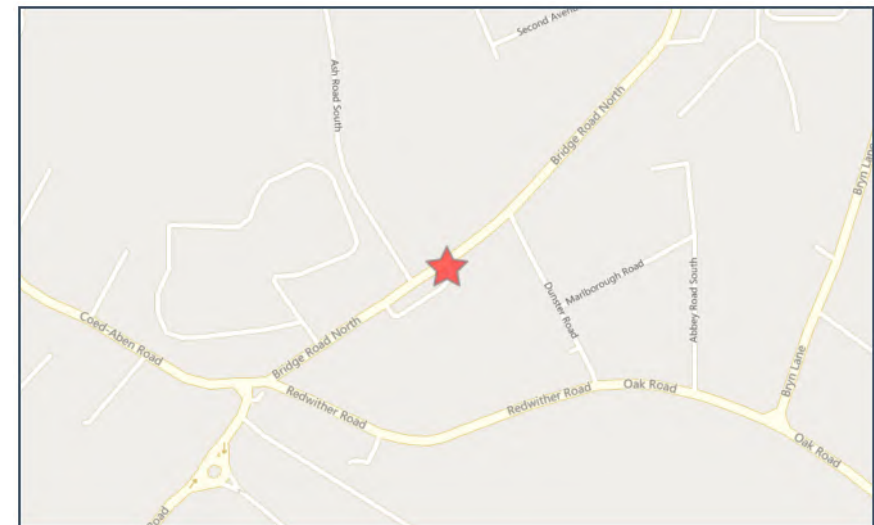
Highest Injury Severity: Slight
Highway Authority: Wrexham
Local Authority: Wrexham County Borough
Weather Description: Fine without high winds
Road Surface Description: Dry
Speed Limit: 40
Light Conditions: Darkness: street lights present and lit
Carriageway Hazards: None
Junction Detail: T or staggered junction
Junction Pedestrian Crossing: No physical crossing facility within 50 metres
Road Type: Single carriageway
Junction Control: Give way or uncontrolled

Road Number: U0

Number of Casualties: 1

Number of Vehicles: 2

OS Grid Reference: 338262 349704



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

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



Validated Data

Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Manoeuvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Car (excluding private hire)	-1	Female	26 - 35	Vehicle is in the act of turning right	Offside	Commuting to/from work	None	None
2	Car (excluding private hire)	-1	Female	16 - 20	Vehicle proceeding normally along the carriageway, not on a bend	Front	Commuting to/from work	None	None

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
1	1	Slight	Driver or rider	Female	26 - 35	Unknown or other	Unknown or other

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

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Validated Data

Crash Date: Saturday, January 12, 2019 **Time of Crash:** 4:13:00 PM **Crash Reference:** 201960X005430

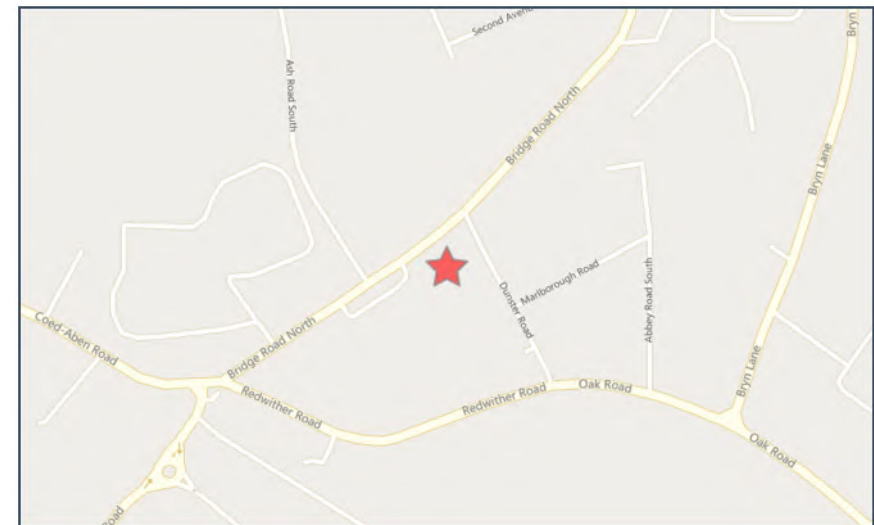
Highest Injury Severity: Slight
Highway Authority: Wrexham
Local Authority: Wrexham County Borough
Weather Description: Fine without high winds
Road Surface Description: Dry
Speed Limit: 40
Light Conditions: Daylight: regardless of presence of streetlights
Carriageway Hazards: None
Junction Detail: Multiple junction
Junction Pedestrian Crossing: No physical crossing facility within 50 metres
Road Type: Single carriageway
Junction Control: Give way or uncontrolled

Road Number: U0

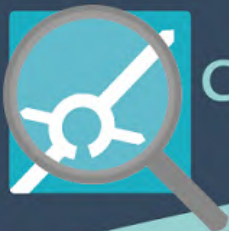
Number of Casualties: 1

Number of Vehicles: 2

OS Grid Reference: 338332 349701



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

Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Manoeuvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Car (excluding private hire)	-1	Male	16 - 20	Vehicle is moving off	Nearside	Other	None	None
2	Good vehicles of unknown weight	-1	Male	26 - 35	Vehicle proceeding normally along the carriageway, not on a bend	Offside	Journey as part of work	None	None

Casualties

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

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

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Wrexham ATC, Bridge Road

Produced by Streetwise Services Ltd.



Channel 1 - Eastbound

	28/02/2022 Monday	01/03/2022 Tuesday	02/03/2022 Wednesday	03/03/2022 Thursday	04/03/2022 Friday	05/03/2022 Saturday	06/03/2022 Sunday	5-DAY MEAN	7-DAY MEAN
0000-2400 Vehicle Flow	1068	1172	1154	1124	1015	347	277	1107	880
Mean Speed	32.3	32.1	31.8	32.1	32.6	33.7	37.0	32.2	33.1
85%ile Speed	43.5	43.4	43.4	43.6	43.5	48.3	48.1	43.5	44.8
No. Vehicles > 30 MPH Limit	669	717	685	693	630	220	196	679	544
% Vehicles > 30 MPH Limit	62.6	61.2	59.4	61.7	62.1	63.4	70.8	61.4	63.0
No. Vehicles > 45 MPH	87	95	81	89	104	44	50	91	79
% Vehicles > 45 MPH	8.1	8.1	7.0	7.9	10.2	12.7	18.1	8.3	10.3

Channel 2 - Westbound

	28/02/2022 Monday	01/03/2022 Tuesday	02/03/2022 Wednesday	03/03/2022 Thursday	04/03/2022 Friday	05/03/2022 Saturday	06/03/2022 Sunday	5-DAY MEAN	7-DAY MEAN
0000-2400 Vehicle Flow	1081	1126	1081	1000	964	350	261	1050	838
Mean Speed	33.8	34.1	33.2	34.0	34.0	37.5	39.2	33.8	35.1
85%ile Speed	43.2	43.1	43.7	43.6	44.0	48.9	48.6	43.5	45.0
No. Vehicles > 30 MPH Limit	745	765	699	675	630	266	209	703	570
% Vehicles > 30 MPH Limit	68.9	67.9	64.7	67.5	65.4	76.0	80.1	66.9	70.1
No. Vehicles > 45 MPH	82	112	84	83	94	78	70	91	86
% Vehicles > 45 MPH	7.6	9.9	7.8	8.3	9.8	22.3	26.8	8.7	13.2

Channels 1+2 - Eastbound & Westbound

	28/02/2022 Monday	01/03/2022 Tuesday	02/03/2022 Wednesday	03/03/2022 Thursday	04/03/2022 Friday	05/03/2022 Saturday	06/03/2022 Sunday	5-DAY MEAN	7-DAY MEAN
0000-2400 Vehicle Flow	2149	2298	2235	2124	1979	697	538	2157	1717
Mean Speed	33.1	33.1	32.5	33.1	33.3	35.6	38.1	33.0	34.1
85%ile Speed	43.4	43.3	43.6	43.6	43.8	48.6	48.3	43.5	44.9
No. Vehicles > 30 MPH Limit	1414	1482	1384	1368	1260	486	405	1382	1114
% Vehicles > 30 MPH Limit	65.8	64.5	61.9	64.4	63.7	69.7	75.3	64.1	66.5
No. Vehicles > 45 MPH	169	207	165	172	198	122	120	182	165
% Vehicles > 45 MPH	7.9	9.0	7.4	8.1	10.0	17.5	22.3	8.5	11.7

Class No	Vehicle Description	Class No	Vehicle Description
1	Car, Light Van Taxi 	5	Rigid 2 Axle HGV + 2 Axle (Close coupled) Trailer 
1	Light Goods Vehicle 	6	Rigid 3 Axle HGV + 2 Axle Drawbar Trailer 
1	Car or Light Goods Vehicle + 1 Axle Caravan or Trailer 	6	Rigid 3 Axle HGV + 3 Axle Drawbar Trailer 
1	Car or Light Goods Vehicle + 2 Axle Caravan or Trailer 	7	Artic, 2 Axle Tractor + 1 Axle Semi-Trailer 
2	Rigid 2 Axle Heavy Goods Vehicle 	8	Artic, 2 Axle Tractor + 2 Axle Semi-Trailer 
3	Rigid 3 Axle Heavy Goods Vehicle 	9	Artic, 2 Axle Tractor + 3 Axle Semi-Trailer 
3	Rigid 3 Axle Heavy Goods Vehicle 	10	Artic, 3 Axle Tractor + 1 Axle Semi-Trailer 
4	Rigid 4 Axle Heavy Goods Vehicle 	10	Artic, 3 Axle Tractor + 2 Axle Semi-Trailer 
4	Rigid 4 Axle Heavy Goods Vehicle 	11	Artic, 3 Axle Tractor + 3 Axle Semi-Trailer 
5	Rigid 2 Axle HGV + 2 Axle Drawbar Trailer 	12	Bus or Coach, 2 Axle 
5	Rigid 2 Axle HGV + 3 Axle Drawbar Trailer 	12	Bus or Coach, 3 Axle 
5	Rigid 2 Axle HGV + 1 Axle Caravan or Trailer 	13	Vehicle with 7 or more Axles 

Wrexham ATC, Bridge Road

Produced by Streetwise Services Ltd.

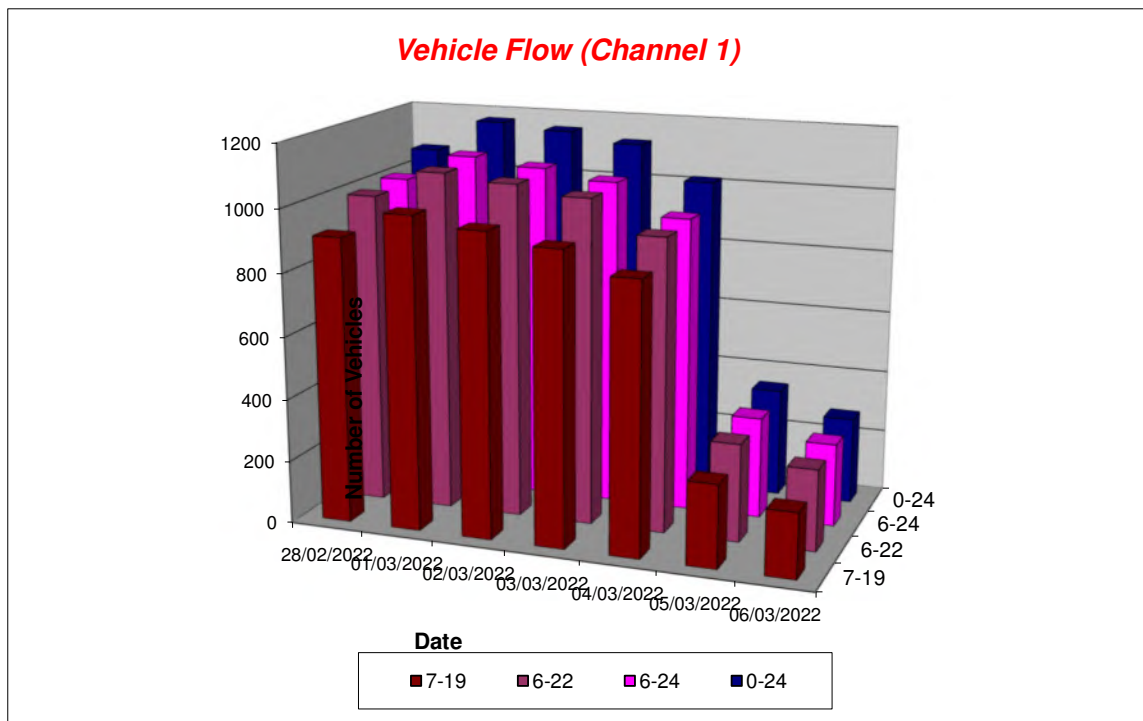


Channel 1 - Eastbound

Vehicle Flow

Week 1

Hr Ending	28/02/2022 Monday	01/03/2022 Tuesday	02/03/2022 Wednesday	03/03/2022 Thursday	04/03/2022 Friday	05/03/2022 Saturday	06/03/2022 Sunday	5 Day Ave	7 Day Ave
1	0	3	4	3	1	1	3	2	2
2	3	3	6	2	5	2	0	4	3
3	0	3	1	3	2	3	0	2	2
4	2	8	5	3	4	3	0	4	4
5	7	11	18	22	19	8	2	15	12
6	48	49	48	49	42	6	7	47	36
7	44	55	57	58	41	28	22	51	44
8	100	138	121	98	86	26	16	109	84
9	75	73	92	84	77	21	5	80	61
10	64	53	52	62	58	26	15	58	47
11	49	62	63	45	49	31	36	54	48
12	58	77	67	53	67	31	13	64	52
13	75	73	69	56	79	30	22	70	58
14	72	67	52	67	81	20	12	68	53
15	59	72	75	86	96	22	10	78	60
16	104	100	94	112	57	13	21	93	72
17	125	131	133	120	94	14	16	121	90
18	91	108	101	102	79	10	11	96	72
19	37	40	44	42	34	20	30	39	35
20	34	21	29	32	22	18	19	28	25
21	3	7	6	10	8	2	6	7	6
22	4	5	7	7	4	1	6	5	5
23	8	9	7	5	5	10	2	7	7
24	6	4	3	3	5	1	3	4	4
7-19	909	994	963	927	857	264	207	930	732
6-22	994	1082	1062	1034	932	313	260	1021	811
6-24	1008	1095	1072	1042	942	324	265	1032	821
0-24	1068	1172	1154	1124	1015	347	277	1107	880



Wrexham ATC, Bridge Road

Produced by Streetwise Services Ltd.



Channel 1 - Eastbound

Average Speed

Week 1

Hr Ending	28/02/2022 Monday	01/03/2022 Tuesday	02/03/2022 Wednesday	03/03/2022 Thursday	04/03/2022 Friday	05/03/2022 Saturday	06/03/2022 Sunday
1	-	45.5	24.2	36.3	33.0	43.0	31.3
2	34.7	33.0	26.3	38.0	29.0	28.0	-
3	-	29.7	18.0	39.7	40.5	38.0	-
4	23.0	27.4	41.5	39.7	34.2	43.8	-
5	24.4	19.8	23.5	26.9	27.7	31.1	25.5
6	33.9	36.1	37.1	36.6	32.9	21.3	24.4
7	38.8	34.7	37.4	37.4	35.1	31.1	41.2
8	30.0	30.9	29.9	32.6	30.2	39.4	44.6
9	33.4	32.0	33.5	33.6	35.1	33.6	36.0
10	33.1	32.3	28.2	27.5	30.8	32.9	37.0
11	31.1	30.4	31.0	30.6	28.5	33.1	39.0
12	29.5	28.3	27.4	31.8	29.8	32.3	40.9
13	32.4	32.4	31.4	30.2	32.8	31.8	33.8
14	34.5	32.0	29.2	29.8	35.8	31.5	29.2
15	30.4	31.1	28.9	27.4	30.3	32.1	30.5
16	29.0	29.5	28.9	29.3	31.0	32.6	34.1
17	33.6	33.6	33.0	34.4	34.0	34.2	34.9
18	33.4	35.5	36.8	34.4	34.2	32.0	36.0
19	32.2	34.2	33.5	33.3	38.3	44.0	38.6
20	36.5	41.5	38.3	41.3	41.6	40.6	44.7
21	26.3	28.0	30.9	31.5	29.9	38.0	37.6
22	46.1	30.0	35.1	30.1	19.2	33.0	27.2
23	24.9	21.9	25.9	19.0	34.0	20.5	23.0
24	28.4	25.5	21.3	24.7	29.0	38.0	39.7

10-12	30.2	29.2	29.1	31.2	29.2	32.7	39.5
14-16	29.5	30.2	28.9	28.5	30.5	32.3	32.9
0-24	32.3	32.1	31.8	32.1	32.6	33.7	37.0

7 Day Ave	33.1
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85th Percentile

Hr Ending	28/02/2022 Monday	01/03/2022 Tuesday	02/03/2022 Wednesday	03/03/2022 Thursday	04/03/2022 Friday	05/03/2022 Saturday	06/03/2022 Sunday
1	-	55.8	38.3	38.1	33.5	43.4	33.8
2	38.7	43.6	43.9	43.6	38.2	33.1	-
3	-	38.6	19.0	43.7	43.9	43.7	-
4	28.5	38.3	55.9	43.9	43.7	56.4	-
5	43.6	23.3	43.3	38.8	43.5	43.5	33.3
6	48.3	48.8	43.2	43.0	43.4	33.1	24.5
7	48.3	43.8	48.2	48.5	48.1	43.8	48.5
8	43.8	43.6	43.6	43.9	43.8	48.4	48.3
9	43.0	44.0	43.4	43.4	48.5	43.5	48.3
10	43.8	43.9	43.4	38.7	43.8	43.5	48.0
11	43.8	43.2	43.7	38.5	43.6	43.2	48.5
12	43.7	43.7	38.3	43.5	43.8	43.3	55.7
13	43.0	44.0	43.6	43.5	43.0	48.1	43.9
14	43.4	43.2	38.2	38.4	43.2	38.6	43.6
15	38.9	43.5	43.2	38.4	43.1	43.2	38.8
16	43.8	43.1	38.6	43.3	43.1	43.9	43.9
17	43.4	44.0	43.1	43.1	43.3	43.1	43.3
18	44.0	48.7	48.5	43.2	43.1	43.4	48.5
19	43.9	43.0	43.9	49.0	55.5	55.8	55.6
20	48.1	56.1	48.3	55.6	48.5	48.9	56.1
21	33.9	38.1	56.3	38.4	38.7	38.8	55.9
22	55.9	48.1	38.4	55.9	23.5	33.3	39.0
23	33.5	33.8	43.3	23.5	48.8	33.7	23.1
24	56.3	38.3	33.9	28.2	48.1	38.3	43.9

10-12	43.1	43.0	43.6	43.5	43.2	43.1	48.6
14-16	38.6	43.3	38.6	43.3	43.7	43.0	38.3
0-24	43.5	43.4	43.4	43.6	43.5	48.3	48.1

7 Day Ave	44.8
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Wrexham ATC, Bridge Road

Produced by Streetwise Services Ltd.



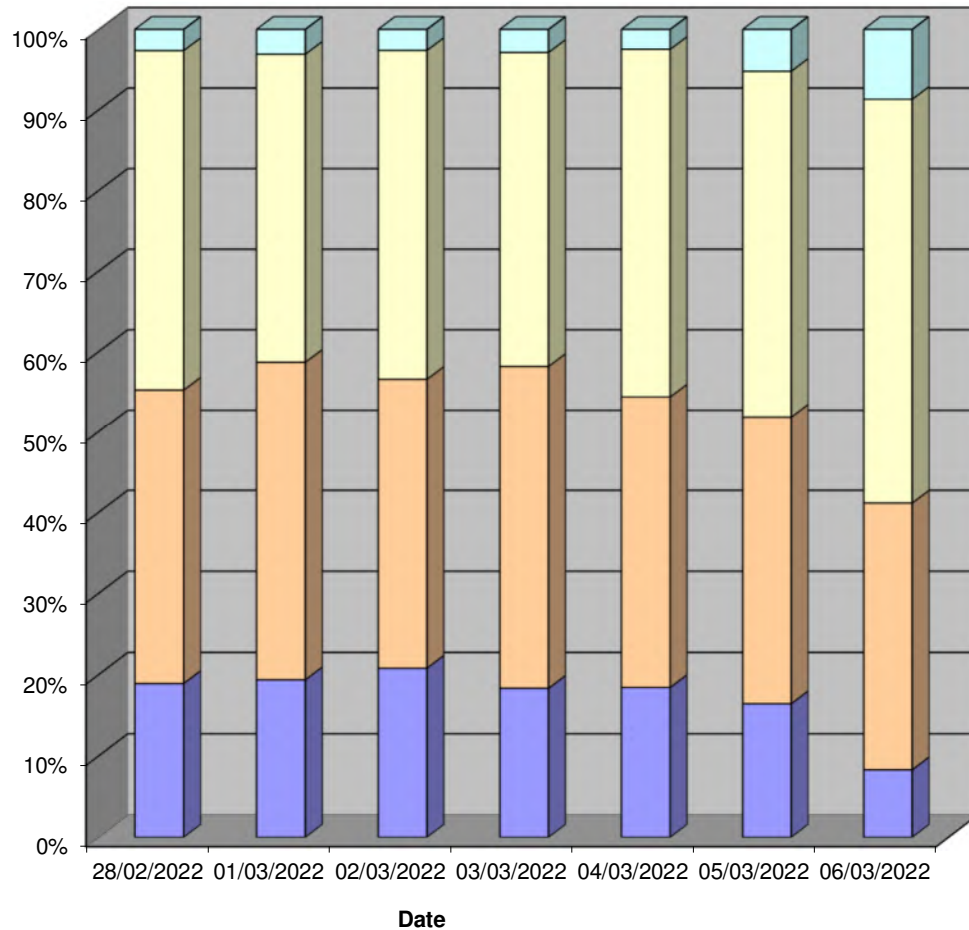
Channel 1 - Eastbound

Speed Summary

Week 1

Speed (MPH)	28/02/2022 Monday	01/03/2022 Tuesday	02/03/2022 Wednesday	03/03/2022 Thursday	04/03/2022 Friday	05/03/2022 Saturday	06/03/2022 Sunday
0-20	202	227	240	206	187	57	23
21-35	388	461	413	448	365	123	91
36-50	450	448	471	438	438	149	139
51-100	28	36	30	32	25	18	24
TOTAL	1068	1172	1154	1124	1015	347	277

Speed Summary (MPH)



0-20

21-35

36-50

51-100

Wrexham ATC, Bridge Road

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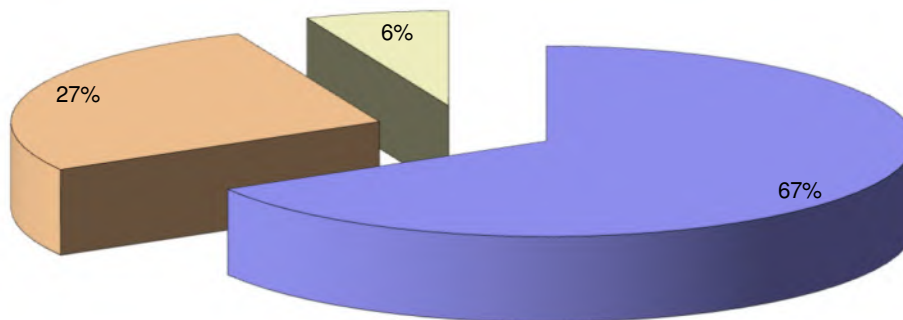
Channel 1 - Eastbound

Vehicle Class

Week 1

Classes Day / Time	Car / LGV / Caravan - 1	OGV1 / Bus - 2,3,5,6,7,12	OGV2 - 4,8,9,10,11,13	TOTAL - 1-13
28/02/2022				
7-19	595	251	63	909
6-22	667	261	66	994
6-24	674	265	69	1008
0-24	716	276	76	1068
01/03/2022				
7-19	633	310	51	994
6-22	694	331	57	1082
6-24	701	333	61	1095
0-24	750	350	72	1172
02/03/2022				
7-19	639	280	44	963
6-22	713	298	51	1062
6-24	720	301	51	1072
0-24	768	324	62	1154
03/03/2022				
7-19	598	277	52	927
6-22	682	295	57	1034
6-24	688	297	57	1042
0-24	742	311	71	1124
04/03/2022				
7-19	576	248	33	857
6-22	635	258	39	932
6-24	641	260	41	942
0-24	681	276	58	1015
05/03/2022				
7-19	191	61	12	264
6-22	221	76	16	313
6-24	221	84	19	324
0-24	232	88	27	347
06/03/2022				
7-19	166	33	8	207
6-22	206	38	16	260
6-24	208	38	19	265
0-24	212	44	21	277
Average				
7-19	485	209	38	732
6-22	545	222	43	811
6-24	550	225	45	821
0-24	586	238	55	880

Total Vehicle Class Distribution



Wrexham ATC, Bridge Road

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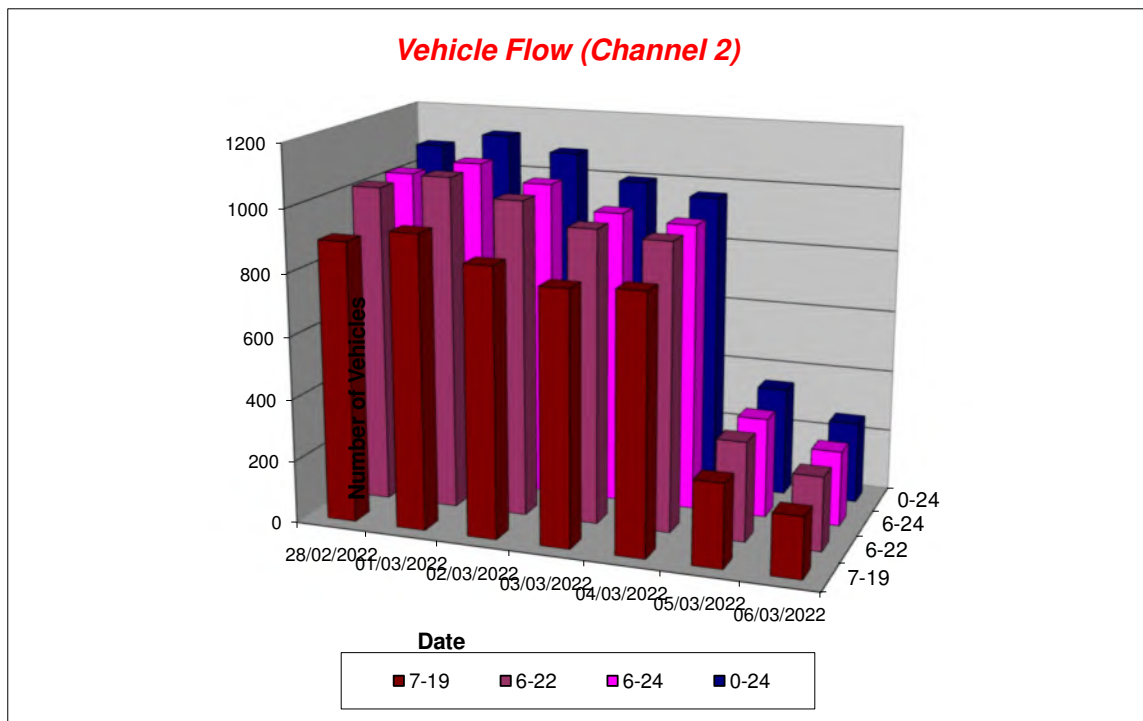


Channel 2 - Westbound

Vehicle Flow

Week 1

Hr Ending	28/02/2022 Monday	01/03/2022 Tuesday	02/03/2022 Wednesday	03/03/2022 Thursday	04/03/2022 Friday	05/03/2022 Saturday	06/03/2022 Sunday	5 Day Ave	7 Day Ave
1	1	3	3	3	6	2	3	3	3
2	1	0	4	2	1	2	2	2	2
3	1	2	1	0	0	1	0	1	1
4	6	5	6	3	3	2	1	5	4
5	12	4	7	10	8	6	4	8	7
6	34	40	40	39	24	16	10	35	29
7	86	87	95	91	71	42	31	86	72
8	105	114	94	88	95	18	8	99	75
9	105	114	111	119	129	12	8	116	85
10	62	51	62	65	51	34	8	58	48
11	50	81	58	55	58	35	18	60	51
12	70	63	55	41	59	28	29	58	49
13	64	67	65	46	87	27	32	66	55
14	70	71	69	55	77	17	13	68	53
15	91	95	75	79	72	18	12	82	63
16	51	55	59	50	36	23	14	50	41
17	98	104	97	90	52	14	13	88	67
18	65	70	66	75	51	9	6	65	49
19	65	53	47	45	53	32	34	53	47
20	20	19	27	15	16	3	3	19	15
21	10	18	21	18	10	4	4	15	12
22	9	6	9	7	2	3	4	7	6
23	3	4	5	3	3	2	3	4	3
24	2	0	5	1	0	0	1	2	1
7-19	896	938	858	808	820	267	195	864	683
6-22	1021	1068	1010	939	919	319	237	991	788
6-24	1026	1072	1020	943	922	321	241	997	792
0-24	1081	1126	1081	1000	964	350	261	1050	838



Wrexham ATC, Bridge Road

Produced by Streetwise Services Ltd.



Channel 2 - Westbound

Average Speed

Week 1

Hr Ending	28/02/2022 Monday	01/03/2022 Tuesday	02/03/2022 Wednesday	03/03/2022 Thursday	04/03/2022 Friday	05/03/2022 Saturday	06/03/2022 Sunday
1	48.0	23.0	45.5	36.3	33.0	33.0	29.7
2	38.0	-	38.0	38.0	38.0	49.2	43.0
3	23.0	35.5	18.0	-	-	33.0	-
4	32.2	36.5	31.3	23.0	24.7	40.5	38.0
5	36.1	33.0	32.6	35.5	35.5	38.8	44.2
6	33.1	32.4	33.8	34.3	33.6	39.7	41.0
7	33.4	32.3	34.2	34.0	34.6	41.8	45.9
8	34.2	37.9	33.8	34.7	35.5	40.5	44.9
9	34.5	36.4	36.0	34.6	35.3	36.8	38.0
10	32.8	35.3	30.4	32.0	30.3	31.8	28.6
11	30.4	31.2	32.5	31.3	31.8	33.1	35.2
12	32.8	30.0	27.4	29.3	29.0	35.5	37.4
13	31.2	33.0	31.4	35.0	33.1	32.7	37.8
14	33.2	34.3	29.5	31.2	32.2	38.6	41.7
15	30.3	28.6	29.7	31.4	32.3	33.0	33.0
16	31.8	33.0	29.4	33.0	31.7	36.6	36.6
17	36.1	34.8	35.3	35.5	35.4	44.2	37.6
18	37.2	36.0	35.4	36.3	36.7	31.9	42.2
19	38.2	40.7	39.1	39.3	38.9	45.3	42.2
20	33.8	37.5	38.5	40.2	40.3	47.2	43.0
21	37.0	36.4	35.3	36.6	37.8	40.5	35.5
22	37.4	33.8	34.7	34.4	44.2	31.3	28.0
23	41.3	39.2	35.0	36.3	45.5	43.0	48.0
24	43.0	-	34.0	48.0	-	-	48.0

10-12	31.8	30.7	30.0	30.4	30.4	34.2	36.6
14-16	30.8	30.2	29.6	32.0	32.1	35.0	34.9
0-24	33.8	34.1	33.2	34.0	34.0	37.5	39.2

7 Day Ave	35.1
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85th Percentile

Hr Ending	28/02/2022 Monday	01/03/2022 Tuesday	02/03/2022 Wednesday	03/03/2022 Thursday	04/03/2022 Friday	05/03/2022 Saturday	06/03/2022 Sunday
1	48.5	33.6	56.3	43.4	38.9	33.8	38.6
2	38.2	-	43.4	38.7	38.7	56.2	43.9
3	24.0	38.5	18.5	-	-	33.4	-
4	43.1	56.2	48.1	28.3	33.4	43.0	38.5
5	48.0	43.9	55.6	43.4	43.7	48.2	55.8
6	43.3	43.4	43.2	48.4	48.1	48.2	56.4
7	43.5	43.3	48.0	43.9	43.8	56.0	55.8
8	43.9	48.3	43.7	43.1	43.7	55.9	55.8
9	43.5	48.2	43.5	43.6	43.5	55.6	48.2
10	43.4	43.5	43.6	43.3	43.2	43.3	38.3
11	43.8	43.2	38.2	43.1	43.2	43.6	48.0
12	43.8	38.6	43.5	38.2	38.3	43.8	48.7
13	38.7	43.4	43.7	43.1	43.8	43.5	48.8
14	43.7	43.9	43.8	38.4	43.1	55.7	55.8
15	39.0	38.5	38.4	44.0	43.5	43.9	43.7
16	38.3	43.2	38.9	43.5	48.8	48.4	55.9
17	43.5	43.7	43.7	43.5	48.8	48.3	56.3
18	43.4	43.7	48.1	44.0	48.3	43.8	48.7
19	48.7	48.6	56.1	48.2	49.0	55.7	55.9
20	43.2	48.8	48.7	43.4	48.8	55.9	48.1
21	48.4	48.2	43.0	43.4	43.7	48.2	43.4
22	43.5	48.8	38.4	48.3	56.4	48.9	38.3
23	48.8	48.2	48.4	48.5	56.4	48.6	48.7
24	43.5	-	48.3	48.1	-	-	48.3

10-12	43.4	39.0	44.0	38.5	43.4	43.4	48.8
14-16	38.5	38.1	38.8	44.0	43.1	48.4	43.2
0-24	43.2	43.1	43.7	43.6	44.0	48.9	48.6

7 Day Ave	45.0
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Wrexham ATC, Bridge Road

Produced by Streetwise Services Ltd.



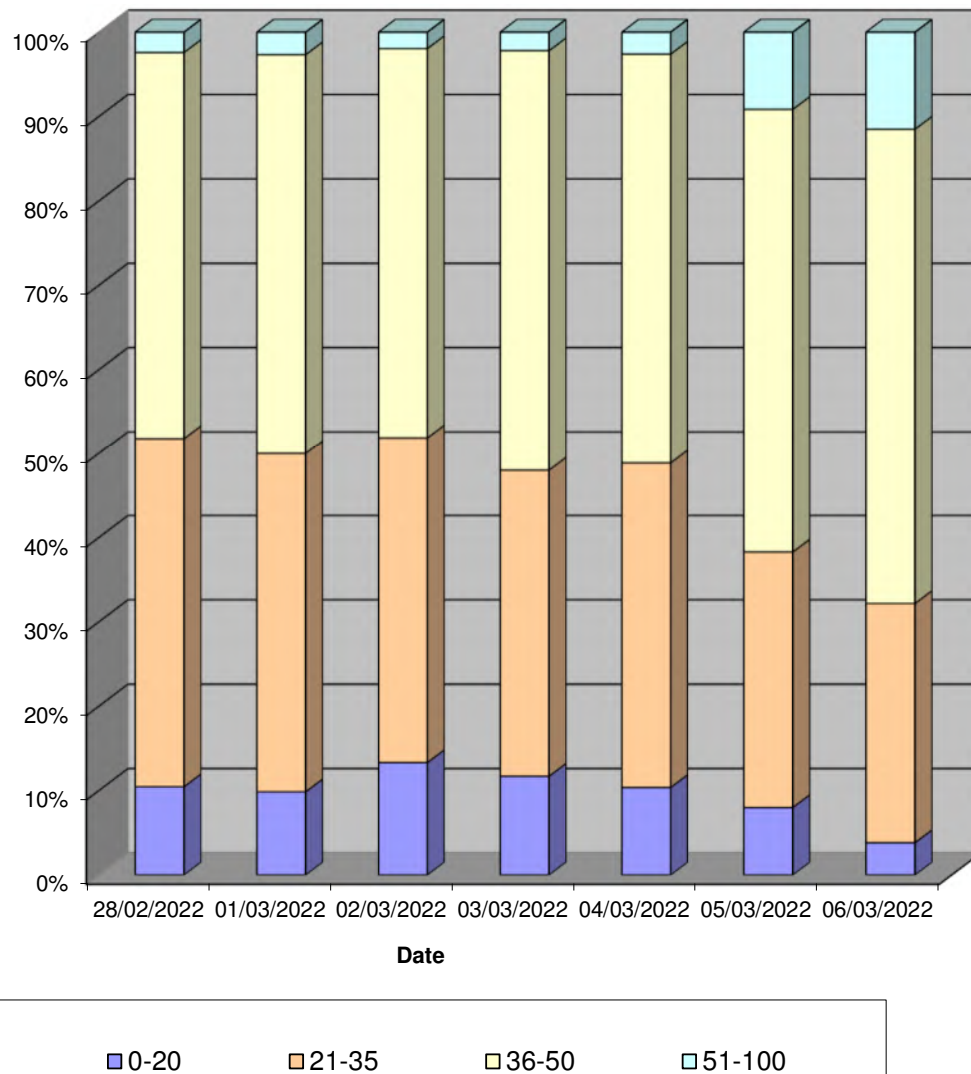
Channel 2 - Westbound

Speed Summary

Week 1

Speed (MPH)	28/02/2022 Monday	01/03/2022 Tuesday	02/03/2022 Wednesday	03/03/2022 Thursday	04/03/2022 Friday	05/03/2022 Saturday	06/03/2022 Sunday
0-20	113	111	144	117	100	28	10
21-35	447	452	417	363	371	106	74
36-50	495	533	499	498	468	184	147
51-100	26	30	21	22	25	32	30
TOTAL	1081	1126	1081	1000	964	350	261

Speed Summary (MPH)



Wrexham ATC, Bridge Road

Produced by Streetwise Services Ltd.



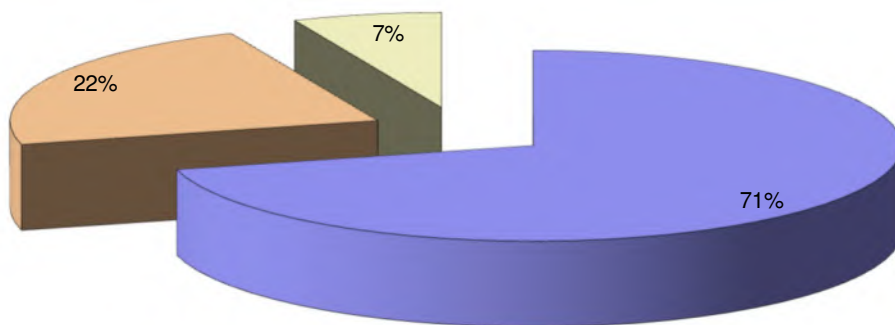
Channel 2 - Westbound

Vehicle Class

Week 1

Classes Day / Time	Car / LGV / Caravan - 1	OGV1 / Bus - 2,3,5,6,7,12	OGV2 - 4,8,9,10,11,13	TOTAL - 1-13
28/02/2022				
7-19	629	209	58	896
6-22	729	222	70	1021
6-24	731	222	73	1026
0-24	773	228	80	1081
01/03/2022				
7-19	649	235	54	938
6-22	754	249	65	1068
6-24	757	249	66	1072
0-24	802	254	70	1126
02/03/2022				
7-19	586	227	45	858
6-22	708	241	61	1010
6-24	715	242	63	1020
0-24	765	246	70	1081
03/03/2022				
7-19	527	234	47	808
6-22	631	247	61	939
6-24	633	247	63	943
0-24	678	250	72	1000
04/03/2022				
7-19	564	219	37	820
6-22	647	229	43	919
6-24	649	229	44	922
0-24	679	234	51	964
05/03/2022				
7-19	192	60	15	267
6-22	234	68	17	319
6-24	235	68	18	321
0-24	258	70	22	350
06/03/2022				
7-19	160	24	11	195
6-22	190	33	14	237
6-24	190	33	18	241
0-24	205	37	19	261
Average				
7-19	472	173	38	683
6-22	556	184	47	788
6-24	559	184	49	792
0-24	594	188	55	838

Total Vehicle Class Distribution



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Calculation Reference: AUDIT-733101-201006-1024

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : F - WAREHOUSING (COMMERCIAL)
TOTAL VEHICLES

Selected regions and areas:

04	EAST ANGLIA	
	SF SUFFOLK	1 days
06	WEST MIDLANDS	
	WM WEST MIDLANDS	1 days
09	NORTH	
	CB CUMBRIA	1 days
10	WALES	
	BG BRIDGEND	1 days

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

Primary Filtering selection:

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

Parameter: Gross floor area
Actual Range: 2950 to 4700 (units: sqm)
Range Selected by User: 1000 to 5000 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/12 to 19/09/16

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
Friday	1 days

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

Selected survey types:

Manual count	4 days
Directional ATC Count	0 days

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

Selected Locations:

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

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

Selected Location Sub Categories:

Industrial Zone	3
Commercial Zone	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:

B8	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®.

Filter by Use Class Breakdown:

All Surveys Included

Secondary Filtering selection (Cont.):

Population within 500m Range:

All Surveys Included

Population within 1 mile:

1,000 or Less	1 days
5,001 to 10,000	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:

5,001 to 25,000	2 days
75,001 to 100,000	1 days
500,001 or More	1 days

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

Car ownership within 5 miles:

0.6 to 1.0	1 days
1.1 to 1.5	3 days

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

Travel Plan:

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.

LIST OF SITES relevant to selection parameters

1	BG-02-F-01	LOGISTICS COMPANY	BRIDGEND
	PARC CRESCENT		
	BRIDGEND		
	WATERTON IND. EST.		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	3050 sqm	
	Survey date: MONDAY	13/10/14	Survey Type: MANUAL
2	CB-02-F-01	DOMINO'S PIZZA	CUMBRIA
	COWPER ROAD		
	PENRITH		
	GILWILLY IND. ESTATE		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	2950 sqm	
	Survey date: TUESDAY	10/06/14	Survey Type: MANUAL
3	SF-02-F-03	ROAD HAULAGE	SUFFOLK
	CENTRAL AVENUE		
	IPSWICH		
	WARREN HEATH		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	4700 sqm	
	Survey date: FRIDAY	18/09/15	Survey Type: MANUAL
4	WM-02-F-02	LOGISTICS FIRM	WEST MIDLANDS
	SOVEREIGN ROAD		
	BIRMINGHAM		
	KINGS NORTON		
	Edge of Town		
	Commercial Zone		
	Total Gross floor area:	3625 sqm	
	Survey date: MONDAY	09/11/15	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.

ASHLEY HELME ASSOCIATES 76 WSHWAY ROAD SALE

Licence No: 733101

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

TOTAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	2950	0.000	1	2950	0.000	1	2950	0.000
05:30 - 06:00	1	2950	0.102	1	2950	0.000	1	2950	0.102
06:00 - 06:30	1	2950	0.034	1	2950	0.000	1	2950	0.034
06:30 - 07:00	1	2950	0.102	1	2950	0.034	1	2950	0.136
07:00 - 07:30	4	3581	0.105	4	3581	0.070	4	3581	0.175
07:30 - 08:00	4	3581	0.161	4	3581	0.077	4	3581	0.238
08:00 - 08:30	4	3581	0.175	4	3581	0.098	4	3581	0.273
08:30 - 09:00	4	3581	0.251	4	3581	0.098	4	3581	0.349
09:00 - 09:30	4	3581	0.140	4	3581	0.063	4	3581	0.203
09:30 - 10:00	4	3581	0.077	4	3581	0.063	4	3581	0.140
10:00 - 10:30	4	3581	0.119	4	3581	0.140	4	3581	0.259
10:30 - 11:00	4	3581	0.105	4	3581	0.091	4	3581	0.196
11:00 - 11:30	4	3581	0.119	4	3581	0.119	4	3581	0.238
11:30 - 12:00	4	3581	0.070	4	3581	0.084	4	3581	0.154
12:00 - 12:30	4	3581	0.091	4	3581	0.049	4	3581	0.140
12:30 - 13:00	4	3581	0.091	4	3581	0.084	4	3581	0.175
13:00 - 13:30	4	3581	0.119	4	3581	0.140	4	3581	0.259
13:30 - 14:00	4	3581	0.140	4	3581	0.070	4	3581	0.210
14:00 - 14:30	4	3581	0.098	4	3581	0.084	4	3581	0.182
14:30 - 15:00	4	3581	0.098	4	3581	0.084	4	3581	0.182
15:00 - 15:30	4	3581	0.098	4	3581	0.112	4	3581	0.210
15:30 - 16:00	4	3581	0.084	4	3581	0.154	4	3581	0.238
16:00 - 16:30	4	3581	0.112	4	3581	0.112	4	3581	0.224
16:30 - 17:00	4	3581	0.077	4	3581	0.188	4	3581	0.265
17:00 - 17:30	4	3581	0.098	4	3581	0.216	4	3581	0.314
17:30 - 18:00	4	3581	0.035	4	3581	0.168	4	3581	0.203
18:00 - 18:30	4	3581	0.056	4	3581	0.154	4	3581	0.210
18:30 - 19:00	4	3581	0.063	4	3581	0.084	4	3581	0.147
19:00 - 19:30	1	2950	0.169	1	2950	0.102	1	2950	0.271
19:30 - 20:00	1	2950	0.034	1	2950	0.102	1	2950	0.136
20:00 - 20:30	1	2950	0.034	1	2950	0.034	1	2950	0.068
20:30 - 21:00	1	2950	0.068	1	2950	0.102	1	2950	0.170
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			3.125			2.976			6.101

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:	2950 - 4700 (units: sqm)
Survey date date range:	01/01/12 - 19/09/16
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 show. 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-733101-230502-0521

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
 Category : F - WAREHOUSING (COMMERCIAL)
 TOTAL VEHICLES

Selected regions and areas:

10 WALES
 NW NEWPORT 1 days

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

Primary Filtering selection:

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

Parameter: Gross floor area
 Actual Range: 4836 to 4836 (units: sqm)
 Range Selected by User: 190 to 80100 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/15 to 22/11/21

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

Selected survey days:

Wednesday 1 days

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

Selected survey types:

Manual count 1 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:

Free Standing (PPS6 Out of Town) 1

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

Selected Location Sub Categories:

Industrial Zone 1

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

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included 1 days - Selected
 Servicing vehicles Excluded 1 days - Selected

Secondary Filtering selection:

Use Class:

B8

1 days

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

Filter by Site Operations Breakdown:

All Surveys Included

Population within 500m Range:

All Surveys Included

Population within 1 mile:

1,000 or Less

1 days

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

Population within 5 miles:

5,000 or Less

1 days

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

Car ownership within 5 miles:

0.6 to 1.0

1 days

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

1 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

1 days

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

Covid-19 Restrictions

Yes

At least one survey within the selected data set was undertaken at a time of Covid-19 restrictions

LIST OF SITES relevant to selection parameters

1	NW-02-F-02	AMAZON DEPOT	NEWPORT
	LLANWERN WORKS		
	NEWPORT		
	Free Standing (PPS6 Out of Town)		
	Industrial Zone		
	Total Gross floor area:	4836 sqm	
	Survey date: WEDNESDAY	25/11/20	Survey Type: MANUAL

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

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
DV-02-F-03	Much larger than the Site

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)
TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30	1	4836	0.103	1	4836	0.124	1	4836	0.227
06:30 - 07:00	1	4836	0.165	1	4836	0.083	1	4836	0.248
07:00 - 07:30	1	4836	0.165	1	4836	0.103	1	4836	0.268
07:30 - 08:00	1	4836	0.186	1	4836	0.083	1	4836	0.269
08:00 - 08:30	1	4836	0.248	1	4836	0.165	1	4836	0.413
08:30 - 09:00	1	4836	0.289	1	4836	0.207	1	4836	0.496
09:00 - 09:30	1	4836	0.352	1	4836	0.165	1	4836	0.517
09:30 - 10:00	1	4836	0.310	1	4836	0.207	1	4836	0.517
10:00 - 10:30	1	4836	0.165	1	4836	0.248	1	4836	0.413
10:30 - 11:00	1	4836	0.186	1	4836	0.331	1	4836	0.517
11:00 - 11:30	1	4836	0.124	1	4836	0.310	1	4836	0.434
11:30 - 12:00	1	4836	0.041	1	4836	0.352	1	4836	0.393
12:00 - 12:30	1	4836	0.062	1	4836	0.227	1	4836	0.289
12:30 - 13:00	1	4836	0.062	1	4836	0.269	1	4836	0.331
13:00 - 13:30	1	4836	0.083	1	4836	0.165	1	4836	0.248
13:30 - 14:00	1	4836	0.062	1	4836	0.165	1	4836	0.227
14:00 - 14:30	1	4836	0.041	1	4836	0.041	1	4836	0.082
14:30 - 15:00	1	4836	0.062	1	4836	0.083	1	4836	0.145
15:00 - 15:30	1	4836	0.062	1	4836	0.021	1	4836	0.083
15:30 - 16:00	1	4836	0.165	1	4836	0.062	1	4836	0.227
16:00 - 16:30	1	4836	0.227	1	4836	0.041	1	4836	0.268
16:30 - 17:00	1	4836	0.207	1	4836	0.062	1	4836	0.269
17:00 - 17:30	1	4836	0.186	1	4836	0.103	1	4836	0.289
17:30 - 18:00	1	4836	0.124	1	4836	0.041	1	4836	0.165
18:00 - 18:30	1	4836	0.103	1	4836	0.083	1	4836	0.186
18:30 - 19:00	1	4836	0.083	1	4836	0.062	1	4836	0.145
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			3.863			3.803			7.666

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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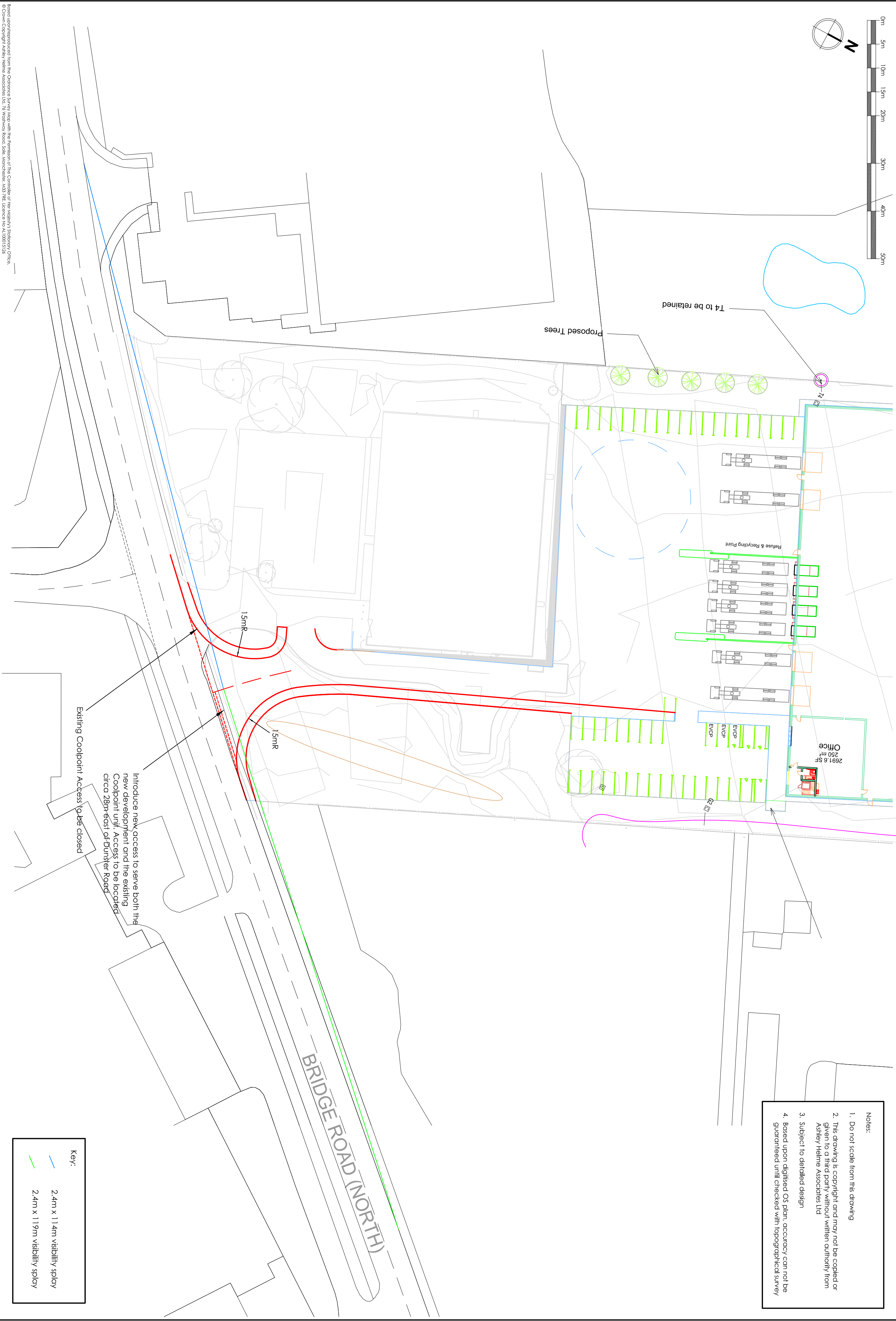
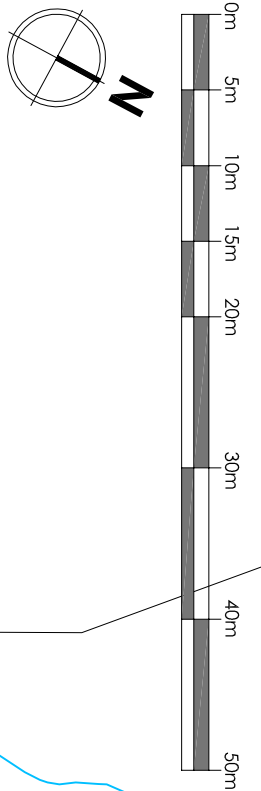
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Parameter summary

Trip rate parameter range selected:	4836 - 4836 (units: sqm)
Survey date range:	01/01/15 - 22/11/21
Number of weekdays (Monday-Friday):	1
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	1

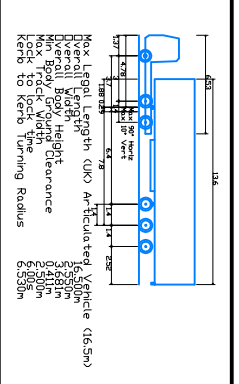
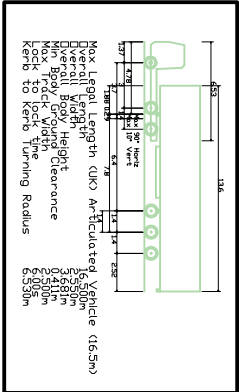
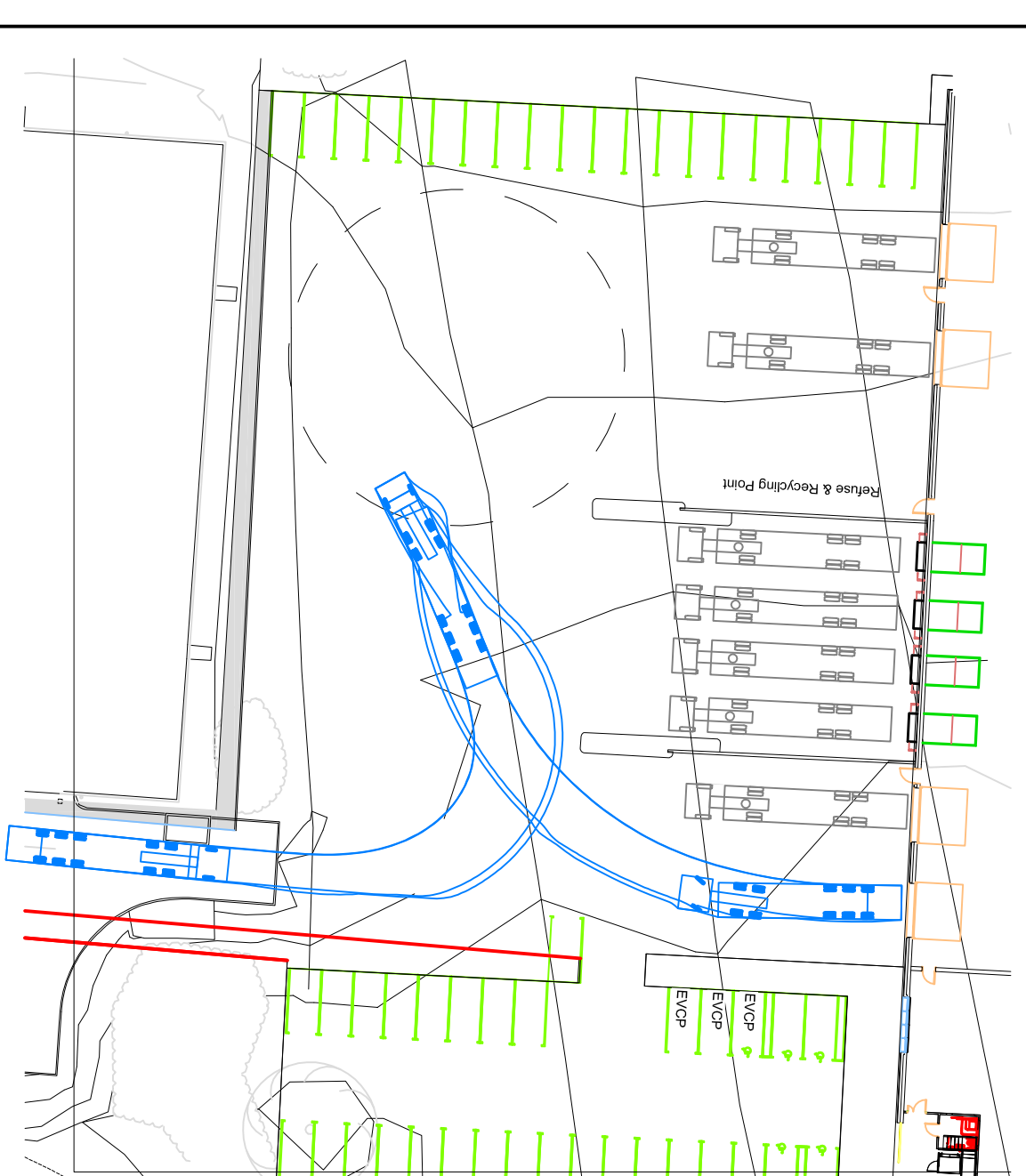
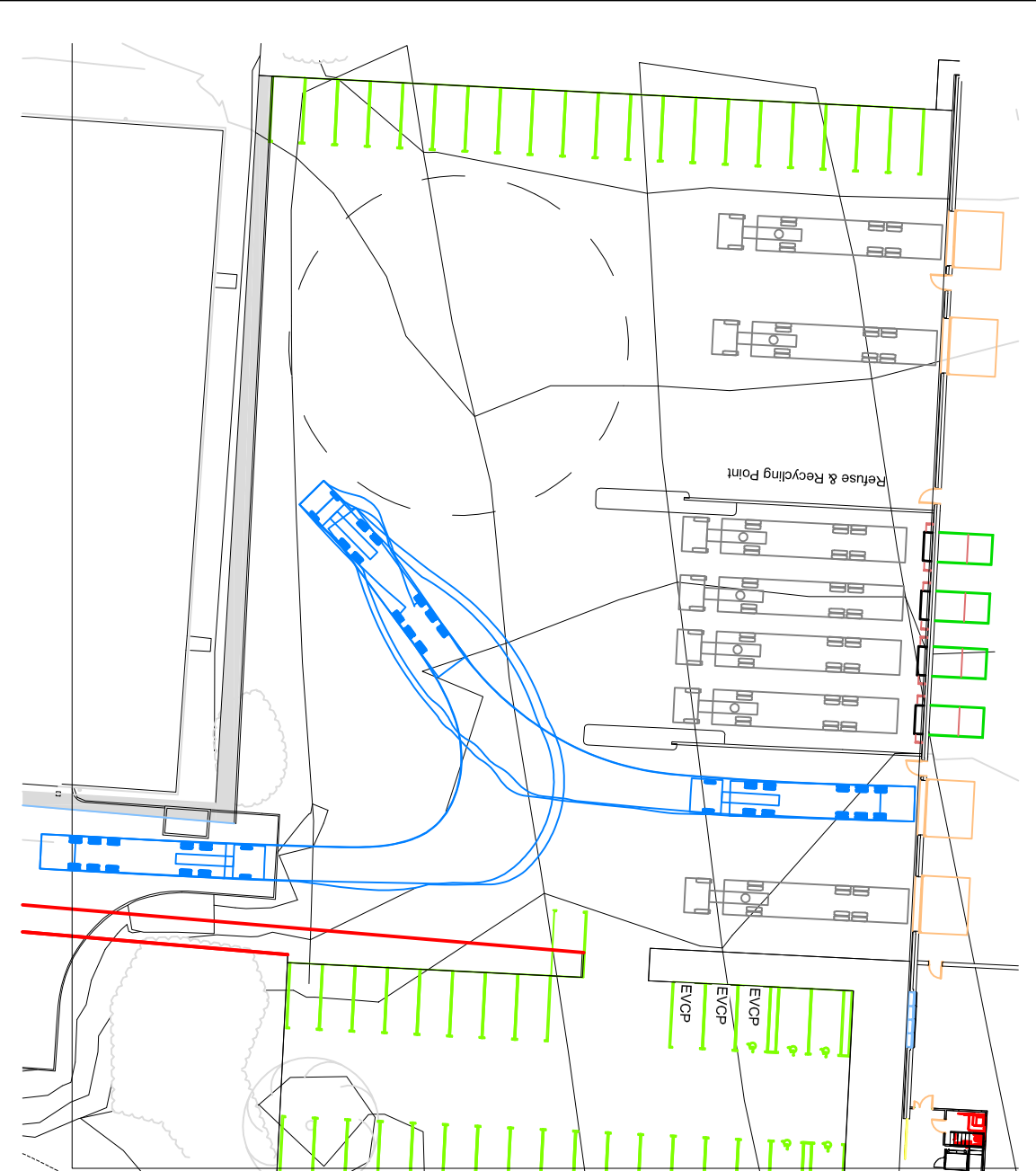
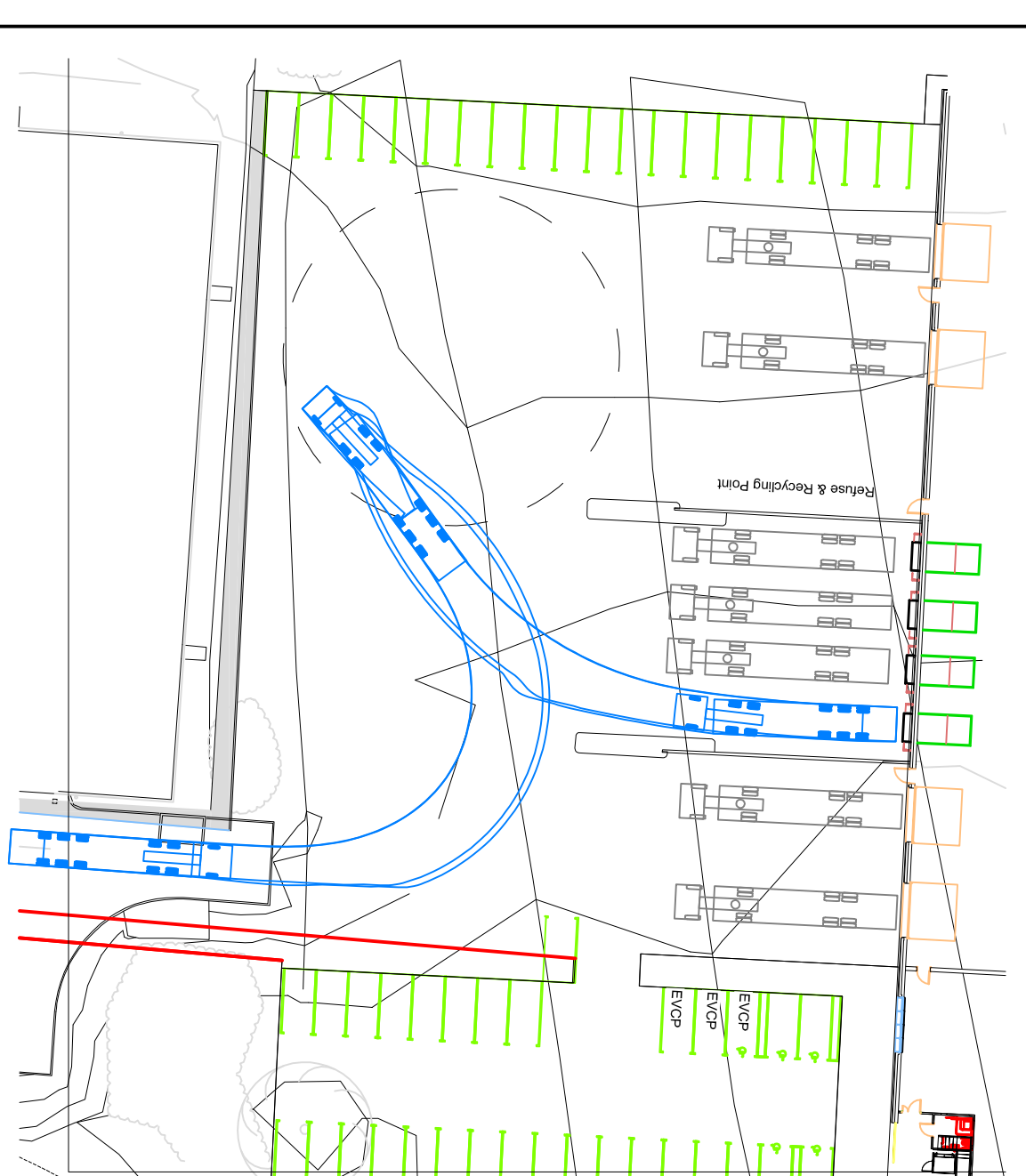
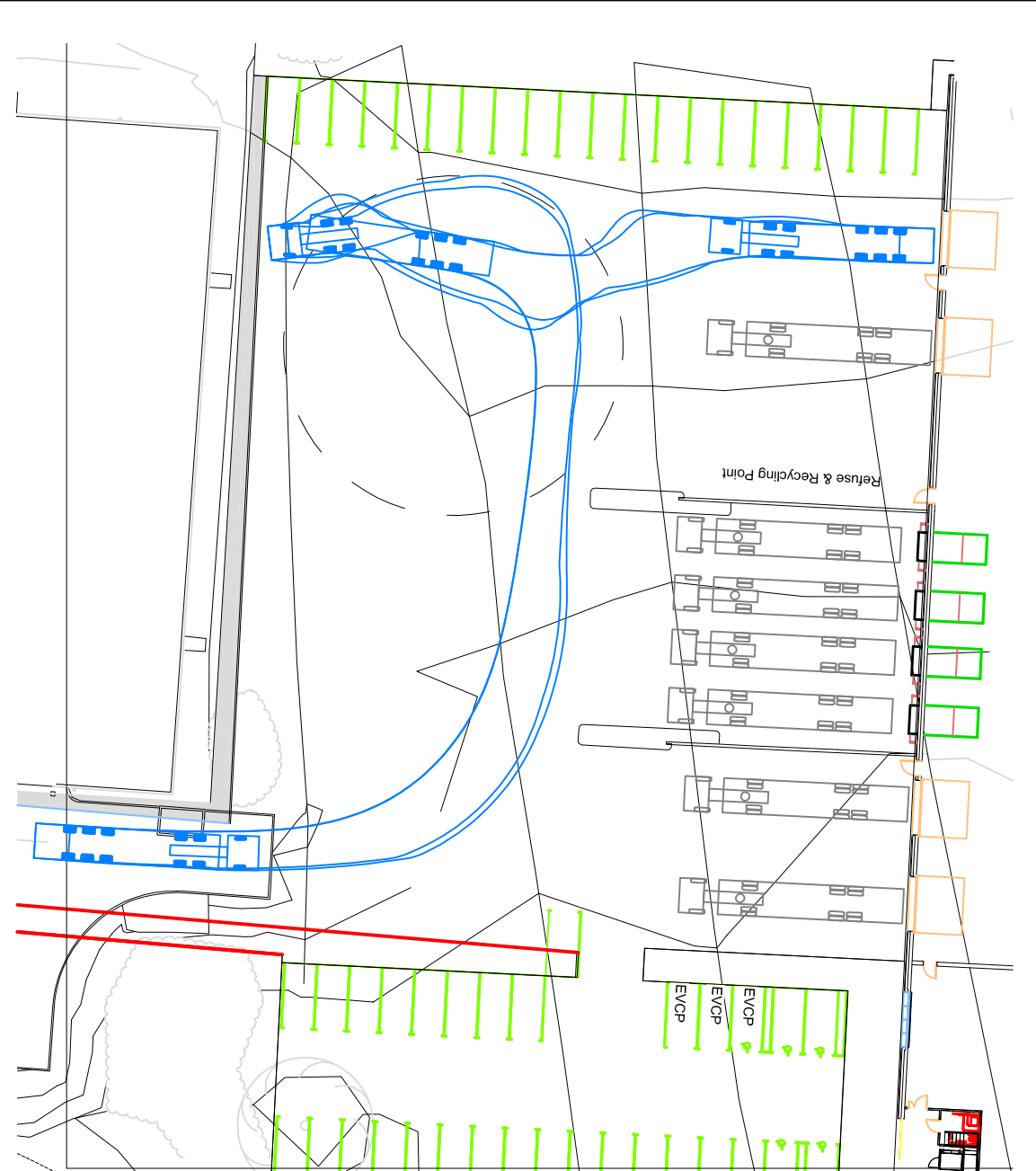
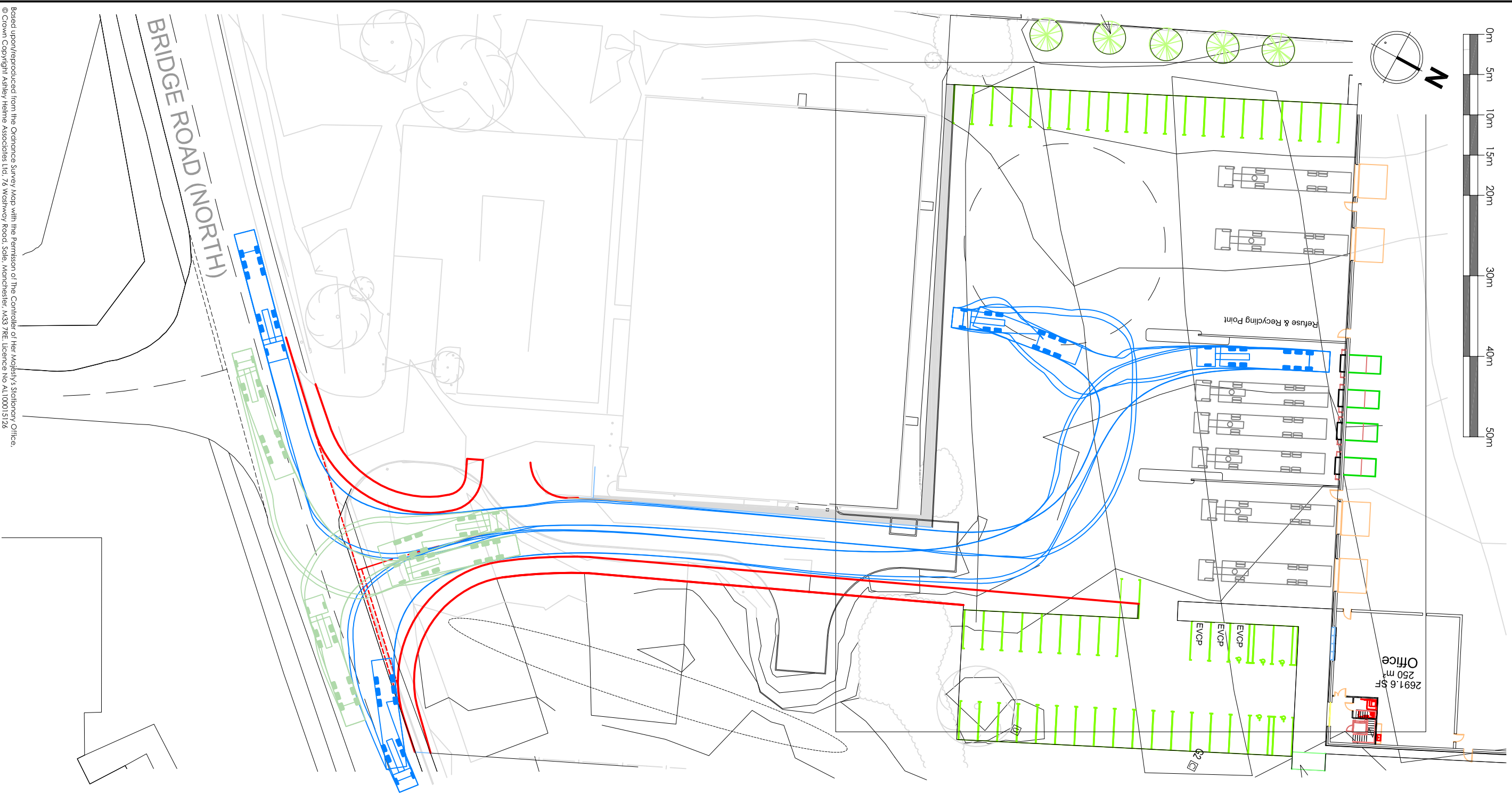
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected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

Drawings



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Project		Title	
BRIDGE ROAD NORTH, WREXHAM INDUSTRIAL ESTATE		ACCESS ARRANGEMENTS	
Client		JCP INVESTMENTS	
Dwg No		Rev	
1798/04			
Date		Scale	
APRIL 2023		1:500@A2	
		Telephone 0161 972 0552	
ASHLEY HELME ASSOCIATES		Email enquiries@ashleyhelme.co.uk	
Address		Website www.ashleyhelme.co.uk	
Scale, Manchester, M33 7RE			



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Project
BRIDGE ROAD NORTH, WREXHAM INDUSTRIAL ESTATE

Client
JCP INVESTMENTS

Title
SWEPT PATH ANALYSIS: 16.5m ARTICULATED HGV

Dwg No
1798/SP/02

Date
APRIL 2023

Rev
1:500@A2

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