



Transport Statement

**Proposed Residential Development,
A5 Llandegai Road, Bangor**

Macbryde Homes Ltd

July 2020

Doc Ref: CT/200376/TS/00

Prepared by: Craig Thomson

Checked by: Peter Todd

Document Revision Control

Revision	Date	Status	Prepared By	Approved By
00	07.07.20	Draft	CT	PT

Colwyn Chambers
19 YorkStreet
Manchester
M2 3BA

T: 0161 832 4400

E: info@scptransport.co.uk
W: www.scptransport.co.uk



This document has been prepared for the titled project or named part thereof and should not be relied upon or used for any other project without an independent check being carried out as to its suitability and prior written authority of SCP being obtained. SCP accepts no responsibility or liability for the consequence of this document being used for a purpose other than the purposes for which it was commissioned. Any person using or relying on the document for such other purposes agrees and will by such use or reliance be taken to confirm his agreement to indemnify SCP for all loss or damage resulting there from. SCP accepts no responsibility or liability for this document to any party other than the person by whom it was commissioned.

CONTENTS

1.0	INTRODUCTION	2
2.0	EXISTING CONDITIONS	3
3.0	PROPOSED DEVELOPMENT	8
4.0	ACCESSIBILITY	10
5.0	TRIP GENERATION	16
6.0	SUMMARY AND CONCLUSIONS	18

APPENDICES

A	SPEED SURVEY DATA
B	PROPOSED SITE LAYOUT
C	SITE ACCESS ARRANGEMENT PLAN
D	SWEPT PATH ANALYSIS
E	TRICS DATA

1.0 INTRODUCTION

General

- 1.1 SCP have been instructed by Macbryde Homes Ltd to produce a Transport Statement (TS) in support of a planning application for a residential development, comprising 67 dwellings, on a plot of land located to the east of the A5 Llandegai Road, Bangor.
- 1.2 This TS provides an assessment of the traffic and transport implications associated with the development proposals to inform Gwynedd Council (GC), as the local highway and planning authority, regarding the nature and magnitude of their impact.
- 1.3 This report concludes that the proposed development of this site is sustainably located and can be accommodated without detriment to the operational capacity or safety of the local highway network.

Structure of This Report

- 1.4 The structure of this report is as follows:-
 - Chapter 2 - describes in detail the site location, local transport network and existing use of the site;
 - Chapter 3 - defines the development proposals including the proposed access, servicing arrangements and parking;
 - Chapter 4 – considers the location of the site with regard to the existing local sustainable transport infrastructure;
 - Chapter 5 – presents estimates of the trip-generating potential of the site along with a summary of the impact of the development on the local highway network; and,
 - Chapter 6 – provides the summary and conclusions to the above chapters.

2.0 EXISTING CONDITIONS

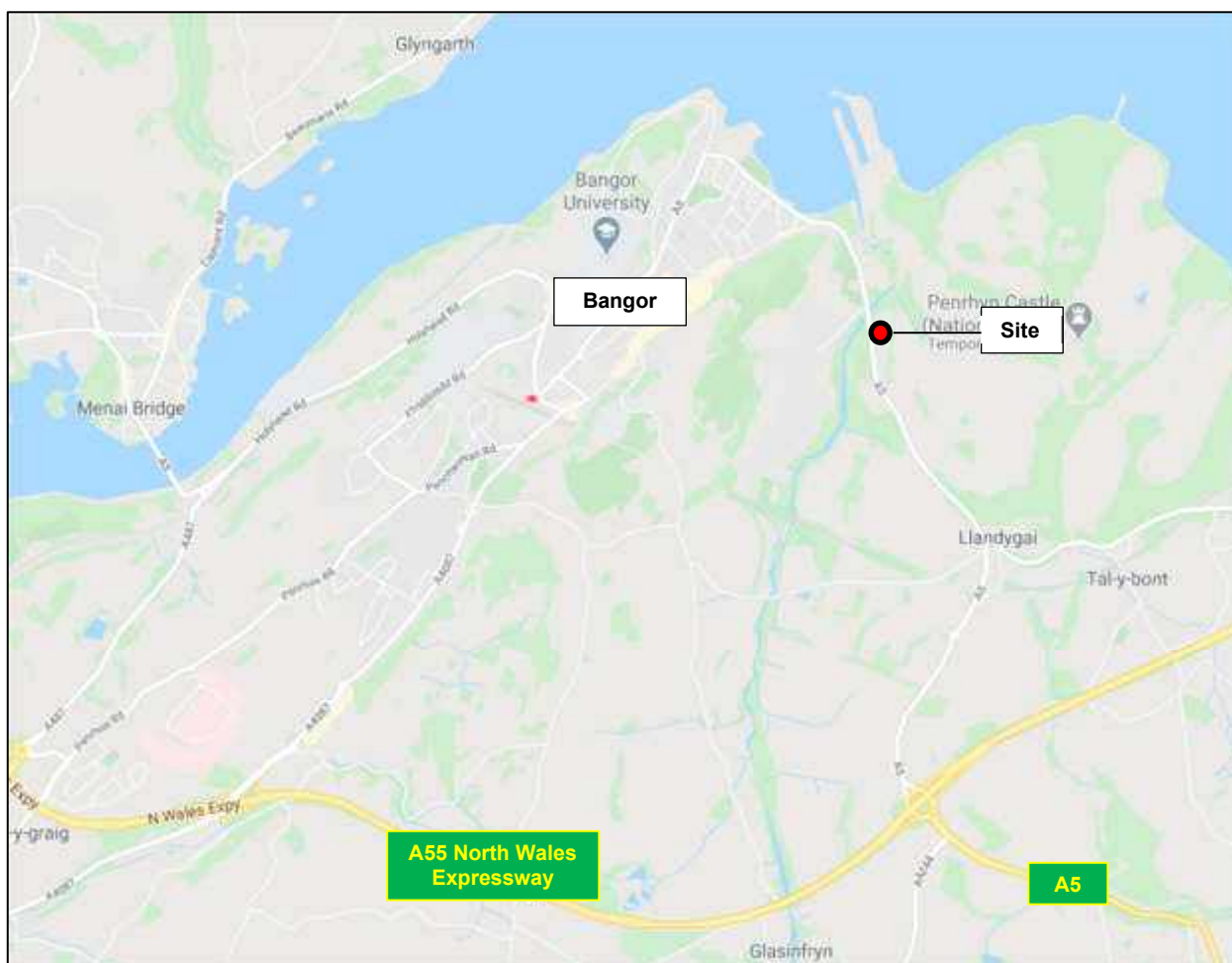
General

2.1 This Chapter provides a detailed description of the location of the site, the local highway network and the road safety record.

Site Location

2.2 The application site is located to the east of the A5 Llandegai Road, approximately 1km south-east of Bangor city centre. **Figure 2.1** below shows the site location in relation to the wider highway network.

Figure 2.1 – Site Location Plan – Wider View



2.3 The site boundary is shown in relation to the local highway network in red on **Figure 2.2** below.

Figure 2.2 – Site Location Plan – Local View



- 2.4 The application site comprises approximately 6 acres of undeveloped land and is bounded by woodland and the River Afon Cegin to the north, two residential cottages and undeveloped land to the east and the A5 Llandegai Road to the south and west.
- 2.5 The application site is currently accessed via a single-track private access road off the A5 Llandegai Road, to the north-west of the site, as shown on **Figure 2.3** below. The access takes the form of a gated dropped-kerb access which also serves the two residential cottages to the east of the site. Whilst the private access road only serves limited development, the narrow width of the access creates the potential for vehicles to stop/reverse on the highway in the event of two vehicles meeting at the access.

Figure 2.3 – Existing Private Drive Access off the A5 Llandegai Road



Local Highway Network

A5 Llandegai Road

- 2.6 The A5 Llandegai Road fronts the western site boundary and locally connects the A55 North Wales Expressway Junction 11, to the south, with the A5 Llandegai Road/A5 Beach Road/High Street junction, located to the north of the site in Bangor. The A5 Llandegai Road is subject to a 40mph speed limit in the vicinity of the site which changes to a 30mph speed limit approximately 50m north of the existing site access.
- 2.7 The carriageway width of the A5 Llandegai Road varies, however, in the vicinity of the existing site access the carriageway measures between 10m and 11m, which includes the southern taper of the right-turn lane into Penhyn Avenue, located to the north of the site. In the vicinity of the site, the A5 Llandegai Road benefits from regularly spaced street lighting columns as well as a footway on both sides of the carriageway, with the western footway separated from the carriageway by a grass verge.

- 2.8 There is a bus stop located on both sides of the A5 Llandegai Road, approximately 140m (southbound services) and 170m (northbound services) to the north of the existing site access. In addition, there is a pedestrian refuge island located approximately 100m north of the existing site access to aid pedestrians across and improve pedestrian safety.
- 2.9 A radar speed survey was undertaken in both directions in the vicinity of the site access on the A5 Llandegai Road, on 24th June 2020, in order to determine the required visibility splays from the access off the A5 Llandegai Road, as detailed later.
- 2.10 The radar speed survey data is included at **Appendix A** which confirms that the 85th percentile design speed of the A5 Llandegai Road on the approaches to the site access location is as follows:-

85 th percentile Design Speed of the A5 Llandegai Road in Vicinity of the Site Access	
Northbound	38.9mph
Southbound	38.4mph

Existing Road Safety Record

- 2.11 In order to identify critical locations on the network with a poor accident record, the personal injury accident data has been obtained from the online resource CrashMap for the most recently available approx. 5-year period, ending 4th October 2019. The location and severity of any accidents within the study area during this period, are shown in **Figure 2.4** below.

Figure 2.4 – Road Safety Record



- 2.12 The analysis shows that a total of three accidents have been recorded in the study area during the 5-year study period, of which, 1 resulted in 'serious' severity injuries and two resulted in 'slight' severity injuries.
- 2.13 One 'slight' accident occurred in 2015 on the A5 Llandegai Road, approximately 250m south of the existing site access, and the remaining two accidents took place at the A5 Llandegai Road/Penrhyn Avenue junction in 2017 and 2018. Three accidents (average of 0.6 accidents per year) over a five-year period is not considered to be an unusual frequency for this section/type of road.
- 2.14 The evidence presented above and illustrated in **Figure 2.4** suggests that the area in the vicinity of the site does not have any recurring highway safety problems that could be affected by the development proposals.

3.1 PROPOSED DEVELOPMENT

General

- 3.1 The development proposals consist of the construction of a residential development, comprising 67 dwellings, on a plot of land located to the east of the A5 Llandegai Road, Bangor.
- 3.2 The proposed site layout plan is contained in **Appendix B** and the proposed accommodation schedule is as follows:
- 21 no. 2-bed dwellings;
 - 26 no. 3-bed dwellings; and,
 - 20 no. 4-bed dwellings

Proposed Access Arrangements

- 3.3 Vehicular access to the development will be provided at the location of the existing site access, although it will be significantly upgraded to a ghost island right-turn lane junction as part of the development proposals, as shown on Drawing Number SCP/200376/F01 Rev A, presented in **Appendix C**. The proposed access road has been designed to provide a 5.5m wide carriageway, with 10m radii and 2m footways on both sides, and the ghost island right-turn lane has been designed in accordance with guidance in CD 123, with 3.5m northbound and southbound running lanes and a 3.0m wide right-turn lane.
- 3.4 As detailed earlier, a radar speed survey was undertaken in order to determine the required visibility splays from the access off the A5 Llandegai Road. The required visibility splays were calculated based on guidance in TAN18, based on the previously mentioned recorded 85th percentile speeds, and the required level of junction visibility was confirmed as 2.4m x 97m in the non-leading direction and 2.4m x 94m in the leading direction.
- 3.5 Drawing number SCP/200376/F01 Rev A, presented in **Appendix C**, demonstrates that the required visibility splays, based on the recorded speeds, are achievable in both directions.
- 3.6 Pedestrian access to the site will be provided via the proposed site access and an additional pedestrian access is provided onto the A5 Llandegai Road to the south of the site.

Servicing and Internal Site Layout

- 3.7 The internal road layout comprises a formal 5.5m wide access road, with 2m wide footways on both sides, which connects to more minor 4.8m wide residential roads and private driveways. The access route to the two existing cottages will be maintained through the site, albeit following a different alignment, although it has been significantly upgraded in terms of geometries.
- 3.8 The internal road network has been designed to ensure the movements of a refuse vehicle can be accommodated without allowing their requirements to dominate the layout. Swept path analysis has been undertaken of the site access and internal road layout, which demonstrates that the movements of a refuse vehicle can be accommodated within the site. Swept path analysis is shown on drawing number SCP/200376/SK01 presented in **Appendix D**.

Parking

- 3.9 Gwynedd Council do not currently have their own local parking standards, however, they have confirmed that their parking requirements are currently assessed against the CSS Wales Parking Standards which outlines a requirement for a maximum of 1 space per bedroom (maximum of 3 spaces) as well as 1 visitor parking space per 5 dwellings.
- 3.10 As shown on the site layout plan contained in **Appendix B**, 2 to 3 parking spaces are provided per dwelling which is in accordance with the maximum parking standards currently adopted by the Council.

ACCESSIBILITY

General

- 4.1 This Chapter presents a review of the accessibility of the site by walking, cycling and public transport modes.
- 4.2 The accessibility of the site by non-car modes has been assessed by comparison with the following threshold distances, as set out by Andrew Davies AM ‘Minister for Economic Development and Transport’ in his foreword to the 2003 “*Walking and Cycling Strategy for Wales*” document:

Table 4.1 – Walk / Cycle Distance Thresholds

Threshold Distance	Significance	Reference
1 mile	Walking can offer viable and attractive alternatives [to car trips]	Walking and Cycling Strategy for Wales
5 miles	Cycling can offer viable and attractive alternatives [to car trips]	Walking and Cycling Strategy for Wales

Pedestrian Accessibility

- 4.3 The proposed development site is located approximately 1 mile (walk distance) from Bangor city centre. As part of the development proposals, a 2m footway is proposed on both sides of the access which connects to the existing pedestrian infrastructure on the A5 Llandegai Road to the north of the site. In addition, a pedestrian access is provided onto the A5 Llandegai Road to the south of the site.
- 4.4 The local area is generally conducive to pedestrian trips from the site as the main walk route into Bangor benefits from continuous footways, regularly spaced street lighting columns and dropped kerbs and tactile paving at the majority of junctions. Furthermore, there is a pedestrian refuge island located approximately 100m north of the proposed site access to aid pedestrians across the A5 Llandegai Road and improve pedestrian safety.

4.5 The pedestrian accessibility of the development has been modelled using the Geographical Information System (GIS) software TRACC to produce isochrone mapping figures. The purpose of the isochrones is to demonstrate the areas within an acceptable walking distance of 1 mile of the site. The areas located within 1-mile walking distance of the site are shown below on **Figure 4.1**.

Figure 4.1 – Walk Accessibility



4.6 **Figure 4.1** demonstrates that the site is within acceptable walking distance of Bangor and the numerous facilities Bangor has on offer including transport links, education establishments, health care facilities, food stores and employment opportunities.

4.7 **Table 4.2** below identifies a selection of key facilities located within the immediate vicinity of the site.

Table 4.2 – Local Facilities

Facility	Details	Distance from Site (Miles)
Bus Stop	A5 Llandegai Road	<0.1
Primary School	Ysgol Glancegin Primary School	0.4
Pharmacy	Rowlands Pharmacy, Glynne Road	0.8
Doctors	Bron Derw Medical Centre	0.8
Bank/ATM	HSBC, High Street	0.9
Supermarket	Aldi, Deiniol Road	1.0
Shopping Centre	Deiniol Shopping Centre, Bangor	1.0
Post Office	Post Office, High Street	1.0

Cycle Accessibility

- 4.8 The Walking and Cycling Strategy for Wales identifies that “*Cycling can offer viable and attractive alternatives*” for short trips and as a substitute for shorter car journeys.
- 4.9 TRACC software has been used to assess the accessibility of the development by bicycle from the site. Isochrones illustrating the areas which lie within 5 miles of the site can be seen on the **Figure 4.2** below.

Figure 4.2 – Cycle Accessibility



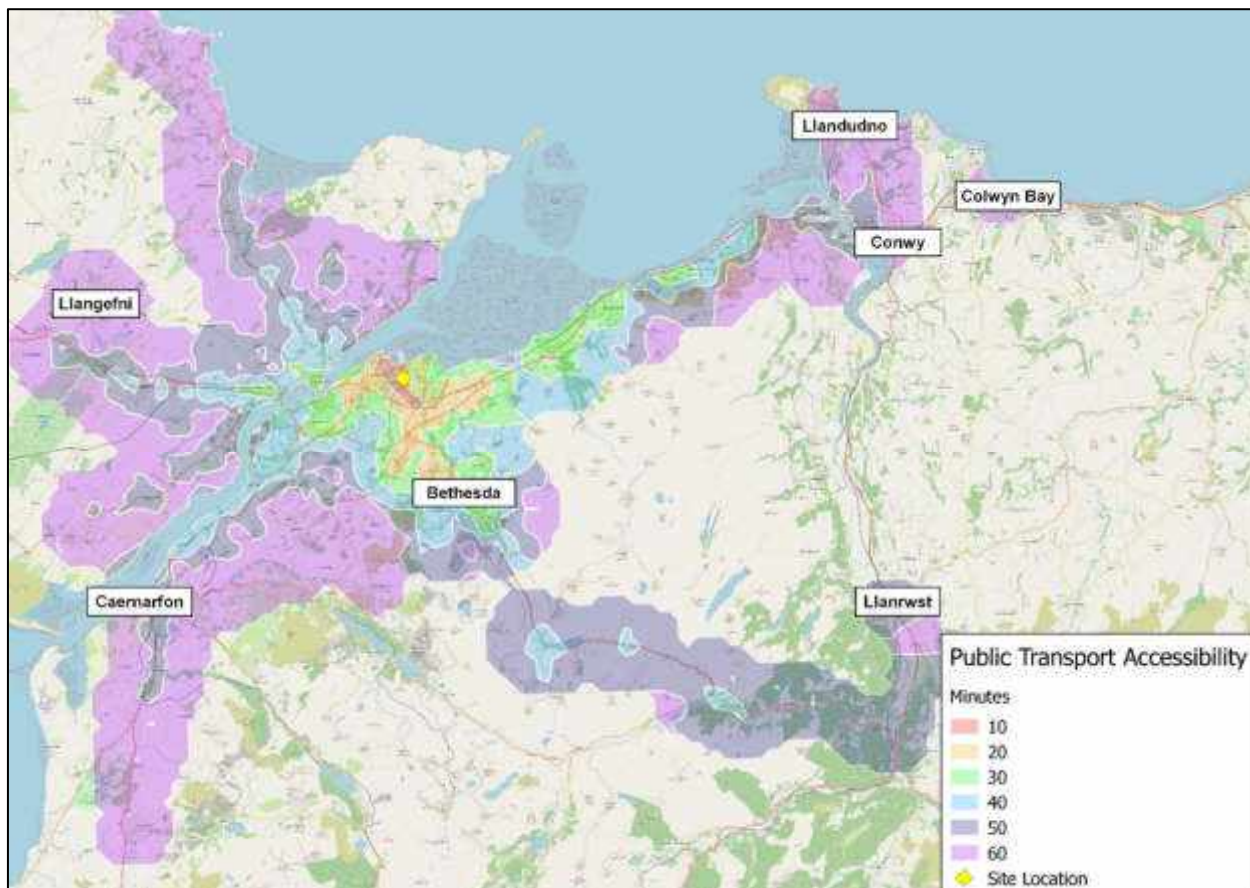
4.10 **Figure 4.2** demonstrates that, Bangor, Bethesda and Menai Bridge, amongst others, are all within an acceptable 5-mile cycle distance from the site.

4.11 **Figure 4.2** also shows the sites proximity to National Cycle Route 82 and 5. National Cycle Route 82 will run between Bangor to Fishguard (when complete) and National Cycle Route 5 is located to the north and south of the site and runs along the coast of North Wales, locally connecting Bangor to Conwy.

Public Transport

- 4.12 There is a bus stop located on both sides of the A5 Llandegai Road, approximately 140m (southbound services) and 170m (northbound services) to the north of the proposed site access. These bus stops are served by numerous bus services which provide frequent services, seven days a week (in combination), to numerous locations including Bangor city centre, Conwy, Betws-y-Coed, Penmorfa West Shore, Tal-y-bont, and Llandudno, amongst others. In addition, the bus services terminate at Bangor Bus Station which provides numerous additional bus services and therefore, prospective residents of the site will have access to bus services stopping close to the site which provide access to key destinations at a high combined frequency.
- 4.13 In terms of rail, Bangor Railway Station is located approximately 1.6 miles from the site and is therefore well within an acceptable cycle distance. Furthermore, Bangor Railway Station is easily accessible by bus for prospective residents and provides frequent direct services to Crewe, Conwy, Llandudno Junction, Chester, and Holyhead, amongst others.
- 4.14 The level of accessibility by public transport has been analysed using GIS TRACC software to assess the accessibility of the site and is shown on **Figure 4.3** below. The figure illustrates the distance that can be travelled within 60 minutes by public transport to and from the site, which includes the time taken to walk to the bus stops.

Figure 4.3 – 60-minute Public Transport Accessibility



4.15 **Figure 4.3** demonstrates that Bangor, Conwy, Colwyn Bay, Llandudno, Llanrwst and Caernarfon, amongst others, are located within an acceptable 60-minute commute time.

Summary

4.16 Overall, the site is considered to be in an accessible location with good potential for use of sustainable transport modes and has a large range of local amenities within close proximity. Access to the site on foot and by cycle is of a good standard and there are multiple public transport connections within close proximity, including opportunities to travel via bus as well as train, providing access to a range of local destinations/facilities. These findings demonstrate that future residents will not be wholly reliant on the private car to travel for employment, education, leisure and retail purposes.

TRIP GENERATION

5.1 This Chapter provides an estimate of the trips generated by the proposed development during the weekday AM and PM peak hours.

Proposed Residential Development Trip Generation

5.2 In order to estimate the trip generating potential of the proposed development, average trip rates from the industry-standard TRICS Database (V7.7.1) have been obtained. The selection criteria for the TRICS based trip rates is as follows:-

- Residential;
- Houses Privately Owned;
- Multi modal surveys;
- Sites in Greater London, Ireland excluded;
- Selection by number of dwellings (30-140);
- Weekday surveys only; and
- Only sites in ‘Edge of Town’ locations have been selected.

5.3 The multi modal TRICS outputs for the proposed residential development are presented in **Appendix E** and are summarised in **Table 5.1** below:-

Table 5.1 - Estimated Trip Rates (Per Dwelling) Associated with the Proposed Development				
Mode	Weekday AM Peak Hour		Weekday PM Peak Hour	
	Arrivals	Departures	Arrivals	Departures
Vehicles	0.128	0.340	0.293	0.128
Cycles	0.010	0.017	0.012	0.006
Pedestrians	0.044	0.095	0.069	0.043
Pub. Trans.	0.000	0.038	0.017	0.003

5.4 The estimated trip generation associated with the proposed 67 dwellings is therefore as summarised in **Table 5.2** below:-

Table 5.2 – Estimated Trip Generation – 67 Dwellings

Mode	Weekday AM Peak Hour		Weekday PM Peak Hour	
	Arrivals	Departures	Arrivals	Departures
Vehicles	9	23	20	9
Cycles	1	1	1	0
Pedestrians	3	6	5	3
Pub. Trans.	0	3	1	0

- 5.5 As detailed above, it is estimated that the scheme will generate a total of 32 two-way vehicle movements in the AM peak hour and 29 two-way vehicle movements in the PM peak hour. Volumetrically, this equates to around 1 additional vehicle movement every 2 minutes or so in the AM and PM peak hours, which will reduce further when distributed on the local highway network. The effect of this additional traffic on the local highway network will be barely perceptible during the peak hours and less so outside of the peak periods.
- 5.6 Having regard to the above, it is therefore considered that no further detailed assessment of the local highway network is required and that the traffic impact of the scheme is acceptable in planning terms.

6.0 SUMMARY AND CONCLUSIONS

- 6.1 SCP have been appointed by Macbryde Homes Ltd to produce a Transport Statement in support of a planning application for a residential development, comprising 67 dwellings, on a plot of land located to the east of the A5 Llandegai Road, Bangor.
- 6.2 Vehicular access to the development will be provided at the location of the existing site access, although it will be significantly upgraded to a ghost island right-turn lane junction as part of the development proposals. The proposed access road has been designed to provide a 5.5m wide carriageway, with 10m radii and 2m footways on both sides, and the ghost island right-turn lane has been designed in accordance with guidance in CD 123, with 3.5m northbound and southbound running lanes and a 3.0m wide right-turn lane. Pedestrian access to the site will be provided via the proposed site access and an additional pedestrian access is provided onto the A5 Llandegai Road to the south of the site.
- 6.3 The personal injury accident data for the most recently available five-year period has been reviewed and does not represent a material concern in the context of the proposed development.
- 6.4 It has been demonstrated that Bangor city centre, and the array of amenities the city of Bangor has to offer, can be accessed from the site by sustainable modes of transport providing opportunities for shopping, leisure, education and healthcare for prospective residents.
- 6.5 It is estimated that the scheme will generate a total of 32 two-way vehicle movements in the AM peak hour and 29 two-way vehicle movements in the PM peak hour. Volumetrically, this equates to around 1 additional vehicle movement every 2 minutes or so in the AM and PM peak hours at the site access, which will reduce further when distributed on the local highway network. The effect of this additional traffic on the local highway network will be barely perceptible during the peak hours and will not have a material impact on the operation of the local highway network.
- 6.6 Having regard to the analysis presented in this TS, it is considered that there should be no highway related reason to withhold planning permission and the scheme is therefore commended for approval.

S|C|P

APPENDIX A

Speed (mph)	Frequency	
x	f	f*x
7	0	0
8	0	0
9	0	0
10	0	0
11	0	0
12	0	0
13	0	0
14	0	0
15	0	0
16	0	0
17	0	0
18	0	0
19	0	0
20	1	20
21	0	0
22	1	22
23	0	0
24	0	0
25	0	0
26	1	26
27	5	135
28	3	84
29	9	261
30	9	270
31	5	155
32	15	480
33	20	660
34	19	646
35	16	560
36	23	828
37	20	740
38	21	798
39	8	312
40	8	320
41	13	533
42	1	42
43	0	0
44	0	0
45	1	45
46	0	0
47	0	0
48	1	48
49	0	0
50	0	0
51	0	0
52	0	0
53	0	0
54	0	0
55	0	0
56	0	0
57	0	0
58	0	0
59	0	0
60	0	0
61	0	0
62	0	0
63	0	0
64	0	0
65	0	0
66	0	0
67	0	0
68	0	0
69	0	0
70	0	0
71	0	0
72	0	0
Total	200	6985

Speed (mph)	Frequency	Class Mark	x - mean	
Band	f	x	e	e*f
6.5-7.4	0	7	779.81	0.00
7.5-8.4	0	8	724.96	0.00
8.5-9.4	0	9	672.11	0.00
9.5-10.4	0	10	621.26	0.00
10.5-11.4	0	11	572.41	0.00
11.5-12.4	0	12	525.56	0.00
12.5-13.4	0	13	480.71	0.00
13.5-14.4	0	14	437.86	0.00
14.5-15.4	0	15	397.01	0.00
15.5-16.4	0	16	358.16	0.00
16.5-17.4	0	17	321.31	0.00
17.5-18.4	0	18	286.46	0.00
18.5-19.4	0	19	253.61	0.00
19.5-20.4	1	20	222.76	222.76
20.5-21.4	0	21	193.91	0.00
21.5-22.4	1	22	167.06	167.06
22.5-23.4	0	23	142.21	0.00
23.5-24.4	0	24	119.36	0.00
24.5-25.4	0	25	98.51	0.00
25.5-26.4	1	26	79.66	79.66
26.5-27.4	5	27	62.81	314.03
27.5-28.4	3	28	47.96	143.87
28.5-29.4	9	29	35.11	315.95
29.5-30.4	9	30	24.26	218.30
30.5-31.4	5	31	15.41	77.03
31.5-32.4	15	32	8.56	128.33
32.5-33.4	20	33	3.71	74.11
33.5-34.4	19	34	0.86	16.26
34.5-35.4	16	35	0.01	0.09
35.5-36.4	23	36	1.16	26.58
36.5-37.4	20	37	4.31	86.11
37.5-38.4	21	38	9.46	198.57
38.5-39.4	8	39	16.61	132.85
39.5-40.4	8	40	25.76	206.05
40.5-41.4	13	41	36.91	479.77
41.5-42.4	1	42	50.06	50.06
42.5-43.4	0	43	65.21	0.00
43.5-44.4	0	44	82.36	0.00
44.5-45.4	1	45	101.51	101.51
45.5-46.4	0	46	122.66	0.00
46.5-47.4	0	47	145.81	0.00
47.5-48.4	1	48	170.96	170.96
48.5-49.4	0	49	198.11	0.00
49.5-50.4	0	50	227.26	0.00
50.5-51.4	0	51	258.41	0.00
51.5-52.4	0	52	291.56	0.00
52.5-53.4	0	53	326.71	0.00
53.5-54.4	0	54	363.86	0.00
54.5-55.4	0	55	403.01	0.00
55.5-56.4	0	56	444.16	0.00
56.5-57.4	0	57	487.31	0.00
57.5-58.4	0	58	532.46	0.00
58.5-59.4	0	59	579.61	0.00
59.5-60.4	0	60	628.76	0.00
60.5-61.4	0	61	679.91	0.00
61.5-62.4	0	62	733.06	0.00
62.5-63.4	0	63	788.21	0.00
63.5-64.4	0	64	845.36	0.00
64.5-65.4	0	65	904.51	0.00
65.5-66.4	0	66	965.66	0.00
66.5-67.4	0	67	1028.81	0.00
67.5-68.4	0	68	1093.96	0.00
68.5-69.4	0	69	1161.11	0.00
69.5-70.4	0	70	1230.26	0.00
70.5-71.4	0	71	1301.41	0.00
71.5-72.4	0	72	1374.56	0.00
Total	200			3209.88

Survey Details

Date: 24/06/2020
Road / Location: LLANDEGAI ROAD
Direction of traffic: Northbound
Weather: Dry
Surveyor: Traffic Sense
Speed Limit (mph): 40

DMRB - TA22/81 Calculations

Mean Speed = sum (f*x)/x 34.93 mph
Standard deviation = SQRT(sum(e*f))/sum(f) 4.02 mph

Dry 85th%ile Design Speed = Mean Speed + Standard Deviation
Wet 85th%ile Design Speed Correction = +2.5mph

**Therefore, the 85th%ile Wet Condition = 38.94 mph
or
62.66 kph**

Speed Survey Analysis - Northbound

Proposed Development - A5 Llandegai Road, Bangor



03/07/2020

Job Number - SCP/200376

APPENDIX A

Speed (mph)	Frequency	
x	f	f*x
7	0	0
8	0	0
9	0	0
10	0	0
11	0	0
12	0	0
13	0	0
14	0	0
15	0	0
16	0	0
17	0	0
18	4	72
19	1	19
20	4	80
21	1	21
22	5	110
23	2	46
24	6	144
25	2	50
26	5	130
27	6	162
28	6	168
29	10	290
30	12	360
31	16	496
32	12	384
33	17	561
34	14	476
35	11	385
36	13	468
37	9	333
38	20	760
39	5	195
40	7	280
41	2	82
42	3	126
43	2	86
44	3	132
45	1	45
46	1	46
47	0	0
48	0	0
49	0	0
50	0	0
51	0	0
52	0	0
53	0	0
54	0	0
55	0	0
56	0	0
57	0	0
58	0	0
59	0	0
60	0	0
61	0	0
62	0	0
63	0	0
64	0	0
65	0	0
66	0	0
67	0	0
68	0	0
69	0	0
70	0	0
71	0	0
72	0	0
Total	200	6507

Speed (mph)	Frequency	Class Mark	x - mean	
Band	f	x	e	e*f
6.5-7.4	0	7	652.04	0.00
7.5-8.4	0	8	601.97	0.00
8.5-9.4	0	9	553.90	0.00
9.5-10.4	0	10	507.83	0.00
10.5-11.4	0	11	463.76	0.00
11.5-12.4	0	12	421.69	0.00
12.5-13.4	0	13	381.62	0.00
13.5-14.4	0	14	343.55	0.00
14.5-15.4	0	15	307.48	0.00
15.5-16.4	0	16	273.41	0.00
16.5-17.4	0	17	241.34	0.00
17.5-18.4	4	18	211.27	845.06
18.5-19.4	1	19	183.20	183.20
19.5-20.4	4	20	157.13	628.50
20.5-21.4	1	21	133.06	133.06
21.5-22.4	5	22	110.99	554.93
22.5-23.4	2	23	90.92	181.83
23.5-24.4	6	24	72.85	437.08
24.5-25.4	2	25	56.78	113.55
25.5-26.4	5	26	42.71	213.53
26.5-27.4	6	27	30.64	183.82
27.5-28.4	6	28	20.57	123.40
28.5-29.4	10	29	12.50	124.96
29.5-30.4	12	30	6.43	77.11
30.5-31.4	16	31	2.36	37.70
31.5-32.4	12	32	0.29	3.43
32.5-33.4	17	33	0.22	3.68
33.5-34.4	14	34	2.15	30.05
34.5-35.4	11	35	6.08	66.84
35.5-36.4	13	36	12.01	156.08
36.5-37.4	9	37	19.94	179.43
37.5-38.4	20	38	29.87	597.32
38.5-39.4	5	39	41.80	208.98
39.5-40.4	7	40	55.73	390.08
40.5-41.4	2	41	71.66	143.31
41.5-42.4	3	42	89.59	268.76
42.5-43.4	2	43	109.52	219.03
43.5-44.4	3	44	131.45	394.34
44.5-45.4	1	45	155.38	155.38
45.5-46.4	1	46	181.31	181.31
46.5-47.4	0	47	209.24	0.00
47.5-48.4	0	48	239.17	0.00
48.5-49.4	0	49	271.10	0.00
49.5-50.4	0	50	305.03	0.00
50.5-51.4	0	51	340.96	0.00
51.5-52.4	0	52	378.89	0.00
52.5-53.4	0	53	418.82	0.00
53.5-54.4	0	54	460.75	0.00
54.5-55.4	0	55	504.68	0.00
55.5-56.4	0	56	550.61	0.00
56.5-57.4	0	57	598.54	0.00
57.5-58.4	0	58	648.47	0.00
58.5-59.4	0	59	700.40	0.00
59.5-60.4	0	60	754.33	0.00
60.5-61.4	0	61	810.26	0.00
61.5-62.4	0	62	868.19	0.00
62.5-63.4	0	63	928.12	0.00
63.5-64.4	0	64	990.05	0.00
64.5-65.4	0	65	1053.98	0.00
65.5-66.4	0	66	1119.91	0.00
66.5-67.4	0	67	1187.84	0.00
67.5-68.4	0	68	1257.77	0.00
68.5-69.4	0	69	1329.70	0.00
69.5-70.4	0	70	1403.63	0.00
70.5-71.4	0	71	1479.56	0.00
71.5-72.4	0	72	1557.49	0.00
Total	200			6835.76

Survey Details

Date: 24/06/2020
Road / Location: LLANDEGAI ROAD
Direction of traffic: Southbound
Weather: Dry
Surveyor: Traffic Sense
Speed Limit (mph): 40

DMRB - TA22/81 Calculations

Mean Speed = sum (f*x)/x 32.54 mph
Standard deviation = SQRT(sum(e*f))/sum(f) 5.86 mph

Dry 85th%ile Design Speed = Mean Speed + Standard Deviation
Wet 85th%ile Design Speed Correction = +2.5mph

**Therefore, the 85th%ile Wet Condition = 38.40 mph
or
61.78 kph**

Speed Survey Analysis - Southbound

Proposed Development - A5 Llandegai Road, Bangor



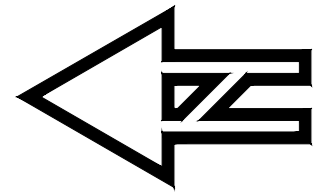
03/07/2020

Job Number - SCP/200376

APPENDIX A

S|C|P

APPENDIX B



Key:

- Site Boundary
- 1.8m high boundary fence
- 1.8m high screen wall / fence
- Private Drive
- - - Visibility Splays - 2.4x59m to Site Entrance
- Indicative Landscaping
- Number of parking spaces proposed to Semi-Detached and Detached Dwellings in accordance with Gwynedd's Parking Standards
- Parking space allocation to Frontage Parking Dwellings
- Kerbs rails to parking bays to Terraced House types
- * Affordable Housing
- Existing retained hedges/landscaping

Rev: Description: Date:

A: General mix & layout amends. 18/03/20

B: Pump Station added 09/06/20

C: Additional Unit added 12/06/20

SCHEDULE OF ACCOMMODATION

NO.	DESCRIPTION	NO. OF UNITS	PERCENTAGE
1	1/2 Detached	2	1.5%
2	2/3 Detached	4	3.0%
3	2 Bed Semi-Detached	10	7.5%
4	3 Bed Semi-Detached	10	7.5%
5	3 Bed Detached	10	7.5%
6	3 Bed Detached	10	7.5%
7	3 Bed Detached	10	7.5%
8	3 Bed Detached	10	7.5%
9	3 Bed Detached	10	7.5%
10	3 Bed Detached	10	7.5%
11	3 Bed Detached	10	7.5%
12	3 Bed Detached	10	7.5%
13	3 Bed Detached	10	7.5%
14	3 Bed Detached	10	7.5%
15	3 Bed Detached	10	7.5%
16	3 Bed Detached	10	7.5%
17	3 Bed Detached	10	7.5%
18	3 Bed Detached	10	7.5%
19	3 Bed Detached	10	7.5%
20	3 Bed Detached	10	7.5%
21	3 Bed Detached	10	7.5%
22	3 Bed Detached	10	7.5%
23	3 Bed Detached	10	7.5%
24	3 Bed Detached	10	7.5%
25	3 Bed Detached	10	7.5%
26	3 Bed Detached	10	7.5%
27	3 Bed Detached	10	7.5%
28	3 Bed Detached	10	7.5%
29	3 Bed Detached	10	7.5%
30	3 Bed Detached	10	7.5%
31	3 Bed Detached	10	7.5%
32	3 Bed Detached	10	7.5%
33	3 Bed Detached	10	7.5%
34	3 Bed Detached	10	7.5%
35	3 Bed Detached	10	7.5%
36	3 Bed Detached	10	7.5%
37	3 Bed Detached	10	7.5%
38	3 Bed Detached	10	7.5%
39	3 Bed Detached	10	7.5%
40	3 Bed Detached	10	7.5%
41	3 Bed Detached	10	7.5%
42	3 Bed Detached	10	7.5%
43	3 Bed Detached	10	7.5%
44	3 Bed Detached	10	7.5%
45	3 Bed Detached	10	7.5%
46	3 Bed Detached	10	7.5%
47	3 Bed Detached	10	7.5%
48	3 Bed Detached	10	7.5%
49	3 Bed Detached	10	7.5%
50	3 Bed Detached	10	7.5%
51	3 Bed Detached	10	7.5%
52	3 Bed Detached	10	7.5%
53	3 Bed Detached	10	7.5%
54	3 Bed Detached	10	7.5%
55	3 Bed Detached	10	7.5%
56	3 Bed Detached	10	7.5%
57	3 Bed Detached	10	7.5%
58	3 Bed Detached	10	7.5%
59	3 Bed Detached	10	7.5%

MACBRYDE HOMES

Macbryde Homes Limited,
Macbryde House, Unit 28,
St. Asaph Business Park,
Fordd Richard Davies, St Asaph,
Denbighshire, LL17 0LJ.
Tel. 01745 536677
Fax. 01745 536688

Site: Llandegai Road, Bangor

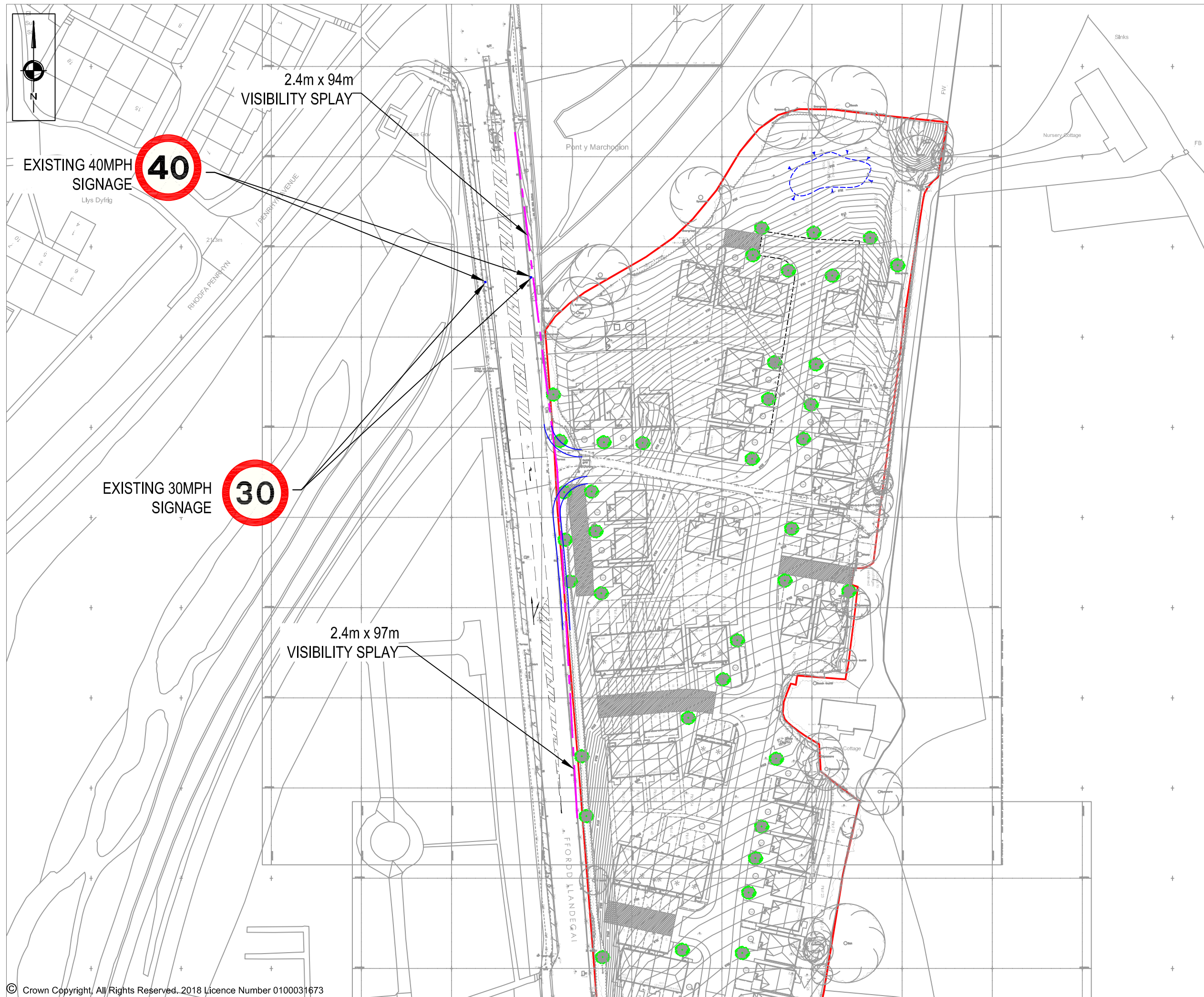
Title: Site Layout

Scale: 1:500@A0 Date: 03/03/2020

Ref: LRBANG-SL.01 Rev: C

S|C|P

APPENDIX C



NOTES

REVISIONS

REV	DESCRIPTION	DATE	BY
A	-AMENDMENT TO VISIBILITY SPLAYS	03.07.20	MC



Transportation Planning : Infrastructure Design
Colwyn Chambers, 19 York Street, Manchester, M2 3BA, Tel 0161 832 4400,
www.scptransport.co.uk, Email info@scptransport.co.uk

Client Name:
MACBRYDE HOMES LTD

Project Title:
LLANDEGAI ROAD, BANGOR

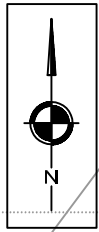
Drawing Title:
VISIBILITY SPLAYS

Drawn By:	MC	Date:	24.06.2020
Checked:	PT	Scale:	1:1000 @ A3
Status:	PLANNING	Approved/Unapproved:	-

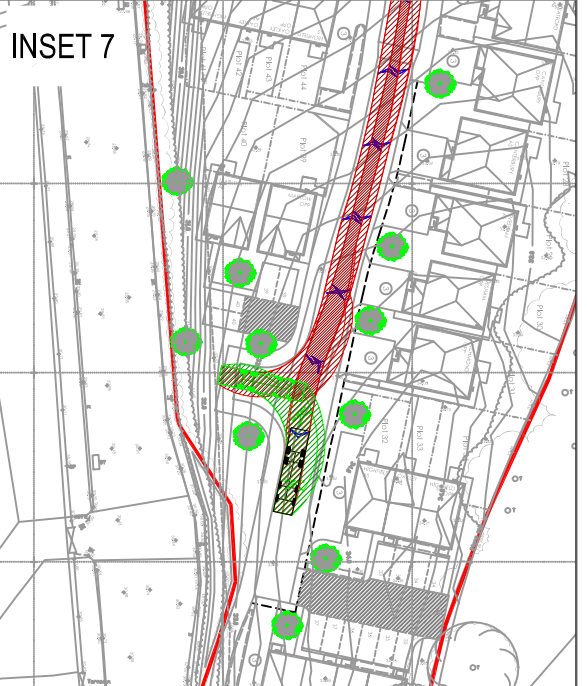
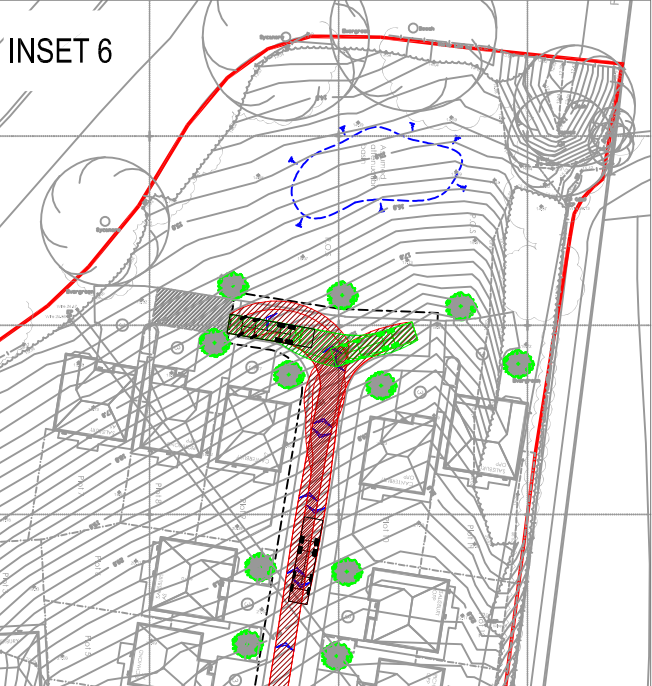
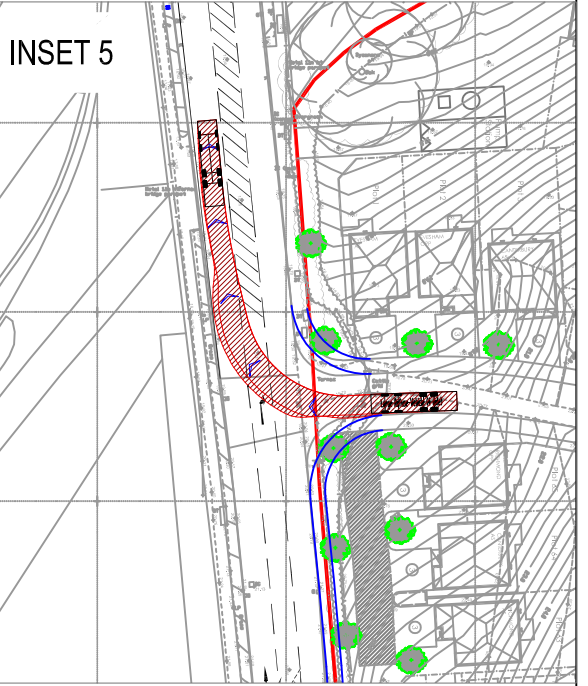
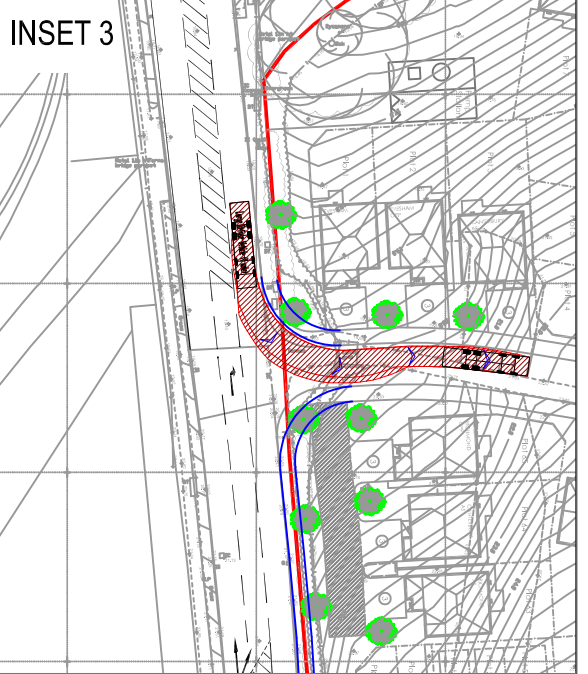
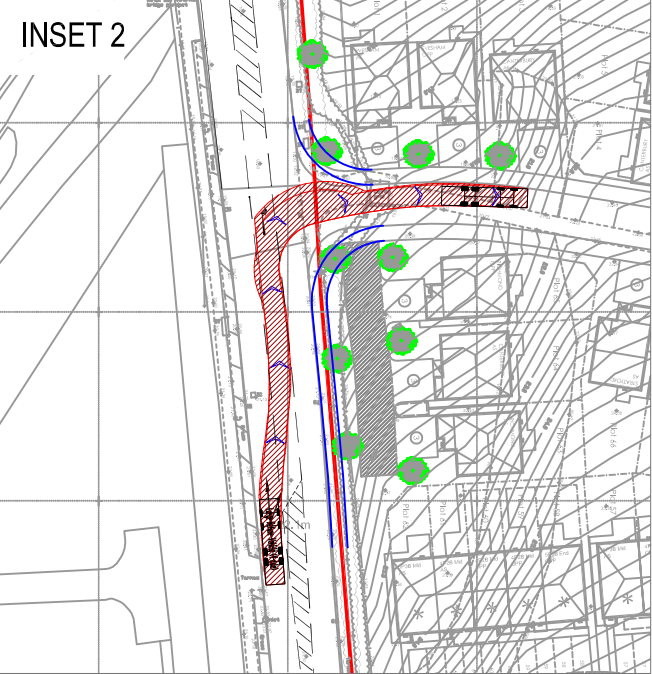
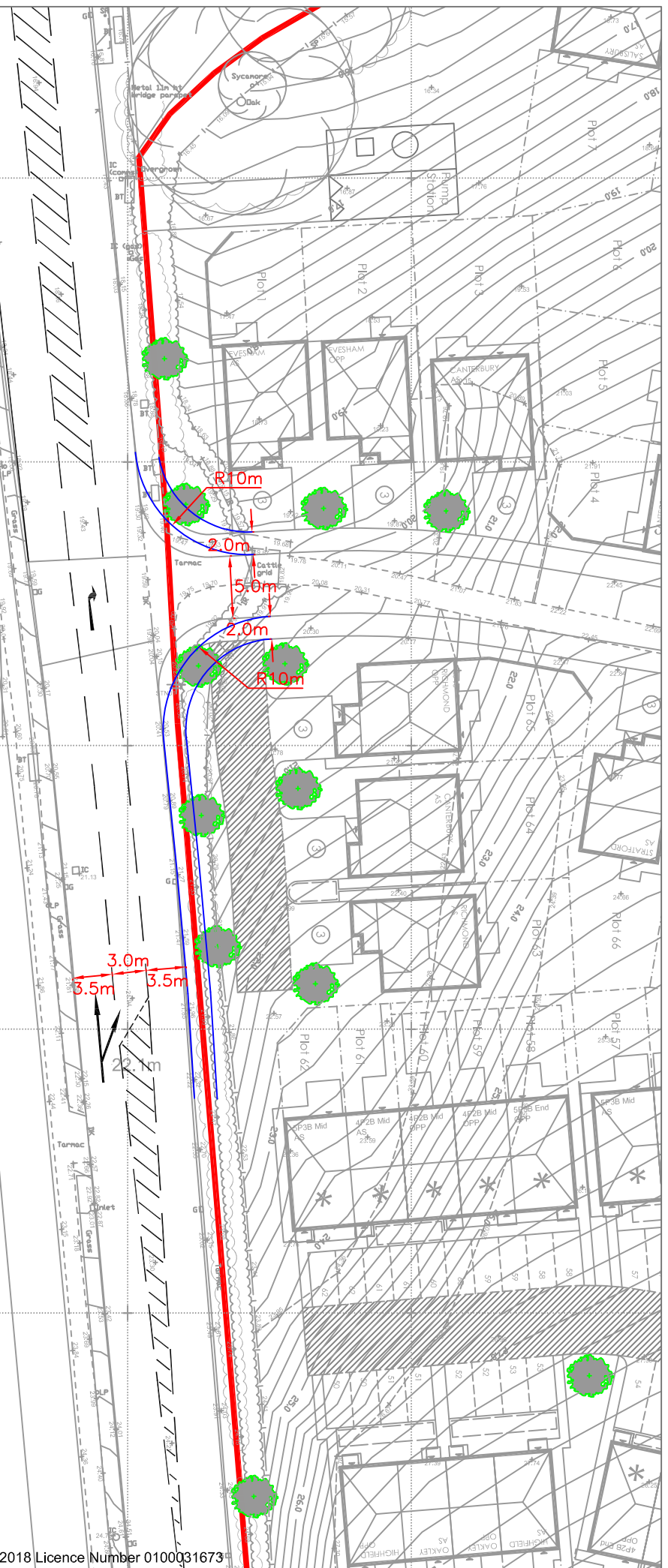
Drawing No.	SCP/200376/F01	Rev.	A
-------------	----------------	------	---

S|C|P

APPENDIX D



INSET 1
SCALE
1:200



NOTES

Large Refuse Vehicle (4 axle)
 Overall Length 11.347m
 Overall Width 2.500m
 Overall Body Height 3.751m
 Min Body Ground Clearance 0.304m
 Track Width 2.500m
 Lock to lock time 6.00s
 Wall to Wall Turning Radius 11.330m

REVISIONS

REV	DESCRIPTION	DATE	BY
-	-	-	-



Transportation Planning : Infrastructure Design
 Colwyn Chambers, 19 York Street, Manchester, M2 3BA, Tel 0161 832 4400,
 www.scptransport.co.uk, Email info@scptransport.co.uk

Client Name:
MACBRYDE HOMES LTD

Project Title:
LLANDEGAI ROAD, BANGOR

Drawing Title:
RIGHT TURN LANE GENERAL ARRANGEMENT + SWEEP PATH ANALYSIS

Drawn By: MC	Date: 24.06.2020
Checked: PT	Scale: 1:1000 @ A3 UNLESS AS SHOWN
Status: PLANNING	Approved/Unapproved: -

Drawing No. SCP/200376/SK01	Rev. -
-----------------------------	--------

S|C|P

APPENDIX E

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

MULTI-MODAL VEHICLESSelected regions and areas:

02 SOUTH EAST		
ES	EAST SUSSEX	2 days
HC	HAMPSHIRE	2 days
KC	KENT	1 days
SC	SURREY	1 days
WS	WEST SUSSEX	1 days
03 SOUTH WEST		
SM	SOMERSET	1 days
04 EAST ANGLIA		
NF	NORFOLK	2 days
06 WEST MIDLANDS		
SH	SHROPSHIRE	1 days
07 YORKSHIRE & NORTH LINCOLNSHIRE		
NY	NORTH YORKSHIRE	1 days
08 NORTH WEST		
CH	CHESHIRE	1 days
09 NORTH		
DH	DURHAM	1 days

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

Primary Filtering selection:

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

Parameter: No of Dwellings
 Actual Range: 33 to 134 (units:)
 Range Selected by User: 30 to 140 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/12 to 19/11/19

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

Selected survey days:

Tuesday	3 days
Wednesday	4 days
Thursday	4 days
Friday	3 days

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

Selected survey types:

Manual count	14 days
Directional ATC Count	0 days

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

Selected Locations:

Edge of Town	14
--------------	----

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	13
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, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

C3 14 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	1 days
5,001 to 10,000	4 days
10,001 to 15,000	2 days
15,001 to 20,000	5 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	2 days
25,001 to 50,000	2 days
50,001 to 75,000	2 days
75,001 to 100,000	2 days
100,001 to 125,000	1 days
125,001 to 250,000	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	1 days
1.1 to 1.5	13 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	6 days
No	8 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	14 days
-----------------	---------

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

LIST OF SITES relevant to selection parameters

1	CH-03-A-10	SEMI-DETACHED & TERRACED	CHESHIRE
	MEADOW DRIVE		
	NORTHWICH		
	BARNTON		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	40	
	Survey date: TUESDAY	04/06/19	Survey Type: MANUAL
2	DH-03-A-03	SEMI-DETACHED & TERRACED	DURHAM
	PILGRIMS WAY		
	DURHAM		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	57	
	Survey date: FRIDAY	19/10/18	Survey Type: MANUAL
3	ES-03-A-04	MIXED HOUSES & FLATS	EAST SUSSEX
	NEW LYDD ROAD		
	CAMBER		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	134	
	Survey date: FRIDAY	15/07/16	Survey Type: MANUAL
4	ES-03-A-05	MIXED HOUSES & FLATS	EAST SUSSEX
	RATTLE ROAD		
	NEAR EASTBOURNE		
	STONE CROSS		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	99	
	Survey date: WEDNESDAY	05/06/19	Survey Type: MANUAL
5	HC-03-A-21	TERRACED & SEMI-DETACHED	HAMPSHIRE
	PRIESTLEY ROAD		
	BASINGSTOKE		
	HOUNDMILLS		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	39	
	Survey date: TUESDAY	13/11/18	Survey Type: MANUAL
6	HC-03-A-22	MIXED HOUSES	HAMPSHIRE
	BOW LAKE GARDENS		
	NEAR EASTLEIGH		
	BISHOPSTOKE		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	40	
	Survey date: WEDNESDAY	31/10/18	Survey Type: MANUAL
7	KC-03-A-04	SEMI-DETACHED & TERRACED	KENT
	KILN BARN ROAD		
	AYLESFORD		
	DITTON		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	110	
	Survey date: FRIDAY	22/09/17	Survey Type: MANUAL
8	NF-03-A-04	MIXED HOUSES	NORFOLK
	NORTH WALSHAM ROAD		
	NORTH WALSHAM		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	70	
	Survey date: WEDNESDAY	18/09/19	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

9	NF-03-A-05	MIXED HOUSES	NORFOLK
	HEATH DRIVE HOLT		
	Edge of Town Residential Zone		
	Total No of Dwellings:	40	
	Survey date: THURSDAY	19/09/19	Survey Type: MANUAL
10	NY-03-A-10	HOUSES AND FLATS	NORTH YORKSHIRE
	BOROUGHBRIDGE ROAD RIPON		
	Edge of Town No Sub Category		
	Total No of Dwellings:	71	
	Survey date: TUESDAY	17/09/13	Survey Type: MANUAL
11	SC-03-A-04	DETACHED & TERRACED	SURREY
	HIGH ROAD BYFLEET		
	Edge of Town Residential Zone		
	Total No of Dwellings:	71	
	Survey date: THURSDAY	23/01/14	Survey Type: MANUAL
12	SH-03-A-05	SEMI-DETACHED/TERRACED	SHROPSHIRE
	SANDCROFT TELFORD SUTTON HILL		
	Edge of Town Residential Zone		
	Total No of Dwellings:	54	
	Survey date: THURSDAY	24/10/13	Survey Type: MANUAL
13	SM-03-A-01	DETACHED & SEMI	SOMERSET
	WEMBDON ROAD BRIDGWATER NORTHFIELD		
	Edge of Town Residential Zone		
	Total No of Dwellings:	33	
	Survey date: THURSDAY	24/09/15	Survey Type: MANUAL
14	WS-03-A-10	MIXED HOUSES	WEST SUSSEX
	TODDINGTON LANE LITTLEHAMPTON WICK		
	Edge of Town Residential Zone		
	Total No of Dwellings:	79	
	Survey date: WEDNESDAY	07/11/18	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

MULTI-MODAL 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	14	67	0.078	14	67	0.299	14	67	0.377
08:00 - 09:00	14	67	0.128	14	67	0.340	14	67	0.468
09:00 - 10:00	14	67	0.153	14	67	0.174	14	67	0.327
10:00 - 11:00	14	67	0.133	14	67	0.172	14	67	0.305
11:00 - 12:00	14	67	0.146	14	67	0.174	14	67	0.320
12:00 - 13:00	14	67	0.134	14	67	0.141	14	67	0.275
13:00 - 14:00	14	67	0.185	14	67	0.174	14	67	0.359
14:00 - 15:00	14	67	0.153	14	67	0.173	14	67	0.326
15:00 - 16:00	14	67	0.269	14	67	0.177	14	67	0.446
16:00 - 17:00	14	67	0.271	14	67	0.163	14	67	0.434
17:00 - 18:00	14	67	0.293	14	67	0.128	14	67	0.421
18:00 - 19:00	14	67	0.255	14	67	0.122	14	67	0.377
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.198			2.237			4.435

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: 33 - 134 (units:)
 Survey date range: 01/01/12 - 19/11/19
 Number of weekdays (Monday-Friday): 14
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys automatically removed from selection: 0
 Surveys manually removed from selection: 0

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

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

MULTI-MODAL CYCLISTS

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	14	67	0.011	14	67	0.006	14	67	0.017
08:00 - 09:00	14	67	0.010	14	67	0.017	14	67	0.027
09:00 - 10:00	14	67	0.001	14	67	0.004	14	67	0.005
10:00 - 11:00	14	67	0.000	14	67	0.006	14	67	0.006
11:00 - 12:00	14	67	0.003	14	67	0.005	14	67	0.008
12:00 - 13:00	14	67	0.003	14	67	0.005	14	67	0.008
13:00 - 14:00	14	67	0.006	14	67	0.001	14	67	0.007
14:00 - 15:00	14	67	0.005	14	67	0.002	14	67	0.007
15:00 - 16:00	14	67	0.001	14	67	0.007	14	67	0.008
16:00 - 17:00	14	67	0.010	14	67	0.005	14	67	0.015
17:00 - 18:00	14	67	0.012	14	67	0.006	14	67	0.018
18:00 - 19:00	14	67	0.009	14	67	0.004	14	67	0.013
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.071			0.068			0.139

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.

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

MULTI-MODAL PEDESTRIANS

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	14	67	0.014	14	67	0.033	14	67	0.047
08:00 - 09:00	14	67	0.044	14	67	0.095	14	67	0.139
09:00 - 10:00	14	67	0.057	14	67	0.048	14	67	0.105
10:00 - 11:00	14	67	0.043	14	67	0.060	14	67	0.103
11:00 - 12:00	14	67	0.030	14	67	0.042	14	67	0.072
12:00 - 13:00	14	67	0.045	14	67	0.047	14	67	0.092
13:00 - 14:00	14	67	0.046	14	67	0.026	14	67	0.072
14:00 - 15:00	14	67	0.031	14	67	0.043	14	67	0.074
15:00 - 16:00	14	67	0.084	14	67	0.065	14	67	0.149
16:00 - 17:00	14	67	0.058	14	67	0.053	14	67	0.111
17:00 - 18:00	14	67	0.069	14	67	0.043	14	67	0.112
18:00 - 19:00	14	67	0.057	14	67	0.039	14	67	0.096
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.578			0.594			1.172

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.

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

MULTI-MODAL PUBLIC TRANSPORT USERS**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	14	67	0.000	14	67	0.026	14	67	0.026
08:00 - 09:00	14	67	0.000	14	67	0.038	14	67	0.038
09:00 - 10:00	14	67	0.003	14	67	0.011	14	67	0.014
10:00 - 11:00	14	67	0.011	14	67	0.011	14	67	0.022
11:00 - 12:00	14	67	0.004	14	67	0.007	14	67	0.011
12:00 - 13:00	14	67	0.011	14	67	0.010	14	67	0.021
13:00 - 14:00	14	67	0.004	14	67	0.003	14	67	0.007
14:00 - 15:00	14	67	0.007	14	67	0.004	14	67	0.011
15:00 - 16:00	14	67	0.025	14	67	0.007	14	67	0.032
16:00 - 17:00	14	67	0.023	14	67	0.002	14	67	0.025
17:00 - 18:00	14	67	0.017	14	67	0.003	14	67	0.020
18:00 - 19:00	14	67	0.022	14	67	0.004	14	67	0.026
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.127			0.126			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.