Station Road, Hubbert's Bridge, Boston



Transport Statement

February, 2024 Articulated Vehicle Update



Station Road, Hubbert's Bridge, Boston

Transport Statement

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Station Road, Hubbert's Bridge, Boston

Transport Statement

Introduction

This Transport Statement (TS) is in support of proposed alterations to existing commercial premises to form individual Industrial Units and Office Space at the former Kings Road Tyre Depot, Hubbert's Bridge, Boston and change of use to include B1, B2 and B8 land uses.

Figure: Site Location



The former site and buildings amount to a gross area of 3,151m² and will be unchanged by the current proposals.

The site is no longer in use but a typical slow fit garage operation of the same characteristics is detailed in TRICS as yielding around two hundred trips per day and some 24 trips in the busiest weekday periods.

Around four HGV movements would be expected per day and with the site traffic exhibiting the following distribution of arrivals/departures through the day.

The TRICS data is at Annex 3.

Figure: Trips at Tyre Distribution/Fitting Facilities



Proposed Development

The proposed building footprint for B1/B2/B* Industrial Unit uses, has a gross floor area of 1,704m² and is forecast to produce up to 15 trips in the busiest weekday periods and just over one hundred trips in total per day.

These forecasts are derived from the national TRICS trip rate database (v7.6.3 (2019b)) and compare similarly with the previous use with around four HGV trips per day expected and focused on rigid wheelbase vehicles and refuse carts.

The Site Plans are at Annex 1 and the TRICS information is at Annex 3.

Table: Proposed Trips

Industrial Units		_				
Scale	1,704	m² gfa	facind			
		Trip Rate			TRIPS	
Vehicles	Inbound	Outbound	Total	Inbound	Outbound	Total
Morning Peak Hour	0.853	0.050	0.903	15	1	15
Evening Peak Hour	0.050	0.669	0.719	1	11	12
Daily	3.211	3.077	6.288	55	52	107
Mode						
HGV's	0.135	0.118	0.253	2	2	4



The comparison of former and proposed use shows some variation but in general less daily traffic and with the same volume of heavy traffic.



Figure: Daily Traffic

Site Access

In late October 2019 the Highway Authority responded to Planning Application B/19/0428 to request information in the following manner,

...... for the Highway Authority to fully consider and assess the potential cumulative impact of this proposal upon the existing highway network, we will require the applicant to submit a Transport Statement, specifically outlining the proposed hours of operation, expected vehicle types and numbers of vehicle trips generated during a typical working day, on a weekly basis for each unit and consideration of turning areas within the site to allow calling vehicles to enter and leave in a forward gear, in the interests of highway safety. Additionally, we would also ask the applicant to submit further details of the existing access to include dimensions of width, radii and visibility splays in accordance with Manual for Streets and any gates to be set back from the existing highway......

In response, the information requested relates to three aspects.

First, the amount of traffic.

It is forecast that the Industrial units would on average generate just over 100 trips in a weekday and have a site operation, similar to the previous uses between 7am and 7pm daily.

The evidence suggests that the site may also operate up to lunch time on a Saturday as well, leading to around 600 trips per week.

In that time the site would be serviced by just over twenty rigid wheelbase heavy goods vehicles, including refuse vehicles.

Secondly, access geometry.

Station Road is 7.3m wide at the access which is some 13.1m wide and set back 2.8m from the carriageway edge on the north side of Station Road.

The access road narrows to 5.7m to the west and south of the main buildings.

Figure: Site Access



The site access lies within a 40mph speed limit and is around 100m south of the Hubbert's bridge railway level crossing barrier.

In accordance with the Manual for Streets (MfS) requirements the required visibility is calculated by,

Visibility = bonnet length + (speed* driver perception reaction time) + (speed2)/(2*(deceleration+0.1*%gradient)

This equates to a visibility requirement at the access of 2.4m back from the carriageway by 60m for cars and 66m for heavy vehicles.

Visibility splays in excess of 70m is possible both north and south of the access when measured to the edge of the nearside carriageway.

The visibility splays and access geometry are shown on the plans at Annex 2.

Finally, vehicle tracking.

The ability of heavy vehicles to access the site and manouvre within it to enter and egress the site in forward gear is also shown at Annex 2 for Refuse Vehicles and also large Articulated vehicles.

Summary

The proposals for the site development to incorporate B1/B2/B8 Industrial Units, have been shown to generate similar levels of traffic as associated with its former use, amounting to around 100 trips daily and 600 trips per week with just over twenty large vehicles in the week.

Some 10 car parking spaces are proposed for a 0.32 Ha site that will be expected to accommodate 15 employees.

The Industrial Units are expected to be operational between 7am and 7pm daily, Monday to Friday and on Saturday mornings.

The site can accommodate large vehicles of fixed wheelbase of 11.2m length, entering and leaving in forward gear and within a visibility envelope of at least 2.4m by 70m in accordance with the requirements of the MfS.

This Transport Statement acknowledges that the Parish Council has not raised an objection to the proposals and that the scheme plans detail the site and access information requested by the Highway Authority.

Annex 1

Scheme Plans

Neil Dowlman Architecture (2019)

Location Existing Layout Proposed Layout Landscape









Annex 2

Access Geometry

Site Access Geometry and Visibility Splays Large Refuse Vehicle Swept Path Plots Articulated Vehicle Addendum









Annex 3

Trip Rates

TRICS v7.6.3 Industrial Units Fast Fit Vehicle Services

Calculation Reference: AUDIT-630801-191208-1259

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

ted reg	tions and areas:		
SOUT	H EAST		
HC	HAMPSHIRE		1 days
EAST	ANGLIA		
SF	SUFFOLK		1 days
WEST	MIDLANDS		
HE	HEREFORDSHIRE		1 days
	sout Sout HC EAST SF WEST HE	ted regions and areas: SOUTH EAST HC HAMPSHIRE EAST ANGLIA SF SUFFOLK WEST MIDLANDS HE HEREFORDSHIRE	<u>ted regions and areas:</u> SOUTH EAST HC HAMPSHIRE EAST ANGLIA SF SUFFOLK WEST MIDLANDS HE HEREFORDSHIRE

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

Secondary Filtering selection:

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

Parameter:	Gross floor area
Actual Range:	1100 to 3000 (units: sqm)
Range Selected by User:	150 to 5000 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision: Selection by:

Date Range: 01/01/11 to 06/11/18

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.

Include all surveys

l days
l days
l days
1

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

<u>Selected survey types:</u>	
Manual count	3 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 undertaking using machines.

<u>Selected Locations:</u> Edge of Town

3

2

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.

<u>Selected Location Sub Categories:</u> Industrial Zone Commercial Zone

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

Secondary Filtering selection:

Use Class:	
B1	2 days
B2	1 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®.

TRICS 7.6.3 131019 B19.24 Database	right of TRICS Consortium Limited, 2019. All rights reserved	Sunday 08/12/19
Industrial		Page 2
Turvey Consultancy Limited Ryland Road	d Welton	Licence No: 630801
Secondary Filtering selection (Cont.):	
Population within 1 mile:		
1 001 to 5 000	1 days	
10 001 to 15 000	1 days	
20,001 to 25,000	1 days	
20,001 10 23,000	Tuays	
This data displays the number of s	selected surveys within stated 1-mile radii of population.	
Population within 5 miles:		
50,001 to 75,000	1 days	
75.001 to 100.000	1 days	
100,001 to 125,000	1 days	
This data displays the number of s	elected surveys within stated 5-mile radii of population.	
Car ownership within 5 miles:		
1.1 to 1.5	3 days	
This data displays the number of s	selected surveys within stated ranges of average cars owned per i	residential dwelling,
WILTIIT A FACIUS OF S-THIRES OF SERECT	eu survey sites.	
Travel Plan:		
No	3 days	
	5 44 35	

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.

<u>PTAL Rating:</u> No PTAL Present

3 days

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

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IRICS 7.6.3 13101	9 B19.24 Database riç	int of TRICS Consortium Lin	nited, 2019. All rights reserved	Sunday 08/12/19 Page 3
Turvey Consultancy I	imited Ryland Road	Welton		Licence No: 630801
LIST OF SITE	S relevant to selection	parameters		
1 HC-02 JAYS C BASIN	-C-01 ENGINE LOSE GSTOKE	ERING COMPANY	HAMPSHI RE	
Edge c Indust Total C	f Town rial Zone cross floor area: <i>Survey date: THURSD</i> A	3000 sqm 1 <i>Y 16/06/16</i>	Survey Type: MANUA	12
2 HE-02 COLLE HEREF BURCC Edge c Comm	-C-O2 THERMA GE ROAD ORD DTT f Town ercial Zone	L PROCESSING	HEREFORDSHI RE	
Total C	Gross floor area:	1880 sqm		47
3 SF-02 ANSON IPSWI MARTL Edge c Indust	-C-O1 JOINER I ROAD CH ESHAM HEATH f Town rial Zone	22/10/13	SUFFOLK	
Total C	Fross floor area: Survey date: FRIDAY	1100 sqm <i>12/07/13</i>	Survey Type: MANUA	12

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

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TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT VEHICLES Calculation factor: 100 sqm BOLD print indicates peak (busiest) period

		ARRIVALS		DEPARTURES			TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	3	1993	0.602	3	1993	0.117	3	1993	0.719
08:00 - 09:00	3	1993	0.853	3	1993	0.050	3	1993	0.903
09:00 - 10:00	3	1993	0.351	3	1993	0.067	3	1993	0.418
10:00 - 11:00	3	1993	0.284	3	1993	0.217	3	1993	0.501
11:00 - 12:00	3	1993	0.151	3	1993	0.151	3	1993	0.302
12:00 - 13:00	3	1993	0.151	3	1993	0.151	3	1993	0.302
13:00 - 14:00	3	1993	0.318	3	1993	0.468	3	1993	0.786
14:00 - 15:00	3	1993	0.151	3	1993	0.284	3	1993	0.435
15:00 - 16:00	3	1993	0.167	3	1993	0.167	3	1993	0.334
16:00 - 17:00	3	1993	0.033	3	1993	0.368	3	1993	0.401
17:00 - 18:00	3	1993	0.050	3	1993	0.669	3	1993	0.719
18:00 - 19:00	3	1993	0.100	3	1993	0.368	3	1993	0.468
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.211			3.077			6.288

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

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

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Parameter summary

Trip rate parameter range selected:1100 - 3000 (units: sqm)Survey date date range:01/01/11 - 06/11/18Number of weekdays (Monday-Friday):3Number of Saturdays:0Number of Sundays:0Surveys automatically removed from selection:0Surveys 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.

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TIME RATE TRIP RATE GRAPH - TOTALS 02 - EMPLOYMENT C - INDUSTRIAL UNIT VEHICLES 96

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TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT OGVS Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

	ARRIVALS			[DEPARTURES	5	TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	3	1993	0.000	3	1993	0.000	3	1993	0.000
08:00 - 09:00	3	1993	0.017	3	1993	0.000	3	1993	0.017
09:00 - 10:00	3	1993	0.000	3	1993	0.017	3	1993	0.017
10:00 - 11:00	3	1993	0.050	3	1993	0.050	3	1993	0.100
11:00 - 12:00	3	1993	0.000	3	1993	0.017	3	1993	0.017
12:00 - 13:00	3	1993	0.000	3	1993	0.000	3	1993	0.000
13:00 - 14:00	3	1993	0.017	3	1993	0.017	3	1993	0.034
14:00 - 15:00	3	1993	0.000	3	1993	0.000	3	1993	0.000
15:00 - 16:00	3	1993	0.017	3	1993	0.000	3	1993	0.017
16:00 - 17:00	3	1993	0.017	3	1993	0.017	3	1993	0.034
17:00 - 18:00	3	1993	0.000	3	1993	0.000	3	1993	0.000
18:00 - 19:00	3	1993	0.017	3	1993	0.000	3	1993	0.017
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.135			0.118			0.253

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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TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT CYCLISTS Calculation factor: 100 sqm BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	3	1993	0.151	3	1993	0.000	3	1993	0.151
08:00 - 09:00	3	1993	0.017	3	1993	0.000	3	1993	0.017
09:00 - 10:00	3	1993	0.017	3	1993	0.000	3	1993	0.017
10:00 - 11:00	3	1993	0.000	3	1993	0.000	3	1993	0.000
11:00 - 12:00	3	1993	0.000	3	1993	0.000	3	1993	0.000
12:00 - 13:00	3	1993	0.000	3	1993	0.017	3	1993	0.017
13:00 - 14:00	3	1993	0.017	3	1993	0.017	3	1993	0.034
14:00 - 15:00	3	1993	0.000	3	1993	0.050	3	1993	0.050
15:00 - 16:00	3	1993	0.000	3	1993	0.017	3	1993	0.017
16:00 - 17:00	3	1993	0.000	3	1993	0.100	3	1993	0.100
17:00 - 18:00	3	1993	0.000	3	1993	0.017	3	1993	0.017
18:00 - 19:00	3	1993	0.000	3	1993	0.017	3	1993	0.017
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.202			0.235			0.437

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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TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT CARS Calculation factor: 100 sqm BOLD print indicates peak (busiest) period

		ARRIVALS		[DEPARTURES	5		TOTALS	
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	3	1993	0.468	3	1993	0.084	3	1993	0.552
08:00 - 09:00	3	1993	0.736	3	1993	0.017	3	1993	0.753
09:00 - 10:00	3	1993	0.301	3	1993	0.033	3	1993	0.334
10:00 - 11:00	3	1993	0.050	3	1993	0.000	3	1993	0.050
11:00 - 12:00	3	1993	0.033	3	1993	0.017	3	1993	0.050
12:00 - 13:00	3	1993	0.050	3	1993	0.033	3	1993	0.083
13:00 - 14:00	3	1993	0.184	3	1993	0.334	3	1993	0.518
14:00 - 15:00	3	1993	0.084	3	1993	0.217	3	1993	0.301
15:00 - 16:00	3	1993	0.050	3	1993	0.033	3	1993	0.083
16:00 - 17:00	3	1993	0.017	3	1993	0.268	3	1993	0.285
17:00 - 18:00	3	1993	0.017	3	1993	0.518	3	1993	0.535
18:00 - 19:00	3	1993	0.000	3	1993	0.318	3	1993	0.318
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.990			1.872			3.862

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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TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT LGVS Calculation factor: 100 sqm BOLD print indicates peak (busiest) period

	ARRIVALS		[DEPARTURES			TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	3	1993	0.017	3	1993	0.017	3	1993	0.034
08:00 - 09:00	3	1993	0.000	3	1993	0.000	3	1993	0.000
09:00 - 10:00	3	1993	0.017	3	1993	0.000	3	1993	0.017
10:00 - 11:00	3	1993	0.151	3	1993	0.134	3	1993	0.285
11:00 - 12:00	3	1993	0.050	3	1993	0.050	3	1993	0.100
12:00 - 13:00	3	1993	0.067	3	1993	0.067	3	1993	0.134
13:00 - 14:00	3	1993	0.033	3	1993	0.033	3	1993	0.066
14:00 - 15:00	3	1993	0.017	3	1993	0.033	3	1993	0.050
15:00 - 16:00	3	1993	0.050	3	1993	0.050	3	1993	0.100
16:00 - 17:00	3	1993	0.000	3	1993	0.000	3	1993	0.000
17:00 - 18:00	3	1993	0.033	3	1993	0.017	3	1993	0.050
18:00 - 19:00	3	1993	0.000	3	1993	0.000	3	1993	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.435			0.401			0.836

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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TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT MOTOR CYCLES Calculation factor: 100 sqm BOLD print indicates peak (busiest) period

	ARRIVALS		[DEPARTURES			TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate
00:00 - 01:00	_								
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	3	1993	0.000	3	1993	0.000	3	1993	0.000
08:00 - 09:00	3	1993	0.017	3	1993	0.000	3	1993	0.017
09:00 - 10:00	3	1993	0.000	3	1993	0.000	3	1993	0.000
10:00 - 11:00	3	1993	0.000	3	1993	0.000	3	1993	0.000
11:00 - 12:00	3	1993	0.000	3	1993	0.000	3	1993	0.000
12:00 - 13:00	3	1993	0.000	3	1993	0.000	3	1993	0.000
13:00 - 14:00	3	1993	0.017	3	1993	0.017	3	1993	0.034
14:00 - 15:00	3	1993	0.000	3	1993	0.000	3	1993	0.000
15:00 - 16:00	3	1993	0.000	3	1993	0.017	3	1993	0.017
16:00 - 17:00	3	1993	0.000	3	1993	0.017	3	1993	0.017
17:00 - 18:00	3	1993	0.000	3	1993	0.017	3	1993	0.017
18:00 - 19:00	3	1993	0.000	3	1993	0.000	3	1993	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.034			0.068			0.102

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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Calculation Reference: AUDIT-630801-191215-1226

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use	:	15 - VEHICLE SERVICES
Category	:	B - MOTORIST CENTRE (FAST FIT)
VEHICLES		

Selec	ted red	gions and areas:	
03	SOUT	TH WEST	
	DV	DEVON	1 days
05	EAST	MIDLANDS	
	NR	NORTHAMPTONSHIRE	1 days
07	YORK	SHIRE & NORTH LINCOLNSHIRE	
	NO	NORTH LINCOLNSHIRE	1 days
	NY	NORTH YORKSHIRE	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:	336 to 1878 (units: sqm)
Range Selected by User:	150 to 1878 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision: Selection by:

Include all surveys

Date Range: 01/01/11 to 14/11/15

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.

<u>Selected survey days:</u>	
Monday	1 days
Wednesday	2 days
Thursday	2 days

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

<u>Selected survey types:</u>	
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 undertaking using machines.

Selected Locations:

Edge of Town Centre	2
Suburban Area (PPS6 Out of Centre)	2
Neighbourhood Centre (PPS6 Local Centre)	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	
Residential Zone	
Built-Up Zone	

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.

1 3 1

Consultancy Limited Ryland R	oad Welton	Licence No: 63080
Secondary Filtering selection	1:	
<u>Use Class:</u>		
Not Known	5 days	
This data displays the number of has been used for this purpose,	of surveys per Use Class classification within the selected which can be found within the Library module of TRICS	d set. The Use Classes Order 2005 ®.
Population within 1 mile:		
5,001 to 10,000	2 days	
10 001 to 15 000	1 days	
	I Udys	
20,001 to 25,000	1 days	
20,001 to 25,000 25,001 to 50,000 <i>This data displays the number o</i>	1 days 1 days 1 days	
10,001 to 15,000 20,001 to 25,000 25,001 to 50,000 This data displays the number of Population within 5 miles: 5,001 to 25,000 25,001 to 50,000 75,001 to 100,000	1 days 1 days 1 days <i>of selected surveys within stated 1-mile radii of populatic</i> 1 days 1 days 2 days	on.
10,001 to 15,000 20,001 to 25,000 25,001 to 50,000 This data displays the number of Population within 5 miles: 5,001 to 25,000 25,001 to 50,000 75,001 to 100,000 100,001 to 125,000	1 days 1 days 1 days <i>of selected surveys within stated 1-mile radii of populatic</i> 1 days 1 days 2 days 1 days 1 days	on.
10,001 to 15,000 20,001 to 25,000 25,001 to 50,000 This data displays the number of Population within 5 miles: 5,001 to 25,000 25,001 to 50,000 75,001 to 50,000 75,001 to 100,000 100,001 to 125,000 This data displays the number of Car ownership within 5 miles:	1 days 1 days 1 days 1 days 1 days 1 days 2 days 1 days 1 days	on. on.
10,001 to 15,000 20,001 to 25,000 25,001 to 50,000 This data displays the number of Population within 5 miles: 5,001 to 25,000 25,001 to 50,000 75,001 to 50,000 75,001 to 50,000 75,001 to 100,000 100,001 to 125,000 This data displays the number of Car ownership within 5 miles: 0.6 to 1.0	1 days 1 days 1 days <i>f selected surveys within stated 1-mile radii of populatio</i> 1 days 1 days 2 days 1 days <i>f selected surveys within stated 5-mile radii of populatio</i> 1 days	on. on.

<u>*Travel Plan:*</u> 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.

<u>PTAL Rating:</u> No PTAL Present

5 days

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

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Sunday 15/12/19

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LIST OF SITES relevant to selection parameters

1	DV-15-B-02 KWIK FIT MARSH BARTON ROAD EXETER MARSH BARTON Suburban Area (PPS6 Out of Centre) Industrial Zone Total Gross floor area: <i>Survey date: THURSDAY</i> NO-15-B-01 KWIK FIT BRUMBY WOOD LANE SCUNTHORPE	1878 sqm <i>28/11/13</i>	DEVON <i>Survey Type: MANUAL</i> NORTH LINCOLNSHIRE
3	Edge of Town Centre Residential Zone Total Gross floor area: <i>Survey date: THURSDAY</i> NR-15-B-01 NATIONAL TYRES OXFORD STREET WELLINGBOROUGH	850 sqm <i>20/12/12</i>	<i>Survey Type: MANUAL</i> NORTHAMPTONSHI RE
4	Neighbourhood Centre (PPS6 Local Centre) Built-Up Zone Total Gross floor area: <i>Survey date: WEDNESDAY</i> NY-15-B-04 KWIK FIT LONG STREET THIRSK	336 sqm <i>26/09/12</i>	<i>Survey Type: MANUAL</i> NORTH YORKSHIRE
5	Suburban Area (PPS6 Out of Centre) Residential Zone Total Gross floor area: <i>Survey date: MONDAY</i> NY-15-B-05 KWIK FIT LOW SKELLGATE RIPON	363 sqm <i>17/10/11</i>	<i>Survey Type: MANUAL</i> NORTH YORKSHIRE
	Edge of Town Centre Residential Zone Total Gross floor area: Survey date: WEDNESDAY	360 sqm <i>25/09/13</i>	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.

Licence No: 630801

TRIP RATE for Land Use 15 - VEHICLE SERVICES/B - MOTORIST CENTRE (FAST FIT) VEHICLES Calculation factor: 100 sqm BOLD print indicates peak (busiest) period

	ARRIVALS		DEPARTURES			TOTALS			
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	4	856	0.321	4	856	0.029	4	856	0.350
08:00 - 09:00	5	757	0.924	5	757	0.158	5	757	1.082
09:00 - 10:00	5	757	0.739	5	757	0.581	5	757	1.320
10:00 - 11:00	5	757	0.607	5	757	0.555	5	757	1.162
11:00 - 12:00	5	757	0.713	5	757	0.528	5	757	1.241
12:00 - 13:00	5	757	0.422	5	757	0.607	5	757	1.029
13:00 - 14:00	5	757	0.528	5	757	0.660	5	757	1.188
14:00 - 15:00	5	757	0.502	5	757	0.634	5	757	1.136
15:00 - 16:00	5	757	0.581	5	757	0.607	5	757	1.188
16:00 - 17:00	5	757	0.555	5	757	0.871	5	757	1.426
17:00 - 18:00	5	757	0.238	5	757	0.449	5	757	0.687
18:00 - 19:00	4	856	0.000	4	856	0.409	4	856	0.409
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates: 6.130 6.088 12.218									

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:	336 - 1878 (units: sqm)
Survey date date range:	01/01/11 - 14/11/15
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 show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

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TRIP RATE for Land Use 15 - VEHICLE SERVICES/B - MOTORIST CENTRE (FAST FIT)

OGVS Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	4	856	0.000	4	856	0.000	4	856	0.000
08:00 - 09:00	5	757	0.000	5	757	0.000	5	757	0.000
09:00 - 10:00	5	757	0.079	5	757	0.053	5	757	0.132
10:00 - 11:00	5	757	0.026	5	757	0.053	5	757	0.079
11:00 - 12:00	5	757	0.026	5	757	0.000	5	757	0.026
12:00 - 13:00	5	757	0.026	5	757	0.053	5	757	0.079
13:00 - 14:00	5	757	0.000	5	757	0.000	5	757	0.000
14:00 - 15:00	5	757	0.000	5	757	0.000	5	757	0.000
15:00 - 16:00	5	757	0.000	5	757	0.000	5	757	0.000
16:00 - 17:00	5	757	0.026	5	757	0.053	5	757	0.079
17:00 - 18:00	5	757	0.000	5	757	0.000	5	757	0.000
18:00 - 19:00	4	856	0.000	4	856	0.000	4	856	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates: 0.183 0.212 0.39						0.395			

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