



## Transport Statement

**Marden Homes  
Land of Main Road, Hawkwell  
February 2015**



**Marden Homes**  
Land off Main Road, Hawkwell  
February 2015



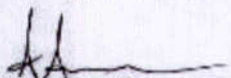
**Quality Assurance**

Site name: Land off Main Road, Hawkwell

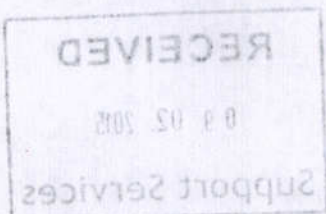
Client name: Marden Homes

Type of report: Transport Statement

Prepared and Reviewed by: Steve Amann BSc (Hons) MSc (Eng) CMILT

Signed   
Date February 2015

Transport Statement  
Marden Homes  
Land off Main Road, Hawkwell  
February 2015



## Table of Contents

<b>1</b>	<b>INTRODUCTION</b> .....	<b>1</b>
	Brief .....	1
	Background .....	1
<b>2</b>	<b>NATIONAL AND LOCAL POLICY</b> .....	<b>2</b>
	National Policy .....	2
	Local Transport Policy .....	3
	Development Management Policy .....	4
<b>3</b>	<b>SITE ASSESSMENT</b> .....	<b>5</b>
	Existing Information .....	5
	Public Transport Information .....	5
	Walking and Cycling Assessment .....	5
	Safety Considerations and Accident Analysis .....	6
<b>4</b>	<b>DEVELOPMENT PROPOSALS</b> .....	<b>7</b>
	Description of Proposal .....	7
	Trip Generation .....	8
	Vehicle Parking .....	9
	Cycle Parking .....	10
	Servicing .....	10
<b>5</b>	<b>SUMMARY AND CONCLUSIONS</b> .....	<b>11</b>
	Summary .....	11
	Conclusions .....	11

## Appendices

- Appendix 1     Site Location
- Appendix 2     Concept Site Layout
- Appendix 3     Access Arrangements
- Appendix 4     TRICS Data



# 1 INTRODUCTION

## Brief

- 1.1 Journey Transport Planning Ltd has been instructed by Marden Homes to provide a Transport Statement with respect to supporting a planning application relating to land adjacent to Main Road, Hawkwell. The site is shown in **Appendix 1**.

## Background

- 1.2 Specifically this Transport Statement considers the transport and access implications of developing this site for residential purposes, the impact in terms of traffic on the wider highway network and any deliverability issues with respect to the proposals.

## 2 NATIONAL AND LOCAL POLICY

### National Policy

2.1 Relevant policy guidance relating to new development, and transport and land use planning is set out at national and local levels in the following documents:

- the National Planning Policy Framework
- Rochford District Council's Local Development Framework, Core Strategy Adopted Version 2011
- Rochford District Council LDF Development Management Plan and Policies
- the DfT Transport Assessment Guidelines
- Essex County Councils' Development Management Policies 2011

2.2 These documents set the context in which the proposals have been assessed.

#### The National Planning Policy Framework (NPPF)

2.3 The current National Planning Policy Framework (NPPF, Mar 2012) supersedes all previous Planning Policy Statements (PPS) and Planning Policy Guidance (PPG), within which the government sets out its core principles for the planning system in England.

#### Promoting Sustainable Transport

2.4 Whilst not prescriptive, the current National Planning Policy with regards to transport, Section 4 of the National Planning Policy Framework – Promoting sustainable transport, considers that 'transport policies have an important role to play in facilitating sustainable development' and also in 'contributing to wider sustainability and health objectives'. Wherein the transport system needs to be 'balanced in favour of sustainable transport modes, giving people a real choice about how they travel'.

2.5 The NPPF therefore considers that Local Plans through Land Use Planning should support a pattern of development which facilitates the use of sustainable modes of transport and development should be located so as to minimise the need to travel. Furthermore, planning policies should aim for a balance of land uses within an area which will encourage people to 'minimise journey lengths for employment, shopping, leisure, education and other activities'.



- 2.6 Notwithstanding, the NPPF recommends that developments should only be prevented or refused on transport grounds where the residual impacts of development are severe.

## Local Transport Policy

- 2.7 Planning policy with respect to residential development and access is held in the local Development Framework, Core Strategy Adopted Version 2011.

- 2.8 The guidance sets out that the location of new development will be expected to contribute to sustainable transport objectives and promote walking, cycling and public transport as the preferable form of transport. Development in rural areas will also be expected to take place in larger villages with defined settlement boundaries and access to public transport.

- 2.9 Policy T1 Highways; sets out the Districts' recommendation for the location of new development and states:

*'Developments will be required to be located and designed in such a way as to reduce reliance on the private car. However, some impact on the highway network is inevitable and the Council will work with developers and the Highway Authority to ensure that appropriate improvements are carried out. The Council will seek developer contributions where necessary.'*

- 2.10 Policy T8 Parking Standards is also relevant and states that

*'The Council will apply minimum parking standards, including visitor parking, to residential development. The council will be prepared to relax such standards for residential development within town centre locations and sites in close proximity to any of the District's train stations.'*

- 2.11 The Local Development Framework Development Management Plan further elaborates on these policies and states that the Essex Planning Officers Parking Standards will be applied to new development.

- 2.12 DM30 (Parking Standards) sets out that:

*'The parking standards contained within 'Parking Standards Design and Good Practice Supplementary Planning Document (Adopted December 2010)', or successor document, will be applied for all new developments. This document applies minimum parking standards for residential development (although this may be relaxed in residential areas near town centres and train stations), and appropriate maximum parking standard for trip destinations'.*

- 2.13 DM31 (Traffic Management) is also of relevance and considers that:

*'Any new major developments must include appropriate traffic management measures to facilitate the safe and efficient movement of people and goods by all modes whilst protecting and*



*enhancing the quality of life within communities, facilitating the appropriate use of different types of road and environment, and achieving a clear, consistent and understandable road, cycle and pedestrian network. These measures will comprise, amongst others, reducing the impact of motorised traffic, traffic calming measures, measures to assist public transport (for example bus gates or lanes), cycling, walking and horse riders, congestion relief, and other speed and demand management measures.'*

- 2.14 Local Plan policies in relation to transport access and new developments have been considered in this Transport Statement and the application site is in accordance with and supports the aims and objectives of the Rochford Core Strategy.

### Development Management Policy

- 2.15 Essex County Council (ECC) set out in their publication Development Management Policies (DMP) Feb 2011 that access to development sites should be considered against the Essex Functional Route Hierarchy
- 2.16 Main Road, in the vicinity of the site is classed as a main distributor road in the Essex County Council publication, Development Management Policies (2011) and specific policies with respect to access apply.
- 2.17 As a main distributor, Main Road is subject to Policy DM2 and where it lies within the defined settlement areas, the highway authority will seek to protect the function of that road by:
- Ensuring the number of access points is kept to a minimum
  - Ensuring that where safe access is available from a lower category of road in the Development Management Hierarchy, this is used
  - Ensuring that new access points will be designed and constructed in accordance with the current standards
  - Requiring improvements to substandard accesses.
- 2.18 For the purpose of the policy the site is within the defined settlement area and as such direct access to development is acceptable. The development conforms to the requirements set out in the DMP.

## 3 Site Assessment

### Existing Information

- 3.1 The proposal site is directly to the east of Main Road, Hockley and is bordered to the north by residential development, to the west on the opposite side of Main Road; by agricultural land and to the south and east by existing employment development. The site location is shown in **Appendix 1**.
- 3.2 Main Road is a single carriageway road of around 6.0m in width and is subject to a 30mph speed restriction along the site frontage.
- 3.3 The site currently houses an industrial unit with associated parking and access.

### Public Transport Information

- 3.4 Public transport availability in the vicinity of the site has been examined and a regular frequent bus service operates along Main Road. This service is provided by the Number 8 which provides an hourly service between Rayleigh town centre, Southend and North Shoebury.
- 3.5 The nearest bus stop is less than 100m north of the site along Main Road and can be reached via a safe secure footway with the benefit of street lighting. The Rayleigh bound stop has the benefit of a shelter and seating area.
- 3.6 In consideration of the public transport availability, the site is reasonably well provided for by public transport.

### Walking and Cycling Assessment

- 3.7 Cycling has the potential to substitute for short car trips, particularly those less than five kilometres. Cycle access to the proposal has been considered in detail. For the purposes of cycle accessibility, a cycling time of 20 minutes, which equates to five kilometres at an average speed of 15kph, has been assumed.
- 3.8 The five kilometre catchment area of the proposal site includes large parts of Rayleigh and Southend and the whole of Rochford and Hockley built areas and as such provides cycle access to a wide range of associated retail facilities and services and also including a number of rail stations with their frequent fast connections to London.



- 3.9 With respect to pedestrian access, a walk time of ten minutes is generally considered the maximum acceptable to directly access any local facility or amenity and equates to a distance of 800 metres.
- 3.10 The site is within reasonable walking distance of the bus stops on Main Road from where services to a range of destinations can be accessed.
- 3.11 In consideration of the above, the site is reasonably well located in terms of transport accessibility to the amenities and facilities in the vicinity and as such is considered a suitable location for a sustainable residential proposal.

### Safety Considerations and Accident Analysis

- 3.12 The accident record in the vicinity of the site has been considered and the Essex Highways Database indicates that there have been no recorded road accidents in the vicinity in the 5 year period between 2010 and 2015.
- 3.13 In consideration of the above, the highway network in the immediate vicinity of the site has an excellent safety record and as such the proposals will not have a material impact on that record.

## 4 DEVELOPMENT PROPOSALS

### Description of Proposal

- 4.1 The proposals consider the development of the site for residential use for 37 units with associated parking, access and infrastructure.
- 4.2 A concept plan of the proposed development is shown in **Appendix 2** and indicates the principal points of access to the site and the general site layout.
- 4.3 The site currently houses an auto repair business and is classed under the industrial use classification. The existing gross floor area measures at 5,370sqm.
- 4.4 The access to the site is proposed via the existing access point to the site which will be modified in accordance with the requirements for access set out by Essex County Council.
- 4.5 Visibility at the access has been examined in the context of the requirements set out in the Manual for Streets which requires visibility at 2.4m by 43.0m from the access in each direction.
- 4.6 Visibility to the south is available at 2.4m by 60.0m which more than meets the required standard. Visibility to the north can be achieved at 2.4m by 37.0m which is marginally lower than the required standard of 43.0m.
- 4.7 Notwithstanding the fact that visibility is lower than standard to the north, this assessment demonstrates that by virtue of the reduced level of trips than would be associated with the proposed use when set against the existing use trip generation potential, the proposed development will have a net beneficial impact on highway safety at the access.
- 4.8 The access road for the development is laid out in accordance with the criteria set out in the Essex Design Guide (emerging Guidance), and is achieved by way of a Type 5 minor access road with a shared surface carriageway arrangement with a total width of 5.8m each culminating in a Type Three turning head. A 5.8m Type 5 (as set out in the emerging design guide guidance) road is suitable for accommodating the level of development anticipated and would be designed in accordance with current standards to achieve 20mph speeds or lower.
- 4.9 In accordance with adopted policy the access will be designed with traffic management features to ensure a design speed of 20mph or less.
- 4.10 The proposed access arrangements for the site are illustrated in **Appendix 3**.



## Trip Generation

- 4.11 In accordance with the requirements set out in the Guidance for Transport Assessment (DfT 2007), the proposals have been considered with respect to the likely level of trips that could be generated and the impact they would have on the local highway network.
- 4.12 As the existing use already generates a level of vehicular traffic movements, these movements can be discounted to consider the net change and potential impact of the proposed change of use.
- 4.13 The TRICS Version 7 trip generation database has been interrogated to assess the likely number of vehicular trips that could be associated with the existing use in this location.
- 4.14 The travel demand that could be associated with the 5,373m<sup>2</sup> B1 Industrial use has been considered in detail and assessed utilising data from the TRICS trip generation database. Sites within the database have been interrogated to consider sites that are similar in land use, location, car parking and size to the proposal being considered.
- 4.15 **Table 4.1** summarises the trip generation rates and provides an estimate of vehicular movements associated with a 5,371m<sup>2</sup> GFA B1 Industrial use.

**Table 4.1 TRICS Industrial Use Trip Rate and Generation Summary**

	AM Peak (08:00-09:00)		PM Peak (17:00-18:00)	
	Arrivals	Departures	Arrivals	Departures
Trip Rate	0.468	0.099	0.048	0.380
Total trips 5,377m <sup>2</sup>	25	5	3	20

- 4.16 **Table 4.1** indicates that the 5,377m<sup>2</sup> Industrial floor space use has the potential to generate up to 30 two vehicular trips in the AM peak and in the PM peak 23 vehicular trips under its current B1 classification. The data obtained from TRICS is shown in **Appendix 4**.
- 4.17 The travel demand that could be associated with the residential use has been considered in detail and assessed utilising data from the TRICS trip generation database. Sites within the database have been interrogated to consider sites that are similar in location and size to the proposal being considered.
- 4.18 **Table 4.2** summarises the trip generation rates and provides an estimate of vehicular movements that could be associated with around 37 residential units on the site.



**Table 4.2 TRICS Residential Use Trip Rate and Forecast Generation Summary**

	AM Peak (08:00-09:00)		PM Peak (17:00-18:00)	
	Arrivals	Departures	Arrivals	Departures
Trip Rate	0.154	0.391	0.369	0.216
Total trips 37 Units	6	15	14	8

- 4.19 **Table 4.1** indicates that a 37 unit residential allocation could result in up to 21 vehicular trips in the AM peak and in the PM peak, 22 vehicular trips. The data obtained from TRICS is shown in **Appendix 4**.
- 4.20 The proposal would therefore result in a net decrease in vehicular traffic in the vicinity as such; the development on the site of 37 dwellings would have a beneficial impact on the operation and safety of the local highway network in the vicinity of the site.
- 4.21 In view of the fact that the proposal would not have a detrimental impact on the local highway network and is a suitable and sustainable location for residential development, there is no requirement for any off-site transport infrastructure improvements, a position that has been confirmed with the Planning Authority.
- 4.22 It is also relevant to note that in reducing the vehicular traffic associated with the site, the development proposals will have a beneficial impact on air quality in the vicinity of the site and will not have a negative impact on any local Air Quality Management Areas in the vicinity.

## Vehicle Parking

- 4.23 The car parking requirements of the proposal have been considered in the context of the requirements set out in the Essex Planning Officers Association (EPOA) publication Parking Standards, Design and Good Practice which indicate 2+ spaces per dwelling. This requirement can be met within the site and will not result in overspill parking in the vicinity.
- 4.24 74 car dedicated car parking spaces are proposed for the 35 dwellings and can be designed in accordance with the requirements of the EPOA guidance.
- 4.25 Visitor parking can also be provided at a rate of 0.25 spaces per dwelling in accordance with the current guidance with 8 spaces being proposed.



## Cycle Parking

- 4.26 Cycle parking standards are also set out in the EPOA publication which recommends a minimum of 1 space per dwelling with some additional spaces for visitors. One cycle space per dwelling can be provided, meeting the minimum requirements.

## Servicing

- 4.27 In utilising the standards and guidance set out in the Essex Design Guide with the provision of a Type 3 turning head, the road infrastructure will accommodate the manoeuvring requirements of service and delivery vehicles that will be required for the development and moreover will allow refuse and servicing to be taken clear of Main Road.



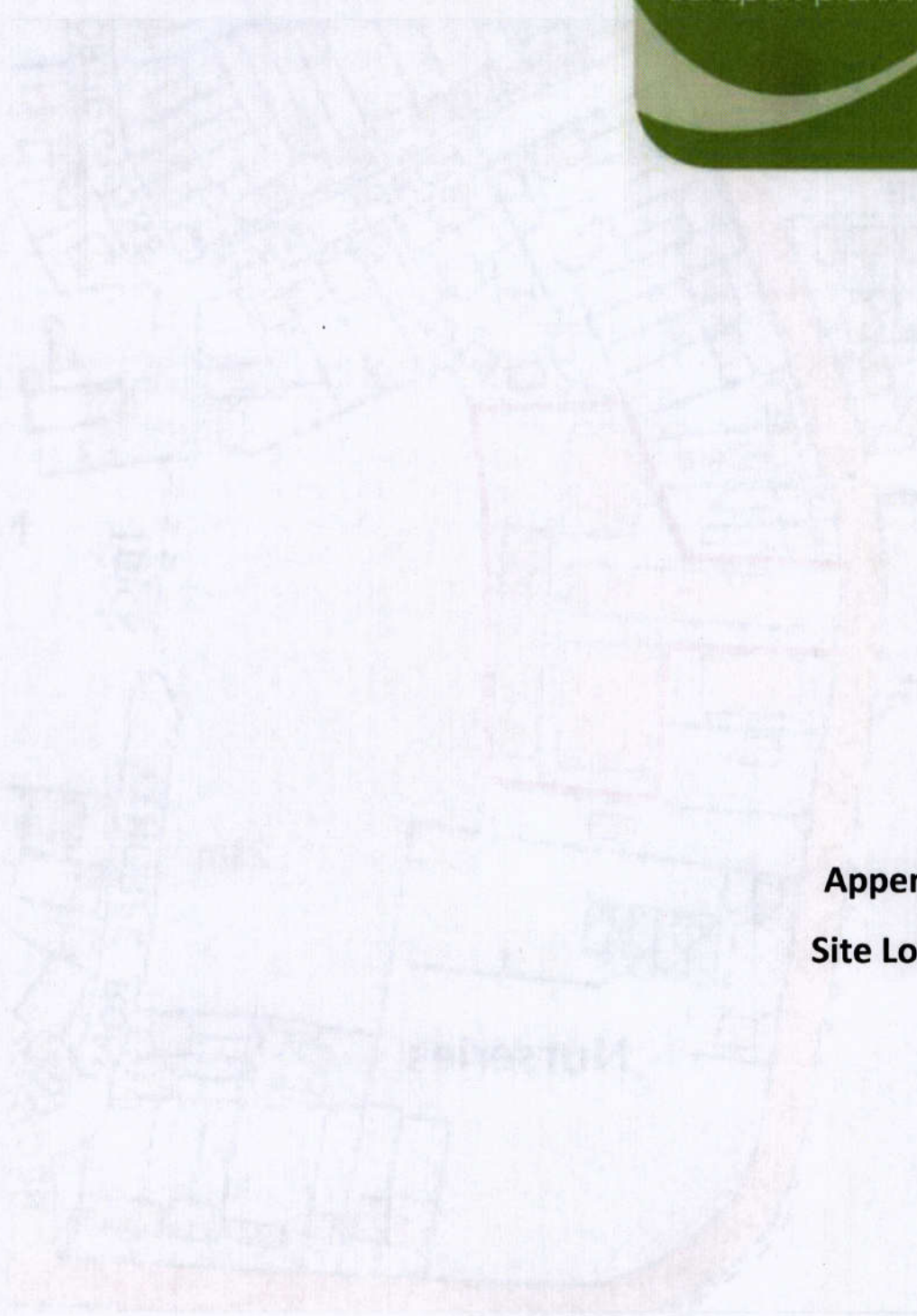
## 5 SUMMARY AND CONCLUSIONS

### Summary

- 5.1 This Transport Statement has been provided in support of a planning application to Rochford District Council for a 37 unit residential development on land off Main Road, Hawkwell.
- 5.2 The site will be accessed via the existing modified access arrangements designed in accordance with current standards of geometry off Main Road.
- 5.3 The access road will be designed in accordance with the requirements set out in the Essex Design Guide and its emerging modifications and will be traffic calmed to ensure speeds of 20mph or lower.
- 5.4 The assessment demonstrates that the proposal will result in a reduction in trips in the vicinity of the site when considered against the existing use and as such will not have a significant or material impact for the purposes of road safety or capacity and will also be beneficial in the context of air quality in the locality.
- 5.5 Car parking and cycle parking is proposed and can be provided in accordance with EPOA current requirements.
- 5.6 The refuse and servicing requirements for the proposals can be undertaken in accordance with Essex County Council requirements.

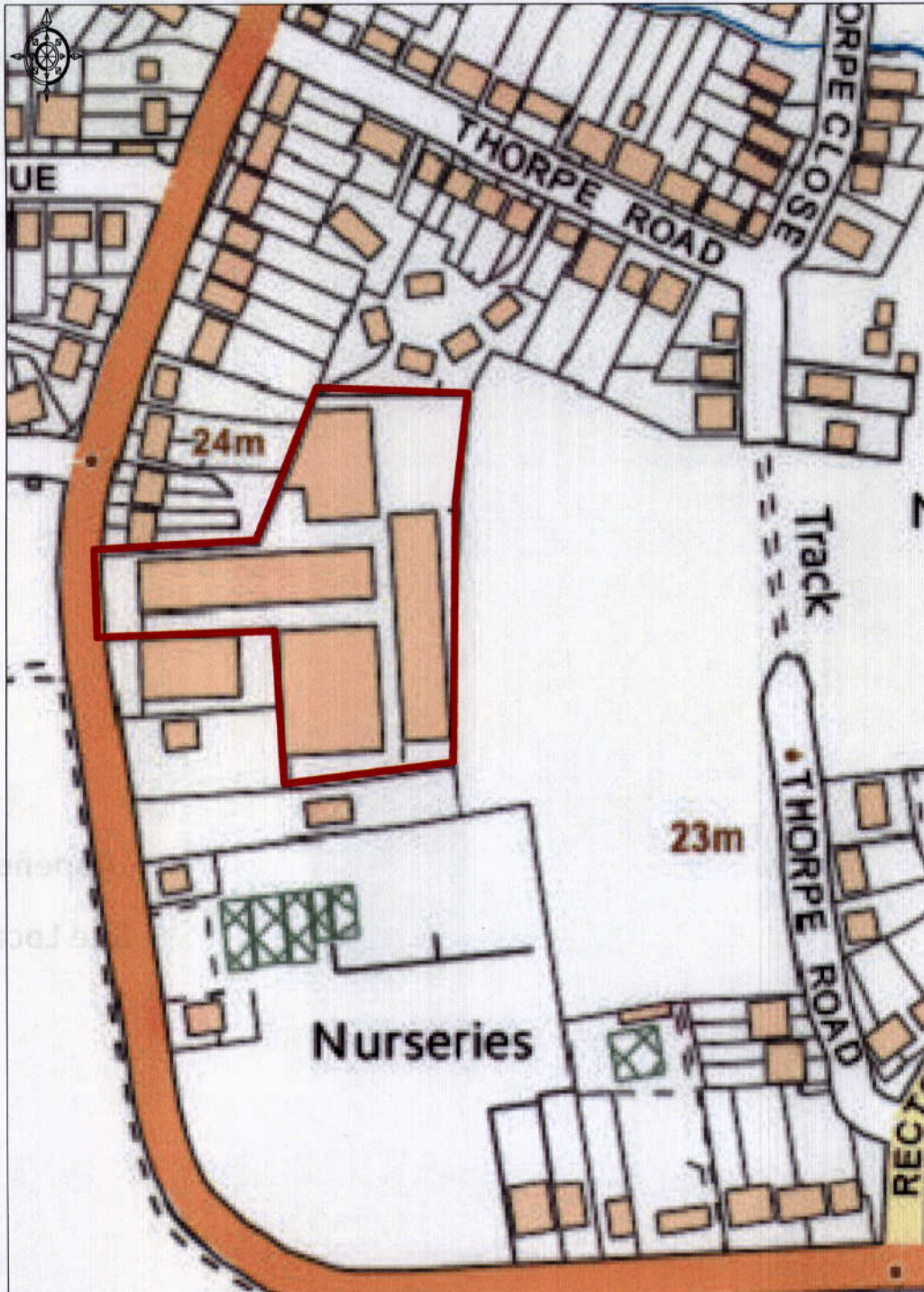
### Conclusions

- 5.7 This Transport Statement demonstrates that the proposals have been developed in accordance with the aims and objectives of current national and local policy as it relates to transport and will not have a significant impact on the efficiency or safety of the local transport network.
- 5.8 In view of the foregoing, it is considered that there are no substantive highway or transportation reasons why the proposals as submitted should not be permitted.



**Appendix 1**  
**Site Location**

90 Main Road, Hawkwell Site Location Plan (1:2500)





**Appendix 2**  
**Site Proposals**

Appendix 2  
Site Proposal



- Existing Trees to be retained
- Existing Trees to be removed
- Proposed Trees & Shrubs
- Paving - generally 600 x 600 concrete slabs.
- 1.8m high garden walls
- 1.8m high close boarded fence.
- Surface parking spaces (2.95m x 5.5m)
- \* Garage parking spaces (3m x 7m) (cycle hook to rear of garage)
- Existing buildings to be removed
- refuse & recycling bins
- Sheds - generally 1.8x2.4m 600 x 600 concrete slabs below.
- garden sizes generally 50sqm + for 2 bed units 100sqm + for 3 & 4 bed units

**Schedule of Accommodation**

- Type**
- House Type A - 3no. 4 Bed @ 124sqm
  - House Type B - 11no. 2 Bed @ 77sqm
  - House Type C - 10no. 3 Bed @ 99sqm
  - House Type D - 6no. 3 Bed @ 93sqm
  - House Type E - 2no. 4 Bed @ 116sqm
  - House Type F - 5no. 4 Bed @ 130sqm

**Schedule**

- 11no. 2 Beds
- 16no. 3 Beds
- 10no. 4 Beds

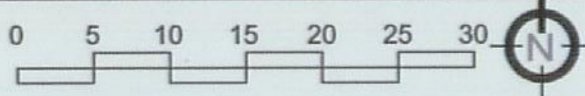
**Total 37no. Units**

**2 parking spaces per dwelling**

**10 visitor parking spaces (25%)**

**Rear Garden Schedule**

- |                  |                  |                  |
|------------------|------------------|------------------|
| plot 1 = 130sqm  | plot 20 = 91sqm  | plot 21 = 60sqm  |
| plot 2 = 90sqm   | plot 22 = 56sqm  | plot 22 = 56sqm  |
| plot 3 = 55sqm   | plot 23 = 100sqm | plot 24 = 121sqm |
| plot 4 = 90sqm   | plot 25 = 120sqm | plot 25 = 120sqm |
| plot 5 = 90sqm   | plot 26 = 129sqm | plot 26 = 129sqm |
| plot 6 = 100sqm  | plot 27 = 106sqm | plot 27 = 106sqm |
| plot 7 = 100sqm  | plot 28 = 104sqm | plot 28 = 104sqm |
| plot 8 = 100sqm  | plot 29 = 56sqm  | plot 29 = 56sqm  |
| plot 9 = 101sqm  | plot 30 = 61sqm  | plot 30 = 61sqm  |
| plot 10 = 120sqm | plot 31 = 136sqm | plot 31 = 136sqm |
| plot 11 = 80sqm  | plot 32 = 102sqm | plot 32 = 102sqm |
| plot 12 = 68sqm  | plot 33 = 75sqm  | plot 33 = 75sqm  |
| plot 13 = 79sqm  | plot 34 = 73sqm  | plot 34 = 73sqm  |
| plot 14 = 100sqm | plot 35 = 131sqm | plot 35 = 131sqm |
| plot 15 = 100sqm | plot 36 = 137sqm | plot 36 = 137sqm |
| plot 16 = 100sqm | plot 37 = 138sqm | plot 37 = 138sqm |
| plot 17 = 234sqm |                  |                  |
| plot 18 = 131sqm |                  |                  |
| plot 19 = 122sqm |                  |                  |



Scale : 1:500 @ A2

Date : Jan 2015

Status : Planning

Dwg No : 2014-479-002

Go Planning  
Unit 5, Bolding Hatch Business Centre  
Bishop's Stortford Road  
Rozewell  
Chelmsford  
Essex  
CM11 4LF  
T: 01245 230712  
E: Planning@goholdings.co.uk

Client : **Marden Homes**

Project : **Land at 90 Main Road,  
Hawkwell**

Drawing : **Site Layout**

© THIS DRAWING IS THE COPYRIGHT OF GO PLANNING LTD. It shall not be in any way used or reproduced without their prior written consent. All dimensions are to be checked on site or in the workshop prior to

RECEIVED  
09.02.2015  
Support Serv

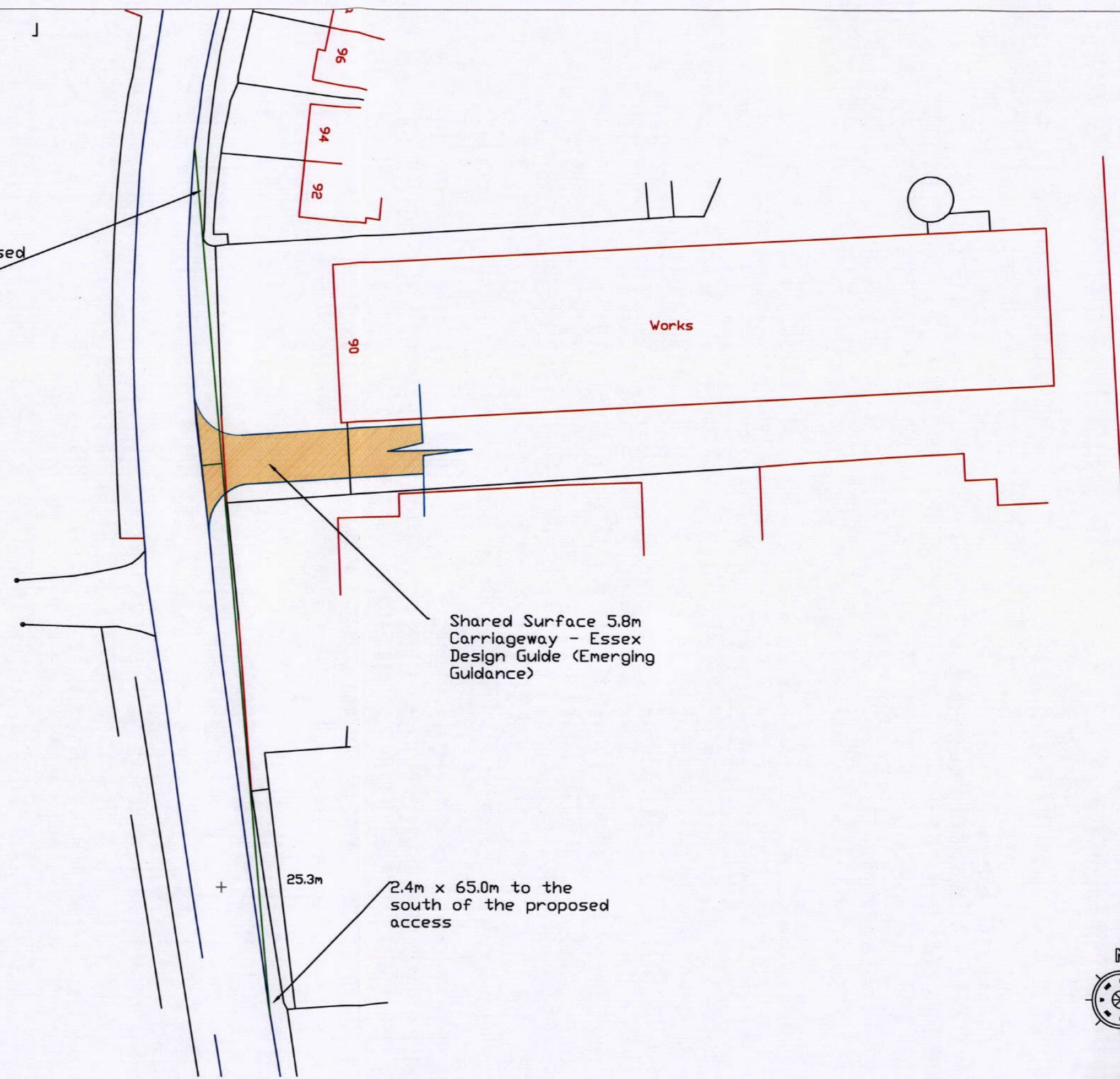


**Appendix 3**  
**Access Arrangements**

Appendix 3

Access Arrangements

2.4m x 37.0m to the north of the proposed access



Shared Surface 5.8m Carriageway - Essex Design Guide (Emerging Guidance)

2.4m x 65.0m to the south of the proposed access

25.3m



client: Marden Homes	title: Achievable Visibility	date: 01/11/11	scale @ A3 1:500
project: Land to the west of Main Road, Hawkwell	status: Planning	drawn:	Revision
discipline: Transport Planning	project no: JTP 07314	chk'd: SAA	dwg no: DR1





## Appendix 4

### TRICS Data

**TRIP RATE CALCULATION SELECTION PARAMETERS:**

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

**VEHICLES**

Selected regions and areas:

<b>02</b>	<b>SOUTH EAST</b>	
	HF HERTFORDSHIRE	1 days
	RE READING	1 days
<b>03</b>	<b>SOUTH WEST</b>	
	BR BRISTOL CITY	1 days
	CW CORNWALL	2 days
	DC DORSET	2 days
	DV DEVON	1 days
<b>04</b>	<b>EAST ANGLIA</b>	
	SF SUFFOLK	1 days
<b>05</b>	<b>EAST MIDLANDS</b>	
	DS DERBYSHIRE	1 days
	NR NORTHAMPTONSHIRE	1 days
<b>06</b>	<b>WEST MIDLANDS</b>	
	HE HEREFORDSHIRE	1 days
	WM WEST MIDLANDS	3 days
<b>07</b>	<b>YORKSHIRE &amp; NORTH LINCOLNSHIRE</b>	
	NY NORTH YORKSHIRE	1 days
<b>08</b>	<b>NORTH WEST</b>	
	CH CHESHIRE	1 days
<b>09</b>	<b>NORTH</b>	
	TW TYNE & WEAR	1 days

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

**VEHICLES**

**Calculation factor: 1 DWELLS**

**BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	43	60	0.075	43	60	0.286	43	60	0.361
08:00 - 09:00	43	60	0.154	<b>43</b>	<b>60</b>	<b>0.391</b>	43	60	0.545
09:00 - 10:00	43	60	0.158	43	60	0.217	43	60	0.375
10:00 - 11:00	43	60	0.150	43	60	0.176	43	60	0.326
11:00 - 12:00	43	60	0.184	43	60	0.180	43	60	0.364
12:00 - 13:00	43	60	0.197	43	60	0.175	43	60	0.372
13:00 - 14:00	43	60	0.178	43	60	0.160	43	60	0.338
14:00 - 15:00	43	60	0.183	43	60	0.193	43	60	0.376
15:00 - 16:00	43	60	0.269	43	60	0.200	43	60	0.469
16:00 - 17:00	43	60	0.300	43	60	0.181	43	60	0.481
17:00 - 18:00	<b>43</b>	<b>60</b>	<b>0.369</b>	43	60	0.216	<b>43</b>	<b>60</b>	<b>0.585</b>
18:00 - 19:00	43	60	0.256	43	60	0.193	43	60	0.449
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
<b>Total Rates:</b>			2.473			2.568			5.041

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.

**Parameter summary**

Trip rate parameter range selected: 6 - 186 (units: )  
 Survey date date range: 01/01/06 - 20/05/14  
 Number of weekdays (Monday-Friday): 43  
 Number of Saturdays: 0  
 Number of Sundays: 0  
 Surveys manually removed from selection: 2

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.



**TRIP RATE CALCULATION SELECTION PARAMETERS:**

Land Use : 03 - RESIDENTIAL  
 Category : A - HOUSES PRIVATELY OWNED

**VEHICLES**

Selected regions and areas:

<b>02</b>	<b>SOUTH EAST</b>	
	ES EAST SUSSEX	1 days
	SC SURREY	1 days
<b>03</b>	<b>SOUTH WEST</b>	
	CW CORNWALL	1 days
	DC DORSET	2 days
	WL WILTSHIRE	1 days
<b>04</b>	<b>EAST ANGLIA</b>	
	CA CAMBRIDGESHIRE	1 days
	NF NORFOLK	2 days
	SF SUFFOLK	2 days
<b>05</b>	<b>EAST MIDLANDS</b>	
	DS DERBYSHIRE	1 days
	LN LINCOLNSHIRE	3 days
	NT NOTTINGHAMSHIRE	1 days
<b>06</b>	<b>WEST MIDLANDS</b>	
	SH SHROPSHIRE	3 days
	ST STAFFORDSHIRE	1 days
	WK WARWICKSHIRE	2 days
	WM WEST MIDLANDS	3 days
	WO WORCESTERSHIRE	2 days
<b>07</b>	<b>YORKSHIRE &amp; NORTH LINCOLNSHIRE</b>	
	NY NORTH YORKSHIRE	6 days
	SY SOUTH YORKSHIRE	1 days
<b>08</b>	<b>NORTH WEST</b>	
	CH CHESHIRE	4 days
	GM GREATER MANCHESTER	1 days
	MS MERSEYSIDE	1 days
<b>09</b>	<b>NORTH</b>	
	CB CUMBRIA	2 days
	TW TYNE & WEAR	1 days

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

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT

**VEHICLES**

Calculation factor: 100 sqm

**BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	18	6987	0.336	18	6987	0.101	18	6987	0.437
08:00 - 09:00	<b>18</b>	<b>6987</b>	<b>0.468</b>	18	6987	0.099	<b>18</b>	<b>6987</b>	<b>0.567</b>
09:00 - 10:00	18	6987	0.192	18	6987	0.114	18	6987	0.306
10:00 - 11:00	18	6987	0.111	18	6987	0.103	18	6987	0.214
11:00 - 12:00	18	6987	0.101	18	6987	0.091	18	6987	0.192
12:00 - 13:00	18	6987	0.130	18	6987	0.179	18	6987	0.309
13:00 - 14:00	18	6987	0.328	18	6987	0.186	18	6987	0.514
14:00 - 15:00	18	6987	0.192	18	6987	0.339	18	6987	0.531
15:00 - 16:00	18	6987	0.143	18	6987	0.228	18	6987	0.371
16:00 - 17:00	18	6987	0.098	18	6987	0.324	18	6987	0.422
17:00 - 18:00	18	6987	0.048	<b>18</b>	<b>6987</b>	<b>0.380</b>	18	6987	0.428
18:00 - 19:00	18	6987	0.072	18	6987	0.177	18	6987	0.249
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
<b>Total Rates:</b>			<b>2.219</b>			<b>2.321</b>			<b>4.540</b>

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.

**Parameter summary**

Trip rate parameter range selected: 300 - 23500 (units: sqm)  
 Survey date date range: 01/01/06 - 23/01/14  
 Number of weekdays (Monday-Friday): 17  
 Number of Saturdays: 0  
 Number of Sundays: 1  
 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 show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.