

Appendix F

HIGHWAYS (RESPONSE TO QUESTION 28)



Project	St Helens Borough Local Plan 2020 – 2035 Examination
Title	Land at Florida Farm, Haydock (2HA) - Matters, Issues and Questions for the Examination and Hearing Sessions – Question 28
Revision	1st Issue v 2

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Date	21.05.2021

1.0 Introduction

1.1 This technical note has been prepared on behalf of Barratt Homes to respond to the Matters, Issues, and Questions for Examination and Hearing Sessions, Matter 4, Issue 3, **Question 28** in relation to the Land at Florida Farm (2HA) Site.

2.0 Q28 - Will infrastructure to support the allocations, including improvements to Junction 23 (M6), be delivered at the right time and in the right place?

2.1 The St Helens Borough Local Plan 2020-2035 Infrastructure Delivery Plan, October 2020 (SD013) (IDP), identified the need to address a number of pressure points within the highway network. These were set out in Table 2 of the IDP which has been replicated in **Table 28.1** below.

Table 28.1 – Identified Pressure Points

Location/Junction	Current Status	Relevant LPSP Site	Potential Improvement
Table 2 of the IDP			
M6 Junction 23	Currently the subject of a joint study commissioned by SHC, Wigan Council and HE. This Study will provide a detailed identification of capacity issues and an outline of potential options for further development. It is envisaged that it will ultimately determine the scale and design of a potential large-scale improvement scheme for Junction 23. Therefore, any required infrastructure improvements to Junction 23 from relevant employment sites that do not already have a planning permission (4EA, 5EA and 6EA), will be informed by the findings of this Study	2EA, 3EA, 4EA, 5EA, 6EA, 1HA and 2HA	An outline study indicating a preferred option costing circa £40m has been recommended for further design and deliverability assessment
A580 junction with Haydock Lane	On site complete in early 2019	2EA, 5EA, 6EA and 2HA	New junction design providing improved access into industrial

			estate and walking and cycling facilities. Latest standard of signal equipment to improve traffic flow.
A580 corridor	Future Study to support capacity improvements at J23	2EA, 3EA, 4EA, 5EA, 6EA, 2HA and 6HA	LCR Corridor approach with improvements is likely to consider the upgrade of existing junctions, potential removal of junctions, improved traffic management including reduction in speed limit and junction enforcement
Church Street / Southworth Road, Newton-le-Willows	Review underway	7EA, 8EA, 7HA, 4HS & 5HS	Utilise junction upgrade options such as demand responsive/ scooter to manage traffic. Parking bays/ restrictions to utilise existing road capacity before using 3rd party land to increase junction
Liverpool Road/Millfield Lane, Haydock	Scheme delivered in 2017 providing short term benefits. Longer term option to be developed.	2EA, 5EA & 6EA	There is limited opportunity to change the existing layout. Potential land release of 6EA could enable new alignment to Liverpool Road.
Sherdley Roundabout, Thatto Heath	Scheme on site in 2019.	3HA & 10HA	New junction design providing improved access into industrial estate and walking and cycling facilities. Latest standard of signal equipment to improve traffic flow
M62 Junction 7	Currently the subject of a study commissioned by HE	4HA, 5HA, 9HA, 1EA & 10EA	Initial study by HE identifies improvement options ranging from £7m to £18m to provide additional capacity
M62 Junction 8	Scheme completed in 2018. Further work depending on Adopted Local Plans in St Helens and Warrington and HE Route Management	4HA & 1EA	No further scheme has been identified as yet. An additional M6 crossing is being investigated by HE to mitigate use of junction.
Penny Lane/Lodge Lane, Haydock	Review underway	3EA, 4EA & 2ES	New junction design providing improved access into industrial estate and walking and cycling facilities. Latest standard of signal equipment to improve traffic flow

Bold Forest Garden Suburb, Bold	Following advice from HE, SHC has commissioned a transport study to identify the likely transport requirements to enable a residential led development being phased over 25 years	4HA, 5HA & 1EA	The first stage of the Bold Forest Garden Suburb Transport Study (Ref: TRA005) has identified a number of improvements and opportunities around sustainable travel.
Moss Nook Urban Village, Watery Lane, St Helens	Following an amended planning consent for 900 units, remediation work initially started on site, but then stalled. However, in January 2020, a leading regenerator of land and property for development and investment, secured a £2.05m grant from Liverpool City Region's Single Infrastructure Fund (SIF) to accelerate development at Moss Nook.	10HA	The funding will help unlock the first phase of the Moss Nook project with around 240 residential units over 16 acres through financially contributing to the construction of a new spine road and associated infrastructure

- 2.2 As set out in **Table 28.1**, the IDP refers to a number of the highway infrastructure schemes as being already complete or on-site. Those remaining, including improvements to Junction 23 (M6) are referred to as being the subject of further study or development.
- 2.3 The IDP was in part, informed by the Transport Impact Assessment Report (TIA) (TRA003) prepared for the St Helens Local Plan by WSP. The TIA sets out the results of junction capacity assessments undertaken at a number of key junctions on the highway network to determine the impact of the proposed Local Plan on the operation of the junctions.
- 2.4 The TIA does not disaggregate between the forecast traffic generation or impact of individual allocation sites. However, to provide a high-level view of the potential impact of Site 2HA on the local highway network for various stages of development, we have undertaken a site traffic generation and distribution exercise.
- 2.5 For the purpose of this note, a total of 600 dwellings on Site 2HA have been assumed with an anticipated build out rate of around 90 dwellings per year. This is proposed to be made up of 70 private dwellings and 20 affordable dwellings. Traffic flows estimated to be generated by Site 2HA have been determined for three stages of development:
- Stage 1 - (90 dwellings)
 - Stage 2 – (270 dwellings), and
 - Stage 3 – (600 dwellings)
- 2.6 The TRICS database has been used to determine trip rates for both 'Houses privately owned' and 'Affordable / Local Authority Houses' with similar characteristics to the proposed site. The resultant forecast trip generation is set out in **Table 28.2**.

Table 28.2 – Trip Generation

Peak		Stage								
		(90 Dwellings)			(270 Dwellings)			(600 Dwellings)		
		Arrivals	Depart	Total	Arrivals	Depart	Total	Arrivals	Depart	Total
AM Peak	08:00 – 09:00	15	30	45	44	91	135	98	202	300
PM Peak	15:00- 16:00	26	19	45	79	57	135	175	126	300
Daily	07-00 – 19:00	190	197	388	571	592	1163	1268	1316	2585

- 2.7 The forecast generated traffic has then been assigned to the local highway network using 2011 Census ‘Location of usual residence and place of work by method of travel to work (MSOA level)’ data for the St Helens 003 and 006 MSOAs. Whilst the site is located within St Helens 003, this MSOA has limited residential development contained within it’s boundary, hence the neighbouring MSOA (St Helens 006) is considered to provide a more accurate reflection of future development traffic patterns as this contains a higher proportion of existing residential areas. As a result, a combination of both MSOAs have been used to estimate the distribution of development trips. The forecast development traffic has been assigned across the network based on the distribution determined.
- 2.8 In distributing the development traffic, it has been assumed that for development Stage 1 – 90 dwellings, only the proposed site access/egress onto Vicarage Road is operational. For Stage 2 (270 dwellings) and thereafter, it has been assumed that both site access junctions are operational (i.e. the Vicarage Road and A580 site access junctions). Further details of the determination of the trip generation and traffic distribution can be found in **Appendix A**.
- 2.9 The level of traffic forecast to be travelling through key junctions on the network during the Weekday AM and PM peaks for the three stages of development set out above is summarised in **Table 28.3** and is also shown in the traffic flow diagrams attached in **Appendix B**.
- 2.10 **Table 28.3** shows that in Stage 1, with 90 dwellings complete and occupied, the volume of traffic estimated to be generated by the development would result in less than one additional vehicle movement per minute (on average) being added to the network. After Stage 2 with 270 dwellings occupied, the only key junctions where traffic generated by the site is forecast to be more than one additional vehicle movement per minute are at the Vicarage Road Site Access junction and the A58/Vicarage Rd and A58/A580 junctions.
- 2.11 During Stage 3, when the whole site has been assumed to be built out (600 dwellings), additional junctions where traffic generated by the site is forecast to be more than one vehicle movement per minute include the second site access onto the A580, the Haydock Ln/A580, Park Rd/Parr St/Ashcroft St, and A58/Millfield Lane junctions. However, the additional traffic forecast to be generated through the A58/Millfield Lane

junction is only just over 1 vehicle movement per minute.

- 2.12 Of these junctions, the A58/A580 and Haydock Ln/A580 junctions have both been subject to significant improvement schemes, the A58/A580 in 2020 and the A580 / Haydock Lane in 2019. The IDP also states that the A58/Millfield Lane junction has been the subject of a scheme providing short term benefits which was delivered in 2017.
- 2.13 It is also worth noting that along the A580 adjacent to the site, when all 600 units have been built out, a total of 104 additional vehicle movements (2-way) have been forecast to travel along this section of the A580 during the AM peak period and 66 additional movements during the PM peak. With reference to the permanent DfT count site that is located along this section of the A580, the increase in traffic due to 600 units on Site 2HA would be just 4.6% and 3.1% during the AM and PM peak periods respectively. This is based on 2019 count data and therefore the percentage impact of the site will be considerably less in the future.
- 2.14 A number of other key junctions in the area were included in the WSP TIA for which assessments were undertaken comparing the forecast operation in a future Do Minimum scenario against the forecast operation of a Do Something scenario, where:
- Do Minimum: the likely future network operation incorporating sites with extant planning permissions, SHLAA sites, and planned infrastructure schemes on the local road network.
 - Do Something 1 (DS1): includes all do minimum developments and planned infrastructure schemes, and in addition also includes the Local Plan preferred site allocations – including Site 2HA. No further highway improvements have been assumed under DS1.
- 2.15 Of relevance within these additional assessments, was the junction of Park Rd/Parr St/Ashcroft St, to the south-west of the site on the A58. Here, the WSP TIA identified that the forecast junction operation in the 2033 DS1 scenario would be comparable to that identified in the Do-Minimum scenario.
- 2.16 For the wider A58 corridor, the WSP TIA states that for the 2033 DS1 scenario, the 'forecast junction operation along the A58 corridor is generally similar to that for the Do Minimum scenario at the majority of junctions, with the highest v/c values increasing by up to around 5 percentage points'.
- 2.17 **Table 28.3** and the traffic flow diagrams attached to **Appendix B** show that when dissipated around the network, the level of traffic estimated to be generated by 600 dwellings on Site 2HA, passing through local junctions is expected to be relatively low. This includes at junction 23 and 24 of the M6 where development traffic generated by Site 2HA is forecast to be less than one additional vehicle movement per minute. This level of additional traffic generation passing through the junctions would not materially affect the performance of the junction, indeed it would be of a level that most highway users would be unable to discern or notice and would likely fall within day to day variations in traffic flow.

- 2.18 Given that the expected level of traffic estimated to be generated by the proposed development when dissipated around the highway network is relatively low and that junction improvements have already taken place at junctions in the immediate vicinity of Site 2HA (i.e. at the A58/A580 and A580/Haydock Lane junctions), we do not consider that large scale infrastructure improvements need to be put in place before Site 2HA comes forward.
- 2.19 Needless to say, any future proposed development on Site 2HA will be the subject of a planning application which will include a comprehensive Transport Assessment. The Transport Assessment will detail the impact of the development on the highway network, following which discussions and agreement with the local planning and highway authority will need to be undertaken on whether any further junction improvements are required, and the extent of these.
- 2.20 In conclusion therefore, for the reasons identified above it is considered that there is no direct need for **additional** infrastructure to support the allocation of Site 2HA. This position is based on the specific assessments undertaken and presented within this note and also the wider assessments presented in the WSP TIA document that identify the ability of the local network to accommodate this and other local site allocations.
- 2.21 ***It is also considered that based on the reasons identified above, and due to this site allocation having a very limited impact on Junction 23 (M6) (less than one-additional vehicle movement per minute), the specific reference to improvement at J23 is not relevant to this site. Therefore, the development of Site 2HA would have no bearing on the delivery or required timing of improvements to this motorway junction.***

Table 28.3 – Forecast Traffic Flows

Jct	Forecast Traffic Flows through Junctions											
	90 Dwellings				270 Dwellings				600 Dwellings			
	AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak	
	Veh/Hr	Veh/min	Veh/Hr	Veh/min	Veh/Hr	Veh/min	Veh/Hr	Veh/min	Veh/Hr	Veh/min	Veh/Hr	Veh/min
J1 – Vicarage Rd Site Access	45	<1	45	<1	88	Approx. 1 every 41 secs	94	Approx. 1 every 38 secs	195	Approx. 3.25	209	Approx. 3
J2 – A58/Vicarage Rd	37	<1	37	<1	83	Approx. 1 every 43 secs	83	Approx. 1 every 43 secs	183	Approx. 3	184	Approx. 3
J3 – A580/A58	24	<1	24	<1	80	Approx. 1 every 45 secs	67	Approx. 1 every 54 secs	178	Approx. 3	148	Approx. 2.5
J4 – A58/Millfield Ln	8	<1	8	<1	29	<1	28	<1	65	Just over 1	63	Just over 1
J5 – A58/M6 (J24)	8	<1	8	<1	26	<1	26	<1	58	<1	58	<1
J6 – Haydock Ln/A580	12	<1	12	<1	37	<1	42	<1	83	Approx. 1 every 43 secs	94	Approx. 1 every 38 secs
J7 – A580/M6 (J23)	9	<1	9	<1	26	<1	26	<1	58	< 1	58	<1
J8 – Haydock L/Clipsley Ln	8	<1	8	<1	19	<1	19	<1	41	<1	43	<1
J9 – Penny Ln/Lodge Ln (A49)	1	<1	2	<1	2	<1	2	<1	5	<1	5	<1
J10 – Millfield Ln/A580	8	<1	5	<1	20	<1	13	<1	47	<1	29	<1
J11 – A580 Site Access	0	0	0	0	47	<1	42	<1	105	Approx. 1 every 34 secs	92	Approx. 1 every 39 secs
J12– Park Rd/Parr St/Ashcroft St	13	<1	13	<1	39	<1	39	<1	87	Approx. 1.5	87	Approx. 1.5
J13 – Linkway E / Linkway W / St Helens Linkway Rbout	9	<1	9	<1	26	<1	26	<1	58	<1	59	<1

Appendix A - Trip Generation and Traffic Distribution

Trip Rate Calculation Summary

	No of Units		
	90 Units	270 Units	600 Units
Regular Units	70	210	467
Affordable Units	20	60	133
Total Units	90	270	600
% Affordable Units	22.2%	22.2%	22.2%

90 Units

		Privately Owned Units			Affordable Units			Total		
AM Peak	08:00-09:00	13	26	39	2	4	6	15	30	45
PM Peak	15:00-16:00	21	14	35	5	5	10	26	19	45
Daily	07:00-19:00	149	158	307	41	40	81	190	197	388

270 Units

		Privately Owned Units			Affordable Units			Total		
AM Peak	08:00-09:00	38	77	116	6	13	19	44	91	135
PM Peak	15:00-16:00	63	42	105	16	14	30	79	57	135
Daily	07:00-19:00	448	474	921	123	119	242	571	592	1163

600 Units

		Privately Owned			Affordable Units			Total		
AM Peak	08:00-09:00	85	172	257	13	30	43	98	202	300
PM Peak	15:00-16:00	139	94	234	35	32	67	175	126	300
Daily	07:00-19:00	996	1054	2049	273	263	536	1268	1316	2585

Trip Generation Calculations - 90 Units

Privately Owned Units 70
 Affordable Units 20

Privately Owned Units

Time Range	Trip Rate			Trip Generation		
	Arrivals	Departures	Total	Arrivals	Departures	Total
07:00-08:00	0.066	0.248	0.314	5	17	22
08:00-09:00	0.182	0.368	0.550	13	26	39
09:00-10:00	0.132	0.190	0.322	9	13	23
10:00-11:00	0.120	0.167	0.287	8	12	20
11:00-12:00	0.147	0.174	0.321	10	12	22
12:00-13:00	0.171	0.178	0.349	12	12	24
13:00-14:00	0.186	0.159	0.345	13	11	24
14:00-15:00	0.159	0.202	0.361	11	14	25
15:00-16:00	0.298	0.202	0.500	21	14	35
16:00-17:00	0.190	0.140	0.330	13	10	23
17:00-18:00	0.264	0.112	0.376	18	8	26
18:00-19:00	0.217	0.116	0.333	15	8	23

Affordable Units

Time Range	Trip Rate			Trip Generation		
	Arrivals	Departures	Total	Arrivals	Departures	Total
07:00-08:00	0.036	0.094	0.130	1	2	3
08:00-09:00	0.101	0.223	0.324	2	4	6
09:00-10:00	0.115	0.180	0.295	2	4	6
10:00-11:00	0.187	0.144	0.331	4	3	7
11:00-12:00	0.187	0.151	0.338	4	3	7
12:00-13:00	0.223	0.165	0.388	4	3	8
13:00-14:00	0.173	0.165	0.338	3	3	7
14:00-15:00	0.158	0.194	0.352	3	4	7
15:00-16:00	0.266	0.237	0.503	5	5	10
16:00-17:00	0.245	0.158	0.403	5	3	8
17:00-18:00	0.252	0.187	0.439	5	4	9
18:00-19:00	0.108	0.079	0.187	2	2	4

Trip Generation Calculations - 270 Units

Privately Owned Units 210

Affordable Units 60

Privately Owned Units

Time Range	Trip Rate			Trip Generation		
	Arrivals	Departures	Total	Arrivals	Departures	Total
07:00-08:00	0.066	0.248	0.314	14	52	66
08:00-09:00	0.182	0.368	0.550	38	77	116
09:00-10:00	0.132	0.190	0.322	28	40	68
10:00-11:00	0.120	0.167	0.287	25	35	60
11:00-12:00	0.147	0.174	0.321	31	37	67
12:00-13:00	0.171	0.178	0.349	36	37	73
13:00-14:00	0.186	0.159	0.345	39	33	72
14:00-15:00	0.159	0.202	0.361	33	42	76
15:00-16:00	0.298	0.202	0.500	63	42	105
16:00-17:00	0.190	0.140	0.330	40	29	69
17:00-18:00	0.264	0.112	0.376	55	24	79
18:00-19:00	0.217	0.116	0.333	46	24	70

Affordable Units

Time Range	Trip Rate			Trip Generation		
	Arrivals	Departures	Total	Arrivals	Departures	Total
07:00-08:00	0.036	0.094	0.130	2	6	8
08:00-09:00	0.101	0.223	0.324	6	13	19
09:00-10:00	0.115	0.180	0.295	7	11	18
10:00-11:00	0.187	0.144	0.331	11	9	20
11:00-12:00	0.187	0.151	0.338	11	9	20
12:00-13:00	0.223	0.165	0.388	13	10	23
13:00-14:00	0.173	0.165	0.338	10	10	20
14:00-15:00	0.158	0.194	0.352	9	12	21
15:00-16:00	0.266	0.237	0.503	16	14	30
16:00-17:00	0.245	0.158	0.403	15	9	24
17:00-18:00	0.252	0.187	0.439	15	11	26
18:00-19:00	0.108	0.079	0.187	6	5	11

Trip Generation Calculations - 600 Units

Privately Owned Units 467

Affordable Units 133

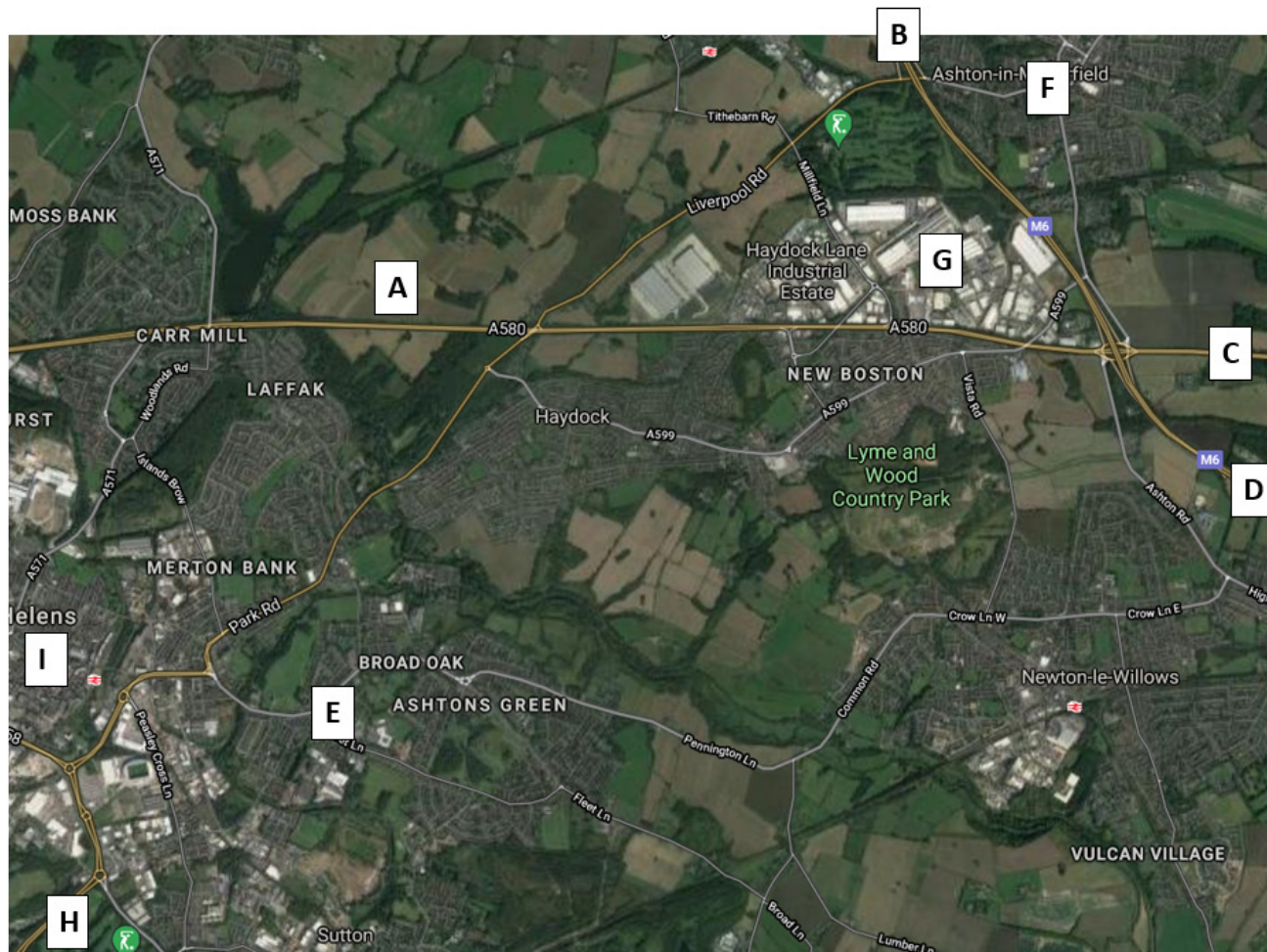
Privately Owned Units

Time Range	Trip Rate			Trip Generation		
	Arrivals	Departures	Total	Arrivals	Departures	Total
07:00-08:00	0.066	0.248	0.314	31	116	147
08:00-09:00	0.182	0.368	0.550	85	172	257
09:00-10:00	0.132	0.190	0.322	62	89	150
10:00-11:00	0.120	0.167	0.287	56	78	134
11:00-12:00	0.147	0.174	0.321	69	81	150
12:00-13:00	0.171	0.178	0.349	80	83	163
13:00-14:00	0.186	0.159	0.345	87	74	161
14:00-15:00	0.159	0.202	0.361	74	94	169
15:00-16:00	0.298	0.202	0.500	139	94	234
16:00-17:00	0.190	0.140	0.330	89	65	154
17:00-18:00	0.264	0.112	0.376	123	52	176
18:00-19:00	0.217	0.116	0.333	101	54	156

Affordable Units

Time Range	Trip Rate			Trip Generation		
	Arrivals	Departures	Total	Arrivals	Departures	Total
07:00-08:00	0.036	0.094	0.130	5	13	17
08:00-09:00	0.101	0.223	0.324	13	30	43
09:00-10:00	0.115	0.180	0.295	15	24	39
10:00-11:00	0.187	0.144	0.331	25	19	44
11:00-12:00	0.187	0.151	0.338	25	20	45
12:00-13:00	0.223	0.165	0.388	30	22	52
13:00-14:00	0.173	0.165	0.338	23	22	45
14:00-15:00	0.158	0.194	0.352	21	26	47
15:00-16:00	0.266	0.237	0.503	35	32	67
16:00-17:00	0.245	0.158	0.403	33	21	54
17:00-18:00	0.252	0.187	0.439	34	25	58
18:00-19:00	0.108	0.079	0.187	14	11	25

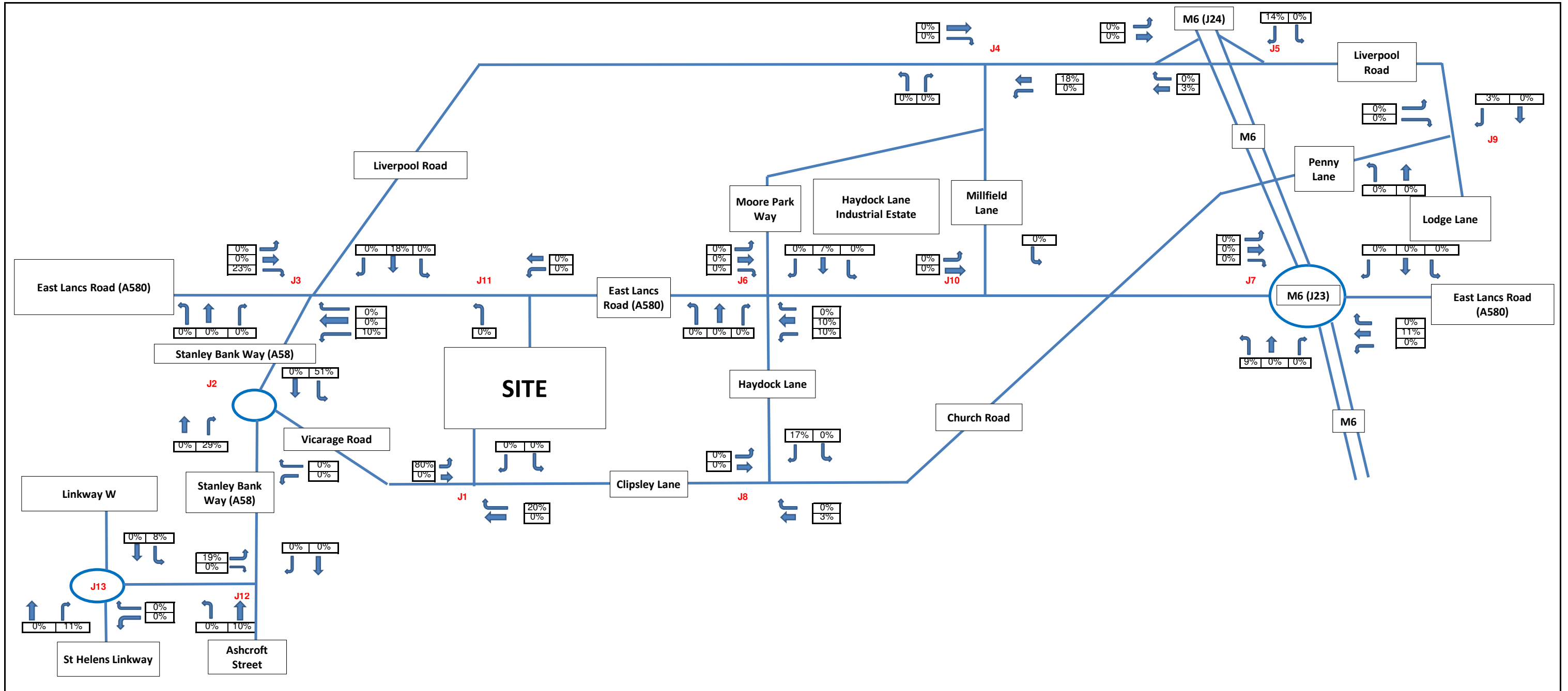
Trip Distribution



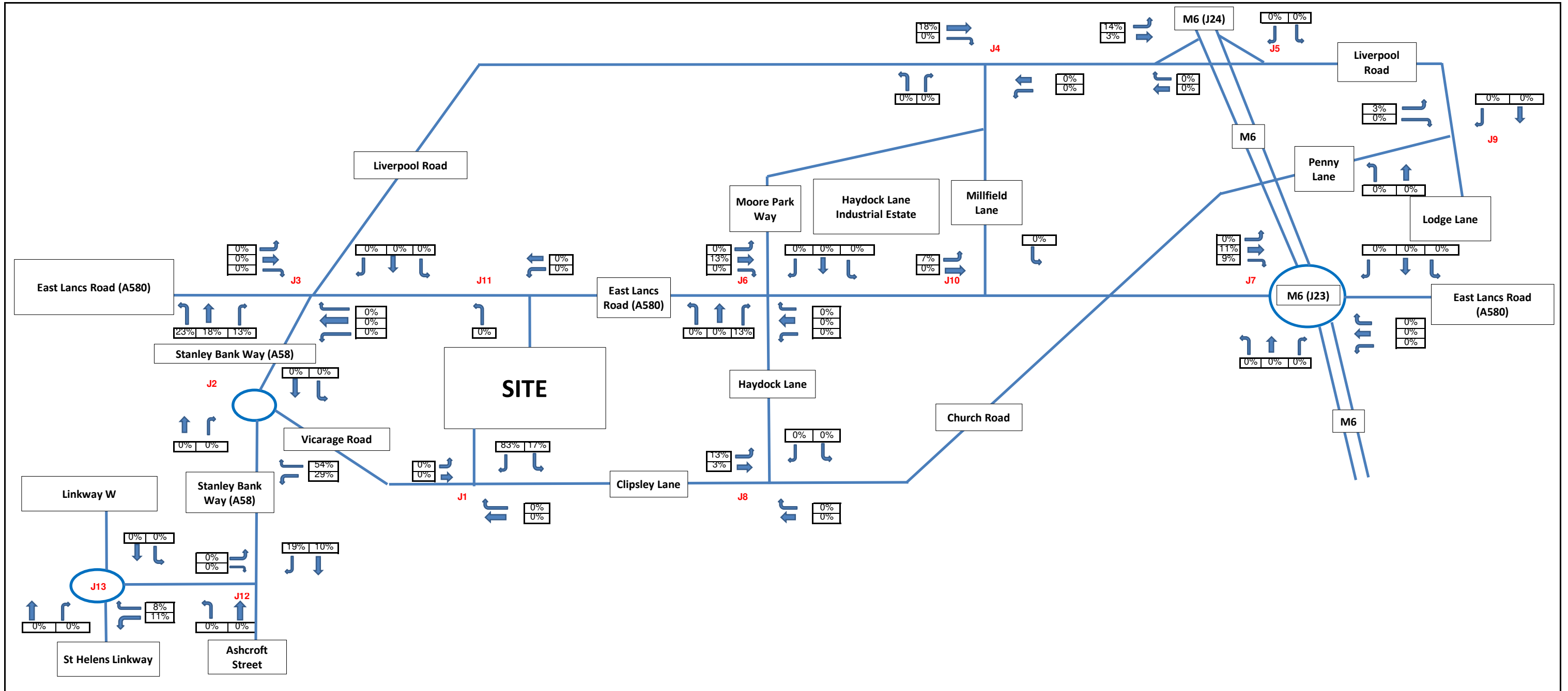
Trip Distribution

Route	No. of Journeys	% Distribution	Route	No. of Journeys	% Distribution
A	863	23.4%	F	240	6.5%
B	533	14.5%	G	265	7.2%
C	401	10.9%	H	420	11.4%
D	314	8.5%	I	296	8.0%
E	350	9.5%			

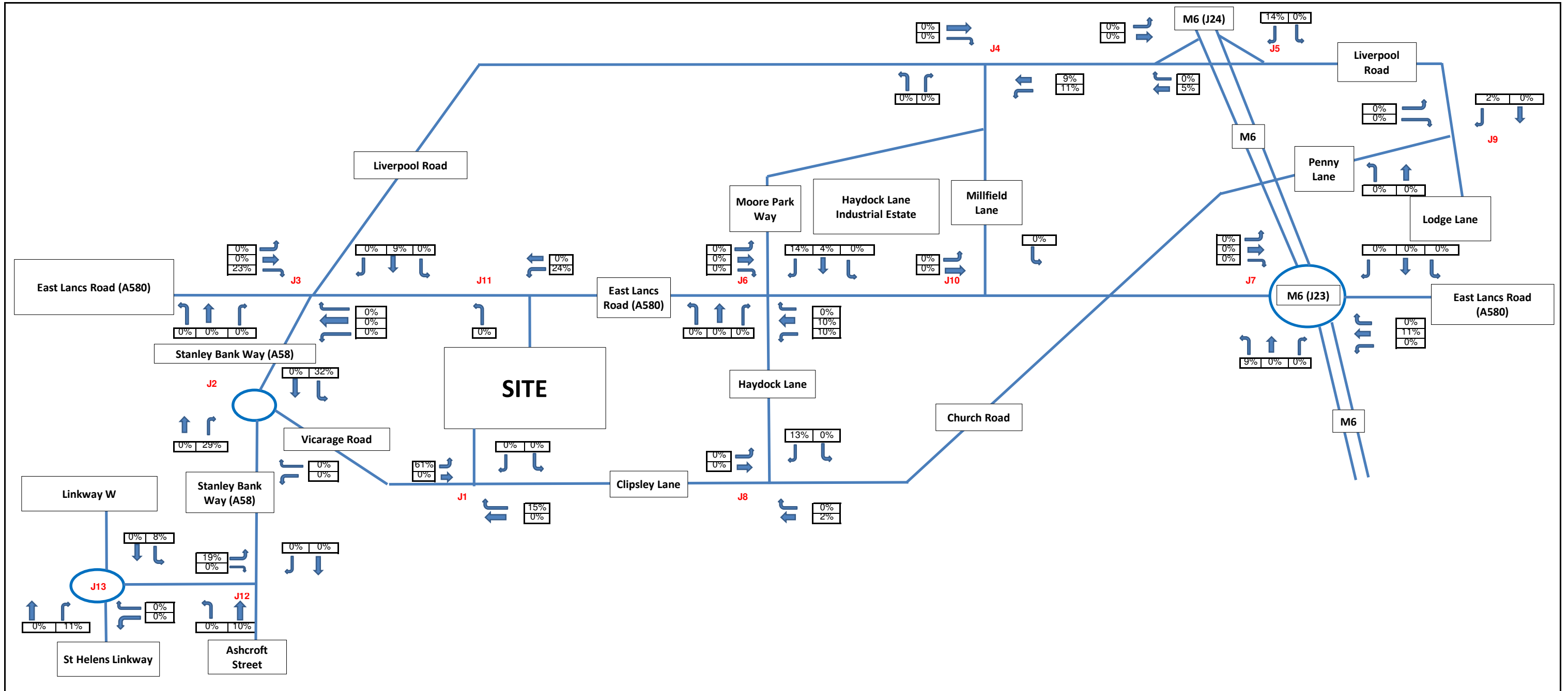
Appendix B – Traffic Flow Diagrams



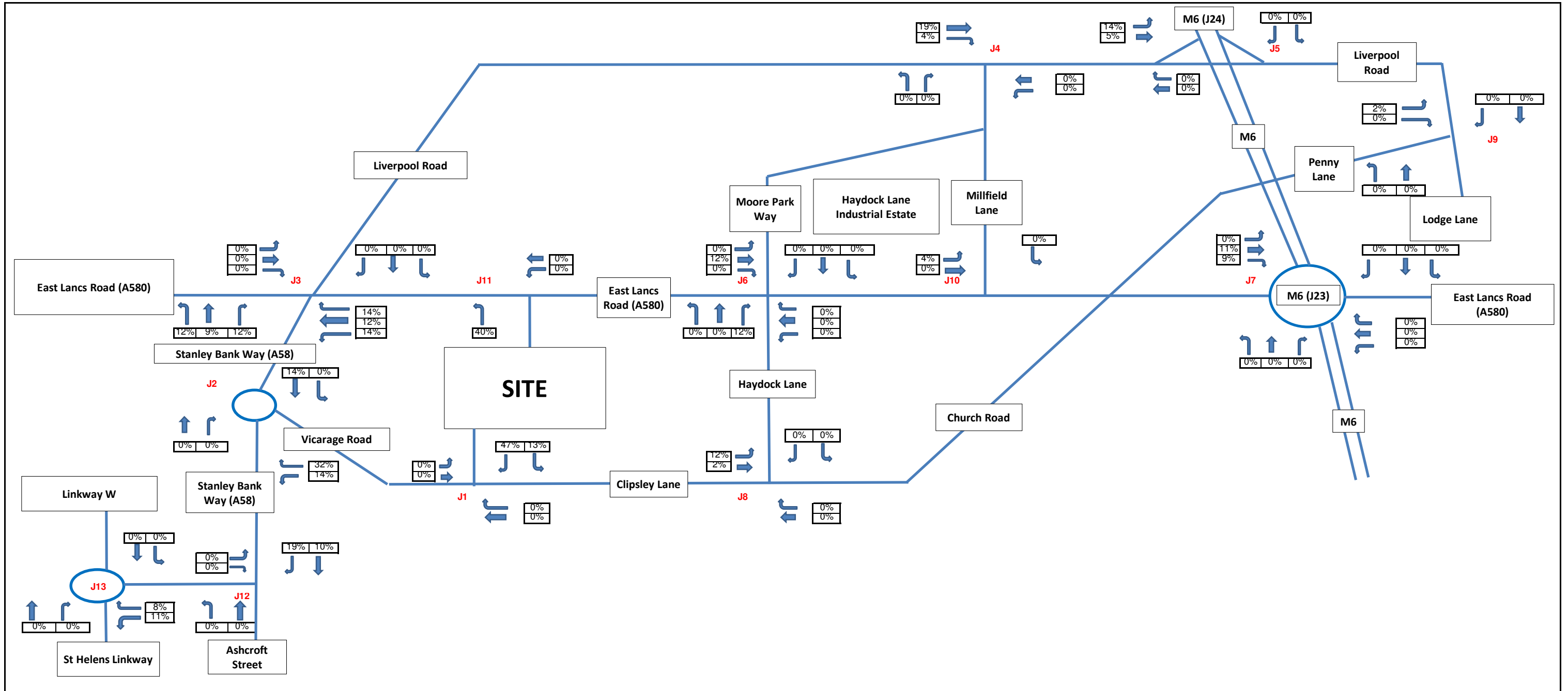
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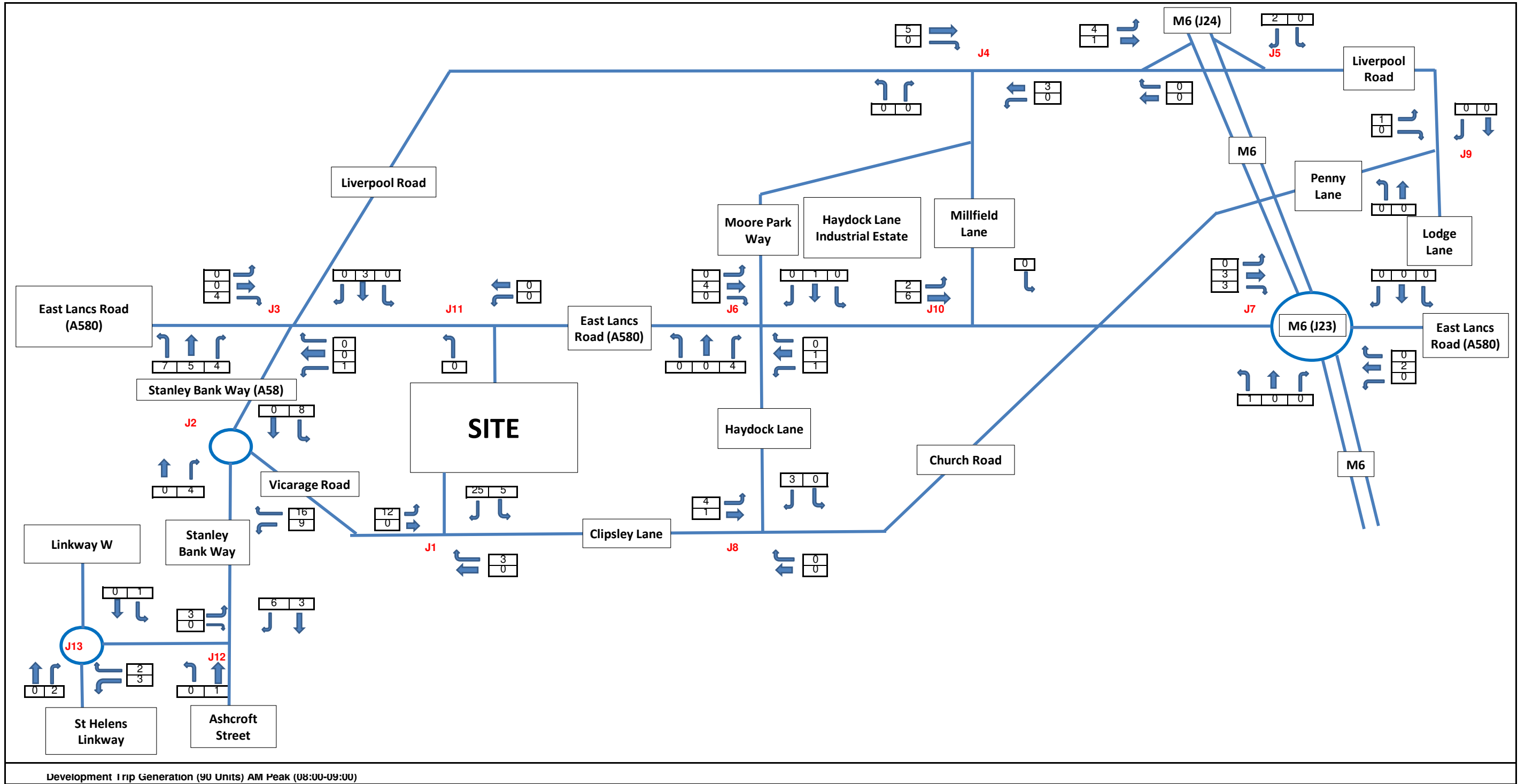
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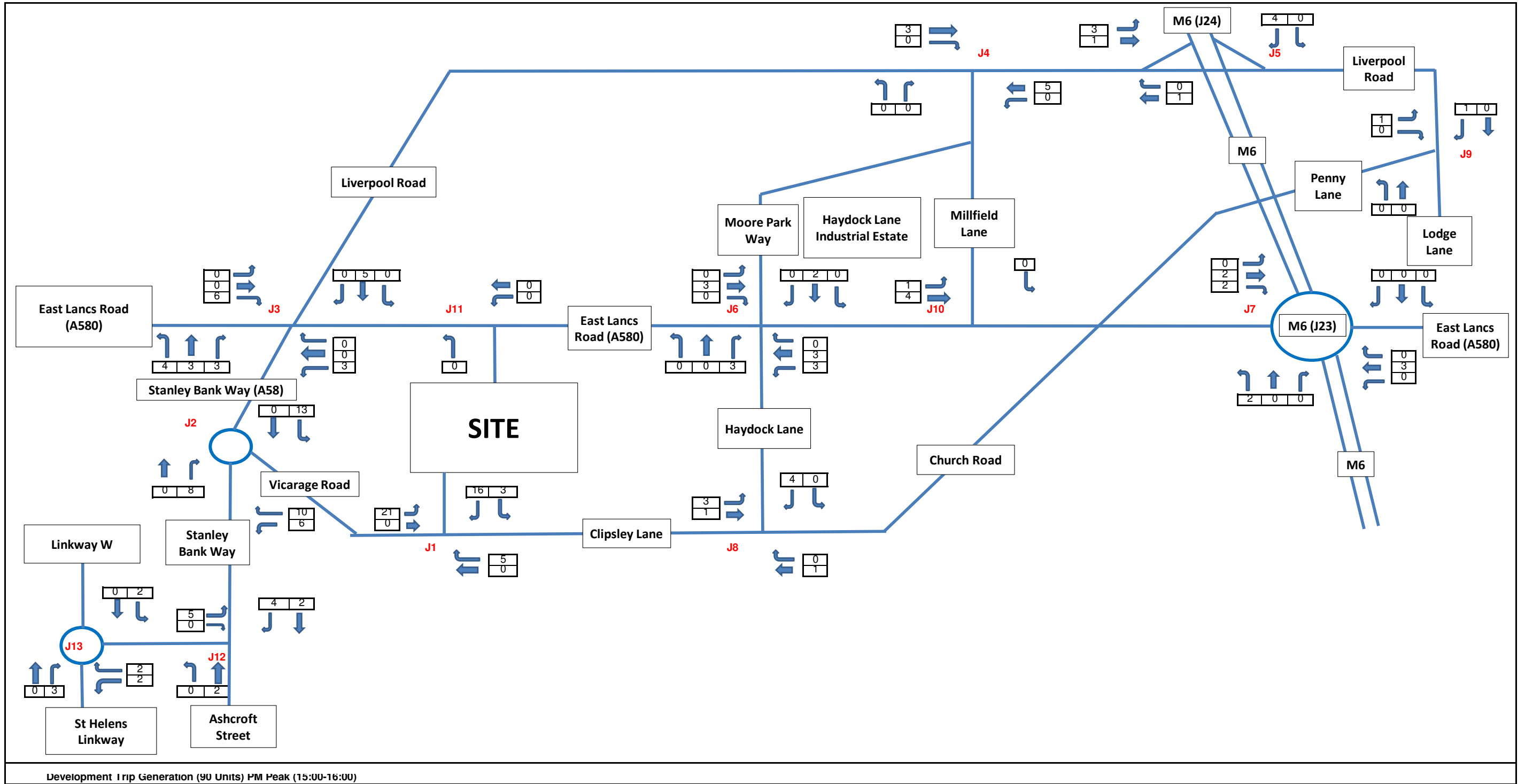


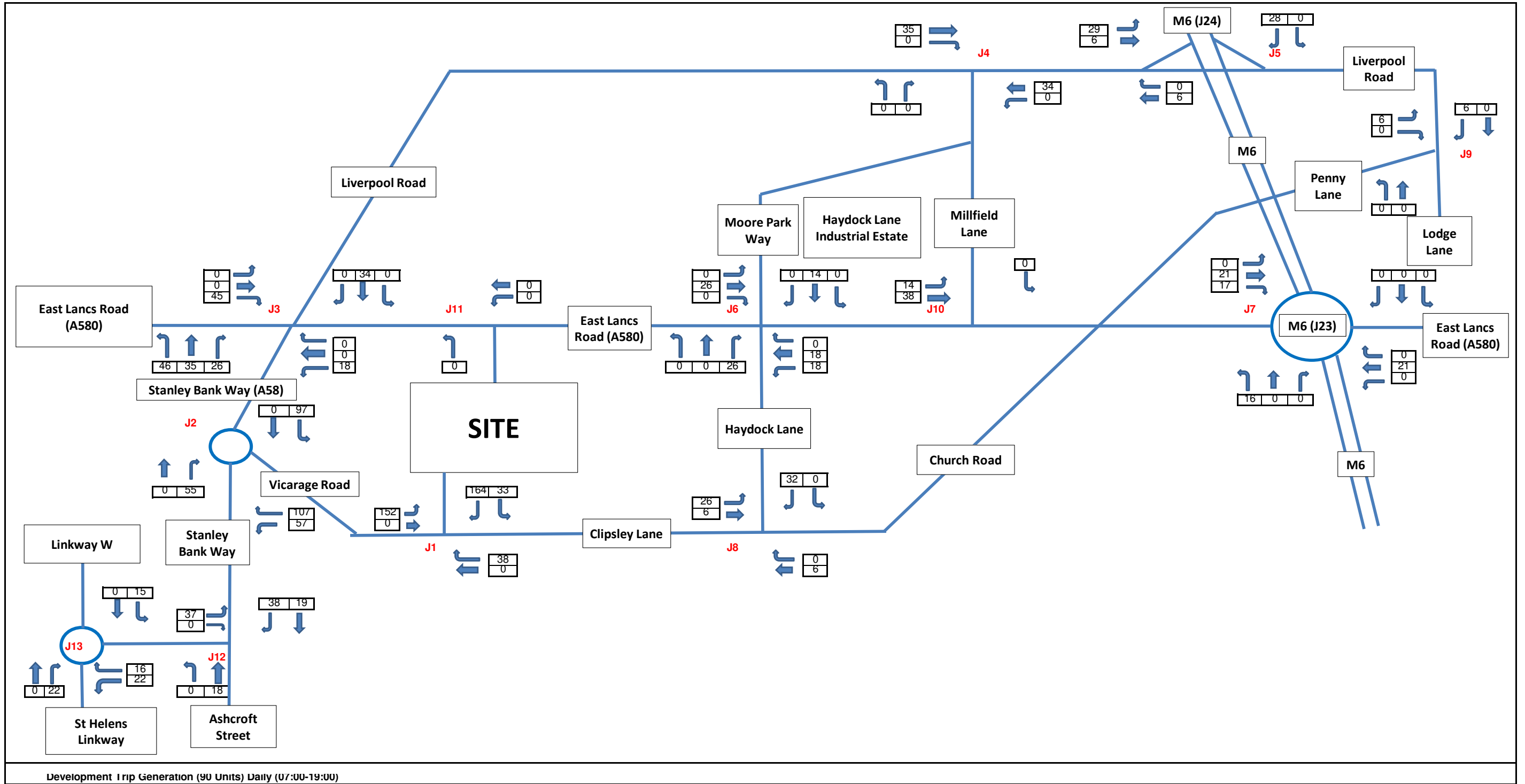
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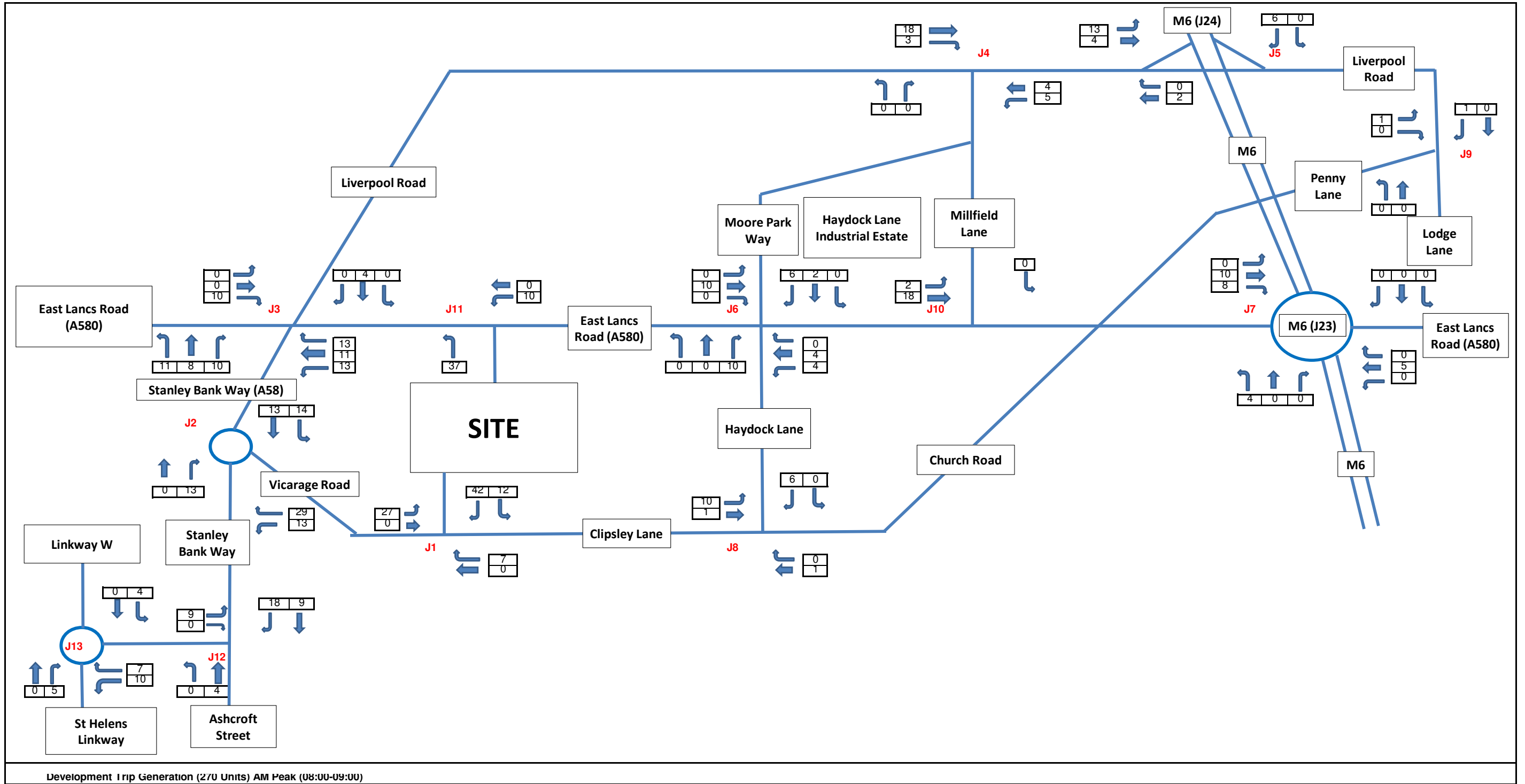


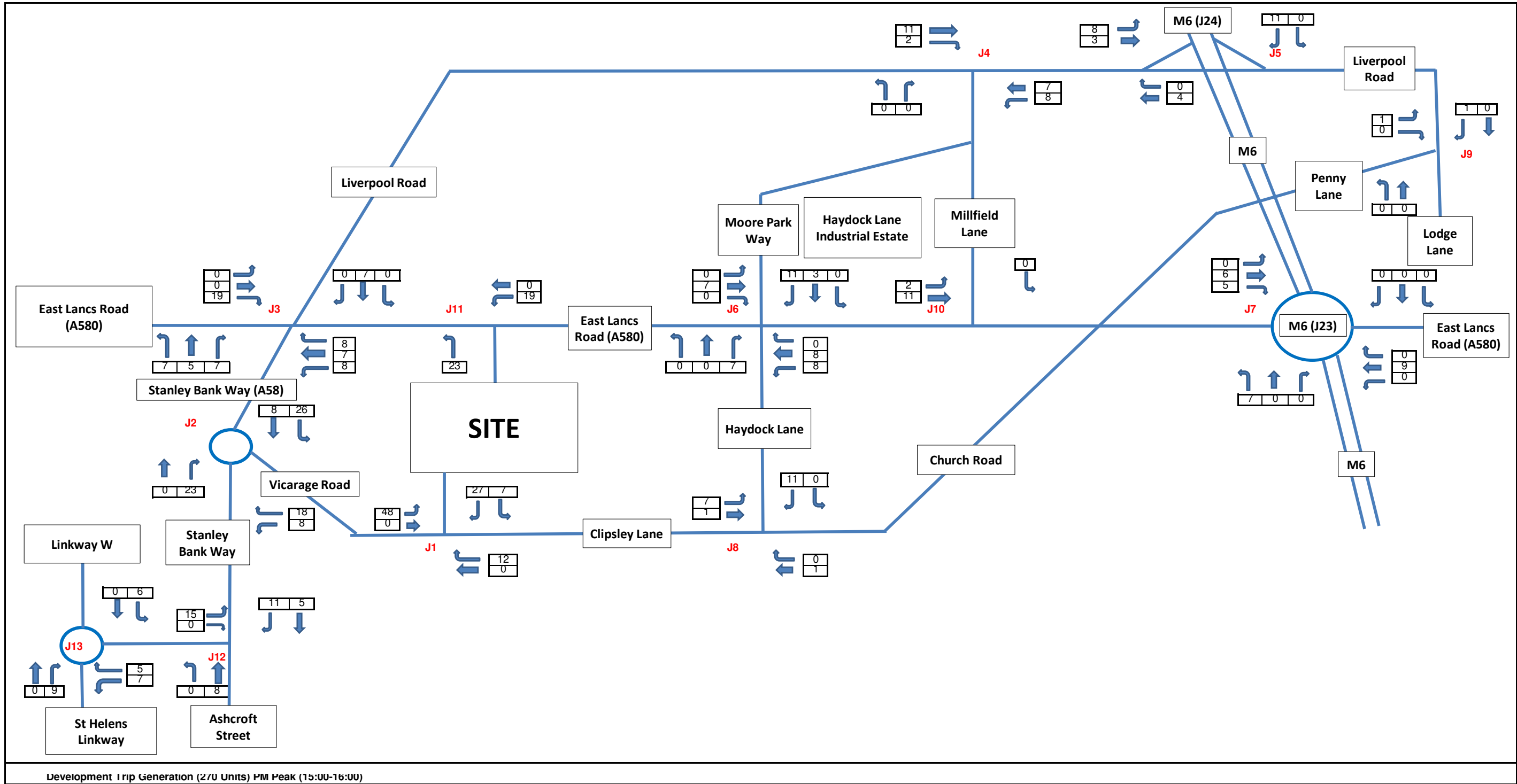
% Distribution - Departures - Both Accesses

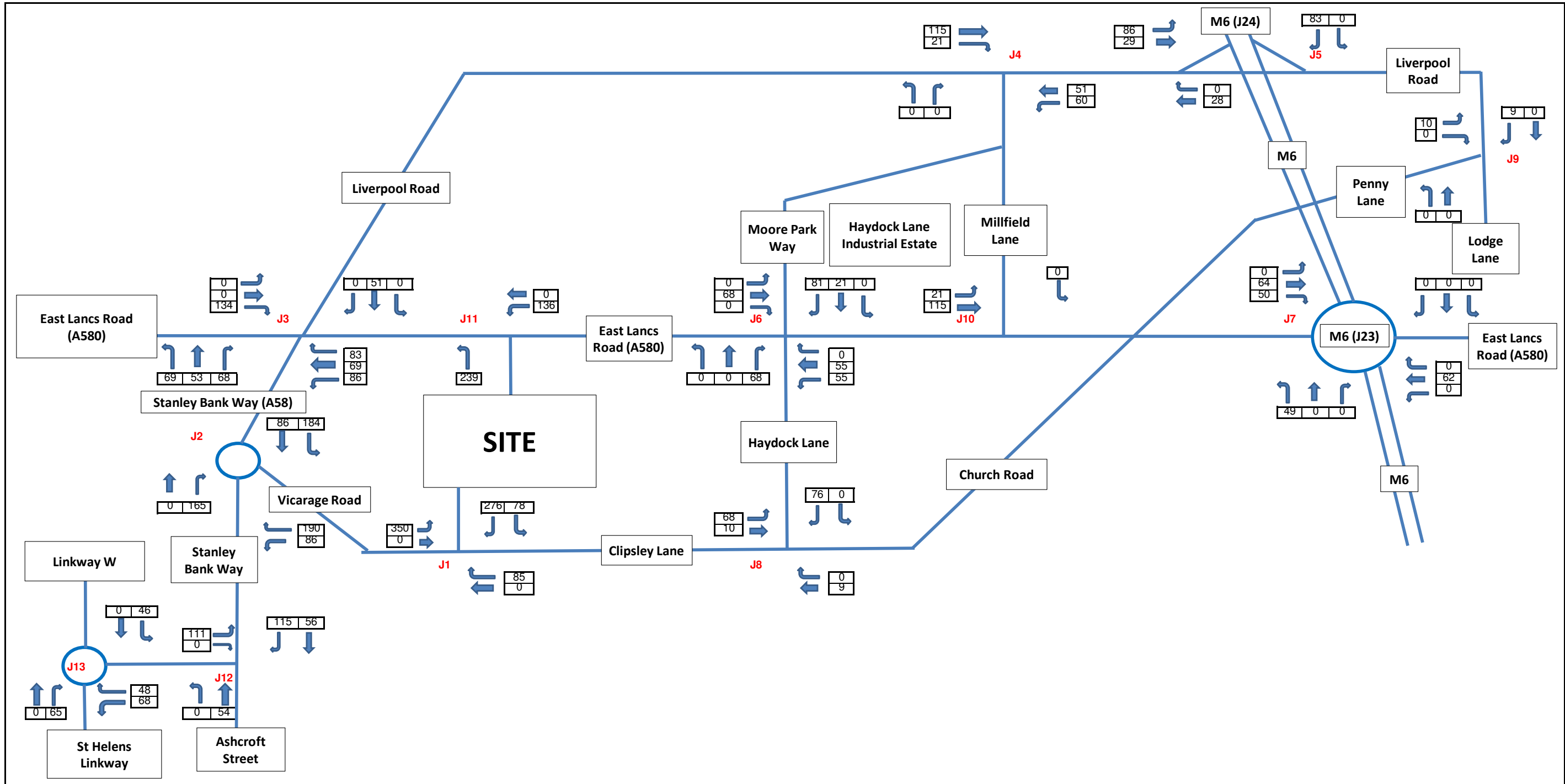












Development Trip Generation (270 Units) Daily (07:00-19:00)

