

Southport SATURN Model Update

Southport Forecasting Report
Sefton MBC

May 2015



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Table of contents

Chapter	Pages
1. Introduction	4
2. Methodology	4
2.1. Development Sites	4
2.2. Forecast Years	5
2.3. Development Trips	6
3. Forecast Results	10
3.1. Model Assignments	10
3.2. Model Analysis	10
4. Summary	35
Appendix A. TRICS Analysis	36
A.1. Morning Peak TRICS Data	36
A.2. Evening Peak TRICS Data	37

Tables

Table 2-1	Development Quantum Forecast	6
Table 2-2	85th Percentile Trip Rates	6
Table 2-3	Trip Generation	7
Table 4-1	Delay and V/C Increases	35
Table 4-2	Delay and V/C Increases	35

Figures

Figure 2-1	Proposed Development Site Locations.	5
Figure 2-2	Thematically Mapped Trip Distribution	8
Figure 2-3	AM Departures	9
Figure 2-4	PM Arrivals	10
Figure 3-1	AM Peak 2014 - 2022 Difference Plot	11
Figure 3-2	PM Peak 2014 - 2022 Difference Plot	12
Figure 3-3	AM Peak 2014 - 2030 Difference Plot	13
Figure 3-4	PM Peak 2014 - 2030 Difference Plot	14
Figure 3-5	AM Peak 2014 - 2022 Site S1 and S8 Difference Plot	15
Figure 3-6	PM Peak 2014 - 2022 Site S1 and S8 Difference Plot	16
Figure 3-7	AM Peak 2014 - 2022 Site S9 and S10 Difference Plot	17
Figure 3-8	PM Peak 2014 - 2022 Site S9 and S10 Difference Plot	18
Figure 3-9	AM Peak 2014 - 2022 Site S10, S11 and S12 Difference Plot	19
Figure 3-10	PM Peak 2014 - 2022 Site S10, S11 and S12 Difference Plot	20
Figure 3-11	AM Peak 2014 - 2030 Site S1 and S8 Difference Plot	21
Figure 3-12	PM Peak 2014 - 2030 Site S1 and S8 Difference Plot	22
Figure 3-13	AM Peak 2014 - 2030 Site S9 and S10 Difference Plot	23
Figure 3-14	PM Peak 2014 - 2030 Site S9 and S10 Difference Plot	24
Figure 3-15	AM Peak 2014 - 2030 Site S10, S11 and S12 Difference Plot	25
Figure 3-16	PM Peak 2014 - 2030 Site S10, S11 and S12 Difference Plot	26
Figure 3-17	2014 Base, 2022 Development AM Peak Delay Comparison	27
Figure 3-18	2014 Base, 2022 Development AM Peak V/C Comparison	28
Figure 3-19	2014 Base, 2022 Development PM Peak Delay Comparison.	29
Figure 3-20	2014 Base, 2022 Development PM Peak V/C Comparison.	30
Figure 3-21	2014 Base, 2030 Development AM Peak Delay Comparison.	31
Figure 3-22	2014 Base, 2030 Development AM Peak V/C Comparison.	32
Figure 3-23	2014 Base, 2030 Development PM Peak Delay Comparison.	33
Figure 3-24	2014 Base, 2030 Development PM Peak V/C Comparison.	34

1. Introduction

Sefton Council has commissioned Atkins to develop a SATURN traffic model of Southport Town Centre to support future transport assessments and carry out scenario testing of the transport impacts of new developments and associated mitigation measures. The model will also help in the assessment and progression of potential business cases for future major schemes and route strategies. Details of this model are reported in the Local Model Validation report.

This report documents the impact of and assumptions made in developing forecast scenarios for six housing sites within the Southport area requested by Sefton Council (SC).

2. Methodology

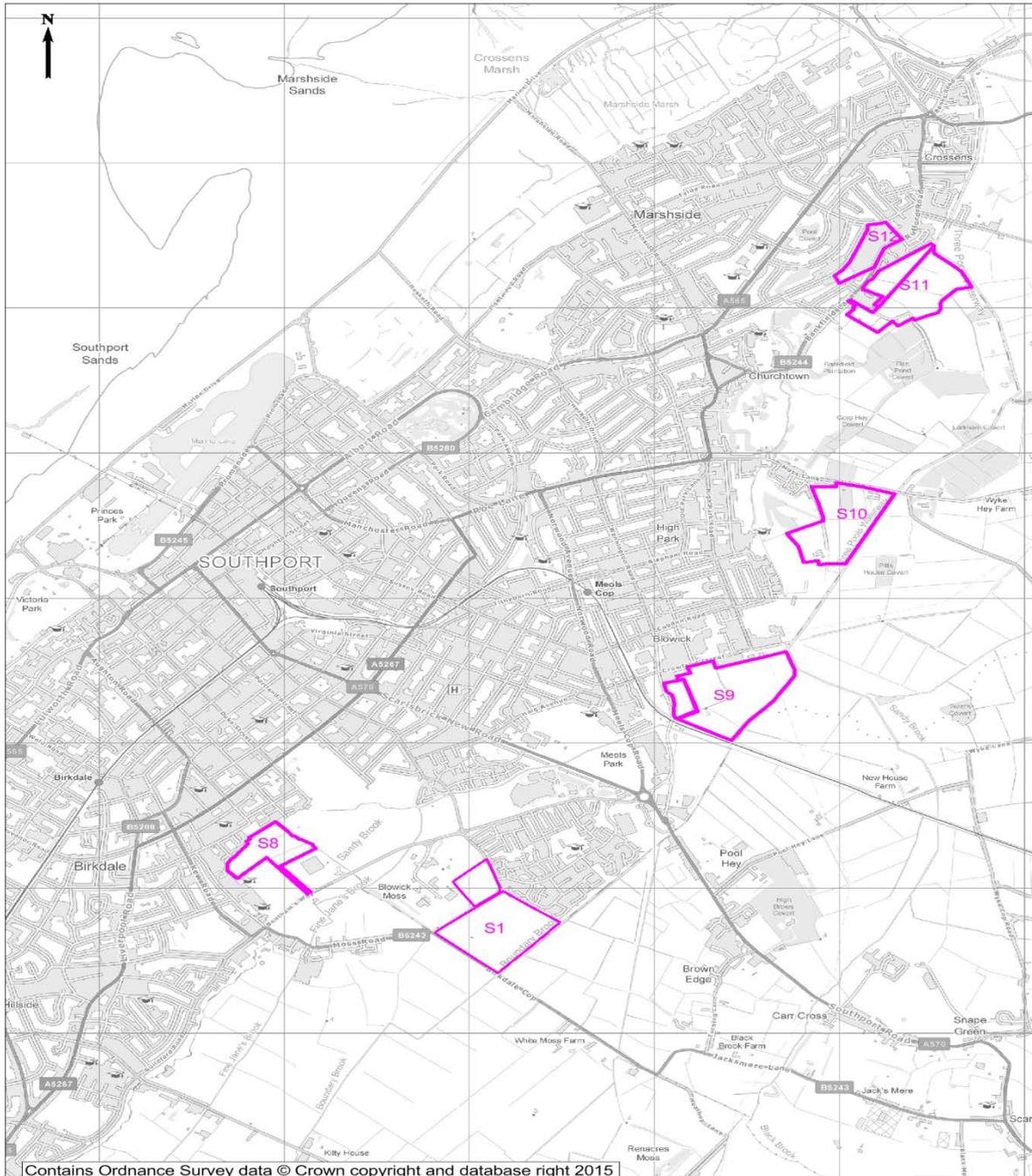
Sefton Council requested that six development locations on the eastern fringes of Southport should be tested as part of the Southport forecasting methodology. This approach was agreed in order to assess the impacts of these sites on the eastern approaches to Southport with particular emphasis on the Kew roundabout and A570 corridor.

2.1. Development Sites

Six development sites have been identified to be included in the forecasting analysis, these sites are described below and the location of each site is provided in Figure 2-1. The total number of expected residential developments are provided in brackets.

- Site S1 – Town Lane, Kew. (455 Houses);
- Site S8 – Broom Road. (215 Houses);
- Site S9 – Foul Lane. (390 Houses);
- Site S10 – Moss Lane. (450 Houses);
- Site S11 – Bankfield Lane. (300 Houses), and;
- Site S12 – Balmoral Drive. (160 Houses).

Figure 2-1 Proposed Development Site Locations.



2.2. Forecast Years

Following discussions with SMBC, two forecast years have been assessed:

- 2022, and;
- 2030.

After discussion with council officers and interrogation of the TEMPRO 6.2 data sets, it was agreed that no underlying growth would be added to the 2014 Southport SATURN model base matrices, as growth in the Sefton area of Merseyside is predicted to be neutral and possibly slightly negative for the forecast years developed for this analysis.

2.3. Development Trips

2.3.1. Development Quantum

Development assumptions have been provided by SMBC for the six sites.

Build out rates have been calculated for the 2022 and 2030 forecast years, the total numbers of dwellings for each forecast year is shown in Table 2-1.

Table 2-1 Development Quantum Forecast

Site Reference	Location	No. of Houses at 2022	No. of Houses at 2030
S1	Town Lane, Kew	215	455
S8	Broom Road	120	215
S9	Foul Lane	150	390
S10	Moss Lane	190	450
S11	Bankfield Lane	150	300
S12	Balmoral Drive	60	160

2.3.2. Trip Rates

The TRICS database was used to derive a suitable trip rate for edge of town development sites in England. An 85th percentile analysis was undertaken, this analysis produced trip rates which were almost identical to trip rates calculated by Parson Brinckerhoff and published in the Moss Lane Transport Assessment produced in September 2014

After discussion with Sefton council officers and to provide continuity with previous work undertaken for SC, it was agreed that the trip rates from the Moss Lane Transport Assessment would be used for these Southport forecast models, the trip rates used are provided below in Table 2-2. For comparison the Atkins TRICS analysis is presented in **Appendix A** of this report.

Table 2-2 85th Percentile Trip Rates

	Arrivals	Departures	Total
AM Peak	0.287	0.454	0.741
PM Peak	0.556	0.222	0.778

2.3.3. Trip Generation

Based on the trip rates and the quantum of development described above, a trip generation for each of the development sites has been calculated. The trip generation is shown in Table 2-3 below.

Table 2-3 Trip Generation

Site	2022				2030			
	AM Arrivals	AM Departures	PM Arrivals	PM Departures	AM Arrivals	AM Departures	PM Arrivals	PM Departures
S1. Town Lane, Kew	62	98	75	46	131	207	160	98
S8. Broom Road	34	54	42	26	62	98	75	46
S9. Foul Lane	43	68	53	32	112	177	137	84
S10. Moss Lane	55	86	67	41	129	204	158	97
S11. Bankfield Lane	43	68	53	32	86	136	105	65
S12. Balmoral Drive	17	27	21	13	46	73	56	35
Total	254	402	311	191	565	894	691	426

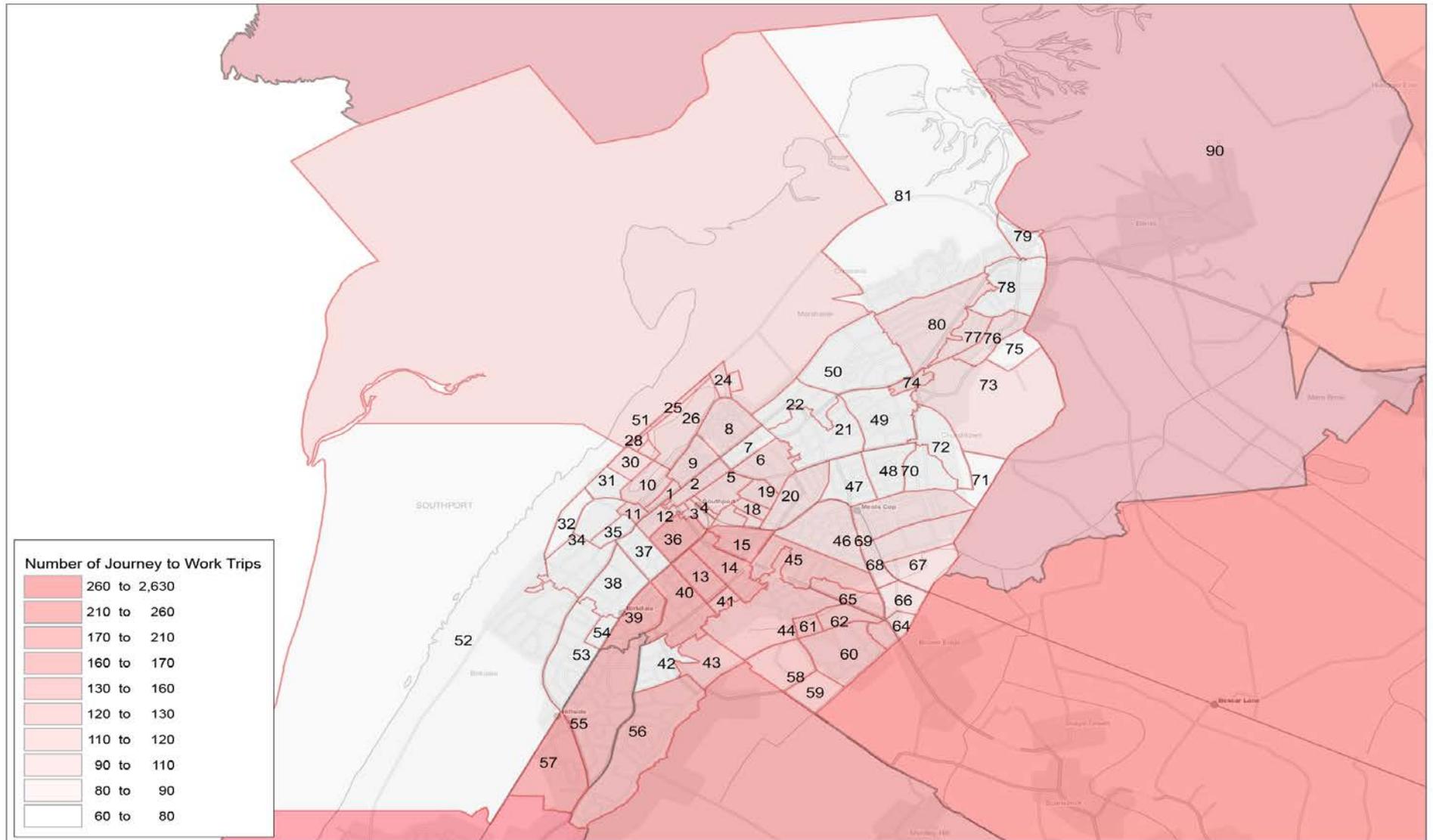
2.3.4. Trip Distribution

2011 Travel to Work Census data for the Southport area has been analysed to provide a trip distribution for the six housing sites.

Journey to work data was analysed for ten middle layer super output areas in the Southport area and a trip distribution based on this was produced for the AM peak period, this distribution was transposed to provide the trip distribution for the PM peak period. These distributions have been thematically mapped to give a graphical representation and are shown in Figure 2-2 below.

Figure 2-2 shows that the darker the mapped colour, the more trips travel from the Southport area of Sefton to that particular SATURN zone in the Southport model.

Figure 2-2 Thematically Mapped Trip Distribution



The 2011 Census Journey to Work data indicates that 52% of trips travel to external zones outside of the Southport town centre area, with the remaining 48% of trips spread across zones within Southport Town centre.

The main attractors outside of Southport is to the south, with the Liverpool area attracting 14% of trips, 9% of trips travel towards the M57 and M58 motorways and 8% travel towards the Preston and Blackburn areas, the Wigan and Bolton areas attract approximately 8% of trips.

These distributions have been applied to the SATURN matrices for each of the development zones.

Figures 2-3 and 2-4 below show the distribution of trips when applied to the SATURN model for the AM peak departures and the PM peak arrivals.

Figure 2-3 AM Departures

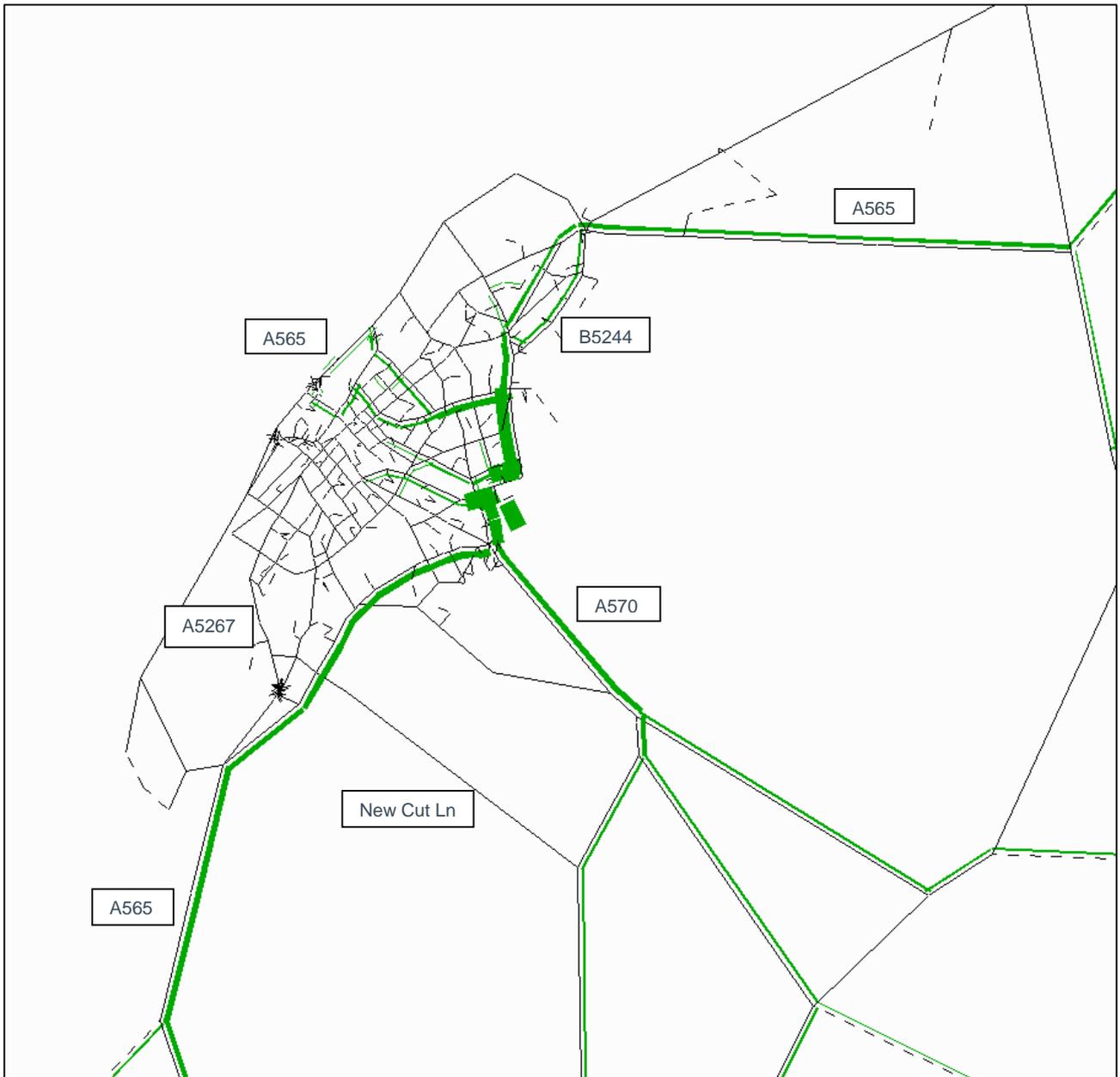
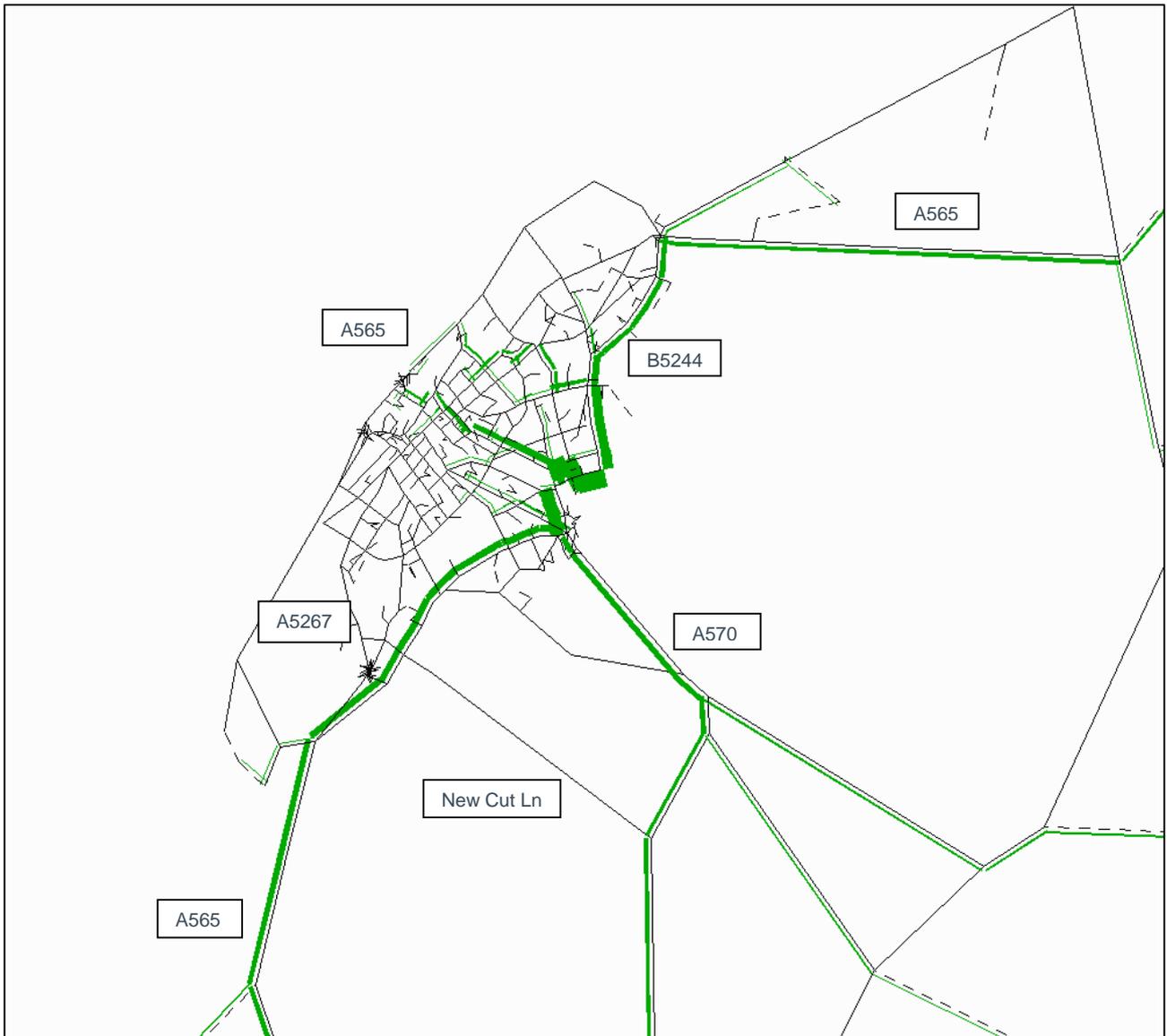


Figure 2-4 PM Arrivals



3. Forecast Results

The following sections of the report detail the effects of the six development sites on the local road network in and around the Southport area.

3.1. Model Assignments

Model assignments have been run for a forecast year of 2022 and 2030 for AM and PM peak periods in each forecast year.

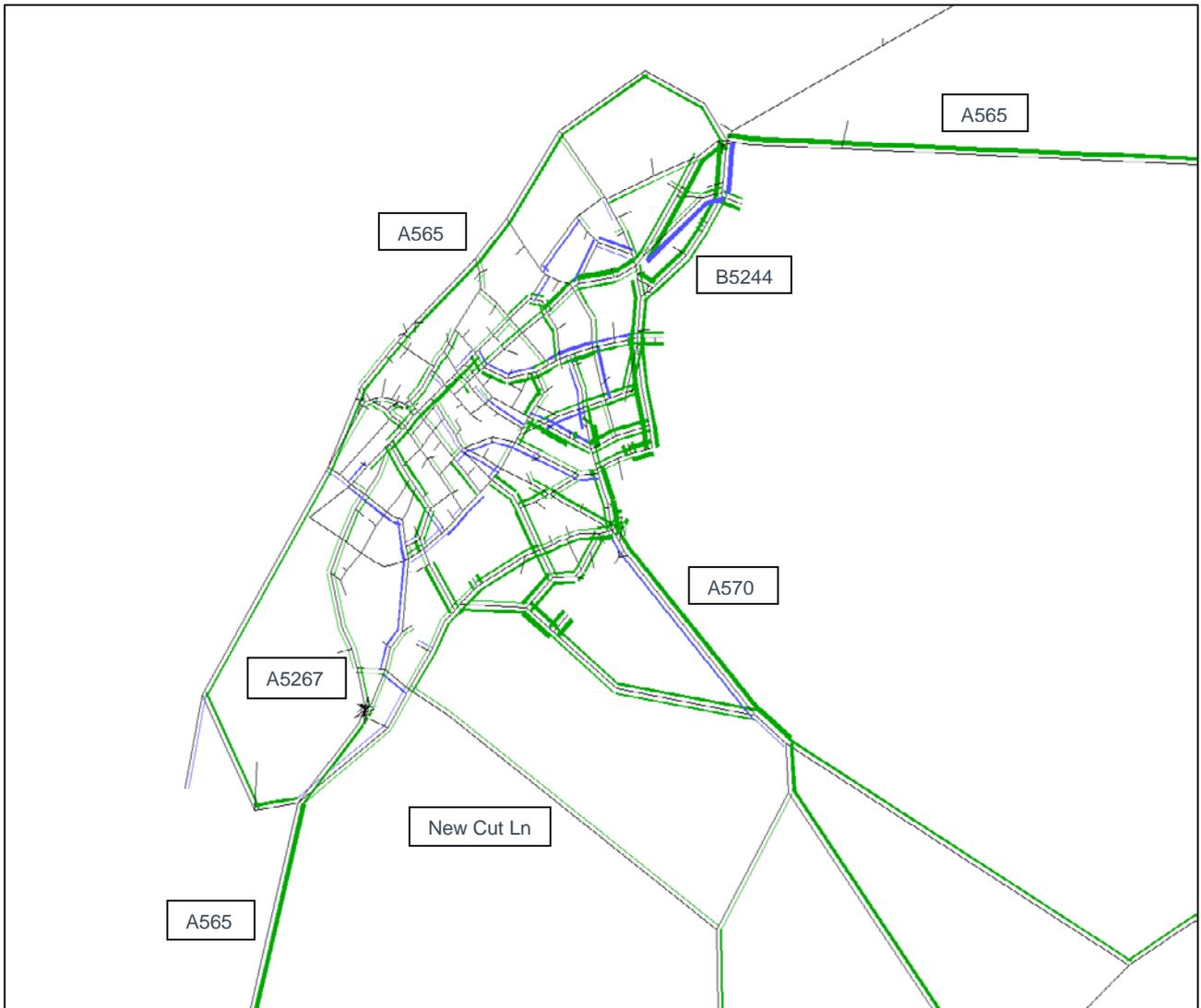
3.2. Model Analysis

3.2.1.1. Flow Difference

Analysis has been undertaken to compare the change in flows between the Base year 2014 assignments and the 2022 and 2030 development assignments. This analysis has been undertaken using SATURN difference plots for the AM and PM peak periods.

Figures 3-1 to 3-4 show the network wide SATURN difference plots for the 2014 Base compared to the 2022 and 2030 AM and PM peak periods with commentary for each beneath.

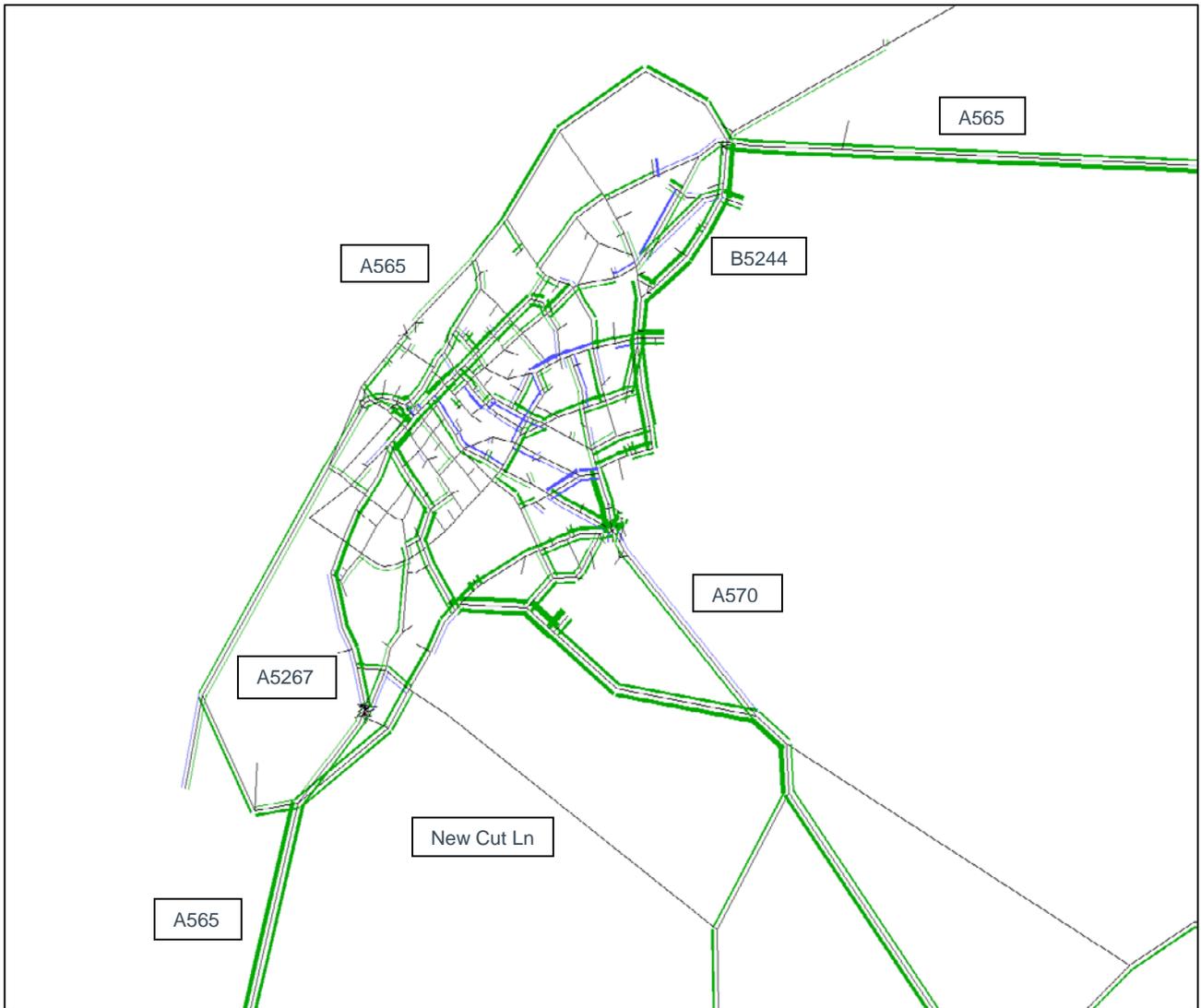
Figure 3-1 AM Peak 2014 - 2022 Difference Plot



The green bands in Figure 3-1 indicate that there is an increase in flow compared with the 2014 Base and blue bands indicate a decrease in flows compared with the 2014 Base.

Figure 3-1 indicates that with the addition of the development traffic, flows are predicted to increase uniformly across Southport, with no particular spikes in flow difference, the maximum flow increase on any link is approximately 100 PCUs. Figure 3-1 also indicates that there is a limited amount of local re-routing indicated by the blue bands, which show a decrease in traffic flow along some links, however these changes are minimal with the majority of flow decreases in the region of around 30 PCUs.

Figure 3-2 PM Peak 2014 - 2022 Difference Plot



The PM peak analysis, as with the AM peak, predicts that the development traffic will cause uniform flow increases across much of the town centre as flows re-distribute across the Southport area. Flow changes are relatively low, with the maximum flow increase on any link predicted to be approximately 120 PCUs.

There are some areas where it is predicted that flows will decrease slightly, mainly around the Central 12 shopping centre area of the town. These flow changes are, however, minor with maximum flow differences of around 50 PCUs.

Figure 3-3 AM Peak 2014 - 2030 Difference Plot



Figure 3-3 which compares the AM Peak 2014 Base with the 2030 development scenario, indicates that the same traffic patterns as the 2022 development scenario comparison will occur. The largest flow difference on any link is, as would be expected, greater than the 2022 scenario, although still relatively minor at approximately 180 PCUs.

Figure 3-4 PM Peak 2014 - 2030 Difference Plot

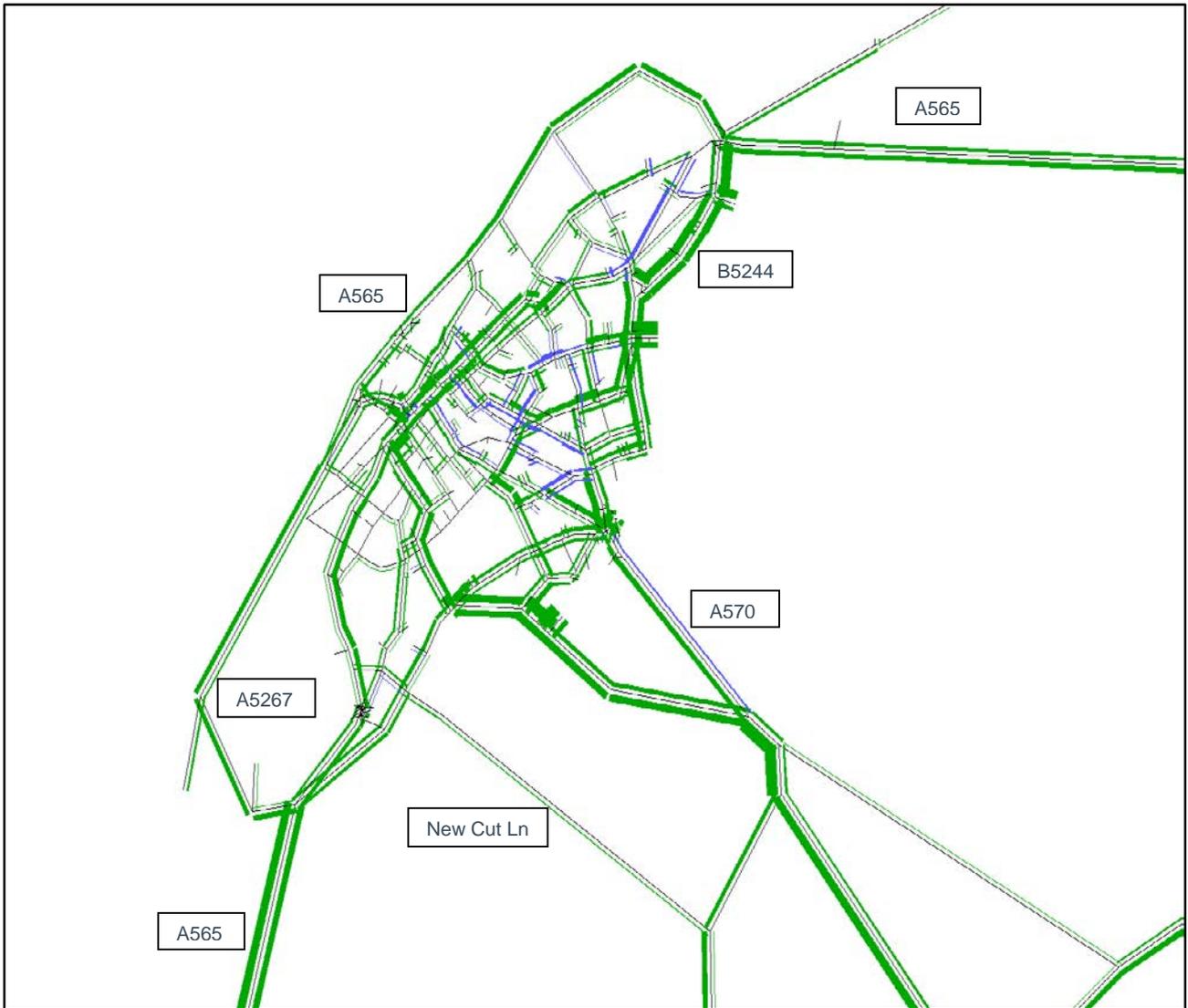


Figure 3-4 which compares the PM Peak 2014 Base with the 2030 development scenario indicates that the similar traffic patterns as the 2022 PM Peak development scenario will occur. The largest flow difference on any link is, as would be expected, greater than the 2022 scenario, with a maximum flow difference of approximately 200 PCUs.

Figures 3-5 to 3-16 show the flow difference between the 2014 Base compared to the 2022 and 2030 AM and PM peak periods in the immediate vicinity of each of the development sites. The green bands denote an increase in flow and the blue bands denote a decrease in flow, flows are posted next to each link in PCUs.

Figure 3-5 AM Peak 2014 - 2022 Site S1 and S8 Difference Plot

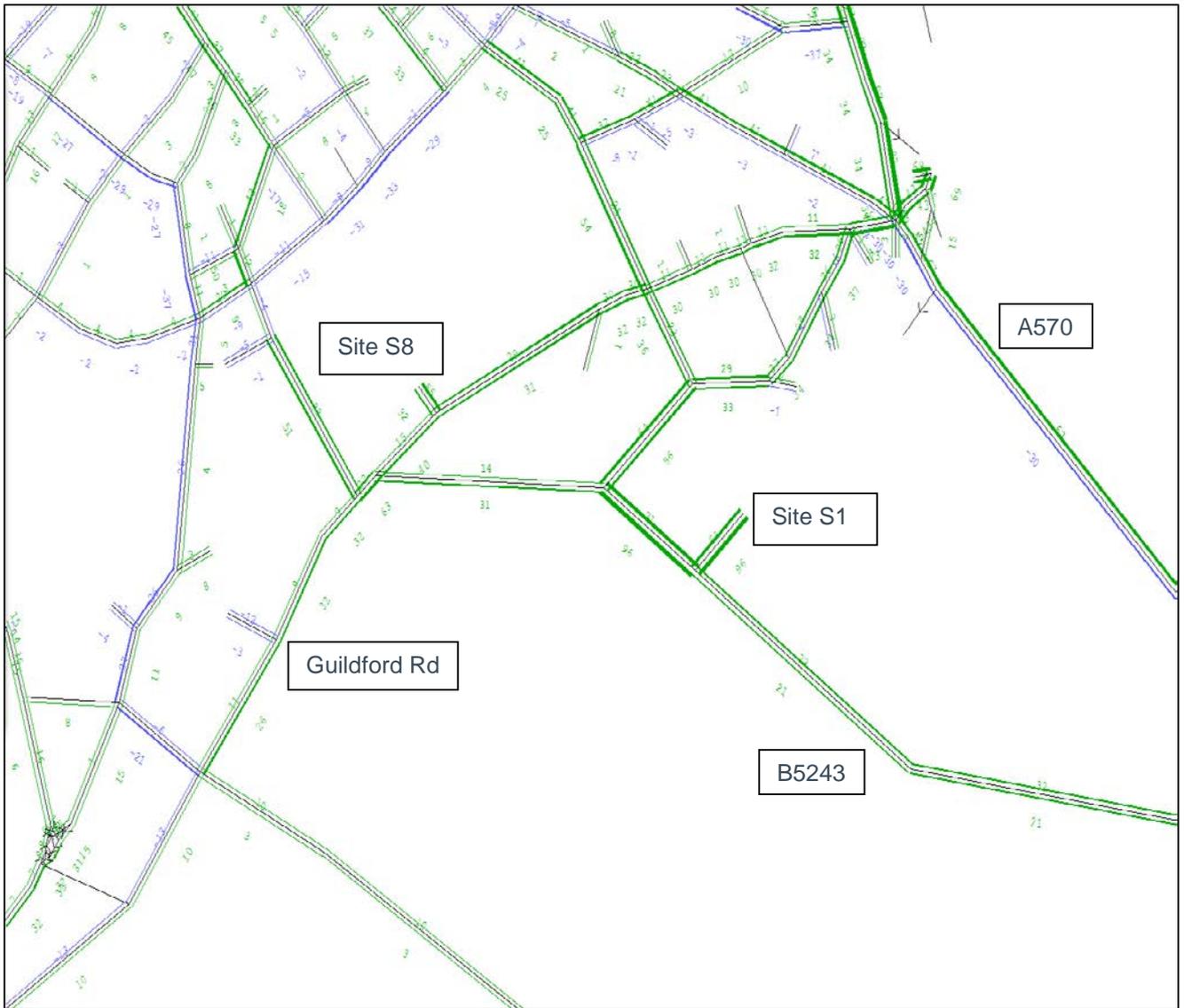


Figure 3-6 PM Peak 2014 - 2022 Site S1 and S8 Difference Plot

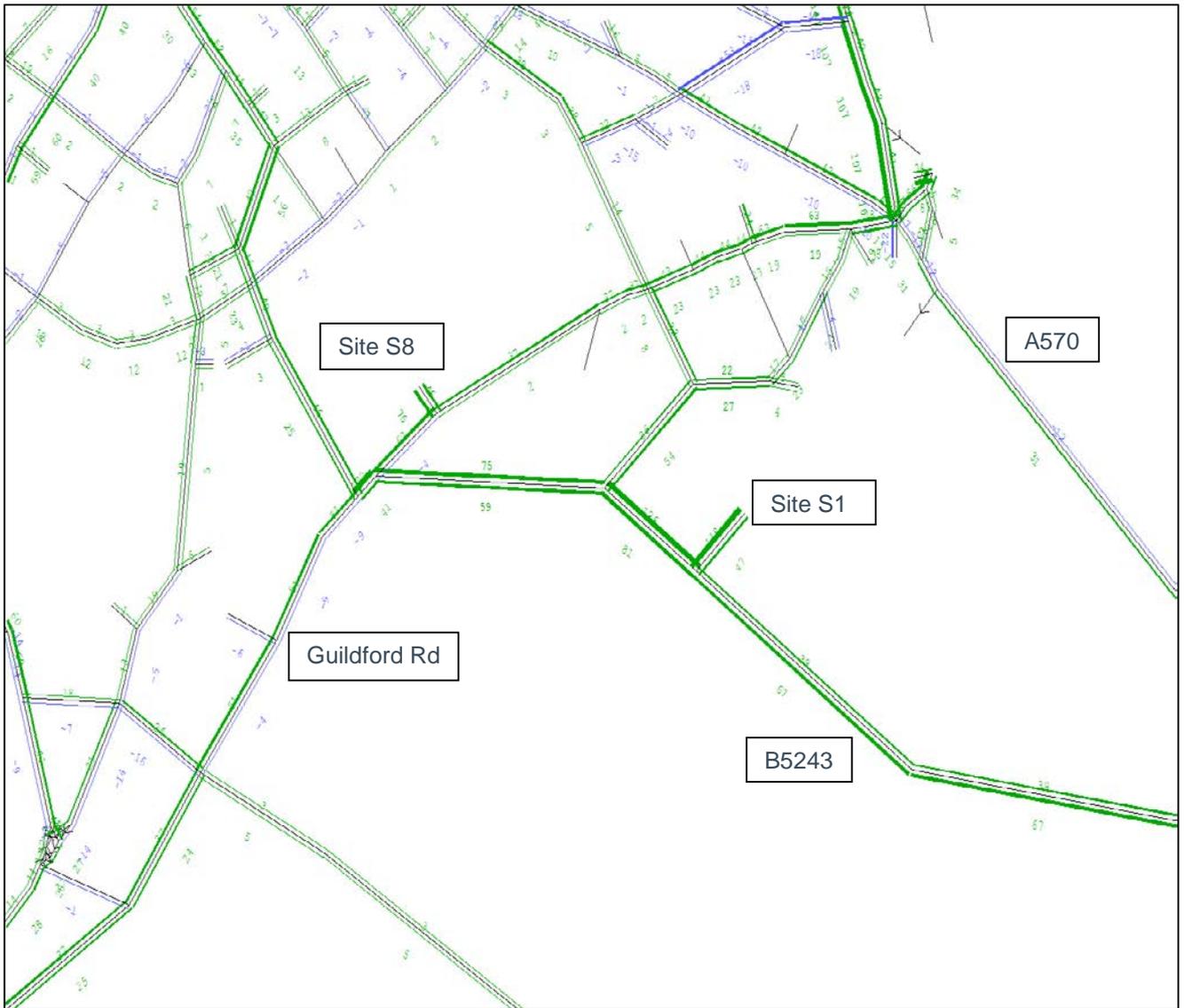


Figure 3-7 AM Peak 2014 - 2022 Site S9 and S10 Difference Plot

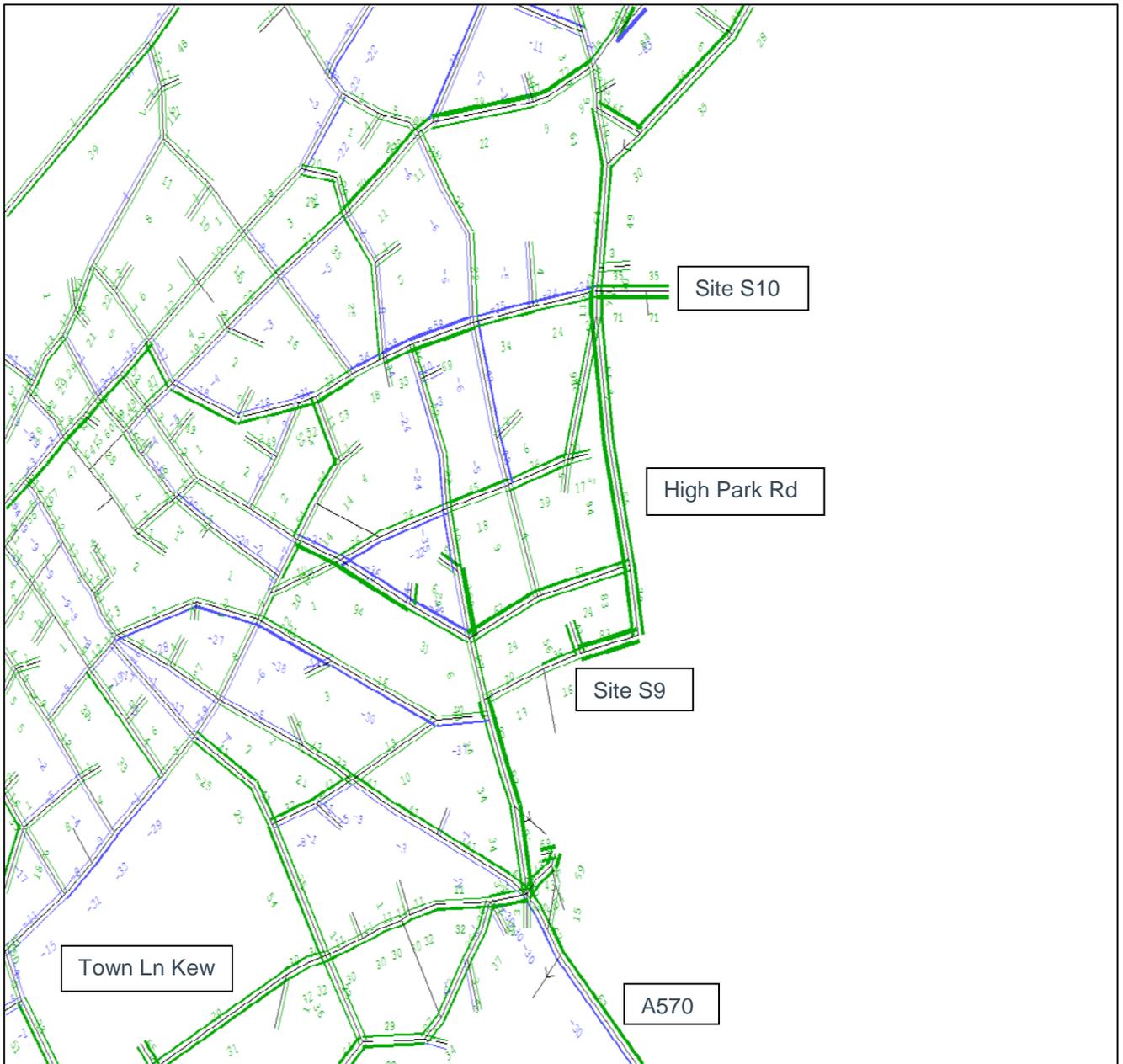


Figure 3-8 PM Peak 2014 - 2022 Site S9 and S10 Difference Plot

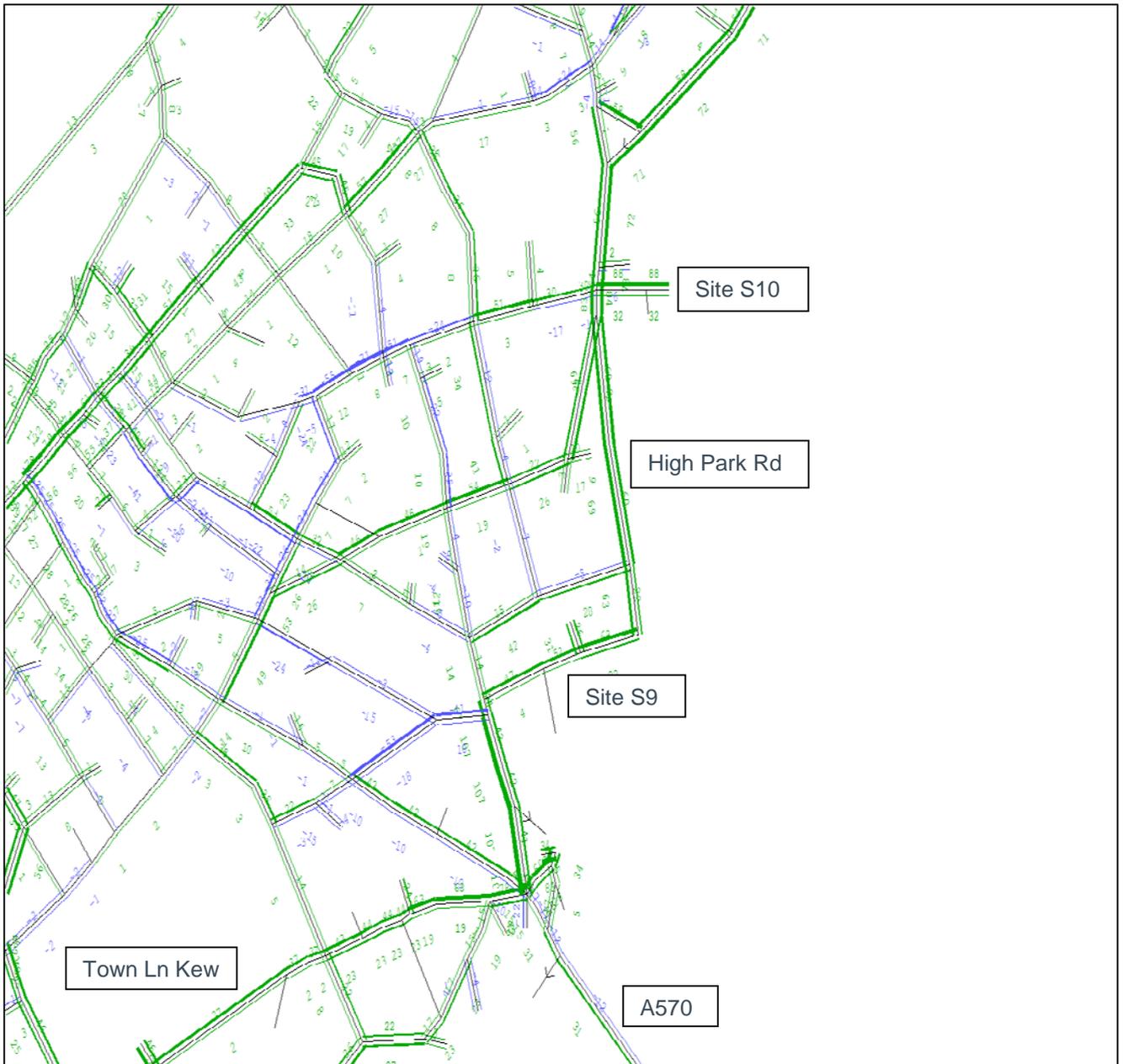


Figure 3-9 AM Peak 2014 - 2022 Site S10, S11 and S12 Difference Plot



Figure 3-10 PM Peak 2014 - 2022 Site S10, S11 and S12 Difference Plot



Figure 3-11 AM Peak 2014 - 2030 Site S1 and S8 Difference Plot

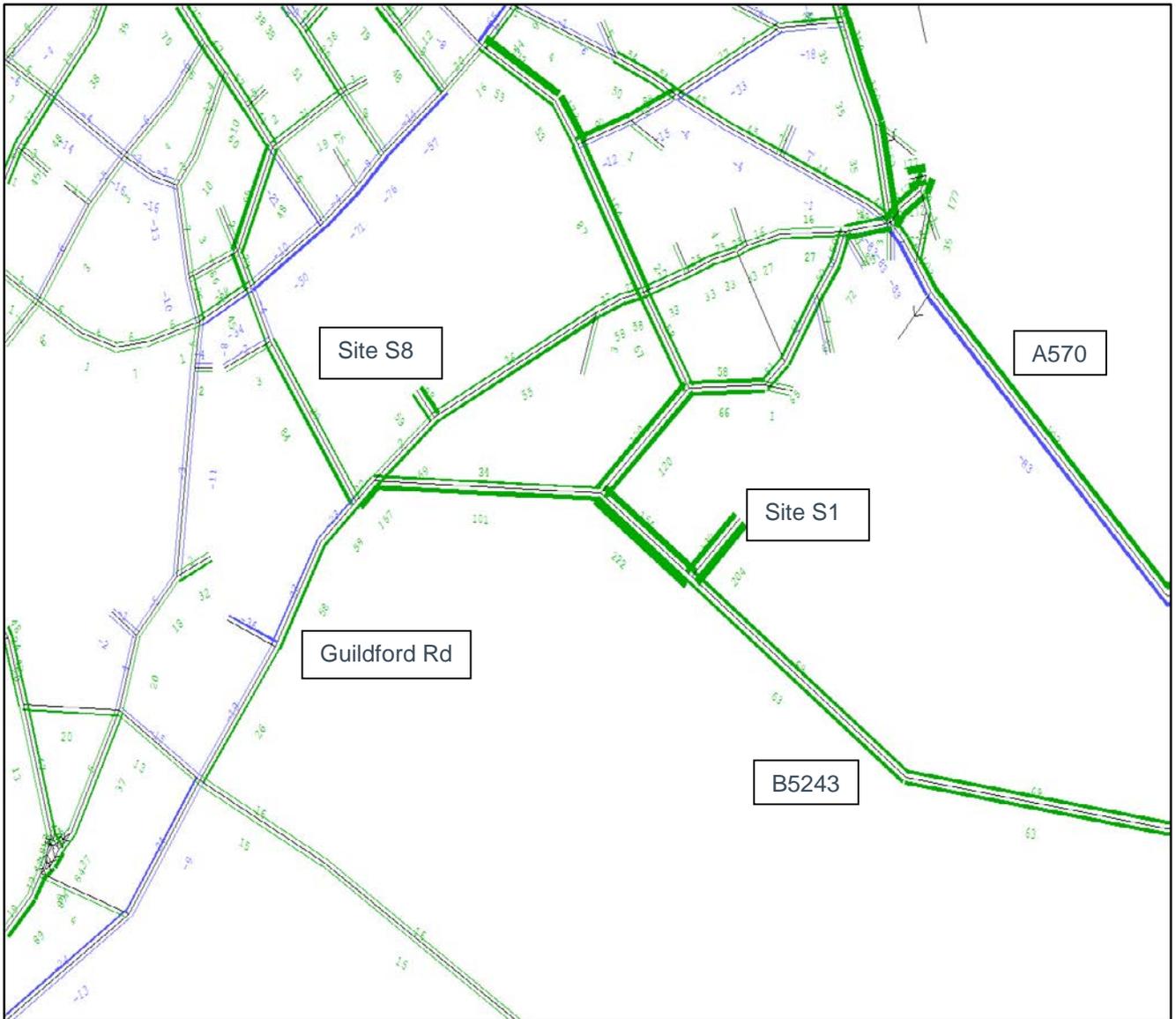


Figure 3-12 PM Peak 2014 - 2030 Site S1 and S8 Difference Plot

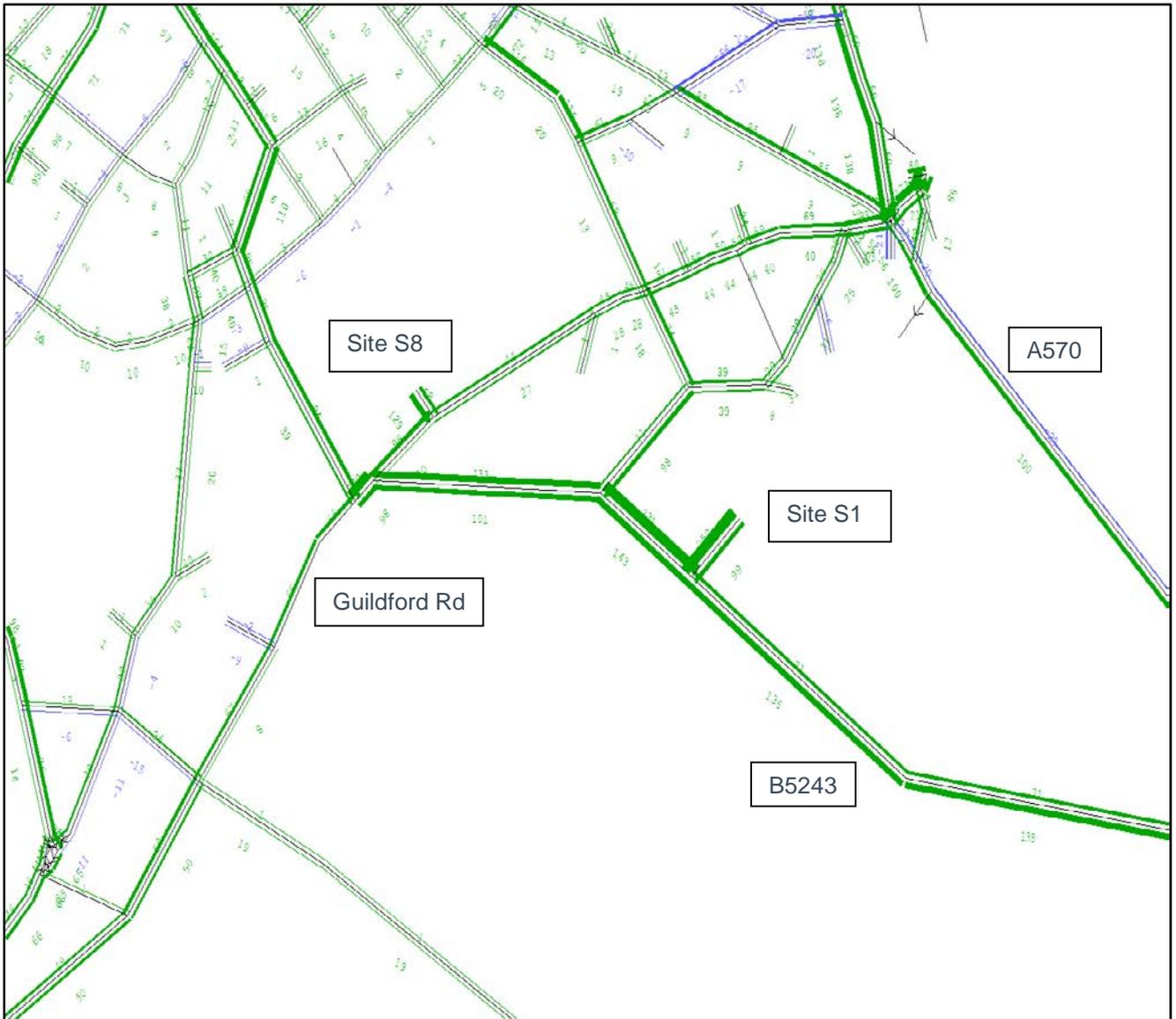


Figure 3-13 AM Peak 2014 - 2030 Site S9 and S10 Difference Plot



Figure 3-14 PM Peak 2014 - 2030 Site S9 and S10 Difference Plot

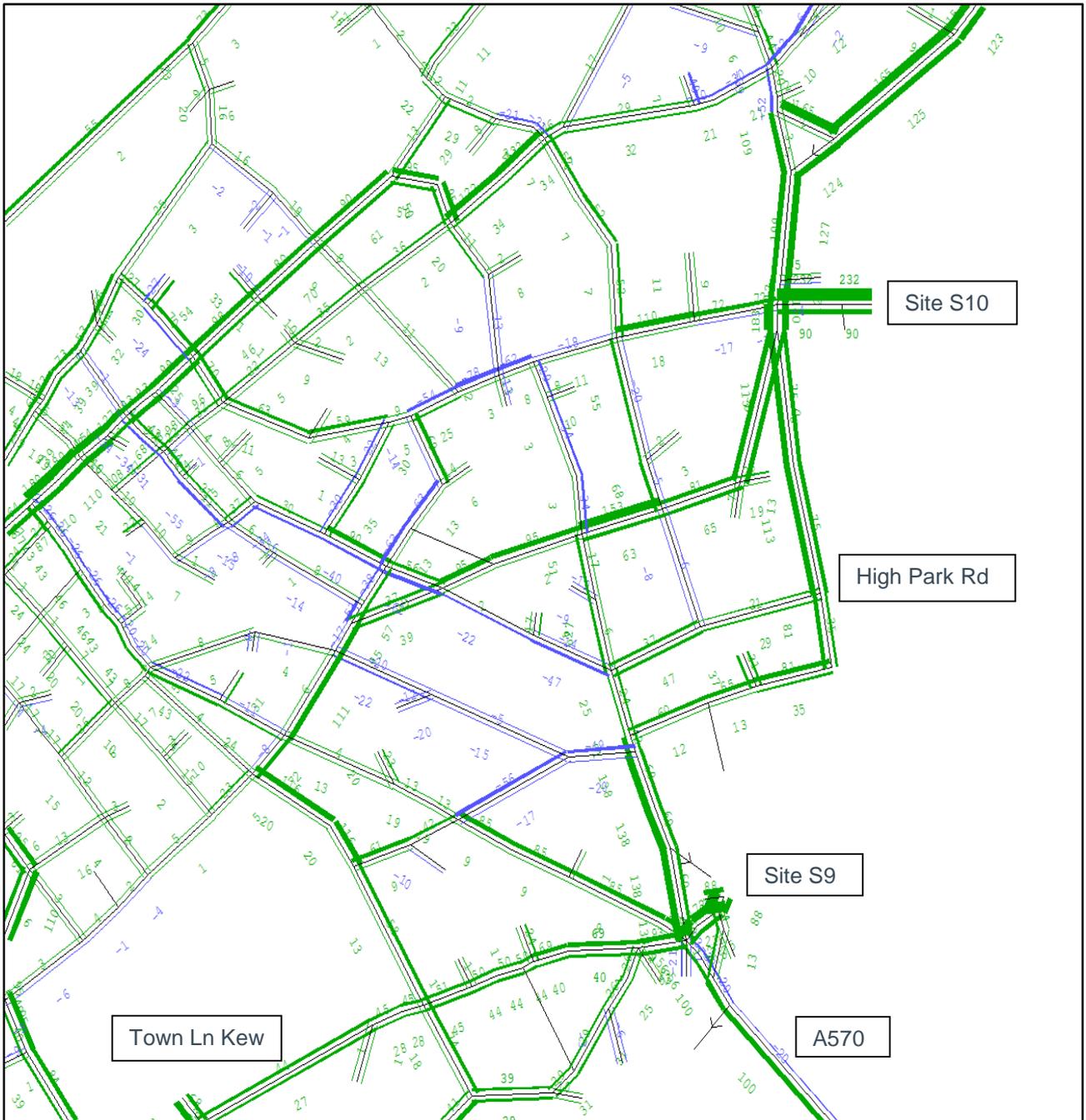
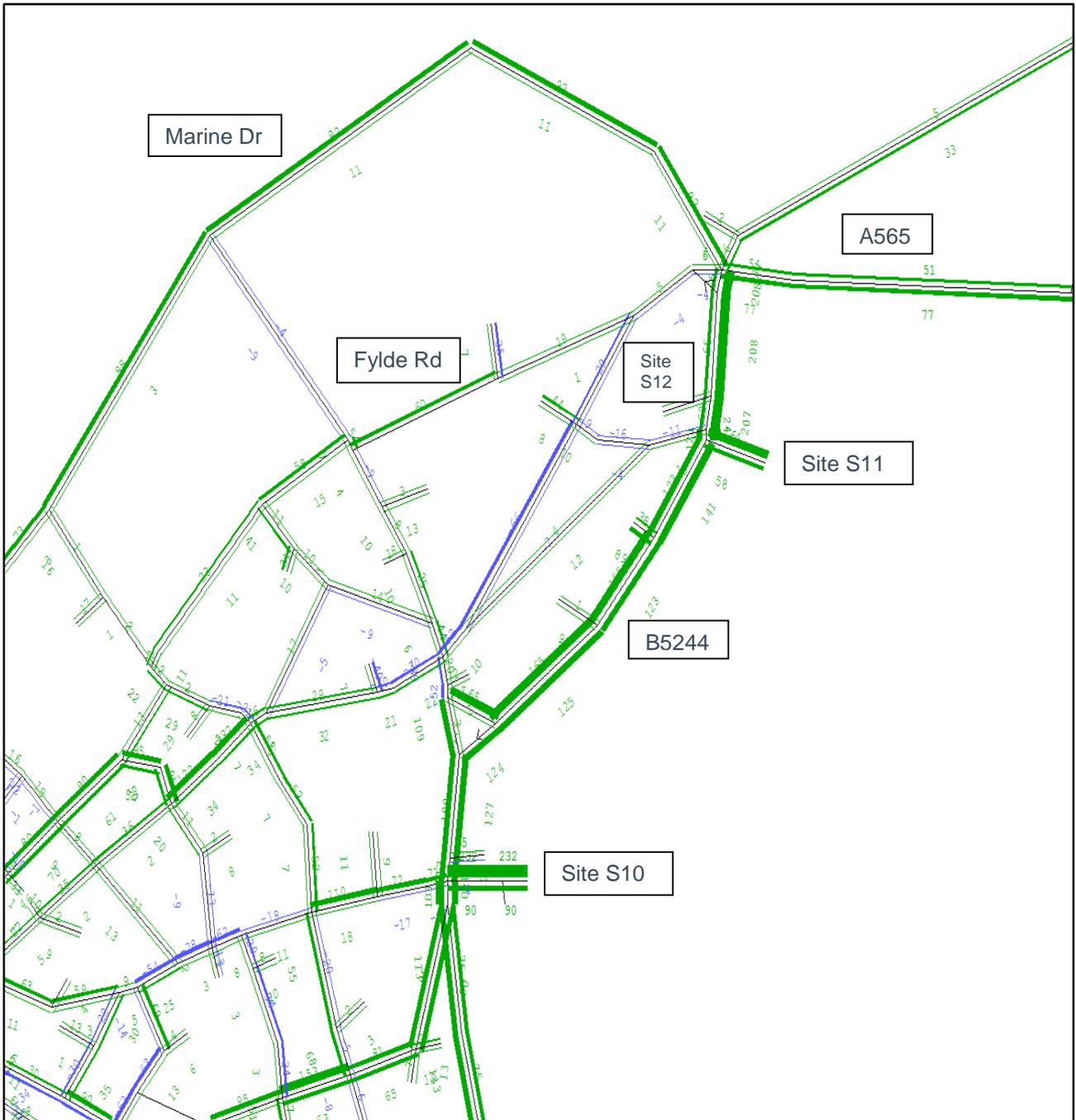


Figure 3-16 PM Peak 2014 - 2030 Site S10, S11 and S12 Difference Plot



3.2.1.2. Junction Stress.

Comparisons between the 2014 AM and PM Base and the 2022 and 2030 development scenarios have been undertaken to ascertain whether any junctions in and around the Southport study area are predicted to experience any significant increases in Delays or experience any capacity issues which is measured using Volume to Capacity (V/C) ratios.

Model outputs have been analysed between the 2014 Base and 2022/2030 Development scenarios and are shown graphically in Figures 3-17 to 3-24 below.

The smaller spots on the figures represent the Base results and the larger spots represent the Development scenario.

Figure 3-17 2014 Base, 2022 Development AM Peak Delay Comparison

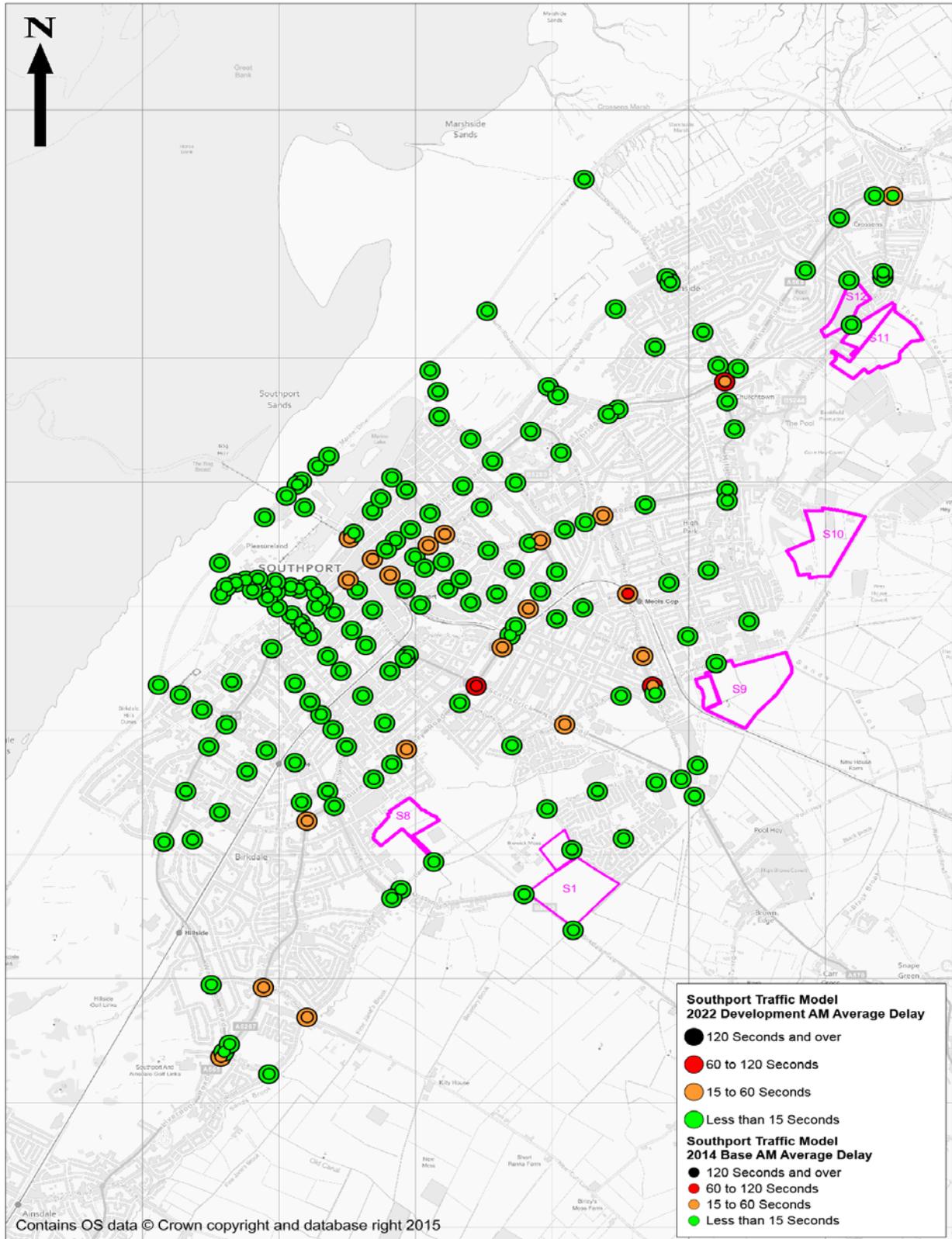
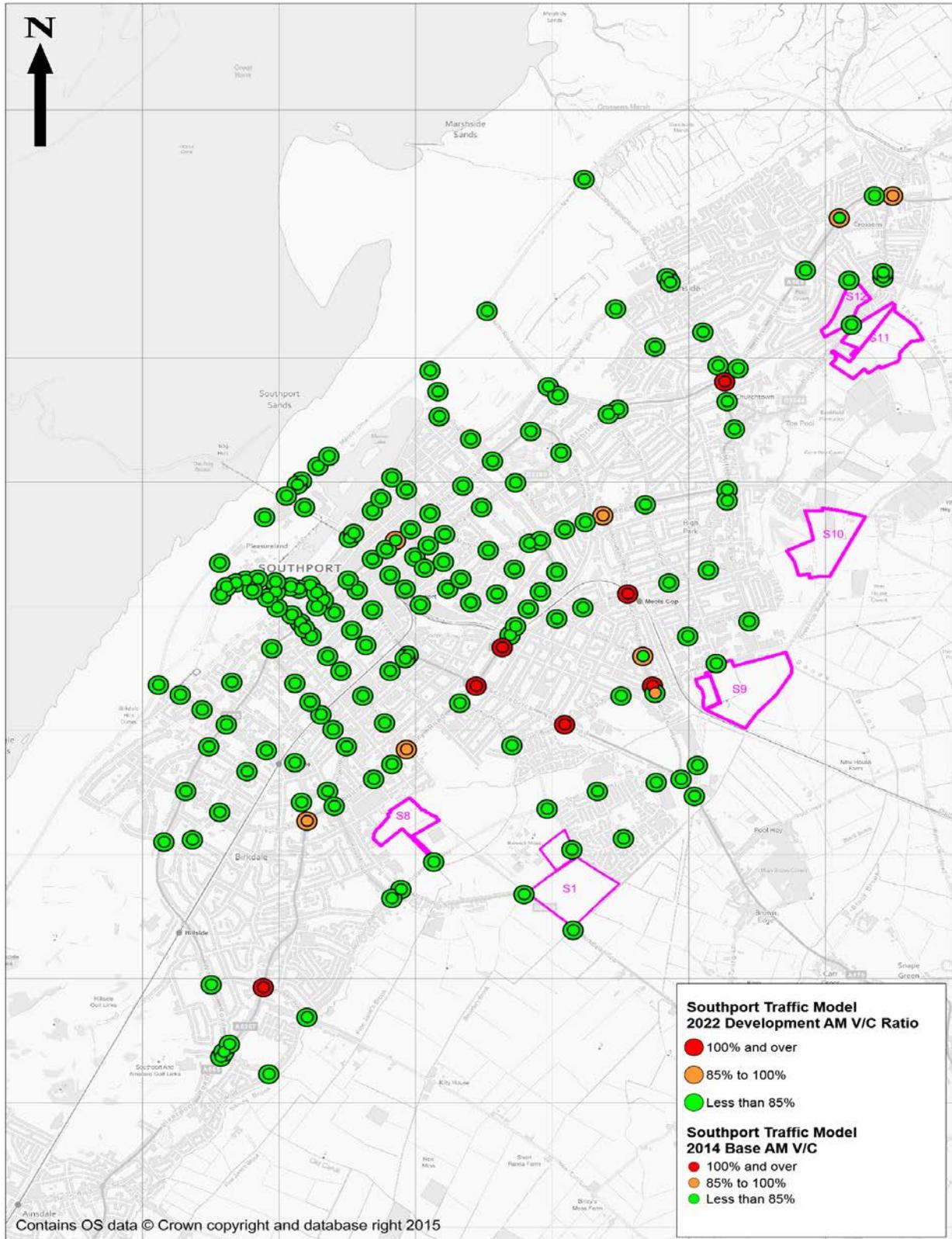


Figure 3-17 indicates that delays will increase at the Meols Cop Road / Butts Lane junction, as well as further north along the corridor at the Norwood Road / Bispham Road junction. Delays are also predicted to increase at the Marshside Road / Preston New Road junction and the Preston New Road / Water Lane roundabout.

Figure 3-18 2014 Base, 2022 Development AM Peak V/C Comparison



The only locations predicted to experience a reduction in available junction capacity is the Norwood Road / Sussex Road junction, Seabank Road / Lord Street junction and the Preston New Road / Fylde Road junction.

Figure 3-19 2014 Base, 2022 Development PM Peak Delay Comparison.

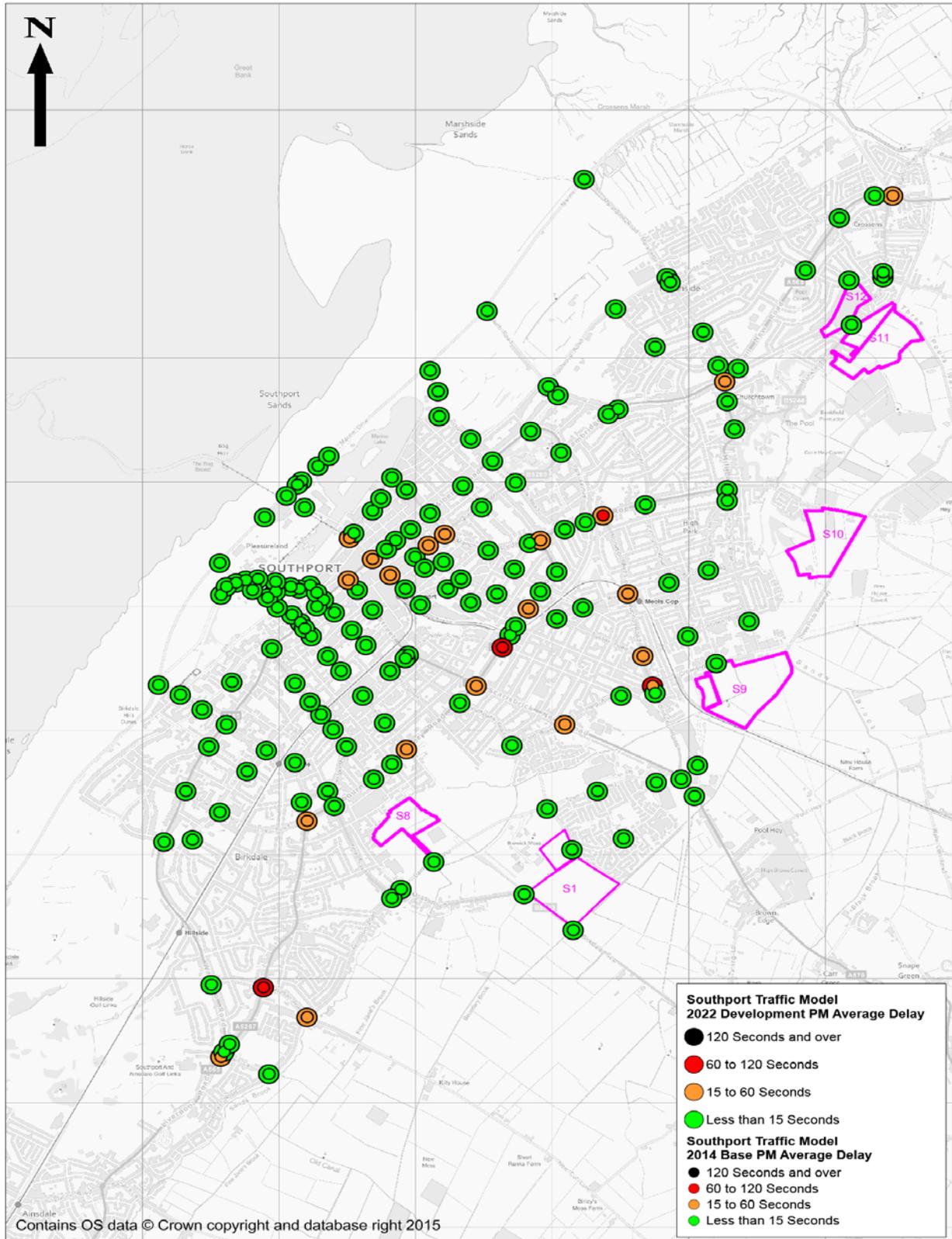
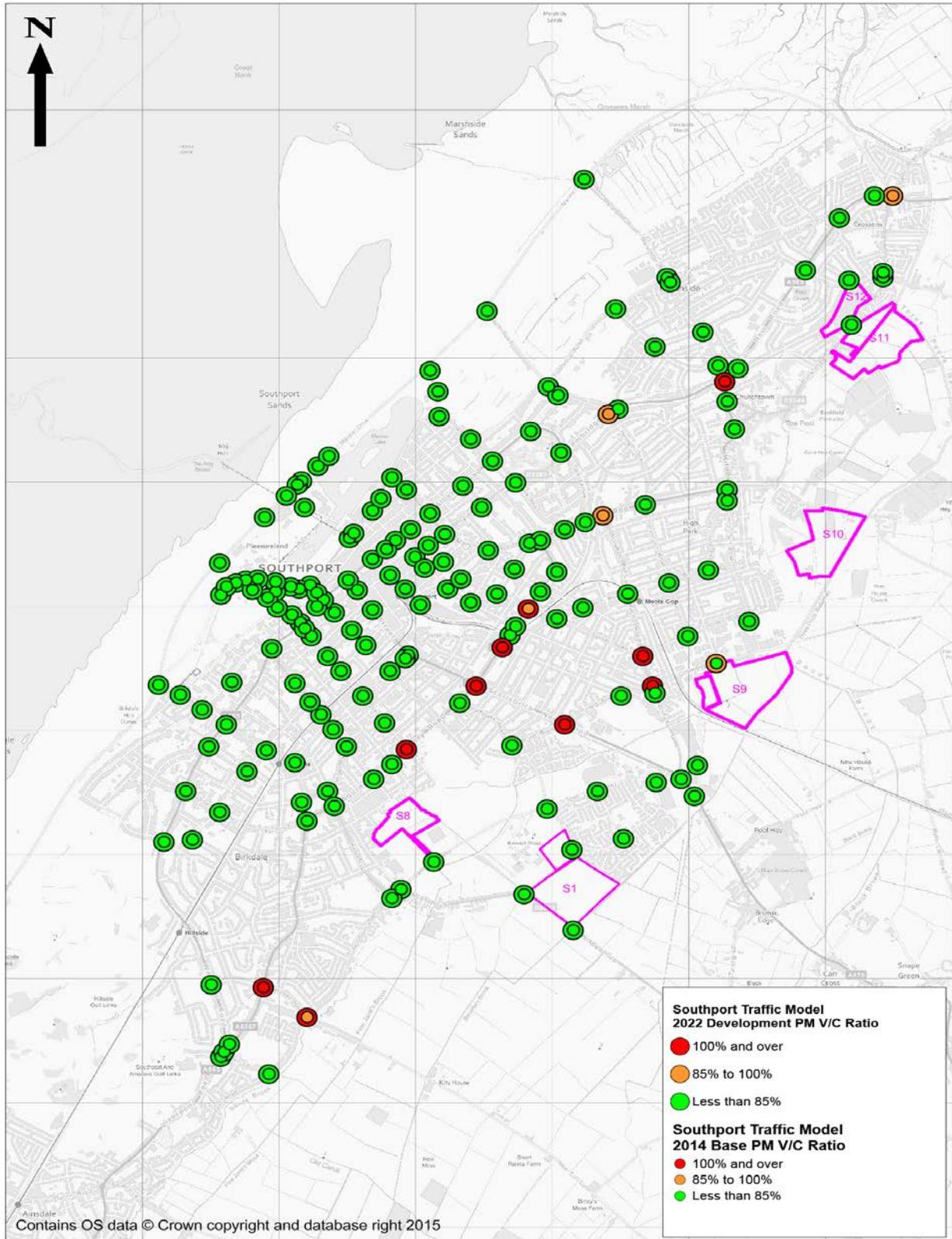


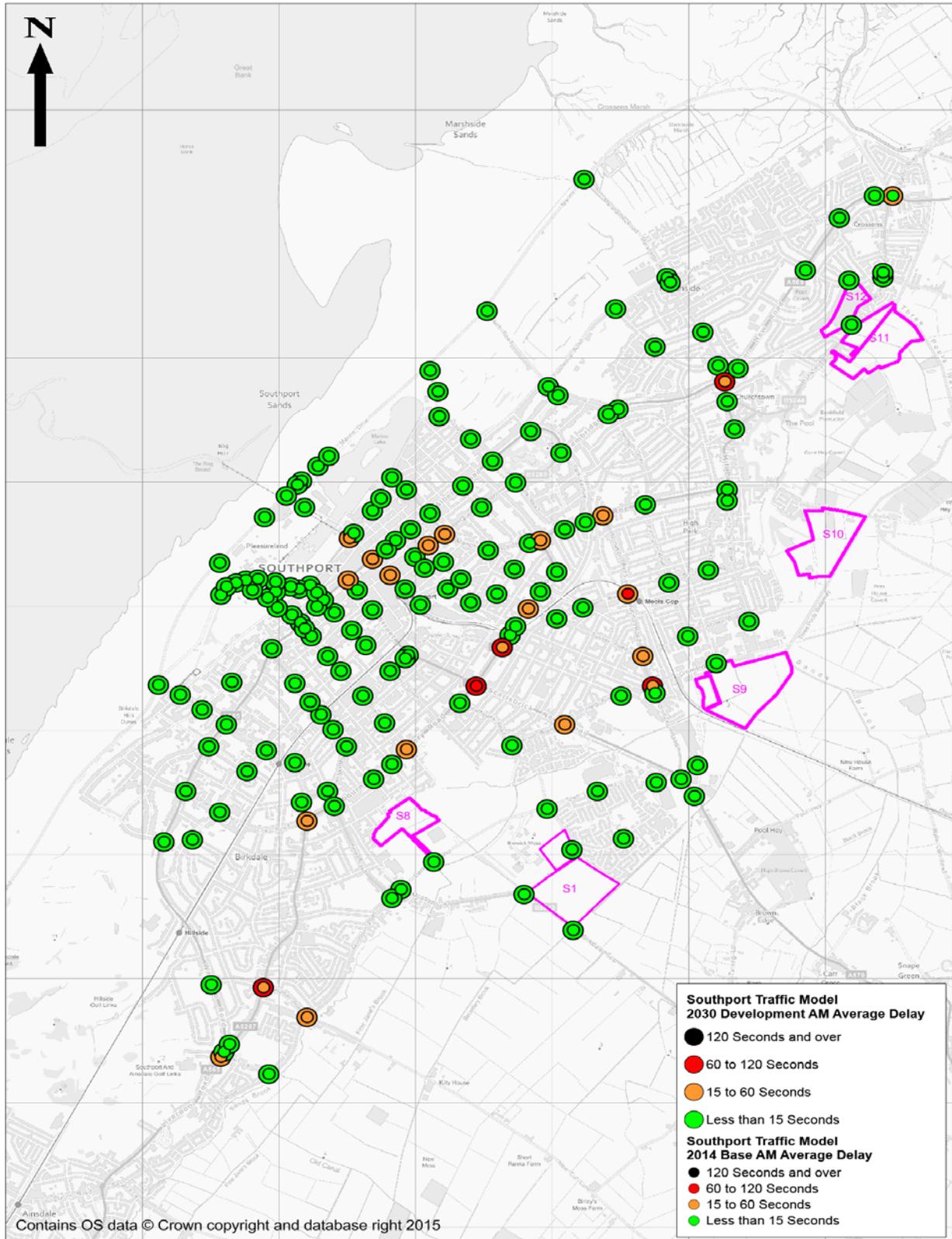
Figure 3-19 indicates that only the Meols Cop Road / Butts Lane junction will experience an increase in delay with the 2022 level of development during the PM peak period.

Figure 3-20 2014 Base, 2022 Development PM Peak V/C Comparison.



In terms of junction capacity, it is predicted that only the Sussex Road / Ash Street and the New Cut Lane / Guildford Road junctions will experience an increase in V/C ratio.

Figure 3-21 2014 Base, 2030 Development AM Peak Delay Comparison.



A similar pattern to the 2022 development scenario is predicted with delays increasing at the Meols Cop Road / Butts Lane junction, as well as further north along the corridor at the Norwood Road / Bispham Road junction. Delays are also predicted to increase at the Marshside Road / Preston New Road junction and the Preston New Road / Water Lane roundabout. Additionally to the 2022 development scenario, delays are also predicted to increase at the Liverpool Road / Halsall Road junction and the Forest Road / Ash Street junction.

Figure 3-22 2014 Base, 2030 Development AM Peak V/C Comparison.

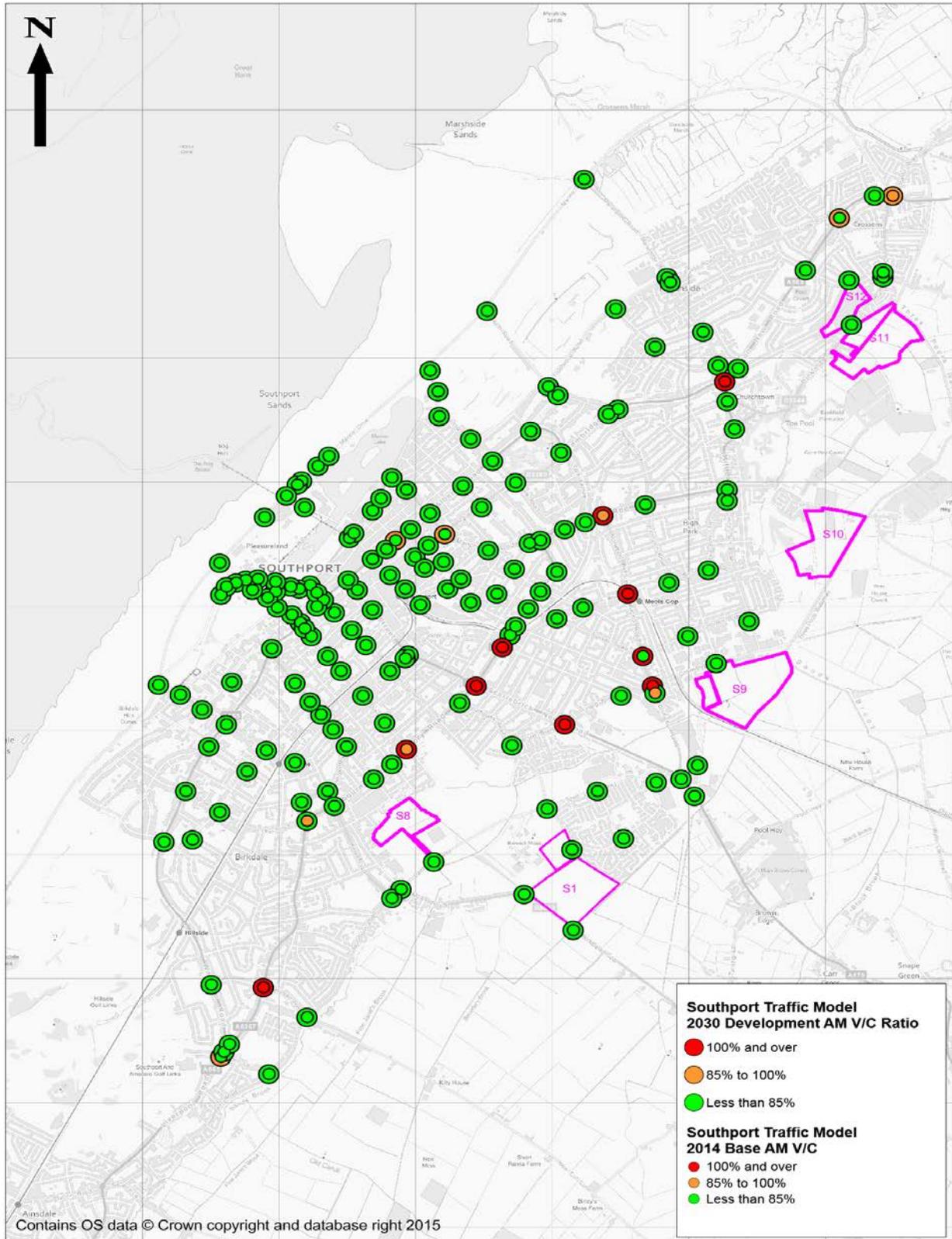


Figure 3-22 indicates that some junctions around Southport town centre will experience a slight increase in V/C ratio. The other locations predicted to worsen in terms of junction capacity, is the Norwood Road / Sussex Road junction, Norwood Rd / Roe Lane, the Preston New Road / Fylde Road junction and the Liverpool Road / Windy Harbour Road junction.

Figure 3-23 2014 Base, 2030 Development PM Peak Delay Comparison.

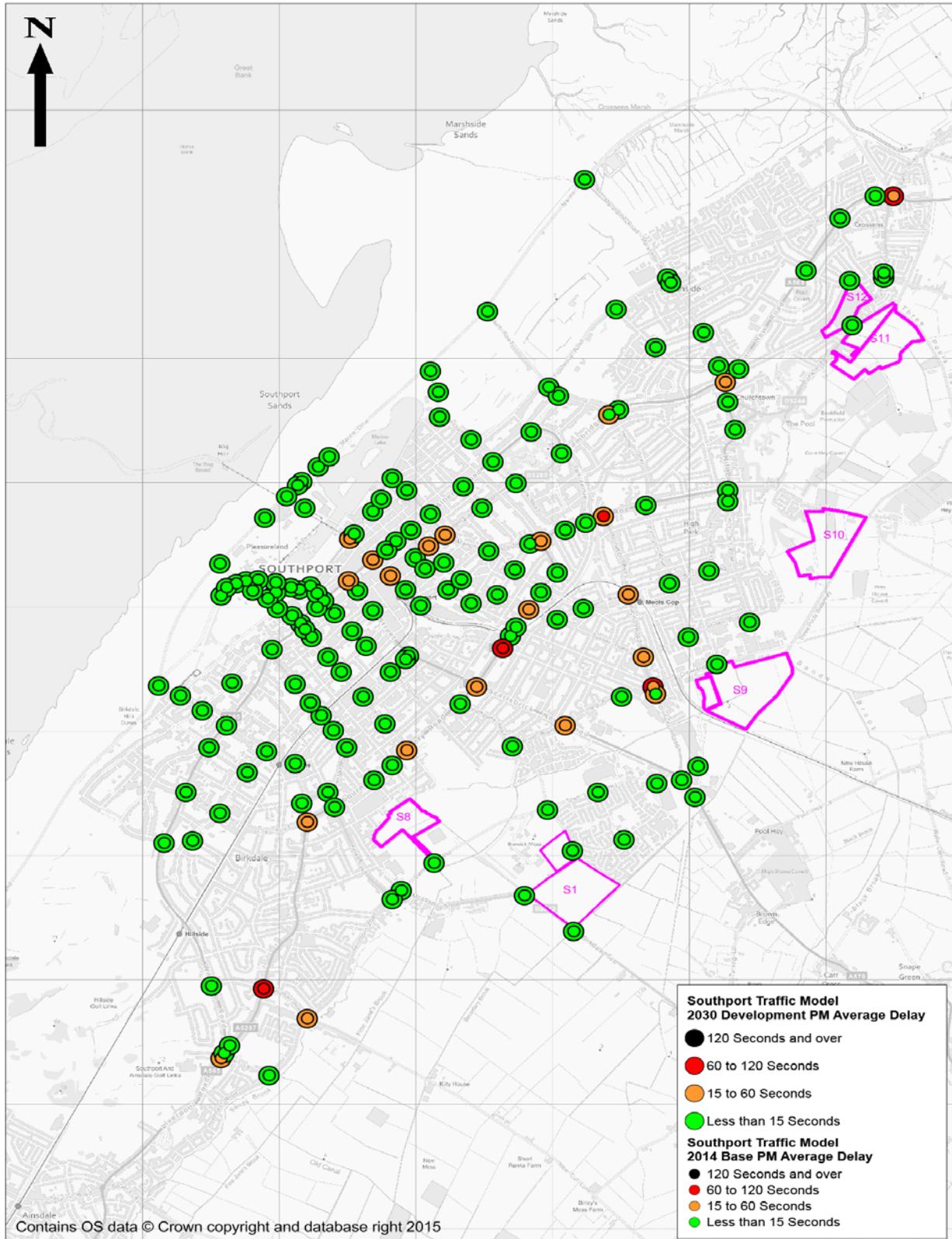


Figure 3-23 indicates that the PM peak 2030 development scenario will increase delays at the Meols Cop Road / Butts Lane and Meols Cop Road / Haig Avenue junctions, the Haig Avenue junction most likely being a knock on effect from increased queuing at the Butts Lane junction. The Norwood Avenue / Roe Lane and Preston New Road / Water Lane roundabout will also experience an increase in delays with the 2030 level of development during the PM peak period.

Figure 3-24 2014 Base, 2030 Development PM Peak V/C Comparison.

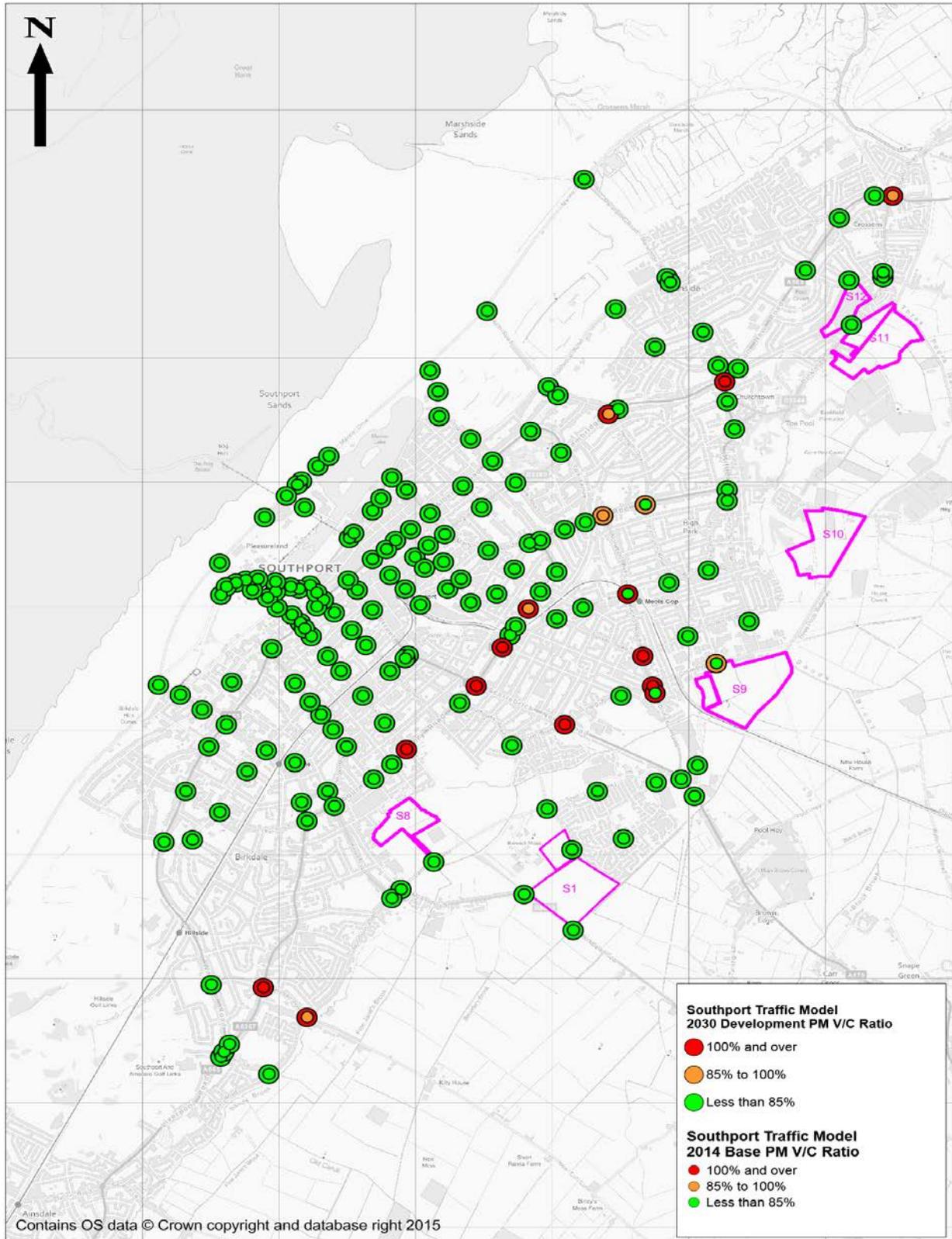


Figure 3-24 shows that V/C ratios are predicted to increase at the Haig Avenue / Meols Cop Road junction, although this is probably caused by a back-up of traffic from the Butts Lane junction. The Norwood Avenue / Bispham Road, Roe Lane / Hesketh Drive and the Cambridge Road / Hesketh Drive junctions are also predicted to experience additional capacity issues, as is the Preston New Road / Water Lane roundabout, the Guildford Road / New Cut Lane and Sussex Road / Ash Road junctions which also experience an increase in V/C.

4. Summary

The assessment of the six development sites located on the Eastern side of Southport Town Centre has been undertaken for the forecast years of 2022 and 2030. Agreed 'build-out' rates for each site have been incorporated into the Southport Town Centre traffic model and the impacts of these sites on the existing Southport road infrastructure has been assessed by comparing the current day levels of traffic delay and congestion against the AM and PM peak scenarios with the additional development in place.

The traffic model results indicate that there will be additional V/C issues and increased delays to the north of the Kew roundabout along the Meols Cop Road / Norwood Avenue corridor.

Delays are also predicted to increase at the Preston New Road / Water Lane roundabout, especially by 2030.

The increase in Delays and V/C at these junctions is summarised in Table 4-1 below.

Table 4-1 Delay and V/C Increases

Junction	2014 Base				2022 Development				2030 Development			
	Average Delay (s)		Max V/C %		Average Delay (s)		Max V/C %		Average Delay (s)		Max V/C %	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Meols Cop Rd / Haig Ave	6	5	87	80	5	3	85	68	5	28	77	107
Meols Cop Rd / Butts Ln	60	41	104	100	94	67	108	103	115	80	109	104
Norwood Ave / Sussex Rd	31	41	71	100	32	57	90	102	36	59	101	102
Norwood Ave / Bispham Rd	69	28	107	81	50	30	104	85	55	34	105	101
Norwood Ave / Roe Ln	37	60	100	97	36	48	93	99	55	47	103	96
Preston New Rd / Water Ln	15	17	87	93	17	24	94	100	18	63	92	106

There are also various other junctions that are predicted to experience an increase in V/C particularly during the AM peak development scenario around Southport town centre. These junctions are tabulated in Table 4-2.

Table 4-2 Delay and V/C Increases

Junction	2014 Base				2022 Development				2030 Development			
	Average Delay (s)		Max V/C %		Average Delay (s)		Max V/C %		Average Delay (s)		Max V/C %	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Lord St / Eastbank St	35	38	67	70	35	38	76	77	36	38	83	83
Lord St / Hill St	10	7	84	68	12	8	91	69	11	8	86	70
Manchester Rd / Queens Rd	35	34	66	75	35	34	79	74	36	35	87	77
Sussex Rd / St Luke's Rd	24	29	79	100	25	30	80	100	26	30	85	100

Appendix A. TRICS Analysis

A.1. Morning Peak TRICS Data

TRICS 7.2.1

Trip Rate f Number of dwellings

RANK ORDER for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

Ranking Type: TOTALS Time Range: 08:00-09:00

85th Percentile = no. 8

Rank	Site Ref	Description	Town/City	DWELLS	Day	Date	Arrivals	Departures	Totals	Parking Spaces	Per Dwelling
1	MS-03-A-03	DETACHED	LIVERPOOL	15	Friday	21/06/2013	0.4	0.933	1.333		3
2	SF-03-A-04	DETACHED & BUNGALOWS	LOWESTOFT	7	Tuesday	23/10/2012	0.429	0.571	1		4.43
3	WK-03-A-02	BUNGALOWS	COVENTRY	17	Thursday	17/10/2013	0.588	0.353	0.941		2.06
4	GM-03-A-10	DETACHED/SEMI	MANCHESTER	29	Wednesday	12/10/2011	0.138	0.759	0.897		2.79
5	SR-03-A-01	DETACHED	STIRLING	115	Monday	23/04/2007	0.165	0.678	0.843		2.86
6	CH-03-A-05	DETACHED	CREWE	17	Tuesday	14/10/2008	0.235	0.588	0.823		3.71
7	SH-03-A-04	TERRACED	SHREWSBURY	108	Thursday	11/06/2009	0.287	0.454	0.741		1.86
8	SF-03-A-02	SEMI DET./TERRACED	IPSWICH	230	Thursday	24/05/2007	0.243	0.491	0.734		2.48
9	WM-03-A-03	MIXED HOUSING	COVENTRY	84	Monday	24/09/2007	0.321	0.405	0.726		2.6
10	NY-03-A-10	HOUSES AND FLATS	RIPON	71	Tuesday	17/09/2013	0.183	0.521	0.704		0.83
11	SH-03-A-03	DETACHED	SHREWSBURY	10	Friday	26/06/2009	0.2	0.5	0.7		3
12	CB-03-A-03	SEMI DETACHED	WORKINGTON	40	Thursday	20/11/2008	0.225	0.45	0.675		3.1
13	ST-03-A-05	TERRACED & DETACHED	STOKE-ON-TRENT	14	Wednesday	26/11/2008	0.143	0.5	0.643		2.86
14	CH-03-A-08	DETACHED	CHESTER	11	Tuesday	22/05/2012	0.182	0.455	0.637		4.73
15	LN-03-A-01	MIXED HOUSES	LINCOLN	150	Tuesday	15/05/2007	0.187	0.44	0.627		4.91
16	TW-03-A-02	SEMI-DETACHED	GATESHEAD	16	Monday	07/10/2013	0.188	0.438	0.626		2.38
17	LC-03-A-30	SEMI-DETACHED	BLACKPOOL	24	Friday	14/06/2013	0.167	0.458	0.625		1.67
18	CF-03-A-03	DETACHED	CARDIFF	29	Monday	08/10/2007	0.069	0.552	0.621		3.21
19	LN-03-A-02	MIXED HOUSES	LINCOLN	186	Monday	14/05/2007	0.183	0.425	0.608		4.13
20	AG-03-A-01	BUNGALOWS/DET.	ARBROATH	7	Tuesday	22/05/2012	0.286	0.286	0.572		2.71
21	CB-03-A-04	SEMI DETACHED	WORKINGTON	82	Friday	24/04/2009	0.183	0.366	0.549		1.74
22	CF-03-A-02	MIXED HOUSES	CARDIFF	196	Friday	05/10/2007	0.107	0.413	0.52		1.98
23	SF-03-A-01	SEMI DETACHED	IPSWICH	77	Wednesday	23/05/2007	0.104	0.416	0.52		2.22
24	SH-03-A-05	SEMI-DETACHED/TERRACED	TELFORD	54	Thursday	24/10/2013	0.13	0.37	0.5		1.17
25	NY-03-A-06	BUNGALOWS & SEMI DET.	BOROUGHBRIDGE	115	Friday	14/10/2011	0.096	0.4	0.496		3.5
26	NY-03-A-07	DETACHED & SEMI DET.	BOROUGHBRIDGE	23	Tuesday	18/10/2011	0.087	0.391	0.478		1.96
27	CH-03-A-02	HOUSES/FLATS	CREWE	174	Tuesday	14/10/2008	0.103	0.374	0.477		2.81
28	DC-03-A-01	DETACHED	POOLE	51	Wednesday	16/07/2008	0.098	0.373	0.471		3
29	ST-03-A-06	SEMI-DET. & TERRACED	WOLVERHAMPTON	17	Friday	09/05/2014	0.235	0.235	0.47		1.12
30	NF-03-A-02	HOUSES & FLATS	NORWICH	98	Monday	22/10/2012	0.122	0.347	0.469		2.24
31	SY-03-A-01	SEMI DETACHED HOUSES	DONCASTER	54	Wednesday	18/09/2013	0.056	0.389	0.445		1.13
32	NF-03-A-01	SEMI DET. & BUNGALOWS	CAISTER-ON-SEA	27	Tuesday	16/10/2012	0.148	0.296	0.444		2.37
33	NE-03-A-03	PRIVATE HOUSES	SCUNTHORPE	180	Tuesday	20/05/2014	0.144	0.283	0.427		2.68
34	CW-03-A-02	SEMI D./DETACHED	TRURO	73	Tuesday	18/09/2007	0.096	0.329	0.425		3.73
35	NE-03-A-02	SEMI DETACHED & DETACHED	SCUNTHORPE	432	Monday	12/05/2014	0.067	0.354	0.421		1
36	LN-03-A-03	SEMI DETACHED	LINCOLN	22	Tuesday	18/09/2012	0.045	0.364	0.409		1.09
37	CH-03-A-06	SEMI-DET./BUNGALOWS	CREWE	129	Tuesday	14/10/2008	0.163	0.24	0.403		2.59
38	NY-03-A-09	MIXED HOUSING	NORTHALLERTON	52	Monday	16/09/2013	0.173	0.212	0.385		2.6
39	FA-03-A-02	MIXED HOUSES	FALKIRK	161	Wednesday	29/05/2013	0.062	0.28	0.342		1.66
40	NY-03-A-08	TERRACED HOUSES	YORK	21	Monday	16/09/2013	0.048	0.286	0.334		1.14
41	DC-03-A-08	BUNGALOWS	BOURNEMOUTH	28	Monday	24/03/2014	0.179	0.143	0.322		4.68
42	NY-03-A-03	PRIVATE HOUSING	BOROUGHBRIDGE	14	Monday	15/09/2008	0.143	0.143	0.286		3.14

A.2. Evening Peak TRICS Data

TRICS 7.2.1

Trip Rate f Number of dwellings

RANK ORDER for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

Ranking Type: TOTALS Time Range: 17:00-18:00

85th Percentile = no. 6

Rank	Site Ref	Description	Town/City	DWELLS	Day	Date	Arrivals	Departures	Totals	Parking Spaces	Per Dwelling
1	SH-03-A-03	DETACHED	SHREWSBURY	10	Friday	26/06/2009	0.7	0.6	1.3	3	
2	SR-03-A-01	DETACHED	STIRLING	115	Monday	23/04/2007	0.583	0.304	0.887	2.86	
3	LN-03-A-02	MIXED HOUSES	LINCOLN	186	Monday	14/05/2007	0.495	0.355	0.85	4.13	
4	DC-03-A-01	DETACHED	POOLE	51	Wednesday	16/07/2008	0.51	0.333	0.843	3	
5	CH-03-A-08	DETACHED	CHESTER	11	Tuesday	22/05/2012	0.545	0.273	0.818	4.73	
6	CA-03-A-04	DETACHED	PETERBOROUGH	9	Tuesday	18/10/2011	0.556	0.222	0.778	2.44	
7	WM-03-A-03	MIXED HOUSING	COVENTRY	84	Monday	24/09/2007	0.405	0.369	0.774	2.6	
8	CH-03-A-05	DETACHED	CREWE	17	Tuesday	14/10/2008	0.353	0.412	0.765	3.71	
9	SH-03-A-04	TERRACED	SHREWSBURY	108	Thursday	11/06/2009	0.463	0.296	0.759	1.86	
10	NY-03-A-11	PRIVATE HOUSING	BOROUGHBRIDGE	23	Wednesday	18/09/2013	0.609	0.13	0.739	6.26	
11	NY-03-A-07	DETACHED & SEMI DET.	BOROUGHBRIDGE	23	Tuesday	18/10/2011	0.478	0.261	0.739	1.96	
12	SF-03-A-02	SEMI DET./TERRACED	IPSWICH	230	Thursday	24/05/2007	0.478	0.248	0.726	2.48	
13	CB-03-A-03	SEMI DETACHED	WORKINGTON	40	Thursday	20/11/2008	0.475	0.25	0.725	3.1	
14	HI-03-A-14	SEMI-DETACHED	INVERNESS	73	Friday	13/05/2011	0.356	0.329	0.685	2.05	
15	HI-03-A-13	HOUSING	INVERNESS	9	Thursday	21/05/2009	0.333	0.333	0.666	3.11	
16	CF-03-A-03	DETACHED	CARDIFF	29	Monday	08/10/2007	0.414	0.241	0.655	3.21	
17	ST-03-A-06	SEMI-DET. & TERRACED	WOLVERHAMPTON	17	Friday	09/05/2014	0.353	0.294	0.647	1.12	
18	CW-03-A-02	SEMI D./DETACHED	TRURO	73	Tuesday	18/09/2007	0.425	0.219	0.644	3.73	
19	LN-03-A-01	MIXED HOUSES	LINCOLN	150	Tuesday	15/05/2007	0.413	0.213	0.626	4.91	
20	LC-03-A-30	SEMI-DETACHED	BLACKPOOL	24	Friday	14/06/2013	0.417	0.208	0.625	1.67	
21	CF-03-A-02	MIXED HOUSES	CARDIFF	196	Friday	05/10/2007	0.398	0.214	0.612	1.98	
22	NY-03-A-10	HOUSES AND FLATS	RIPON	71	Tuesday	17/09/2013	0.479	0.099	0.578	0.83	
23	SF-03-A-04	DETACHED & BUNGALOWS	LOWESTOFT	7	Tuesday	23/10/2012	0.429	0.143	0.572	4.43	
24	CB-03-A-04	SEMI DETACHED	WORKINGTON	82	Friday	24/04/2009	0.354	0.207	0.561	1.74	
25	CH-03-A-02	HOUSES/FLATS	CREWE	174	Tuesday	14/10/2008	0.322	0.236	0.558	2.81	
26	NF-03-A-01	SEMI DET. & BUNGALOWS	CAISTER-ON-SEA	27	Tuesday	16/10/2012	0.407	0.148	0.555	2.37	
27	GM-03-A-10	DETACHED/SEMI	MANCHESTER	29	Wednesday	12/10/2011	0.448	0.103	0.551	2.79	
28	TW-03-A-02	SEMI-DETACHED	GATESHEAD	16	Monday	07/10/2013	0.438	0.063	0.5	2.38	
29	ST-03-A-05	TERRACED & DETACHED	STOKE-ON-TRENT	14	Wednesday	26/11/2008	0.286	0.214	0.5	2.86	
30	NY-03-A-06	BUNGALOWS & SEMI DET.	BOROUGHBRIDGE	115	Friday	14/10/2011	0.296	0.174	0.47	3.5	
31	NY-03-A-09	MIXED HOUSING	NORTHALLERTON	52	Monday	16/09/2013	0.269	0.192	0.461	2.6	
32	NE-03-A-02	SEMI DETACHED & DETACHED	SCUNTHORPE	432	Monday	12/05/2014	0.257	0.162	0.419	1	
33	SF-03-A-01	SEMI DETACHED	IPSWICH	77	Wednesday	23/05/2007	0.247	0.169	0.416	2.22	
34	MS-03-A-03	DETACHED	LIVERPOOL	15	Friday	21/06/2013	0.2	0.2	0.4	3	
35	FA-03-A-01	SEMI-DETACHED/TERRACED	FALKIRK	37	Thursday	30/05/2013	0.243	0.135	0.378	1.41	
36	NF-03-A-02	HOUSES & FLATS	NORWICH	98	Monday	22/10/2012	0.235	0.143	0.378	2.24	
37	SH-03-A-05	SEMI-DETACHED/TERRACED	TELFORD	54	Thursday	24/10/2013	0.241	0.13	0.371	1.17	
38	NY-03-A-03	PRIVATE HOUSING	BOROUGHBRIDGE	14	Monday	15/09/2008	0.214	0.143	0.357	3.14	
39	NY-03-A-08	TERRACED HOUSES	YORK	21	Monday	16/09/2013	0.286	0.048	0.334	1.14	
40	SY-03-A-01	SEMI DETACHED HOUSES	DONCASTER	54	Wednesday	18/09/2013	0.278	0.056	0.334	1.13	
41	LN-03-A-03	SEMI DETACHED	LINCOLN	22	Tuesday	18/09/2012	0.273	0.045	0.318	1.09	
42	NE-03-A-03	PRIVATE HOUSES	SCUNTHORPE	180	Tuesday	20/05/2014	0.128	0.183	0.311	2.68	
43	DC-03-A-08	BUNGALOWS	BOURNEMOUTH	28	Monday	24/03/2014	0.107	0.179	0.286	4.68	
44	CH-03-A-06	SEMI-DET./BUNGALOWS	CREWE	129	Tuesday	14/10/2008	0.132	0.14	0.272	2.59	