









# TRANSPORT ASSESSMENT

August 2018

Land to South of Tycroes Road Tycroes Carmarthenshire

acstro

#### **Table of Contents**

1	Introduction	. 1
2	Policy Context	. 2
	Location & Accessibility	
4	Proposed Development	. 8
5	Summary & Conclusion	. 9

# **Appendices**

Appendix 1 Location Plan

Appendix 2 Site Context

Appendix 3 TRICS Trip Rate Data

#### **Revision History**

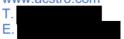
Issue 1	15 <sup>th</sup> August 2018	
Issue 2	17 <sup>th</sup> August 2018	

1210 Tycroes Transport Statement .docx

This report has been prepared for the exclusive use of our client and unless otherwise agreed in writing by Acstro Limited, no other party may copy, reproduce, distribute, make use of, or rely on the contents of the report. Acstro Limited assumes no responsibility to any other party in respect of or arising out of or in connection with this document and/or its content.

© 2018 Acstro Limited

Acstro Ltd., Ty Penbryn, Salem, Llandeilo, SA19 7LT www.acstro.com





#### 1 Introduction

- 1.1 Acstro has been appointed to prepare a Transport Assessment to support the promotion of land to the south of Tycroes Road as a candidate site for inclusion, as suitable for residential development, in Carmarthenshire County Council's Revised Local Development Plan 2018 – 2033.
- 1.2 The site is shown edged in red and is considered capable of delivering up to 62 residential units. The candidate site's location is shown in Appendix 1.

#### **Appendix 1 Location Plan**

- 1.3 The site is to be accessed from Ffordd y Deri by extending the existing cul-de-sac.
- 1.4 The area indicated in blue on the Location Plan illustrates an area that has outline planning permission for 27 new homes (application S/29469). This area is under the control of the same landowner as the candidate site and therefore provision of the extension of the access required to the candidate site is available.
- 1.5 This document considers the transport implications of the proposed development of the candidate site and follows the general guidance of Carmarthenshire's 'Site Assessment Methodology February 2018". In particular, this Transport Statement demonstrates that the candidate site is in a sustainable location that is closely related to existing facilities and services and is accessible to pedestrians, cyclists and public transport users. It is also demonstrated that safe vehicular access to the site can be provided.
- 1.6 The structure of the Transport Statement is as follows:
  - Section 2 describes the relevant planning policy context that is relevant in terms of transport issues;
  - Section 3 describes the site's location, its proximity to services and facilities and its accessibility by all forms of transport.
  - Section 4 describes the proposed development and its access arrangements. An
    estimate of the likely trip generation of the proposed development of the land is
    also provided.
  - Section 5 provides a summary and conclusion.



# 2 Policy Context

#### Planning Policy Wales

- 2.1 Planning Policy Wales (PPW) sets out the land use planning policies of the Welsh Government.
- 2.2 In terms of transport related policies it places the sustainability of development at the heart of the decision making process (pp 4.7.4) and requires that new development proposals minimize the need to travel and increase accessibility by modes other than the private car. It requires that major generators of travel demand be located within existing urban areas that are well served by public transport, or can be reached by walking or cycling.
- 2.3 The principles discussed above are repeated again in PPW's Chapter 8, which deals specifically with Transport issues. In 8.1.4 it reinforces the Welsh Government's objectives for transport through:
  - reducing the need to travel, especially by private car, by locating development where there is good access by public transport, walking and cycling;
  - locating development near other related uses to encourage multi-purpose trips and reduce the length of journeys;
  - improving accessibility by walking, cycling and public transport;
  - ensuring that transport is accessible to all, taking into account the needs of disabled and other less mobile people;
  - promoting walking and cycling;
  - supporting the provision of high quality public transport;
  - supporting traffic management measures;
  - promoting sustainable transport options for freight and commerce;
  - supporting sustainable travel options in rural areas;
  - supporting necessary infrastructure improvements; and
  - ensuring that, as far as possible, transport infrastructure does not contribute to land take, urban sprawl or neighbourhood severance.
- 2.4 In terms of plan making and development control it advises (8.7.1) that the following issues should be taken into account:
  - the impacts of the proposed development on travel demand;
  - the level and nature of public transport provision;
  - accessibility by a range of different transport modes;
  - the willingness of a developer to promote travel by public transport, walking or cycling, or to provide infrastructure or measures to manage traffic
  - the environmental impact of both transport infrastructure and the traffic generated;
     and
  - the effects on the safety and convenience of other users.



2.5 PPW also requires that the proposed access to a development should reflect the likely travel patterns involved. It should ensure that people can reach the development, as far as practicable, by walking, cycling and public transport, as well as by car (pp 8.7.3).

### **TAN18 Transportation**

- 2.6 Planning Policy Wales Technical Advice Note 18 (TAN18) details the Welsh Government Government's policies in terms of transportation and repeats the general principles advocated in PPW i.e. that development is encouraged in sustainable, accessible, locations that will reduce the need to travel by car. Its aim is to promote an efficient and sustainable transport system and to counter the negative impacts associated with road traffic growth, for example increased air pollution, green house gases and congestion (2.1). It sees the integration of transport and land use planning as key (2.3) in achieving the Welsh Government Governments' sustainable development policy objectives by:
  - promoting travel efficient settlement patterns;
  - ensuring new development is located where there is good access by public transport, walking and cycling thereby minimizing the need for travel and fostering social inclusion;
  - managing parking provision;
  - ensuring that new development includes appropriate provision for pedestrians, cycling, public transport, and traffic management and parking/servicing;
  - encouraging the location of development near other related uses to encourage multi-purpose trips; and
  - ensuring that transport infrastructure necessary to serve new development allows existing transport networks to continue to perform their identified functions.
- 2.7 The needs of walkers and cyclists must be taken into consideration and the use of these most sustainable forms of transport encouraged in all developments (TAN18 Chapter 6). Similarly, all development should be accessible by public transport (Chapter 7).

### The Active Travel (Wales) Act 2013

- 2.8 The Active Travel (Wales) Act 2013 is Welsh Government legislation aimed to support an increase in the level of walking and cycling in Wales; to encourage a shift in travel behaviour to active travel modes, and to facilitate the building of walking and cycling infrastructure.
- 2.9 The Active Travel (Wales) Act 2013 makes it a legal requirement for local authorities in Wales to map and plan for suitable routes for active travel, and to build and improve infrastructure for walking and cycling every year. It creates new duties to consider the needs of walkers and cyclists and make better provision for them. It also requires the consideration of walking and cycling as a mode of transport and the Act focuses on the promotion of walking and cycling for purposeful journeys, rather than as a purely recreational activity.
- 2.10 The Act is supported by the Active Travel Action Plan Wales (2014), and many of the actions of the Active Travel Action Plan Wales document also benefit recreational or competitive walking and cycling. 'Walking' in the Active Travel Action Plan for Wales includes the use of wheelchairs and mobility scooters and 'cycling' includes the use of electric bikes, but not motorcycles.



#### Carmarthenshire Local Development Plan 2006 -2021

- 2.11 The LDP seeks to promote sustainable development. Policy GP1 requires that development, amongst other things, has an appropriate and safe access and does not give rise to parking or highway safety concerns and that it promotes ease of access by pedestrians, cyclists and public transport users.
- 2.12 Policy SP3 sets out the settlement framework for the County. The candidate site is within the Ammanford / Cross Hands Growth Area.
- 2.13 The site is located adjacent to Tycroes' settlement limits (policy GP2). The candidate site is therefore closely related to the existing settlements and the facilities that they provide.
- 2.14 Policy TR3 relates to the design of highways in developments and requires that developments provide:
  - An integrated network of convenient and safe pedestrian and cycle routes (within and from the site) which promotes the interests of pedestrians, cyclists and public transport;
  - Suitable provision for access by public transport;
  - Appropriate parking and where applicable, servicing space in accordance with required standards;
  - Infrastructure and spaces allowing safe and easy access for those with mobility difficulties;
  - Required access standards reflective of the relevant Class of road and speed restrictions including visibility splays and design features and calming measures necessary to ensure highway safety and the ease of movement is maintained, and where required enhanced;
  - Provision for Sustainable Urban Drainage Systems to allow for the disposal of surface water run off from the highway.
- 2.15 Proposals that do not generate unacceptable levels of traffic on the surrounding road network and would not be detrimental to highway safety or cause significant harm to the amenity of residents will be permitted.
- 2.16 Proposals that will not result in offsite congestion in terms of parking or service provision or where the capacity of the network is sufficient to serve the development will be permitted. Developers may be required to facilitate appropriate works as part of the granting of any permission.



# 3 Location & Accessibility

#### Location

3.1 The site is shown in the context of nearby facilities and the surrounding transport network in Appendix 2.

#### Appendix 2 Site Context

- 3.2 The site is located to the west of Tycroes, south of Tycroes Road. Ammanford's town centre is approximately 3km to the north east of the site.
- 3.3 There are a number of facilities available within close proximity to the site including a primary school, shops, rugby club, public house, railway station and community facilities. Walk distances to some of these facilities from the candidate site are provided in the table below.

Facility	Walk Distance from Site	Walk Time from Site
Bus Stop	250m	3 Minutes
Tycroes Surgery	200m	3 Minutes
Tycroes Shops (Ammanford Road)*	350m	4 Minutes
Tycroes Primary School	400m	6 Minutes
Tycroes Rugby Club	600m	8 Minutes
Mountain Gate Public House	650m	7 Minutes
Pantyffynnon Railway Station	1.8km	21 Minutes

Table 1 Walk Distances from the Site to Local Facilities

- 3.4 The walk distances quoted above are measured the end of the Ffordd y Deri, an existing cul-de-sac which is to be extended to provide access for a permitted new residential development at the area indicated in blue on the Location Plan for the candidate site (Application S/29469).
- 3.5 A broader range of services and facilities are available in Ammanford, some 3km to the north east.
- 3.6 In summary, the site is in an appropriate location where there are a range of services and facilities nearby. The convenience of this site to public transport and to the amenities of Tycroes will reduce the need of residents to travel further by private car to access everyday services and facilitate sustainable travel mode choices such as active travel (walking and cycling) or public transport.

# **Active Travel**

3.7 The Chartered Institution of Highways and Transportation's (CIHT) 'Planning for Walking' (2015) states that "Across Britain about 80 per cent of journeys shorter than 1 mile (1.6km) are made wholly on foot – something that has changed little in thirty years. In 2012 walkers accounted for 79 per cent of all journeys shorter than 1 mile, but beyond that distance cars are the dominant mode (DfT, annual)". It is considered that 2km, a distance that can be walked in around 25 to 30 minutes, represents a reasonable distance to expect that walking can be a viable option.



- 3.8 As described previously there are a range of services and facilities within the 2km walking distance to the candidate site. Walking trips between these services and the candidate site can be made along segregated footways where street lighting is provided.
- 3.9 The Chartered Institution of Highways and Transportation's 'Planning for Cycling' (2014) states that 'cycle use is more seasonal than for other modes, with up to twice as many cyclists in summer compared with winter. The majority of cycling trips are for short distances, with 80% being less than five miles (8km) and with 40% being less than two miles (3km). However, the majority of trips by all modes are also short distances (67% are less than five miles, and 38% are less than two miles); therefore, the bicycle is a potential mode for many of these trips (National Travel Survey, 2013, Department for Transport).'
- 3.10 The site is within convenient cycling distance to Ammanford (3km) and Cross Hands (6.5km).

#### **Public Transport**

3.11 Bus stops are located along the A483 to the west of the site and at Tycroes Road to the north. These provide access to a range of services that link the site to Ammanford, Llandello, Llanelli, Swansea, Carmarthen and other settlements.

Service No.	Route	Details / Frequency
X13	Llandeilo - Swansea	30 Minute Frequency Service (Mon – Sat)
124	Brynamman – Ammanford - Tycroes	One Hour Frequency Service (Mon – Sat)
128	Ammanford - Llanelli	4 Daily Return Services (Mon-Sat)
129	Ammanford - Carmarthen	8 Daily Return Services (Mon – Sat)
126	Ammanford - Cwmgwili	2 Daily Return Services (Mon – Sat)
G14	Tycroes – Ysgol Maes Yr Yrfa	2 Daily Return Services (School) (Mon – Fri)

Table 2 Local Bus Services from within 250m of the Site

3.12 Pantyffynnon railway station is located approximately 1.8km to the east of the site. The station provides access to the Heart of Wales line services. There are four trains a day to Shrewsbury northbound from Monday to Saturday (plus a fifth to Llandovery) and five southbound to Llanelli and Swansea.

# **Highway Network**

3.13 Ffordd y Deri is a residential Cul-de-Sac with footways and street lighting and connects the candidate site to Tycroes Road to the north. Tycroes Road is some 6.5m in width and also subject to a 30mph speed limit.



- 3.14 Tycroes Road joins the A483 in the centre of Tycroes village, approximately 100m to the west of the junction with Ffordd y Deri. Tycroes Road joins the A483 at a bend in the trunk road's alignment and in close proximity with another junction with Penygarn Road.
- 3.15 The A483, runs to the north of the site and links Ammanford to the M4.
- 3.16 A review of the safety record of the highway network in the vicinity of the candidate site has been undertaken, and is illustrated in Figure 1.
- 3.17 Over the latest three-year period (2015 to 2017 inclusive) there have been no recorded injury accidents on Tycroes Road near the site's access from Ffordd y Deri, indicating that the existing junction onto Tycroes Road from the Ffordd y Deri residential development operates safely.
- 3.18 There is however a recorded fatal accident at the Tycroes Road / A483 junction. This appears to be an isolated incident and the absence of a cluster of incidents at the junction suggests that it operates safely.

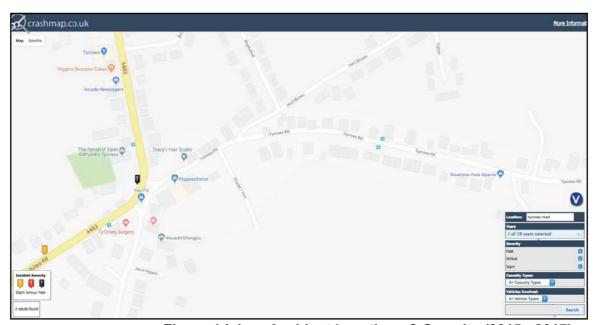


Figure 1 Injury Accident Locations & Severity (2015 - 2017)



#### 4 Proposed Development

4.1 It is considered that the candidate site is possible of delivering approximately 62 residential units.

#### Access

- 4.2 The area indicated in blue on the Location Plan (Appendix 1) illustrates an area that has been awarded outline planning permission for 27 new homes (application S/29469). This area is under the control of the same landowner as the candidate site and therefore provision of the extension of the access required to the adjacent candidate site is available.
- 4.3 The candidate site is to be accessed from Ffordd y Deri which connects the candidate site to Tycroes Road to the north. The approval of the outline permission for 27 homes off Ffordd y Deri confirms the suitability of the Ffordd y Deri / Tycroes Road junction for residential development. Ffordd y Deri benefits from wide footways and street lighting
- 4.4 A safe and appropriate access can therefore be provided to the candidate site.

#### **Trip Generation**

- 4.5 The potential trip generation of the proposed development of the site has been estimated by reference to the TRICS trip rate database, a database of over 7,100 traffic surveys of various types of development throughout the UK and Ireland.
- 4.6 From the TRICS database evidence of the trip rates of developments of privately owned houses (development of between 300 and 900 units) in urban locations (but not town centres or edge of town centres) in mainland Britain (excluding Greater London) have been analysed. Full details are provided as Appendix 3 and summarised below.

# Appendix 3 TRICS Trip Rate Data

	Trip	Rate per Hou	se	Trip Generation (62 Houses)			
Time Range	Arrivals Departures Total			Arrivals	Departures	Total	
Peak Hour AM 08:00-09:00	0.177	0.383	0.56	11	24	35	
Peak Hour PM 16:00-17:00	0.32	0.159	0.479	20	10	30	
Daily	2.315	2.327	4.642	144	144	288	

Table 3 Vehicle Trip Rates & Proposed Development Trip Generation

- 4.7 The TRICS data suggests that the proposed development will generate some 30 and 35 peak hour vehicle movements and around 288 daily vehicle movements.
- 4.8 This represents an increase of less than one additional movement every two minutes. It is unlikely that this level of traffic will cause any significant traffic issues on the surrounding highway network.

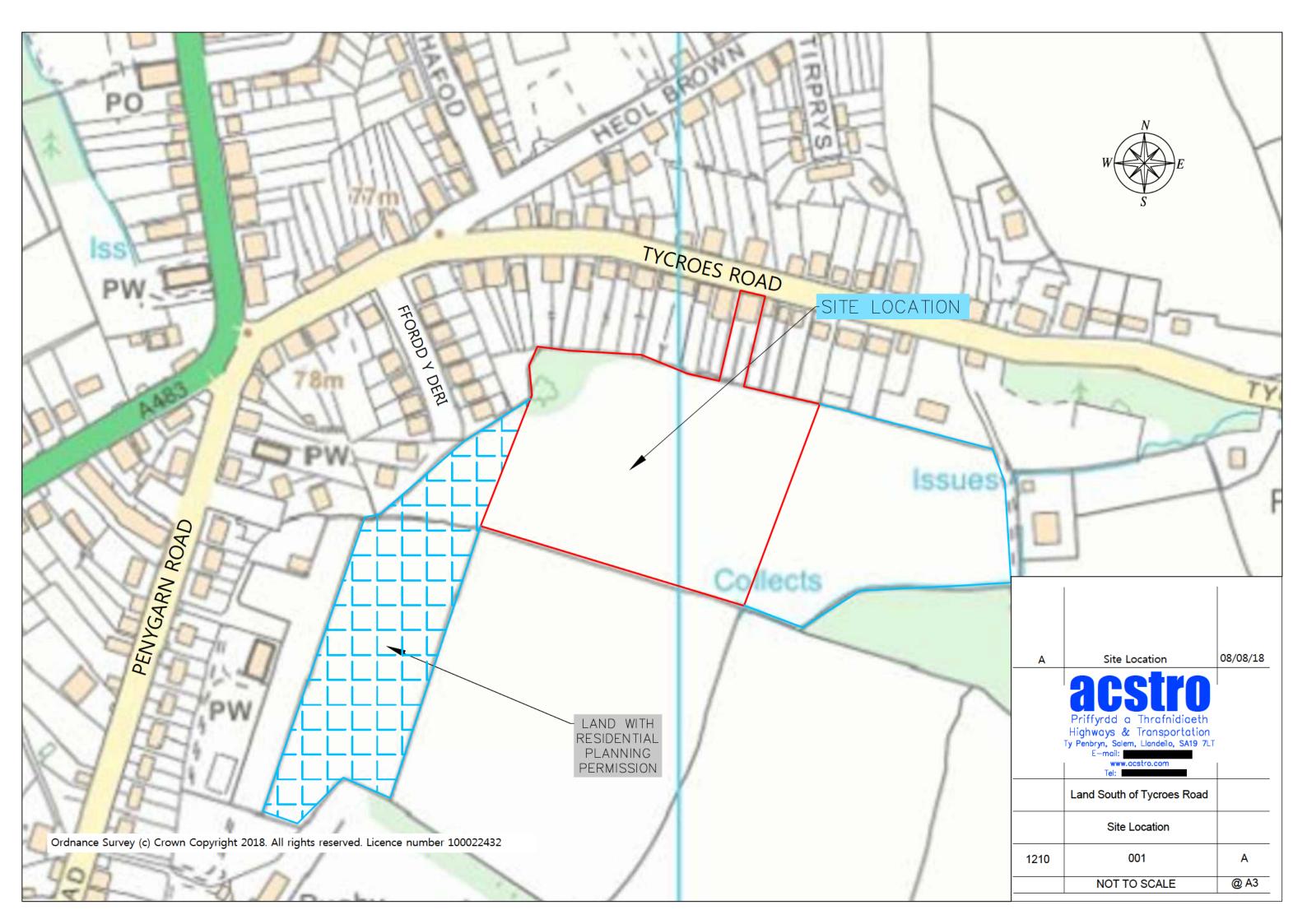


#### 5 Summary & Conclusion

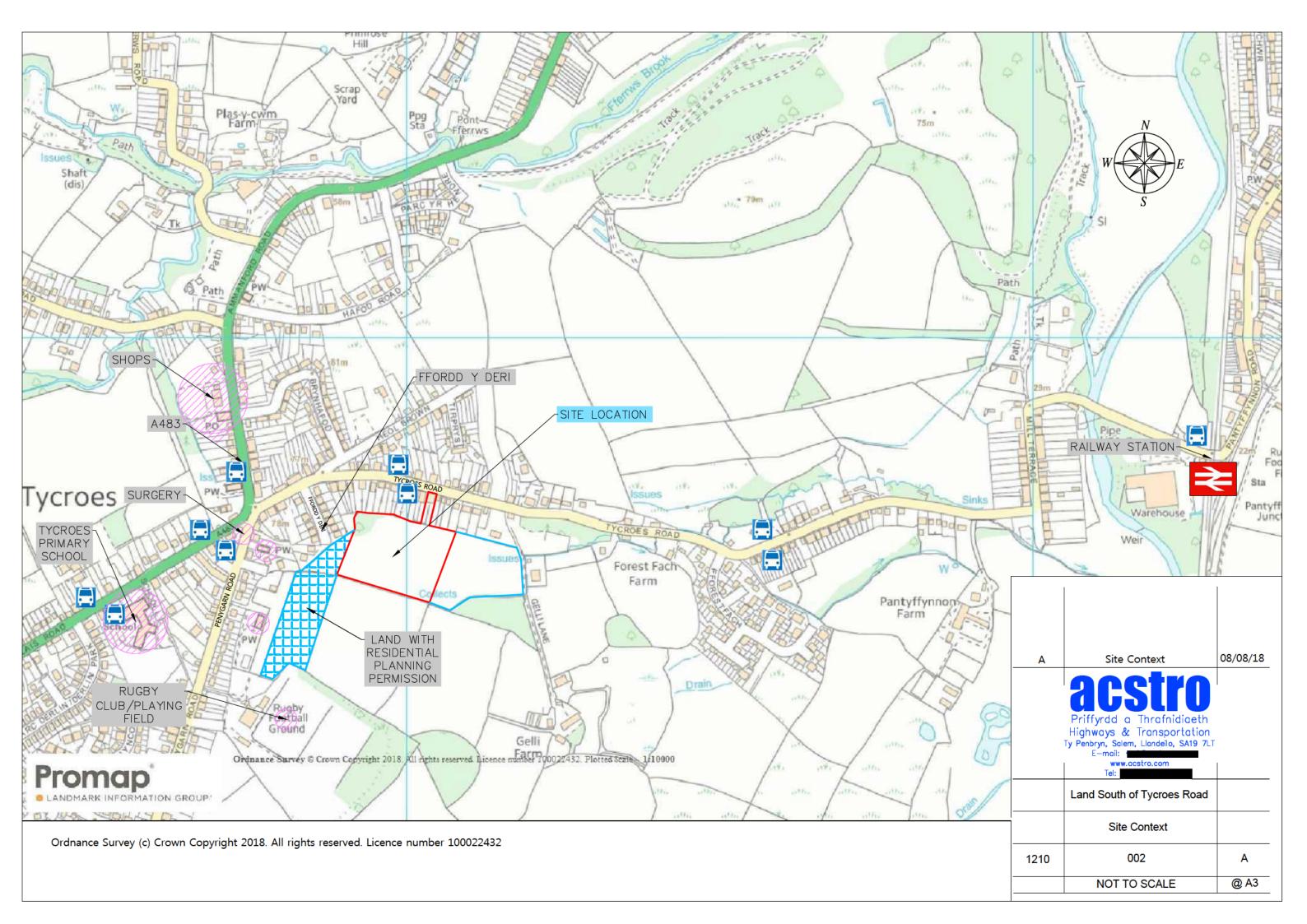
- 5.1 In summary this Transport Statement has demonstrated that:
  - The candidate site's location is closely related to Tycroes' existing settlement and the facilities that it provides:
  - There are a range of everyday services and facilities near to the site offering education, shopping, employment, leisure and social opportunities. These can be accessed from the site by walking, cycling or by public transport.
  - The site is accessible to pedestrians and is connected to the existing footway network.
  - A safe and appropriate access, that meets current design standards, can be provided to the site from Ffordd y Deri.
  - The estimated traffic generation of the proposed development is unlikely to cause significant detrimental impact to the safe operation of the surrounding highway network.
- 5.2 As such it is considered that the candidate site meets planning policy requirements in terms of being in an appropriate location that is safely accessible by all forms of transport and that the impacts of the development on the continued operation and safety of the surrounding highway network would be acceptable.
- 5.3 It is concluded therefore that there are no transport related issues that should prevent the inclusion of this candidate site in Carmarthenshire County Council's Revised Local Development Plan 2018 2033.



# **Appendix 1 Location Plan**



# **Appendix 2 Site Context**



# **Appendix 3 TRICS Trip Rate Data**

Calculation Reference: AUDIT-648801-180426-0401

#### TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL

Category : A - HOUSES PRIVATELY OWNED

Category : VEHICLES

Selected regions and areas:

02	SOUT	H EAST	
	HC	HAMPSHIRE	1 days
	WS	WEST SUSSEX	1 days
03	SOUT	TH WEST	
	DV	DEVON	1 days
	SM	SOMERSET	1 days
04	EAST	ANGLIA	
	NF	NORFOLK	2 days
	SF	SUFFOLK	2 days
06	WEST	「 MI DLANDS	
	SH	SHROPSHIRE	1 days
	WK	WARWICKSHIRE	1 days
07	YORK	SHIRE & NORTH LINCOLNSHIRE	
	NY	NORTH YORKSHIRE	3 days
10	WALE	ES	
	PS	POWYS	1 days
11	SCOT	LAND	
	AG	ANGUS	1 days
	HI	HIGHLAND	1 days
	PK	PERTH & KINROSS	1 days

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

#### Secondary Filtering selection:

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

Parameter: Number of dwellings Actual Range: 7 to 70 (units: ) Range Selected by User: 5 to 100 (units: )

### <u>Public Transport Provision:</u>

Selection by: Include all surveys

Date Range: 01/01/10 to 27/11/17

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

### Selected survey days:

 Monday
 3 days

 Tuesday
 3 days

 Wednesday
 6 days

 Thursday
 4 days

 Friday
 1 days

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

#### Selected survey types:

Manual count 17 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:

Suburban Area (PPS6 Out of Centre) 8
Edge of Town 7
Neighbourhood Centre (PPS6 Local Centre) 2

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

#### Selected Location Sub Categories:

Residential Zone	14
Village	2
No Sub Category	1

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village,

Secondary Filtering selection:

#### Use Class:

C3 17 days

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

# Population within 1 mile:

1,000 or Less	1 days
1,001 to 5,000	3 days
5,001 to 10,000	5 days
10,001 to 15,000	3 days
15,001 to 20,000	4 days
20,001 to 25,000	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	4 days
25,001	to 50,000	8 days
50,001	to 75,000	5 days

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

#### Car ownership within 5 miles:

0.6 to 1.0	5 days
1.1 to 1.5	11 days
1.6 to 2.0	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:

Yes 1 days No 16 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 17 days

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

LIST OF SITES relevant to selection parameters

1 AG-03-A-01 BUNGALOWS/DET. ANGUS

KEPTIE ROAD

ARBROATH

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total Number of dwellings:

Survey date: TUESDAY 22/05/12 Survey Type: MANUAL

2 DV-03-A-03 TERRACED & SEMI DETACHED DEVON

LOWER BRAND LANE

**HONITON** 

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total Number of dwellings: 70

Survey date: MONDAY 28/09/15 Survey Type: MANUAL

3 HC-03-A-19 HOUSES & FLATS HAMPSHIRE

CANADA WAY

LIPHOOK

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total Number of dwellings: 62

Survey date: MŌNDAY 27/11/17 Survey Type: MANUAL

4 HI-03-A-14 SEMI-DETACHED & TERRACED HIGHLAND

KING BRUDE ROAD SCORGUIE

INVERNESS

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total Number of dwellings: 40

Survey date: WEDNESDAY 23/03/16 Survey Type: MANUAL

5 NF-03-A-01 SEMI DET. & BUNGALOWS NORFOLK

YARMOUTH ROAD

CAISTER-ON-SEA

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total Number of dwellings: 27

Survey date: TUESDAY 16/10/12 Survey Type: MANUAL

NF-03-A-03 DETACHED HOUSES NORFOLK

HALING WAY

THETFORD Edge of Town Residential Zone

Total Number of dwellings: 10

Survey date: WEDNESDAY 16/09/15 Survey Type: MANUAL

7 NY-03-A-07 DETACHED & SEMI DET. NORTH YORKSHIRE

CRAVEN WAY

BOROUGHBRIDGE

Edge of Town No Sub Category

Total Number of dwellings: 23

Survey date: TUESDAY 18/10/11 Survey Type: MANUAL

8 NY-03-A-11 PRIVATE HOUSING NORTH YORKSHIRE

HORSEFAIR

BOROUGHBRIDGE

Edge of Town

Residential Zone

Total Number of dwellings: 23

Survey date: WEDNESDAY 18/09/13 Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

9 NY-03-A-13 TERRACED HOUSES NORTH YORKSHIRE

CATTERICK ROAD

OLD HOSPITAL COMPOUND CATTERICK GARRISON

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total Number of dwellings: 10

Survey date: WEDNESDAY 10/05/17 Survey Type: MANUAL 3-A-01 DETAC. & BUNGALOWS PERTH & KINROSS

10 PK-03-A-01 DETAC. & BUNGA TULLYLUMB TERRACE

GORNHILL PERTH

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total Number of dwellings: 36

Survey date: WEDNESDAY 11/05/11 Survey Type: MANUAL

11 PS-03-A-02 DETACHED/SEMI-DETACHED POWYS

GUNROG ROAD

WELSHPOOL

Suburban Area (PPS6 Out of Centre)

Residential Zone

Total Number of dwellings: 28

Survey date: MONDAY 11/05/15 Survey Type: MANUAL

12 SF-03-A-05 DETACHED HOUSES SUFFOLK

VALE LANE

BURY ST EDMUNDS Edge of Town

Residential Zone

Total Number of dwellings: 18

Survey date: WEDNESDAY 09/09/15 Survey Type: MANUAL

13 SF-03-A-06 DETACHED & SEMI-DETACHED SUFFOLK

**BURY ROAD** 

KENTFORD

Neighbourhood Centre (PPS6 Local Centre)

Village

Total Number of dwellings: 38

Survey date: FRIDAY 22/09/17 Survey Type: MANUAL

14 SH-03-A-05 SEMI-DETACHED/TERRACED SHROPSHIRE

SANDCROFT SUTTON HILL TELFORD Edge of Town Residential Zone

Total Number of dwellings: 54

Survey date: THURSDAY 24/10/13 Survey Type: MANUAL

15 SM-03-A-01 DETACHED & SEMI SOMERSET

WEMBDON ROAD NORTHFIELD BRIDGWATER Edge of Town Residential Zone

Total Number of dwellings: 33

Survey date: THURSDAY 24/09/15 Survey Type: MANUAL

16 WK-03-A-02 BUNGALOWS WARWICKSHIRE

NARBERTH WAY POTTERS GREEN COVENTRY Edge of Town Residential Zone

Total Number of dwellings: 17

Survey date: THURSDAY 17/10/13 Survey Type: MANUAL

TRICS 7.5.1 290318 B18.22 Database right of TRICS Consortium Limited, 2018. All rights reserved Thursday 26/04/18 Page 5

Acstro Ltd Salem Llandeilo Licence No: 648801

#### LIST OF SITES relevant to selection parameters (Cont.)

17 WS-03-A-07 BUNGALOWS WEST SUSSEX

EMMS LANE BROOKS GREEN NEAR HORSHAM Neighbourhood Centre (PPS6 Local Centre)

Total Number of dwellings: 57

Survey date: THURSDAY 19/10/17 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.

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

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Range	Days	DWELLS	Rate	Days	DWELLS	Rate	Days	DWELLS	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	17	33	0.092	17	33	0.286	17	33	0.378
08:00 - 09:00	17	33	0.177	17	33	0.383	17	33	0.560
09:00 - 10:00	17	33	0.161	17	33	0.174	17	33	0.335
10:00 - 11:00	17	33	0.136	17	33	0.136	17	33	0.272
11:00 - 12:00	17	33	0.130	17	33	0.161	17	33	0.291
12:00 - 13:00	17	33	0.168	17	33	0.165	17	33	0.333
13:00 - 14:00	17	33	0.148	17	33	0.150	17	33	0.298
14:00 - 15:00	17	33	0.186	17	33	0.213	17	33	0.399
15:00 - 16:00	17	33	0.237	17	33	0.184	17	33	0.421
16:00 - 17:00	17	33	0.307	17	33	0.177	17	33	0.484
17:00 - 18:00	17	33	0.320	17	33	0.159	17	33	0.479
18:00 - 19:00	17	33	0.253	17	33	0.139	17	33	0.392
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.315			2.327			4.642

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.

The survey data, graphs and all associated supporting information, contained within the TRICS Database are published by TRICS Consortium Limited ("the Company") and the Company claims copyright and database rights in this published work. The Company authorises those who possess a current TRICS licence to access the TRICS Database and copy the data contained within the TRICS Database for the licence holders' use only. Any resulting copy must retain all copyrights and other proprietary notices, and any disclaimer contained thereon.

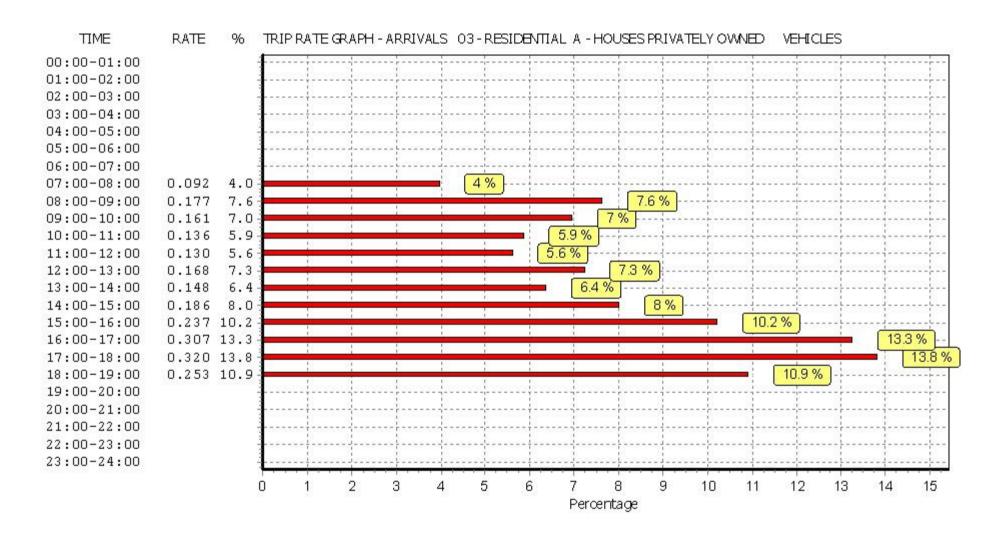
The Company accepts no responsibility for loss which may arise from reliance on data contained in the TRICS Database. [No warranty of any kind, express or implied, is made as to the data contained in the TRICS Database.]

#### Parameter summary

Trip rate parameter range selected: 7 - 70 (units: )
Survey date date range: 01/01/10 - 27/11/17

Number of weekdays (Monday-Friday): 17
Number of Saturdays: 0
Number of Sundays: 0
Surveys automatically removed from selection: 2
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.

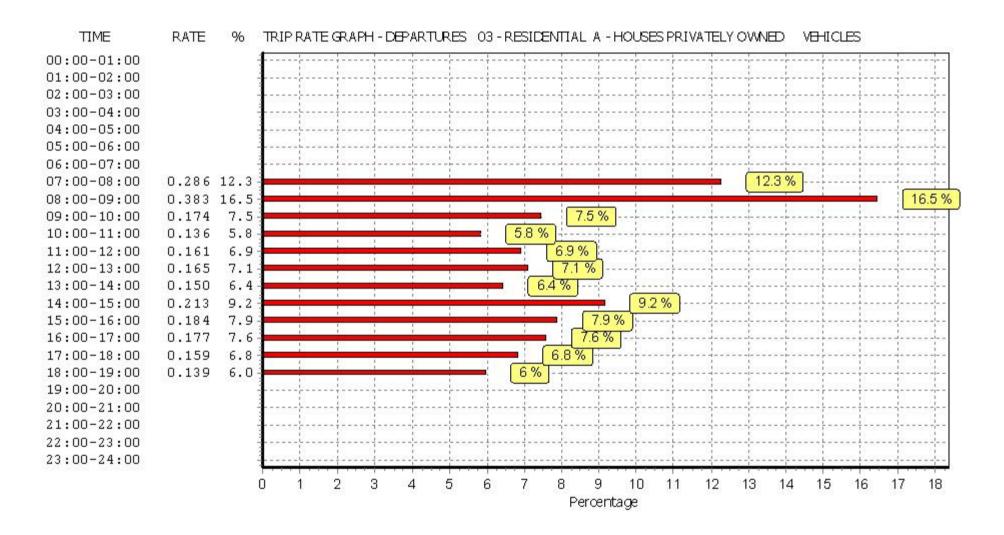


This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

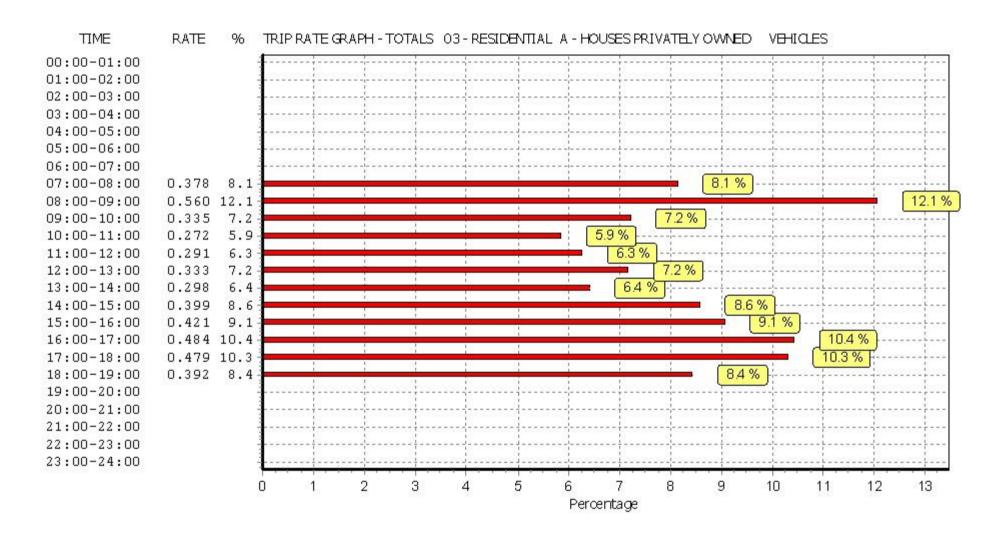
Acstro Ltd

Salem Llandeilo

Licence No: 648801



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.











**Acstro Limited** Ty Penbryn Salem Llandeilo Carmarthenshire **SA197LT** 

W. www.acstro.com

E. T.