S&J PADFIELD & PARTNERS

PROPOSED EMPLOYMENT ALLOCATION: LAND SOUTH OF CODHAM HALL, BRENTWOOD, ESSEX

Transport Appraisal

REPORT REF. NO M401-01
PROJECT NO. M401
OCTOBER 2013

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-	1st Draft for project team review	ML	SAF	ML	25/09/13
-	2nd Draft for project team review	ML	SAF	ML	30/09/13
-	Final	ML	SAF	ML	01/10/13

1.0 INTRODUCTION

1.1 Ardent Consulting Engineers (ACE) is appointed by S&J Padfield & Partners to advise on transport aspects relating to the proposed employment allocation of land on the former M25 J28-30 widening works site compound adjacent to the A127/M25 J29 gyratory at Brentwood, Essex.

1.2 Brentwood Borough Council (BBC) is the local planning authority, while Essex County Council (ECC) is the local highway authority responsible for all roads in the area to the east of the M25. The motorway and gyratory is the responsibility of the Highways Agency (HA). The London Borough of Havering lies to the west of the M25, while a short distance to the south is the Borough of Thurrock; both Havering and Thurrock are unitary authorities. Transport for London (TfL) is the highway authority for the A127 to the west of the M25 since it forms part of the strategic TfL Road Network (TLRN) and is a "Red Route" clearway.

1.3 This Appraisal report has been prepared in support of an allocation of the site for a total of circa 91,600m^2 gross internal floor area of employment development in the emerging Brentwood Local Development Plan, which will cover the period until 2030. It is envisaged that a number of existing employers in the Borough would relocate to this site, allowing existing employment sites in and adjacent to urban areas to be redeveloped for residential use for which they are better suited.

1.4 Following this introduction, the remainder of the report is structured as follows: -

- **Section 2.0** describes existing conditions;
- **Section 3.0** outlines the proposed development allocation;

- **Section 4.0** sets out the expected trip attraction and modal split associated with the proposed site uses, and considers the future operation of the M25 J29 Gyratory; and
- **Section 5.0** provides a summary and identifies conclusions.

2.0 EXISTING CONDITIONS

The Site

Location

2.1 The site is approximately 23.5ha in total size and located to the south of the town of Brentwood, as shown at **Plate 1** and in more detail at **Figure 1**. It lies south of the A127 dual carriageway, with the M25 running to the west, the two roads intersecting at a fully grade-separated interchange (M25 J29), with the motorway passing above a gyratory, and the A127 below it. The gyratory is partially signalised, with the M25 southbound and A127 westbound off-slips both signal controlled.

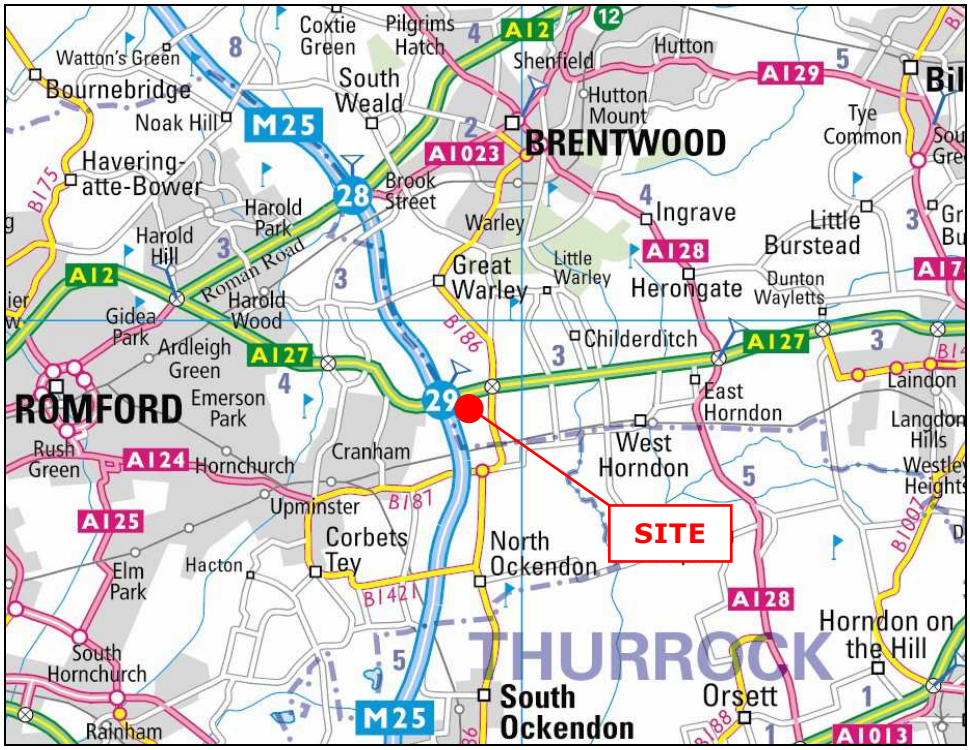


Plate 1: Site Location

2.2 The site is located in the south eastern corner of the gyratory, being bordered by the A127 and its eastbound off-slip to the north and the M25 southbound on-slip to the west. It is bordered by open fields in

agricultural use on the other sides. The B186 Warley Street, which links Brentwood with South Ockendon, runs north-south a distance to the east but does not border the site.

2.3 The existing Codham Hall employment site is located north of the A127 dual carriageway, in the north eastern corner of the gyratory.

Current Use

2.4 The previous use of the site was as the M25 widening works construction compound.

Access

2.5 The former works site is accessed from the gyratory by means of a signalised "node" between the junctions of the circulatory carriageway with the A127 westbound off-slip and the M25 southbound on-slip (see **Plate 2**). This node operates under 3-stage signal control, with the westbound off-slip, southbound circulatory carriageway and works egress all signalised.

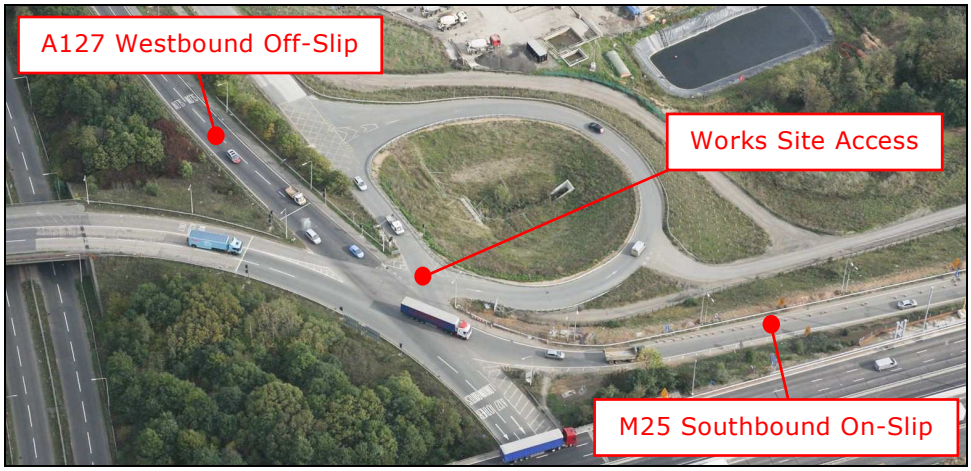


Plate 2: Former Works Site Access

2.6 The Codham Hall employment site on the north side of the A127 is accessed/egressed from the gyratory at J29.

2.7 A farm access bridge links the two sites across the A127; this is too narrow to accommodate two-way vehicle traffic. It accommodates a bridleway, which runs east from the M25 along the south side of the A127, over the bridge and then west along the north side of the A127.

Local Highway Network

A127

2.8 The A127 is a dual carriageway with two lanes in each direction. It links the A12 at Gallows Corner near Romford to the west with Basildon and Southend to the east, and forms part of ECC's strategic network of "County Roads", being designated a Strategic Route, the highest category of such roads. Most of the junctions along its length to the west of Southend are grade-separated, with no at-grade all-movements junctions remaining on this section, but there are some left-in/left-out junctions.

2.9 The east-facing slips at the intersection with the M25 J29 both have two lanes. The eastbound merge, with two lanes on the on-slip, is an unconventional taper arrangement without either a ghost island or lane gain, while the westbound, which has only one lane on the on-slip, is a "Type A" Taper Merge in accordance with *TD 22/06 Layout of Grade Separated Junctions*, which forms part of Volume 6 of the *Design Manual for Roads and Bridges* (DMRB). The eastbound diverge is a "Type A" Taper Diverge, while the westbound diverge is a "Type B" (Option 2) Parallel Diverge.

M25

2.10 The M25 has recently been widened to four lanes on each carriageway between Junctions 28 (the A12) and 30 (the A13). At J29, the four lanes on the mainline carriageways reduce to three between the slips either side and across the flyover, with a lane drop and lane gain arrangement on both carriageways in both directions. The slips all have two lanes (although the initial section of the southbound on-slip only has one, widening after two after), and the merges are both "Type F" Lane Gains with ghost islands. The northbound diverge is a "Type D" Lane Drop with ghost island, while the southbound is a "Type C" Lane Drop with taper diverge.

2.11 An improvement scheme is proposed at J30 in conjunction with the Dubai Ports World London Gateway container terminal at the former Shell Haven site on the Thames Estuary east of Stanford-le-Hope.

Walking and Cycling

2.12 There is a foot/cycleway running along the south side of the A127 which runs along the westbound off-slip up to J29 and along the southern side of the gyratory, continuing west along the on-slip. This links to Basildon and beyond to the east.

Public Transport

2.13 The nearest bus stops to the site are on Warley Street, which are served by the 269 (Grays–South Ockendon–Brentwood) and the 348 (Harold Wood–Upminster–Brentwood–Ongar) routes. The Upminster Park estate at Cranham is served by the 248 (Romford–Upminster–Cranham) and 346 (Upminster–Cranham) routes which serve stops about a 1.7km walk distance from the western boundary of the site.

2.14 The nearest railway station is Upminster, a "crow-fly" distance of about 3km to the south west. Upminster is served by c2c trains on

the route from London Fenchurch Street to Southend Central via Barking, Basildon, Benfleet and Leigh-on-Sea, and to Grays and Stanford-le-Hope. It is also served by Great Eastern trains to/from Romford, and is also the eastern terminus of the District line of the London Underground. The 348 bus provides a connection between Upminster station and the stops nearest the site on Warley Street.

2.15 West Horndon station is around 3.5km to the south east and is also served by c2c trains on the route from London Fenchurch Street to Southend Central via Barking, Basildon, Benfleet and Leigh-on-Sea.

2.16 Ockendon station is around 6km to the south and is served by c2c trains on the single track branch-line from Upminster to Grays. The 269 bus provides a connection between Ockendon station and the stops nearest the site on Warley Street.

2.17 Brentwood station is about 4.5km to the north east and is served by Great Eastern Metro trains on the London Liverpool Street-Stratford-Ilford-Romford-Shenfield route. From late 2018/early 2019, the new Crossrail high frequency service will connect Brentwood directly with the West End, Heathrow, Slough and Maidenhead.

2.18 Romford station is about 7.5km to the west and is served by Metro trains as well as Main Line services to Southend, Chelmsford and Colchester, and will also be served by Crossrail.

3.0 THE PROPOSED DEVELOPMENT

3.1 An allocation for a total of 91,595m^2 of employment floorspace is sought for the former M25 widening works site. This would be split between B1(a) office, B1(b) Research & Development, B1(c) light industrial, B2 general industrial and B8 (distribution warehousing) use classes, together with a 116-bedroom budget hotel (use class C1).

Access

3.2 ACE **Drawing No M401-001** shows the proposed site access arrangements, utilising the former M25 widening works compound access/egress arrangements which would be improved. The existing signalled controlled node on the south eastern corner of the gyratory would continue to operate under 3-stage control as it does presently. Other proposed improvements to the gyratory shown on the drawing include the following: -

- signalisation of the two remaining main arms (M25 northbound and A12 & eastbound off-slips);
- provision of a third lane within the existing circulatory carriageway width on the southern and western sides;
- widening of the A127 westbound off-slip to provide a third lane; and
- widening of the circulatory carriageways on the east side to provide a flared approach with short fourth lane between the A127 under-bridge and the stop line.

3.3 A pedestrian and cycle link would be provided into the site from the foot/cycleway along the south side of the A127. The existing bridleway running through the site alongside and over the A127 could be diverted to run through a new area of landscaping along the southern edge of the developed area.

Travel Plan

3.4 A Travel Plan would be required to be implemented in conjunction with an employment development on the site in order to promote the use of sustainable modes of transport (walking, cycling, public transport and car sharing) by staff working there.

3.5 Given the location of the site, it is anticipated that a commuter bus service would be required to link this with Brentwood Town Centre and strategic allocations at West Horndon. An indicative route for a potential bus service is shown at Figure 3 of BBC's Local Plan *2015-2030 Preferred Options for Consultation*, replicated at **Plate 3**.

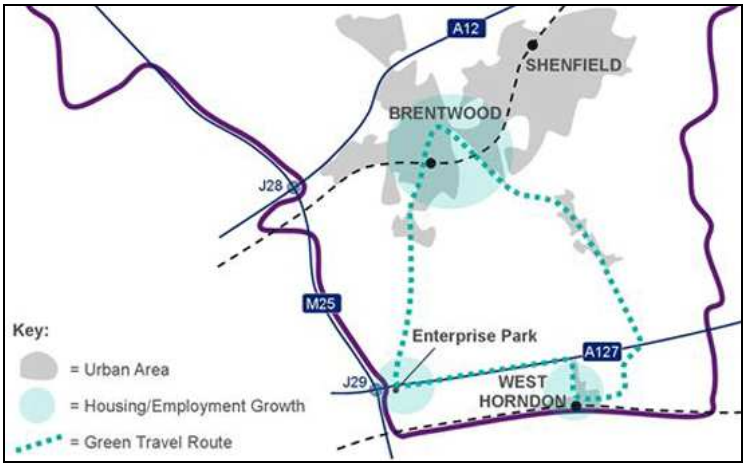


Plate 3: 'Green Travel Route'

3.6 The commuter bus service would connect the site to Brentwood station (for Great Eastern Metro and, from 2018/19, Crossrail services) and West Horndon station (for c2c rail services), for journeys to Central London. Such connections would significantly enhance site accessibility by public transport; thereby reducing reliance on the private car for employees and visitors alike.

3.7 The potential for this route and/or the extension of existing service routes would be examined.

3.8 A car sharing scheme for the site could be established on a database such as essexcarshare.com, which would allow employees to search for others with similar travel requirements.

3.9 Cycle parking would be provided for staff and visitors in accordance with minimum standards.

4.0 TRIP ATTRACTION, MODAL SPLIT AND TRAFFIC IMPACT

Trip Attraction

4.1 The predicted trip attraction of the proposed employment mix for which an allocation is sought on this site was derived using the industry-standard TRICS database v2013(b). This was used to derive both person and Other Goods Vehicle (OGV, i.e. medium/heavy goods vehicles in excess of 3.5 tonnes) trip rates for the following land use sub-categories in the database: -

- Business Parks – use class B1(a)/B1(b);
- Industrial Estates – predominantly use classes B1(c)/B2 with some ancillary B1(a) and B8 (comprising a number of smaller units with a variety of occupiers);
- Industrial Units – predominantly use classes B1(c)/B2 with some ancillary B1(a) and B8 (comprising large units with a single occupier);
- Distribution Warehouses – use class B8 with some ancillary B1(a); and
- Hotels – use class C1 (selecting budget hotels – e.g. Travel Inn/Travelodge/Premier Inn/Holiday Inn Express brands).

4.2 The trip rate data is set out at **Appendix A**.

4.3 A modal split was then applied to the person trip rates for each use, which was derived from the daytime population of Super Output Area (SOA) Brentwood 8D Ward (from the 2001 Census since this is not yet available from the 2011 Census), which includes the more rural area to the south of Brentwood and excludes those not working and those working at home. This is a robust assessment in terms of estimating vehicle trips since it obviously takes no account of the Travel Plan measures which will promote use of alternative modes to

the private car for staff travelling to/from the development. The modal split data is set out in **Appendix B**.

4.4 **Table 4.1** sets out the predicted weekday peak hour trip attraction by mode of travel. For the employment uses we have used data for the 08:00-09:00 and 16:30-17:30 peak hours, compared to 08:00-09:00 and 17:00-18:00 for the hotel.

Table 4.1: Predicted weekday peak hour development trips

	Weekday am peak hour			Weekday pm peak hour		
	In	***Out***	***Two-way***	***In***	***Out***	***Two-way***
TRIP RATES						
Business Park (per 100m² GFA)						
Person	2.125	0.346	2.471	0.397	1.745	2.142
OGVs	0.023	0.018	0.041	0.008	0.008	0.016
Industrial Estate (per 100m² GFA)						
Person	0.607	0.314	0.921	0.272	0.587	0.859
OGVs	0.020	0.026	0.046	0.015	0.010	0.025
Industrial Units (per 100m² GFA)						
Person	0.455	0.084	0.539	0.075	0.433	0.508
OGVs	0.017	0.016	0.033	0.008	0.008	0.016
Warehousing (per 100m² GFA)						
Person	0.263	0.089	0.352	0.079	0.230	0.309
OGVs	0.030	0.037	0.067	0.036	0.057	0.093
Hotels (per bedroom)						
Person	0.202	0.356	0.558	0.287	0.144	0.431
OGVs	0.001	0.001	0.002	0.000	0.000	0.000
TRIPS BY LAND USE						
Business Park (22,380m²)						
Persons	475	78	553	89	391	480
OGVs	5	4	9	1	1	2
Industrial Estate (13,895m²)						
Persons	84	44	128	38	82	120
OGVs	3	4	7	2	1	3
Industrial Units (18,460m²)						
Persons	84	15	99	13	80	93
OGVs	3	3	6	1	2	3
Warehousing (36,860m²)						
Persons	97	32	129	29	85	114
OGVs	11	14	25	13	7	20
Hotel (116 bedrooms)						
Persons	23	41	65	33	17	50
OGVs	0	0	0	0	0	0
TOTAL TRIPS BY MODE						
Person	**764**	**211**	**975**	**203**	**654**	**856**
OGVs	**22**	**24**	**47**	**19**	**12**	**31**
Trips by mode						
Car driver (87%)	648	163	810	161	560	721
Car passenger (5%)	36	9	46	9	31	41
Train/Underground (2%)	18	5	22	4	15	20
Bus (2%)	12	3	15	3	10	13
Cycle (2%)	4	1	5	1	4	5
Walk (3%)	21	5	27	5	18	24

Vehicle trip distribution/assignment

4.5 A distribution for the predicted vehicle trips has been derived using 2001 Census Travel to Work Origin-Destination (O-D) data for the Warley ward (again see **Appendix B**). The trips were then assigned to the local road network using the Routefinder on the TomTom website, giving the following distribution: -

- M25 north: 30%;
- A127 east: 30%;
- M25 south: 9%; and
- A127 west: 31%.

Assessment of traffic impact on operation of J29

2013 survey

4.6 A survey of vehicle turning movements at the gyratory was undertaken between 07:00-10:00 and 16:00-19:00 on Wednesday 18th September 2013 (i.e. on a weekday in a "neutral month", see **Appendix C** for results) using the standard COBA vehicle classifications. This identified the peak hours, in terms of the total flow through the gyratory in Passenger Car Units (PCUs), using the following industry-standard factors: -

- Motorcycles = 0.4 PCUs;
- Cars/Light Goods Vehicles (LGVs) (up to 3.5 tonnes) = 1.0 PCU;
- Other Goods Vehicles 1 (OGV1s, >3.5 tonnes with 2 or 3 axles) = 1.7 PCUs;
- OGV2s (>7.5 tonnes, >3 axles) = 2.3 PCUs; and
- Public Service Vehicles (PSVs, buses/coaches) = 2.0 PCUs.

4.7 The peak hours were defined on this basis as 07:15-08:15 and 16:00-17:00 respectively. The surveys also identified queue lengths every 5 minutes on the five approaches currently in use plus the two

signalised sections of the circulatory carriageway. Stage/phase and cycle timings were also recorded for every cycle at the two signalised nodes. In addition, the saturation flow across the stop lines was recorded for each lane under saturated conditions, and existing intergreen times were also observed.

4.8 The observed turning matrix in each weekday peak hour in 2013 is shown at **Appendix D**.

Future year – background growth

4.9 Projected background growth to a future assessment year of 2030 (the end of the Plan period) was applied to the 2013 surveyed flows. This was derived from the National Transport Model (NTM) 2013, which is based on predicted increases in total annual vehicle mileage by Region and road type, and combined with local growth factors for each peak period derived from the National Trip Ends Model (NTEM) v6.2 (July 2011) using the Trip Ends Model Program (TEMPRO). The following methodology was adopted for traffic passing through the gyratory: -

- Traffic to/from A127 east: NTM for "Rural Principal Roads" in the East of England together with NTEM average rates for Basildon, Brentwood, Castle Point and Southend Boroughs and Rochford District; and
- Traffic to/from A127 west: NTM for "Urban Principal Roads" in Greater London together with NTEM rates for Havering Borough.

4.10 To be robust, we have not applied any reduction to the number of jobs assumed in the Brentwood zone to account for those on the site using the *Alternative Planning Assumptions* facility in TEMPRO so there will be some double counting of trips due to future developments. Furthermore, since some of the employment uses on

the site would be relocated from elsewhere within the Borough (e.g. West Horndon), an allowance could be made for trips to/from these existing sites already passing through the gyratory, but again to be robust this has not been undertaken.

4.11 This approach gives the following growth rates for the period 2013 to 2030: -

- Traffic to/from A127 east: 1.171 (am)/1.175 (pm); and
- Traffic to/from A127 west: 1.166 (am)/1.171 (pm).

2030 Base Case

4.12 Applying these factors to the observed 2013 flows gives the predicted 2030 Base Case flows in each weekday peak hour, set out in **Appendix D**.

2030 Development Case

4.13 Applying the assumed trip distribution to the predicted total vehicle trips gives the predicted development traffic; adding this to the 2030 Base Case flows gives the Development case flows, set out in **Appendix D**. To be robust it has been assumed that the network and development peak hours coincide, when in reality the survey data shows the existing peaks at the junction are slightly earlier than the development peaks. All OGV trips as derived from TRICS have been assumed to equate to 2 PCUs. Existing traffic to/from the site has been removed since the current open storage uses would be relocated.

TRANSYT analysis

4.14 The predicted 2030 Base and Development Case flows in each peak hour were then assessed using the industry-standard software TRANSYT to model the operation of the gyratory. Models were

developed of both the existing and proposed improved layouts. The current partially-signalised layout was modelled with the predicted 2030 Base Case weekday peak hour flows, using intercept values derived from ARCADY for the three unsignalled approaches together with the observed saturation flows. For the Development Case, the proposed improved layout was modelled, with the M25 northbound and A127 eastbound off-slips signalised and a third lane provided on the south and west sides of the circulatory carriageway, and the A127 westbound off-slip widened to four lanes with two lanes for traffic egressing from the site.

4.15 Details of calculations used to inform the model are contained at **Appendix E** with the results summarised in **Table 4.1** (which sets out the degree of saturation and mean maximum queue length on each link) and full program output provided at **Appendix F**.

Table 4.1: Summary of TRANSYT results

Node and Link		2030 weekday am peak hour				2030 weekday pm peak hour			
		Base Case		*Dev't Case*		*Base Case*		*Dev't Case*	
		Sat'n (%)	*Queue (PCUs)*	*Sat'n (%)*	*Queue (PCUs)*	*Sat'n (%)*	*Queue (PCUs)*	*Sat'n (%)*	*Queue (PCUs)*
Node 1: M25 southbound off-slip									
100	M25 S/B off-slip	83	27	98	47	91	41	96	49
130/131	Circ c'way – to A127 E	61	6	95	11	70	8	96	12
140-3	Circ c'way – to M25 S	76	15	87	21	86	19	91	24
Node 2: Codham Hall									
200	Codham Hall	16	1	26	1	34	1	43	1
230-3	Circ c'way	53	1	66	7	62	1	68	12
Node 3/4: A127 westbound off-slip/M25 widening works/site access									
300	A127 W/B off-slip	97	46	92	40	87	34	82	31
330-2	Circ c'way – to A127 W	74	11	81	11	81	15	81	14
340-3	Circ c'way – to M25 S	10	1	91	12	10	1	26	2
400	Site exit	15	1	42	4	9	1	83	13
Node 5: M25 northbound off-slip									
500	M25 N/B off-slip	126	194	95	31	103	85	86	27
530-2	Circ c'way – to M25 N	44	0	95	22	34	0	88	16
540-3	Circ c'way – to A127 W	14	0	35	5	18	3	56	10
Node 6: A127 eastbound off-slip									
600	A127 E/B off-slip	87	3	84	17	64	1	73	13
630-2	Circ c'way – to A127 E	39	0	90	22	43	0	80	15
640-3	Circ c'way – to M25 N	44	0	75	9	35	0	58	9
Cycle time (seconds)		**60**		**60**		**70**		**70**	
Performance Index		**2989.6**		**1875.3**		**1242.3**		**1561.9**	

4.16 **Table 4.1** shows that the full signalisation of the gyratory is expected to result in a significant improvement in the overall operation of the gyratory in the weekday am peak hour, even with the addition of the predicted development flows. This is due mainly to the marked reduction in queuing on the M25 northbound off-slip predicted with the signalisation of its junction with the gyratory. Some increase in queuing is predicted on the M25 southbound off-slip although it is of a similar magnitude to that in the 2023

weekday pm peak Base Case and would not extent back onto the mainline.

4.17 In the pm peak some decrease in overall operation is expected, despite again a significant reduction in queuing on the M25 northbound off-slip. This is partly due to there being more traffic passing through the gyratory but mainly due to small increases in the degree of saturation, queuing and delay on various links.

4.18 In both peaks, the proposed site access arrangements are predicted to operate satisfactorily, with no material impact on the operation of either the A127 westbound off-slip or the circulatory carriageway at this node.

5.0 SUMMARY AND CONCLUSIONS

5.1 S&J Padfield & Partners are seeking an allocation of land at the former M25 J28-30 widening works compound site to accommodate 91,595m^2 of employment floorspace in the emerging Brentwood Local Development Plan.

5.2 It is proposed to improve the existing signal controlled works compound access/egress on the south eastern corner of the gyratory to serve the employment site. This would continue to operate under 3-stage control.

5.3 A pedestrian and cycle link would be provided into the southern part of the site from the foot/cycleway along the south side of the A127.

5.4 There is scope for improvements to the gyratory at J29, including signalisation of the two remaining un-signalled nodes, widening of the circulatory carriageway and off-slips, to accommodate additional traffic associated with such a development.

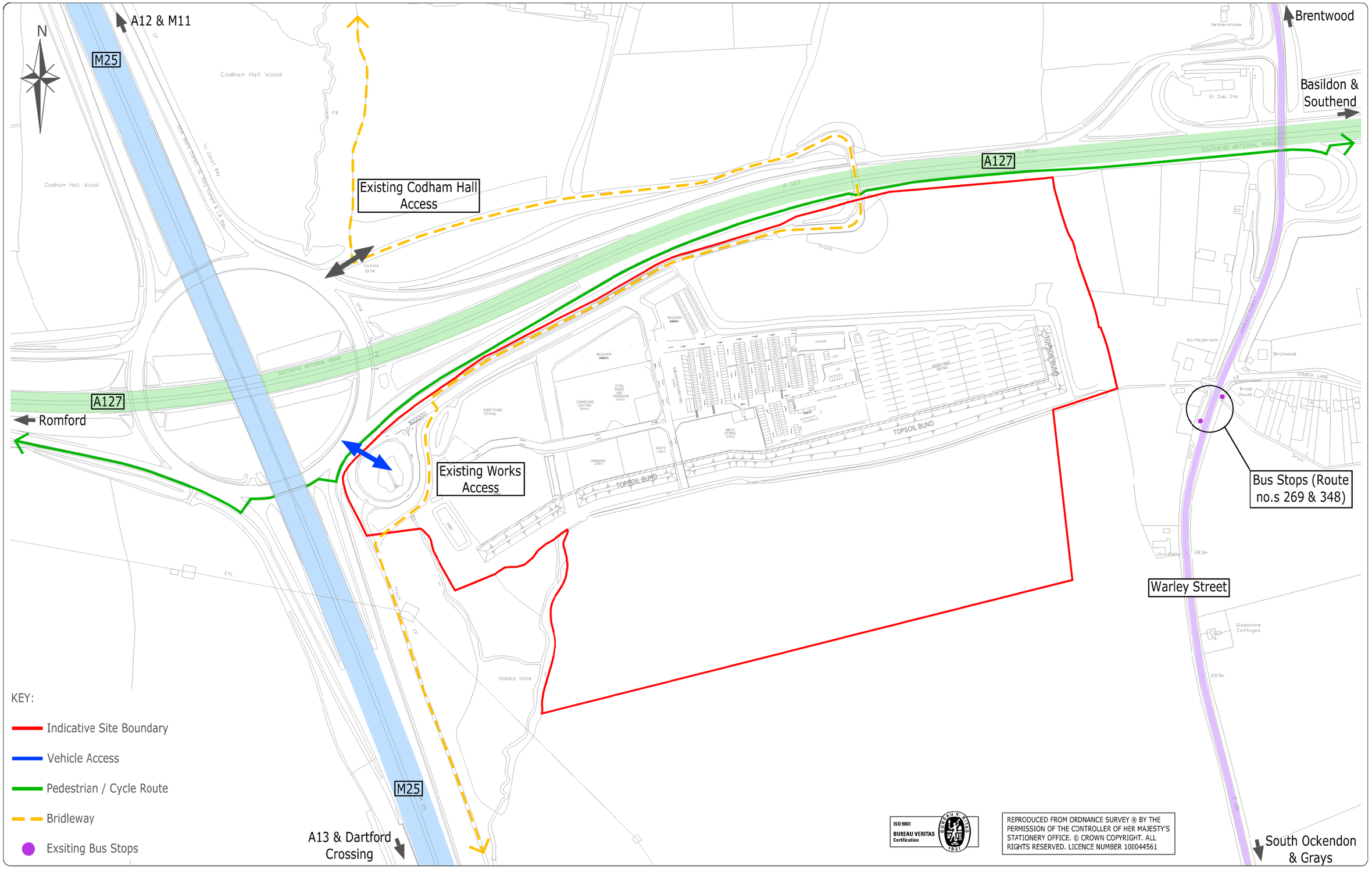
5.5 A Travel Plan would be required to be implemented in conjunction with an employment development on the site in order to promote the use of sustainable modes of transport. Given the location of the site, it is anticipated that a commuter bus service would be required to link this with Brentwood Town Centre and strategic allocations at West Horndon. The potential for this route and/or the extension of existing service routes would be examined.

5.6 An assessment of the impact of predicted weekday peak hour vehicle traffic associated with the proposed development on the operation of the local highway network has been undertaken.

5.7 The full signalisation of the gyratory proposed in conjunction with the allocation is expected to result in a significant improvement in its overall operation of the gyratory in the weekday am peak hour in 2030. In the pm peak some decrease in overall operation is expected. In both peaks, the proposed site access arrangements are predicted to operate satisfactorily, with no material impact on the operation of either the A127 westbound off-slip or the circulatory carriageway at this nose.

5.8 In view of the above we consider that this site is suitable for allocation for employment development in transport terms.

Figures



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PROJECT TITLE: Brentwood Enterprise Park

DRAWING TITLE: Land South of Codham Hall Brentwood, Essex

CLIENT: S & J Padfield

SCALE:	DATE:	DESIGNED:
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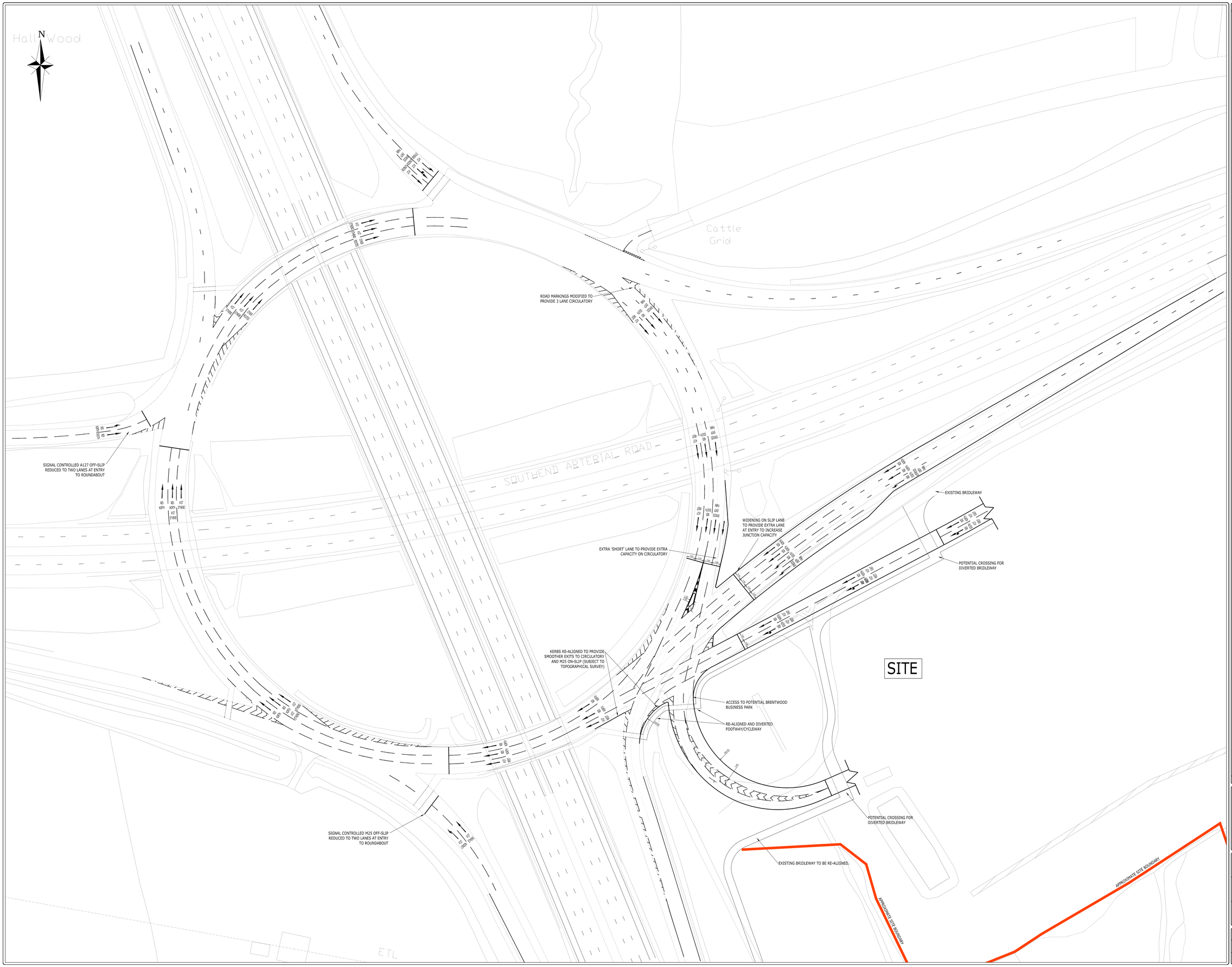
DRAWN: RMA	CHECKED: SAF	APPROVED: ML
DRAWING NO. Figure 1		REV:

Drawings



NOTES:

REV.	AMENDMENTS	DRN	CHK	APP	DATE

[redacted]

CLIENT:
S & J PADFIELD & PARTNERS

PROJECT TITLE:
LAND SOUTH OF CODHAM HALL

DRAWING TITLE:
PROPOSED ACCESS & IMPROVEMENTS TO M25 JUNCTION 29

SCALE:	DATE:	DESIGNED:
1:500 @ A0	SEPT 2013	RMA
DRAWN:	CHECKED:	APPROVED:
RMA	SAF	ML

DRAWING NO.: M401-006 REV: -

Appendix A

TRICS trip rate data

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : B - BUSINESS PARK
MULTI-MODAL OGVS

Filtering Stage 2 selection:

Parameter:	Gross floor area
Actual Range:	975 to 77513 (units: sqm)
Range Selected by User:	975 to 118448 (units: sqm)

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/05 to 27/11/12

Selected survey days:

Monday	2 days
Tuesday	6 days
Wednesday	1 days
Thursday	5 days
Friday	2 days

Selected survey types:

Manual count	16 days
Directional ATC Count	0 days

Selected Locations:

Town Centre	1
Edge of Town Centre	2
Suburban Area (PPS6 Out of Centre)	5
Edge of Town	8

Selected Location Sub Categories:

Industrial Zone	5
Commercial Zone	2
Residential Zone	2
Retail Zone	1
Built-Up Zone	2
No Sub Category	4

LIST OF SITES relevant to selection parameters

1 DC-02-B-01 BUSINESS PARK DORSET
COMMERCIAL ROAD

POOLE
Suburban Area (PPS6 Out of Centre)
Built-Up Zone
Total Gross floor area: 1570 sqm
Survey date: THURSDAY 17/07/08 Survey Type: MANUAL

2 LN-02-B-01 BUSINESS PARK LINCOLNSHIRE
BISHOPS ROAD

LINCOLN
Edge of Town
Industrial Zone
Total Gross floor area: 4460 sqm
Survey date: TUESDAY 17/05/05 Survey Type: MANUAL

3 NF-02-B-02 BUSINESS PARK NORFOLK
WHITING ROAD
LONG JOHN'S HILL
NORWICH
Edge of Town
Retail Zone
Total Gross floor area: 7400 sqm
Survey date: THURSDAY 17/05/07 Survey Type: MANUAL

4 NO-02-B-02 BUSINESS PARK NORTH LINCOLNSHIRE
DONCASTER ROAD

SCUNTHORPE
Edge of Town
Residential Zone
Total Gross floor area: 1574 sqm
Survey date: THURSDAY 22/09/05 Survey Type: MANUAL

5 NT-02-B-01 BUSINESS PARK NOTTINGHAMSHIRE
PARK LANE

NOTTINGHAM
Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Gross floor area: 2321 sqm
Survey date: THURSDAY 17/05/07 Survey Type: MANUAL

6 SC-02-B-03 BUSINESS PARK SURREY
A331

FRIMLEY
Edge of Town Centre
No Sub Category
Total Gross floor area: 20160 sqm
Survey date: TUESDAY 27/11/12 Survey Type: MANUAL

7 SF-02-B-01 BUSINESS PK SUFFOLK
KEMPSON WAY

BURY ST EDMUNDS
Edge of Town
Industrial Zone
Total Gross floor area: 2480 sqm
Survey date: WEDNESDAY 10/05/06 Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

8 SH-02-B-01 BUSINESS PARK SHROPSHIRE
WELSHPOOL ROAD

SHREWSBURY
Edge of Town
Commercial Zone
Total Gross floor area: 17197 sqm
Survey date: TUESDAY 14/06/05 Survey Type: MANUAL

9 SH-02-B-02 BUSINESS PARK SHROPSHIRE
STAFFORD COURT

TELFORD
Edge of Town Centre
Commercial Zone
Total Gross floor area: 9500 sqm
Survey date: MONDAY 22/06/09 Survey Type: MANUAL

10 SH-02-B-03 BUSINESS CENTRE SHROPSHIRE
CASTLE STREET
HADLEY
TELFORD
Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Gross floor area: 1300 sqm
Survey date: TUESDAY 16/06/09 Survey Type: MANUAL

11 TW-02-B-01 BUSINESS PARK TYNE & WEAR
ST THOMAS STREET

NEWCASTLE
Town Centre
Built-Up Zone
Total Gross floor area: 975 sqm
Survey date: TUESDAY 03/05/05 Survey Type: MANUAL

12 TW-02-B-02 BUSINESS PARK TYNE & WEAR
HIGH FLATWORTH

NORTH SHIELDS
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 27142 sqm
Survey date: FRIDAY 10/10/08 Survey Type: MANUAL

13 TW-02-B-03 BUSINESS PARK TYNE & WEAR
CITY WAY
EAST HERRINGTON
SUNDERLAND
Edge of Town
No Sub Category
Total Gross floor area: 77513 sqm
Survey date: THURSDAY 09/10/08 Survey Type: MANUAL

14 WL-02-B-01 BUSINESS PK WILTSHIRE
HIGH STREET
COPED HALL
WOOTTON BASSETT
Edge of Town
Residential Zone
Total Gross floor area: 2600 sqm
Survey date: MONDAY 02/10/06 Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

15 WM-02-B-01 BUSINESS PARK WEST MIDLANDS
COURTALD WAY
FOLESHILL
COVENTRY
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 30042 sqm
Survey date: FRIDAY 10/02/06 Survey Type: MANUAL

16 WO-02-B-01 BUSINESS PARK WORCESTERSHIRE
BURNT MEADOW ROAD
MOORS MOAT NTH IND. EST
REDDITCH
Edge of Town
Industrial Zone
Total Gross floor area: 3525 sqm
Survey date: TUESDAY 02/05/06 Survey Type: MANUAL

TRIP RATE for Land Use 02 - EMPLOYMENT/B - BUSINESS PARK
MULTI-MODAL OGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	16	12116	0.000	16	12116	0.005	16	12116	0.005
07:30 - 08:00	16	12116	0.004	16	12116	0.009	16	12116	0.013
08:00 - 08:30	16	12116	0.015	16	12116	0.009	16	12116	0.024
08:30 - 09:00	16	12116	0.008	16	12116	0.009	16	12116	0.017
09:00 - 09:30	16	12116	0.010	16	12116	0.012	16	12116	0.022
09:30 - 10:00	16	12116	0.010	16	12116	0.012	16	12116	0.022
10:00 - 10:30	16	12116	0.013	16	12116	0.017	16	12116	0.030
10:30 - 11:00	16	12116	0.007	16	12116	0.010	16	12116	0.017
11:00 - 11:30	16	12116	0.010	16	12116	0.012	16	12116	0.022
11:30 - 12:00	16	12116	0.007	16	12116	0.008	16	12116	0.015
12:00 - 12:30	16	12116	0.005	16	12116	0.011	16	12116	0.016
12:30 - 13:00	16	12116	0.006	16	12116	0.005	16	12116	0.011
13:00 - 13:30	16	12116	0.008	16	12116	0.009	16	12116	0.017
13:30 - 14:00	16	12116	0.004	16	12116	0.007	16	12116	0.011
14:00 - 14:30	16	12116	0.009	16	12116	0.007	16	12116	0.016
14:30 - 15:00	16	12116	0.006	16	12116	0.007	16	12116	0.013
15:00 - 15:30	16	12116	0.007	16	12116	0.013	16	12116	0.020
15:30 - 16:00	16	12116	0.005	16	12116	0.006	16	12116	0.011
16:00 - 16:30	16	12116	0.005	16	12116	0.005	16	12116	0.010
16:30 - 17:00	16	12116	0.002	16	12116	0.006	16	12116	0.008
17:00 - 17:30	16	12116	0.006	16	12116	0.002	16	12116	0.008
17:30 - 18:00	16	12116	0.002	16	12116	0.003	16	12116	0.005
18:00 - 18:30	16	12116	0.001	16	12116	0.002	16	12116	0.003
18:30 - 19:00	16	12116	0.001	16	12116	0.001	16	12116	0.002
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.151			0.187			0.338

Parameter summary

Trip rate parameter range selected:	975 - 77513 (units: sqm)
Survey date date range:	01/01/05 - 27/11/12
Number of weekdays (Monday-Friday):	16
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

TRIP RATE for Land Use 02 - EMPLOYMENT/B - BUSINESS PARK
MULTI-MODAL TOTAL PEOPLE
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	16	12116	0.231	16	12116	0.061	16	12116	0.292
07:30 - 08:00	16	12116	0.676	16	12116	0.105	16	12116	0.781
08:00 - 08:30	16	12116	0.845	16	12116	0.159	16	12116	1.004
08:30 - 09:00	16	12116	1.280	16	12116	0.187	16	12116	1.467
09:00 - 09:30	16	12116	0.717	16	12116	0.206	16	12116	0.923
09:30 - 10:00	16	12116	0.393	16	12116	0.179	16	12116	0.572
10:00 - 10:30	16	12116	0.229	16	12116	0.183	16	12116	0.412
10:30 - 11:00	16	12116	0.197	16	12116	0.160	16	12116	0.357
11:00 - 11:30	16	12116	0.222	16	12116	0.205	16	12116	0.427
11:30 - 12:00	16	12116	0.303	16	12116	0.231	16	12116	0.534
12:00 - 12:30	16	12116	0.289	16	12116	0.467	16	12116	0.756
12:30 - 13:00	16	12116	0.334	16	12116	0.321	16	12116	0.655
13:00 - 13:30	16	12116	0.361	16	12116	0.432	16	12116	0.793
13:30 - 14:00	16	12116	0.340	16	12116	0.283	16	12116	0.623
14:00 - 14:30	16	12116	0.222	16	12116	0.256	16	12116	0.478
14:30 - 15:00	16	12116	0.215	16	12116	0.272	16	12116	0.487
15:00 - 15:30	16	12116	0.190	16	12116	0.358	16	12116	0.548
15:30 - 16:00	16	12116	0.235	16	12116	0.382	16	12116	0.617
16:00 - 16:30	16	12116	0.173	16	12116	0.587	16	12116	0.760
16:30 - 17:00	16	12116	0.237	16	12116	0.696	16	12116	0.933
17:00 - 17:30	16	12116	0.160	16	12116	1.049	16	12116	1.209
17:30 - 18:00	16	12116	0.095	16	12116	0.737	16	12116	0.832
18:00 - 18:30	16	12116	0.074	16	12116	0.384	16	12116	0.458
18:30 - 19:00	16	12116	0.032	16	12116	0.149	16	12116	0.181
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			8.050			8.049			16.099

Parameter summary

Trip rate parameter range selected:	975 - 77513 (units: sqm)
Survey date date range:	01/01/05 - 27/11/12
Number of weekdays (Monday-Friday):	16
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : D - INDUSTRIAL ESTATE
MULTI-MODAL OGVS

Filtering Stage 2 selection:

Parameter:	Gross floor area
Actual Range:	1758 to 102000 (units: sqm)
Range Selected by User:	1758 to 102000 (units: sqm)

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/05 to 28/11/12

Selected survey days:

Monday	6 days
Tuesday	5 days
Wednesday	3 days
Thursday	5 days
Friday	4 days

Selected survey types:

Manual count	23 days
Directional ATC Count	0 days

Selected Locations:

Suburban Area (PPS6 Out of Centre)	8
Edge of Town	13
Neighbourhood Centre (PPS6 Local Centre)	2

Selected Location Sub Categories:

Industrial Zone	12
Residential Zone	4
Built-Up Zone	1
Village	1
No Sub Category	5

LIST OF SITES relevant to selection parameters

1 BR-02-D-02 INDUSTRIAL ESTATE BRISTOL CITY
NOVERS HILL
BEDMINSTER
BRISTOL
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 6000 sqm
Survey date: THURSDAY 19/11/09 Survey Type: MANUAL

2 BR-02-D-03 INDUSTRIAL ESTATE BRISTOL CITY
CROFTS END ROAD
SPEEDWELL
BRISTOL
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 6000 sqm
Survey date: TUESDAY 20/10/09 Survey Type: MANUAL

3 CA-02-D-01 IND. ESTATE CAMBRIDGESHIRE
STURROCK WAY
BRETTON
PETERBOROUGH
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 4300 sqm
Survey date: TUESDAY 13/05/08 Survey Type: MANUAL

4 CA-02-D-02 IND. ESTATE CAMBRIDGESHIRE
COLDHAM'S ROAD
COLDHAM'S COMMON
CAMBRIDGE
Edge of Town
Industrial Zone
Total Gross floor area: 2063 sqm
Survey date: MONDAY 19/10/09 Survey Type: MANUAL

5 CA-02-D-03 IND. ESTATE CAMBRIDGESHIRE
SAVILLE ROAD
WESTWOOD
PETERBOROUGH
Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Gross floor area: 4425 sqm
Survey date: THURSDAY 22/10/09 Survey Type: MANUAL

6 CB-02-D-04 INDUSTRIAL ESTATE CUMBRIA
CARLISLE ROAD

BRAMPTON
Edge of Town
No Sub Category
Total Gross floor area: 17708 sqm
Survey date: WEDNESDAY 16/12/09 Survey Type: MANUAL

7 CH-02-D-02 INDUSTRIAL EST. CHESHIRE
MANCHESTER ROAD
WINCHAM
NORTHWICH
Edge of Town
Industrial Zone
Total Gross floor area: 22000 sqm
Survey date: FRIDAY 15/06/07 Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

8 CW-02-D-02 INDUSTRIAL ESTATE CORNWALL
DRUIDS ROAD

CAMBORNE
Edge of Town
Industrial Zone
Total Gross floor area: 6515 sqm
Survey date: FRIDAY 21/09/07 Survey Type: MANUAL

9 CW-02-D-03 IND. ESTATE CORNWALL
LONG ROCK ROAD
LONG ROCK
NEAR PENZANCE
Neighbourhood Centre (PPS6 Local Centre)
Village
Total Gross floor area: 36500 sqm
Survey date: MONDAY 03/10/11 Survey Type: MANUAL

10 ES-02-D-05 IND. ESTATE EAST SUSSEX
COURTLANDS ROAD

EASTBOURNE
Edge of Town
Residential Zone
Total Gross floor area: 7525 sqm
Survey date: MONDAY 30/11/09 Survey Type: MANUAL

11 HE-02-D-01 BUSINESS PARK HEREFORDSHIRE
BURCOTT ROAD

HEREFORD
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 1758 sqm
Survey date: MONDAY 17/10/11 Survey Type: MANUAL

12 KC-02-D-02 INDUSTRIAL ESTATE KENT
SOUTHWELL ROAD

DEAL
Edge of Town
Residential Zone
Total Gross floor area: 10715 sqm
Survey date: WEDNESDAY 28/11/12 Survey Type: MANUAL

13 LC-02-D-04 INDUSTRIAL ESTATE LANCASHIRE
GREEN LANE WEST

GARSTANG
Edge of Town
Industrial Zone
Total Gross floor area: 4555 sqm
Survey date: FRIDAY 16/06/06 Survey Type: MANUAL

14 LN-02-D-01 INDUSTRIAL ESTATE LINCOLNSHIRE
BELTON LANE

GRANTHAM
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 5347 sqm
Survey date: THURSDAY 12/05/05 Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

15 MS-02-D-05 INDUSTRIAL ESTATE MERSEYSIDE
BROADOAK ROAD

ST HELENS
Edge of Town
No Sub Category
Total Gross floor area: 2430 sqm
Survey date: TUESDAY 18/10/05 Survey Type: MANUAL

16 MS-02-D-06 INDUSTRIAL EST. MERSEYSIDE
BOALER STREET

LIVERPOOL
Neighbourhood Centre (PPS6 Local Centre)
Industrial Zone
Total Gross floor area: 4800 sqm
Survey date: THURSDAY 09/09/10 Survey Type: MANUAL

17 NB-02-D-01 INDUSTRIAL ESTATE NORTHUMBERLAND
A695

HEXHAM
Edge of Town
Industrial Zone
Total Gross floor area: 10525 sqm
Survey date: MONDAY 23/05/05 Survey Type: MANUAL

18 NT-02-D-01 INDUSTRIAL ESTATE NOTTINGHAMSHIRE
B6028 STONEYFORD ROAD
STANTON HILL
SUTTON-IN-ASHFIELD
Edge of Town
No Sub Category
Total Gross floor area: 26400 sqm
Survey date: FRIDAY 30/06/06 Survey Type: MANUAL

19 SF-02-D-02 INDUSTRIAL ESTATE SUFFOLK
HADLEIGH ROAD
WESTBOURNE
IPSWICH
Suburban Area (PPS6 Out of Centre)
Built-Up Zone
Total Gross floor area: 102000 sqm
Survey date: TUESDAY 22/05/07 Survey Type: MANUAL

20 TW-02-D-06 INDUSTRIAL ESTATE TYNE & WEAR
NORHAM ROAD
WEST CHIRTON
NORTH SHIELDS
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 23000 sqm
Survey date: THURSDAY 19/10/06 Survey Type: MANUAL

21 WL-02-D-01 IND. ESTATE WILTSHIRE
MARLBOROUGH ROAD

WOOTTON BASSETT
Edge of Town
Industrial Zone
Total Gross floor area: 7050 sqm
Survey date: TUESDAY 03/10/06 Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

22 WM-02-D-02 INDUSTRIAL ESTATE WEST MIDLANDS
DUNLOP WAY

BIRMINGHAM
Edge of Town
Residential Zone
Total Gross floor area: 23480 sqm
Survey date: WEDNESDAY 07/11/12 Survey Type: MANUAL

23 WY-02-D-02 INDUSTRIAL EST. WEST YORKSHIRE
A629 WAKEFIELD ROAD
TANDEM
HUDDERSFIELD
Edge of Town
No Sub Category
Total Gross floor area: 20824 sqm
Survey date: MONDAY 11/09/06 Survey Type: MANUAL

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE
MULTI-MODAL OGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	23	15168	0.007	23	15168	0.014	23	15168	0.021
07:30 - 08:00	23	15168	0.009	23	15168	0.025	23	15168	0.034
08:00 - 08:30	23	15168	0.009	23	15168	0.014	23	15168	0.023
08:30 - 09:00	23	15168	0.011	23	15168	0.012	23	15168	0.023
09:00 - 09:30	23	15168	0.016	23	15168	0.014	23	15168	0.030
09:30 - 10:00	23	15168	0.012	23	15168	0.013	23	15168	0.025
10:00 - 10:30	23	15168	0.015	23	15168	0.012	23	15168	0.027
10:30 - 11:00	23	15168	0.013	23	15168	0.014	23	15168	0.027
11:00 - 11:30	23	15168	0.016	23	15168	0.014	23	15168	0.030
11:30 - 12:00	23	15168	0.016	23	15168	0.014	23	15168	0.030
12:00 - 12:30	23	15168	0.016	23	15168	0.014	23	15168	0.030
12:30 - 13:00	23	15168	0.011	23	15168	0.013	23	15168	0.024
13:00 - 13:30	23	15168	0.013	23	15168	0.013	23	15168	0.026
13:30 - 14:00	23	15168	0.014	23	15168	0.013	23	15168	0.027
14:00 - 14:30	23	15168	0.010	23	15168	0.010	23	15168	0.020
14:30 - 15:00	23	15168	0.014	23	15168	0.010	23	15168	0.024
15:00 - 15:30	23	15168	0.017	23	15168	0.014	23	15168	0.031
15:30 - 16:00	23	15168	0.010	23	15168	0.012	23	15168	0.022
16:00 - 16:30	23	15168	0.009	23	15168	0.007	23	15168	0.016
16:30 - 17:00	23	15168	0.009	23	15168	0.007	23	15168	0.016
17:00 - 17:30	23	15168	0.006	23	15168	0.003	23	15168	0.009
17:30 - 18:00	23	15168	0.006	23	15168	0.005	23	15168	0.011
18:00 - 18:30	23	15168	0.002	23	15168	0.001	23	15168	0.003
18:30 - 19:00	23	15168	0.001	23	15168	0.002	23	15168	0.003
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.262			0.270			0.532

Parameter summary

Trip rate parameter range selected:	1758 - 102000 (units: sqm)
Survey date date range:	01/01/05 - 28/11/12
Number of weekdays (Monday-Friday):	23
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	1

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE
MULTI-MODAL TOTAL PEOPLE
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	23	15168	0.219	23	15168	0.064	23	15168	0.283
07:30 - 08:00	23	15168	0.300	23	15168	0.115	23	15168	0.415
08:00 - 08:30	23	15168	0.305	23	15168	0.144	23	15168	0.449
08:30 - 09:00	23	15168	0.302	23	15168	0.170	23	15168	0.472
09:00 - 09:30	23	15168	0.232	23	15168	0.170	23	15168	0.402
09:30 - 10:00	23	15168	0.190	23	15168	0.178	23	15168	0.368
10:00 - 10:30	23	15168	0.210	23	15168	0.187	23	15168	0.397
10:30 - 11:00	23	15168	0.202	23	15168	0.208	23	15168	0.410
11:00 - 11:30	23	15168	0.215	23	15168	0.203	23	15168	0.418
11:30 - 12:00	23	15168	0.233	23	15168	0.249	23	15168	0.482
12:00 - 12:30	23	15168	0.205	23	15168	0.258	23	15168	0.463
12:30 - 13:00	23	15168	0.210	23	15168	0.223	23	15168	0.433
13:00 - 13:30	23	15168	0.210	23	15168	0.238	23	15168	0.448
13:30 - 14:00	23	15168	0.233	23	15168	0.200	23	15168	0.433
14:00 - 14:30	23	15168	0.206	23	15168	0.216	23	15168	0.422
14:30 - 15:00	23	15168	0.187	23	15168	0.189	23	15168	0.376
15:00 - 15:30	23	15168	0.194	23	15168	0.202	23	15168	0.396
15:30 - 16:00	23	15168	0.187	23	15168	0.247	23	15168	0.434
16:00 - 16:30	23	15168	0.169	23	15168	0.293	23	15168	0.462
16:30 - 17:00	23	15168	0.162	23	15168	0.290	23	15168	0.452
17:00 - 17:30	23	15168	0.110	23	15168	0.297	23	15168	0.407
17:30 - 18:00	23	15168	0.062	23	15168	0.198	23	15168	0.260
18:00 - 18:30	23	15168	0.057	23	15168	0.108	23	15168	0.165
18:30 - 19:00	23	15168	0.028	23	15168	0.064	23	15168	0.092
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			4.628			4.711			9.339

Parameter summary

Trip rate parameter range selected:	1758 - 102000 (units: sqm)
Survey date date range:	01/01/05 - 28/11/12
Number of weekdays (Monday-Friday):	23
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	1

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : C - INDUSTRIAL UNIT
MULTI-MODAL OGVS

Filtering Stage 2 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:	Gross floor area
Actual Range:	1100 to 43325 (units: sqm)
Range Selected by User:	1100 to 43325 (units: sqm)

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/00 to 24/01/13

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

Selected survey days:

Monday	5 days
Tuesday	4 days
Wednesday	2 days
Thursday	6 days
Friday	1 days

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

Selected survey types:

Manual count	18 days
Directional ATC Count	0 days

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

Selected Locations:

Edge of Town Centre	4
Suburban Area (PPS6 Out of Centre)	3
Edge of Town	9
Free Standing (PPS6 Out of Town)	2

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

Selected Location Sub Categories:

Industrial Zone	9
Commercial Zone	1
Built-Up Zone	5
Out of Town	1
No Sub Category	2

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.

LIST OF SITES relevant to selection parameters

1 BR-02-C-01 MECH. ENGINEERS BRISTOL CITY
NOVERS HILL
BEDMINSTER
BRISTOL
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 1100 sqm
Survey date: MONDAY 19/10/09 Survey Type: MANUAL

2 CH-02-C-01 BAKERY CHESHIRE
GADBROOK PARK
HIGH SHURLACH
NORTHWICH
Edge of Town
Industrial Zone
Total Gross floor area: 15000 sqm
Survey date: THURSDAY 21/06/07 Survey Type: MANUAL

3 CW-02-C-01 FOOD DISTRIBUTION CORNWALL
WILSON WAY
POOL
CAMBORNE
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 10200 sqm
Survey date: FRIDAY 08/06/07 Survey Type: MANUAL

4 CW-02-C-02 LIGHTING COMPANY CORNWALL
NORMANDY WAY

BODMIN
Edge of Town
Industrial Zone
Total Gross floor area: 17675 sqm
Survey date: WEDNESDAY 06/06/07 Survey Type: MANUAL

5 DC-02-C-02 NEWSPAPER HQ DORSET
HAMPSHIRE ROAD
CHICKERELL
WEYMOUTH
Edge of Town
Industrial Zone
Total Gross floor area: 3035 sqm
Survey date: TUESDAY 04/07/00 Survey Type: MANUAL

6 DC-02-C-03 INDUSTRIAL UNIT DORSET
NIMROD WAY
STAPEHILL
NEAR WIMBORNE MINSTER
Free Standing (PPS6 Out of Town)
Industrial Zone
Total Gross floor area: 1626 sqm
Survey date: TUESDAY 15/05/01 Survey Type: MANUAL

7 DC-02-C-04 BREWERY DORSET
WEYMOUTH AVENUE

DORCHESTER
Edge of Town Centre
Built-Up Zone
Total Gross floor area: 19857 sqm
Survey date: MONDAY 09/07/01 Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

8 DC-02-C-07 NEW LOOK DORSET
MERCERY ROAD

WEYMOUTH
Edge of Town
No Sub Category
Total Gross floor area: 5467 sqm
Survey date: MONDAY 07/07/08 Survey Type: MANUAL

9 DS-02-C-01 BAKERY DERBYSHIRE
STUBLEY LANE
DRONFIELD
NEAR SHEFFIELD
Edge of Town
No Sub Category
Total Gross floor area: 23500 sqm
Survey date: THURSDAY 22/06/06 Survey Type: MANUAL

10 GM-02-C-02 BREWERY GREATER MANCHESTER
GREAT DUCIE STREET
STRANGEWAYS
MANCHESTER
Edge of Town Centre
Built-Up Zone
Total Gross floor area: 33470 sqm
Survey date: TUESDAY 08/06/04 Survey Type: MANUAL

11 GS-02-C-01 HEALTH PRODUCTS GLOUCESTERSHIRE
ST CATHERINE STREET

GLOUCESTER
Edge of Town Centre
Built-Up Zone
Total Gross floor area: 6604 sqm
Survey date: WEDNESDAY 26/05/04 Survey Type: MANUAL

12 HE-02-C-01 METAL. COATINGS HEREFORDSHIRE
COLLEGE ROAD

HEREFORD
Edge of Town
Commercial Zone
Total Gross floor area: 1880 sqm
Survey date: THURSDAY 14/10/10 Survey Type: MANUAL

13 HF-02-C-01 INDUSTRIAL UNIT HERTFORDSHIRE
BRIDGE ROAD EAST

WELWYN GARDEN CITY
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 1800 sqm
Survey date: THURSDAY 17/07/08 Survey Type: MANUAL

14 LC-02-C-01 BREWERY LANCASHIRE
PENNY STREET

BLACKBURN
Edge of Town Centre
Built-Up Zone
Total Gross floor area: 34581 sqm
Survey date: MONDAY 21/06/04 Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

15 NF-02-C-01 INDUSTRIAL UNIT NORFOLK
KERRISON ROAD

NORWICH
Edge of Town
Built-Up Zone
Total Gross floor area: 32000 sqm
Survey date: THURSDAY 16/11/00 Survey Type: MANUAL

16 NF-02-C-02 GROCERY FACTORY NORFOLK
HARDWICK ROAD

KINGS LYNN
Edge of Town
Industrial Zone
Total Gross floor area: 43325 sqm
Survey date: MONDAY 19/09/05 Survey Type: MANUAL

17 WM-02-C-03 INDUSTRIAL GLASS WEST MIDLANDS
DOWNING STREET

SMETHWICK
Edge of Town
Industrial Zone
Total Gross floor area: 5070 sqm
Survey date: TUESDAY 06/11/12 Survey Type: MANUAL

18 WS-02-C-01 AVIATION COMPANY WEST SUSSEX
MAYDWELL AVENUE
SLINFOLD
NEAR HORSHAM
Free Standing (PPS6 Out of Town)
Out of Town
Total Gross floor area: 11375 sqm
Survey date: THURSDAY 24/01/13 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 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
MULTI-MODAL OGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30	1	11375	0.000	1	11375	0.000	1	11375	0.000
06:30 - 07:00	1	11375	0.000	1	11375	0.000	1	11375	0.000
07:00 - 07:30	18	14865	0.005	18	14865	0.004	18	14865	0.009
07:30 - 08:00	18	14865	0.005	18	14865	0.004	18	14865	0.009
08:00 - 08:30	18	14865	0.009	18	14865	0.007	18	14865	0.016
08:30 - 09:00	18	14865	0.008	18	14865	0.009	18	14865	0.017
09:00 - 09:30	18	14865	0.009	18	14865	0.008	18	14865	0.017
09:30 - 10:00	18	14865	0.011	18	14865	0.007	18	14865	0.018
10:00 - 10:30	18	14865	0.008	18	14865	0.010	18	14865	0.018
10:30 - 11:00	18	14865	0.009	18	14865	0.005	18	14865	0.014
11:00 - 11:30	18	14865	0.011	18	14865	0.007	18	14865	0.018
11:30 - 12:00	18	14865	0.010	18	14865	0.009	18	14865	0.019
12:00 - 12:30	18	14865	0.011	18	14865	0.009	18	14865	0.020
12:30 - 13:00	18	14865	0.007	18	14865	0.005	18	14865	0.012
13:00 - 13:30	18	14865	0.010	18	14865	0.007	18	14865	0.017
13:30 - 14:00	18	14865	0.005	18	14865	0.007	18	14865	0.012
14:00 - 14:30	18	14865	0.009	18	14865	0.007	18	14865	0.016
14:30 - 15:00	18	14865	0.007	18	14865	0.007	18	14865	0.014
15:00 - 15:30	18	14865	0.006	18	14865	0.005	18	14865	0.011
15:30 - 16:00	18	14865	0.006	18	14865	0.005	18	14865	0.011
16:00 - 16:30	18	14865	0.004	18	14865	0.006	18	14865	0.010
16:30 - 17:00	18	14865	0.006	18	14865	0.005	18	14865	0.011
17:00 - 17:30	18	14865	0.002	18	14865	0.003	18	14865	0.005
17:30 - 18:00	18	14865	0.003	18	14865	0.005	18	14865	0.008
18:00 - 18:30	18	14865	0.006	18	14865	0.004	18	14865	0.010
18:30 - 19:00	18	14865	0.002	18	14865	0.003	18	14865	0.005
19:00 - 19:30	1	11375	0.000	1	11375	0.000	1	11375	0.000
19:30 - 20:00	1	11375	0.000	1	11375	0.000	1	11375	0.000
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.169			0.148			0.317

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.

Parameter summary

Trip rate parameter range selected:	1100 - 43325 (units: sqm)
Survey date date range:	01/01/00 - 24/01/13
Number of weekdays (Monday-Friday):	18
Number of Saturdays:	0
Number of Sundays:	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 show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
MULTI-MODAL TOTAL PEOPLE
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30	1	11375	0.000	1	11375	0.000	1	11375	0.000
06:30 - 07:00	1	11375	0.018	1	11375	0.000	1	11375	0.018
07:00 - 07:30	18	14865	0.120	18	14865	0.040	18	14865	0.160
07:30 - 08:00	18	14865	0.217	18	14865	0.024	18	14865	0.241
08:00 - 08:30	18	14865	0.278	18	14865	0.039	18	14865	0.317
08:30 - 09:00	18	14865	0.177	18	14865	0.045	18	14865	0.222
09:00 - 09:30	18	14865	0.103	18	14865	0.048	18	14865	0.151
09:30 - 10:00	18	14865	0.073	18	14865	0.053	18	14865	0.126
10:00 - 10:30	18	14865	0.064	18	14865	0.066	18	14865	0.130
10:30 - 11:00	18	14865	0.062	18	14865	0.051	18	14865	0.113
11:00 - 11:30	18	14865	0.048	18	14865	0.046	18	14865	0.094
11:30 - 12:00	18	14865	0.058	18	14865	0.059	18	14865	0.117
12:00 - 12:30	18	14865	0.058	18	14865	0.107	18	14865	0.165
12:30 - 13:00	18	14865	0.095	18	14865	0.116	18	14865	0.211
13:00 - 13:30	18	14865	0.168	18	14865	0.114	18	14865	0.282
13:30 - 14:00	18	14865	0.199	18	14865	0.090	18	14865	0.289
14:00 - 14:30	18	14865	0.091	18	14865	0.237	18	14865	0.328
14:30 - 15:00	18	14865	0.062	18	14865	0.075	18	14865	0.137
15:00 - 15:30	18	14865	0.068	18	14865	0.098	18	14865	0.166
15:30 - 16:00	18	14865	0.058	18	14865	0.101	18	14865	0.159
16:00 - 16:30	18	14865	0.040	18	14865	0.101	18	14865	0.141
16:30 - 17:00	18	14865	0.046	18	14865	0.254	18	14865	0.300
17:00 - 17:30	18	14865	0.029	18	14865	0.179	18	14865	0.208
17:30 - 18:00	18	14865	0.024	18	14865	0.204	18	14865	0.228
18:00 - 18:30	18	14865	0.022	18	14865	0.098	18	14865	0.120
18:30 - 19:00	18	14865	0.026	18	14865	0.058	18	14865	0.084
19:00 - 19:30	1	11375	0.000	1	11375	0.070	1	11375	0.070
19:30 - 20:00	1	11375	0.026	1	11375	0.062	1	11375	0.088
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			2.230			2.435			4.665

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.

Parameter summary

Trip rate parameter range selected:	1100 - 43325 (units: sqm)
Survey date date range:	01/01/00 - 24/01/13
Number of weekdays (Monday-Friday):	18
Number of Saturdays:	0
Number of Sundays:	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 show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : F - WAREHOUSING (COMMERCIAL)
MULTI-MODAL OGVS

Filtering Stage 2 selection:

Parameter:	Gross floor area
Actual Range:	2759 to 80066 (units: sqm)
Range Selected by User:	2759 to 80066 (units: sqm)

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/97 to 29/11/10

Selected survey days:

Monday	2 days
Tuesday	2 days
Wednesday	1 days
Thursday	2 days
Friday	1 days

Selected survey types:

Manual count	8 days
Directional ATC Count	0 days

Selected Locations:

Suburban Area (PPS6 Out of Centre)	4
Edge of Town	3
Neighbourhood Centre (PPS6 Local Centre)	1

Selected Location Sub Categories:

Industrial Zone	4
Residential Zone	1
No Sub Category	3

LIST OF SITES relevant to selection parameters

1 AN-02-F-02 DISTRIBUTION CENTRE ANTRIM
APOLLO ROAD

BELFAST
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 10832 sqm
Survey date: THURSDAY 29/07/10 Survey Type: MANUAL

2 CR-02-F-01 WAREHOUSING ESTATE CORK
TRAMORE ROAD
BALLYPHEHANE
CORK
Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Gross floor area: 14400 sqm
Survey date: WEDNESDAY 07/12/05 Survey Type: MANUAL

3 DL-02-F-01 CLARITY DUBLIN
BLESSINGTON ROAD
TALLAGHT
DUBLIN
Neighbourhood Centre (PPS6 Local Centre)
No Sub Category
Total Gross floor area: 3760 sqm
Survey date: THURSDAY 03/12/09 Survey Type: MANUAL

4 GC-02-F-01 DISTRIBUTION CEN. GLASGOW CITY
BARRACHNIE ROAD
GARROWHILL
GLASGOW
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 11504 sqm
Survey date: MONDAY 10/09/01 Survey Type: MANUAL

5 HF-02-F-02 SUPERSTORE DISTRIBUTION HERTFORDSHIRE
BLACK FAN ROAD
PANSHANGER
WELWYN GARDEN CITY
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 18600 sqm
Survey date: FRIDAY 06/09/02 Survey Type: MANUAL

6 LN-02-F-01 BOOK SERVICE LINCOLNSHIRE
TRENT ROAD

GRANTHAM
Edge of Town
No Sub Category
Total Gross floor area: 32300 sqm
Survey date: MONDAY 29/11/10 Survey Type: MANUAL

7 TV-02-F-02 ARGOS WAREHOUSE TEES VALLEY
ROUNDHOUSE ROAD
FAVERDALE
DARLINGTON
Edge of Town
Industrial Zone
Total Gross floor area: 80066 sqm
Survey date: TUESDAY 07/10/08 Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

8 WO-02-F-02 DISTRIB. CENTRE WORCESTERSHIRE
COTSWOLD WAY

WORCESTER
Edge of Town
Industrial Zone
Total Gross floor area: 3824 sqm
Survey date: TUESDAY 10/09/02 Survey Type: MANUAL

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)
MULTI-MODAL OGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	8	21584	0.016	8	21584	0.018	8	21584	0.034
07:30 - 08:00	8	21584	0.014	8	21584	0.017	8	21584	0.031
08:00 - 08:30	8	21584	0.017	8	21584	0.019	8	21584	0.036
08:30 - 09:00	8	21584	0.013	8	21584	0.018	8	21584	0.031
09:00 - 09:30	8	21584	0.013	8	21584	0.021	8	21584	0.034
09:30 - 10:00	8	21584	0.010	8	21584	0.014	8	21584	0.024
10:00 - 10:30	8	21584	0.025	8	21584	0.015	8	21584	0.040
10:30 - 11:00	8	21584	0.020	8	21584	0.017	8	21584	0.037
11:00 - 11:30	8	21584	0.019	8	21584	0.019	8	21584	0.038
11:30 - 12:00	8	21584	0.024	8	21584	0.014	8	21584	0.038
12:00 - 12:30	8	21584	0.017	8	21584	0.013	8	21584	0.030
12:30 - 13:00	8	21584	0.023	8	21584	0.014	8	21584	0.037
13:00 - 13:30	8	21584	0.017	8	21584	0.016	8	21584	0.033
13:30 - 14:00	8	21584	0.030	8	21584	0.014	8	21584	0.044
14:00 - 14:30	8	21584	0.023	8	21584	0.015	8	21584	0.038
14:30 - 15:00	8	21584	0.020	8	21584	0.019	8	21584	0.039
15:00 - 15:30	8	21584	0.020	8	21584	0.014	8	21584	0.034
15:30 - 16:00	8	21584	0.025	8	21584	0.017	8	21584	0.042
16:00 - 16:30	8	21584	0.019	8	21584	0.014	8	21584	0.033
16:30 - 17:00	8	21584	0.019	8	21584	0.012	8	21584	0.031
17:00 - 17:30	8	21584	0.017	8	21584	0.009	8	21584	0.026
17:30 - 18:00	8	21584	0.010	8	21584	0.010	8	21584	0.020
18:00 - 18:30	8	21584	0.007	8	21584	0.013	8	21584	0.020
18:30 - 19:00	8	21584	0.004	8	21584	0.009	8	21584	0.013
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.422			0.361			0.783

Parameter summary

Trip rate parameter range selected:	2759 - 80066 (units: sqm)
Survey date date range:	01/01/97 - 29/11/10
Number of weekdays (Monday-Friday):	8
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)
MULTI-MODAL TOTAL PEOPLE
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	8	21584	0.081	8	21584	0.055	8	21584	0.136
07:30 - 08:00	8	21584	0.170	8	21584	0.075	8	21584	0.245
08:00 - 08:30	8	21584	0.139	8	21584	0.047	8	21584	0.186
08:30 - 09:00	8	21584	0.124	8	21584	0.042	8	21584	0.166
09:00 - 09:30	8	21584	0.136	8	21584	0.061	8	21584	0.197
09:30 - 10:00	8	21584	0.090	8	21584	0.054	8	21584	0.144
10:00 - 10:30	8	21584	0.072	8	21584	0.052	8	21584	0.124
10:30 - 11:00	8	21584	0.060	8	21584	0.041	8	21584	0.101
11:00 - 11:30	8	21584	0.055	8	21584	0.054	8	21584	0.109
11:30 - 12:00	8	21584	0.050	8	21584	0.040	8	21584	0.090
12:00 - 12:30	8	21584	0.062	8	21584	0.070	8	21584	0.132
12:30 - 13:00	8	21584	0.069	8	21584	0.077	8	21584	0.146
13:00 - 13:30	8	21584	0.116	8	21584	0.123	8	21584	0.239
13:30 - 14:00	8	21584	0.193	8	21584	0.116	8	21584	0.309
14:00 - 14:30	8	21584	0.101	8	21584	0.109	8	21584	0.210
14:30 - 15:00	8	21584	0.086	8	21584	0.094	8	21584	0.180
15:00 - 15:30	8	21584	0.051	8	21584	0.086	8	21584	0.137
15:30 - 16:00	8	21584	0.056	8	21584	0.087	8	21584	0.143
16:00 - 16:30	8	21584	0.057	8	21584	0.104	8	21584	0.161
16:30 - 17:00	8	21584	0.041	8	21584	0.104	8	21584	0.145
17:00 - 17:30	8	21584	0.038	8	21584	0.126	8	21584	0.164
17:30 - 18:00	8	21584	0.036	8	21584	0.104	8	21584	0.140
18:00 - 18:30	8	21584	0.030	8	21584	0.089	8	21584	0.119
18:30 - 19:00	8	21584	0.015	8	21584	0.047	8	21584	0.062
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			1.928			1.857			3.785

Parameter summary

Trip rate parameter range selected:	2759 - 80066 (units: sqm)
Survey date date range:	01/01/97 - 29/11/10
Number of weekdays (Monday-Friday):	8
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	0

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 06 - HOTEL, FOOD & DRINK
Category : A - HOTELS
MULTI-MODAL OGVS

Filtering Stage 2 selection:

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

Parameter:	Number of bedrooms
Actual Range:	41 to 120 (units:)
Range Selected by User:	24 to 213 (units:)

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/05 to 18/07/12

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

Selected survey days:

Monday	1 days
Tuesday	3 days
Wednesday	2 days
Thursday	1 days
Friday	2 days

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

Selected survey types:

Manual count	9 days
Directional ATC Count	0 days

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

Selected Locations:

Town Centre	1
Edge of Town Centre	3
Suburban Area (PPS6 Out of Centre)	5

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:

Development Zone	2
Residential Zone	1
Retail Zone	1
Built-Up Zone	1
No Sub Category	4

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.

LIST OF SITES relevant to selection parameters

1 CA-06-A-03 TRAVELODGE CAMBRIDGESHIRE
CLIFTON WAY
CAMBRIDGE LEISURE PARK
CAMBRIDGE
Suburban Area (PPS6 Out of Centre)
Built-Up Zone
Total Number of bedrooms: 120
Survey date: FRIDAY 16/10/09 Survey Type: MANUAL

2 DH-06-A-01 PREMIER INN DURHAM
FREEMANS PLACE
MILLENNIUM PLACE
DURHAM
Edge of Town Centre
Development Zone
Total Number of bedrooms: 103
Survey date: THURSDAY 04/12/08 Survey Type: MANUAL

3 DV-06-A-02 PREMIER INN DEVON
SUTTON ROAD
SUTTON HARBOUR
PLYMOUTH
Edge of Town Centre
No Sub Category
Total Number of bedrooms: 107
Survey date: WEDNESDAY 21/10/09 Survey Type: MANUAL

4 GS-06-A-01 PREMIER INN GLOUCESTERSHIRE
GLOUCESTER ROAD
ST MARKS
CHELTENHAM
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of bedrooms: 60
Survey date: WEDNESDAY 28/04/10 Survey Type: MANUAL

5 NR-06-A-01 COMFORT INN NORTHAMPTONSHIRE
HIGH STREET

KETTERING
Town Centre
No Sub Category
Total Number of bedrooms: 41
Survey date: FRIDAY 06/05/05 Survey Type: MANUAL

6 TW-06-A-01 PREMIER TRAV. INN TYNE & WEAR
CITY ROAD
QUAYSIDE
NEWCASTLE
Suburban Area (PPS6 Out of Centre)
Development Zone
Total Number of bedrooms: 82
Survey date: TUESDAY 26/04/05 Survey Type: MANUAL

7 WM-06-A-04 PURPLE HOTEL WEST MIDLANDS
CUCKOO ROAD
NECHELLS
BIRMINGHAM
Suburban Area (PPS6 Out of Centre)
Retail Zone
Total Number of bedrooms: 90
Survey date: TUESDAY 25/11/08 Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

8 WS-06-A-03 EXPRESS BY HOL. INN WEST SUSSEX
HASLETT AVENUE EAST

CRAWLEY
Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Number of bedrooms: 74
Survey date: MONDAY 07/12/09 Survey Type: MANUAL

9 WY-06-A-01 EXPRESS BY HOL. INN WEST YORKSHIRE
THE LEISURE EXCHANGE

BRADFORD
Edge of Town Centre
No Sub Category
Total Number of bedrooms: 120
Survey date: TUESDAY 17/05/05 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.

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
BU-06-A-01	Not budget hotel
CH-06-A-01	Not budget hotel
DS-06-A-02	Not budget hotel
DV-06-A-03	Not budget hotel
HE-06-A-01	Not budget hotel
NF-06-A-01	Not budget hotel
NF-06-A-02	Not budget hotel
TV-06-A-02	Not budget hotel
TV-06-A-03	Not budget hotel
WM-06-A-01	Not budget hotel
WM-06-A-03	Not budget hotel
WY-06-A-02	Not budget hotel

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/A - HOTELS
MULTI-MODAL OGVS
Calculation factor: 1 BEDRMS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. BEDRMS	Trip Rate	No. Days	Ave. BEDRMS	Trip Rate	No. Days	Ave. BEDRMS	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	9	89	0.005	9	89	0.006	9	89	0.011
08:00 - 09:00	9	89	0.001	9	89	0.001	9	89	0.002
09:00 - 10:00	9	89	0.003	9	89	0.003	9	89	0.006
10:00 - 11:00	9	89	0.004	9	89	0.004	9	89	0.008
11:00 - 12:00	9	89	0.003	9	89	0.003	9	89	0.006
12:00 - 13:00	9	89	0.001	9	89	0.001	9	89	0.002
13:00 - 14:00	9	89	0.001	9	89	0.001	9	89	0.002
14:00 - 15:00	9	89	0.001	9	89	0.001	9	89	0.002
15:00 - 16:00	9	89	0.000	9	89	0.000	9	89	0.000
16:00 - 17:00	9	89	0.000	9	89	0.000	9	89	0.000
17:00 - 18:00	9	89	0.000	9	89	0.000	9	89	0.000
18:00 - 19:00	9	89	0.001	9	89	0.001	9	89	0.002
19:00 - 20:00	9	89	0.000	9	89	0.000	9	89	0.000
20:00 - 21:00	9	89	0.000	9	89	0.000	9	89	0.000
21:00 - 22:00	7	85	0.000	7	85	0.000	7	85	0.000
22:00 - 23:00	1	103	0.000	1	103	0.000	1	103	0.000
23:00 - 24:00									
Total Rates:			0.020			0.021			0.041

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.

Parameter summary

Trip rate parameter range selected:	41 - 120 (units:)
Survey date date range:	01/01/05 - 18/07/12
Number of weekdays (Monday-Friday):	9
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	14

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

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/A - HOTELS
MULTI-MODAL TOTAL PEOPLE
Calculation factor: 1 BEDRMS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. BEDRMS	Trip Rate	No. Days	Ave. BEDRMS	Trip Rate	No. Days	Ave. BEDRMS	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	9	89	0.103	9	89	0.256	9	89	0.359
08:00 - 09:00	9	89	0.202	9	89	0.356	9	89	0.558
09:00 - 10:00	9	89	0.176	9	89	0.256	9	89	0.432
10:00 - 11:00	9	89	0.210	9	89	0.231	9	89	0.441
11:00 - 12:00	9	89	0.181	9	89	0.248	9	89	0.429
12:00 - 13:00	9	89	0.194	9	89	0.198	9	89	0.392
13:00 - 14:00	9	89	0.161	9	89	0.142	9	89	0.303
14:00 - 15:00	9	89	0.154	9	89	0.146	9	89	0.300
15:00 - 16:00	9	89	0.238	9	89	0.161	9	89	0.399
16:00 - 17:00	9	89	0.215	9	89	0.181	9	89	0.396
17:00 - 18:00	9	89	0.287	9	89	0.144	9	89	0.431
18:00 - 19:00	9	89	0.253	9	89	0.217	9	89	0.470
19:00 - 20:00	9	89	0.349	9	89	0.253	9	89	0.602
20:00 - 21:00	9	89	0.220	9	89	0.147	9	89	0.367
21:00 - 22:00	7	85	0.213	7	85	0.138	7	85	0.351
22:00 - 23:00	1	103	0.126	1	103	0.155	1	103	0.281
23:00 - 24:00									
Total Rates:			3.282			3.229			6.511

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.

Parameter summary

Trip rate parameter range selected:	41 - 120 (units:)
Survey date date range:	01/01/05 - 18/07/12
Number of weekdays (Monday-Friday):	9
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	14

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

Appendix B

Census Travel to Work data

Method of Travel to Work - Daytime Population (UV37)

				Brentwood 008D Super Output Area Lower Layer		Brentwood Non-Metropolitan District		East of England Region	England Country
All People	Count	Persons	Apr-01	4152		49374		3687938	35466713
Works mainly at or from home	Count	Persons	Apr-01	84		3197		243485	2055224
Underground, metro, light rail or tram	Count	Persons	Apr-01	20	*0.5%*	157	*0.5%*	6244	706080
Train	Count	Persons	Apr-01	70	*1.9%*	1410	*4.8%*	38151	945100
Bus, minibus or coach	Count	Persons	Apr-01	59	*1.6%*	936	*3.2%*	102200	1682127
Taxi or minicab	Count	Persons	Apr-01	11	*0.3%*	195	*0.7%*	11354	115495
Driving a car or van	Count	Persons	Apr-01	3206	*86.1%*	21791	*73.9%*	1467061	12308844
Passenger in a car or van	Count	Persons	Apr-01	183	*4.9%*	1863	*6.3%*	147782	1368226
Motorcycle, scooter or moped	Count	Persons	Apr-01	35	*0.9%*	251	*0.9%*	25144	248824
Bicycle	Count	Persons	Apr-01	22	*0.6%*	342	*1.2%*	99735	632231
On foot	Count	Persons	Apr-01	107	*2.9%*	2440	*8.3%*	233141	2231539
Other	Count	Persons	Apr-01	12	*0.3%*	85	*0.3%*	8915	82430
Not currently working	Count	Persons	Apr-01	343		16707		1304726	13090593
Method of Travel to Work - Daytime Population, 2001 (UV37), Apr01	LastUpdated	18-Nov-04							
Method of Travel to Work - Daytime Population, 2001 (UV37), Apr01	Source	Office for National Statistics							
Method of Travel to Work - Daytime Population (UV37)	National Statistics								

Destination Ward	Origin Ward	Local_Authority_Name	All people	Home	Underground	Train	Bus	Taxi	Car – driver	Car – passenger	Motorcycle	Bicycle	Walk	Other
Warley	Westborough	Southend-on-Sea	10	0	0	0	0	0	10	0	0	0	0	0
Warley	Belfairs	Southend-on-Sea	13	0	0	0	0	0	10	0	3	0	0	0
Warley	Blenheim Park	Southend-on-Sea	11	0	0	0	0	0	11	0	0	0	0	0
Warley	Chalkwell	Southend-on-Sea	9	0	0	0	0	0	9	0	0	0	0	0
Warley	Eastwood Park	Southend-on-Sea	29	0	0	3	0	0	23	0	3	0	0	0
Warley	Kursaal	Southend-on-Sea	11	0	0	0	0	0	11	0	0	0	0	0
Warley	Leigh	Southend-on-Sea	9	0	0	0	0	0	9	0	0	0	0	0
Warley	Milton	Southend-on-Sea	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Prittlewell	Southend-on-Sea	6	0	0	0	0	0	6	0	0	0	0	0
Warley	St Laurence	Southend-on-Sea	14	0	0	0	0	0	14	0	0	0	0	0
Warley	St. Luke's	Southend-on-Sea	6	0	0	0	0	0	6	0	0	0	0	0
Warley	Shoeburyness	Southend-on-Sea	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Southchurch	Southend-on-Sea	15	0	0	0	0	0	12	3	0	0	0	0
Warley	Limehouse	Tower Hamlets	12	0	0	0	0	0	12	0	0	0	0	0
Warley	Victoria	Southend-on-Sea	15	0	0	0	0	0	12	0	0	0	3	0
Warley	Easton	Bristol, City of	3	0	0	0	0	0	3	0	0	0	0	0
Warley	West Leigh	Southend-on-Sea	10	0	0	0	0	0	10	0	0	0	0	0
Warley	West Shoebury	Southend-on-Sea	7	0	0	0	0	0	7	0	0	0	0	0
Warley	Aveley and Uplands	Thurrock	17	0	0	0	0	0	14	3	0	0	0	0
Warley	Belhus	Thurrock	35	0	0	0	0	0	29	3	3	0	0	0
Warley	Chadwell St Mary	Thurrock	17	0	0	0	0	0	17	0	0	0	0	0
Warley	Chafford and North Stifford	Thurrock	18	0	0	3	0	0	15	0	0	0	0	0
Warley	Corringham and Fobbing	Thurrock	20	0	0	0	0	0	14	3	0	3	0	0
Warley	East Tilbury	Thurrock	15	0	0	0	0	0	12	0	3	0	0	0
Warley	Grays Riverside	Thurrock	21	0	0	0	0	0	21	0	0	0	0	0
Warley	Grays Thurrock	Thurrock	19	0	0	0	0	0	19	0	0	0	0	0
Warley	Little Thurrock Blackshots	Thurrock	15	0	0	0	0	0	12	3	0	0	0	0
Warley	Little Thurrock Rectory	Thurrock	15	0	0	0	0	0	15	0	0	0	0	0
Warley	Ockendon	Thurrock	50	0	0	0	3	0	47	0	0	0	0	0
Warley	Thorpe	Southend-on-Sea	7	0	0	0	0	0	7	0	0	0	0	0
Warley	Churchill	Westminster	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Abbey	Barking and Dagenham	3	0	0	0	0	0	3	0	0	0	0	0
Warley	St Katherine's and Wapping	Tower Hamlets	5	0	0	0	0	0	5	0	0	0	0	0
Warley	Shadwell	Tower Hamlets	6	0	0	0	0	0	6	0	0	0	0	0
Warley	Whitechapel	Tower Hamlets	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Chingford Green	Waltham Forest	4	0	0	0	0	0	4	0	0	0	0	0
Warley	Endlebury	Waltham Forest	4	0	0	0	0	0	4	0	0	0	0	0
Warley	Grove Green	Waltham Forest	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Hale End and Highams Park	Waltham Forest	4	0	0	0	0	0	4	0	0	0	0	0
Warley	Hatch Lane	Waltham Forest	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Larkswood	Waltham Forest	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Leytonstone	Waltham Forest	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Bedford	Wandsworth	6	0	3	0	0	0	3	0	0	0	0	0
Warley	Fairfield	Wandsworth	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Round Green	Luton	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Earlsdon	Coventry	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Stanford East and Corringham Town	Thurrock	20	0	0	0	0	0	20	0	0	0	0	0
Warley	Whittle Hall	Warrington	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Poulton North	Warrington	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Poplars and Hulme	Warrington	3	0	0	0	0	0	0	3	0	0	0	0
Warley	Latchford East	Warrington	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Roehampton	Wandsworth	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Wyken	Coventry	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Abbey Road	Westminster	6	0	3	0	0	0	3	0	0	0	0	0
Warley	Warbreck	Liverpool	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Aigburth	Liverpool	3	0	0	0	3	0	0	0	0	0	0	0
Warley	Abram	Wigan	3	0	0	0	0	0	3	0	0	0	0	0
Warley	West End	Westminster	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Church Street	Westminster	3	0	3	0	0	0	0	0	0	0	0	0
Warley	Bramingham	Luton	3	0	0	0	0	0	3	0	0	0	0	0
Warley	University	Leeds	3	0	0	0	0	0	0	3	0	0	0	0
Warley	Vange	Basildon	27	0	0	0	0	0	21	0	3	0	3	0
Warley	Orsett	Thurrock	39	0	0	0	0	0	36	0	3	0	0	0
Warley	Purewell and Stanpit	Christchurch	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Hailsham South and West	Wealden	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Billericay East	Basildon	104	0	0	0	0	0	97	4	0	3	0	0
Warley	Billericay West	Basildon	105	0	0	10	3	0	88	4	0	0	0	0
Warley	Burstead	Basildon	69	0	0	0	0	0	66	3	0	0	0	0
Warley	Crouch	Basildon	55	0	0	0	0	0	48	4	3	0	0	0
Warley	Fryerns	Basildon	40	0	0	0	3	0	37	0	0	0	0	0
Warley	Laindon Park	Basildon	58	0	0	0	0	0	47	3	3	0	5	0
Warley	Langdon Hills	Basildon	57	0	0	0	3	0	51	3	0	0	0	0
Warley	Lee Chapel North	Basildon	41	0	0	0	3	0	31	4	0	0	3	0

Destination Ward	Origin Ward	Local_Authority_Name	All people	Home	Underground	Train	Bus	Taxi	Car – driver	Car – passenger	Motorcycle	Bicycle	Walk	Other
Warley	Nethermayne	Basildon	41	0	0	0	0	0	38	0	0	3	0	0
Warley	Pitsea North West	Basildon	48	0	0	3	0	0	37	8	0	0	0	0
Warley	Balsham	South Cambridgeshire	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Bocking North	Braintree	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Cressing and Stisted	Braintree	4	0	0	0	0	0	4	0	0	0	0	0
Warley	Coggeshall and North Feering	Braintree	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Bumpstead	Braintree	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Braintree South	Braintree	4	0	0	0	0	0	4	0	0	0	0	0
Warley	Braintree East	Braintree	9	0	0	0	0	0	6	3	0	0	0	0
Warley	Pitsea South East	Basildon	37	0	0	0	3	0	31	3	0	0	0	0
Warley	Bradwell, Silver End and Rivenhall	Braintree	3	0	0	0	0	0	3	0	0	0	0	0
Warley	St Martin's	Basildon	21	0	0	0	0	0	18	0	0	3	0	0
Warley	Bocking Blackwater	Braintree	10	0	0	0	0	0	10	0	0	0	0	0
Warley	Black Notley and Terling	Braintree	7	0	0	0	0	0	7	0	0	0	0	0
Warley	Wickford Park	Basildon	58	0	0	4	0	0	51	3	0	0	0	0
Warley	Wickford North	Basildon	63	0	0	0	0	0	54	6	3	0	0	0
Warley	Wickford Castledon	Basildon	36	0	0	3	0	0	30	0	3	0	0	0
Warley	St Neots Priory Park	Huntingdonshire	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Braintree Central	Braintree	4	0	0	0	0	0	4	0	0	0	0	0
Warley	Twydall	Medway	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Bow West	Tower Hamlets	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Stanford-le-Hope West	Thurrock	24	0	0	0	0	0	21	0	0	0	0	3
Warley	Stifford Clays	Thurrock	15	0	0	0	0	0	15	0	0	0	0	0
Warley	The Homesteads	Thurrock	47	0	0	0	3	0	41	3	0	0	0	0
Warley	Tilbury Riverside and Thurrock Park	Thurrock	13	0	0	0	3	0	7	0	0	0	3	0
Warley	Tilbury St Chads	Thurrock	19	0	0	0	0	0	16	3	0	0	0	0
Warley	West Thurrock and South Stifford	Thurrock	19	0	0	0	0	0	16	3	0	0	0	0
Warley	Cuxton and Halling	Medway	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Gillingham South	Medway	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Luton and Wayfield	Medway	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Peninsula	Medway	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Rainham Central	Medway	4	0	0	0	0	0	4	0	0	0	0	0
Warley	Rainham North	Medway	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Bassingbourn	South Cambridgeshire	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Crosskeys	Caerphilly	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Gransden and The Offords	Huntingdonshire	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Bowerdean	Wycombe	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Abbey	Wycombe	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Iver Village and Richings Park	South Bucks	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Roxton	Bedford	3	0	0	0	0	0	3	0	0	0	0	0
Warley	River	Medway	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Biggleswade Holme	Mid Bedfordshire	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Strood Rural	Medway	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Maesteg East	Bridgend	3	0	0	0	0	0	0	0	0	0	3	0
Warley	Central Southsea	Portsmouth	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Hanslope Park	Milton Keynes	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Hillside	Wokingham	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Bulmershe and Whitegates	Wokingham	3	0	0	0	0	0	3	0	0	0	0	0
Warley	South Chafford	Thurrock	10	0	0	0	0	0	10	0	0	0	0	0
Warley	Kingsbrook	Bedford	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Peninsula	Greenwich	4	0	0	0	0	0	4	0	0	0	0	0
Warley	Plaistow and Sundridge	Bromley	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Gospel Oak	Camden	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Coulsdon West	Croydon	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Purley	Croydon	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Selhurst	Croydon	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Northolt Mandeville	Ealing	6	0	0	0	0	0	0	3	0	0	0	3
Warley	Southall Green	Ealing	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Bush Hill Park	Enfield	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Chase	Enfield	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Palmers Green	Enfield	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Blackheath Westcombe	Greenwich	4	0	0	0	0	0	4	0	0	0	0	0
Warley	Glyndon	Greenwich	3	0	3	0	0	0	0	0	0	0	0	0
Warley	Millwall	Tower Hamlets	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Middle Park and Sutcliffe	Greenwich	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Chislehurst	Bromley	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Brownswood	Hackney	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Clissold	Hackney	3	0	0	0	0	0	3	0	0	0	0	0
Warley	De Beauvoir	Hackney	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Hoxton	Hackney	3	0	0	0	0	0	3	0	0	0	0	0
Warley	King's Park	Hackney	3	0	0	0	3	0	0	0	0	0	0	0
Warley	Avonmore and Brook Green	Hammersmith and Fulham	3	0	0	0	0	0	0	3	0	0	0	0
Warley	North End	Hammersmith and Fulham	3	0	0	0	3	0	0	0	0	0	0	0

Destination Ward	Origin Ward	Local_Authority_Name	All people	Home	Underground	Train	Bus	Taxi	Car – driver	Car – passenger	Motorcycle	Bicycle	Walk	Other
Warley	Alexandra	Haringey	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Crouch End	Haringey	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Northumberland Park	Haringey	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Stroud Green	Haringey	4	0	0	0	0	0	4	0	0	0	0	0
Warley	West Green	Haringey	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Queensbury	Harrow	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Kidbrooke with Hornfair	Greenwich	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Woodhouse	Barnet	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Alibon	Barking and Dagenham	9	0	0	0	0	0	6	0	3	0	0	0
Warley	Becontree	Barking and Dagenham	6	0	0	0	0	0	3	0	0	3	0	0
Warley	Chadwell Heath	Barking and Dagenham	9	0	0	0	0	0	9	0	0	0	0	0
Warley	Eastbrook	Barking and Dagenham	16	0	0	0	0	0	16	0	0	0	0	0
Warley	Goresbrook	Barking and Dagenham	10	0	3	0	0	0	7	0	0	0	0	0
Warley	Heath	Barking and Dagenham	9	0	0	0	0	0	6	3	0	0	0	0
Warley	Longbridge	Barking and Dagenham	4	0	0	0	0	0	4	0	0	0	0	0
Warley	Mayesbrook	Barking and Dagenham	5	0	0	0	0	0	5	0	0	0	0	0
Warley	Parsloes	Barking and Dagenham	6	0	0	0	3	0	3	0	0	0	0	0
Warley	River	Barking and Dagenham	6	0	0	0	0	0	6	0	0	0	0	0
Warley	Valence	Barking and Dagenham	8	0	0	0	3	0	5	0	0	0	0	0
Warley	Village	Barking and Dagenham	6	0	0	0	0	0	6	0	0	0	0	0
Warley	Whalebone	Barking and Dagenham	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Orpington	Bromley	3	0	0	0	0	0	3	0	0	0	0	0
Warley	St Michael's	Bexley	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Elm Park	Havering	16	0	0	0	0	0	16	0	0	0	0	0
Warley	Chelsfield and Pratts Bottom	Bromley	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Bromley Town	Bromley	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Bromley Common and Keston	Bromley	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Queensbury	Brent	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Brunswick Park	Barnet	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Sidcup	Bexley	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Garden Suburb	Barnet	3	0	0	0	0	0	3	0	0	0	0	0
Warley	North End	Bexley	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Longlands	Bexley	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Crayford	Bexley	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Brampton	Bexley	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Barnehurst	Bexley	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Copers Cope	Bromley	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Barnhill	Brent	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Snaresbrook	Redbridge	9	0	0	0	0	0	9	0	0	0	0	0
Warley	Brooklands	Havering	30	0	0	6	0	0	21	3	0	0	0	0
Warley	Barkingside	Redbridge	6	0	0	3	0	0	3	0	0	0	0	0
Warley	Bridge	Redbridge	5	0	0	0	0	0	5	0	0	0	0	0
Warley	Chadwell	Redbridge	6	0	0	3	0	0	3	0	0	0	0	0
Warley	Clayhall	Redbridge	4	0	0	0	0	0	4	0	0	0	0	0
Warley	Clementswood	Redbridge	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Cranbrook	Redbridge	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Fairlop	Redbridge	5	0	0	0	0	0	5	0	0	0	0	0
Warley	Fullwell	Redbridge	5	0	0	0	0	0	5	0	0	0	0	0
Warley	Goodmayes	Redbridge	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Hainault	Redbridge	12	0	3	0	0	0	9	0	0	0	0	0
Warley	Loxford	Redbridge	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Mayfield	Redbridge	6	0	0	0	0	0	6	0	0	0	0	0
Warley	Plaistow North	Newham	6	0	3	0	0	0	3	0	0	0	0	0
Warley	Chaucer	Southwark	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Blackwall and Cubitt Town	Tower Hamlets	11	0	0	3	0	0	8	0	0	0	0	0
Warley	Bethnal Green North	Tower Hamlets	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Stonecot	Sutton	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Beddington North	Sutton	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Surrey Docks	Southwark	7	0	0	0	0	0	7	0	0	0	0	0
Warley	Monkhams	Redbridge	4	0	0	0	0	0	4	0	0	0	0	0
Warley	Newington	Southwark	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Newbury	Redbridge	5	0	0	0	0	0	5	0	0	0	0	0
Warley	Cathedrals	Southwark	3	0	3	0	0	0	0	0	0	0	0	0
Warley	Brunswick Park	Southwark	3	0	0	3	0	0	0	0	0	0	0	0
Warley	Heathfield	Richmond upon Thames	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Wanstead	Redbridge	6	0	0	0	0	0	6	0	0	0	0	0
Warley	Valentines	Redbridge	8	0	0	3	0	0	5	0	0	0	0	0
Warley	Green Street East	Newham	6	0	3	0	0	0	3	0	0	0	0	0
Warley	Nunhead	Southwark	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Upminster	Havering	46	0	0	0	0	0	46	0	0	0	0	0
Warley	Halstead Trinity	Braintree	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Emerson Park	Havering	28	0	0	0	0	0	28	0	0	0	0	0
Warley	Gooshays	Havering	52	0	0	7	6	0	34	5	0	0	0	0

Destination Ward	Origin Ward	Local_Authority_Name	All people	Home	Underground	Train	Bus	Taxi	Car – driver	Car – passenger	Motorcycle	Bicycle	Walk	Other
Warley	Hacton	Havering	30	0	0	3	0	0	27	0	0	0	0	0
Warley	Harold Wood	Havering	74	0	0	5	0	0	61	5	3	0	0	0
Warley	Havering Park	Havering	22	0	0	0	0	0	22	0	0	0	0	0
Warley	Heaton	Havering	32	0	0	3	0	0	21	5	0	0	3	0
Warley	Hylands	Havering	24	0	0	0	3	0	18	3	0	0	0	0
Warley	Mawneys	Havering	32	0	0	0	3	0	26	3	0	0	0	0
Warley	Pettits	Havering	30	0	0	7	0	0	20	3	0	0	0	0
Warley	Rainham and Wennington	Havering	22	0	0	0	0	0	22	0	0	0	0	0
Warley	Romford Town	Havering	22	0	0	0	0	0	22	0	0	0	0	0
Warley	St Andrew's	Havering	30	0	0	3	0	0	24	3	0	0	0	0
Warley	Aldborough	Redbridge	5	0	0	0	0	0	5	0	0	0	0	0
Warley	St Peter's	Islington	3	0	3	0	0	0	0	0	0	0	0	0
Warley	East Ham Central	Newham	6	0	0	0	0	0	6	0	0	0	0	0
Warley	Pollards Hill	Merton	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Whitefoot	Lewisham	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Telegraph Hill	Lewisham	4	0	0	0	0	0	4	0	0	0	0	0
Warley	Blackheath	Lewisham	6	0	0	0	0	0	6	0	0	0	0	0
Warley	South Hornchurch	Havering	25	0	0	0	0	0	19	3	3	0	0	0
Warley	Coombe Hill	Kingston upon Thames	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Squirrel's Heath	Havering	31	0	0	0	0	0	28	3	0	0	0	0
Warley	Mildmay	Islington	3	0	0	0	0	0	0	0	0	3	0	0
Warley	Highbury West	Islington	3	0	0	3	0	0	0	0	0	0	0	0
Warley	Caledonian	Islington	6	0	0	3	0	0	3	0	0	0	0	0
Warley	Bunhill	Islington	6	0	0	3	0	0	3	0	0	0	0	0
Warley	West Drayton	Hillingdon	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Cranham	Havering	33	0	0	0	3	0	30	0	0	0	0	0
Warley	Knight's Hill	Lambeth	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Potters Bar Furzefield	Hertsmere	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Broxbourne	Broxbourne	4	0	0	0	0	0	4	0	0	0	0	0
Warley	Cheshunt North	Broxbourne	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Rosedale	Broxbourne	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Rye Park	Broxbourne	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Wormley & Turnford	Broxbourne	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Bishop's Stortford All Saints	East Hertfordshire	4	0	0	0	0	0	4	0	0	0	0	0
Warley	Bishop's Stortford Central	East Hertfordshire	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Bishop's Stortford Silverleys	East Hertfordshire	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Bishop's Stortford South	East Hertfordshire	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Buntingford	East Hertfordshire	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Hertford Castle	East Hertfordshire	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Hertford Rural South	East Hertfordshire	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Great Notley and Braintree West	Braintree	27	0	0	3	0	0	24	0	0	0	0	0
Warley	Stanstead Abbots	East Hertfordshire	3	0	0	0	0	0	3	0	0	0	0	0
Warley	The Rodings	Uttlesford	5	0	0	0	0	0	5	0	0	0	0	0
Warley	Potters Bar Parkfield	Hertsmere	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Graveley & Wymondley	North Hertfordshire	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Ashley	St Albans	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Batchwood	St Albans	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Harpenden East	St Albans	3	0	0	0	0	0	3	0	0	0	0	0
Warley	London Colney	St Albans	3	0	0	0	0	0	3	0	0	0	0	0
Warley	St Stephen	St Albans	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Verulam	St Albans	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Woodfield	Stevenage	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Moor Park & Eastbury	Three Rivers	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Nascot	Watford	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Haldens	Welwyn Hatfield	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Handside	Welwyn Hatfield	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Hunsdon	East Hertfordshire	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Bockings Elm	Tendring	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Hawkwell North	Rochford	11	0	0	0	0	0	11	0	0	0	0	0
Warley	Hawkwell South	Rochford	3	0	0	0	0	0	0	0	3	0	0	0
Warley	Hawkwell West	Rochford	7	0	0	0	0	0	7	0	0	0	0	0
Warley	Hockley Central	Rochford	13	0	0	0	0	0	13	0	0	0	0	0
Warley	Hockley North	Rochford	6	0	0	3	0	0	3	0	0	0	0	0
Warley	Hockley West	Rochford	7	0	0	0	0	0	7	0	0	0	0	0
Warley	Hullbridge	Rochford	19	0	0	0	0	0	16	3	0	0	0	0
Warley	Lodge	Rochford	9	0	0	0	0	0	9	0	0	0	0	0
Warley	Rayleigh Central	Rochford	12	0	0	0	0	0	12	0	0	0	0	0
Warley	Rochford	Rochford	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Sweyne Park	Rochford	14	0	0	0	0	0	14	0	0	0	0	0
Warley	Trinity	Rochford	14	0	0	0	0	0	11	3	0	0	0	0
Warley	Wheatley	Rochford	10	0	0	3	0	0	4	3	0	0	0	0
Warley	Marchwood	New Forest	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Great Dunmow North	Uttlesford	3	0	0	0	0	0	3	0	0	0	0	0

Destination Ward	Origin Ward	Local_Authority_Name	All people	Home	Underground	Train	Bus	Taxi	Car – driver	Car – passenger	Motorcycle	Bicycle	Walk	Other
Warley	Sherrards	Welwyn Hatfield	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Stebbing	Uttlesford	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Stansted North	Uttlesford	6	0	0	0	0	0	6	0	0	0	0	0
Warley	Saffron Walden Shire	Uttlesford	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Newport	Uttlesford	4	0	0	0	0	0	4	0	0	0	0	0
Warley	Whitehouse	Rochford	7	0	0	0	0	0	7	0	0	0	0	0
Warley	Great Dunmow South	Uttlesford	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Alton Park	Tendring	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Felsted	Uttlesford	8	0	0	0	0	0	8	0	0	0	0	0
Warley	Broad Oak and the Hallingburys	Uttlesford	4	0	0	0	0	0	4	0	0	0	0	0
Warley	Thorrington, Frating, Elmstead and Great Bromley	Tendring	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Harwich West	Tendring	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Harwich East	Tendring	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Horndean Catherington and Lovedean	East Hampshire	3	0	0	0	0	0	0	0	0	0	3	0
Warley	Hatfield Heath	Uttlesford	5	0	0	0	0	0	5	0	0	0	0	0
Warley	Mid Samford	Babergh	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Hollybush	Welwyn Hatfield	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Capel	Tunbridge Wells	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Pembury	Tunbridge Wells	3	0	0	0	0	0	3	0	0	0	0	0
Warley	St John's	Tunbridge Wells	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Southborough North	Tunbridge Wells	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Market Harborough - Welland	Harborough	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Caister North	Great Yarmouth	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Deddington	Cherwell	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Sibford	Cherwell	3	0	0	0	0	0	3	0	0	0	0	0
Warley	North	Oxford	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Bampton and Clanfield	West Oxfordshire	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Avalon	Mendip	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Yeovil Without	South Somerset	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Hadlow, Mereworth and West Peckham	Tonbridge and Malling	4	0	0	0	0	0	4	0	0	0	0	0
Warley	Otley	Suffolk Coastal	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Forest	Horsham	3	0	0	3	0	0	0	0	0	0	0	0
Warley	Pound Hill South and Worth	Crawley	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Frensham, Dockenfield and Tilford	Waverley	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Harestone	Tandridge	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Laleham and Shepperton Green	Spelthorne	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Hadleigh South	Babergh	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Seckford	Suffolk Coastal	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Lavenham	Babergh	3	0	0	0	0	0	3	0	0	0	0	0
Warley	St Olaves	St. Edmundsbury	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Haverhill West	St. Edmundsbury	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Haverhill East	St. Edmundsbury	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Worlingworth	Mid Suffolk	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Brandon West	Forest Heath	3	0	0	0	0	0	3	0	0	0	0	0
Warley	East Peckham and Golden Green	Tonbridge and Malling	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Tadworth and Walton	Reigate and Banstead	3	0	0	0	0	0	3	0	0	0	0	0
Warley	High Street	Maidstone	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Downhall and Rawreth	Rochford	20	0	0	0	0	0	20	0	0	0	0	0
Warley	Welham Green	Welwyn Hatfield	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Park Farm North	Ashford	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Bean and Darenth	Dartford	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Swanscombe	Dartford	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Town	Dartford	4	0	0	0	0	0	4	0	0	0	0	0
Warley	Wilmington	Dartford	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Capel-le-Ferne	Dover	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Eastry	Dover	3	0	0	0	0	0	3	0	0	0	0	0
Warley	River	Dover	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Riverside	Gravesham	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Boxley	Maidstone	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Bridge	Maidstone	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Larkfield South	Tonbridge and Malling	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Hartley and Hodsoll Street	Sevenoaks	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Blue Bell Hill and Walderslade	Tonbridge and Malling	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Cliffsend and Pegwell	Thanet	3	0	0	0	0	0	3	0	0	0	0	0
Warley	West Downs	Swale	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Sheppey Central	Swale	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Chalkwell	Swale	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Harrietsham and Lenham	Maidstone	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Kemsing	Sevenoaks	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Headcorn	Maidstone	3	0	0	0	0	0	0	3	0	0	0	0
Warley	Brasted, Chevening and Sundridge	Sevenoaks	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Ash	Sevenoaks	5	0	0	0	0	0	5	0	0	0	0	0
Warley	South	Maidstone	3	0	0	3	0	0	0	0	0	0	0	0

Destination Ward	Origin Ward	Local_Authority_Name	All people	Home	Underground	Train	Bus	Taxi	Car – driver	Car – passenger	Motorcycle	Bicycle	Walk	Other
Warley	North Downs	Maidstone	3	0	0	0	0	0	3	0	0	0	0	0
Warley	North	Maidstone	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Panshanger	Welwyn Hatfield	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Swanley White Oak	Sevenoaks	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Great Baddow East	Chelmsford	23	0	0	0	0	0	20	3	0	0	0	0
Warley	Trinity	Chelmsford	12	0	0	0	0	0	12	0	0	0	0	0
Warley	Canvey Island Winter Gardens	Castle Point	11	0	0	0	0	0	11	0	0	0	0	0
Warley	Cedar Hall	Castle Point	10	0	0	0	0	0	10	0	0	0	0	0
Warley	St George's	Castle Point	21	0	0	0	0	0	18	3	0	0	0	0
Warley	St James	Castle Point	12	0	0	0	0	0	9	3	0	0	0	0
Warley	St Mary's	Castle Point	15	0	0	0	0	0	15	0	0	0	0	0
Warley	St Peter's	Castle Point	16	0	0	0	0	0	13	3	0	0	0	0
Warley	Victoria	Castle Point	19	0	0	0	0	0	19	0	0	0	0	0
Warley	Bicknacre and East and West Hanningfield	Chelmsford	30	0	0	0	0	0	30	0	0	0	0	0
Warley	Boreham and The Leighs	Chelmsford	8	0	0	0	0	0	8	0	0	0	0	0
Warley	Broomfield and The Walthams	Chelmsford	13	0	0	0	0	0	13	0	0	0	0	0
Warley	Chelmer Village and Beaulieu Park	Chelmsford	34	0	0	0	0	0	34	0	0	0	0	0
Warley	Chelmsford Rural West	Chelmsford	13	0	0	0	0	0	13	0	0	0	0	0
Warley	Canvey Island South	Castle Point	11	0	0	0	0	0	11	0	0	0	0	0
Warley	Patching Hall	Chelmsford	20	0	0	0	0	0	20	0	0	0	0	0
Warley	Grange	Rochford	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Springfield North	Chelmsford	27	0	0	3	0	0	21	3	0	0	0	0
Warley	South Woodham-Elmwood and Woodville	Chelmsford	26	0	0	3	0	0	20	3	0	0	0	0
Warley	South Woodham-Chetwood and Collingwood	Chelmsford	32	0	0	3	0	0	29	0	0	0	0	0
Warley	South Hanningfield, Stock and Margaretting	Chelmsford	33	0	0	0	0	0	33	0	0	0	0	0
Warley	Galleywood	Chelmsford	14	0	0	0	0	0	14	0	0	0	0	0
Warley	Rettendon and Runwell	Chelmsford	18	0	0	0	0	0	18	0	0	0	0	0
Warley	Goat Hall	Chelmsford	24	0	0	0	0	0	24	0	0	0	0	0
Warley	Moulsham Lodge	Chelmsford	15	0	0	0	0	0	15	0	0	0	0	0
Warley	Moulsham and Central	Chelmsford	42	0	0	0	0	0	39	3	0	0	0	0
Warley	Marconi	Chelmsford	11	0	0	0	0	0	11	0	0	0	0	0
Warley	Little Baddow, Danbury and Sandon	Chelmsford	34	0	0	0	0	0	31	0	0	3	0	0
Warley	Great Baddow West	Chelmsford	13	0	0	0	0	0	13	0	0	0	0	0
Warley	Canvey Island North	Castle Point	5	0	0	0	0	0	5	0	0	0	0	0
Warley	St Andrews	Chelmsford	40	0	0	3	0	0	37	0	0	0	0	0
Warley	Hutton Central	Brentwood	64	0	0	0	3	0	49	6	0	3	3	0
Warley	Durrington	Worthing	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Hatfield Peverel	Braintree	8	0	0	0	0	0	8	0	0	0	0	0
Warley	Hedingham and Maplestead	Braintree	5	0	0	0	0	0	5	0	0	0	0	0
Warley	Kelvedon	Braintree	7	0	0	0	0	0	7	0	0	0	0	0
Warley	Rayne	Braintree	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Three Fields	Braintree	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Witham Chipping Hill and Central	Braintree	9	0	0	0	0	0	9	0	0	0	0	0
Warley	Witham North	Braintree	6	0	0	0	0	0	3	3	0	0	0	0
Warley	Witham South	Braintree	7	0	0	0	0	0	7	0	0	0	0	0
Warley	Witham West	Braintree	6	0	0	0	0	0	6	0	0	0	0	0
Warley	Brentwood North	Brentwood	149	0	0	0	9	3	105	18	0	0	14	0
Warley	Brentwood South	Brentwood	116	0	0	3	9	0	69	15	0	4	13	3
Warley	Brentwood West	Brentwood	147	0	0	3	0	6	83	13	0	3	39	0
Warley	Canvey Island West	Castle Point	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Shenfield	Brentwood	85	0	0	6	0	0	70	6	0	0	3	0
Warley	Canvey Island East	Castle Point	14	0	0	0	0	0	14	0	0	0	0	0
Warley	Canvey Island Central	Castle Point	11	0	0	0	0	0	11	0	0	0	0	0
Warley	Boyce	Castle Point	17	0	0	0	0	0	14	0	3	0	0	0
Warley	Appleton	Castle Point	16	0	0	0	0	0	13	3	0	0	0	0
Warley	Warley	Brentwood	729	262	7	19	7	7	235	20	4	3	160	5
Warley	Brizes and Doddinghurst	Brentwood	90	0	0	3	3	0	78	3	0	0	3	0
Warley	South Weald	Brentwood	26	0	0	0	0	0	23	3	0	0	0	0
Warley	Herongate, Ingrave and West Horndon	Brentwood	52	0	0	0	0	3	49	0	0	0	0	0
Warley	Pilgrims Hatch	Brentwood	153	0	3	3	16	3	106	15	0	3	4	0
Warley	Ingatestone, Fryerning and Mountnessing	Brentwood	60	0	0	3	0	0	48	6	0	0	0	3
Warley	Hutton South	Brentwood	59	0	0	0	0	0	53	6	0	0	0	0
Warley	Hutton North	Brentwood	73	0	0	5	0	0	55	10	0	0	0	3
Warley	Hutton East	Brentwood	57	0	0	0	0	0	51	6	0	0	0	0
Warley	Waterhouse Farm	Chelmsford	17	0	0	3	0	0	8	3	0	0	0	3
Warley	Tipps Cross	Brentwood	38	0	0	0	0	0	38	0	0	0	0	0
Warley	Heybridge West	Maldon	6	0	0	0	0	0	6	0	0	0	0	0
Warley	The Lawns	Chelmsford	13	0	0	0	0	0	13	0	0	0	0	0
Warley	Waltham Abbey Paternoster	Epping Forest	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Waltham Abbey South West	Epping Forest	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Bush Fair	Harlow	5	0	0	0	0	0	5	0	0	0	0	0
Warley	Church Langley	Harlow	8	0	0	0	0	0	8	0	0	0	0	0
Warley	Little Parndon and Hare Street	Harlow	6	0	0	0	0	0	3	0	0	0	3	0

Destination Ward	Origin Ward	Local_Authority_Name	All people	Home	Underground	Train	Bus	Taxi	Car – driver	Car – passenger	Motorcycle	Bicycle	Walk	Other
Warley	Mark Hall	Harlow	4	0	0	0	0	0	4	0	0	0	0	0
Warley	Netteswell	Harlow	6	0	0	0	0	0	3	0	0	0	3	0
Warley	Old Harlow	Harlow	6	0	0	0	0	0	3	0	0	0	3	0
Warley	Toddbrook	Harlow	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Althorne	Maldon	10	0	0	0	0	0	10	0	0	0	0	0
Warley	Burnham-on-Crouch North	Maldon	8	0	0	0	0	0	8	0	0	0	0	0
Warley	Burnham-on-Crouch South	Maldon	6	0	0	0	0	0	3	3	0	0	0	0
Warley	Shelley	Epping Forest	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Purleigh	Maldon	9	0	0	0	0	0	9	0	0	0	0	0
Warley	Halstead St Andrew's	Braintree	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Ashingdon and Canewdon	Rochford	4	0	0	0	0	0	4	0	0	0	0	0
Warley	Wickham Bishops and Woodham	Maldon	10	0	0	0	0	0	10	0	0	0	0	0
Warley	Tolleshunt D'Arcy	Maldon	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Tollesbury	Maldon	4	0	0	0	0	0	4	0	0	0	0	0
Warley	Great Totham	Maldon	6	0	0	0	0	0	6	0	0	0	0	0
Warley	Southminster	Maldon	8	0	0	0	0	0	8	0	0	0	0	0
Warley	Heybridge East	Maldon	6	0	0	0	0	0	6	0	0	0	0	0
Warley	Mayland	Maldon	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Maldon West	Maldon	6	0	0	0	0	0	6	0	0	0	0	0
Warley	Maldon South	Maldon	14	0	0	0	0	0	14	0	0	0	0	0
Warley	Maldon North	Maldon	9	0	0	0	0	0	9	0	0	0	0	0
Warley	Maldon East	Maldon	5	0	0	0	0	0	5	0	0	0	0	0
Warley	Passingford	Epping Forest	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Tillingham	Maldon	5	0	0	0	0	0	5	0	0	0	0	0
Warley	Tiptree	Colchester	15	0	0	3	0	0	12	0	0	0	0	0
Warley	Writtle	Chelmsford	16	0	0	0	0	0	16	0	0	0	0	0
Warley	Berechurch	Colchester	4	0	0	0	0	0	4	0	0	0	0	0
Warley	Birch and Winstree	Colchester	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Castle	Colchester	5	0	0	0	0	0	5	0	0	0	0	0
Warley	Dedham and Langham	Colchester	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Great Tey	Colchester	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Highwoods	Colchester	5	0	0	0	0	0	5	0	0	0	0	0
Warley	Lexden	Colchester	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Mile End	Colchester	6	0	0	0	0	0	3	3	0	0	0	0
Warley	New Town	Colchester	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Pyefleet	Colchester	3	0	0	0	0	0	3	0	0	0	0	0
Warley	St Andrew's	Colchester	3	0	0	0	0	0	3	0	0	0	0	0
Warley	St Anne's	Colchester	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Waltham Abbey Honey Lane	Epping Forest	3	0	0	0	0	0	0	3	0	0	0	0
Warley	Epping Lindsey and Thornwood Common	Epping Forest	3	0	0	0	0	0	3	0	0	0	0	0
Warley	North Weald Bassett	Epping Forest	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Moreton and Fyfield	Epping Forest	9	0	0	0	0	0	9	0	0	0	0	0
Warley	Lower Nazeing	Epping Forest	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Loughton St John's	Epping Forest	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Loughton Roding	Epping Forest	3	0	0	0	0	0	3	0	0	0	0	0
Warley	St John's	Colchester	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Hastingwood, Matching and Sheering Village	Epping Forest	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Stanway	Colchester	4	0	0	0	0	0	4	0	0	0	0	0
Warley	Chipping Ongar, Greensted and Marden Ash	Epping Forest	20	0	0	0	3	0	17	0	0	0	0	0
Warley	Buckhurst Hill West	Epping Forest	3	0	0	0	0	0	0	0	0	0	3	0
Warley	Buckhurst Hill East	Epping Forest	3	0	0	0	0	0	3	0	0	0	0	0
Warley	West Mersea	Colchester	3	0	0	0	0	0	3	0	0	0	0	0
Warley	West Bergholt and Eight Ash Green	Colchester	3	0	0	0	0	0	3	0	0	0	0	0
Warley	Foulness and Great Wakering	Rochford	7	0	0	0	0	0	7	0	0	0	0	0
Warley	High Ongar, Willingale and The Rodings	Epping Forest	7	0	0	0	0	0	7	0	0	0	0	0
									5003					

M25 North	1522
	30%
A127 east	1505
	30%
M25 south	432
	9%
A127 west	1541
	31%
	5000

Appendix C

Results of traffic survey: Wednesday 18th September 2013

Countsequential
SURVEYS

Classified Survey at

M25, Junction 29

Wednesday 18th September 2013

for:

Ardent Consulting Engineers

REF: ARD/589

M25 Junction 29 - Photos

ARM 1 - M25 Offslip (north)

ARM 2 - Codham Hall (northeast)

M25 Junction 29 - Photos

ARM 3 - A127 Offslip (east)

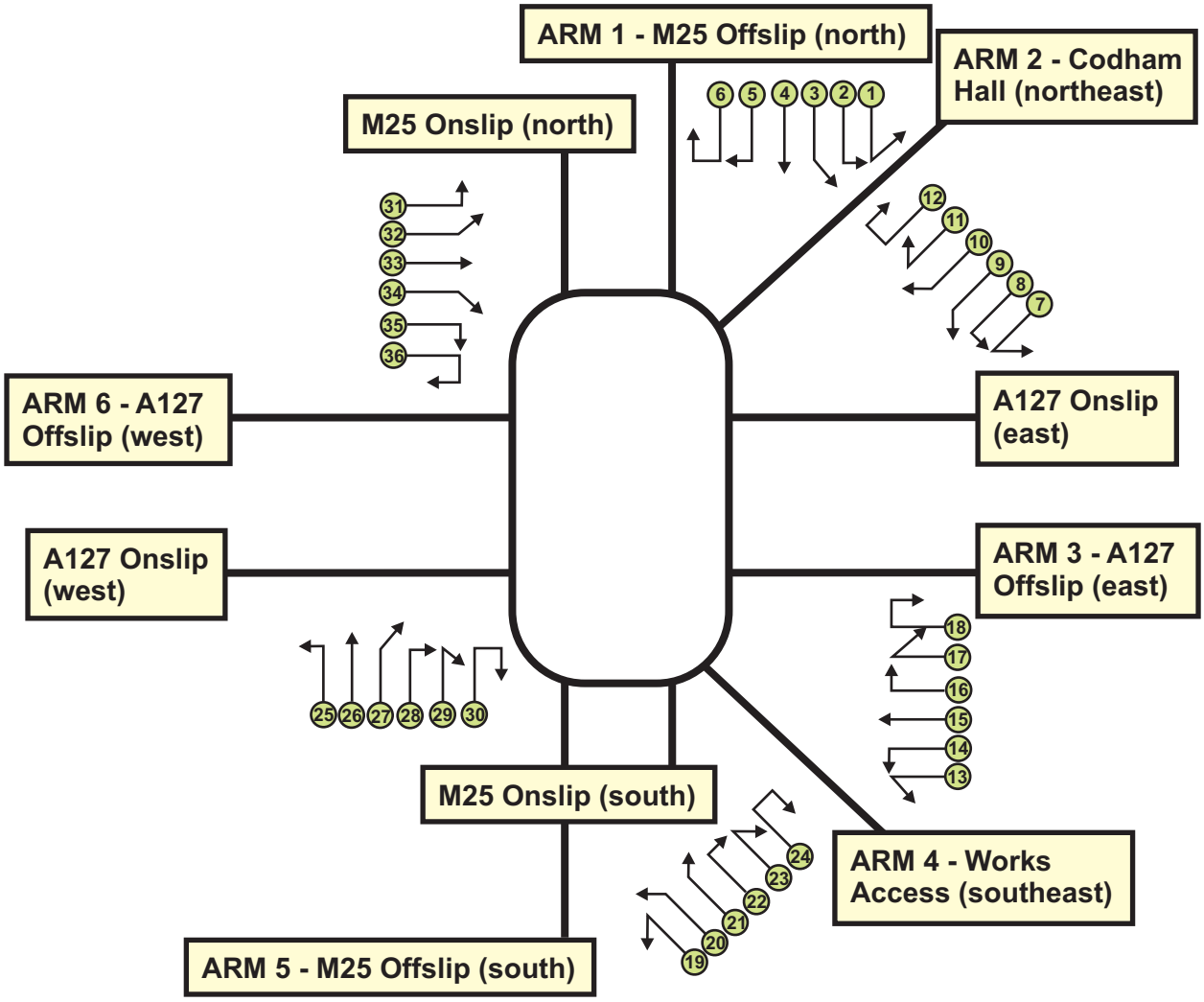
ARM 4 - Works Access / Egress (southeast)

M25 Junction 29 - Photos

ARM 5 - M25 Offslip (south)

ARM 6 - A127 Offslip (west)

Turning Movements - M25 Junction 29



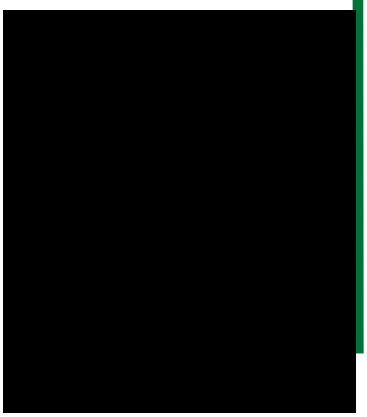
1. M25 Offslip (north) left into Codham Hall
2. M25 Offslip (north) left into A127 Onslip (east)
3. M25 Offslip (north) across into Works Access
4. M25 Offslip (north) across into M25 Onslip (south)
5. M25 Offslip (north) right into A127 Onslip (west)
6. M25 Offslip (north) u-turn
7. Codham Hall left into A127 Onslip (east)
8. Codham Hall left into Works Access
9. Codham Hall left into M25 Onslip (south)
10. Codham Hall right into A127 Onslip (west)
11. Codham Hall right into M25 Onslip (north)
12. Codham Hall u-turn
13. A127 Offslip (east) left into Works Access
14. A127 Offslip (east) left into M25 Onslip (south)
15. A127 Offslip (east) across into A127 Onslip (west)
16. A127 Offslip (east) right into M25 Onslip (north)
17. A127 Offslip (east) right into Codham Hall
18. A127 Offslip (east) u-turn
19. Works Access left into M25 Onslip (south)
20. Works Access left into A127 Onslip (west)
21. Works Access right into M25 Onslip (north)
22. Works Access right into Codham Hall
23. Works Access right into A127 Onslip (east)
24. Works Access u-turn
25. M25 Offslip (south) left into A127 Onslip (west)
26. M25 Offslip (south) across into M25 Onslip (north)
27. M25 Offslip (south) right into Codham Hall
28. M25 Offslip (south) right into A127 Onslip (east)
29. M25 Offslip (south) right into Works Access
30. M25 Offslip u-turn
31. A127 Offslip (west) left into M25 Onslip (north)
32. A127 Offslip (west) left into Codham Hall
33. A127 Offslip (west) across into A127 Onslip (east)
34. A127 Offslip (west) right into Works Access
35. A127 Offslip (west) right into M25 Onslip (south)
36. A127 Offslip (west) u-turn

Countsequential
SURVEYS

CLASSIFIED SURVEY RESULTS

M25 JUNCTION 29, ESSEX

TUESDAY 18th SEPTEMBER 2013



DATE : WEDNESDAY 18th SEPTEMBER 2013

CONDITIONS: DRY

LOCATION : M25, J29, ESSEX

Countsequential SURVEYS

ARM 1 - M25 (NORTH) OFF SLIP SOUTHBOUND

M25 (N) OFF SLIP SOUTHBOUND
LEFT INTO CODHAM HALL
movement 1 (0700 - 1000)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0715	5	1	0	0	0	6	7
0715-0730	2	1	0	0	0	3	4
0730-0745	0	0	0	0	0	0	0
0745-0800	1	0	0	0	0	1	1
0800-0815	4	1	0	0	0	5	6
0815-0830	0	0	0	0	0	0	0
0830-0845	1	0	0	0	0	1	1
0845-0900	2	0	0	0	0	2	2
0900-0915	0	0	0	0	0	0	0
0915-0930	2	0	0	0	0	2	2
0930-0945	0	1	0	0	0	1	2
0945-1000	1	0	0	0	0	1	1
0700-1000	**18**	**4**	**0**	**0**	**0**	**22**	**25**

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0800	8	2	0	0	0	10	11
0715-0815	7	2	0	0	0	9	10
0730-0830	5	1	0	0	0	6	7
0745-0845	6	1	0	0	0	7	8
0800-0900	7	1	0	0	0	8	9
0815-0915	3	0	0	0	0	3	3
0830-0930	5	0	0	0	0	5	5
0845-0945	4	1	0	0	0	5	6
0900-1000	3	1	0	0	0	4	5

TOTAL FLOW INTO SURVEY SITE= **22** **25**

M25 (N) OFF SLIP SOUTHBOUND
LEFT INTO A127 ONSLIP (EASTBOUND)
movement 2 (0700 - 1000)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0715	184	18	12	0	1	215	243
0715-0730	249	21	14	0	1	285	317
0730-0745	276	20	15	0	0	311	345
0745-0800	282	17	6	0	1	306	325
0800-0815	272	16	12	0	1	301	327
0815-0830	270	11	7	1	0	289	307
0830-0845	256	19	15	0	1	291	323
0845-0900	230	12	15	1	0	258	287
0900-0915	176	19	11	0	1	207	234
0915-0930	183	13	14	0	1	211	238
0930-0945	162	16	29	0	0	207	256
0945-1000	174	12	13	0	1	200	225
0700-1000	**2714**	**194**	**163**	**2**	**8**	**3081**	**3426**

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0800	991	76	47	0	3	1117	1230
0715-0815	1079	74	47	0	3	1203	1314
0730-0830	1100	64	40	1	2	1207	1304
0745-0845	1080	63	40	1	3	1187	1282
0800-0900	1028	58	49	2	2	1139	1244
0815-0915	932	61	48	2	2	1045	1151
0830-0930	845	63	55	1	3	967	1082
0845-0945	751	60	69	1	2	883	1015
0900-1000	695	60	67	0	3	825	952

TOTAL FLOW INTO SURVEY SITE= **3081** **3426**

M25 (N) OFF SLIP SOUTHBOUND
ACROSS INTO WORKS ACCESS / EGRESS
movement 3 (0700 - 1000)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0715	0	0	0	0	0	0	0
0715-0730	1	0	0	0	0	1	1
0730-0745	0	0	0	0	0	0	0
0745-0800	3	0	0	0	0	3	3
0800-0815	0	0	0	0	0	0	0
0815-0830	1	0	0	0	0	1	1
0830-0845	0	0	0	0	0	0	0
0845-0900	0	0	1	0	0	1	2
0900-0915	0	0	0	0	0	0	0
0915-0930	2	0	0	0	0	2	2
0930-0945	0	0	0	0	0	0	0
0945-1000	1	0	0	0	0	1	1
0700-1000	**8**	**0**	**1**	**0**	**0**	**9**	**10**

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0800	4	0	0	0	0	4	4
0715-0815	4	0	0	0	0	4	4
0730-0830	4	0	0	0	0	4	4
0745-0845	4	0	0	0	0	4	4
0800-0900	1	0	1	0	0	2	3
0815-0915	1	0	1	0	0	2	3
0830-0930	2	0	1	0	0	3	4
0845-0945	2	0	1	0	0	3	4
0900-1000	3	0	0	0	0	3	3

TOTAL FLOW INTO SURVEY SITE= **9** **10**

M25 (N) OFF SLIP SOUTHBOUND
LEFT INTO CODHAM HALL
movement 1 (1600 - 1900)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1615	0	0	0	0	0	0	0
1615-1630	4	0	0	0	0	4	4
1630-1645	4	1	1	0	0	6	8
1645-1700	3	0	0	0	0	3	3
1700-1715	1	0	2	0	0	3	6
1715-1730	2	0	0	0	0	2	2
1730-1745	0	0	0	0	0	0	0
1745-1800	1	0	0	0	0	1	1
1800-1815	1	0	0	0	0	1	1
1815-1830	1	0	0	0	0	1	1
1830-1845	1	0	0	0	0	1	1
1845-1900	0	0	0	0	0	0	0
1600-1900	**18**	**1**	**3**	**0**	**0**	**22**	**27**

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1700	11	1	1	0	0	13	15
1615-1715	12	1	3	0	0	16	21
1630-1730	10	1	3	0	0	14	19
1645-1745	6	0	2	0	0	8	11
1700-1800	4	0	2	0	0	6	9
1715-1815	4	0	0	0	0	4	4
1730-1830	3	0	0	0	0	3	3
1745-1845	4	0	0	0	0	4	4
1800-1900	3	0	0	0	0	3	3

TOTAL FLOW INTO SURVEY SITE= **22** **27**

M25 (N) OFF SLIP SOUTHBOUND
LEFT INTO A127 ONSLIP (EASTBOUND)
movement 2 (1600 - 1900)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1615	312	27	11	0	1	351	384
1615-1630	340	27	15	0	3	385	422
1630-1645	329	12	12	0	3	356	378
1645-1700	318	15	10	1	0	344	369
1700-1715	324	22	7	0	2	355	378
1715-1730	235	15	5	1	1	257	274
1730-1745	325	16	10	0	3	354	376
1745-1800	330	10	11	1	7	359	377
1800-1815	256	11	6	0	3	276	290
1815-1830	268	11	8	0	1	288	306
1830-1845	250	7	5	0	0	262	273
1845-1900	201	14	2	0	0	217	229
1600-1900	**3488**	**187**	**102**	**3**	**24**	**3804**	**4056**

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1700	1299	81	48	1	7	1436	1552
1615-1715	1311	76	44	1	8	1440	1547
1630-1730	1206	64	34	2	6	1312	1399
1645-1745	1202	68	32	2	6	1310	1398
1700-1800	1214	63	33	2	13	1325	1406
1715-1815	1146	52	32	2	14	1246	1318
1730-1830	1179	48	35	1	14	1277	1349
1745-1845	1104	39	30	1	11	1185	1246
1800-1900	975	43	21	0	4	1043	1098

TOTAL FLOW INTO SURVEY SITE= **3804** **4056**

M25 (N) OFF SLIP SOUTHBOUND
ACROSS INTO WORKS ACCESS / EGRESS
movement 3 (1600 - 1900)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1615	0	1	2	0	0	3	6
1615-1630	0	0	1	0	0	1	2
1630-1645	0	0	1	0	0	1	2
1645-1700	1	1	0	0	0	2	3
1700-1715	0	0	0	0	0	0	0
1715-1730	0	0	1	0	0	1	2
1730-1745	0	0	0	0	0	0	0
1745-1800	1	0	0	0	0	1	1
1800-1815	3	0	0	0	0	3	3
1815-1830	0	0	0	0	0	0	0
1830-1845	0	0	0	0	0	0	0
1845-1900	0	0	0	0	0	0	0
1600-1900	**5**	**2**	**5**	**0**	**0**	**12**	**20**

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1700	1	2	4	0	0	7	14
1615-1715	1	1	2	0	0	4	7
1630-1730	1	1	2	0	0	4	7
1645-1745	1	1	1	0	0	3	5
1700-1800	1	0	1	0	0	2	3
1715-1815	4	0	1	0	0	5	6
1730-1830	4	0	0	0	0	4	4
1745-1845	4	0	0	0	0	4	4
1800-1900	3	0	0	0	0	3	3

TOTAL FLOW INTO SURVEY SITE= **12** **20**

M25 (N) OFF SLIP SOUTHBOUND
ACROSS INTO M25 ON SLIP (SOUTHBOUND)
movement 4 (0700 - 1000)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0715	1	0	0	0	0	1	1
0715-0730	3	0	0	0	0	3	3
0730-0745	0	0	0	0	0	0	0
0745-0800	3	0	0	0	0	3	3
0800-0815	0	0	0	0	0	0	0
0815-0830	0	0	0	0	0	0	0
0830-0845	1	0	0	0	0	1	1
0845-0900	0	0	0	0	0	0	0
0900-0915	1	0	0	0	0	1	1
0915-0930	1	0	0	0	0	1	1
0930-0945	1	0	0	0	0	1	1
0945-1000	2	0	0	0	0	2	2
0700-1000	**13**	**0**	**0**	**0**	**0**	**13**	**13**

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0800	7	0	0	0	0	7	7
0715-0815	6	0	0	0	0	6	6
0730-0830	3	0	0	0	0	3	3
0745-0845	4	0	0	0	0	4	4
0800-0900	1	0	0	0	0	1	1
0815-0915	2	0	0	0	0	2	2
0830-0930	3	0	0	0	0	3	3
0845-0945	3	0	0	0	0	3	3
0900-1000	5	0	0	0	0	5	5

TOTAL FLOW INTO SURVEY SITE= **13** **13**

M25 (N) OFF SLIP SOUTHBOUND
RIGHT INTO A127 ONSLIP (WESTBOUND)
movement 5 (0700 - 1000)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0715	21	0	1	0	0	22	23
0715-0730	36	0	0	0	0	36	36
0730-0745	42	1	2	0	0	45	48
0745-0800	42	2	1	0	0	45	48
0800-0815	53	3	0	0	0	56	58
0815-0830	44	1	0	0	0	45	46
0830-0845	35	2	0	0	0	37	38
0845-0900	39	3	0	0	0	42	44
0900-0915	32	1	2	0	0	35	38
0915-0930	44	1	1	0	0	46	48
0930-0945	35	3	0	0	0	38	40
0945-1000	27	1	0	0	0	28	29
0700-1000	**450**	**18**	**7**	**0**	**0**	**475**	**497**

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0800	141	3	4	0	0	148	155
0715-0815	173	6	3	0	0	182	190
0730-0830	181	7	3	0	0	191	200
0745-0845	174	8	1	0	0	183	190
0800-0900	171	9	0	0	0	180	186
0815-0915	150	7	2	0	0	159	167
0830-0930	150	7	3	0	0	160	169
0845-0945	150	8	3	0	0	161	171
0900-1000	138	6	3	0	0	147	155

TOTAL FLOW INTO SURVEY SITE= **475** **497**

M25 (N) OFF SLIP SOUTHBOUND
U-TURN
movement 6 (0700 - 1000)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0715	0	0	0	0	0	0	0
0715-0730	0	0	0	0	0	0	0
0730-0745	0	0	0	0	0	0	0
0745-0800	0	0	0	0	0	0	0
0800-0815	0	0	0	0	0	0	0
0815-0830	0	0	0	0	0	0	0
0830-0845	0	0	0	0	0	0	0
0845-0900	1	0	0	0	0	1	1
0900-0915	0	0	0	0	0	0	0
0915-0930	0	0	0	0	0	0	0
0930-0945	0	0	0	0	0	0	0
0945-1000	0	0	0	0	0	0	0
0700-1000	**1**	**0**	**0**	**0**	**0**	**1**	**1**

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0800	0	0	0	0	0	0	0
0715-0815	0	0	0	0	0	0	0
0730-0830	0	0	0	0	0	0	0
0745-0845	0	0	0	0	0	0	0
0800-0900	1	0	0	0	0	1	1
0815-0915	1	0	0	0	0	1	1
0830-0930	1	0	0	0	0	1	1
0845-0945	1	0	0	0	0	1	1
0900-1000	0	0	0	0	0	0	0

TOTAL FLOW INTO SURVEY SITE= **1** **1**

M25 (N) OFF SLIP SOUTHBOUND
ACROSS INTO M25 ON SLIP (SOUTHBOUND)
movement 4 (1600 - 1900)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1615	0	0	1	0	0	1	2
1615-1630	3	0	0	0	0	3	3
1630-1645	3	0	0	0	0	3	3
1645-1700	2	0	0	0	0	2	2
1700-1715	5	0	0	0	0	5	5
1715-1730	3	0	1	0	0	4	5
1730-1745	3	0	1	0	0	4	5
1745-1800	0	0	0	0	0	0	0
1800-1815	2	0	0	0	0	2	2
1815-1830	0	0	0	0	0	0	0
1830-1845	2	0	0	0	0	2	2
1845-1900	1	0	0	0	0	1	1
1600-1900	**24**	**0**	**3**	**0**	**0**	**27**	**31**

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1700	8	0	1	0	0	9	10
1615-1715	13	0	0	0	0	13	13
1630-1730	13	0	1	0	0	14	15
1645-1745	13	0	2	0	0	15	18
1700-1800	11	0	2	0	0	13	16
1715-1815	8	0	2	0	0	10	13
1730-1830	5	0	1	0	0	6	7
1745-1845	4	0	0	0	0	4	4
1800-1900	5	0	0	0	0	5	5

TOTAL FLOW INTO SURVEY SITE= **27** **31**

M25 (N) OFF SLIP SOUTHBOUND
RIGHT INTO A127 ONSLIP (WESTBOUND)
movement 5 (1600 - 1900)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1615	56	1	0	1	1	59	60
1615-1630	47	1	0	0	0	48	49
1630-1645	61	1	0	0	0	62	63
1645-1700	71	0	0	1	0	72	73
1700-1715	69	1	0	0	1	71	71
1715-1730	83	1	0	0	1	85	85
1730-1745	74	3	0	0	0	77	79
1745-1800	75	1	1	0	1	78	79
1800-1815	54	1	1	0	1	57	58
1815-1830	67	0	0	0	1	68	67
1830-1845	64	0	0	0	0	64	64
1845-1900	44	0	0	0	0	44	44
1600-1900	**765**	**10**	**2**	**2**	**6**	**785**	**793**

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1700	235	3	0	2	1	241	245
1615-1715	248	3	0	1	1	253	256
1630-1730	284	3	0	1	2	290	292
1645-1745	297	5	0	1	2	305	308
1700-1800	301	6	1	0	3	311	315
1715-1815	286	6	2	0	3	297	302
1730-1830	270	5	2	0	3	280	284
1745-1845	260	2	2	0	3	267	269
1800-1900	229	1	1	0	2	233	234

TOTAL FLOW INTO SURVEY SITE= **785** **793**

M25 (N) OFF SLIP SOUTHBOUND
U-TURN
movement 6 (1600 - 1900)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1615	0	0	0	0	0	0	0
1615-1630	0	0	0	0	0	0	0
1630-1645	0	0	0	0	0	0	0
1645-1700	1	0	0	0	0	1	1
1700-1715	0	0	0	0	0	0	0
1715-1730	0	0	0	0	0	0	0
1730-1745	0	0	0	0	0	0	0
1745-1800	0	0	0	0	0	0	0
1800-1815	0	0	0	0	0	0	0
1815-1830	0	0	0	0	0	0	0
1830-1845	0	0	0	0	0	0	0
1845-1900	0	0	0	0	0	0	0
1600-1900	**1**	**0**	**0**	**0**	**0**	**1**	**1**

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1700	1	0	0	0	0	1	1
1615-1715	1	0	0	0	0	1	1
1630-1730	1	0	0	0	0	1	1
1645-1745	1	0	0	0	0	1	1
1700-1800	0	0	0	0	0	0	0
1715-1815	0	0	0	0	0	0	0
1730-1830	0	0	0	0	0	0	0
1745-1845	0	0	0	0	0	0	0
1800-1900	0	0	0	0	0	0	0

TOTAL FLOW INTO SURVEY SITE= **1** **1**

DATE : WEDNESDAY 18th SEPTEMBER 2013

CONDITIONS: DRY

LOCATION : M25, J29, ESSEX

Countsequential SURVEYS

ARM 2 - CODHAM HALL (NORTHEAST)

CODHAM HALL
LEFT INTO A127 ON-SLIP (EASTBOUND)
movement 7 (0700 - 1000)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0715	0	0	0	0	0	**0**	**0**
0715-0730	1	0	1	0	0	**2**	**3**
0730-0745	2	2	1	0	0	**5**	**8**
0745-0800	2	1	0	0	0	**3**	**4**
0800-0815	0	1	1	0	0	**2**	**4**
0815-0830	3	0	0	0	0	**3**	**3**
0830-0845	1	0	0	0	0	**1**	**1**
0845-0900	2	1	0	0	0	**3**	**4**
0900-0915	2	1	1	0	0	**4**	**6**
0915-0930	1	2	0	0	0	**3**	**4**
0930-0945	2	0	1	0	0	**3**	**4**
0945-1000	0	3	0	0	0	**3**	**5**
0700-1000	**16**	**11**	**5**	**0**	**0**	**32**	**46**

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0800	5	3	2	0	0	**10**	**15**
0715-0815	5	4	3	0	0	**12**	**19**
0730-0830	7	4	2	0	0	**13**	**18**
0745-0845	6	2	1	0	0	**9**	**12**
0800-0900	6	2	1	0	0	**9**	**12**
0815-0915	8	2	1	0	0	**11**	**14**
0830-0930	6	4	1	0	0	**11**	**15**
0845-0945	7	4	2	0	0	**13**	**18**
0900-1000	5	6	2	0	0	**13**	**20**

TOTAL FLOW INTO SURVEY SITE= **32** **46**

CODHAM HALL
LEFT INTO WORKS ACCESS / EGRESS
movement 8 (0700 - 1000)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0715	0	1	0	0	0	**1**	**2**
0715-0730	0	0	0	0	0	**0**	**0**
0730-0745	0	1	0	0	0	**1**	**2**
0745-0800	0	0	0	0	0	**0**	**0**
0800-0815	0	0	0	1	0	**1**	**2**
0815-0830	0	0	0	0	0	**0**	**0**
0830-0845	0	0	1	0	0	**1**	**2**
0845-0900	0	0	0	0	0	**0**	**0**
0900-0915	0	0	0	0	0	**0**	**0**
0915-0930	0	0	0	0	1	**1**	**0**
0930-0945	0	0	0	0	0	**0**	**0**
0945-1000	0	1	0	0	0	**1**	**2**
0700-1000	**0**	**3**	**1**	**1**	**1**	**6**	**10**

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0800	0	2	0	0	0	**2**	**3**
0715-0815	0	1	0	1	0	**2**	**4**
0730-0830	0	1	0	1	0	**2**	**4**
0745-0845	0	0	1	1	0	**2**	**4**
0800-0900	0	0	1	1	0	**2**	**4**
0815-0915	0	0	1	0	0	**1**	**2**
0830-0930	0	0	1	0	1	**2**	**3**
0845-0945	0	0	0	0	1	**1**	**0**
0900-1000	0	1	0	0	1	**2**	**2**

TOTAL FLOW INTO SURVEY SITE= **6** **10**

CODHAM HALL
LEFT INTO M25 ONSLIP (SOUTHBOUND)
movement 9 (0700 - 1000)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0715	2	1	0	0	0	**3**	**4**
0715-0730	2	2	0	0	0	**4**	**5**
0730-0745	0	1	0	0	0	**1**	**2**
0745-0800	1	2	0	0	0	**3**	**4**
0800-0815	1	0	1	0	0	**2**	**3**
0815-0830	1	0	0	0	0	**1**	**1**
0830-0845	3	0	0	0	0	**3**	**3**
0845-0900	0	1	0	0	0	**1**	**2**
0900-0915	1	0	0	0	0	**1**	**1**
0915-0930	2	0	0	0	0	**2**	**2**
0930-0945	1	0	0	0	0	**1**	**1**
0945-1000	1	0	0	0	0	**1**	**1**
0700-1000	**15**	**7**	**1**	**0**	**0**	**23**	**29**

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0800	5	6	0	0	0	**11**	**15**
0715-0815	4	5	1	0	0	**10**	**15**
0730-0830	3	3	1	0	0	**7**	**10**
0745-0845	6	2	1	0	0	**9**	**12**
0800-0900	5	1	1	0	0	**7**	**9**
0815-0915	5	1	0	0	0	**6**	**7**
0830-0930	6	1	0	0	0	**7**	**8**
0845-0945	4	1	0	0	0	**5**	**6**
0900-1000	5	0	0	0	0	**5**	**5**

TOTAL FLOW INTO SURVEY SITE= **23** **29**

CODHAM HALL
LEFT INTO A127 ON-SLIP (EASTBOUND)
movement 7 (1600 - 1900)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1615	3	3	0	0	0	**6**	**8**
1615-1630	9	0	0	0	0	**9**	**9**
1630-1645	4	0	0	0	0	**4**	**4**
1645-1700	7	1	0	0	0	**8**	**9**
1700-1715	6	0	1	0	0	**7**	**8**
1715-1730	5	0	0	0	0	**5**	**5**
1730-1745	3	0	0	0	0	**3**	**3**
1745-1800	2	0	0	0	0	**2**	**2**
1800-1815	2	0	0	0	0	**2**	**2**
1815-1830	2	0	0	0	0	**2**	**2**
1830-1845	1	0	0	0	0	**1**	**1**
1845-1900	2	0	0	0	0	**2**	**2**
1600-1900	**46**	**4**	**1**	**0**	**0**	**51**	**55**

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1700	23	4	0	0	0	**27**	**30**
1615-1715	26	1	1	0	0	**28**	**30**
1630-1730	22	1	1	0	0	**24**	**26**
1645-1745	21	1	1	0	0	**23**	**25**
1700-1800	16	0	1	0	0	**17**	**18**
1715-1815	12	0	0	0	0	**12**	**12**
1730-1830	9	0	0	0	0	**9**	**9**
1745-1845	7	0	0	0	0	**7**	**7**
1800-1900	7	0	0	0	0	**7**	**7**

TOTAL FLOW INTO SURVEY SITE= **51** **55**

CODHAM HALL
LEFT INTO WORKS ACCESS / EGRESS
movement 8 (1600 - 1900)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1615	0	1	0	0	0	**1**	**2**
1615-1630	0	1	0	0	0	**1**	**2**
1630-1645	0	0	0	0	0	**0**	**0**
1645-1700	0	0	0	0	0	**0**	**0**
1700-1715	0	0	0	0	0	**0**	**0**
1715-1730	0	0	0	1	0	**1**	**2**
1730-1745	0	1	0	0	0	**1**	**2**
1745-1800	0	0	0	0	0	**0**	**0**
1800-1815	0	0	0	0	0	**0**	**0**
1815-1830	0	0	0	0	0	**0**	**0**
1830-1845	0	0	0	0	0	**0**	**0**
1845-1900	0	0	0	0	0	**0**	**0**
1600-1900	**0**	**3**	**0**	**1**	**0**	**4**	**7**

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1700	0	2	0	0	0	**2**	**3**
1615-1715	0	1	0	0	0	**1**	**2**
1630-1730	0	0	0	1	0	**1**	**2**
1645-1745	0	1	0	1	0	**2**	**4**
1700-1800	0	1	0	1	0	**2**	**4**
1715-1815	0	1	0	1	0	**2**	**4**
1730-1830	0	1	0	0	0	**1**	**2**
1745-1845	0	0	0	0	0	**0**	**0**
1800-1900	0	0	0	0	0	**0**	**0**

TOTAL FLOW INTO SURVEY SITE= **4** **7**

CODHAM HALL
LEFT INTO M25 ONSLIP (SOUTHBOUND)
movement 9 (1600 - 1900)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1615	2	1	0	0	0	**3**	**4**
1615-1630	4	0	0	0	0	**4**	**4**
1630-1645	5	0	3	0	0	**8**	**12**
1645-1700	3	0	0	0	0	**3**	**3**
1700-1715	7	0	0	0	0	**7**	**7**
1715-1730	4	0	0	0	0	**4**	**4**
1730-1745	2	0	0	0	0	**2**	**2**
1745-1800	2	0	0	0	0	**2**	**2**
1800-1815	1	0	0	0	0	**1**	**1**
1815-1830	1	0	0	0	0	**1**	**1**
1830-1845	1	0	1	0	0	**2**	**3**
1845-1900	1	0	0	0	0	**1**	**1**
1600-1900	**33**	**1**	**4**	**0**	**0**	**38**	**44**

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1700	14	1	3	0	0	**18**	**23**
1615-1715	19	0	3	0	0	**22**	**26**
1630-1730	19	0	3	0	0	**22**	**26**
1645-1745	16	0	0	0	0	**16**	**16**
1700-1800	15	0	0	0	0	**15**	**15**
1715-1815	9	0	0	0	0	**9**	**9**
1730-1830	6	0	0	0	0	**6**	**6**
1745-1845	5	0	1	0	0	**6**	**7**
1800-1900	4	0	1	0	0	**5**	**6**

TOTAL FLOW INTO SURVEY SITE= **38** **44**

CODHAM HALL
ACROSS INTO A127 ON-SLIP (WESTBOUND)
movement 10 (0700 - 1000)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0715	2	1	1	1	0	**5**	**8**
0715-0730	0	0	1	1	0	**2**	**4**
0730-0745	0	0	0	1	0	**1**	**2**
0745-0800	0	1	0	0	0	**1**	**2**
0800-0815	0	0	0	0	0	**0**	**0**
0815-0830	1	0	1	0	0	**2**	**3**
0830-0845	1	0	1	0	0	**2**	**3**
0845-0900	0	2	0	0	0	**2**	**3**
0900-0915	2	0	0	0	0	**2**	**2**
0915-0930	1	0	0	0	0	**1**	**1**
0930-0945	0	0	0	1	1	**2**	**2**
0945-1000	0	1	0	0	0	**1**	**2**
0700-1000	**7**	**5**	**4**	**4**	**1**	**21**	**33**

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0800	2	2	2	3	0	**9**	**16**
0715-0815	0	1	1	2	0	**4**	**8**
0730-0830	1	1	1	1	0	**4**	**7**
0745-0845	2	1	2	0	0	**5**	**8**
0800-0900	2	2	2	0	0	**6**	**10**
0815-0915	4	2	2	0	0	**8**	**12**
0830-0930	4	2	1	0	0	**7**	**10**
0845-0945	3	2	0	1	1	**7**	**9**
0900-1000	3	1	0	1	1	**6**	**7**

TOTAL FLOW INTO SURVEY SITE= **21** **33**

CODHAM HALL
RIGHT INTO M25 ON-SLIP (NORTHBOUND
movement 11 (0700 - 1000)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0715	0	0	1	0	0	**1**	**2**
0715-0730	2	2	2	0	0	**6**	**10**
0730-0745	0	1	1	0	0	**2**	**4**
0745-0800	2	1	2	0	0	**5**	**8**
0800-0815	0	1	0	0	0	**1**	**2**
0815-0830	0	2	1	0	0	**3**	**6**
0830-0845	0	0	0	0	0	**0**	**0**
0845-0900	1	0	0	0	0	**1**	**1**
0900-0915	1	1	0	0	0	**2**	**3**
0915-0930	0	0	0	0	0	**0**	**0**
0930-0945	0	1	2	0	0	**3**	**6**
0945-1000	0	0	0	0	0	**0**	**0**
0700-1000	**6**	**9**	**9**	**0**	**0**	**24**	**42**

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0800	4	4	6	0	0	**14**	**25**
0715-0815	4	5	5	0	0	**14**	**24**
0730-0830	2	5	4	0	0	**11**	**20**
0745-0845	2	4	3	0	0	**9**	**16**
0800-0900	1	3	1	0	0	**5**	**8**
0815-0915	2	3	1	0	0	**6**	**9**
0830-0930	2	1	0	0	0	**3**	**4**
0845-0945	2	2	2	0	0	**6**	**10**
0900-1000	1	2	2	0	0	**5**	**9**

TOTAL FLOW INTO SURVEY SITE= **24** **42**

CODHAM HALL
U-TURN
movement 12 (0700 - 1000)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0715	0	0	0	0	0	**0**	**0**
0715-0730	0	0	0	0	0	**0**	**0**
0730-0745	0	0	0	0	0	**0**	**0**
0745-0800	0	0	0	0	0	**0**	**0**
0800-0815	0	0	0	0	0	**0**	**0**
0815-0830	0	0	0	0	0	**0**	**0**
0830-0845	0	0	0	0	0	**0**	**0**
0845-0900	0	0	0	0	0	**0**	**0**
0900-0915	0	0	0	0	0	**0**	**0**
0915-0930	0	0	0	0	0	**0**	**0**
0930-0945	0	0	0	0	0	**0**	**0**
0945-1000	0	0	0	0	0	**0**	**0**
0700-1000	**0**	**0**	**0**	**0**	**0**	**0**	**0**

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0800	0	0	0	0	0	**0**	**0**
0715-0815	0	0	0	0	0	**0**	**0**
0730-0830	0	0	0	0	0	**0**	**0**
0745-0845	0	0	0	0	0	**0**	**0**
0800-0900	0	0	0	0	0	**0**	**0**
0815-0915	0	0	0	0	0	**0**	**0**
0830-0930	0	0	0	0	0	**0**	**0**
0845-0945	0	0	0	0	0	**0**	**0**
0900-1000	0	0	0	0	0	**0**	**0**

TOTAL FLOW INTO SURVEY SITE= **0** **0**

CODHAM HALL
ACROSS INTO A127 ONSLIP (WESTBOUND)
movement 10 (1600 - 1900)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1615	4	1	0	0	0	**5**	**6**
1615-1630	0	0	0	0	0	**0**	**0**
1630-1645	1	0	0	0	0	**1**	**1**
1645-1700	1	0	0	0	0	**1**	**1**
1700-1715	1	0	0	0	0	**1**	**1**
1715-1730	0	0	0	0	0	**0**	**0**
1730-1745	0	1	1	0	0	**2**	**4**
1745-1800	2	1	0	0	0	**3**	**4**
1800-1815	1	0	0	0	0	**1**	**1**
1815-1830	1	0	0	0	0	**1**	**1**
1830-1845	1	0	0	0	0	**1**	**1**
1845-1900	0	0	0	0	0	**0**	**0**
1600-1900	**12**	**3**	**1**	**0**	**0**	**16**	**19**

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1700	6	1	0	0	0	**7**	**8**
1615-1715	3	0	0	0	0	**3**	**3**
1630-1730	3	0	0	0	0	**3**	**3**
1645-1745	2	1	1	0	0	**4**	**6**
1700-1800	3	2	1	0	0	**6**	**9**
1715-1815	3	2	1	0	0	**6**	**9**
1730-1830	4	2	1	0	0	**7**	**10**
1745-1845	5	1	0	0	0	**6**	**7**
1800-1900	3	0	0	0	0	**3**	**3**

TOTAL FLOW INTO SURVEY SITE= **16** **19**

CODHAM HALL
RIGHT INTO M25 ONSLIP (NORTHBOUND
movement 11 (1600 - 1900)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1615	3	1	1	0	0	**5**	**7**
1615-1630	3	0	0	0	0	**3**	**3**
1630-1645	7	2	0	1	0	**10**	**12**
1645-1700	4	2	0	0	0	**6**	**7**
1700-1715	5	0	0	0	0	**5**	**5**
1715-1730	1	1	0	0	0	**2**	**3**
1730-1745	4	0	0	0	0	**4**	**4**
1745-1800	5	1	0	0	1	**7**	**7**
1800-1815	0	0	0	0	0	**0**	**0**
1815-1830	3	0	0	0	0	**3**	**3**
1830-1845	2	1	0	0	1	**4**	**4**
1845-1900	0	0	0	0	0	**0**	**0**
1600-1900	**37**	**8**	**1**	**1**	**2**	**49**	**56**

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1700	17	5	1	1	0	**24**	**30**
1615-1715	19	4	0	1	0	**24**	**28**
1630-1730	17	5	0	1	0	**23**	**28**
1645-1745	14	3	0	0	0	**17**	**19**
1700-1800	15	2	0	0	1	**18**	**19**
1715-1815	10	2	0	0	1	**13**	**14**
1730-1830	12	1	0	0	1	**14**	**14**
1745-1845	10	2	0	0	2	**14**	**14**
1800-1900	5	1	0	0	1	**7**	**7**

TOTAL FLOW INTO SURVEY SITE= **49** **56**

CODHAM HALL
U-TURN
movement 12 (1600 - 1900)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1615	0	0	0	0	0	**0**	**0**
1615-1630	0	0	0	0	0	**0**	**0**
1630-1645	0	0	0	0	0	**0**	**0**
1645-1700	0	0	0	0	0	**0**	**0**
1700-1715	0	0	0	0	0	**0**	**0**
1715-1730	0	0	0	0	0	**0**	**0**
1730-1745	0	0	0	0	0	**0**	**0**
1745-1800	0	0	0	0	0	**0**	**0**
1800-1815	0	0	0	0	0	**0**	**0**
1815-1830	0	0	0	0	0	**0**	**0**
1830-1845	0	0	0	0	0	**0**	**0**
1845-1900	0	0	0	0	0	**0**	**0**
1600-1900	**0**	**0**	**0**	**0**	**0**	**0**	**0**

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1700	0	0	0	0	0	**0**	**0**
1615-1715	0	0	0	0	0	**0**	**0**
1630-1730	0	0	0	0	0	**0**	**0**
1645-1745	0	0	0	0	0	**0**	**0**
1700-1800	0	0	0	0	0	**0**	**0**
1715-1815	0	0	0	0	0	**0**	**0**
1730-1830	0	0	0	0	0	**0**	**0**
1745-1845	0	0	0	0	0	**0**	**0**
1800-1900	0	0	0	0	0	**0**	**0**

TOTAL FLOW INTO SURVEY SITE= **0** **0**

DATE : WEDNESDAY 18th SEPTEMBER 2013

CONDITIONS: DRY

LOCATION : M25, J29, ESSEX

ARM 3 - A127 OFFSLIP (WESTBOUND)

A127 OFFSLIP (WESTBOUND) — LEFT INTO WORKS ACCESS / EGRESS — movement 13 (0700 - 1000)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0715	1	1	0	0	0	2	3
0715-0730	0	1	1	0	0	2	4
0730-0745	0	0	0	0	0	0	0
0745-0800	1	0	0	0	0	1	1
0800-0815	0	0	0	0	0	0	0
0815-0830	0	0	0	0	0	0	0
0830-0845	1	0	0	0	0	1	1
0845-0900	0	0	0	0	0	0	0
0900-0915	0	0	0	0	0	0	0
0915-0930	2	0	1	0	0	3	4
0930-0945	1	0	0	0	0	1	1
0945-1000	0	0	1	0	0	1	2
0700-1000	**6**	**2**	**3**	**0**	**0**	**11**	**16**
0700-0800	2	2	1	0	0	5	8
0715-0815	1	1	1	0	0	3	5
0730-0830	1	0	0	0	0	1	1
0745-0845	2	0	0	0	0	2	2
0800-0900	1	0	0	0	0	1	1
0815-0915	1	0	0	0	0	1	1
0830-0930	3	0	1	0	0	4	5
0845-0945	3	0	1	0	0	4	5
0900-1000	3	0	2	0	0	5	8

TOTAL FLOW INTO SURVEY SITE= 11 16

A127 OFFSLIP (WESTBOUND) — LEFT INTO M25 ONSLIP (SOUTHBOUND) — movement 14 (0700 - 1000)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0715	72	14	5	0	1	92	108
0715-0730	95	6	6	0	3	110	120
0730-0745	92	8	1	0	0	101	108
0745-0800	92	5	4	0	2	103	111
0800-0815	88	10	4	0	6	108	117
0815-0830	98	7	6	0	3	114	125
0830-0845	78	13	13	0	1	105	130
0845-0900	104	8	3	0	0	115	125
0900-0915	79	9	11	0	1	100	120
0915-0930	91	5	3	0	3	102	108
0930-0945	92	8	8	0	1	109	124
0945-1000	102	12	15	0	1	130	157
0700-1000	**1083**	**105**	**79**	**0**	**22**	**1289**	**1452**
0700-0800	351	33	16	0	6	406	446
0715-0815	367	29	15	0	11	422	455
0730-0830	370	30	15	0	11	426	460
0745-0845	356	35	27	0	12	430	482
0800-0900	368	38	26	0	10	442	496
0815-0915	359	37	33	0	5	434	500
0830-0930	352	35	30	0	5	422	483
0845-0945	366	30	25	0	5	426	477
0900-1000	364	34	37	0	6	441	509

TOTAL FLOW INTO SURVEY SITE= 1289 1452

A127 OFFSLIP (WESTBOUND) — ACROSS INTO A127 ONSLIP (WESTBOUND) — movement 15 (0700 - 1000)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0715	0	0	0	0	0	0	0
0715-0730	2	0	0	0	0	2	2
0730-0745	2	0	0	0	0	2	2
0745-0800	0	0	0	0	0	0	0
0800-0815	2	0	0	0	0	2	2
0815-0830	2	0	0	0	0	2	2
0830-0845	1	0	0	0	0	1	1
0845-0900	0	0	0	0	0	0	0
0900-0915	1	0	0	0	0	1	1
0915-0930	0	0	0	0	0	0	0
0930-0945	0	0	0	0	0	0	0
0945-1000	0	0	0	0	0	0	0
0700-1000	**10**	**0**	**0**	**0**	**0**	**10**	**10**
0700-0800	4	0	0	0	0	4	4
0715-0815	6	0	0	0	0	6	6
0730-0830	6	0	0	0	0	6	6
0745-0845	5	0	0	0	0	5	5
0800-0900	5	0	0	0	0	5	5
0815-0915	4	0	0	0	0	4	4
0830-0930	2	0	0	0	0	2	2
0845-0945	1	0	0	0	0	1	1
0900-1000	1	0	0	0	0	1	1

TOTAL FLOW INTO SURVEY SITE= 10 10

A127 OFFSLIP (WESTBOUND) — LEFT INTO WORKS ACCESS / EGRESS — movement 13 (1600 - 1900)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1615	0	1	0	0	0	1	2
1615-1630	1	0	1	0	0	2	3
1630-1645	1	0	0	0	0	1	1
1645-1700	0	0	0	0	0	0	0
1700-1715	1	0	0	0	0	1	1
1715-1730	0	0	1	0	0	1	2
1730-1745	0	1	0	0	0	1	2
1745-1800	0	0	0	0	0	0	0
1800-1815	0	0	0	0	0	0	0
1815-1830	1	1	0	0	0	2	3
1830-1845	1	0	0	0	0	1	1
1845-1900	0	0	1	0	0	1	2
1600-1900	**5**	**3**	**3**	**0**	**0**	**11**	**17**
1600-1700	2	1	1	0	0	4	6
1615-1715	3	0	1	0	0	4	5
1630-1730	2	0	1	0	0	3	4
1645-1745	1	1	1	0	0	3	5
1700-1800	1	1	1	0	0	3	5
1715-1815	0	1	1	0	0	2	4
1730-1830	1	2	0	0	0	3	4
1745-1845	2	1	0	0	0	3	4
1800-1900	2	1	1	0	0	4	6

TOTAL FLOW INTO SURVEY SITE= 11 17

A127 OFFSLIP (WESTBOUND) — LEFT INTO M25 ONSLIP (SOUTHBOUND) — movement 14 (1600 - 1900)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1615	121	2	6	0	1	130	139
1615-1630	82	1	4	0	0	87	93
1630-1645	106	3	1	0	0	110	113
1645-1700	96	3	3	0	0	102	108
1700-1715	105	6	3	0	2	116	123
1715-1730	88	3	5	1	1	98	107
1730-1745	112	5	4	0	1	122	130
1745-1800	105	3	2	0	1	111	115
1800-1815	84	1	1	1	1	88	90
1815-1830	74	3	2	0	0	79	84
1830-1845	50	0	1	0	0	51	52
1845-1900	53	0	0	0	0	53	53
1600-1900	**1076**	**30**	**32**	**2**	**7**	**1147**	**1207**
1600-1700	405	9	14	0	1	429	453
1615-1715	389	13	11	0	2	415	437
1630-1730	395	15	12	1	3	426	451
1645-1745	401	17	15	1	4	438	468
1700-1800	410	17	14	1	5	447	475
1715-1815	389	12	12	2	4	419	443
1730-1830	375	12	9	1	3	400	419
1745-1845	313	7	6	1	2	329	342
1800-1900	261	4	4	1	1	271	279

TOTAL FLOW INTO SURVEY SITE= 1147 1207

A127 OFFSLIP (WESTBOUND) — ACROSS INTO A127 ONSLIP (WESTBOUND) — movement 15 (1600 - 1900)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1615	0	0	0	0	0	0	0
1615-1630	0	0	0	0	0	0	0
1630-1645	0	0	0	0	0	0	0
1645-1700	0	0	0	0	0	0	0
1700-1715	0	0	0	0	0	0	0
1715-1730	2	0	0	0	0	2	2
1730-1745	0	0	0	0	0	0	0
1745-1800	0	0	0	0	0	0	0
1800-1815	0	0	0	0	0	0	0
1815-1830	0	0	0	0	0	0	0
1830-1845	0	0	0	0	0	0	0
1845-1900	0	0	0	0	0	0	0
1600-1900	**2**	**0**	**0**	**0**	**0**	**2**	**2**
1600-1700	0	0	0	0	0	0	0
1615-1715	0	0	0	0	0	0	0
1630-1730	2	0	0	0	0	2	2
1645-1745	2	0	0	0	0	2	2
1700-1800	2	0	0	0	0	2	2
1715-1815	2	0	0	0	0	2	2
1730-1830	0	0	0	0	0	0	0
1745-1845	0	0	0	0	0	0	0
1800-1900	0	0	0	0	0	0	0

TOTAL FLOW INTO SURVEY SITE= 2 2

A127 OFFSLIP (WESTBOUND) — RIGHT INTO M25 ONSLIP (NORTHBOUND — movement 16 (0700 - 1000)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0715	278	36	9	0	1	324	360
0715-0730	293	18	13	0	3	327	355
0730-0745	252	17	14	0	0	283	313
0745-0800	266	24	16	0	0	306	344
0800-0815	297	16	14	0	1	328	357
0815-0830	304	11	13	0	1	329	353
0830-0845	216	29	13	0	0	258	295
0845-0900	204	20	14	0	1	239	271
0900-0915	189	17	18	0	1	225	260
0915-0930	175	10	14	0	0	199	224
0930-0945	166	18	14	2	0	200	233
0945-1000	167	16	15	0	0	198	229
0700-1000	**2807**	**232**	**167**	**2**	**8**	**3216**	**3593**
0700-0800	1089	95	52	0	4	1240	1372
0715-0815	1108	75	57	0	4	1244	1368
0730-0830	1119	68	57	0	2	1246	1367
0745-0845	1083	80	56	0	2	1221	1349
0800-0900	1021	76	54	0	3	1154	1276
0815-0915	913	77	58	0	3	1051	1179
0830-0930	784	76	59	0	2	921	1050
0845-0945	734	65	60	2	2	863	987
0900-1000	697	61	61	2	1	822	945

TOTAL FLOW INTO SURVEY SITE= 3216 3593

A127 OFFSLIP (WESTBOUND) — RIGHT INTO CODHAM HALL — movement 17 (0700 - 1000)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0715	4	0	0	0	0	4	4
0715-0730	3	0	2	0	0	5	8
0730-0745	6	0	0	0	0	6	6
0745-0800	4	0	0	0	0	4	4
0800-0815	0	0	1	0	0	1	2
0815-0830	2	0	0	0	0	2	2
0830-0845	2	2	0	0	0	4	5
0845-0900	0	2	1	0	0	3	6
0900-0915	4	1	0	0	0	5	6
0915-0930	3	0	1	0	0	4	5
0930-0945	1	3	0	0	0	4	6
0945-1000	1	1	0	0	0	2	3
0700-1000	**30**	**9**	**5**	**0**	**0**	**44**	**57**
0700-0800	17	0	2	0	0	19	22
0715-0815	13	0	3	0	0	16	20
0730-0830	12	0	1	0	0	13	14
0745-0845	8	2	1	0	0	11	14
0800-0900	4	4	2	0	0	10	15
0815-0915	8	5	1	0	0	14	19
0830-0930	9	5	2	0	0	16	22
0845-0945	8	6	2	0	0	16	23
0900-1000	9	5	1	0	0	15	20

TOTAL FLOW INTO SURVEY SITE= 44 57

A127 OFFSLIP (WESTBOUND) — U-TURN — movement 18 (0700 - 1000)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0715	3	0	0	0	0	3	3
0715-0730	2	0	0	0	0	2	2
0730-0745	2	0	0	0	0	2	2
0745-0800	3	0	0	0	0	3	3
0800-0815	4	0	0	0	0	4	4
0815-0830	2	0	0	0	0	2	2
0830-0845	2	0	0	0	0	2	2
0845-0900	0	0	0	0	0	0	0
0900-0915	0	0	0	0	0	0	0
0915-0930	0	0	0	0	0	0	0
0930-0945	0	0	0	0	0	0	0
0945-1000	0	0	0	0	0	0	0
0700-1000	**18**	**0**	**0**	**0**	**0**	**18**	**18**
0700-0800	10	0	0	0	0	10	10
0715-0815	11	0	0	0	0	11	11
0730-0830	11	0	0	0	0	11	11
0745-0845	11	0	0	0	0	11	11
0800-0900	8	0	0	0	0	8	8
0815-0915	4	0	0	0	0	4	4
0830-0930	2	0	0	0	0	2	2
0845-0945	0	0	0	0	0	0	0
0900-1000	0	0	0	0	0	0	0

TOTAL FLOW INTO SURVEY SITE= 18 18

A127 OFFSLIP (WESTBOUND) — RIGHT INTO M25 ONSLIP (NORTHBOUND — movement 16 (1600 - 1900)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1615	218	9	7	1	0	235	251
1615-1630	245	10	8	0	1	264	281
1630-1645	244	4	8	1	0	257	271
1645-1700	237	9	9	0	1	256	273
1700-1715	215	6	11	0	2	234	251
1715-1730	274	6	9	0	1	290	305
1730-1745	285	3	12	1	0	301	320
1745-1800	224	5	8	0	1	238	251
1800-1815	197	7	11	0	0	215	234
1815-1830	177	1	10	1	2	191	205
1830-1845	161	3	5	0	1	170	178
1845-1900	141	2	11	0	0	154	170
1600-1900	**2618**	**65**	**109**	**4**	**9**	**2805**	**2991**
1600-1700	944	32	32	2	2	1012	1077
1615-1715	941	29	36	1	4	1011	1077
1630-1730	970	25	37	1	4	1037	1101
1645-1745	1011	24	41	1	4	1081	1150
1700-1800	998	20	40	1	4	1063	1128
1715-1815	980	21	40	1	2	1044	1111
1730-1830	883	16	41	2	3	945	1010
1745-1845	759	16	34	1	4	814	868
1800-1900	676	13	37	1	3	730	786

TOTAL FLOW INTO SURVEY SITE= 2805 2991

A127 OFFSLIP (WESTBOUND) — RIGHT INTO CODHAM HALL — movement 17 (1600 - 1900)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1615	2	0	0	0	0	2	2
1615-1630	0	0	0	0	0	0	0
1630-1645	1	1	0	0	0	2	3
1645-1700	0	0	0	0	0	0	0
1700-1715	0	0	0	0	0	0	0
1715-1730	0	0	0	0	0	0	0
1730-1745	0	0	1	0	0	1	2
1745-1800	0	0	0	0	0	0	0
1800-1815	0	1	0	0	0	1	2
1815-1830	0	0	1	0	0	1	2
1830-1845	0	0	0	0	0	0	0
1845-1900	0	0	0	0	0	0	0
1600-1900	**3**	**2**	**2**	**0**	**0**	**7**	**11**
1600-1700	3	1	0	0	0	4	5
1615-1715	1	1	0	0	0	2	3
1630-1730	1	1	0	0	0	2	3
1645-1745	0	0	1	0	0	1	2
1700-1800	0	0	1	0	0	1	2
1715-1815	0	1	1	0	0	2	4
1730-1830	0	1	2	0	0	3	6
1745-1845	0	1	1	0	0	2	4
1800-1900	0	1	1	0	0	2	4

TOTAL FLOW INTO SURVEY SITE= 7 11

A127 OFFSLIP (WESTBOUND) — U-TURN — movement 18 (1600 - 1900)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1615	3	0	0	0	0	3	3
1615-1630	3	0	0	0	0	3	3
1630-1645	3	0	0	0	0	3	3
1645-1700	2	0	0	0	0	2	2
1700-1715	1	0	0	0	0	1	1
1715-1730	3	0	0	0	0	3	3
1730-1745	4	0	0	0	0	4	4
1745-1800	1	0	0	0	0	1	1
1800-1815	0	0	0	0	0	0	0
1815-1830	2	0	0	0	0	2	2
1830-1845	2	0	0	0	0	2	2
1845-1900	0	0	0	0	0	0	0
1600-1900	**24**	**0**	**0**	**0**	**0**	**24**	**24**
1600-1700	11	0	0	0	0	11	11
1615-1715	9	0	0	0	0	9	9
1630-1730	9	0	0	0	0	9	9
1645-1745	10	0	0	0	0	10	10
1700-1800	9	0	0	0	0	9	9
1715-1815	8	0	0	0	0	8	8
1730-1830	7	0	0	0	0	7	7
1745-1845	5	0	0	0	0	5	5
1800-1900	4	0	0	0	0	4	4

TOTAL FLOW INTO SURVEY SITE= 24 24

DATE : WEDNESDAY 18th SEPTEMBER 2013

CONDITIONS: DRY

LOCATION : M25, J29, ESSEX

ARM 4 - WORKS ACCESS / EGRESS (SOUTH)

WORKS ACCESS / EGRESS
LEFT INTO M25 ONSLIP (SOUTHOUND)
movement 19 (0700 - 1000)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0715	0	0	0	0	0	0	0
0715-0730	0	0	1	0	0	1	2
0730-0745	1	1	0	0	0	2	3
0745-0800	2	4	0	0	0	6	9
0800-0815	0	0	0	0	0	0	0
0815-0830	0	1	0	0	0	1	2
0830-0845	0	0	0	0	0	0	0
0845-0900	0	0	0	0	0	0	0
0900-0915	0	0	0	0	0	0	0
0915-0930	0	0	0	0	0	0	0
0930-0945	1	0	0	0	0	1	1
0945-1000	1	0	0	0	0	1	1
0700-1000	**5**	**6**	**1**	**0**	**0**	12	18

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0800	3	5	1	0	0	9	14
0715-0815	3	5	1	0	0	9	14
0730-0830	3	6	0	0	0	9	13
0745-0845	2	5	0	0	0	7	11
0800-0900	0	1	0	0	0	1	2
0815-0915	0	1	0	0	0	1	2
0830-0930	0	0	0	0	0	0	0
0845-0945	1	0	0	0	0	1	1
0900-1000	2	0	0	0	0	2	2

TOTAL FLOW INTO SURVEY SITE= 12 18

WORKS ACCESS / EGRESS
ACROSS IN A127 ONSLIP (WESTBOUND)
movement 20 (0700 - 1000)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0715	1	0	1	0	0	2	3
0715-0730	0	2	1	0	0	3	6
0730-0745	0	1	0	0	0	1	2
0745-0800	0	0	1	0	0	1	2
0800-0815	1	1	0	0	0	2	3
0815-0830	0	0	0	0	0	0	0
0830-0845	0	0	0	0	0	0	0
0845-0900	0	0	0	0	0	0	0
0900-0915	0	0	0	0	0	0	0
0915-0930	0	0	0	0	0	0	0
0930-0945	3	1	2	0	0	6	9
0945-1000	0	0	0	0	0	0	0
0700-1000	**5**	**5**	**5**	**0**	**0**	15	25

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0800	1	3	3	0	0	7	13
0715-0815	1	4	2	0	0	7	12
0730-0830	1	2	1	0	0	4	7
0745-0845	1	1	1	0	0	3	5
0800-0900	1	1	0	0	0	2	3
0815-0915	0	0	0	0	0	0	0
0830-0930	0	0	0	0	0	0	0
0845-0945	3	1	2	0	0	6	9
0900-1000	3	1	2	0	0	6	9

TOTAL FLOW INTO SURVEY SITE= 15 25

WORKS ACCESS / EGRESS
RIGHT INTO M25 ONSLIP (NORTHBOUND)
movement 21 (0700 - 1000)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0715	1	2	4	0	0	7	14
0715-0730	0	1	3	0	0	4	9
0730-0745	1	2	1	0	0	4	7
0745-0800	0	3	1	0	0	4	7
0800-0815	1	0	2	0	0	3	6
0815-0830	1	0	1	0	0	2	3
0830-0845	0	0	0	0	0	0	0
0845-0900	1	0	0	0	0	1	1
0900-0915	1	0	0	0	0	1	1
0915-0930	1	0	0	0	0	1	1
0930-0945	0	0	1	0	0	1	2
0945-1000	0	0	0	0	0	0	0
0700-1000	**7**	**8**	**13**	**0**	**0**	28	51

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0800	2	8	9	0	0	19	36
0715-0815	2	6	7	0	0	15	28
0730-0830	3	5	5	0	0	13	23
0745-0845	2	3	4	0	0	9	16
0800-0900	3	0	3	0	0	6	10
0815-0915	3	0	1	0	0	4	5
0830-0930	3	0	0	0	0	3	3
0845-0945	3	0	1	0	0	4	5
0900-1000	2	0	1	0	0	3	4

TOTAL FLOW INTO SURVEY SITE= 28 51

WORKS ACCESS / EGRESS
LEFT INTO M25 ONSLIP (SOUTHOUND)
movement 19 (1600 - 1900)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1615	0	0	0	0	0	0	0
1615-1630	1	0	0	0	0	1	1
1630-1645	0	1	0	0	0	1	2
1645-1700	1	0	0	0	0	1	1
1700-1715	2	0	0	0	0	2	2
1715-1730	2	0	0	0	1	3	2
1730-1745	2	0	0	0	0	2	2
1745-1800	0	0	0	0	0	0	0
1800-1815	0	0	0	0	0	0	0
1815-1830	0	0	0	0	0	0	0
1830-1845	0	0	0	0	0	0	0
1845-1900	0	0	0	0	0	0	0
1600-1900	**8**	**1**	**0**	**0**	**1**	10	10

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1700	2	1	0	0	0	3	4
1615-1715	4	1	0	0	0	5	6
1630-1730	5	1	0	0	1	7	7
1645-1745	7	0	0	0	1	8	7
1700-1800	6	0	0	0	1	7	6
1715-1815	4	0	0	0	1	5	4
1730-1830	2	0	0	0	0	2	2
1745-1845	0	0	0	0	0	0	0
1800-1900	0	0	0	0	0	0	0

TOTAL FLOW INTO SURVEY SITE= 10 10

WORKS ACCESS / EGRESS
ACROSS IN A127 ONSLIP (WESTBOUND)
movement 20 (1600 - 1900)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1615	5	2	0	0	1	8	9
1615-1630	6	0	1	0	0	7	8
1630-1645	0	0	0	0	0	0	0
1645-1700	2	0	0	0	0	2	2
1700-1715	1	0	0	0	0	1	1
1715-1730	2	0	0	0	0	2	2
1730-1745	4	0	0	0	0	4	4
1745-1800	0	0	0	0	0	0	0
1800-1815	0	0	0	0	0	0	0
1815-1830	1	0	0	0	0	1	1
1830-1845	3	0	0	0	0	3	3
1845-1900	0	1	0	0	0	1	2
1600-1900	**24**	**3**	**1**	**0**	**1**	29	32

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1700	13	2	1	0	1	17	19
1615-1715	9	0	1	0	0	10	11
1630-1730	5	0	0	0	0	5	5
1645-1745	9	0	0	0	0	9	9
1700-1800	7	0	0	0	0	7	7
1715-1815	6	0	0	0	0	6	6
1730-1830	5	0	0	0	0	5	5
1745-1845	4	0	0	0	0	4	4
1800-1900	4	1	0	0	0	5	6

TOTAL FLOW INTO SURVEY SITE= 29 32

WORKS ACCESS / EGRESS
RIGHT INTO M25 ONSLIP (NORTHBOUND)
movement 21 (1600 - 1900)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1615	5	1	0	0	0	6	7
1615-1630	0	0	0	0	0	0	0
1630-1645	1	0	0	0	0	1	1
1645-1700	0	1	0	0	0	1	2
1700-1715	2	0	0	0	0	2	2
1715-1730	4	0	0	0	0	4	4
1730-1745	4	0	0	0	0	4	4
1745-1800	0	0	0	0	0	0	0
1800-1815	1	0	0	0	0	1	1
1815-1830	1	0	0	0	0	1	1
1830-1845	0	0	0	0	0	0	0
1845-1900	0	0	0	0	0	0	0
1600-1900	**18**	**2**	**0**	**0**	**0**	20	21

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1700	6	2	0	0	0	8	9
1615-1715	3	1	0	0	0	4	5
1630-1730	7	1	0	0	0	8	9
1645-1745	10	1	0	0	0	11	12
1700-1800	10	0	0	0	0	10	10
1715-1815	9	0	0	0	0	9	9
1730-1830	6	0	0	0	0	6	6
1745-1845	2	0	0	0	0	2	2
1800-1900	2	0	0	0	0	2	2

TOTAL FLOW INTO SURVEY SITE= 20 21

WORKS ACCESS / EGRESS
RIGHT INTO CODHAM HALL
movement 22 (0700 - 1000)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0715	0	1	1	0	0	2	4
0715-0730	1	1	2	0	0	4	7
0730-0745	0	3	2	0	0	5	10
0745-0800	0	0	0	0	0	0	0
0800-0815	1	0	0	0	0	1	1
0815-0830	1	0	0	0	0	1	1
0830-0845	0	0	0	0	0	0	0
0845-0900	0	0	0	0	0	0	0
0900-0915	1	0	0	0	0	1	1
0915-0930	1	0	0	0	0	1	1
0930-0945	0	0	0	0	0	0	0
0945-1000	0	0	0	0	0	0	0
0700-1000	**5**	**5**	**5**	**0**	**0**	15	25

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0800	1	5	5	0	0	11	21
0715-0815	2	4	4	0	0	10	18
0730-0830	2	3	2	0	0	7	12
0745-0845	2	0	0	0	0	2	2
0800-0900	2	0	0	0	0	2	2
0815-0915	2	0	0	0	0	2	2
0830-0930	2	0	0	0	0	2	2
0845-0945	2	0	0	0	0	2	2
0900-1000	2	0	0	0	0	2	2

TOTAL FLOW INTO SURVEY SITE= 15 25

WORKS ACCESS / EGRESS
RIGHT INTO A127 ONSLIP (EASTBOUND)
movement 23 (0700 - 1000)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0715	0	0	0	0	0	0	0
0715-0730	0	0	0	0	0	0	0
0730-0745	1	0	0	0	0	1	1
0745-0800	0	0	1	0	0	1	2
0800-0815	0	0	0	0	0	0	0
0815-0830	0	0	0	0	0	0	0
0830-0845	0	0	0	0	0	0	0
0845-0900	0	0	0	0	0	0	0
0900-0915	0	0	0	0	0	0	0
0915-0930	1	0	1	0	0	2	3
0930-0945	0	0	0	0	0	0	0
0945-1000	0	0	1	0	0	1	2
0700-1000	**2**	**0**	**3**	**0**	**0**	5	9

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0800	1	0	1	0	0	2	3
0715-0815	1	0	1	0	0	2	3
0730-0830	1	0	1	0	0	2	3
0745-0845	0	0	1	0	0	1	2
0800-0900	0	0	0	0	0	0	0
0815-0915	0	0	0	0	0	0	0
0830-0930	1	0	1	0	0	2	3
0845-0945	1	0	1	0	0	2	3
0900-1000	1	0	2	0	0	3	6

TOTAL FLOW INTO SURVEY SITE= 5 9

WORKS ACCESS / EGRESS
U-TURN
movement 24 (0700 - 1000)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0715	0	0	0	0	0	0	0
0715-0730	0	0	0	0	0	0	0
0730-0745	0	0	0	0	0	0	0
0745-0800	0	0	0	0	0	0	0
0800-0815	0	0	0	0	0	0	0
0815-0830	0	0	0	0	0	0	0
0830-0845	0	0	0	0	0	0	0
0845-0900	0	0	0	0	0	0	0
0900-0915	0	0	0	0	0	0	0
0915-0930	0	0	0	0	0	0	0
0930-0945	0	0	0	0	0	0	0
0945-1000	0	0	0	0	0	0	0
0700-1000	**0**	**0**	**0**	**0**	**0**	0	0

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0800	0	0	0	0	0	0	0
0715-0815	0	0	0	0	0	0	0
0730-0830	0	0	0	0	0	0	0
0745-0845	0	0	0	0	0	0	0
0800-0900	0	0	0	0	0	0	0
0815-0915	0	0	0	0	0	0	0
0830-0930	0	0	0	0	0	0	0
0845-0945	0	0	0	0	0	0	0
0900-1000	0	0	0	0	0	0	0

TOTAL FLOW INTO SURVEY SITE= 0 0

WORKS ACCESS / EGRESS
RIGHT INTO CODHAM HALL
movement 22 (1600 - 1900)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1615	0	0	0	0	0	0	0
1615-1630	0	0	0	0	0	0	0
1630-1645	1	0	0	0	0	1	1
1645-1700	0	0	0	0	0	0	0
1700-1715	0	0	0	0	0	0	0
1715-1730	0	0	0	0	0	0	0
1730-1745	0	0	0	0	0	0	0
1745-1800	0	0	0	0	0	0	0
1800-1815	0	0	0	0	0	0	0
1815-1830	0	0	0	0	0	0	0
1830-1845	0	0	0	0	0	0	0
1845-1900	0	0	0	0	0	0	0
1600-1900	**1**	**0**	**0**	**0**	**0**	1	1

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1700	1	0	0	0	0	1	1
1615-1715	1	0	0	0	0	1	1
1630-1730	1	0	0	0	0	1	1
1645-1745	0	0	0	0	0	0	0
1700-1800	0	0	0	0	0	0	0
1715-1815	0	0	0	0	0	0	0
1730-1830	0	0	0	0	0	0	0
1745-1845	0	0	0	0	0	0	0
1800-1900	0	0	0	0	0	0	0

TOTAL FLOW INTO SURVEY SITE= 1 1

WORKS ACCESS / EGRESS
RIGHT INTO A127 ONSLIP (EASTBOUND)
movement 23 (1600 - 1900)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1615	3	2	0	0	0	5	6
1615-1630	2	0	0	0	0	2	2
1630-1645	0	0	0	0	0	0	0
1645-1700	0	0	0	0	0	0	0
1700-1715	0	0	0	0	0	0	0
1715-1730	0	0	0	0	0	0	0
1730-1745	2	0	0	0	0	2	2
1745-1800	0	0	0	0	0	0	0
1800-1815	0	0	0	0	0	0	0
1815-1830	0	0	0	0	0	0	0
1830-1845	0	0	0	0	0	0	0
1845-1900	0	0	0	0	0	0	0
1600-1900	**7**	**2**	**0**	**0**	**0**	9	10

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1700	5	2	0	0	0	7	8
1615-1715	2	0	0	0	0	2	2
1630-1730	0	0	0	0	0	0	0
1645-1745	2	0	0	0	0	2	2
1700-1800	2	0	0	0	0	2	2
1715-1815	2	0	0	0	0	2	2
1730-1830	2	0	0	0	0	2	2
1745-1845	0	0	0	0	0	0	0
1800-1900	0	0	0	0	0	0	0

TOTAL FLOW INTO SURVEY SITE= 9 10

WORKS ACCESS / EGRESS
U-TURN
movement 24 (1600 - 1900)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1615	0	0	0	0	0	0	0
1615-1630	0	0	0	0	0	0	0
1630-1645	0	0	0	0	0	0	0
1645-1700	0	0	0	0	0	0	0
1700-1715	0	0	0	0	0	0	0
1715-1730	0	0	0	0	0	0	0
1730-1745	0	0	0	0	0	0	0
1745-1800	0	0	0	0	0	0	0
1800-1815	0	0	0	0	0	0	0
1815-1830	0	0	0	0	0	0	0
1830-1845	0	0	0	0	0	0	0
1845-1900	0	0	0	0	0	0	0
1600-1900	**0**	**0**	**0**	**0**	**0**	0	0

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1700	0	0	0	0	0	0	0
1615-1715	0	0	0	0	0	0	0
1630-1730	0	0	0	0	0	0	0
1645-1745	0	0	0	0	0	0	0
1700-1800	0	0	0	0	0	0	0
1715-1815	0	0	0	0	0	0	0
1730-1830	0	0	0	0	0	0	0
1745-1845	0	0	0	0	0	0	0
1800-1900	0	0	0	0	0	0	0

TOTAL FLOW INTO SURVEY SITE= 0 0

DATE : WEDNESDAY 18th SEPTEMBER 2013

CONDITIONS: DRY

LOCATION : M25, J29, ESSEX

ARM 5 - M25 (S) OFFLSIP (NORTHBOUND)

M25 OFFSLIP (NORTHBOUND) — LEFT INTO A127 ONSLIP (WESTBOUND)

movement 25 (0700 - 1000)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0715	72	2	9	0	0	83	96
0715-0730	86	7	7	0	0	100	114
0730-0745	81	10	4	0	0	95	107
0745-0800	79	7	2	0	1	89	96
0800-0815	68	10	0	0	0	78	85
0815-0830	77	1	1	1	2	82	84
0830-0845	60	3	4	0	0	67	74
0845-0900	65	2	1	0	1	69	71
0900-0915	52	5	3	1	0	61	69
0915-0930	63	0	4	1	0	68	74
0930-0945	74	6	1	0	0	81	87
0945-1000	63	7	2	0	1	73	80
0700-1000	**840**	**60**	**38**	**3**	**5**	**946**	**1037**
0700-0800	318	26	22	0	1	367	413
0715-0815	314	34	13	0	1	362	402
0730-0830	305	28	7	1	3	344	372
0745-0845	284	21	7	1	3	316	339
0800-0900	270	16	6	1	3	296	314
0815-0915	254	11	9	2	3	279	299
0830-0930	240	10	12	2	1	265	289
0845-0945	254	13	9	2	1	279	301
0900-1000	252	18	10	2	1	283	310

TOTAL FLOW INTO SURVEY SITE= 946 1037

M25 OFFSLIP (NORTHBOUND) — ACROSS INTO M25 ONSLIP (NORTHBOUND)

movement 26 (0700 - 1000)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0715	3	0	0	0	0	3	3
0715-0730	1	0	0	0	0	1	1
0730-0745	5	0	0	0	0	5	5
0745-0800	1	0	0	0	0	1	1
0800-0815	0	0	0	0	0	0	0
0815-0830	2	0	0	0	0	2	2
0830-0845	0	0	0	0	0	0	0
0845-0900	3	0	0	0	0	3	3
0900-0915	1	0	0	0	0	1	1
0915-0930	0	0	0	0	0	0	0
0930-0945	0	0	0	0	0	0	0
0945-1000	3	0	0	0	0	3	3
0700-1000	**19**	**0**	**0**	**0**	**0**	**19**	**19**
0700-0800	10	0	0	0	0	10	10
0715-0815	7	0	0	0	0	7	7
0730-0830	8	0	0	0	0	8	8
0745-0845	3	0	0	0	0	3	3
0800-0900	5	0	0	0	0	5	5
0815-0915	6	0	0	0	0	6	6
0830-0930	4	0	0	0	0	4	4
0845-0945	4	0	0	0	0	4	4
0900-1000	4	0	0	0	0	4	4

TOTAL FLOW INTO SURVEY SITE= 19 19

M25 OFFSLIP (NORTHBOUND) — RIGHT INTO CODHAM HALL

movement 27 (0700 - 1000)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0715	0	0	0	0	0	0	0
0715-0730	0	0	0	0	0	0	0
0730-0745	0	0	0	0	0	0	0
0745-0800	1	0	0	0	0	1	1
0800-0815	0	0	0	0	0	0	0
0815-0830	0	0	0	0	0	0	0
0830-0845	0	0	0	0	0	0	0
0845-0900	1	0	0	0	0	1	1
0900-0915	0	1	0	0	0	1	2
0915-0930	0	0	0	0	0	0	0
0930-0945	2	1	0	0	0	3	4
0945-1000	0	0	0	0	0	0	0
0700-1000	**4**	**2**	**0**	**0**	**0**	**6**	**7**
0700-0800	1	0	0	0	0	1	1
0715-0815	1	0	0	0	0	1	1
0730-0830	1	0	0	0	0	1	1
0745-0845	1	0	0	0	0	1	1
0800-0900	1	0	0	0	0	1	1
0815-0915	1	1	0	0	0	2	3
0830-0930	1	1	0	0	0	2	3
0845-0945	3	2	0	0	0	5	6
0900-1000	2	2	0	0	0	4	5

TOTAL FLOW INTO SURVEY SITE= 6 7

M25 OFFSLIP (NORTHBOUND) — LEFT INTO A127 ONSLIP (WESTBOUND)

movement 25 (1600 - 1900)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1615	107	3	0	1	1	112	115
1615-1630	106	1	4	0	2	113	118
1630-1645	79	5	1	0	3	88	91
1645-1700	90	0	2	0	0	92	95
1700-1715	89	3	1	0	0	93	96
1715-1730	128	1	0	0	1	130	130
1730-1745	118	4	1	0	1	124	128
1745-1800	135	1	1	0	2	139	140
1800-1815	110	0	1	0	0	111	112
1815-1830	115	3	0	0	2	120	121
1830-1845	89	0	0	0	2	91	90
1845-1900	95	1	0	1	2	99	100
1600-1900	**1261**	**22**	**11**	**2**	**16**	**1312**	**1334**
1600-1700	382	9	7	1	6	405	418
1615-1715	364	9	8	0	5	386	400
1630-1730	386	9	4	0	4	403	412
1645-1745	425	8	4	0	2	439	449
1700-1800	470	9	3	0	4	486	494
1715-1815	491	6	3	0	4	504	510
1730-1830	478	8	3	0	5	494	501
1745-1845	449	4	2	0	6	461	463
1800-1900	409	4	1	1	6	421	423

TOTAL FLOW INTO SURVEY SITE= 1312 1334

M25 OFFSLIP (NORTHBOUND) — ACROSS INTO M25 ONSLIP (NORTHBOUND)

movement 26 (1600 - 1900)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1615	3	0	0	0	0	3	3
1615-1630	1	0	0	0	0	1	1
1630-1645	0	0	0	0	0	0	0
1645-1700	1	0	0	0	0	1	1
1700-1715	0	0	0	0	0	0	0
1715-1730	0	0	0	0	0	0	0
1730-1745	2	0	0	0	0	2	2
1745-1800	2	0	0	0	0	2	2
1800-1815	0	0	1	0	0	1	2
1815-1830	0	0	0	0	0	0	0
1830-1845	0	0	0	0	0	0	0
1845-1900	0	0	0	0	0	0	0
1600-1900	**9**	**0**	**1**	**0**	**0**	**10**	**11**
1600-1700	5	0	0	0	0	5	5
1615-1715	2	0	0	0	0	2	2
1630-1730	1	0	0	0	0	1	1
1645-1745	3	0	0	0	0	3	3
1700-1800	4	0	0	0	0	4	4
1715-1815	4	0	1	0	0	5	6
1730-1830	4	0	1	0	0	5	6
1745-1845	2	0	1	0	0	3	4
1800-1900	0	0	1	0	0	1	2

TOTAL FLOW INTO SURVEY SITE= 10 11

M25 OFFSLIP (NORTHBOUND) — RIGHT INTO CODHAM HALL

movement 27 (1600 - 1900)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1615	2	1	0	0	0	3	4
1615-1630	0	0	0	0	0	0	0
1630-1645	0	0	0	0	0	0	0
1645-1700	0	0	0	0	0	0	0
1700-1715	0	0	0	0	0	0	0
1715-1730	0	1	0	0	0	1	2
1730-1745	0	0	0	0	0	0	0
1745-1800	0	0	0	0	0	0	0
1800-1815	0	0	1	0	0	1	2
1815-1830	0	0	0	0	0	0	0
1830-1845	0	0	0	0	0	0	0
1845-1900	0	0	0	0	0	0	0
1600-1900	**2**	**2**	**1**	**0**	**0**	**5**	**8**
1600-1700	2	1	0	0	0	3	4
1615-1715	0	0	0	0	0	0	0
1630-1730	0	1	0	0	0	1	2
1645-1745	0	1	0	0	0	1	2
1700-1800	0	1	0	0	0	1	2
1715-1815	0	1	1	0	0	2	4
1730-1830	0	0	1	0	0	1	2
1745-1845	0	0	1	0	0	1	2
1800-1900	0	0	1	0	0	1	2

TOTAL FLOW INTO SURVEY SITE= 5 8

M25 OFFSLIP (NORTHBOUND) — RIGHT INTO A127 ONSLIP (EASTBOUND

movement 28 (0700 - 1000)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0715	101	5	5	0	1	112	121
0715-0730	153	7	7	0	1	168	181
0730-0745	174	10	5	0	2	191	203
0745-0800	163	7	7	0	2	179	192
0800-0815	164	7	13	0	2	186	207
0815-0830	145	4	11	0	1	161	178
0830-0845	122	7	10	0	0	139	157
0845-0900	127	6	10	0	1	144	161
0900-0915	91	9	6	0	0	106	120
0915-0930	67	6	11	0	0	84	103
0930-0945	68	6	4	0	1	79	88
0945-1000	64	9	7	0	0	80	95
0700-1000	**1439**	**83**	**96**	**0**	**11**	**1629**	**1805**
0700-0800	591	29	24	0	6	650	698
0715-0815	654	31	32	0	7	724	783
0730-0830	646	28	36	0	7	717	779
0745-0845	594	25	41	0	5	665	733
0800-0900	558	24	44	0	4	630	702
0815-0915	485	26	37	0	2	550	615
0830-0930	407	28	37	0	1	473	540
0845-0945	353	27	31	0	2	413	471
0900-1000	290	30	28	0	1	349	406

TOTAL FLOW INTO SURVEY SITE= 1629 1805

M25 OFFSLIP (NORTHBOUND) — RIGHT INTO WORKS ACCESS / EGRESS

movement 29 (0700 - 1000)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0715	0	0	0	0	0	0	0
0715-0730	0	0	0	0	0	0	0
0730-0745	0	0	0	0	0	0	0
0745-0800	0	0	0	0	0	0	0
0800-0815	0	0	0	0	0	0	0
0815-0830	0	0	0	0	0	0	0
0830-0845	0	0	0	0	0	0	0
0845-0900	0	0	0	0	0	0	0
0900-0915	1	0	0	0	0	1	1
0915-0930	0	0	0	0	0	0	0
0930-0945	0	0	0	0	0	0	0
0945-1000	0	0	0	0	0	0	0
0700-1000	**1**	**0**	**0**	**0**	**0**	**1**	**1**
0700-0800	0	0	0	0	0	0	0
0715-0815	0	0	0	0	0	0	0
0730-0830	0	0	0	0	0	0	0
0745-0845	0	0	0	0	0	0	0
0800-0900	0	0	0	0	0	0	0
0815-0915	1	0	0	0	0	1	1
0830-0930	1	0	0	0	0	1	1
0845-0945	1	0	0	0	0	1	1
0900-1000	1	0	0	0	0	1	1

TOTAL FLOW INTO SURVEY SITE= 1 1

M25 OFFSLIP (NORTHBOUND) — U-TURN

movement 30 (0700 - 1000)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0715	1	0	0	0	0	1	1
0715-0730	0	0	0	0	0	0	0
0730-0745	0	0	0	0	0	0	0
0745-0800	1	0	0	0	0	1	1
0800-0815	0	0	0	0	0	0	0
0815-0830	1	1	0	0	0	2	3
0830-0845	2	0	0	0	0	2	2
0845-0900	0	0	0	0	0	0	0
0900-0915	1	0	0	0	0	1	1
0915-0930	0	0	0	0	0	0	0
0930-0945	0	0	0	0	0	0	0
0945-1000	1	0	1	0	0	2	3
0700-1000	**7**	**1**	**1**	**0**	**0**	**9**	**11**
0700-0800	2	0	0	0	0	2	2
0715-0815	1	0	0	0	0	1	1
0730-0830	2	1	0	0	0	3	4
0745-0845	4	1	0	0	0	5	6
0800-0900	3	1	0	0	0	4	5
0815-0915	4	1	0	0	0	5	6
0830-0930	3	0	0	0	0	3	3
0845-0945	1	0	0	0	0	1	1
0900-1000	2	0	1	0	0	3	4

TOTAL FLOW INTO SURVEY SITE= 9 11

M25 OFFSLIP (NORTHBOUND) — RIGHT INTO A127 ONSLIP (EASTBOUND

movement 28 (1600 - 1900)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1615	152	10	5	0	0	167	181
1615-1630	173	13	7	0	1	194	212
1630-1645	136	9	6	0	2	153	166
1645-1700	130	13	6	1	2	152	169
1700-1715	147	14	5	0	1	167	183
1715-1730	166	5	5	0	1	177	186
1730-1745	141	9	2	0	1	153	161
1745-1800	164	6	4	0	1	175	184
1800-1815	165	6	6	0	1	178	189
1815-1830	163	7	3	0	3	176	183
1830-1845	127	3	1	0	3	134	136
1845-1900	108	4	0	0	4	116	116
1600-1900	**1772**	**99**	**50**	**1**	**20**	**1942**	**2065**
1600-1700	591	45	24	1	5	666	727
1615-1715	586	49	24	1	6	666	729
1630-1730	579	41	22	1	6	649	704
1645-1745	584	41	18	1	5	649	699
1700-1800	618	34	16	0	4	672	714
1715-1815	636	26	17	0	4	683	721
1730-1830	633	28	15	0	6	682	718
1745-1845	619	22	14	0	8	663	692
1800-1900	563	20	10	0	11	604	624

TOTAL FLOW INTO SURVEY SITE= 1942 2065

M25 OFFSLIP (NORTHBOUND) — RIGHT INTO WORKS ACCESS / EGRESS

movement 29 (1600 - 1900)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1615	0	0	0	0	0	0	0
1615-1630	0	0	1	0	0	1	2
1630-1645	0	0	0	0	0	0	0
1645-1700	0	0	0	0	0	0	0
1700-1715	0	0	0	0	0	0	0
1715-1730	2	0	0	0	0	2	2
1730-1745	0	0	0	0	0	0	0
1745-1800	0	0	0	0	0	0	0
1800-1815	1	0	0	0	0	1	1
1815-1830	0	0	0	0	0	0	0
1830-1845	0	0	0	0	0	0	0
1845-1900	0	0	0	0	0	0	0
1600-1900	**3**	**0**	**1**	**0**	**0**	**4**	**5**
1600-1700	0	0	1	0	0	1	2
1615-1715	0	0	1	0	0	1	2
1630-1730	2	0	0	0	0	2	2
1645-1745	2	0	0	0	0	2	2
1700-1800	2	0	0	0	0	2	2
1715-1815	3	0	0	0	0	3	3
1730-1830	1	0	0	0	0	1	1
1745-1845	1	0	0	0	0	1	1
1800-1900	1	0	0	0	0	1	1

TOTAL FLOW INTO SURVEY SITE= 4 5

M25 OFFSLIP (NORTHBOUND) — U-TURN

movement 30 (1600 - 1900)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1615	1	0	0	0	0	1	1
1615-1630	0	0	0	0	0	0	0
1630-1645	1	0	0	0	0	1	1
1645-1700	0	0	0	0	0	0	0
1700-1715	1	1	0	0	0	2	3
1715-1730	1	0	0	0	0	1	1
1730-1745	0	0	0	0	0	0	0
1745-1800	1	0	0	0	0	1	1
1800-1815	0	0	0	0	0	0	0
1815-1830	0	0	0	0	0	0	0
1830-1845	0	0	0	0	0	0	0
1845-1900	1	0	0	0	1	2	1
1600-1900	**6**	**1**	**0**	**0**	**1**	**8**	**8**
1600-1700	2	0	0	0	0	2	2
1615-1715	2	1	0	0	0	3	4
1630-1730	3	1	0	0	0	4	5
1645-1745	2	1	0	0	0	3	4
1700-1800	3	1	0	0	0	4	5
1715-1815	2	0	0	0	0	2	2
1730-1830	1	0	0	0	0	1	1
1745-1845	1	0	0	0	0	1	1
1800-1900	1	0	0	0	1	2	1

TOTAL FLOW INTO SURVEY SITE= 8 8

DATE : WEDNESDAY 18th SEPTEMBER 2013

CONDITIONS: DRY

LOCATION : M25, J29, ESSEX

ARM 6 - A127 OFFSLIP (EASTBOUND)

A127 OFFSLIP (EASTBOUND) — LEFT INTO M25 ONSLIP (NORTHBOUND)

movement 31 (0700 - 1000)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0715	42	0	0	0	0	42	42
0715-0730	55	2	0	0	0	57	58
0730-0745	47	2	1	0	0	50	53
0745-0800	44	1	0	0	0	45	46
0800-0815	42	0	0	0	0	42	42
0815-0830	36	1	1	0	0	38	40
0830-0845	28	1	1	0	0	30	32
0845-0900	29	0	0	0	0	29	29
0900-0915	27	2	0	0	0	29	30
0915-0930	24	2	1	2	0	29	34
0930-0945	20	1	1	0	0	22	24
0945-1000	27	1	0	0	1	29	29
0700-1000	**421**	**13**	**5**	**2**	**1**	**442**	**459**
0700-0800	188	5	1	0	0	194	199
0715-0815	188	5	1	0	0	194	199
0730-0830	169	4	2	0	0	175	180
0745-0845	150	3	2	0	0	155	160
0800-0900	135	2	2	0	0	139	143
0815-0915	120	4	2	0	0	126	131
0830-0930	108	5	2	2	0	117	125
0845-0945	100	5	2	2	0	109	117
0900-1000	98	6	2	2	1	109	117

TOTAL FLOW INTO SURVEY SITE= 442 459

A127 OFFSLIP (EASTBOUND) — ACROSS INTO CODHAM HALL

movement 32 (0700 - 1000)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0715	26	1	0	0	0	27	28
0715-0730	35	1	0	0	0	36	37
0730-0745	22	0	0	0	1	23	22
0745-0800	14	1	0	0	1	16	16
0800-0815	13	1	1	0	0	15	17
0815-0830	12	0	1	0	1	14	15
0830-0845	15	2	0	0	0	17	18
0845-0900	15	0	1	0	0	16	17
0900-0915	21	0	1	0	1	23	24
0915-0930	15	1	0	0	0	16	17
0930-0945	11	0	0	0	0	11	11
0945-1000	8	0	0	0	0	8	8
0700-1000	**207**	**7**	**4**	**0**	**4**	**222**	**230**
0700-0800	97	3	0	0	2	102	103
0715-0815	84	3	1	0	2	90	92
0730-0830	61	2	2	0	3	68	70
0745-0845	54	4	2	0	2	62	66
0800-0900	55	3	3	0	1	62	67
0815-0915	63	2	3	0	2	70	74
0830-0930	66	3	2	0	1	72	76
0845-0945	62	1	2	0	1	66	69
0900-1000	55	1	1	0	1	58	59

TOTAL FLOW INTO SURVEY SITE= 222 230

A127 OFFSLIP (EASTBOUND) — ACROSS INTO A127 ONSLIP (EASTBOUND)

movement 33 (0700 - 1000)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0715	1	0	0	0	0	1	1
0715-0730	1	0	0	0	0	1	1
0730-0745	0	0	0	0	0	0	0
0745-0800	1	0	0	0	0	1	1
0800-0815	0	0	0	0	0	0	0
0815-0830	0	0	0	0	0	0	0
0830-0845	0	0	0	0	0	0	0
0845-0900	0	0	0	0	0	0	0
0900-0915	0	0	0	0	0	0	0
0915-0930	0	0	0	0	0	0	0
0930-0945	0	0	0	0	0	0	0
0945-1000	0	0	0	0	0	0	0
0700-1000	**3**	**0**	**0**	**0**	**0**	**3**	**3**
0700-0800	3	0	0	0	0	3	3
0715-0815	2	0	0	0	0	2	2
0730-0830	1	0	0	0	0	1	1
0745-0845	1	0	0	0	0	1	1
0800-0900	0	0	0	0	0	0	0
0815-0915	0	0	0	0	0	0	0
0830-0930	0	0	0	0	0	0	0
0845-0945	0	0	0	0	0	0	0
0900-1000	0	0	0	0	0	0	0

TOTAL FLOW INTO SURVEY SITE= 3 3

A127 OFFSLIP (EASTBOUND) — LEFT INTO M25 ONSLIP (NORTHBOUND)

movement 31 (1600 - 1900)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1615	29	0	0	0	0	29	29
1615-1630	33	2	0	0	0	35	36
1630-1645	34	1	0	0	0	35	36
1645-1700	40	0	0	0	0	40	40
1700-1715	35	0	0	0	0	35	35
1715-1730	35	0	0	0	0	35	35
1730-1745	38	0	0	0	0	38	38
1745-1800	25	1	0	0	0	26	27
1800-1815	35	2	0	0	0	37	38
1815-1830	13	1	0	0	0	14	15
1830-1845	19	0	0	0	0	19	19
1845-1900	13	1	0	0	0	14	15
1600-1900	**349**	**8**	**0**	**0**	**0**	**357**	**363**
1600-1700	136	3	0	0	0	139	141
1615-1715	142	3	0	0	0	145	147
1630-1730	144	1	0	0	0	145	146
1645-1745	148	0	0	0	0	148	148
1700-1800	133	1	0	0	0	134	135
1715-1815	133	3	0	0	0	136	138
1730-1830	111	4	0	0	0	115	118
1745-1845	92	4	0	0	0	96	99
1800-1900	80	4	0	0	0	84	87

TOTAL FLOW INTO SURVEY SITE= 357 363

A127 OFFSLIP (EASTBOUND) — ACROSS INTO CODHAM HALL

movement 32 (1600 - 1900)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1615	9	0	0	0	0	9	9
1615-1630	6	0	0	0	0	6	6
1630-1645	6	0	0	0	0	6	6
1645-1700	10	0	0	0	0	10	10
1700-1715	8	0	0	0	0	8	8
1715-1730	4	0	0	0	0	4	4
1730-1745	8	0	0	0	0	8	8
1745-1800	8	0	0	0	0	8	8
1800-1815	5	0	0	0	0	5	5
1815-1830	3	0	0	0	0	3	3
1830-1845	7	0	0	0	0	7	7
1845-1900	6	0	0	0	0	6	6
1600-1900	**80**	**0**	**0**	**0**	**0**	**80**	**80**
1600-1700	31	0	0	0	0	31	31
1615-1715	30	0	0	0	0	30	30
1630-1730	28	0	0	0	0	28	28
1645-1745	30	0	0	0	0	30	30
1700-1800	28	0	0	0	0	28	28
1715-1815	25	0	0	0	0	25	25
1730-1830	24	0	0	0	0	24	24
1745-1845	23	0	0	0	0	23	23
1800-1900	21	0	0	0	0	21	21

TOTAL FLOW INTO SURVEY SITE= 80 80

A127 OFFSLIP (EASTBOUND) — ACROSS INTO A127 ONSLIP (EASTBOUND)

movement 33 (1600 - 1900)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1615	0	1	0	0	0	1	2
1615-1630	0	0	0	0	0	0	0
1630-1645	0	0	0	0	0	0	0
1645-1700	1	0	0	1	0	2	3
1700-1715	0	1	0	1	0	2	4
1715-1730	1	0	0	0	0	1	1
1730-1745	0	0	0	0	0	0	0
1745-1800	0	1	0	0	0	1	2
1800-1815	0	0	0	0	0	0	0
1815-1830	0	0	0	0	0	0	0
1830-1845	0	0	0	0	0	0	0
1845-1900	0	0	0	0	0	0	0
1600-1900	**2**	**3**	**0**	**2**	**0**	**7**	**11**
1600-1700	1	1	0	1	0	3	5
1615-1715	1	1	0	2	0	4	7
1630-1730	2	1	0	2	0	5	8
1645-1745	2	1	0	2	0	5	8
1700-1800	1	2	0	1	0	4	6
1715-1815	1	1	0	0	0	2	3
1730-1830	0	1	0	0	0	1	2
1745-1845	0	1	0	0	0	1	2
1800-1900	0	0	0	0	0	0	0

TOTAL FLOW INTO SURVEY SITE= 7 11

A127 OFFSLIP (EASTBOUND) — ACROSS INTO WORKS ACCESS / EGRESS

movement 34 (0700 - 1000)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0715	0	0	0	0	0	0	0
0715-0730	0	0	0	0	0	0	0
0730-0745	0	0	0	0	0	0	0
0745-0800	0	0	0	0	0	0	0
0800-0815	1	0	0	0	0	1	1
0815-0830	0	0	0	0	0	0	0
0830-0845	0	0	0	0	0	0	0
0845-0900	0	0	0	0	0	0	0
0900-0915	0	0	0	0	0	0	0
0915-0930	0	0	0	0	0	0	0
0930-0945	0	0	0	0	0	0	0
0945-1000	0	0	0	0	0	0	0
0700-1000	**1**	**0**	**0**	**0**	**0**	**1**	**1**
0700-0800	0	0	0	0	0	0	0
0715-0815	1	0	0	0	0	1	1
0730-0830	1	0	0	0	0	1	1
0745-0845	1	0	0	0	0	1	1
0800-0900	1	0	0	0	0	1	1
0815-0915	0	0	0	0	0	0	0
0830-0930	0	0	0	0	0	0	0
0845-0945	0	0	0	0	0	0	0
0900-1000	0	0	0	0	0	0	0

TOTAL FLOW INTO SURVEY SITE= 1 1

A127 OFFSLIP (EASTBOUND) — RIGHT INTO M25 ONSLIP (SOUTHBOUND)

movement 35 (0700 - 1000)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0715	73	2	1	0	1	77	79
0715-0730	75	4	1	0	1	81	85
0730-0745	71	2	0	0	0	73	74
0745-0800	69	0	0	0	0	69	69
0800-0815	68	5	0	0	1	74	77
0815-0830	75	2	0	0	0	77	78
0830-0845	62	5	2	0	1	70	76
0845-0900	53	3	4	0	0	60	67
0900-0915	47	4	2	0	2	55	59
0915-0930	64	6	2	2	1	75	83
0930-0945	70	3	4	0	1	78	85
0945-1000	57	4	5	1	0	67	77
0700-1000	**784**	**40**	**21**	**3**	**8**	**856**	**910**
0700-0800	288	8	2	0	2	300	307
0715-0815	283	11	1	0	2	297	305
0730-0830	283	9	0	0	1	293	299
0745-0845	274	12	2	0	2	290	300
0800-0900	258	15	6	0	2	281	298
0815-0915	237	14	8	0	3	262	280
0830-0930	226	18	10	2	4	260	285
0845-0945	234	16	12	2	4	268	294
0900-1000	238	17	13	3	4	275	304

TOTAL FLOW INTO SURVEY SITE= 856 910

A127 OFFSLIP (EASTBOUND) — U-TURN

movement 36 (0700 - 1000)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0715	0	0	0	0	0	0	0
0715-0730	1	0	0	0	0	1	1
0730-0745	0	0	0	0	0	0	0
0745-0800	1	0	0	0	0	1	1
0800-0815	0	0	0	0	0	0	0
0815-0830	2	0	0	0	0	2	2
0830-0845	0	0	0	0	0	0	0
0845-0900	1	0	0	0	0	1	1
0900-0915	1	0	0	0	0	1	1
0915-0930	3	0	0	0	0	3	3
0930-0945	0	0	0	0	0	0	0
0945-1000	0	1	0	0	0	1	2
0700-1000	**9**	**1**	**0**	**0**	**0**	**10**	**11**
0700-0800	2	0	0	0	0	2	2
0715-0815	2	0	0	0	0	2	2
0730-0830	3	0	0	0	0	3	3
0745-0845	3	0	0	0	0	3	3
0800-0900	3	0	0	0	0	3	3
0815-0915	4	0	0	0	0	4	4
0830-0930	5	0	0	0	0	5	5
0845-0945	5	0	0	0	0	5	5
0900-1000	4	1	0	0	0	5	6

TOTAL FLOW INTO SURVEY SITE= 10 11

A127 OFFSLIP (EASTBOUND) — ACROSS INTO WORKS ACCESS / EGRESS

movement 34 (1600 - 1900)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1615	0	0	0	0	0	0	0
1615-1630	0	0	0	0	0	0	0
1630-1645	0	0	0	0	0	0	0
1645-1700	0	0	0	0	0	0	0
1700-1715	0	0	0	0	0	0	0
1715-1730	0	0	0	0	0	0	0
1730-1745	0	0	0	0	0	0	0
1745-1800	0	0	0	0	0	0	0
1800-1815	0	0	0	0	0	0	0
1815-1830	0	0	0	0	0	0	0
1830-1845	0	0	0	0	0	0	0
1845-1900	0	0	0	0	0	0	0
1600-1900	**0**	**0**	**0**	**0**	**0**	**0**	**0**
1600-1700	0	0	0	0	0	0	0
1615-1715	0	0	0	0	0	0	0
1630-1730	0	0	0	0	0	0	0
1645-1745	0	0	0	0	0	0	0
1700-1800	0	0	0	0	0	0	0
1715-1815	0	0	0	0	0	0	0
1730-1830	0	0	0	0	0	0	0
1745-1845	0	0	0	0	0	0	0
1800-1900	0	0	0	0	0	0	0

TOTAL FLOW INTO SURVEY SITE= 0 0

A127 OFFSLIP (EASTBOUND) — RIGHT INTO M25 ONSLIP (SOUTHBOUND)

movement 35 (1600 - 1900)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1615	71	3	1	3	0	78	84
1615-1630	72	2	3	0	0	77	82
1630-1645	74	5	0	0	0	79	83
1645-1700	58	2	0	0	0	60	61
1700-1715	72	4	0	0	0	76	79
1715-1730	54	2	0	0	0	56	57
1730-1745	65	6	0	1	1	73	78
1745-1800	57	0	1	0	0	58	59
1800-1815	72	1	1	0	0	74	76
1815-1830	67	1	2	0	2	72	74
1830-1845	60	1	0	1	0	62	64
1845-1900	59	1	1	0	0	61	63
1600-1900	**781**	**28**	**9**	**5**	**3**	**826**	**861**
1600-1700	275	12	4	3	0	294	311
1615-1715	276	13	3	0	0	292	305
1630-1730	258	13	0	0	0	271	280
1645-1745	249	14	0	1	1	265	275
1700-1800	248	12	1	1	1	263	273
1715-1815	248	9	2	1	1	261	270
1730-1830	261	8	4	1	3	277	287
1745-1845	256	3	4	1	2	266	273
1800-1900	258	4	4	1	2	269	277

TOTAL FLOW INTO SURVEY SITE= 826 861

A127 OFFSLIP (EASTBOUND) — U-TURN

movement 36 (1600 - 1900)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1615	0	0	0	0	0	0	0
1615-1630	1	0	0	0	0	1	1
1630-1645	1	0	0	0	0	1	1
1645-1700	0	0	0	0	0	0	0
1700-1715	3	0	0	0	0	3	3
1715-1730	0	0	0	0	0	0	0
1730-1745	0	0	0	0	0	0	0
1745-1800	0	0	0	0	0	0	0
1800-1815	0	0	0	0	0	0	0
1815-1830	2	0	0	0	0	2	2
1830-1845	1	0	0	0	0	1	1
1845-1900	1	0	0	0	0	1	1
1600-1900	**9**	**0**	**0**	**0**	**0**	**9**	**9**
1600-1700	2	0	0	0	0	2	2
1615-1715	5	0	0	0	0	5	5
1630-1730	4	0	0	0	0	4	4
1645-1745	3	0	0	0	0	3	3
1700-1800	3	0	0	0	0	3	3
1715-1815	0	0	0	0	0	0	0
1730-1830	2	0	0	0	0	2	2
1745-1845	3	0	0	0	0	3	3
1800-1900	4	0	0	0	0	4	4

TOTAL FLOW INTO SURVEY SITE= 9 9

DATE : WEDNESDAY 18th SEPTEMBER 2013

CONDITIONS: DRY

LOCATION : M25, J29, ESSEX

Countsequential SURVEYS

TOTALS: ARMS 1 to 6

ARM 1 - M25 OFFSLIP (NORTH)
SOUTHBOUND
movements 1, 2, 3, 4, 5 & 6 (0700 - 1000)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0715	211	19	13	0	1	244	274
0715-0730	291	22	14	0	1	328	361
0730-0745	318	21	17	0	0	356	393
0745-0800	331	19	7	0	1	358	380
0800-0815	329	20	12	0	1	362	391
0815-0830	315	12	7	1	0	335	354
0830-0845	293	21	15	0	1	330	364
0845-0900	272	15	16	1	0	304	336
0900-0915	209	20	13	0	1	243	273
0915-0930	232	14	15	0	1	262	291
0930-0945	198	20	29	0	0	247	299
0945-1000	205	13	13	0	1	232	257
0700-1000	**3204**	**216**	**171**	**2**	**8**	3601	3972

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0800	1151	81	51	0	3	1286	1407
0715-0815	1269	82	50	0	3	1404	1525
0730-0830	1293	72	43	1	2	1411	1517
0745-0845	1268	72	41	1	3	1385	1488
0800-0900	1209	68	50	2	2	1331	1444
0815-0915	1089	68	51	2	2	1212	1327
0830-0930	1006	70	59	1	3	1139	1264
0845-0945	911	69	73	1	2	1056	1199
0900-1000	844	67	70	0	3	984	1120

TOTAL FLOW INTO SURVEY SITE= **3601** **3972**

ARM 2 - CODHAM HALL (NORTHEAST)
SOUTHWEST BOUND
movements 7, 8, 9, 10, 11 & 12 (0700 - 1000)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0715	4	3	2	1	0	10	16
0715-0730	5	4	4	1	0	14	23
0730-0745	2	5	2	1	0	10	17
0745-0800	5	5	2	0	0	12	18
0800-0815	1	2	2	1	0	6	11
0815-0830	5	2	2	0	0	9	13
0830-0845	5	0	2	0	0	7	10
0845-0900	3	4	0	0	0	7	10
0900-0915	6	2	1	0	0	9	12
0915-0930	4	2	0	0	1	7	8
0930-0945	3	1	3	1	1	9	14
0945-1000	1	5	0	0	0	6	10
0700-1000	**44**	**35**	**20**	**5**	**2**	106	160

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0800	16	17	10	3	0	46	74
0715-0815	13	16	10	3	0	42	69
0730-0830	13	14	8	2	0	37	59
0745-0845	16	9	8	1	0	34	52
0800-0900	14	8	6	1	0	29	43
0815-0915	19	8	5	0	0	32	44
0830-0930	18	8	3	0	1	30	39
0845-0945	16	9	4	1	2	32	43
0900-1000	14	10	4	1	2	31	43

TOTAL FLOW INTO SURVEY SITE= **106** **160**

ARM 3 - A127 OFFSLIP (EAST)
WESTBOUND
movements 13, 14, 15, 16, 17 & 18 (0700 - 1000)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0715	358	51	14	0	2	425	478
0715-0730	395	25	22	0	6	448	491
0730-0745	354	25	15	0	0	394	431
0745-0800	366	29	20	0	2	417	462
0800-0815	391	26	19	0	7	443	482
0815-0830	408	18	19	0	4	449	484
0830-0845	300	44	26	0	1	371	435
0845-0900	308	30	18	0	1	357	401
0900-0915	273	27	29	0	2	331	386
0915-0930	271	15	19	0	3	308	341
0930-0945	260	29	22	2	1	314	364
0945-1000	270	29	31	0	1	331	391
0700-1000	**3954**	**348**	**254**	**2**	**30**	4588	5146

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0800	1473	130	71	0	10	1684	1861
0715-0815	1506	105	76	0	15	1702	1865
0730-0830	1519	98	73	0	13	1703	1859
0745-0845	1465	117	84	0	14	1680	1863
0800-0900	1407	118	82	0	13	1620	1801
0815-0915	1289	119	92	0	8	1508	1706
0830-0930	1152	116	92	0	7	1367	1564
0845-0945	1112	101	88	2	7	1310	1493
0900-1000	1074	100	101	2	7	1284	1483

TOTAL FLOW INTO SURVEY SITE= **4588** **5146**

ARM 1 - M25 OFFSLIP (NORTH)
SOUTHBOUND
movements 1, 2, 3, 4, 5 & 6 (1600 - 1900)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1615	368	29	14	1	2	414	452
1615-1630	394	28	16	0	3	441	480
1630-1645	397	14	14	0	3	428	454
1645-1700	396	16	10	2	0	424	450
1700-1715	399	23	9	0	3	434	460
1715-1730	323	16	7	1	2	349	369
1730-1745	402	19	11	0	3	435	461
1745-1800	407	11	12	1	8	439	459
1800-1815	316	12	7	0	4	339	354
1815-1830	336	11	8	0	2	357	374
1830-1845	317	7	5	0	0	329	340
1845-1900	246	14	2	0	0	262	274
1600-1900	**4301**	**200**	**115**	**5**	**30**	4651	4928

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1700	1555	87	54	3	8	1707	1836
1615-1715	1586	81	49	2	9	1727	1844
1630-1730	1515	69	40	3	8	1635	1734
1645-1745	1520	74	37	3	8	1642	1740
1700-1800	1531	69	39	2	16	1657	1748
1715-1815	1448	58	37	2	17	1562	1643
1730-1830	1461	53	38	1	17	1570	1647
1745-1845	1376	41	32	1	14	1464	1527
1800-1900	1215	44	22	0	6	1287	1343

TOTAL FLOW INTO SURVEY SITE= **4651** **4928**

ARM 2 - CODHAM HALL (NORTHEAST)
SOUTHWEST BOUND
movements 7, 8, 9, 10, 11 & 12 (1600 - 1900)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1615	12	7	1	0	0	20	26
1615-1630	16	1	0	0	0	17	18
1630-1645	17	2	3	1	0	23	29
1645-1700	15	3	0	0	0	18	20
1700-1715	19	0	1	0	0	20	21
1715-1730	10	1	0	1	0	12	14
1730-1745	9	2	1	0	0	12	15
1745-1800	11	2	0	0	1	14	15
1800-1815	4	0	0	0	0	4	4
1815-1830	7	0	0	0	0	7	7
1830-1845	5	1	1	0	1	8	9
1845-1900	3	0	0	0	0	3	3
1600-1900	**128**	**19**	**7**	**2**	**2**	158	181

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1700	60	13	4	1	0	78	93
1615-1715	67	6	4	1	0	78	88
1630-1730	61	6	4	2	0	73	84
1645-1745	53	6	2	1	0	62	70
1700-1800	49	5	2	1	1	58	65
1715-1815	34	5	1	1	1	42	47
1730-1830	31	4	1	0	1	37	41
1745-1845	27	3	1	0	2	33	35
1800-1900	19	1	1	0	1	22	23

TOTAL FLOW INTO SURVEY SITE= **158** **181**

ARM 3 - A127 OFFSLIP (EAST)
WESTBOUND
movements 13, 14, 15, 16, 17 & 18 (1600 - 1900)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1615	344	12	13	1	1	371	397
1615-1630	331	11	13	0	1	356	380
1630-1645	355	8	9	1	0	373	391
1645-1700	335	12	12	0	1	360	383
1700-1715	322	12	14	0	4	352	376
1715-1730	367	9	15	1	2	394	420
1730-1745	401	9	17	1	1	429	458
1745-1800	330	8	10	0	2	350	367
1800-1815	281	9	12	1	1	304	326
1815-1830	254	5	13	1	2	275	295
1830-1845	214	3	6	0	1	224	233
1845-1900	194	2	12	0	0	208	225
1600-1900	**3728**	**100**	**146**	**6**	**16**	3996	4252

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1700	1365	43	47	2	3	1460	1551
1615-1715	1343	43	48	1	6	1441	1531
1630-1730	1379	41	50	2	7	1479	1571
1645-1745	1425	42	58	2	8	1535	1637
1700-1800	1420	38	56	2	9	1525	1621
1715-1815	1379	35	54	3	6	1477	1571
1730-1830	1266	31	52	3	6	1358	1447
1745-1845	1079	25	41	2	6	1153	1222
1800-1900	943	19	43	2	4	1011	1080

TOTAL FLOW INTO SURVEY SITE= **3996** **4252**

ARM 4 - WORKS ACCESS / EGRESS (SOUTH)
NORTHBOUND
movements 19, 20, 21, 22, 23 & 24 (0700 - 1000)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0715	2	3	6	0	0	11	21
0715-0730	1	4	7	0	0	12	24
0730-0745	3	7	3	0	0	13	22
0745-0800	2	7	3	0	0	12	21
0800-0815	3	1	2	0	0	6	9
0815-0830	2	1	1	0	0	4	6
0830-0845	0	0	0	0	0	0	0
0845-0900	1	0	0	0	0	1	1
0900-0915	2	0	0	0	0	2	2
0915-0930	3	0	1	0	0	4	5
0930-0945	4	1	3	0	0	8	13
0945-1000	1	0	1	0	0	2	3
0700-1000	**24**	**24**	**27**	**0**	**0**	75	127

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0800	8	21	19	0	0	48	87
0715-0815	9	19	15	0	0	43	76
0730-0830	10	16	9	0	0	35	58
0745-0845	7	9	6	0	0	22	36
0800-0900	6	2	3	0	0	11	16
0815-0915	5	1	1	0	0	7	9
0830-0930	6	0	1	0	0	7	8
0845-0945	10	1	4	0	0	15	21
0900-1000	10	1	5	0	0	16	23

TOTAL FLOW INTO SURVEY SITE= **75** **127**

ARM 5 - M25 OFFSLIP (SOUTH)
NORTHBOUND
movements 25, 26, 27, 28, 29 & 30 (0700 - 1000)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0715	177	7	14	0	1	199	222
0715-0730	240	14	14	0	1	269	296
0730-0745	260	20	9	0	2	291	316
0745-0800	245	14	9	0	3	271	291
0800-0815	232	17	13	0	2	264	292
0815-0830	225	6	12	1	3	247	266
0830-0845	184	10	14	0	0	208	233
0845-0900	196	8	11	0	2	217	236
0900-0915	146	15	9	1	0	171	194
0915-0930	130	6	15	1	0	152	177
0930-0945	144	13	5	0	1	163	178
0945-1000	131	16	10	0	1	158	182
0700-1000	**2310**	**146**	**135**	**3**	**16**	2610	2881

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0800	922	55	46	0	7	1030	1124
0715-0815	977	65	45	0	8	1095	1194
0730-0830	962	57	43	1	10	1073	1164
0745-0845	886	47	48	1	8	990	1082
0800-0900	837	41	50	1	7	936	1027
0815-0915	751	39	46	2	5	843	929
0830-0930	656	39	49	2	2	748	840
0845-0945	616	42	40	2	3	703	785
0900-1000	551	50	39	2	2	644	731

TOTAL FLOW INTO SURVEY SITE= **2610** **2881**

ARM 6 - A127 OFFSLIP (WEST)
EASTBOUND
movements 31, 32, 33, 34, 35 & 36 (0700 - 1000)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0715	142	3	1	0	1	147	150
0715-0730	167	7	1	0	1	176	182
0730-0745	140	4	1	0	1	146	150
0745-0800	129	2	0	0	1	132	133
0800-0815	124	6	1	0	1	132	137
0815-0830	125	3	2	0	1	131	135
0830-0845	105	8	3	0	1	117	126
0845-0900	98	3	5	0	0	106	115
0900-0915	96	6	3	0	3	108	114
0915-0930	106	9	3	4	1	123	137
0930-0945	101	4	5	0	1	111	120
0945-1000	92	6	5	1	1	105	116
0700-1000	**1425**	**61**	**30**	**5**	**13**	1534	1613

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0800	578	16	3	0	4	601	614
0715-0815	560	19	3	0	4	586	601
0730-0830	518	15	4	0	4	541	554
0745-0845	483	19	6	0	4	512	531
0800-0900	452	20	11	0	3	486	513
0815-0915	424	20	13	0	5	462	490
0830-0930	405	26	14	4	5	454	491
0845-0945	401	22	16	4	5	448	485
0900-1000	395	25	16	5	6	447	487

TOTAL FLOW INTO SURVEY SITE= **1534** **1613**

ARM 4 - WORKS ACCESS / EGRESS (SOUTH)
NORTHBOUND
movements 19, 20, 21, 22, 23 & 24 (1600 - 1900)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1615	13	5	0	0	1	19	22
1615-1630	9	0	1	0	0	10	11
1630-1645	2	1	0	0	0	3	4
1645-1700	3	1	0	0	0	4	5
1700-1715	5	0	0	0	0	5	5
1715-1730	8	0	0	0	1	9	8
1730-1745	12	0	0	0	0	12	12
1745-1800	0	0	0	0	0	0	0
1800-1815	1	0	0	0	0	1	1
1815-1830	2	0	0	0	0	2	2
1830-1845	3	0	0	0	0	3	3
1845-1900	0	1	0	0	0	1	2
1600-1900	**58**	**8**	**1**	**0**	**2**	69	75

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1700	27	7	1	0	1	36	42
1615-1715	19	2	1	0	0	22	25
1630-1730	18	2	0	0	1	21	22
1645-1745	28	1	0	0	1	30	30
1700-1800	25	0	0	0	1	26	25
1715-1815	21	0	0	0	1	22	21
1730-1830	15	0	0	0	0	15	15
1745-1845	6	0	0	0	0	6	6
1800-1900	6	1	0	0	0	7	8

TOTAL FLOW INTO SURVEY SITE= **69** **75**

ARM 5 - M25 OFFSLIP (SOUTH)
NORTHBOUND
movements 25, 26, 27, 28, 29 & 30 (1600 - 1900)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1615	265	14	5	1	1	286	303
1615-1630	280	14	12	0	3	309	333
1630-1645	216	14	7	0	5	242	258
1645-1700	221	13	8	1	2	245	264
1700-1715	237	18	6	0	1	262	282
1715-1730	297	7	5	0	2	311	321
1730-1745	261	13	3	0	2	279	291
1745-1800	302	7	5	0	3	317	327
1800-1815	276	6	9	0	1	292	307
1815-1830	278	10	3	0	5	296	304
1830-1845	216	3	1	0	5	225	225
1845-1900	204	5	0	1	7	217	217
1600-1900	**3053**	**124**	**64**	**3**	**37**	3281	3432

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1700	982	55	32	2	11	1082	1158
1615-1715	954	59	33	1	11	1058	1137
1630-1730	971	52	26	1	10	1060	1125
1645-1745	1016	51	22	1	7	1097	1158
1700-1800	1097	45	19	0	8	1169	1220
1715-1815	1136	33	22	0	8	1199	1246
1730-1830	1117	36	20	0	11	1184	1229
1745-1845	1072	26	18	0	14	1130	1163
1800-1900	974	24	13	1	18	1030	1054

TOTAL FLOW INTO SURVEY SITE= **3281** **3432**

ARM 6 - A127 OFFSLIP (WEST)
EASTBOUND
movements 31, 32, 33, 34, 35 & 36 (1600 - 1900)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1615	109	4	1	3	0	117	124
1615-1630	112	4	3	0	0	119	126
1630-1645	115	6	0	0	0	121	125
1645-1700	109	2	0	1	0	112	114
1700-1715	118	5	0	1	0	124	129
1715-1730	94	2	0	0	0	96	97
1730-1745	111	6	0	1	1	119	124
1745-1800	90	2	1	0	0	93	96
1800-1815	112	3	1	0	0	116	119
1815-1830	85	2	2	0	2	91	94
1830-1845	87	1	0	1	0	89	91
1845-1900	79	2	1	0	0	82	85
1600-1900	**1221**	**39**	**9**	**7**	**3**	1279	1323

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1700	445	16	4	4	0	469	489
1615-1715	454	17	3	2	0	476	494
1630-1730	436	15	0	2	0	453	466
1645-1745	432	15	0	3	1	451	464
1700-1800	413	15	1	2	1	432	445
1715-1815	407	13	2	1	1	424	436
1730-1830	398	13	4	1	3	419	433
1745-1845	374	8	4	1	2	389	400
1800-1900	363	8	4	1	2	378	389

TOTAL FLOW INTO SURVEY SITE= **1279** **1323**

DATE : WEDNESDAY 18th SEPTEMBER 2013

CONDITIONS: DRY

LOCATION : M25, J29, ESSEX

Countsequential SURVEYS

GRAND TOTAL

TOTAL MOVEMENTS
INTO SITE
movements 1 - 36 (0700 - 1000)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
0700-0715	894	86	50	1	5	**1036**	**1159**
0715-0730	1099	76	62	1	9	**1247**	**1376**
0730-0745	1077	82	47	1	3	**1210**	**1328**
0745-0800	1078	76	41	0	7	**1202**	**1304**
0800-0815	1080	72	49	1	11	**1213**	**1322**
0815-0830	1080	42	43	2	8	**1175**	**1258**
0830-0845	887	83	60	0	3	**1033**	**1167**
0845-0900	878	60	50	1	3	**992**	**1098**
0900-0915	732	70	55	1	6	**864**	**982**
0915-0930	746	46	53	5	6	**856**	**959**
0930-0945	710	68	67	3	4	**852**	**987**
0945-1000	700	69	60	1	4	**834**	**959**
0700-1000	**10961**	**830**	**637**	**17**	**69**	**12514**	**13899**

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs			
0700-0800	4148	320	200	3	24	**4695**	**5168**	563	5731	10.9%
0715-0815	4334	306	199	3	30	**4872**	**5330**	672	6002	12.6%
0730-0830	4315	272	180	4	29	**4800**	**5211**	781	5992	15.0%
0745-0845	4125	273	193	3	29	**4623**	**5051**	842	5893	16.7%
0800-0900	3925	257	202	4	25	**4413**	**4845**	904	5748	18.7%
0815-0915	3577	255	208	4	20	**4064**	**4505**	878	5383	19.5%
0830-0930	3243	259	218	7	18	**3745**	**4206**	853	5059	20.3%
0845-0945	3066	244	225	10	19	**3564**	**4026**	744	4770	18.5%
0900-1000	2888	253	235	10	20	**3406**	**3887**			

TOTAL FLOW INTO SURVEY SITE= **12514** **13899** 6002

TOTAL MOVEMENTS
INTO SITE
movements 1 - 36 (1600 - 1900)

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs
1600-1615	1111	71	34	6	5	**1227**	**1324**
1615-1630	1142	58	45	0	7	**1252**	**1347**
1630-1645	1102	45	33	2	8	**1190**	**1262**
1645-1700	1079	47	30	4	3	**1163**	**1237**
1700-1715	1100	58	30	1	8	**1197**	**1273**
1715-1730	1099	35	27	3	7	**1171**	**1229**
1730-1745	1196	49	32	2	7	**1286**	**1360**
1745-1800	1140	30	28	1	14	**1213**	**1263**
1800-1815	990	30	29	1	6	**1056**	**1112**
1815-1830	962	28	26	1	11	**1028**	**1076**
1830-1845	842	15	13	1	7	**878**	**902**
1845-1900	726	24	15	1	7	**773**	**806**
1600-1900	**12489**	**490**	**342**	**23**	**90**	**13434**	**14191**

	CA / LGV	OGV1	OGV2	PSV	MBIKE	TOT	PCUs			
1600-1700	4434	221	142	12	23	**4832**	**5170**	692	5861	13.4%
1615-1715	4423	208	138	7	26	**4802**	**5118**	736	5855	14.4%
1630-1730	4380	185	120	10	26	**4721**	**5001**	781	5782	15.6%
1645-1745	4474	189	119	10	25	**4817**	**5099**	750	5849	14.7%
1700-1800	4535	172	117	7	36	**4867**	**5125**	720	5845	14.0%
1715-1815	4425	144	116	7	34	**4726**	**4964**	616	5581	12.4%
1730-1830	4288	137	115	5	38	**4583**	**4811**	513	5324	10.7%
1745-1845	3934	103	96	4	38	**4175**	**4353**	414	4767	9.5%
1800-1900	3520	97	83	4	31	**3735**	**3896**			

TOTAL FLOW INTO SURVEY SITE= **13434** **14191** 5861

Countsequential
SURVEYS

QUEUE LENGTH SURVEY RESULTS

M25 JUNCTION 29, ESSEX

TUESDAY 18th SEPTEMBER 2013

DATE : WEDNESDAY 18th SEPTEMBER 2013

CONDITIONS: DRY

M25 J29, ESSEX

	ARM 1 - M25 OFFSLIP (N) SOUTHBOUND			M25 OFFSLIP (N) INTER JUNCTION EASTBOUND			ARM 2 - CODHAM STHWEST BOUND	ARM 3 - A127 OFF (E) WESTBOUND		A127 OFFLIP (E) INTER JUNCTION SOUTHBOUND			ARM 4 - WORKS NORTHBOUND	ARM 5 - M25 OFFSLIP (S) NORTHBOUND			ARM 6 - A127 OFF (W) EASTBOUND	
	LANE 1	LANE 2	LANE 3	LANE 1	LANE 2	LANE 3	LANE 1	LANE 1	LANE 2	LANE 1	LANE 2	LANE 3	LANE 1	LANE 1	LANE 2	LANE 3	LANE 1	LANE 2
07:00	2	1	0	0	0	0	0	15	25+	0	3	0	0	0	0	0	0	0
07:05	12	6	1	1	1	0	0	25+	25+	0	1	3	2	0	0	3	4	3
07:10	1	0	0	2	5	5	1	25+	25+	0	4	5	0	1	1	1	2	1
07:15	10	2	0	5	6	2	0	25+	25+	0	5	0	0	0	0	0	2	6
07:20	3	3	0	10+	10+	10+	2	25+	25+	0	2	0	0	1	1	4	7	10
07:25	10	6	0	6	9	4	0	18	25+	0	4	1	2	1	2	4	1	9
07:30	0	1	0	4	6	3	2	8	24	1	7	1	0	1	2	2	1	2
07:35	11	12	0	4	6	4	0	8	14	1	3	2	0	0	0	7	1	1
07:40	12	12	1	6	10+	3	0	6	17	0	4	3	3	1	2	8	4	7
07:45	8	5	0	2	4	4	0	2	11	0	4	1	0	0	0	0	1	3
07:50	10	10	2	3	10+	1	0	3	16	0	7	3	2	0	0	1	3	1
07:55	1	1	1	7	9	2	1	13	25+	1	6	0	1	2	2	10	5	6
08:00	7	4	1	4	2	1	1	8	21	0	6	0	0	1	0	2	2	3
08:05	10	10	2	8	10+	4	0	4	8	4	5	2	1	2	3	10	1	1
08:10	6	1	2	4	6	3	0	12	25+	0	3	1	0	1	1	5	0	2
08:15	5	2	1	7	10+	3	0	9	20	3	7	1	0	0	0	2	0	5
08:20	1	1	0	7	10+	10+	0	9	15	0	6	1	0	0	0	0	2	8
08:25	4	3	1	2	8	4	0	6	17	0	1	1	2	4	0	0	8	3
08:30	12	2	0	5	10+	10+	1	11	16	0	10	0	0	0	0	0	3	4
08:35	4	3	0	5	3	4	0	6	16	0	2	4	0	0	0	0	2	5
08:40	12	6	0	2	3	2	0	5	12	0	0	0	0	0	0	2	1	1
08:45	6	3	2	1	2	1	3	8	9	0	6	4	0	0	1	0	0	7
08:50	11	16	0	5	2	0	0	0	2	0	0	2	0	0	1	1	2	8
08:55	1	0	0	10+	5	2	0	2	2	0	2	0	0	0	0	1	0	0
09:00	5	2	0	3	4	2	1	3	10	0	5	1	0	0	0	1	0	0
09:05	10	3	1	1	5	1	0	2	8	0	2	2	0	0	0	0	1	1
09:10	10	2	0	3	6	0	1	4	4	0	3	1	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	3	2	0	2	0	0	0	0	1	2	4
09:20	2	2	4	6	1	0	0	1	3	1	5	1	0	0	0	0	1	1
09:25	5	0	1	5	3	1	0	3	3	0	0	0	0	1	0	3	1	5
09:30	8	2	0	8	2	2	0	3	6	1	0	1	1	0	2	3	0	1
09:35	3	4	2	3	4	1	0	3	12	0	9	1	0	1	0	0	0	0
09:40	4	2	0	4	3	3	1	4	6	0	2	2	0	0	1	1	0	1
09:45	8	1	2	2	2	4	0	3	6	0	4	3	0	0	0	1	2	3
09:50	7	0	0	1	3	1	0	4	2	0	4	0	0	0	1	2	0	0
09:55	7	1	2	1	4	2	0	5	6	0	2	2	0	0	0	0	1	1
10:00	6	3	2	1	1	7	0	2	3	0	1	0	0	0	0	0	1	4

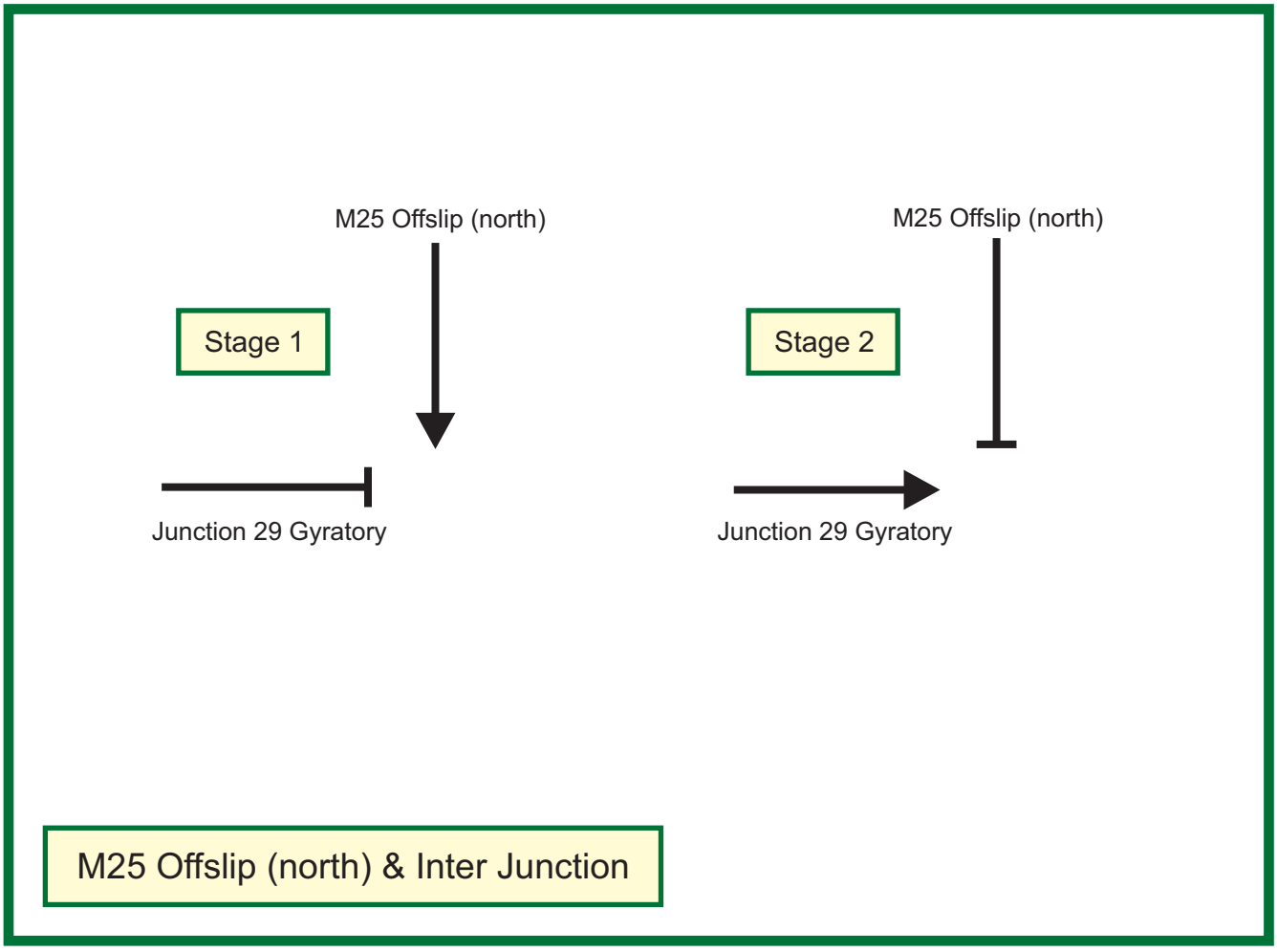
DATE : WEDNESDAY 18th SEPTEMBER 2013

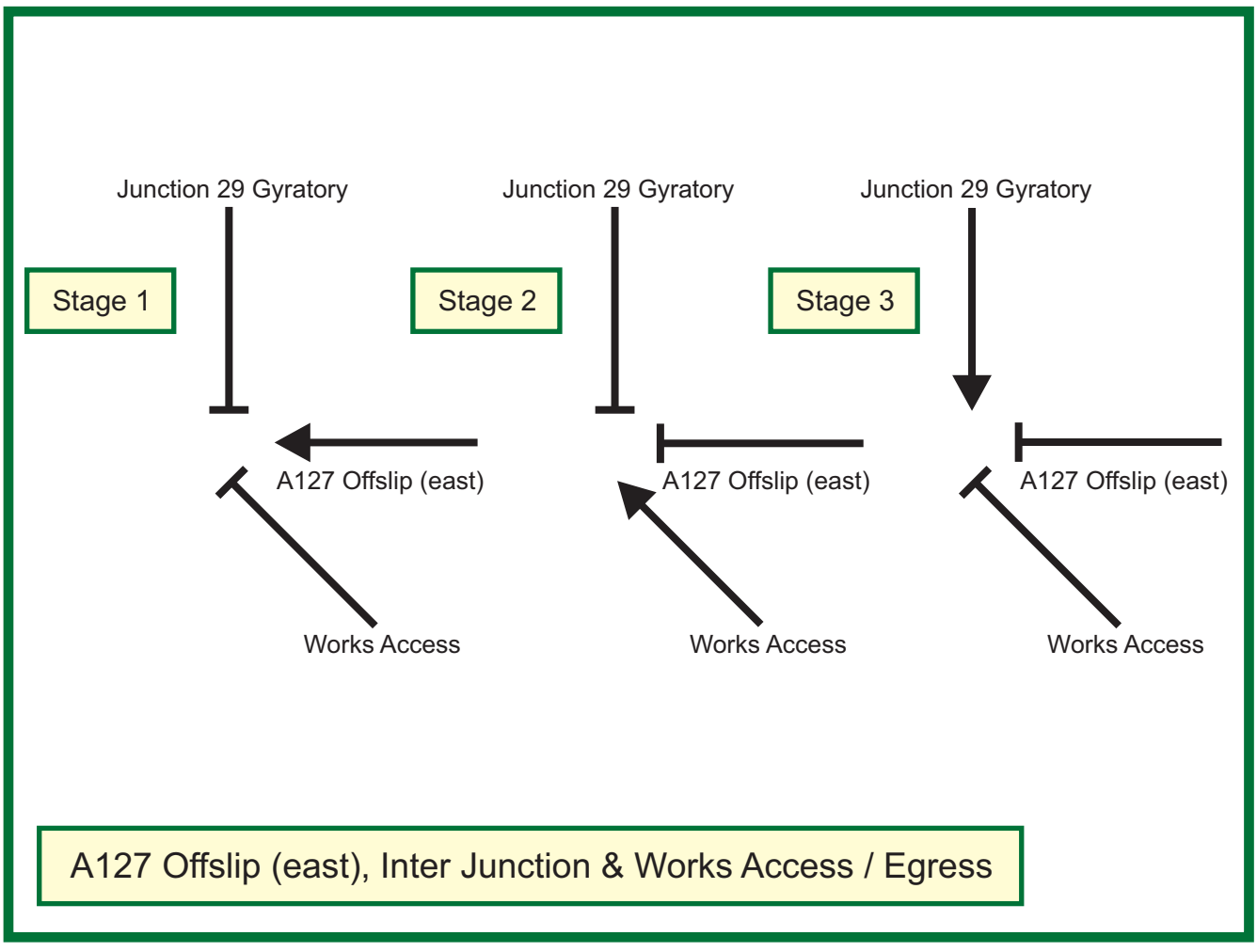
CONDITIONS: DRY

M25 J29, ESSEX

	ARM 1 - M25 OFFSLIP (N) SOUTHBOUND			M25 OFFSLIP (N) INTER JUNCTION EASTBOUND			ARM 2 - CODHAM STHWEST BOUND	ARM 3 - A127 OFF (E) WESTBOUND		A127 OFFLIP (E) INTER JUNCTION SOUTHBOUND			ARM 4 - WORKS NORTHBOUND	ARM 5 - M25 OFFSLIP (S) NORTHBOUND			ARM 6 - A127 OFF (W) EASTBOUND	
	LANE 1	LANE 2	LANE 3	LANE 1	LANE 2	LANE 3	LANE 1	LANE 1	LANE 2	LANE 1	LANE 2	LANE 3	LANE 1	LANE 1	LANE 2	LANE 3	LANE 1	LANE 2
16:00	11	6	0	10+	10+	10+	0	2	6	1	5	0	1	0	0	0	1	3
16:05	20	10	0	6	6	2	0	4	13	1	4	3	0	2	0	7	3	4
16:10	11	4	2	7	7	2	0	8	8	0	2	2	1	0	2	0	1	3
16:15	4	2	0	7	7	3	0	4	5	0	2	1	0	0	0	5	1	4
16:20	6	3	2	0	3	7	1	2	5	0	1	0	0	0	0	4	2	5
16:25	12	6	0	10+	10+	10+	0	2	12	0	0	0	2	0	0	8	0	1
16:30	2	2	2	3	10+	10+	2	3	9	0	4	4	1	2	0	0	0	0
16:35	4	2	3	3	3	5	1	3	13	0	11	1	0	0	0	0	3	2
16:40	5	5	1	5	10	2	0	7	15	1	4	3	0	2	1	1	4	7
16:45	5	3	3	5	5	6	0	3	8	1	2	2	0	2	3	5	0	0
16:50	11	7	0	3	6	3	0	4	11	0	1	1	0	3	0	0	0	3
16:55	8	3	0	2	3	2	0	3	4	0	1	1	0	0	0	0	0	0
17:00	9	0	0	1	3	4	1	6	10	0	3	4	2	0	0	4	0	2
17:05	9	3	0	6	10+	2	0	1	7	0	0	0	0	1	1	7	5	6
17:10	17	6	1	1	0	1	0	12	12	0	2	9	0	0	0	6	4	8
17:15	0	0	0	2	5	3	0	6	7	0	1	1	0	0	0	0	2	3
17:20	3	1	0	4	4	1	1	9	18	0	4	1	1	2	2	7	5	4
17:25	25+	25+	0	10+	10+	10+	0	3	13	0	8	4	0	0	0	2	0	0
17:30	25+	25+	0	10+	10+	10+	1	4	10	0	5	2	0	1	2	8	0	0
17:35	10	14	2	9	10+	4	2	5	8	0	7	3	2	0	0	0	0	6
17:40	6	3	1	2	7	4	0	6	8	0	4	2	0	4	1	0	3	5
17:45	3	4	0	4	2	2	0	3	2	0	1	1	0	0	2	6	0	2
17:50	25+	9	1	5	10+	1	0	6	5	0	4	5	0	6	2	8	2	1
17:55	9	11	1	0	0	0	0	1	2	1	2	2	0	0	0	1	0	4
18:00	8	6	2	6	6	0	0	2	1	0	2	3	0	0	0	3	0	0
18:05	9	8	0	10+	10+	5	0	1	1	1	3	3	0	3	0	3	2	5
18:10	6	4	0	10+	10+	6	2	1	2	0	1	0	0	0	0	2	0	2
18:15	4	3	0	2	1	1	1	5	4	0	0	2	0	2	0	2	4	7
18:20	6	5	0	4	5	2	0	2	3	0	1	1	0	0	0	2	0	0
18:25	7	6	2	1	4	1	0	2	2	0	2	0	0	0	0	0	0	0
18:30	1	2	0	5	7	5	0	4	2	0	5	2	0	1	0	2	2	4
18:35	6	2	1	2	6	5	0	0	2	0	1	1	0	1	0	1	3	2
18:40	4	11	0	4	4	2	0	1	8	0	4	1	0	0	0	0	0	1
18:45	3	3	2	2	2	4	0	6	5	0	2	0	0	0	0	1	3	5
18:50	5	1	1	1	0	1	0	2	2	0	0	1	0	0	0	0	1	1
18:55	8	2	2	4	6	1	0	1	2	0	1	1	0	0	0	0	0	0
19:00	8	1	2	3	2	1	0	0	0	0	0	0	0	0	0	1	2	3

M25 Junction 29 - Signal Surveys





Countsequential
SURVEYS

SIGNAL SURVEY RESULTS

M25 JUNCTION 29, ESSEX

TUESDAY 18th SEPTEMBER 2013

M25 / J29 SIGNALS SURVEYS

WEDNESDAY 18th SEPTEMBER 2013

M25 OFFSLIP (N) / INTER JUNCTION SIGNALS

TIME	STAGE 1	STAGE 2	CYCLE (S)
07:15	31	14	59
07:17	12	9	35
07:18	9	9	32
07:20	15	16	45
07:21	7	13	34
07:23	8	7	28
07:25	36	11	60
07:26	24	17	55
07:29	17	13	44
07:30	13	8	35
07:32	16	11	41
07:33	36	19	69
07:36	27	22	63
07:39	23	28	65
07:41	48	26	88
07:44	16	15	45
07:46	23	8	45
07:47	25	16	55
07:49	16	13	43
07:51	32	17	63
07:53	17	17	47
07:55	32	24	70
07:57	14	12	40
08:00	36	14	64
08:02	19	52	85
08:05	37	17	68
08:08	36	18	67
08:10	15	16	45
08:12	33	18	65
08:14	14	18	46

TIME	STAGE 1	STAGE 2	CYCLE (S)
16:01	47	17	78
16:03	17	13	44
16:05	65	22	101
16:07	36	13	63
16:09	27	16	57
16:11	13	13	40
16:13	35	17	66
16:15	33	21	68
16:17	42	19	75
16:20	16	21	51
16:23	38	25	77
16:26	38	20	72
16:29	51	17	82
16:31	17	8	39
16:32	59	24	97
16:35	19	19	52
16:36	14	9	37
16:39	56	16	86
16:41	23	13	50
16:43	27	18	59
16:46	102	17	132
16:48	18	16	48
16:49	22	14	50
16:51	115	16	145
16:54	32	16	62
16:56	58	28	100

M25 / J29 SIGNALS SURVEYS

WEDNESDAY 18th SEPTEMBER 2013

A127 OFFSLIP (E) / INTER JUNCTION SIGNALS

TIME	STAGE 1	STAGE 2	STAGE 3	CYCLE (S)
07:15	22	0	12	44
07:17	22	0	11	43
07:18	22	8	21	65
07:20	23	0	25	57
07:22	22	8	9	53
07:24	22	0	8	39
07:26	22	8	10	54
07:28	22	8	17	61
07:30	22	0	14	46
07:31	22	8	9	53
07:33	22	0	7	39
07:35	22	0	13	45
07:37	17	8	12	50
07:38	15	0	13	37
07:40	22	8	9	52
07:43	22	8	7	51
07:45	25	0	6	40
07:47	22	0	10	42
07:49	25	8	8	51
07:51	22	8	22	66
07:55	24	8	15	58
07:58	26	0	12	46
08:00	22	0	15	46
08:02	22	0	11	43
08:03	22	0	10	42
08:05	22	0	10	42
08:07	22	0	8	40
08:08	22	0	16	60
08:10	22	0	25	57
08:12	22	0	10	42

TIME	STAGE 1	STAGE 2	STAGE 3	CYCLE (S)
16:00	22	8	16	60
16:02	22	0	14	46
16:03	22	8	10	54
16:06	22	0	22	54
16:07	16	0	22	48
16:10	22	8	10	54
16:13	22	0	10	42
16:15	22	0	7	39
16:17	19	0	11	40
16:19	22	0	21	53
16:21	22	0	7	39
16:22	22	8	12	54
16:26	22	8	11	53
16:28	9	0	17	36
16:30	22	0	22	54
16:31	22	0	11	43
16:33	22	0	18	50
16:35	22	8	18	61
16:37	22	0	10	42
16:39	22	0	9	41
16:41	22	0	7	39
16:43	17	0	7	35
16:45	22	0	8	40
16:47	11	0	7	28
16:49	22	0	7	39
16:51	22	8	13	56
16:53	22	0	7	39
16:55	15	0	9	34
16:58	22	0	23	55

Appendix D

Traffic flow matrices

A127/M25 J29/Codham Hall gyratory

2013 observed weekday am peak hour

Flows in PCUs

From	To						
	A	**B**	**C**	**D**	**E**	**F**	**Total**
A	0	10	1314	4	6	190	**1524**
B	24	0	19	4	15	8	**70**
C	1368	20	11	5	455	6	**1865**
D	28	18	3	0	14	12	**75**
E	7	1	783	0	1	402	**1194**
F	199	92	2	1	305	2	**601**
	1626	**141**	**2132**	**14**	**796**	**620**	**5329**

A	M25 north
B	Codham Hall
C	A127 east
D	Works access
E	M25 south
F	A127 west

2013 observed weekday pm peak hour

Flows in PCUs

From	To						
	A	**B**	**C**	**D**	**E**	**F**	**Total**
A	1	15	1552	14	10	245	**1837**
B	30	0	30	3	23	8	**94**
C	1077	5	11	6	453	0	**1552**
D	9	1	8	0	4	19	**41**
E	5	4	727	2	2	418	**1158**
F	141	31	5	0	311	2	**490**
	1263	**56**	**2333**	**25**	**803**	**692**	**5172**

A	M25 north
B	Codham Hall
C	A127 east
D	Works access
E	M25 south
F	A127 west

A127/M25 J29/Codham Hall gyratory

Weekday am peak hour growth factors 2013>20XX

Flows in PCUs

From	To						
	A	**B**	**C**	**D**	**E**	**F**	**Total**
A	1.000	1.000	1.171	1.000	1.000	1.166	
B	1.000	1.000	1.000	1.000	1.000	1.000	
C	1.171	1.000	1.000	1.000	1.171	1.000	
D	1.000	1.000	1.000	1.000	1.000	1.000	
E	1.000	1.000	1.171	1.000	1.000	1.166	
F	1.166	1.000	1.000	1.000	1.166	1.000	

A	M25 north
B	Codham Hall
C	A127 east
D	Works access
E	M25 south
F	A127 west

Weekday pm peak hour growth factors 2013>20XX

Flows in PCUs

From	To						
	A	**B**	**C**	**D**	**E**	**F**	**Total**
A	1.000	1.000	1.175	1.000	1.000	1.166	
B	1.000	1.000	1.000	1.000	1.000	1.000	
C	1.175	1.000	1.000	1.000	1.175	1.000	
D	1.000	1.000	1.000	1.000	1.000	1.000	
E	1.000	1.000	1.175	1.000	1.000	1.166	
F	1.171	1.000	1.000	1.000	1.175	1.000	

A	M25 north
B	Codham Hall
C	A127 east
D	Works access
E	M25 south
F	A127 west

A127/M25 J29/Codham Hall gyratory

2030 predicted Background weekday am peak hour

Flows in PCUs

From	To						
	A	**B**	**C**	**D**	**E**	**F**	**Total**
A	0	10	1539	4	6	222	**1780**
B	24	0	19	4	15	8	**70**
C	1602	20	11	5	533	6	**2177**
D	28	18	3	0	14	12	**75**
E	7	1	917	0	1	469	**1395**
F	232	92	2	1	356	2	**685**
	1893	**141**	**2491**	**14**	**925**	**719**	**6182**

A	M25 north
B	Codham Hall
C	A127 east
D	Works access
E	M25 south
F	A127 west

2030 predicted Background weekday pm peak hour

Flows in PCUs

From	To						
	A	**B**	**C**	**D**	**E**	**F**	**Total**
A	1	15	1824	14	10	286	**2149**
B	30	0	30	3	23	8	**94**
C	1265	5	11	6	532	0	**1820**
D	9	1	8	0	4	19	**41**
E	5	4	854	2	2	488	**1355**
F	165	31	5	0	365	2	**569**
	1476	**56**	**2732**	**25**	**937**	**802**	**6027**

A	M25 north
B	Codham Hall
C	A127 east
D	Works access
E	M25 south
F	A127 west

A127/M25 J29/Codham Hall gyratory

2030 predicted Base Case weekday am peak hour

Flows in PCUs

From	To	A	B	C	D	E	F	Total
A		0	10	1539	4	6	222	**1780**
B		24	0	19	4	15	8	**70**
C		1602	20	11	5	533	6	**2177**
D		28	18	3	0	14	12	**75**
E		7	1	917	0	1	469	**1395**
F		232	92	2	1	356	2	**685**
		1893	**141**	**2491**	**14**	**925**	**719**	**6182**

A	M25 north
B	Codham Hall
C	A127 east
D	Works access
E	M25 south
F	A127 west

2030 predicted Base Case weekday pm peak hour

Flows in PCUs

From	To	A	B	C	D	E	F	Total
A		1	15	1824	14	10	286	**2149**
B		30	0	30	3	23	8	**94**
C		1265	5	11	6	532	0	**1820**
D		9	1	8	0	4	19	**41**
E		5	4	854	2	2	488	**1355**
F		165	31	5	0	365	2	**569**
		1476	**56**	**2732**	**25**	**937**	**802**	**6027**

A	M25 north
B	Codham Hall
C	A127 east
D	Works access
E	M25 south
F	A127 west

A127/M25 J29/Codham Hall gyratory

Predicted Development flows weekday am peak hour

Flows in PCUs

From	To	A	B	C	D	E	F	Total
A		0	0	0	211	0	0	**211**
B		0	0	0	0	0	0	**0**
C		0	0	0	208	0	0	**208**
D		64	0	64	0	18	65	**211**
E		0	0	0	60	0	0	**60**
F		0	0	0	213	0	0	**213**
		64	**0**	**64**	**692**	**18**	**65**	**904**

A	M25 north	22,380	sqm GFA	B1(a)
B	Codham Hall	13,895	sqm GFA	B1(a)/B1(b)B1(c)/B2
C	A127 east	18,459	sqm GFA	B1(c)/B2/B8
D	Development site	36,860	sqm GFA	B8
E	M25 south	**91,595**	**sqm GFA**	**Total employment**
F	A127 west	116	bedroom	hotel

Predicted Development flows weekday pm peak hour

Flows in PCUs

From	To	A	B	C	D	E	F	Total
A		0	0	0	60	0	0	**60**
B		0	0	0	0	0	0	**0**
C		0	0	0	60	0	0	**60**
D		178	0	176	0	51	180	**584**
E		0	0	0	17	0	0	**17**
F		0	0	0	61	0	0	**61**
		178	**0**	**176**	**198**	**51**	**180**	**783**

A	M25 north	22,380	sqm GFA	B1(a)
B	Codham Hall	13,895	sqm GFA	B1(a)/B1(b)B1(c)/B2
C	A127 east	18,459	sqm GFA	B1(c)/B2/B8
D	Development site	36,860	sqm GFA	B8
E	M25 south	**91,595**	**sqm GFA**	**Total employment**
F	A127 west	116	bedroom	hotel

A127/M25 J29/Codham Hall gyratory

2030 predicted Dev't Case weekday am peak hour

Flows in PCUs

From	To	A	B	C	D	E	F	Total
A		0	10	1539	211	6	222	**1987**
B		24	0	19	0	15	8	**66**
C		1602	20	11	208	533	6	**2380**
D		64	0	64	0	18	65	**211**
E		7	1	917	60	1	469	**1455**
F		232	92	2	213	356	2	**897**
		1929	**123**	**2551**	**692**	**929**	**772**	**6996**

A	M25 north	22,380	sqm GFA	B1(a)
B	Codham Hall	13,895	sqm GFA	B1(a)/B1(b)B1(c)/B2
C	A127 east	18,459	sqm GFA	B1(c)/B2/B8
D	Development site	36,860	sqm GFA	B8
E	M25 south	**91,595**	**sqm GFA**	**Total employment**
F	A127 west	116	bedroom	hotel

2030 predicted Dev't Case weekday pm peak hour

Flows in PCUs

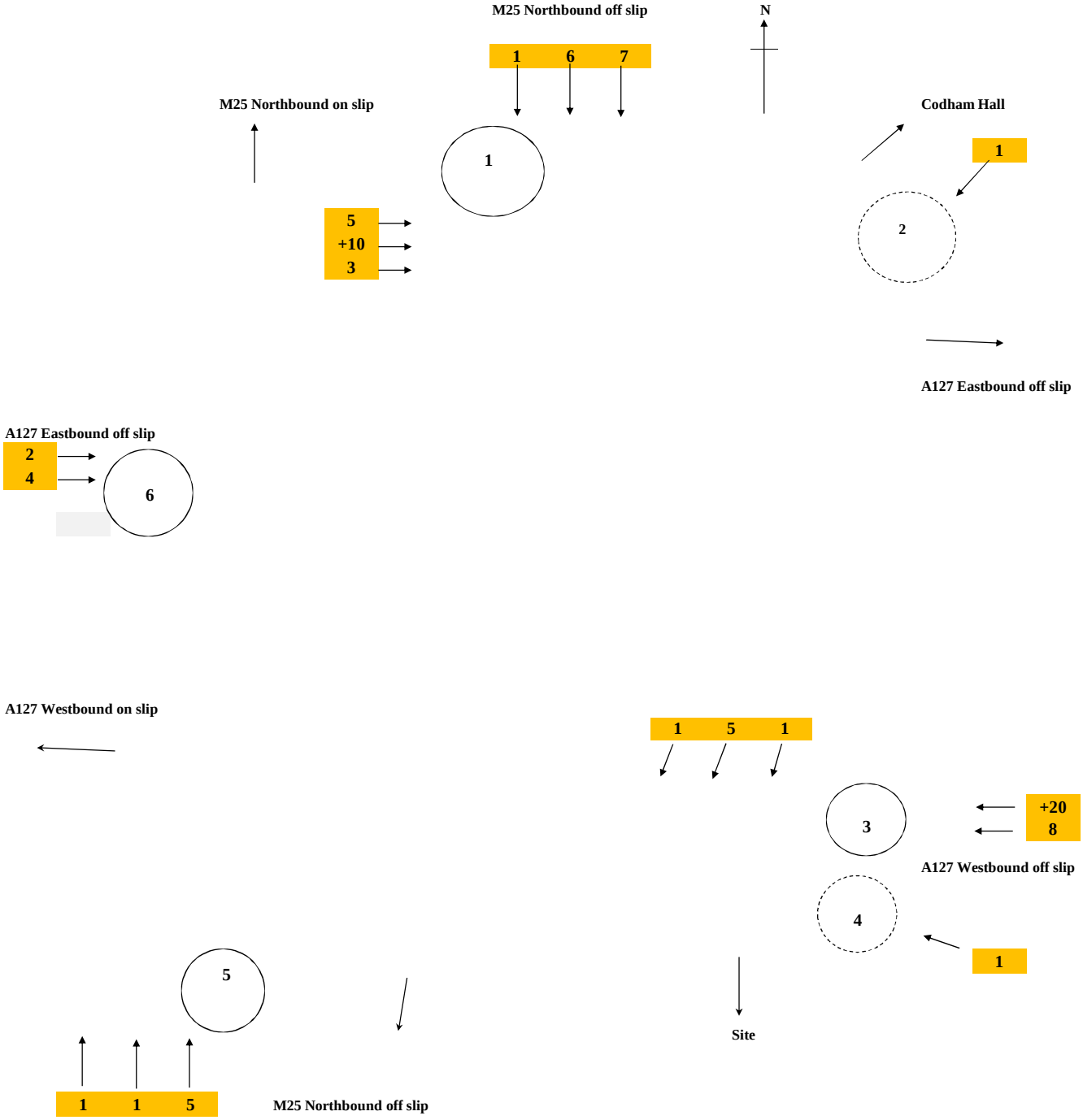
From	To	A	B	C	D	E	F	Total
A		1	15	1824	60	10	286	**2196**
B		30	0	30	0	23	8	**91**
C		1265	5	11	60	532	0	**1873**
D		178	0	176	0	51	180	**584**
E		5	4	854	17	2	488	**1370**
F		165	31	5	61	365	2	**630**
		1644	**55**	**2900**	**198**	**983**	**963**	**6744**

A	M25 north	22,380	sqm GFA	B1(a)
B	Codham Hall	13,895	sqm GFA	B1(a)/B1(b)B1(c)/B2
C	A127 east	18,459	sqm GFA	B1(c)/B2/B8
D	Development site	36,860	sqm GFA	B8
E	M25 south	**91,595**	**sqm GFA**	**Total employment**
F	A127 west	116	bedroom	hotel

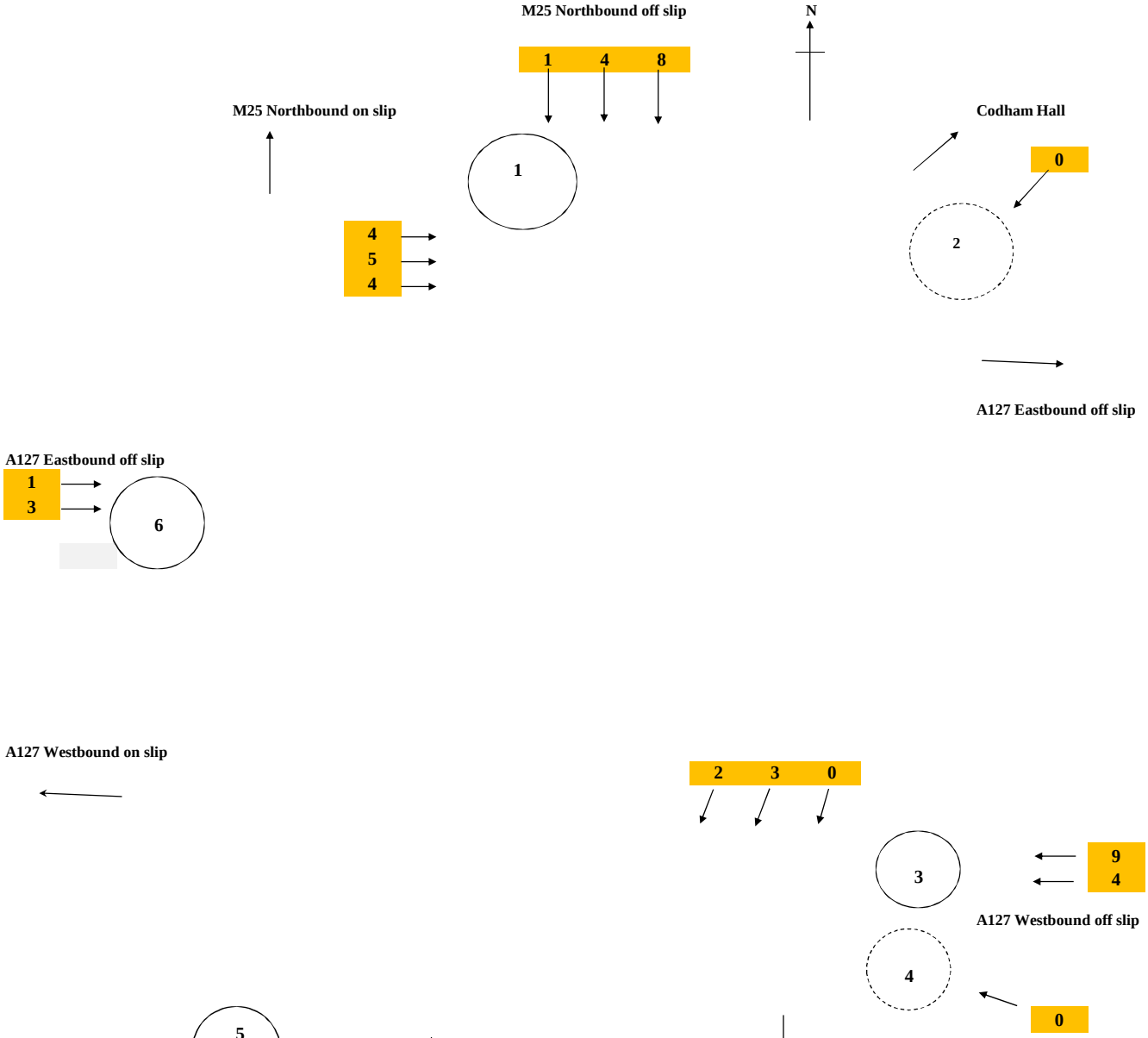
Appendix E

TRANSYT model input calculations

M25 J29
Traffic flows Wednesday 18 September 2013 AM peak
Average queues

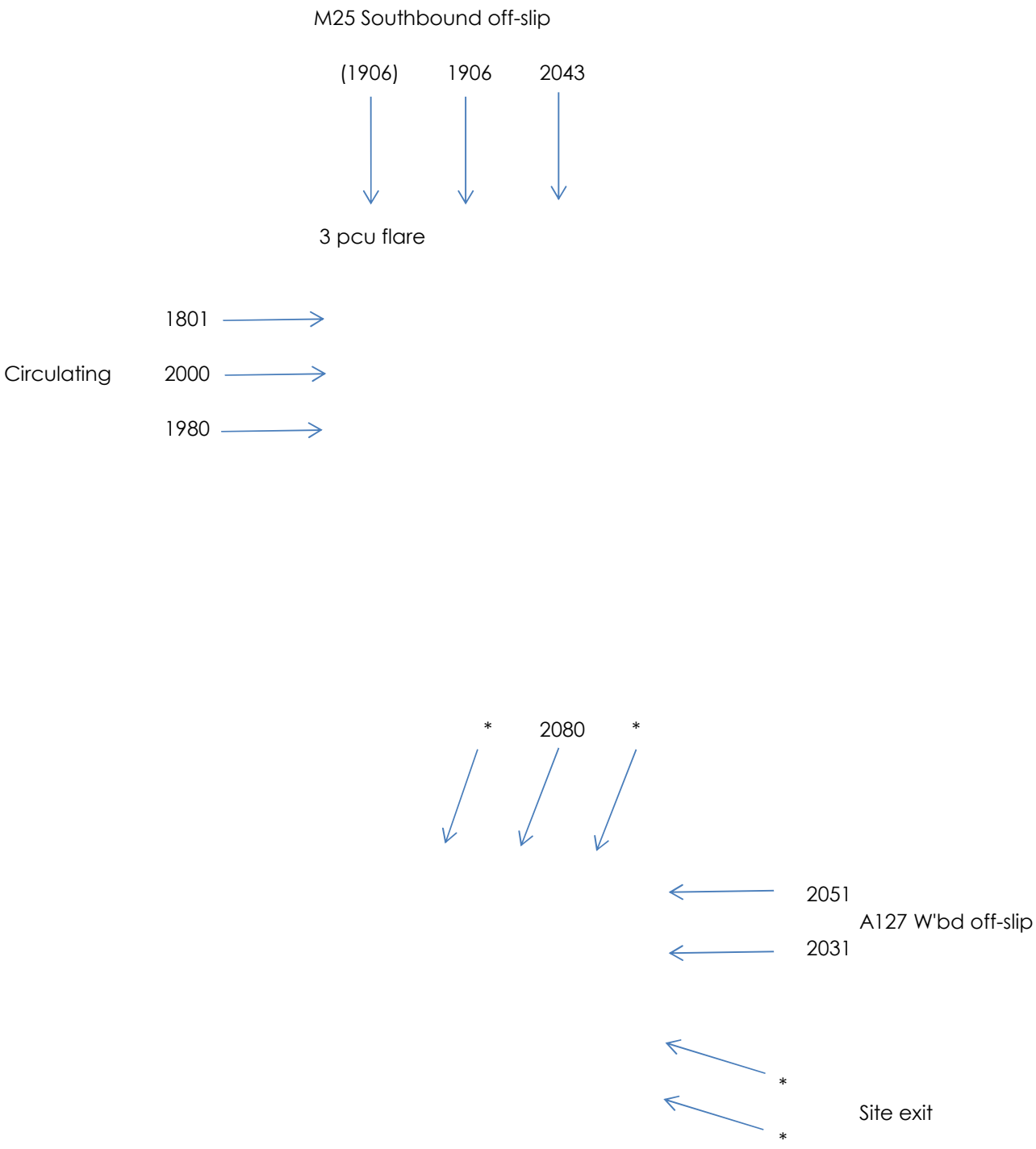


M25 J29
Traffic flows Wednesday 18 September 2013 PM peak
Average queues



M25 J29: Measured saturation flows, Wednesday 18 September 2013

7.30-9.30 am **pcu** * Insufficient flow to measure

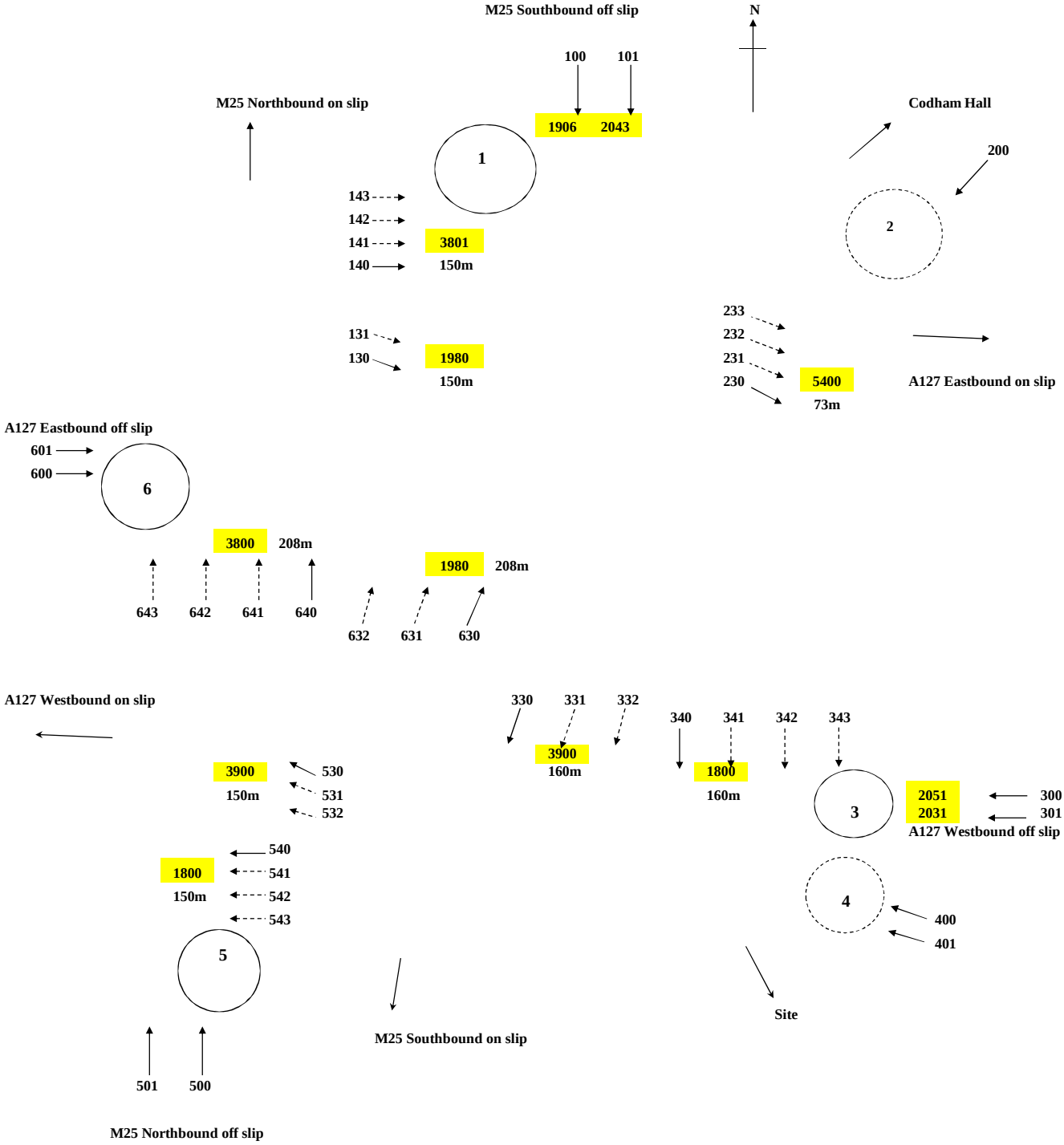


		M25 J29 traffic flows				ARCADY data							
2013	AM		Circulating		Total		Slope	Intercept		Capacity	PCR	Capacity	ARCADY
Entry	pcu/hr	pcu/min	pcu/hr	pcu/hr	pcu/hr	pcu/min		pcu/min	pcu/hr	pcu/min	pcu/hr	pcu/min	pcu/hr
D / 5	**1194**	19.90	**1472**	**216**	**1688**	28.13	0.844	45.029	**2702**	21.284	**1277**	21.29	**1277**
E / 6	**601**	10.02	**836**	**1427**	**2263**	37.72	0.675	39.474	**2368**	14.015	**841**	14.08	**845**
2013	PM		Circulating		Total		Slope	Intercept		Capacity		Capacity	ARCADY
Entry	pcu/hr	pcu/min	pcu/hr	pcu/hr	pcu/hr	pcu/min		pcu/min	pcu/hr	pcu/min	pcu/hr	pcu/min	pcu/hr
D / 5	**1158**	19.30	**1141**	**272**	**1413**	23.55	0.902	46.073	**2764**	24.831	**1490**	24.82	**1489**
E / 6	**490**	8.17	**758**	**1121**	**1879**	31.32	0.753	40.959	**2458**	17.378	**1043**	17.42	**1045**
2030	AM	Base	Circulating				Slope	Intercept		Capacity	PCR	Capacity	ARCADY
Entry	pcu/hr	pcu/min	pcu/hr	pcu/hr	pcu/hr	pcu/min		pcu/min	pcu/hr	pcu/min	pcu/hr	pcu/min	pcu/hr
D / 5	**1395**	23.25	**1706**	**248**	**1954**	32.57	0.785	43.985	**2639**	18.420	**1105**	18.40	**1104**
E / 6	**685**	11.42	**970**	**1661**	**2631**	43.85	0.599	38.036	**2282**	11.770	**706**	13.11	**787**
2030	PM	Base	Circulating				Slope	Intercept		Capacity	PCR	Capacity	ARCADY
Entry	pcu/hr	pcu/min	pcu/hr	pcu/hr	pcu/hr	pcu/min		pcu/min	pcu/hr	pcu/min	pcu/hr	pcu/min	pcu/hr
D / 5	**1355**	22.58	**1329**	**313**	**1642**	27.37	0.853	45.192	**2712**	21.848	**1311**	21.84	**1310**
E / 6	**569**	9.48	**885**	**1309**	**2194**	36.57	0.688	39.730	**2384**	14.572	**874**	14.76	**886**

M25 J29: TRANSYT NETWORK FOR GYRATORY

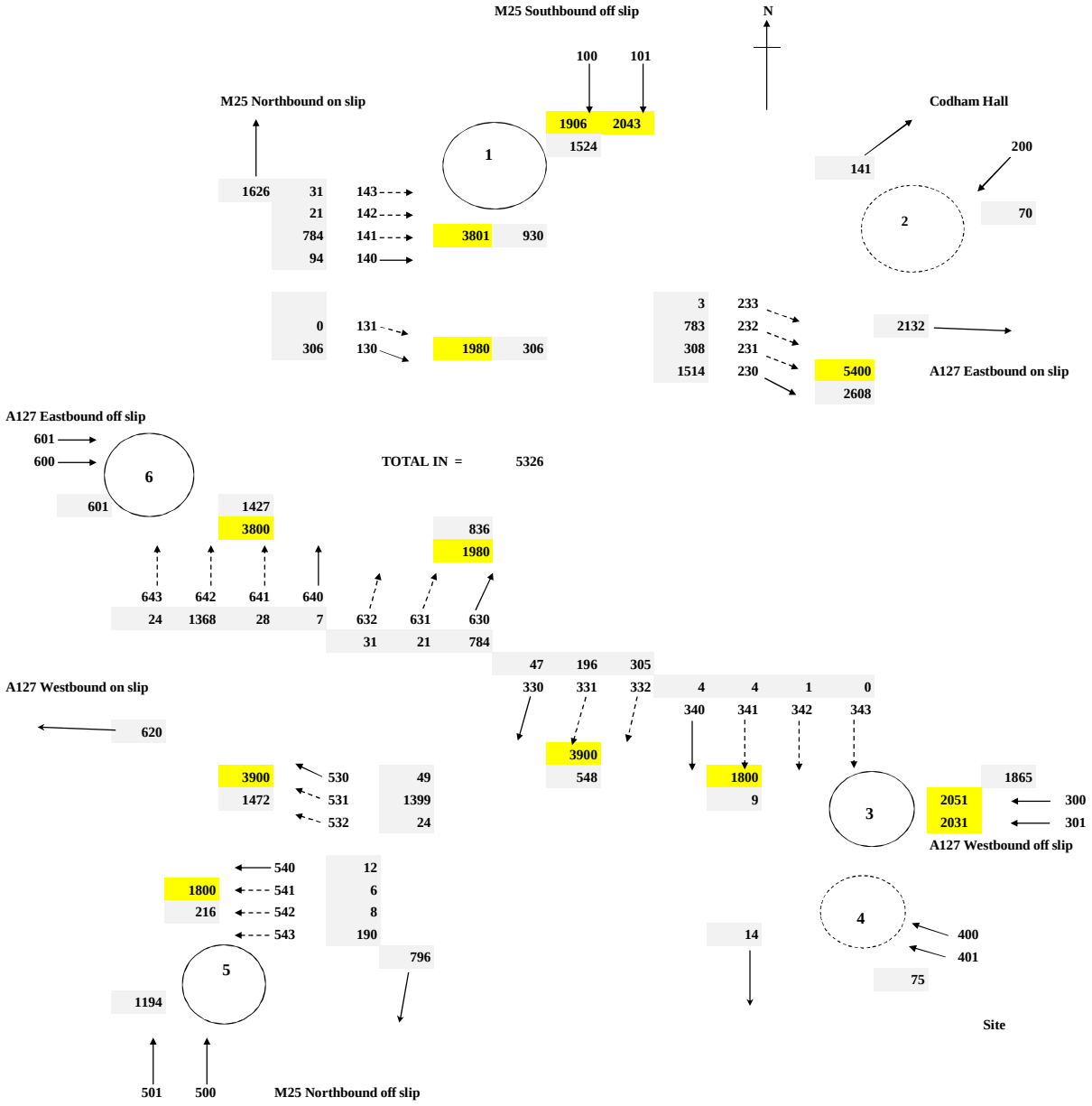
3801 saturation flow, pcu/hr

150m link length



M25 J29: TRANSYT NETWORK FOR GYRATORY

Traffic flows Wednesday 18 September 2013 AM peak All pcu



AM peak — M25 J29: TRANSYT NETWORK FOR GYRATORY — Traffic flows Wednesday 18 September 2013

	1		2		3		4		5		6			
1	-		10		1314	**230**	4	**230**	6	**230**	190	**230**	1524	**100**
							4	**341**	6	**331**	190	**331**		**101**
											190	**543**		
2	24	**330**	-		19		4	**340**	15	**330**	8	**330**	70	**200**
	24	**532**									8	**542**		
	24	**643**												
3	1368	**531**	31	**531**	-		5		455		6	**541**	1865	**300**
	1368	**642**	31	**632**										**301**
			31	**143**										
4	28	**530**	18	**530**	3	**530**	-		14		12	**540**	75	**400**
	28	**641**	18	**631**	3	**631**								**401**
			18	**142**	3	**142**								
					3	**233**								
5	7	**640**	1	**630**	783	**630**	0	**630**	-		402		1193	**500**
			1	**141**	783	**141**	0	**131**						**501**
					783	**232**	0	**232**						
							0	**343**						
6	199		92	**140**	2	**140**	1	**130**	305	**130**	-		599	**600**
					2	**231**	1	**231**	305	**231**				**601**
							1	**342**	305	**332**				
	1626		152		2121		14		795		618		5326	

5326

130	306		
131	0	306	
140	94		
141	784		
142	21		
143	31	930	1236
230	1514		
231	308		
232	783		
233	3	2608	2608
330	47		
331	196		
332	305	548	
340	4		
341	4		
342	1		
343	0	9	557
530	49		
531	1399		
532	24	1472	
540	12		
541	6		
542	8		
543	190	216	1688
630	784		
631	21		
632	31	836	
640	7		
641	28		
642	1368		
643	24	1427	2263

AM peak — Flows in PCUs

	From	A	B	C	D	E	F	
		1	2	3	4	5	6	Total
A	1	0	10	1314	4	6	190	1524
B	2	24	0	19	4	15	8	70
C	3	1368	20	11	5	455	6	1865
D	4	28	18	3	0	14	12	75
E	5	7	1	783	0	1	402	1194
F	6	199	92	2	1	305	2	601
		1626	141	2132	14	796	620	5329

5329

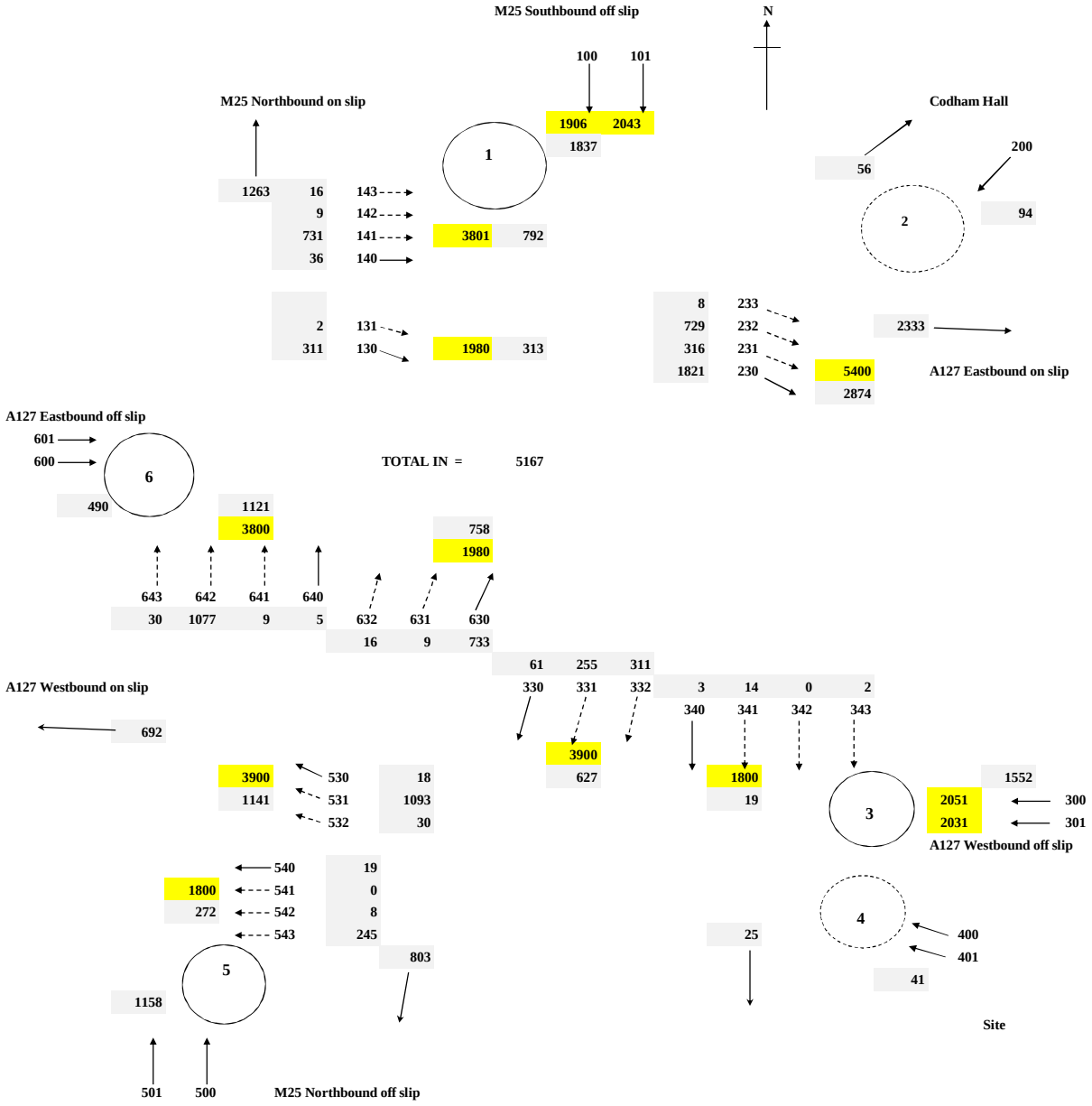
U-turners exit at J2

A M25 north
B Codham Hall
C A127 east
D Development site
E M25 south
F A127 west

J1:		J2:		J3,4:		J5:		J6:	
1524	141	70	2132	1865	14	1194	620	1427	1626
930		2608		75	796	216		836	930
306				9		1472		601	306
2760		2678	548	548					
141		2132	9	2497	810	2882		2864	2862
2619	2608	546	557	810		620			
				1687	216	2262	1427		
					1472		836		
					1688		2263		

M25 J29: TRANSYT NETWORK FOR GYRATORY

Traffic flows Wednesday 18 September 2013 PM peak All pcu



PM peak M25 J29: TRANSYT NETWORK FOR GYRATORY Traffic flows Wednesday 18 September 2013

	1		2		3		4		5		6			
1	-		15		1552	**230**	14	**230**	10	**230**	245	**230**	1836	**100**
							14	**341**	10	**331**	245	**331**		**101**
											245	**543**		
2	30	**330**	-		30		3	**340**	23	**330**	8	**330**	94	**200**
	30	**532**									8	**542**		
	30	**643**												
3	1077	**531**	16	**531**	-		6		453		0	**541**	1552	**300**
	1077	**642**	16	**632**										**301**
			16	**143**										
4	9	**530**	1	**530**	8	**530**	-		4		19	**540**	41	**400**
	9	**641**	1	**631**	8	**631**								**401**
			1	**142**	8	**142**								
					8	**233**								
5	5	**640**	4	**630**	727	**630**	2	**630**	-		418		1156	**500**
			4	**141**	727	**141**	2	**131**						**501**
					727	**232**	2	**232**						
							2	**343**						
6	141		31	**140**	5	**140**	0	**130**	311	**130**	-		488	**600**
					5	**231**	0	**231**	311	**231**				**601**
							0	**342**	311	**332**				
	1262		67		2322		25		801		690		5167	

5167

	130	311		
	131	2	313	
	140	36		
	141	731		
	142	9		
	143	16	792	1105
	230	1821		
	231	316		
	232	729		
	233	8	2874	2874
	330	61		
	331	255		
	332	311	627	
	340	3		
	341	14		
	342	0		
	343	2	19	646
	530	18		
	531	1093		
	532	30	1141	
	540	19		
	541	0		
	542	8		
	543	245	272	1413
	630	733		
	631	9		
	632	16	758	
	640	5		
	641	9		
	642	1077		
	643	30	1121	1879

PM peak Flows in PCUs

From		A	B	C	D	E	F	
		1	2	3	4	5	6	Total
A	1	1	15	1552	14	10	245	1837
B	2	30	0	30	3	23	8	94
C	3	1077	5	11	6	453	0	1552
D	4	9	1	8	0	4	19	41
E	5	5	4	727	2	2	418	1158
F	6	141	31	5	0	311	2	490
		1263	56	2333	25	803	692	5172
							5172	

U-turners exit at J2

A M25 north
B Codham Hall
C A127 east
D Development site
E M25 south
F A127 west

J1:

1837	56
792	
313	
2942	
56	
2886	2874

J2:

94	2333
2874	
2968	627
2333	19
635	646

J3,4:

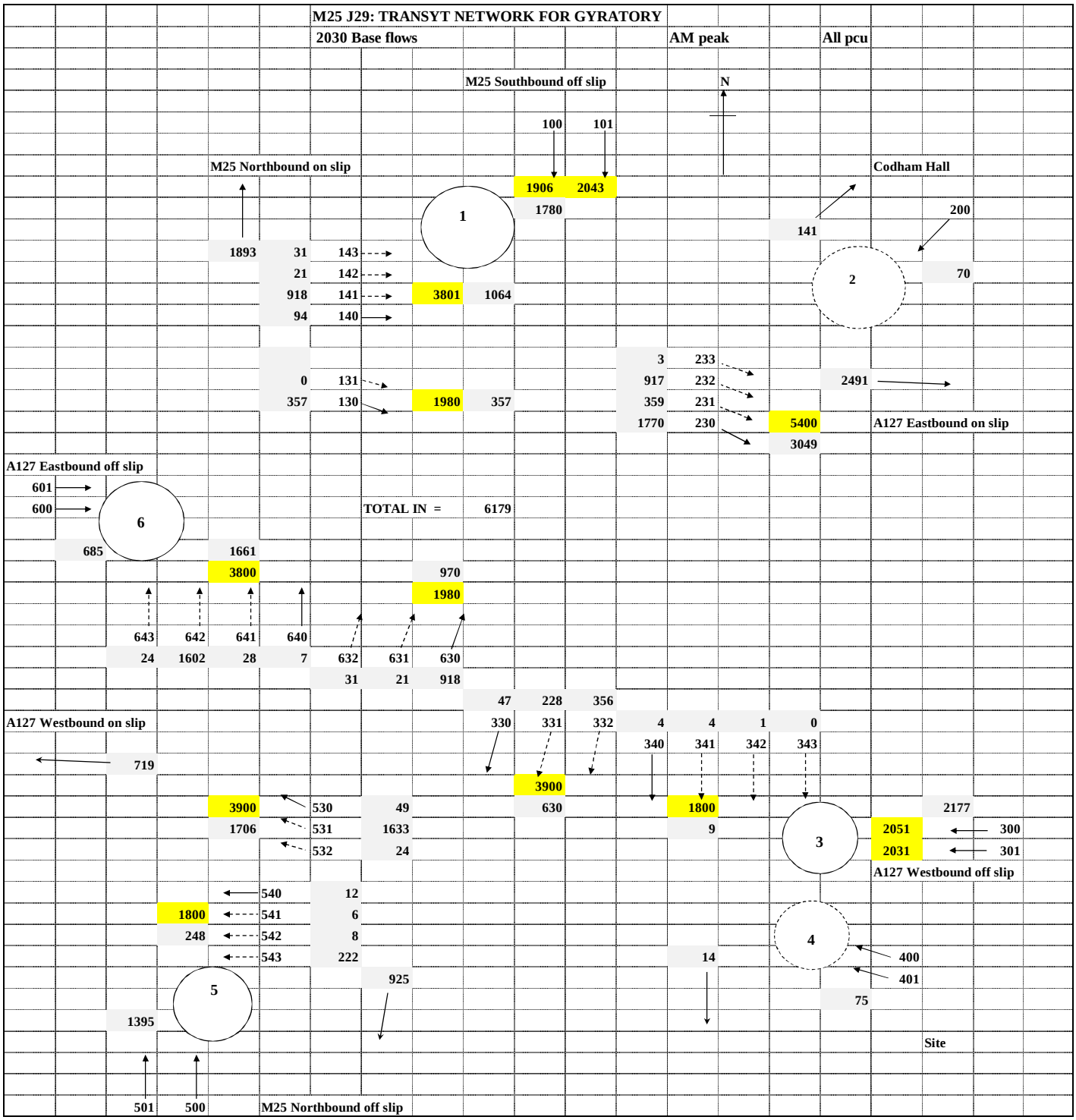
1552	25
41	803
19	
627	
2239	828
828	
1411	272
	1141
	1413

J5:

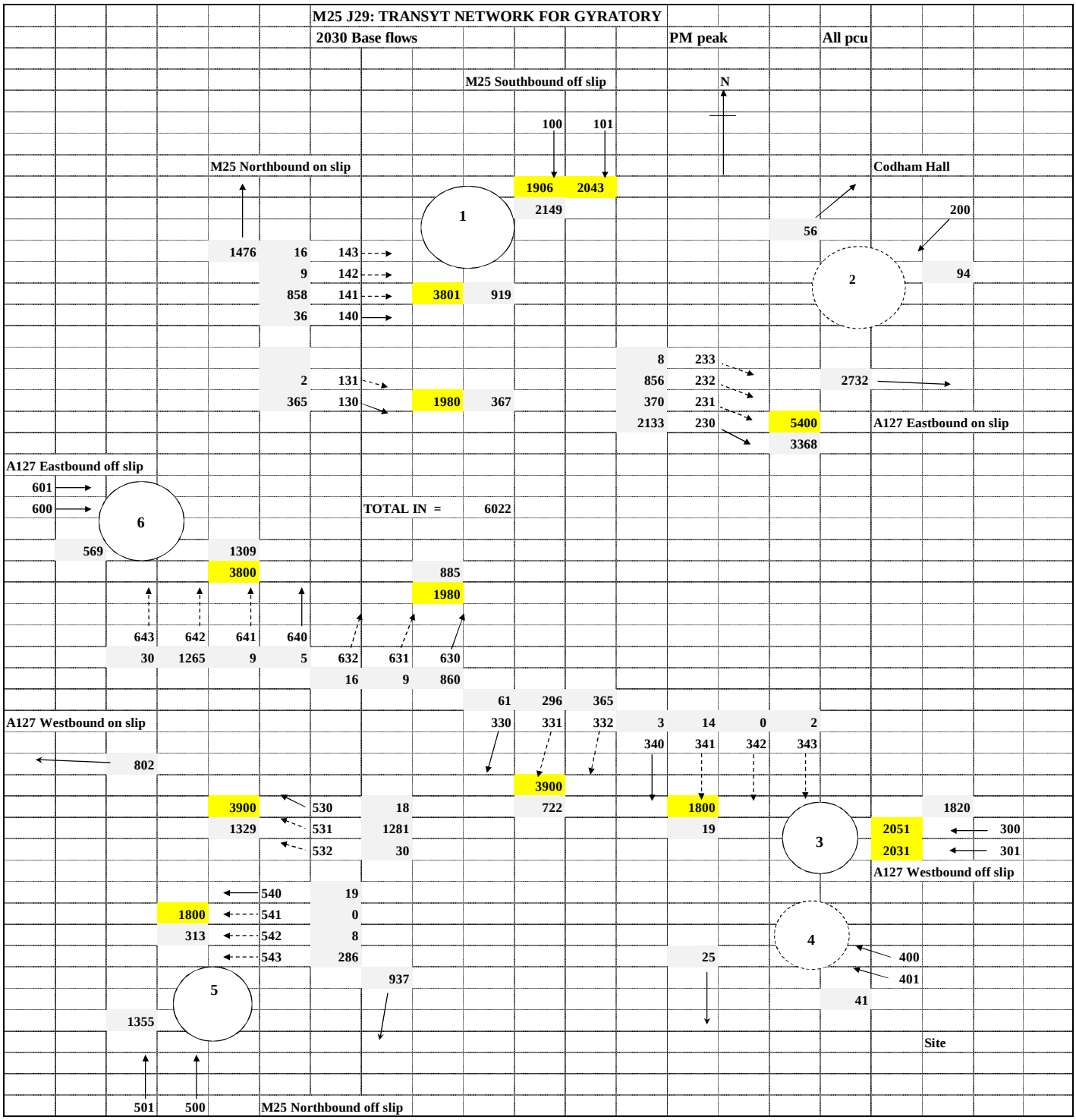
1158	692
272	
1141	
2571	
692	
1879	1121
	758
	1879

J6:

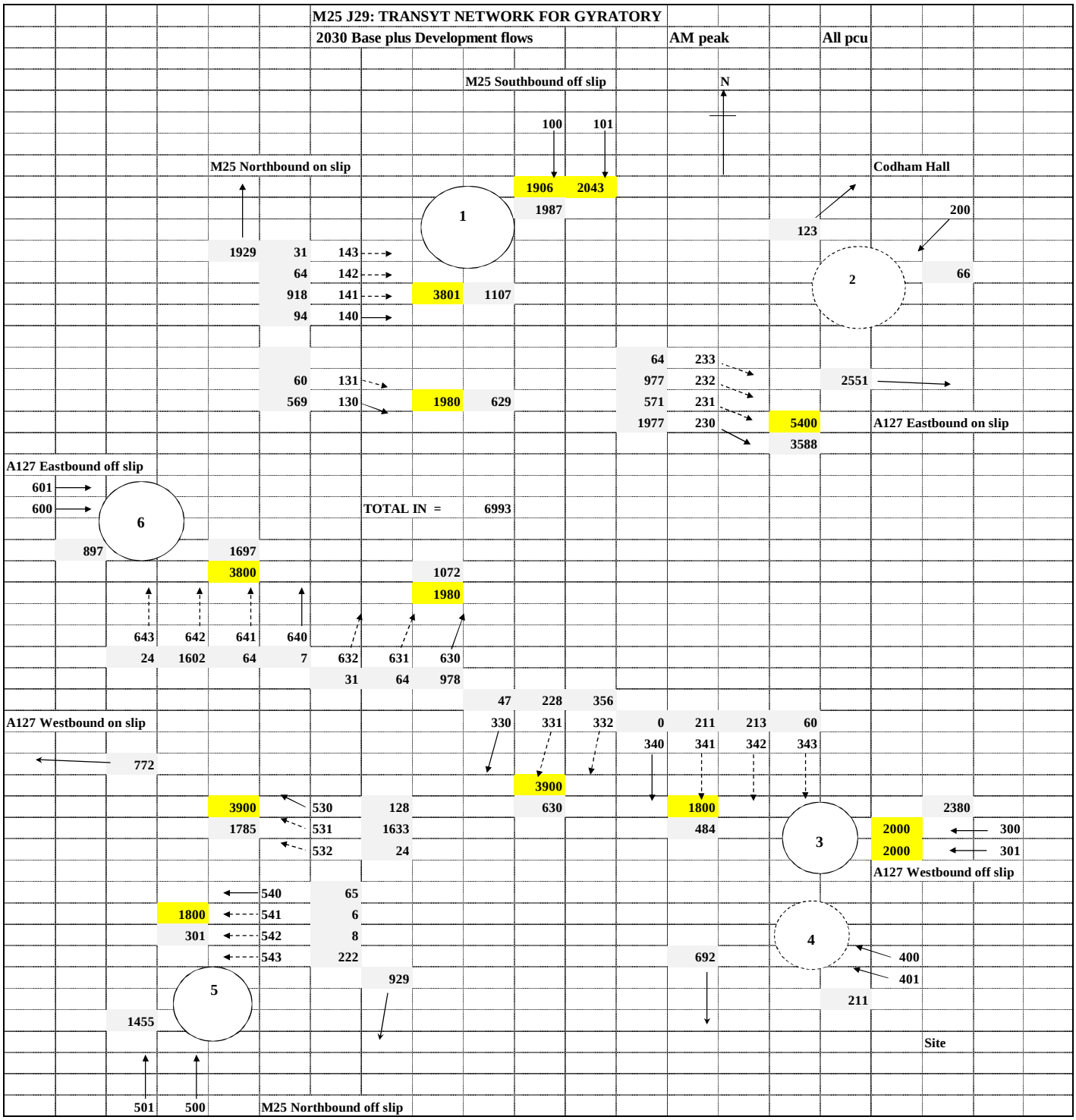
1121	1263
758	792
490	313
2369	2368


M25 J29: TRANSYT NETWORK FOR GYRATORY
2030 Base flows
AM peak
All pcu
M25 Southbound off slip
N
100
101
M25 Northbound on slip
1906
2043
1780
Codham Hall
200
141
1
2
70
1893
31
143
21
142
918
141
3801
1064
94
140
3
233
0
131
917
232
2491
357
130
1980
357
359
231
1770
230
5400
A127 Eastbound on slip
3049
A127 Eastbound off slip
601
600
6
TOTAL IN =
6179
685
1661
3800
970
1980
643
642
641
640
632
631
630
24
1602
28
7
31
21
918
47
228
356
A127 Westbound on slip
330
331
332
4
4
1
0
340
341
342
343
719
3900
3900
530
49
630
1800
2177
1706
531
1633
9
3
2051
300
532
24
2031
301
A127 Westbound off slip
540
12
1800
541
6
248
542
8
4
543
222
14
400
401
5
925
75
1395
Site
501
500
M25 Northbound off slip

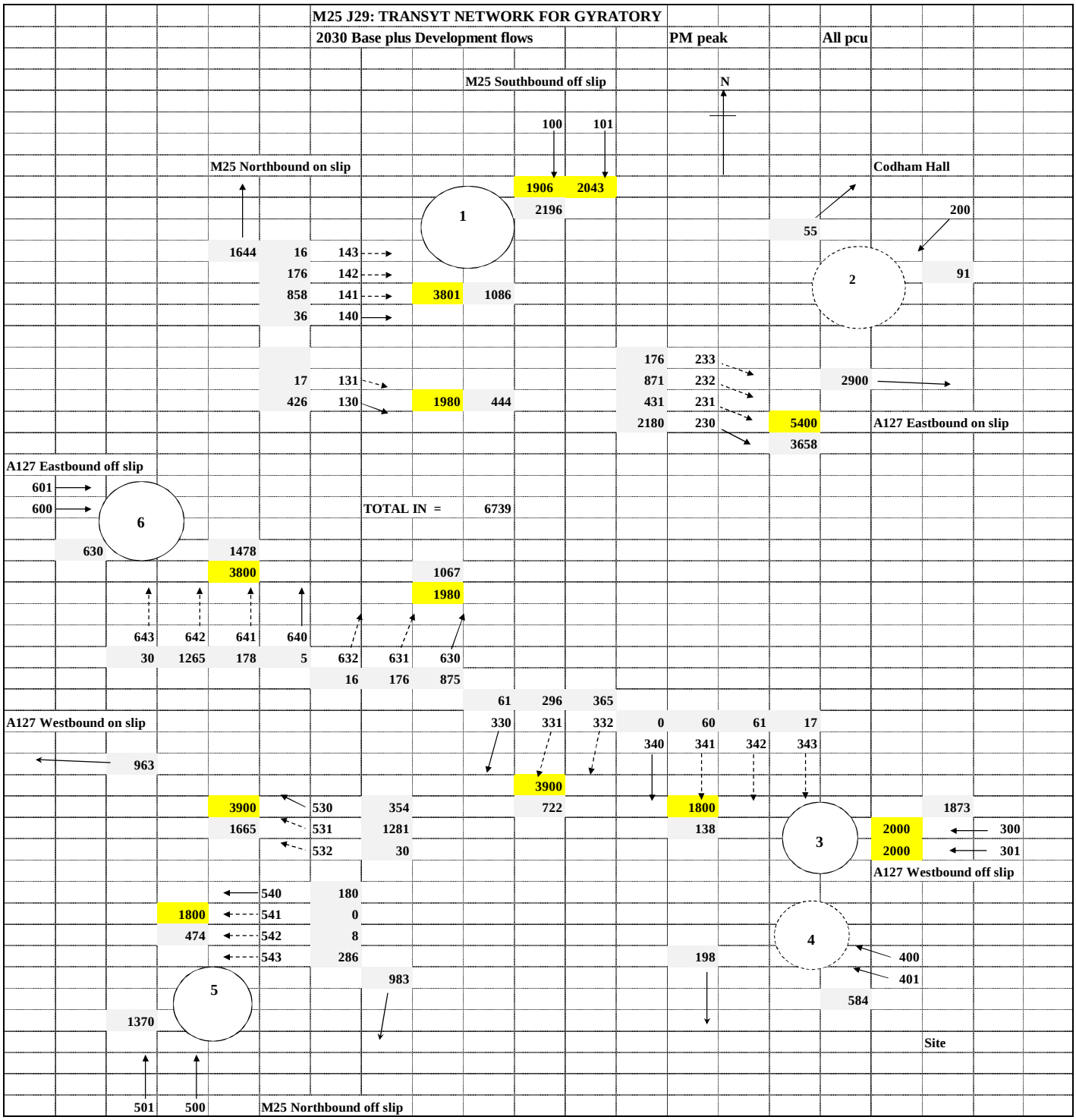
	AM peak		M25 J29: TRANSYT NETWORK FOR GYRATORY									2030 Base flows								
	1		2		3		4		5		6									
1	-		10		1539	**230**	4	**230**	6	**230**	222	**230**	1780	**100**			**130**	357		
							4	**341**	6	**331**	222	**331**		**101**			**131**	0	357	
											222	**543**					**140**	94		
2	24	**330**	-		19		4	**340**	15	**330**	8	**330**	70	**200**			**141**	918		
	24	**532**									8	**542**					**142**	21		
	24	**643**															**143**	31	1064	1421
3	1602	**531**	31	**531**	-		5		533		6	**541**	2177	**300**			**230**	1770		
	1602	**642**	31	**632**										**301**			**231**	359		
			31	**143**													**232**	917		
4	28	**530**	18	**530**	3	**530**	-		14		12	**540**	75	**400**			**233**	3	3049	3049
	28	**641**	18	**631**	3	**631**								**401**			**330**	47		
			18	**142**	3	**142**											**331**	228		
					3	**233**											**332**	356	630	
5	7	**640**	1	**630**	917	**630**	0	**630**	-		469		1394	**500**			**340**	4		
			1	**141**	917	**141**	0	**131**						**501**			**341**	4		
					917	**232**	0	**232**									**342**	1		
							0	**343**									**343**	0	9	639
6	232		92	**140**	2	**140**	1	**130**	356	**130**	-		683	**600**			**530**	49		
					2	**231**	1	**231**	356	**231**				**601**			**531**	1633		
							1	**342**	356	**332**							**532**	24	1706	
	1893		152		2480		14		924		717		6179				**540**	12		
												6179					**541**	6		
				AM peak					Flows in PCUs								**542**	8		
		From	A	B	C	D	E	F									**543**	222	248	1954
			1	2	3	4	5	6	Total								**630**	918		
	A	1	0	10	1539	4	6	222	1780								**631**	21		
	B	2	24	0	19	4	15	8	70								**632**	31	970	
	C	3	1602	20	11	5	533	6	2177		U-turners exit at J2						**640**	7		
	D	4	28	18	3	0	14	12	75								**641**	28		
	E	5	7	1	917	0	1	469	1395								**642**	1602		
	F	6	232	92	2	1	356	2	685								**643**	24	1661	2631
			1893	141	2491	14	925	719	6182											
								6182												
		A	M25 north																	
		B	Codham Hall																	
		C	A127 east																	
		D	Development site																	
		E	M25 south																	
		F	A127 west																	
J1:			J2:			J3,4:			J5:			J6:								
1780	141		70	2491		2177	14		1395	719		1661	1893							
1064			3049			75	925		248			970	1064							
357						9			1706			685	357							
3201			3119	630		630														
141			2491	9		2891	939		3348			3316	3314							
3060	3049		628	639		939			719											
						1953	248		2630	1661										
							1706			970										
							1954			2631										


M25 J29: TRANSYT NETWORK FOR GYRATORY
2030 Base flows
PM peak
All pcu
M25 Southbound off slip
N
100
101
M25 Northbound on slip
1906
2043
Codham Hall
1
2149
200
56
1476
16
143
9
142
2
94
858
141
3801
919
36
140
8
233
2
131
856
232
2732
365
130
1980
367
370
231
2133
230
5400
A127 Eastbound on slip
3368
A127 Eastbound off slip
601
600
6
TOTAL IN =
6022
569
1309
3800
885
1980
643
642
641
640
632
631
630
30
1265
9
5
16
9
860
61
296
365
A127 Westbound on slip
330
331
332
3
14
0
2
340
341
342
343
802
3900
3900
530
18
722
1800
1820
1329
531
1281
19
2051
300
3
532
30
2031
301
A127 Westbound off slip
540
19
1800
541
0
313
542
8
4
543
286
25
400
937
401
5
41
1355
Site
501
500
M25 Northbound off slip

	PM peak		M25 J29: TRANSYT NETWORK FOR GYRATORY									2030 Base flows							
	1		2		3		4		5		6					**130**	365		
1	-		15		1824	**230**	14	**230**	10	**230**	286	**230**	2148	**100**		**130**	365		
							14	**341**	10	**331**	286	**331**		**101**		**131**	2	367	
											286	**543**				**140**	36		
2	30	**330**	-		30		3	**340**	23	**330**	8	**330**	94	**200**		**141**	858		
	30	**532**									8	**542**				**142**	9		
	30	**643**														**143**	16	919	1287
3	1265	**531**	16	**531**	-		6		532		0	**541**	1820	**300**		**230**	2133		
	1265	**642**	16	**632**										**301**		**231**	370		
			16	**143**												**232**	856		
4	9	**530**	1	**530**	8	**530**	-		4		19	**540**	41	**400**		**233**	8	3368	3368
	9	**641**	1	**631**	8	**631**								**401**		**330**	61		
			1	**142**	8	**142**										**331**	296		
					8	**233**										**332**	365	722	
5	5	**640**	4	**630**	854	**630**	2	**630**	-		488		1353	**500**		**340**	3		
			4	**141**	854	**141**	2	**131**						**501**		**341**	14		
					854	**232**	2	**232**								**342**	0		
							2	**343**								**343**	2	19	741
6	165		31	**140**	5	**140**	0	**130**	365	**130**	-		567	**600**		**530**	18		
					5	**231**	0	**231**	365	**231**				**601**		**531**	1281		
							0	**342**	365	**332**						**532**	30	1329	
	1475		67		2721		25		935		800		6022			**540**	19		
												6022				**541**	0		
				PM peak					Flows in PCUs							**542**	8		
		From	A	B	C	D	E	F								**543**	286	313	1642
			1	2	3	4	5	6	Total							**630**	860		
	A	1	1	15	1824	14	10	286	2149							**631**	9		
	B	2	30	0	30	3	23	8	94							**632**	16	885	
	C	3	1265	5	11	6	532	0	1820		U-turners exit at J2					**640**	5		
	D	4	9	1	8	0	4	19	41							**641**	9		
	E	5	5	4	854	2	2	488	1355							**642**	1265		
	F	6	165	31	5	0	365	2	569							**643**	30	1309	2195
			1476	56	2732	25	937	802	6027										
								6027											
		A	M25 north																
		B	Codham Hall																
		C	A127 east																
		D	Development site																
		E	M25 south																
		F	A127 west																
J1:			J2:			J3,4:			J5:			J6:							
2149	56		94	2732		1820	25		1355	802		1309	1476						
919			3368			41	937		313			885	919						
367						19			1329			569	367						
3436			3462	722		722													
56			2732	19		2602	962		2997			2763	2762						
3380	3368		730	741		962			802										
						1640	313		2195	1309									
							1329			885									
							1642			2195									


M25 J29: TRANSYT NETWORK FOR GYRATORY
2030 Base plus Development flows
AM peak
All pcu
M25 Southbound off slip
N
100
101
M25 Northbound on slip
1906
2043
1987
Codham Hall
1
123
200
2
1929
31
143
64
142
66
918
141
3801
1107
94
140
64
233
60
131
977
232
2551
569
130
1980
629
571
231
1977
230
5400
A127 Eastbound on slip
3588
A127 Eastbound off slip
601
600
6
TOTAL IN =
6993
897
1697
3800
1072
1980
643
642
641
640
632
631
630
24
1602
64
7
31
64
978
47
228
356
A127 Westbound on slip
330
331
332
0
211
213
60
340
341
342
343
772
3900
3900
530
128
630
1800
2380
1785
531
1633
484
3
2000
300
532
24
2000
301
A127 Westbound off slip
540
65
1800
541
6
301
542
8
4
543
222
692
400
929
401
5
211
1455
Site
501
500
M25 Northbound off slip

	AM peak		M25 J29: TRANSYT NETWORK FOR GYRATORY									2030 Base plus Development flows							
	1		2		3		4		5		6					**130**	569		
1	-		10		1539	**230**	211	**230**	6	**230**	222	**230**	1987	**100**		**130**	569		
							211	**341**	6	**331**	222	**331**		**101**		**131**	60	629	
											222	**543**				**140**	94		
2	24	**330**	-		19		0	**340**	15	**330**	8	**330**	66	**200**		**141**	918		
	24	**532**									8	**542**				**142**	64		
	24	**643**														**143**	31	1107	1735
3	1602	**531**	31	**531**	-		208		533		6	**541**	2380	**300**		**230**	1977		
	1602	**642**	31	**632**										**301**		**231**	571		
			31	**143**												**232**	977		
4	64	**530**	0	**530**	64	**530**	-		18		65	**540**	211	**400**		**233**	64	3588	3588
	64	**641**	0	**631**	64	**631**								**401**		**330**	47		
			0	**142**	64	**142**										**331**	228		
					64	**233**										**332**	356	630	
5	7	**640**	1	**630**	917	**630**	60	**630**	-		469		1454	**500**		**340**	0		
			1	**141**	917	**141**	60	**131**						**501**		**341**	211		
					917	**232**	60	**232**								**342**	213		
							60	**343**								**343**	60	484	1114
6	232		92	**140**	2	**140**	213	**130**	356	**130**	-		895	**600**		**530**	128		
					2	**231**	213	**231**	356	**231**				**601**		**531**	1633		
							213	**342**	356	**332**						**532**	24	1785	
	1929		134		2540		692		928		770		6993			**540**	65		
												6993				**541**	6		
				AM peak					Flows in PCUs							**542**	8		
		From	A	B	C	D	E	F								**543**	222	301	2086
			1	2	3	4	5	6	Total							**630**	978		
	A	1	0	10	1539	211	6	222	1987							**631**	64		
	B	2	24	0	19	0	15	8	66							**632**	31	1072	
	C	3	1602	20	11	208	533	6	2380		U-turners exit at J2					**640**	7		
	D	4	64	0	64	0	18	65	211							**641**	64		
	E	5	7	1	917	60	1	469	1455							**642**	1602		
	F	6	232	92	2	213	356	2	897							**643**	24	1697	2770
			1929	123	2551	692	929	772	6996										
								6996											
		A	M25 north																
		B	Codham Hall																
		C	A127 east																
		D	Development site																
		E	M25 south																
		F	A127 west																
J1:			J2:			J3,4:			J5:			J6:							
1987	123		66	2551		2380	692.3		1455	771.7		1697	1929						
1107			3588			211.4	928.8		300.8			1072	1107						
629						483.9			1785			897.3	628.9						
3722			3654	630		630.4													
123			2551	484		3706	1621		3540			3667	3665						
3599	3588		1103	1114		1621			771.7										
						2085	300.8		2769	1697									
							1785			1072									
							2086			2770									


M25 J29: TRANSYT NETWORK FOR GYRATORY
2030 Base plus Development flows
PM peak
All pcu
M25 Southbound off slip
N
100
101
M25 Northbound on slip
1906
2043
Codham Hall
1
2196
200
55
1644
16
143
176
142
858
141
3801
1086
2
91
36
140
176
233
17
131
871
232
2900
426
130
1980
444
431
231
2180
230
5400
A127 Eastbound on slip
3658
A127 Eastbound off slip
601
600
6
TOTAL IN =
6739
630
1478
3800
1067
1980
643
642
641
640
632
631
630
30
1265
178
5
16
176
875
61
296
365
A127 Westbound on slip
330
331
332
0
60
61
17
340
341
342
343
963
3900
3900
530
354
722
1800
1873
1665
531
1281
138
3
2000
300
532
30
2000
301
A127 Westbound off slip
540
180
1800
541
0
474
542
8
4
543
286
198
400
983
401
5
584
1370
Site
501
500
M25 Northbound off slip

	PM peak		M25 J29: TRANSYT NETWORK FOR GYRATORY									2030 Base plus Development flows							
	1		2		3		4		5		6								
1	-		15		1824	**230**	60	**230**	10	**230**	286	**230**	2195	**100**		**130**	426		
							60	**341**	10	**331**	286	**331**		**101**		**131**	17	444	
											286	**543**				**140**	36		
2	30	**330**	-		30		0	**340**	23	**330**	8	**330**	91	**200**		**141**	858		
	30	**532**									8	**542**				**142**	176		
	30	**643**														**143**	16	1086	1530
3	1265	**531**	16	**531**	-		60		532		0	**541**	1873	**300**		**230**	2180		
	1265	**642**	16	**632**										**301**		**231**	431		
			16	**143**												**232**	871		
4	178	**530**	0	**530**	176	**530**	-		51		180	**540**	584	**400**		**233**	176	3658	3658
	178	**641**	0	**631**	176	**631**								**401**		**330**	61		
			0	**142**	176	**142**										**331**	296		
					176	**233**										**332**	365	722	
5	5	**640**	4	**630**	854	**630**	17	**630**	-		488		1368	**500**		**340**	0		
			4	**141**	854	**141**	17	**131**						**501**		**341**	60		
					854	**232**	17	**232**								**342**	61		
							17	**343**								**343**	17	138	861
6	165		31	**140**	5	**140**	61	**130**	365	**130**	-		628	**600**		**530**	354		
					5	**231**	61	**231**	365	**231**				**601**		**531**	1281		
							61	**342**	365	**332**						**532**	30	1665	
	1643		66		2889		198		981		961		6739			**540**	180		
												6739				**541**	0		
				PM peak					Flows in PCUs							**542**	8		
		From	A	B	C	D	E	F								**543**	286	474	2139
			1	2	3	4	5	6	Total							**630**	875		
	A	1	1	15	1824	60	10	286	2196							**631**	176		
	B	2	30	0	30	0	23	8	91							**632**	16	1067	
	C	3	1265	5	11	60	532	0	1873		U-turners exit at J2					**640**	5		
	D	4	178	0	176	0	51	180	584							**641**	178		
	E	5	5	4	854	17	2	488	1370							**642**	1265		
	F	6	165	31	5	61	365	2	630							**643**	30	1478	2546
			1644	55	2900	198	983	963	6744										
								6744											
		A	M25 north																
		B	Codham Hall																
		C	A127 east																
		D	Development site																
		E	M25 south																
		F	A127 west																
J1:			J2:			J3,4:			J5:			J6:							
2196	55		91	2900		1873	198		1370	963		1478	1644						
1086			3658			584	983		474			1067	1086						
444						138			1665			630	444						
3725			3749	722		722													
55			2900	138		3319	1181		3509			3175	3174						
3670	3658		850	861		1181			963										
						2137	474		2546	1478									
							1665			1067									
							2139			2546									

Appendix F

Results of TRANSYT capacity assessment of J29 gyratory

1 _____ T R A N S Y T 12 _____

Traffic Network Study Tool

Analysis Program Release 7 (July 2010)
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Run with file:- "M25_J29_2013_EXISTING_AM1.DAT" at 10:31 on 20130930

TRANSYT 12.0

M25 J29: Existing layout 2013 flows, AM peak

PARAMETERS CONTROLLING DIMENSIONS OF PROBLEM :

NUMBER OF NODES	= 2
NUMBER OF LINKS	= 37
NUMBER OF OPTIMISED NODES	= 2
MAXIMUM NUMBER OF GRAPHIC PLOTS	= 0
NUMBER OF STEPS IN CYCLE	= 53
MAXIMUM NUMBER OF SHARED STOPLINES	= 4
MAXIMUM NUMBER OF TIMING POINTS	= 3
MAXIMUM LINKS AT ANY NODE	= 4

CORE REQUESTED = 9186 WORDS
CORE AVAILABLE = 72000 WORDS

.

DATA INPUT :-

CARD NO.	CARD TYPE															
(1)= TITLE:- M25 J29: Existing layout 2013 flows, AM peak																
CARD NO.	CARD TYPE	CYCLE TIME (SEC)	NO. OF STEPS PER CYCLE	TIME PERIOD MINS.	EFFECTIVE-GREEN DISPLACEMENTS 1-1200	START (SEC)	END (SEC)	EQUISAT SETTINGS 0=NO 1=YES	0=UNEQUAL FLOW CYCLE 1=EQUAL CYCLE	SCALE %	CRUISE-SPEEDS SCALE %	CARD32 1=SPEEDS	OPTIMISE 0=NONE 1=O/SET 2=FULL	EXTRA COPIES FINAL OUTPUT	HILL-CLIMB OUTPUT 1=FULL	DELAY VALUE P PER PCU-H	STOP VALUE P PER 100
2)=	1	53	53	60	2	3	1	1	100	100	1	2	0	0	1420	260	
CARD NO.	CARD TYPE	LIST OF NODES TO BE OPTIMISED															
3)=	2	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	

LINKS HAVING SHARED STOPLINES

CARD NO.	CARD TYPE	FIRST SET				SECOND SET				THIRD SET					
4)=	7	130	131	0	0	0	0	0	0	0	0	0	0	0	0
5)=	7	140	141	142	143	0	0	0	0	0	0	0	0	0	0
6)=	7	230	231	232	233	0	0	0	0	0	0	0	0	0	0
7)=	7	330	331	332	0	0	0	0	0	0	0	0	0	0	0
8)=	7	340	341	342	343	0	0	0	0	0	0	0	0	0	0
9)=	7	530	531	532	0	0	0	0	0	0	0	0	0	0	0
10)=	7	540	541	542	543	0	0	0	0	0	0	0	0	0	0
11)=	7	630	631	632	0	0	0	0	0	0	0	0	0	0	0
12)=	7	640	641	642	643	0	0	0	0	0	0	0	0	0	0

NODE CARDS: MINIMUM STAGE TIMES (WORKING)

CARD NO.	CARD TYPE	NODE NO.	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10
13)=	10	1	16	23								
14)=	10	3	12	17	7							

NODE CARDS: PRECEDING INTERSTAGE TIMES (WORKING)

CARD NO.	CARD TYPE	NODE NO.	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10
15)=	11	1	7	7								
16)=	11	3	5	5	5							

NODE CARDS: STAGE CHANGE TIMES (WORKING)

CARD NO.	CARD TYPE	NODE NO.	Sgl/Dbl Cycled	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10
17)=	12	1	1	24	47								
18)=	12	3	1	52	16	40							

LINK CARDS: GIVEWAY DATA

CARD NO.	CARD TYPE	LINK NO.	PRIORITY LINKS LINK1 NO.	LINK2 NO.	LINK1 GIVEWAY COEFFS. ONLY % FLOW	A1 X100	A2 X100				LINK LENGTH	STOP WT.X100	MAX FLOW	DELAY WT.X100	DISPSN X100
19)=	30	200	230	0	0	76	0	0	0	0	0	150	0	2022	0	0

LINK CARDS: FIXED DATA

CARD NO.	CARD TYPE	LINK NO.	EXIT NODE	FIRST GREEN START STAGE	LAG	END STAGE	LAG	SECOND GREEN START STAGE	LAG	END STAGE	LAG	LINK LENGTH	STOP WT.X100	SAT FLOW	DELAY WT.X100	DISPSN X100
20)=	31	100	1	2	7	1	0	0	0	0	0	300	0	3949	0	0
21)=	31	130	1	1	7	2	0	0	0	0	0	150	0	1980	0	0
22)=	31	131	0	0	0	0	0	0	0	0	0	150	0	0	0	0
23)=	31	140	1	1	7	2	0	0	0	0	0	150	0	3801	0	0
24)=	31	141	0	0	0	0	0	0	0	0	0	150	0	0	0	0
25)=	31	142	0	0	0	0	0	0	0	0	0	150	0	0	0	0
26)=	31	143	0	0	0	0	0	0	0	0	0	150	0	0	0	0
27)=	31	230	0	0	0	0	0	0	0	0	0	73	0	5400	0	0
28)=	31	231	0	0	0	0	0	0	0	0	0	73	0	0	0	0
29)=	31	232	0	0	0	0	0	0	0	0	0	73	0	0	0	0
30)=	31	233	0	0	0	0	0	0	0	0	0	73	0	0	0	0
31)=	31	300	3	2	5	3	7	0	0	0	0	300	0	4082	0	0
32)=	31	330	3	1	5	2	1	0	0	0	0	160	0	3900	0	0
33)=	31	331	0	0	0	0	0	0	0	0	0	160	0	0	0	0
34)=	31	332	0	0	0	0	0	0	0	0	0	160	0	0	0	0
35)=	31	340	3	1	5	2	1	0	0	0	0	160	0	1800	0	0
36)=	31	341	0	0	0	0	0	0	0	0	0	160	0	0	0	0
37)=	31	342	0	0	0	0	0	0	0	0	0	160	0	0	0	0
38)=	31	343	0	0	0	0	0	0	0	0	0	160	0	0	0	0
39)=	31	400	3	3	5	1	0	0	0	0	0	150	0	3800	0	0

40)=	31	500	0	0	0	0	0	0	0	0	0	300	0	1277	0	0
41)=	31	530	0	0	0	0	0	0	0	0	0	150	0	3900	0	0
42)=	31	531	0	0	0	0	0	0	0	0	0	150	0	0	0	0
43)=	31	532	0	0	0	0	0	0	0	0	0	150	0	0	0	0
44)=	31	540	0	0	0	0	0	0	0	0	0	150	0	1800	0	0
45)=	31	541	0	0	0	0	0	0	0	0	0	150	0	0	0	0
46)=	31	542	0	0	0	0	0	0	0	0	0	150	0	0	0	0
47)=	31	543	0	0	0	0	0	0	0	0	0	150	0	0	0	0
48)=	31	600	0	0	0	0	0	0	0	0	0	300	0	845	0	0
49)=	31	630	0	0	0	0	0	0	0	0	0	208	0	1980	0	0
50)=	31	631	0	0	0	0	0	0	0	0	0	208	0	0	0	0
51)=	31	632	0	0	0	0	0	0	0	0	0	208	0	0	0	0
52)=	31	640	0	0	0	0	0	0	0	0	0	208	0	3800	0	0
53)=	31	641	0	0	0	0	0	0	0	0	0	208	0	0	0	0
54)=	31	642	0	0	0	0	0	0	0	0	0	208	0	0	0	0
55)=	31	643	0	0	0	0	0	0	0	0	0	208	0	0	0	0

LINK CARDS: FLOW DATA

					ENTRY 1			ENTRY 2			ENTRY 3			ENTRY 4		
CARD NO.	CARD TYPE	LINK NO.	TOTAL FLOW	UNIFORM FLOW	LINK NO.	FLOW	CRUISE SPEED	LINK NO.	FLOW	CRUISE SPEED	LINK NO.	FLOW	CRUISE SPEED	LINK NO.	FLOW	CRUISE SPEED
56)=	32	100	1524	0	0	0	30	0	0	0	0	0	0	0	0	0
57)=	32	130	306	0	600	306	30	0	0	0	0	0	0	0	0	0
58)=	32	131	10	0	630	10	30	0	0	0	0	0	0	0	0	0
59)=	32	140	94	0	600	94	30	0	0	0	0	0	0	0	0	0
60)=	32	141	784	0	630	784	30	0	0	0	0	0	0	0	0	0
61)=	32	142	21	0	631	21	30	0	0	0	0	0	0	0	0	0
62)=	32	143	31	0	632	31	30	0	0	0	0	0	0	0	0	0
63)=	32	200	70	0	0	0	30	0	0	0	0	0	0	0	0	0
64)=	32	230	1514	0	100	1514	30	0	0	0	0	0	0	0	0	0
65)=	32	231	308	0	130	306	30	140	10	30	0	0	0	0	0	0
66)=	32	232	783	0	131	10	30	141	784	30	0	0	0	0	0	0
67)=	32	233	10	0	142	10	30	0	0	0	0	0	0	0	0	0
68)=	32	300	1865	0	0	0	30	0	0	0	0	0	0	0	0	0
69)=	32	330	47	0	200	47	30	0	0	0	0	0	0	0	0	0
70)=	32	331	196	0	230	196	30	0	0	0	0	0	0	0	0	0
71)=	32	332	305	0	231	305	30	0	0	0	0	0	0	0	0	0
72)=	32	340	10	0	200	10	30	0	0	0	0	0	0	0	0	0
73)=	32	341	10	0	230	10	30	0	0	0	0	0	0	0	0	0
74)=	32	342	10	0	231	10	30	0	0	0	0	0	0	0	0	0
75)=	32	343	10	0	232	10	10	0	0	0	0	0	0	0	0	0
76)=	32	400	75	0	0	0	30	0	0	0	0	0	0	0	0	0
77)=	32	500	1194	0	0	0	30	0	0	0	0	0	0	0	0	0
78)=	32	530	49	0	400	49	30	0	0	0	0	0	0	0	0	0
79)=	32	531	1399	0	300	1399	30	0	0	0	0	0	0	0	0	0
80)=	32	532	24	0	330	24	30	0	0	0	0	0	0	0	0	0
81)=	32	540	12	0	400	12	30	0	0	0	0	0	0	0	0	0
82)=	32	541	10	0	300	10	30	0	0	0	0	0	0	0	0	0
83)=	32	542	10	0	330	10	30	0	0	0	0	0	0	0	0	0
84)=	32	543	190	0	331	190	30	0	0	0	0	0	0	0	0	0
85)=	32	600	599	0	0	0	30	0	0	0	0	0	0	0	0	0
86)=	32	630	784	0	500	784	30	0	0	0	0	0	0	0	0	0
87)=	32	631	21	0	530	21	30	0	0	0	0	0	0	0	0	0
88)=	32	632	31	0	531	31	30	0	0	0	0	0	0	0	0	0
89)=	32	640	10	0	500	10	30	0	0	0	0	0	0	0	0	0
90)=	32	641	28	0	530	28	30	0	0	0	0	0	0	0	0	0
91)=	32	642	1368	0	531	1368	30	0	0	0	0	0	0	0	0	0
92)=	32	643	24	0	532	24	30	0	0	0	0	0	0	0	0	0

LINK CARDS : FLARE SATURATION FLOW DATA

			..LANE 1..		..LANE 2..		..LANE 3..	
	CARD TYPE	LINK NO.	SAT. FLOW	CAPAC VEH.	SAT. FLOW	CAPAC VEH.	SAT. FLOW	CAPAC VEH.
93)=	33	100	1906	3	0	0	0	0

*****END OF SUBROUTINE TINPUT*****

.

53 SECOND CYCLE 53 STEPS

INITIAL SETTINGS
- (SECONDS)

NODE NO	NUMBER OF STAGES	STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 5	STAGE 6	STAGE 7	STAGE 8	STAGE 9	STAGE 10
1	2	24	47								
3	3	52	16	40							

LINK NUMBER	FLOW INTO LINK (PCU/H)	SAT FLOW (PCU/H)	DEGREE OF SAT (%)	MEAN TIMES PER PCU CRUISE (SEC)	MEAN TIMES PER PCU DELAY (SEC)	DELAY UNIFORM	DELAY RANDOM+ OVERSAT (U+R+O=MEAN Q) (PCU-H/H)	DELAY COST OF DELAY ($/H)	STOPS MEAN STOPS /PCU (%)	STOPS COST OF STOPS ($/H)	QUEUE MEAN MAX. (PCU)	QUEUE AVERAGE EXCESS (PCU)	PERFORMANCE INDEX. WEIGHTED SUM OF ( ) VALUES ($/H)	EXIT NODE	GREEN TIMES START 1ST (SECONDS)	GREEN TIMES END 1ST (SECONDS)	GREEN TIMES START 2ND (SECONDS)	GREEN TIMES END 2ND (SECONDS)
100	1524	4399f	77	36.0	15.0	4.7 +	1.6	(90.1)	83	(15.8)	19		105.9	1	1	24		
130	305	1980S	50	18.0	20.2	1.2 +	0.5	(24.3)	87	(3.3)	4		27.6	1	31	47		
131	9	130L	50	18.0	21.1	0.0 +	0.0	(0.7)	82	(0.1)	4		0.9	1	31	47		
140	93	3801S	76	18.0	22.4	0.4 +	0.2	(8.2)	96	(1.1)	14		9.4	1	31	47		
141	783	140L	76	18.0	22.3	3.5 +	1.3	(68.9)	97	(9.5)	14		78.5	1	31	47		
142	21	140L	76	18.0	28.3	0.1 +	0.0	(2.3)	94	(0.2)	14		2.6	1	31	47		
143	31	140L	76	18.0	19.4	0.1 +	0.1	(2.4)	87	(0.3)	14		2.7	1	31	47		
200	70	2022	13	18.0	8.2	0.1 +	0.1	(2.3)	68	(0.6)	0		2.9					
230	1515	5400S	48	8.8	0.6	0.0 +	0.3	(3.9)	1	(0.2)	0		4.1					
231	307	230L	48	8.8	0.6	0.0 +	0.1	(0.8)	1	(0.0)	0		0.8					
232	781	230L	48	8.8	0.6	0.0 +	0.1	(2.0)	1	(0.1)	0		2.1					
233	10	230L	48	8.8	0.6	0.0 +	0.0	(0.0)	1	(0.0)	0		0.0					
300	1865	4082	90	36.0	19.8	6.1 +	4.2	(145.8)	99	(23.2)	29		169.0	3	21	47		
330	47	3900S	53	19.2	19.9	0.2 +	0.0	(3.7)	88	(0.5)	7		4.2	3	4	17		
331	197	330L	53	19.2	24.0	1.1 +	0.2	(18.7)	105	(2.6)	7		21.3	3	4	17		
332	304	330L	53	19.2	12.0	0.7 +	0.3	(14.4)	56	(2.1)	7		16.6	3	4	17		
340	10	1800S	8	19.2	18.4	0.0 +	0.0	(0.7)	83	(0.1)	0		0.8	3	4	17		
341	9	340L	8	19.2	22.7	0.0 +	0.0	(0.8)	93	(0.1)	0		0.9	3	4	17		
342	10	340L	8	19.2	11.3	0.0 +	0.0	(0.4)	34	(0.0)	0		0.5	3	4	17		
343	9	340L	8	57.6	15.9	0.0 +	0.0	(0.6)	77	(0.0)	0		0.6	3	4	17		
400	75	3800	13	18.0	23.1	0.4 +	0.1	(6.8)	89	(0.8)	1		7.7	3	45	52		
500	1194	1277	94	36.0	18.8	0.0 +	6.3	(88.8)	33	(4.9)	6		93.6					
530	49	3900S	38	18.0	0.7	0.0 +	0.0	(0.1)	1	(0.0)	0		0.2					
531	1399	530L	38	18.0	0.7	0.0 +	0.3	(4.1)	1	(0.2)	0		4.3					
532	24	530L	38	18.0	0.7	0.0 +	0.0	(0.1)	1	(0.0)	0		0.1					
540	12	1800S	12	18.0	1.1	0.0 +	0.0	(0.1)	2	(0.0)	0		0.1					
541	11	540L	12	18.0	1.2	0.0 +	0.0	(0.1)	2	(0.0)	0		0.1					
542	10	540L	12	18.0	1.1	0.0 +	0.0	(0.0)	2	(0.0)	0		0.0					
543	191	540L	12	18.0	1.1	0.0 +	0.1	(0.9)	2	(0.1)	0		0.9					
600	599	845	71	36.0	7.2	0.0 +	1.2	(17.1)	13	(1.0)	1		18.1					
630	783	1980S	42	25.0	1.6	0.0 +	0.3	(4.9)	3	(0.3)	0		5.1					
631	21	630L	42	25.0	1.6	0.0 +	0.0	(0.1)	3	(0.0)	0		0.1					
632	31	630L	42	25.0	1.6	0.0 +	0.0	(0.2)	3	(0.0)	0		0.2					
640	10	3800S	38	25.0	0.7	0.0 +	0.0	(0.0)	1	(0.0)	0		0.0					
641	28	640L	38	25.0	0.8	0.0 +	0.0	(0.1)	1	(0.0)	0		0.1					
642	1368	640L	38	25.0	0.8	0.0 +	0.3	(4.1)	1	(0.2)	0		4.3					
643	24	640L	38	25.0	0.8	0.0 +	0.0	(0.1)	1	(0.0)	0		0.1					

*** f - average saturation flow for flared link ***

.

     53 SECOND CYCLE 53 STEPS

  TOTAL   TOTAL   MEAN   TOTAL   TOTAL   TOTAL   TOTAL   PENALTY   TOTAL
 DISTANCE   TIME   JOURNEY   UNIFORM   RANDOM+   COST   COST   FOR   PERFORMANCE
TRAVELLED   SPENT   SPEED   DELAY   OVERSAT   OF   OF   EXCESS   INDEX
                                                    DELAY   DELAY   STOPS   QUEUES
(PCU-KM/H)   (PCU-H/H)   (KM/H)   (PCU-H/H)(PCU-H/H)   ($/H)   ($/H)   ($/H)   ($/H)

  2773.7   129.1   21.5   18.9   17.6   (518.5) + (67.8) + (0.0)   =   586.3   TOTALS

****
                                CRUISE   DELAY   STOPS   TOTALS
                             LITRES PER HOUR   LITRES PER HOUR   LITRES PER HOUR   LITRES PER HOUR

FUEL CONSUMPTION PREDICTIONS   177.4   +   42.0   +   30.9   =   250.3

NO. OF ENTRIES TO SUBPT =   1
NO. OF LINKS RECALCULATED=   60
.

     53 SECOND CYCLE 53 STEPS

INTERMEDIATE SETTINGS - INCREMENTS SO FAR :-   7
 - (SECONDS)

    1   2   24   47
    3   3   52   16   40

  TOTAL   TOTAL   MEAN   TOTAL   TOTAL   TOTAL   TOTAL   PENALTY   TOTAL
 DISTANCE   TIME   JOURNEY   UNIFORM   RANDOM+   COST   COST   FOR   PERFORMANCE
TRAVELLED   SPENT   SPEED   DELAY   OVERSAT   OF   OF   EXCESS   INDEX
                                                    DELAY   DELAY   STOPS   QUEUES
(PCU-KM/H)   (PCU-H/H)   (KM/H)   (PCU-H/H)(PCU-H/H)   ($/H)   ($/H)   ($/H)   ($/H)

  2773.7   129.1   21.5   18.9   17.6   (518.5) + (67.8) + (0.0)   =   586.3   TOTALS

NO. OF ENTRIES TO SUBPT =   5
NO. OF LINKS RECALCULATED= 201
.

     53 SECOND CYCLE 53 STEPS

INTERMEDIATE SETTINGS - INCREMENTS SO FAR :-   7 21
 - (SECONDS)

    1   2   24   47
    3   3   52   16   40

  TOTAL   TOTAL   MEAN   TOTAL   TOTAL   TOTAL   TOTAL   PENALTY   TOTAL
 DISTANCE   TIME   JOURNEY   UNIFORM   RANDOM+   COST   COST   FOR   PERFORMANCE
TRAVELLED   SPENT   SPEED   DELAY   OVERSAT   OF   OF   EXCESS   INDEX
                                                    DELAY   DELAY   STOPS   QUEUES
(PCU-KM/H)   (PCU-H/H)   (KM/H)   (PCU-H/H)(PCU-H/H)   ($/H)   ($/H)   ($/H)   ($/H)

  2773.7   129.1   21.5   18.9   17.6   (518.5) + (67.8) + (0.0)   =   586.3   TOTALS

NO. OF ENTRIES TO SUBPT =   5
NO. OF LINKS RECALCULATED= 201
.

     53 SECOND CYCLE 53 STEPS

INTERMEDIATE SETTINGS - INCREMENTS SO FAR :-   7 21 -1
 - (SECONDS)

    1   2   24   47
    3   3   52   16   40

  TOTAL   TOTAL   MEAN   TOTAL   TOTAL   TOTAL   TOTAL   PENALTY   TOTAL
 DISTANCE   TIME   JOURNEY   UNIFORM   RANDOM+   COST   COST   FOR   PERFORMANCE
TRAVELLED   SPENT   SPEED   DELAY   OVERSAT   OF   OF   EXCESS   INDEX
                                                    DELAY   DELAY   STOPS   QUEUES
(PCU-KM/H)   (PCU-H/H)   (KM/H)   (PCU-H/H)(PCU-H/H)   ($/H)   ($/H)   ($/H)   ($/H)

  2773.7   129.1   21.5   18.9   17.6   (518.5) + (67.8) + (0.0)   =   586.3   TOTALS

NO. OF ENTRIES TO SUBPT =   3
NO. OF LINKS RECALCULATED= 108
.

     53 SECOND CYCLE 53 STEPS

INTERMEDIATE SETTINGS - INCREMENTS SO FAR :-   7 21 -1   7
 - (SECONDS)

    1   2   24   47
    3   3   52   16   40

  TOTAL   TOTAL   MEAN   TOTAL   TOTAL   TOTAL   TOTAL   PENALTY   TOTAL
 DISTANCE   TIME   JOURNEY   UNIFORM   RANDOM+   COST   COST   FOR   PERFORMANCE
TRAVELLED   SPENT   SPEED   DELAY   OVERSAT   OF   OF   EXCESS   INDEX
                                                    DELAY   DELAY   STOPS   QUEUES
(PCU-KM/H)   (PCU-H/H)   (KM/H)   (PCU-H/H)(PCU-H/H)   ($/H)   ($/H)   ($/H)   ($/H)

  2773.7   129.1   21.5   18.9   17.6   (518.5) + (67.8) + (0.0)   =   586.3   TOTALS

NO. OF ENTRIES TO SUBPT =   5
NO. OF LINKS RECALCULATED= 204
.

     53 SECOND CYCLE 53 STEPS

INTERMEDIATE SETTINGS - INCREMENTS SO FAR :-   7 21 -1   7 21
 - (SECONDS)

    1   2   24   47
    3   3   52   16   40

  TOTAL   TOTAL   MEAN   TOTAL   TOTAL   TOTAL   TOTAL   PENALTY   TOTAL
 DISTANCE   TIME   JOURNEY   UNIFORM   RANDOM+   COST   COST   FOR   PERFORMANCE
TRAVELLED   SPENT   SPEED   DELAY   OVERSAT   OF   OF   EXCESS   INDEX
                                                    DELAY   DELAY   STOPS   QUEUES
(PCU-KM/H)   (PCU-H/H)   (KM/H)   (PCU-H/H)(PCU-H/H)   ($/H)   ($/H)   ($/H)   ($/H)

  2773.7   129.1   21.5   18.9   17.6   (518.5) + (67.8) + (0.0)   =   586.3   TOTALS

NO. OF ENTRIES TO SUBPT =   5
NO. OF LINKS RECALCULATED= 208
.

     53 SECOND CYCLE 53 STEPS

INTERMEDIATE SETTINGS - INCREMENTS SO FAR :- 7 21 -1 7 21 1
- (SECONDS)

```
   1       2      24      47
   3       3      52      16      40
```

TOTAL DISTANCE TRAVELLED (PCU-KM/H)	TOTAL TIME SPENT (PCU-H/H)	MEAN JOURNEY SPEED (KM/H)	TOTAL UNIFORM DELAY (PCU-H/H)	TOTAL RANDOM+ OVERSAT DELAY (PCU-H/H)	TOTAL COST OF DELAY ($/H)	TOTAL COST OF STOPS ($/H)	PENALTY FOR EXCESS QUEUES ($/H)	TOTAL PERFORMANCE INDEX ($/H)	
2773.7	129.1	21.5	18.9	17.6	(518.5) +	(67.8) +	(0.0) =	586.3	TOTALS

NO. OF ENTRIES TO SUBPT = 5
NO. OF LINKS RECALCULATED= 207
.

53 SECOND CYCLE 53 STEPS

INTERMEDIATE SETTINGS - INCREMENTS SO FAR :- 7 21 -1 7 21 1 -1
- (SECONDS)

```
   1       2      24      47
   3       3      52      16      40
```

TOTAL DISTANCE TRAVELLED (PCU-KM/H)	TOTAL TIME SPENT (PCU-H/H)	MEAN JOURNEY SPEED (KM/H)	TOTAL UNIFORM DELAY (PCU-H/H)	TOTAL RANDOM+ OVERSAT DELAY (PCU-H/H)	TOTAL COST OF DELAY ($/H)	TOTAL COST OF STOPS ($/H)	PENALTY FOR EXCESS QUEUES ($/H)	TOTAL PERFORMANCE INDEX ($/H)	
2773.7	129.1	21.5	18.9	17.6	(518.5) +	(67.8) +	(0.0) =	586.3	TOTALS

NO. OF ENTRIES TO SUBPT = 3
NO. OF LINKS RECALCULATED= 152
.

53 SECOND CYCLE 53 STEPS

FINAL SETTINGS OBTAINED WITH INCREMENTS :- 7 21 -1 7 21 1 -1 1
- (SECONDS)

NODE NO	NUMBER OF STAGES	STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 5	STAGE 6	STAGE 7	STAGE 8	STAGE 9	STAGE 10
1	2	24	47								
3	3	52	16	40							

LINK NUMBER	FLOW INTO LINK (PCU/H)	SAT FLOW (PCU/H)	DEGREE OF SAT (%)	MEAN TIMES PER PCU CRUISE (SEC)	MEAN TIMES PER PCU DELAY (SEC)	DELAY UNIFORM (PCU-H/H)	DELAY RANDOM+ OVERSAT (U+R+O=MEAN Q) (PCU-H/H)	COST OF DELAY ($/H)	STOPS MEAN STOPS /PCU (%)	COST OF STOPS ($/H)	QUEUE MEAN MAX. (PCU)	QUEUE AVERAGE EXCESS (PCU)	PERFORMANCE INDEX. WEIGHTED SUM OF ( ) VALUES ($/H)	EXIT NODE	GREEN TIMES START END 1ST (SECONDS)	GREEN TIMES START END 2ND (SECONDS)
100	1524	4399f	77	36.0	15.0	4.7 +	1.6	(90.1)	83	(15.8)	19		105.9	1	1 24	
130	305	1980S	50	18.0	20.2	1.2 +	0.5	(24.3)	87	(3.3)	4		27.6	1	31 47	
131	9	130L	50	18.0	21.1	0.0 +	0.0	(0.7)	82	(0.1)	4		0.9	1	31 47	
140	93	3801S	76	18.0	22.4	0.4 +	0.2	(8.2)	96	(1.1)	14		9.4	1	31 47	
141	783	140L	76	18.0	22.3	3.5 +	1.3	(68.9)	97	(9.5)	14		78.5	1	31 47	
142	21	140L	76	18.0	28.3	0.1 +	0.0	(2.3)	94	(0.2)	14		2.6	1	31 47	
143	31	140L	76	18.0	19.4	0.1 +	0.1	(2.4)	87	(0.3)	14		2.7	1	31 47	
200	70	2022	13	18.0	8.2	0.1 +	0.1	(2.3)	68	(0.6)	0		2.9			
230	1515	5400S	48	8.8	0.6	0.0 +	0.3	(3.9)	1	(0.2)	0		4.1			
231	307	230L	48	8.8	0.6	0.0 +	0.1	(0.8)	1	(0.0)	0		0.8			
232	781	230L	48	8.8	0.6	0.0 +	0.1	(2.0)	1	(0.1)	0		2.1			
233	10	230L	48	8.8	0.6	0.0 +	0.0	(0.0)	1	(0.0)	0		0.0			
300	1865	4082	90	36.0	19.8	6.1 +	4.2	(145.8)	99	(23.2)	29		169.0	3	21 47	
330	47	3900S	53	19.2	19.9	0.2 +	0.0	(3.7)	88	(0.5)	7		4.2	3	4 17	
331	197	330L	53	19.2	24.0	1.1 +	0.2	(18.7)	105	(2.6)	7		21.3	3	4 17	
332	304	330L	53	19.2	12.0	0.7 +	0.3	(14.4)	56	(2.1)	7		16.6	3	4 17	
340	10	1800S	8	19.2	18.4	0.0 +	0.0	(0.7)	83	(0.1)	0		0.8	3	4 17	
341	9	340L	8	19.2	22.7	0.0 +	0.0	(0.8)	93	(0.1)	0		0.9	3	4 17	
342	10	340L	8	19.2	11.3	0.0 +	0.0	(0.4)	34	(0.0)	0		0.5	3	4 17	
343	9	340L	8	57.6	15.9	0.0 +	0.0	(0.6)	77	(0.0)	0		0.6	3	4 17	
400	75	3800	13	18.0	23.1	0.4 +	0.1	(6.8)	89	(0.8)	1		7.7	3	45 52	
500	1194	1277	94	36.0	18.8	0.0 +	6.3	(88.8)	33	(4.9)	6		93.6			
530	49	3900S	38	18.0	0.7	0.0 +	0.0	(0.1)	1	(0.0)	0		0.2			
531	1399	530L	38	18.0	0.7	0.0 +	0.3	(4.1)	1	(0.2)	0		4.3			
532	24	530L	38	18.0	0.7	0.0 +	0.0	(0.1)	1	(0.0)	0		0.1			
540	12	1800S	12	18.0	1.1	0.0 +	0.0	(0.1)	2	(0.0)	0		0.1			
541	11	540L	12	18.0	1.2	0.0 +	0.0	(0.1)	2	(0.0)	0		0.1			
542	10	540L	12	18.0	1.1	0.0 +	0.0	(0.0)	2	(0.0)	0		0.0			
543	191	540L	12	18.0	1.1	0.0 +	0.1	(0.9)	2	(0.1)	0		0.9			
600	599	845	71	36.0	7.2	0.0 +	1.2	(17.1)	13	(1.0)	1		18.1			
630	783	1980S	42	25.0	1.6	0.0 +	0.3	(4.9)	3	(0.3)	0		5.1			
631	21	630L	42	25.0	1.6	0.0 +	0.0	(0.1)	3	(0.0)	0		0.1			
632	31	630L	42	25.0	1.6	0.0 +	0.0	(0.2)	3	(0.0)	0		0.2			
640	10	3800S	38	25.0	0.7	0.0 +	0.0	(0.0)	1	(0.0)	0		0.0			
641	28	640L	38	25.0	0.8	0.0 +	0.0	(0.1)	1	(0.0)	0		0.1			
642	1368	640L	38	25.0	0.8	0.0 +	0.3	(4.1)	1	(0.2)	0		4.3			
643	24	640L	38	25.0	0.8	0.0 +	0.0	(0.1)	1	(0.0)	0		0.1			

*** f - average saturation flow for flared link ***
.

53 SECOND CYCLE 53 STEPS

TOTAL DISTANCE TRAVELLED (PCU-KM/H)	TOTAL TIME SPENT (PCU-H/H)	MEAN JOURNEY SPEED (KM/H)	TOTAL UNIFORM DELAY (PCU-H/H)	TOTAL RANDOM+ OVERSAT DELAY (PCU-H/H)	TOTAL COST OF DELAY ($/H)	TOTAL COST OF STOPS ($/H)	PENALTY FOR EXCESS QUEUES ($/H)	TOTAL PERFORMANCE INDEX ($/H)	
2773.7	129.1	21.5	18.9	17.6	(518.5) +	(67.8) +	(0.0) =	586.3	TOTALS

ROUTE

****

	CRUISE LITRES PER HOUR		DELAY LITRES PER HOUR		STOPS LITRES PER HOUR		TOTALS LITRES PER HOUR
FUEL CONSUMPTION PREDICTIONS	177.4	+	42.0	+	30.9	=	250.3

NO. OF ENTRIES TO SUBPT = 5
NO. OF LINKS RECALCULATED= 219

PROGRAM TRANSYT FINISHED

1 _____ T R A N S Y T 12 _____

Traffic Network Study Tool

Analysis Program Release 7 (July 2010)
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Run with file:- "M25_J29_2013_EXISTING_PM1.DAT" at 10:31 on 20130930

TRANSYT 12.0

M25 J29: Existing layout 2013 flows, PM peak

PARAMETERS CONTROLLING DIMENSIONS OF PROBLEM :

NUMBER OF NODES	= 2
NUMBER OF LINKS	= 37
NUMBER OF OPTIMISED NODES	= 2
MAXIMUM NUMBER OF GRAPHIC PLOTS	= 0
NUMBER OF STEPS IN CYCLE	= 70
MAXIMUM NUMBER OF SHARED STOPLINES	= 4
MAXIMUM NUMBER OF TIMING POINTS	= 3
MAXIMUM LINKS AT ANY NODE	= 4

CORE REQUESTED = 10019 WORDS
CORE AVAILABLE = 72000 WORDS

DATA INPUT :-

CARD NO.	CARD TYPE															
(1)=	TITLE:- M25 J29: Existing layout 2013 flows, PM peak															
CARD NO.	CARD TYPE	CYCLE TIME (SEC)	NO. OF STEPS PER CYCLE	TIME PERIOD MINS.	EFFECTIVE-GREEN DISPLACEMENTS 1-1200	START (SEC)	EQUISAT SETTINGS END (SEC)	0=UNEQUAL 1=EQUAL 1=YES	FLOW CYCLE	CRUISE-SPEEDS SCALE %	SCALE %	CARD32 0=TIMES 1=SPEEDS	OPTIMISE 0=NONE 1=O/SET 2=FULL	EXTRA COPIES FINAL OUTPUT	HILL-CLIMB OUTPUT 1=FULL	DELAY VALUE P PER PCU-H	STOP VALUE P PER 100
2)=	1	70	70	60	2	3	1	1	100	100	1	2	0	0	1420	260
CARD NO.	CARD TYPE	LIST OF NODES TO BE OPTIMISED														
3)=	2	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0

LINKS HAVING SHARED STOPLINES

CARD NO.	CARD TYPE	FIRST SET.....				SECOND SET.....				THIRD SET.....					
4)=	7	130	131	0	0	0	0	0	0	0	0	0	0	0	0
5)=	7	140	141	142	143	0	0	0	0	0	0	0	0	0	0
6)=	7	230	231	232	233	0	0	0	0	0	0	0	0	0	0
7)=	7	330	331	332	0	0	0	0	0	0	0	0	0	0	0
8)=	7	340	341	342	343	0	0	0	0	0	0	0	0	0	0
9)=	7	530	531	532	0	0	0	0	0	0	0	0	0	0	0
10)=	7	540	541	542	543	0	0	0	0	0	0	0	0	0	0
11)=	7	630	631	632	0	0	0	0	0	0	0	0	0	0	0
12)=	7	640	641	642	643	0	0	0	0	0	0	0	0	0	0

NODE CARDS: MINIMUM STAGE TIMES (WORKING)

CARD NO.	CARD TYPE	NODE NO.	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10
13)=	10	1	17	39								
14)=	10	3	18	30	7							

NODE CARDS: PRECEDING INTERSTAGE TIMES (WORKING)

CARD NO.	CARD TYPE	NODE NO.	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10
15)=	11	1	7	7								
16)=	11	3	5	5	5							

NODE CARDS: STAGE CHANGE TIMES (WORKING)

CARD NO.	CARD TYPE	NODE NO.	Sgl/Dbl Cycled	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10
17)=	12	1	1	0	24								
18)=	12	3	1	0	23	58							

LINK CARDS: GIVEWAY DATA

CARD NO.	CARD TYPE	LINK NO.	PRIORITY LINKS LINK1 NO.	LINK2 NO.	ONLY % FLOW	LINK1 GIVEWAY COEFFS. A1 X100	A2 X100				LINK LENGTH	STOP WT.X100	MAX FLOW	DELAY WT.X100	DISPSN X100
19)=	30	200	230	0	0	76	0	0	0	0	0	150	0	2022	0	0

LINK CARDS: FIXED DATA

CARD NO.	CARD TYPE	LINK NO.	EXIT NODE	FIRST GREEN START STAGE	LAG	END STAGE	LAG	SECOND GREEN START STAGE	LAG	END STAGE	LAG	LINK LENGTH	STOP WT.X100	SAT FLOW	DELAY WT.X100	DISPSN X100
20)=	31	100	1	2	7	1	0	0	0	0	0	300	0	3949	0	0
21)=	31	130	1	1	7	2	0	0	0	0	0	150	0	1980	0	0
22)=	31	131	0	0	0	0	0	0	0	0	0	150	0	0	0	0
23)=	31	140	1	1	7	2	0	0	0	0	0	150	0	3801	0	0
24)=	31	141	0	0	0	0	0	0	0	0	0	150	0	0	0	0
25)=	31	142	0	0	0	0	0	0	0	0	0	150	0	0	0	0
26)=	31	143	0	0	0	0	0	0	0	0	0	150	0	0	0	0
27)=	31	230	0	0	0	0	0	0	0	0	0	73	0	5400	0	0
28)=	31	231	0	0	0	0	0	0	0	0	0	73	0	0	0	0
29)=	31	232	0	0	0	0	0	0	0	0	0	73	0	0	0	0
30)=	31	233	0	0	0	0	0	0	0	0	0	73	0	0	0	0
31)=	31	300	3	2	5	3	1	0	0	0	0	300	0	4082	0	0
32)=	31	330	3	1	5	2	1	0	0	0	0	160	0	3900	0	0
33)=	31	331	0	0	0	0	0	0	0	0	0	160	0	0	0	0
34)=	31	332	0	0	0	0	0	0	0	0	0	160	0	0	0	0
35)=	31	340	3	1	5	2	1	0	0	0	0	160	0	1800	0	0
36)=	31	341	0	0	0	0	0	0	0	0	0	160	0	0	0	0
37)=	31	342	0	0	0	0	0	0	0	0	0	160	0	0	0	0
38)=	31	343	0	0	0	0	0	0	0	0	0	160	0	0	0	0
39)=	31	400	3	3	5	1	0	0	0	0	0	150	0	3800	0	0

40)=	31	500	0	0	0	0	0	0	0	0	0	300	0	1489	0	0
41)=	31	530	0	0	0	0	0	0	0	0	0	150	0	3900	0	0
42)=	31	531	0	0	0	0	0	0	0	0	0	150	0	0	0	0
43)=	31	532	0	0	0	0	0	0	0	0	0	150	0	0	0	0
44)=	31	540	0	0	0	0	0	0	0	0	0	150	0	1800	0	0
45)=	31	541	0	0	0	0	0	0	0	0	0	150	0	0	0	0
46)=	31	542	0	0	0	0	0	0	0	0	0	150	0	0	0	0
47)=	31	543	0	0	0	0	0	0	0	0	0	150	0	0	0	0
48)=	31	600	0	0	0	0	0	0	0	0	0	300	0	1045	0	0
49)=	31	630	0	0	0	0	0	0	0	0	0	208	0	1980	0	0
50)=	31	631	0	0	0	0	0	0	0	0	0	208	0	0	0	0
51)=	31	632	0	0	0	0	0	0	0	0	0	208	0	0	0	0
52)=	31	640	0	0	0	0	0	0	0	0	0	208	0	3800	0	0
53)=	31	641	0	0	0	0	0	0	0	0	0	208	0	0	0	0
54)=	31	642	0	0	0	0	0	0	0	0	0	208	0	0	0	0
55)=	31	643	0	0	0	0	0	0	0	0	0	208	0	0	0	0

LINK CARDS: FLOW DATA

					ENTRY 1			ENTRY 2			ENTRY 3			ENTRY 4		
CARD NO.	CARD TYPE	LINK NO.	TOTAL FLOW	UNIFORM FLOW	LINK NO.	FLOW	CRUISE SPEED	LINK NO.	FLOW	CRUISE SPEED	LINK NO.	FLOW	CRUISE SPEED	LINK NO.	FLOW	CRUISE SPEED
56)=	32	100	1836	0	0	0	30	0	0	0	0	0	0	0	0	0
57)=	32	130	311	0	600	311	30	0	0	0	0	0	0	0	0	0
58)=	32	131	10	0	630	10	30	0	0	0	0	0	0	0	0	0
59)=	32	140	36	0	600	36	30	0	0	0	0	0	0	0	0	0
60)=	32	141	731	0	630	731	30	0	0	0	0	0	0	0	0	0
61)=	32	142	10	0	631	10	30	0	0	0	0	0	0	0	0	0
62)=	32	143	16	0	632	16	30	0	0	0	0	0	0	0	0	0
63)=	32	200	94	0	0	0	30	0	0	0	0	0	0	0	0	0
64)=	32	230	1821	0	100	1821	30	0	0	0	0	0	0	0	0	0
65)=	32	231	316	0	130	311	30	140	10	30	0	0	0	0	0	0
66)=	32	232	729	0	131	10	30	141	731	30	0	0	0	0	0	0
67)=	32	233	10	0	142	10	30	0	0	0	0	0	0	0	0	0
68)=	32	300	1552	0	0	0	30	0	0	0	0	0	0	0	0	0
69)=	32	330	61	0	200	61	30	0	0	0	0	0	0	0	0	0
70)=	32	331	255	0	230	255	30	0	0	0	0	0	0	0	0	0
71)=	32	332	311	0	231	311	30	0	0	0	0	0	0	0	0	0
72)=	32	340	10	0	200	10	30	0	0	0	0	0	0	0	0	0
73)=	32	341	14	0	230	14	30	0	0	0	0	0	0	0	0	0
74)=	32	342	10	0	231	10	30	0	0	0	0	0	0	0	0	0
75)=	32	343	10	0	232	10	10	0	0	0	0	0	0	0	0	0
76)=	32	400	41	0	0	0	30	0	0	0	0	0	0	0	0	0
77)=	32	500	1156	0	0	0	30	0	0	0	0	0	0	0	0	0
78)=	32	530	18	0	400	18	30	0	0	0	0	0	0	0	0	0
79)=	32	531	1093	0	300	1093	30	0	0	0	0	0	0	0	0	0
80)=	32	532	30	0	330	30	30	0	0	0	0	0	0	0	0	0
81)=	32	540	19	0	400	19	30	0	0	0	0	0	0	0	0	0
82)=	32	541	10	0	300	10	30	0	0	0	0	0	0	0	0	0
83)=	32	542	10	0	330	10	30	0	0	0	0	0	0	0	0	0
84)=	32	543	245	0	331	245	30	0	0	0	0	0	0	0	0	0
85)=	32	600	488	0	0	0	30	0	0	0	0	0	0	0	0	0
86)=	32	630	733	0	500	733	30	0	0	0	0	0	0	0	0	0
87)=	32	631	10	0	530	10	30	0	0	0	0	0	0	0	0	0
88)=	32	632	16	0	531	16	30	0	0	0	0	0	0	0	0	0
89)=	32	640	10	0	500	10	30	0	0	0	0	0	0	0	0	0
90)=	32	641	10	0	530	10	30	0	0	0	0	0	0	0	0	0
91)=	32	642	1077	0	531	1077	30	0	0	0	0	0	0	0	0	0
92)=	32	643	30	0	532	30	30	0	0	0	0	0	0	0	0	0

LINK CARDS : FLARE SATURATION FLOW DATA

			..LANE 1..		..LANE 2..		..LANE 3..	
	CARD TYPE	LINK NO.	SAT. FLOW	CAPAC VEH.	SAT. FLOW	CAPAC VEH.	SAT. FLOW	CAPAC VEH.
93)=	33	100	1906	3	0	0	0	0

*****END OF SUBROUTINE TINPUT*****

.

70 SECOND CYCLE 70 STEPS

INITIAL SETTINGS
- (SECONDS)

NODE NO	NUMBER OF STAGES	STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 5	STAGE 6	STAGE 7	STAGE 8	STAGE 9	STAGE 10
1	2	0	24								
3	3	0	23	58							

LINK NUMBER	FLOW INTO LINK (PCU/H)	SAT FLOW (PCU/H)	DEGREE OF SAT (%)	MEAN TIMES PER PCU CRUISE (SEC)	MEAN TIMES PER PCU DELAY (SEC)	-------DELAY-------- UNIFORM RANDOM+ OVERSAT (U+R+O=MEAN Q) (PCU-H/H)	COST OF DELAY ($/H)	----STOPS---- MEAN STOPS /PCU (%)	COST OF STOPS ($/H)	----QUEUE---- MEAN MAX. (PCU)	AVERAGE EXCESS (PCU)	PERFORMANCE INDEX. WEIGHTED SUM OF ( ) VALUES ($/H)	EXIT NODE	GREEN TIMES START END 1ST (SECONDS)	START END 2ND
100	1836	4219f	76	36.0	13.4	5.2 + 1.6	(97.0)	73	(16.7)	27		113.7	1	31	0
130	311	1980S	63	18.0	32.6	2.0 + 0.8	(40.0)	99	(3.9)	6		43.9	1	7	24
131	10	130L	63	18.0	33.5	0.1 + 0.0	(1.3)	101	(0.1)	6		1.4	1	7	24
140	36	3801S	81	18.0	34.1	0.2 + 0.1	(4.8)	104	(0.5)	16		5.3	1	7	24
141	732	140L	81	18.0	34.0	5.0 + 1.9	(98.1)	104	(9.5)	16		107.6	1	7	24
142	10	140L	81	18.0	35.1	0.1 + 0.0	(1.4)	112	(0.1)	16		1.5	1	7	24
143	15	140L	81	18.0	42.0	0.1 + 0.0	(2.5)	96	(0.2)	16		2.7	1	7	24
200	94	2022	22	18.0	12.3	0.2 + 0.1	(4.6)	76	(0.9)	1		5.5			
230	1821	5400S	53	8.8	0.7	0.0 + 0.4	(5.1)	1	(0.2)	1		5.4			
231	316	230L	53	8.8	0.7	0.0 + 0.1	(0.9)	1	(0.0)	1		0.9			
232	730	230L	53	8.8	0.7	0.0 + 0.1	(2.1)	1	(0.1)	1		2.1			
233	10	230L	53	8.8	0.7	0.0 + 0.0	(0.0)	1	(0.0)	1		0.0			
300	1552	4082	83	36.0	22.3	7.2 + 2.4	(136.4)	92	(17.8)	29		154.3	3	28	59
330	61	3900S	56	19.2	21.4	0.3 + 0.1	(5.2)	75	(0.6)	12		5.7	3	5	24
331	255	330L	56	19.2	17.5	1.0 + 0.3	(17.6)	86	(2.8)	12		20.3	3	5	24
332	311	330L	56	19.2	39.3	3.1 + 0.3	(48.2)	105	(4.1)	12		52.3	3	5	24
340	10	1800S	9	19.2	19.0	0.0 + 0.0	(0.7)	56	(0.1)	1		0.8	3	5	24
341	15	340L	9	19.2	12.5	0.0 + 0.0	(0.7)	68	(0.1)	1		0.9	3	5	24
342	10	340L	9	19.2	37.0	0.1 + 0.0	(1.5)	106	(0.1)	1		1.6	3	5	24
343	10	340L	9	57.6	13.7	0.0 + 0.0	(0.5)	55	(0.0)	1		0.5	3	5	24
400	41	3800	9	18.0	32.5	0.3 + 0.1	(5.3)	93	(0.5)	1		5.7	3	63	0
500	1156	1489	78	36.0	5.4	0.0 + 1.7	(24.4)	7	(1.1)	2		25.5			
530	18	3900S	28	18.0	0.6	0.0 + 0.0	(0.0)	1	(0.0)	0		0.0			
531	1093	530L	28	18.0	0.6	0.0 + 0.2	(2.8)	1	(0.1)	0		2.9			
532	0<	530L	28	18.0	0.0	0.0 + 0.0	(0.0)	0	(0.0)	0		0.0			
540	19	1800S	16	18.0	1.2	0.0 + 0.0	(0.1)	2	(0.0)	0		0.1			
541	9	540L	16	18.0	1.2	0.0 + 0.0	(0.0)	2	(0.0)	0		0.0			
542	10	540L	16	18.0	1.2	0.0 + 0.0	(0.0)	2	(0.0)	0		0.0			
543	245	540L	16	18.0	1.2	0.0 + 0.1	(1.1)	2	(0.1)	0		1.2			
600	488	1045	47	36.0	3.2	0.0 + 0.4	(6.2)	5	(0.3)	0		6.5			
630	733	1980S	38	25.0	1.5	0.0 + 0.3	(4.3)	2	(0.2)	0		4.4			
631	10	630L	38	25.0	1.5	0.0 + 0.0	(0.1)	2	(0.0)	0		0.1			
632	15	630L	38	25.0	1.5	0.0 + 0.0	(0.1)	2	(0.0)	0		0.1			
640	9	3800S	29	25.0	0.7	0.0 + 0.0	(0.0)	1	(0.0)	0		0.0			
641	10	640L	29	25.0	0.7	0.0 + 0.0	(0.0)	1	(0.0)	0		0.0			
642	1077	640L	29	25.0	0.7	0.0 + 0.2	(2.8)	1	(0.1)	0		3.0			
643	0<	640L	29	25.0	0.0	0.0 + 0.0	(0.0)	0	(0.0)	0		0.0			

*** f - average saturation flow for flared link ***

.

70 SECOND CYCLE 70 STEPS

TOTAL DISTANCE TRAVELLED (PCU-KM/H)	TOTAL TIME SPENT (PCU-H/H)	MEAN JOURNEY SPEED (KM/H)	TOTAL UNIFORM DELAY (PCU-H/H)	TOTAL RANDOM+ OVERSAT DELAY (PCU-H/H)	TOTAL COST OF DELAY ($/H)	TOTAL COST OF STOPS ($/H)	PENALTY FOR EXCESS QUEUES ($/H)	TOTAL PERFORMANCE INDEX ($/H)	
2620.3	123.8	21.2	24.9	11.4	(515.9) + (	60.3) + (	0.0) =	576.2	TOTALS

****

	CRUISE LITRES PER HOUR		DELAY LITRES PER HOUR		STOPS LITRES PER HOUR		TOTALS LITRES PER HOUR
FUEL CONSUMPTION PREDICTIONS	167.6	+	41.8	+	27.5	=	236.9

NO. OF ENTRIES TO SUBPT = 1
NO. OF LINKS RECALCULATED= 53
.

70 SECOND CYCLE 70 STEPS

INTERMEDIATE SETTINGS - INCREMENTS SO FAR :- 10
- (SECONDS)

1 2 40 64
3 3 0 23 58

TOTAL DISTANCE TRAVELLED (PCU-KM/H)	TOTAL TIME SPENT (PCU-H/H)	MEAN JOURNEY SPEED (KM/H)	TOTAL UNIFORM DELAY (PCU-H/H)	TOTAL RANDOM+ OVERSAT DELAY (PCU-H/H)	TOTAL COST OF DELAY ($/H)	TOTAL COST OF STOPS ($/H)	PENALTY FOR EXCESS QUEUES ($/H)	TOTAL PERFORMANCE INDEX ($/H)	
2620.3	122.4	21.4	23.6	11.4	(496.5) + (	59.3) + (	0.0) =	555.8	TOTALS

NO. OF ENTRIES TO SUBPT = 8
NO. OF LINKS RECALCULATED= 287
.

70 SECOND CYCLE 70 STEPS

INTERMEDIATE SETTINGS - INCREMENTS SO FAR :- 10 28
- (SECONDS)

1 2 40 64
3 3 0 23 58

TOTAL DISTANCE TRAVELLED (PCU-KM/H)	TOTAL TIME SPENT (PCU-H/H)	MEAN JOURNEY SPEED (KM/H)	TOTAL UNIFORM DELAY (PCU-H/H)	TOTAL RANDOM+ OVERSAT DELAY (PCU-H/H)	TOTAL COST OF DELAY ($/H)	TOTAL COST OF STOPS ($/H)	PENALTY FOR EXCESS QUEUES ($/H)	TOTAL PERFORMANCE INDEX ($/H)	
2620.3	122.4	21.4	23.6	11.4	(496.5) + (	59.3) + (	0.0) =	555.8	TOTALS

NO. OF ENTRIES TO SUBPT = 5
NO. OF LINKS RECALCULATED= 201
.

70 SECOND CYCLE 70 STEPS

INTERMEDIATE SETTINGS - INCREMENTS SO FAR :- 10 28 -1
- (SECONDS)

1 2 40 64
3 3 0 23 58

TOTAL DISTANCE TRAVELLED (PCU-KM/H)	TOTAL TIME SPENT (PCU-H/H)	MEAN JOURNEY SPEED (KM/H)	TOTAL UNIFORM DELAY (PCU-H/H)	TOTAL RANDOM+ OVERSAT DELAY (PCU-H/H)	TOTAL COST OF DELAY ($/H)	TOTAL COST OF STOPS ($/H)	PENALTY FOR EXCESS QUEUES ($/H)	TOTAL PERFORMANCE INDEX ($/H)	
2620.3	122.4	21.4	23.6	11.4	(496.5) + (	59.3) + (	0.0) =	555.8	TOTALS

NO. OF ENTRIES TO SUBPT = 1
NO. OF LINKS RECALCULATED= 38
.

70 SECOND CYCLE 70 STEPS

INTERMEDIATE SETTINGS - INCREMENTS SO FAR :- 10 28 -1 10
- (SECONDS)

1 2 40 64
3 3 0 23 58

TOTAL DISTANCE TRAVELLED (PCU-KM/H)	TOTAL TIME SPENT (PCU-H/H)	MEAN JOURNEY SPEED (KM/H)	TOTAL UNIFORM DELAY (PCU-H/H)	TOTAL RANDOM+ OVERSAT DELAY (PCU-H/H)	TOTAL COST OF DELAY ($/H)	TOTAL COST OF STOPS ($/H)	PENALTY FOR EXCESS QUEUES ($/H)	TOTAL PERFORMANCE INDEX ($/H)	
2620.3	122.4	21.4	23.6	11.4	(496.5) + (	59.3) + (	0.0) =	555.8	TOTALS

NO. OF ENTRIES TO SUBPT = 5
NO. OF LINKS RECALCULATED= 201
.

70 SECOND CYCLE 70 STEPS

INTERMEDIATE SETTINGS - INCREMENTS SO FAR :- 10 28 -1 10 28
- (SECONDS)

1 2 40 64
3 3 0 23 58

TOTAL DISTANCE TRAVELLED (PCU-KM/H)	TOTAL TIME SPENT (PCU-H/H)	MEAN JOURNEY SPEED (KM/H)	TOTAL UNIFORM DELAY (PCU-H/H)	TOTAL RANDOM+ OVERSAT DELAY (PCU-H/H)	TOTAL COST OF DELAY ($/H)	TOTAL COST OF STOPS ($/H)	PENALTY FOR EXCESS QUEUES ($/H)	TOTAL PERFORMANCE INDEX ($/H)	
2620.3	122.4	21.4	23.6	11.4	(496.5) + (	59.3) + (	0.0) =	555.8	TOTALS

NO. OF ENTRIES TO SUBPT = 5
NO. OF LINKS RECALCULATED= 211
.

70 SECOND CYCLE 70 STEPS

INTERMEDIATE SETTINGS - INCREMENTS SO FAR :- 10 28 -1 10 28 1
- (SECONDS)

1	2	44	68	
3	3	0	23	58

TOTAL DISTANCE TRAVELLED (PCU-KM/H)	TOTAL TIME SPENT (PCU-H/H)	MEAN JOURNEY SPEED (KM/H)	TOTAL UNIFORM DELAY (PCU-H/H)	TOTAL RANDOM+ OVERSAT DELAY (PCU-H/H)	TOTAL COST OF DELAY ($/H)		TOTAL COST OF STOPS ($/H)		PENALTY FOR EXCESS QUEUES ($/H)		TOTAL PERFORMANCE INDEX ($/H)	
2620.3	122.3	21.4	23.5	11.4	(495.1)	+	(58.5)	+	(0.0)	=	553.6	TOTALS

NO. OF ENTRIES TO SUBPT = 8
NO. OF LINKS RECALCULATED= 283
.

70 SECOND CYCLE 70 STEPS

INTERMEDIATE SETTINGS - INCREMENTS SO FAR :- 10 28 -1 10 28 1 -1
- (SECONDS)

1	2	44	68	
3	3	0	23	58

TOTAL DISTANCE TRAVELLED (PCU-KM/H)	TOTAL TIME SPENT (PCU-H/H)	MEAN JOURNEY SPEED (KM/H)	TOTAL UNIFORM DELAY (PCU-H/H)	TOTAL RANDOM+ OVERSAT DELAY (PCU-H/H)	TOTAL COST OF DELAY ($/H)		TOTAL COST OF STOPS ($/H)		PENALTY FOR EXCESS QUEUES ($/H)		TOTAL PERFORMANCE INDEX ($/H)	
2620.3	122.3	21.4	23.5	11.4	(495.1)	+	(58.5)	+	(0.0)	=	553.6	TOTALS

NO. OF ENTRIES TO SUBPT = 1
NO. OF LINKS RECALCULATED= 38
.

70 SECOND CYCLE 70 STEPS

FINAL SETTINGS OBTAINED WITH INCREMENTS :- 10 28 -1 10 28 1 -1 1
- (SECONDS)

NODE NO	NUMBER OF STAGES	STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 5	STAGE 6	STAGE 7	STAGE 8	STAGE 9	STAGE 10
1	2	44	68								
3	3	0	23	58							

LINK NUMBER	FLOW INTO LINK (PCU/H)	SAT FLOW (PCU/H)	DEGREE OF SAT (%)	MEAN TIMES PER PCU CRUISE (SEC)	DELAY (SEC)	DELAY UNIFORM (U+R+O=MEAN Q) (PCU-H/H)	RANDOM+ OVERSAT	COST OF DELAY ($/H)	STOPS MEAN STOPS /PCU (%)	COST OF STOPS ($/H)	QUEUE MEAN MAX. (PCU)	AVERAGE EXCESS (PCU)	PERFORMANCE INDEX. WEIGHTED SUM OF ( ) VALUES ($/H)	EXIT NODE	GREEN TIMES START END 1ST (SECONDS)	START END 2ND
100	1836	4219f	76	36.0	13.4	5.2 +	1.6	(97.0)	73	(16.7)	27		113.7	1	5	44
130	311	1980S	63	18.0	32.6	2.0 +	0.8	(40.0)	99	(3.9)	6		43.9	1	51	68
131	10	130L	63	18.0	33.5	0.1 +	0.0	(1.3)	101	(0.1)	6		1.4	1	51	68
140	36	3801S	81	18.0	34.0	0.2 +	0.1	(4.8)	104	(0.5)	16		5.3	1	51	68
141	732	140L	81	18.0	33.9	5.0 +	1.9	(97.8)	104	(9.5)	16		107.4	1	51	68
142	10	140L	81	18.0	23.0	0.0 +	0.0	(0.9)	98	(0.1)	16		1.0	1	51	68
143	15	140L	81	18.0	33.4	0.1 +	0.0	(2.0)	106	(0.2)	16		2.2	1	51	68
200	94	2022	22	18.0	12.3	0.2 +	0.1	(4.6)	76	(0.9)	1		5.5			
230	1821	5400S	53	8.8	0.7	0.0 +	0.4	(5.1)	1	(0.2)	1		5.4			
231	316	230L	53	8.8	0.7	0.0 +	0.1	(0.9)	1	(0.0)	1		0.9			
232	730	230L	53	8.8	0.7	0.0 +	0.1	(2.1)	1	(0.1)	1		2.1			
233	10	230L	53	8.8	0.7	0.0 +	0.0	(0.0)	1	(0.0)	1		0.0			
300	1552	4082	83	36.0	22.3	7.2 +	2.4	(136.4)	92	(17.8)	29		154.3	3	28	59
330	61	3900S	56	19.2	22.8	0.3 +	0.1	(5.5)	86	(0.7)	9		6.1	3	5	24
331	255	330L	56	19.2	32.1	2.0 +	0.3	(32.3)	104	(3.3)	9		35.6	3	5	24
332	311	330L	56	19.2	10.5	0.6 +	0.3	(12.9)	41	(1.6)	9		14.6	3	5	24
340	10	1800S	9	19.2	20.2	0.0 +	0.0	(0.8)	81	(0.1)	1		0.9	3	5	24
341	15	340L	9	19.2	28.8	0.1 +	0.0	(1.7)	106	(0.2)	1		1.9	3	5	24
342	10	340L	9	19.2	10.0	0.0 +	0.0	(0.4)	21	(0.0)	1		0.4	3	5	24
343	10	340L	9	57.6	24.3	0.1 +	0.0	(1.0)	96	(0.0)	1		1.0	3	5	24
400	41	3800	9	18.0	32.5	0.3 +	0.1	(5.3)	93	(0.5)	1		5.7	3	63	0
500	1156	1489	78	36.0	5.4	0.0 +	1.7	(24.4)	7	(1.1)	2		25.5			
530	18	3900S	29	18.0	0.7	0.0 +	0.0	(0.0)	1	(0.0)	0		0.0			
531	1093	530L	29	18.0	0.7	0.0 +	0.2	(2.8)	1	(0.1)	0		2.9			
532	30	530L	29	18.0	0.7	0.0 +	0.0	(0.1)	1	(0.0)	0		0.1			
540	19	1800S	16	18.0	1.2	0.0 +	0.0	(0.1)	2	(0.0)	1		0.1			
541	9	540L	16	18.0	1.2	0.0 +	0.0	(0.0)	2	(0.0)	1		0.0			
542	10	540L	16	18.0	1.2	0.0 +	0.0	(0.0)	2	(0.0)	1		0.1			
543	245	540L	16	18.0	1.2	0.0 +	0.1	(1.2)	2	(0.1)	1		1.2			
600	488	1045	47	36.0	3.2	0.0 +	0.4	(6.2)	5	(0.3)	0		6.5			
630	733	1980S	38	25.0	1.5	0.0 +	0.3	(4.3)	2	(0.2)	0		4.4			
631	10	630L	38	25.0	1.5	0.0 +	0.0	(0.1)	2	(0.0)	0		0.1			
632	15	630L	38	25.0	1.5	0.0 +	0.0	(0.1)	2	(0.0)	0		0.1			
640	9	3800S	30	25.0	0.7	0.0 +	0.0	(0.0)	1	(0.0)	0		0.0			
641	10	640L	30	25.0	0.7	0.0 +	0.0	(0.0)	1	(0.0)	0		0.0			
642	1077	640L	30	25.0	0.7	0.0 +	0.2	(2.9)	1	(0.1)	0		3.0			
643	30	640L	30	25.0	0.7	0.0 +	0.0	(0.1)	1	(0.0)	0		0.1			

*** f - average saturation flow for flared link ***
.

70 SECOND CYCLE 70 STEPS

TOTAL DISTANCE TRAVELLED (PCU-KM/H)	TOTAL TIME SPENT (PCU-H/H)	MEAN JOURNEY SPEED (KM/H)	TOTAL UNIFORM DELAY (PCU-H/H)	TOTAL RANDOM+ OVERSAT DELAY (PCU-H/H)	TOTAL COST OF DELAY ($/H)		TOTAL COST OF STOPS ($/H)		PENALTY FOR EXCESS QUEUES ($/H)		TOTAL PERFORMANCE INDEX ($/H)	
2620.3	122.3	21.4	23.5	11.4	(495.1)	+	(58.5)	+	(0.0)	=	553.6	TOTALS

ROUTE

****

	CRUISE LITRES PER HOUR		DELAY LITRES PER HOUR		STOPS LITRES PER HOUR		TOTALS LITRES PER HOUR
FUEL CONSUMPTION PREDICTIONS	167.6	+	40.1	+	26.7	=	234.4

NO. OF ENTRIES TO SUBPT = 5
NO. OF LINKS RECALCULATED= 207

PROGRAM TRANSYT FINISHED

1 _____ T R A N S Y T 12 _____

Traffic Network Study Tool

Analysis Program Release 7 (July 2010)
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Run with file:- "M25_J29_2030 BASE_AM1.DAT" at 10:15 on 20130930

TRANSYT 12.0

M25 J29: Existing layout 2030 + Base flows, AM peak

PARAMETERS CONTROLLING DIMENSIONS OF PROBLEM :

NUMBER OF NODES	= 2
NUMBER OF LINKS	= 37
NUMBER OF OPTIMISED NODES	= 2
MAXIMUM NUMBER OF GRAPHIC PLOTS	= 0
NUMBER OF STEPS IN CYCLE	= 60
MAXIMUM NUMBER OF SHARED STOPLINES	= 4
MAXIMUM NUMBER OF TIMING POINTS	= 3
MAXIMUM LINKS AT ANY NODE	= 4

CORE REQUESTED = 9529 WORDS
CORE AVAILABLE = 72000 WORDS

DATA INPUT :-

CARD NO.	CARD TYPE															
(1)=	TITLE:- M25 J29: Existing layout 2030 + Base flows, AM peak															
CARD NO.	CARD TYPE	CYCLE TIME (SEC)	NO. OF STEPS PER CYCLE	TIME PERIOD MINS.	DISPLACEMENTS 1-1200 (SEC)	START (SEC)	EFFECTIVE-GREEN END (SEC)	EQUISAT SETTINGS 0=NO 1=YES	0=UNEQUAL 1=EQUAL CYCLE	FLOW SCALE %	CRUISE-SPEEDS SCALE %	CARD32 1=SPEEDS	0=TIMES 1=O/SET 2=FULL	OPTIMISE FINAL OUTPUT	EXTRA COPIES 1=FULL	HILL-CLIMB PCU-H	DELAY VALUE P PER 100	STOP VALUE P PER 100
2)=	1	60	60	60	2	3	1	1	100	100	1	2	0	0	1420	260	
CARD NO.	CARD TYPE	LIST OF NODES TO BE OPTIMISED														
3)=	2	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0

		LINKS HAVING SHARED STOPLINES														
CARD NO.	CARD TYPE	FIRST SET.....				SECOND SET.....						THIRD SET.....				
4)=	7	130	131	0	0	0	0	0	0	0	0	0	0	0	0	0
5)=	7	140	141	142	143	0	0	0	0	0	0	0	0	0	0	0
6)=	7	230	231	232	233	0	0	0	0	0	0	0	0	0	0	0
7)=	7	330	331	332	0	0	0	0	0	0	0	0	0	0	0	0
8)=	7	340	341	342	343	0	0	0	0	0	0	0	0	0	0	0
9)=	7	530	531	532	0	0	0	0	0	0	0	0	0	0	0	0
10)=	7	540	541	542	543	0	0	0	0	0	0	0	0	0	0	0
11)=	7	630	631	632	0	0	0	0	0	0	0	0	0	0	0	0
12)=	7	640	641	642	643	0	0	0	0	0	0	0	0	0	0	0

		NODE CARDS: MINIMUM STAGE TIMES (WORKING)									
CARD NO.	CARD TYPE	NODE NO.	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10
13)=	10	1	7	7								
14)=	10	3	8	30	7							

		NODE CARDS: PRECEDING INTERSTAGE TIMES (WORKING)									
CARD NO.	CARD TYPE	NODE NO.	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10
15)=	11	1	7	7								
16)=	11	3	5	5	5							

		NODE CARDS: STAGE CHANGE TIMES (WORKING)										
CARD NO.	CARD TYPE	NODE NO.	Sgl/Dbl Cycled	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10
17)=	12	1	1	27	51								
18)=	12	3	1	5	18	53							

		LINK CARDS: GIVEWAY DATA												
		PRIORITY LINKS	LINK1 GIVEWAY COEFFS.											
CARD NO.	CARD TYPE	LINK NO.	LINK1 NO.	LINK2 NO.	ONLY % FLOW	A1 X100	A2 X100					LINK LENGTH	STOP WT.X100	MAX FLOW	DELAY WT.X100	DISPSN X100
19)=	30	200	230	0	0	76	0	0	0	0	0	150	0	2022	0	0

		LINK CARDS: FIXED DATA														
			FIRST GREEN				SECOND GREEN									
CARD NO.	CARD TYPE	LINK NO.	EXIT NODE	START STAGE	LAG	END STAGE	LAG	START STAGE	LAG	END STAGE	LAG	LINK LENGTH	STOP WT.X100	SAT FLOW	DELAY WT.X100	DISPSN X100
20)=	31	100	1	2	7	1	0	0	0	0	0	300	0	3949	0	0
21)=	31	130	1	1	7	2	0	0	0	0	0	150	0	1980	0	0
22)=	31	131	0	0	0	0	0	0	0	0	0	150	0	0	0	0
23)=	31	140	1	1	7	2	0	0	0	0	0	150	0	3801	0	0
24)=	31	141	0	0	0	0	0	0	0	0	0	150	0	0	0	0
25)=	31	142	0	0	0	0	0	0	0	0	0	150	0	0	0	0
26)=	31	143	0	0	0	0	0	0	0	0	0	150	0	0	0	0
27)=	31	230	0	0	0	0	0	0	0	0	0	73	0	5400	0	0
28)=	31	231	0	0	0	0	0	0	0	0	0	73	0	0	0	0
29)=	31	232	0	0	0	0	0	0	0	0	0	73	0	0	0	0
30)=	31	233	0	0	0	0	0	0	0	0	0	73	0	0	0	0
31)=	31	300	3	2	5	3	2	0	0	0	0	300	0	4082	0	0
32)=	31	330	3	1	5	2	4	0	0	0	0	160	0	3900	0	0
33)=	31	331	0	0	0	0	0	0	0	0	0	160	0	0	0	0
34)=	31	332	0	0	0	0	0	0	0	0	0	160	0	0	0	0
35)=	31	340	3	1	5	2	4	0	0	0	0	160	0	1800	0	0
36)=	31	341	0	0	0	0	0	0	0	0	0	160	0	0	0	0
37)=	31	342	0	0	0	0	0	0	0	0	0	160	0	0	0	0
38)=	31	343	0	0	0	0	0	0	0	0	0	160	0	0	0	0
39)=	31	400	3	3	5	1	0	0	0	0	0	150	0	3800	0	0

40)=	31	500	0	0	0	0	0	0	0	0	0	300	0	1104	0	0
41)=	31	530	0	0	0	0	0	0	0	0	0	150	0	3900	0	0
42)=	31	531	0	0	0	0	0	0	0	0	0	150	0	0	0	0
43)=	31	532	0	0	0	0	0	0	0	0	0	150	0	0	0	0
44)=	31	540	0	0	0	0	0	0	0	0	0	150	0	1800	0	0
45)=	31	541	0	0	0	0	0	0	0	0	0	150	0	0	0	0
46)=	31	542	0	0	0	0	0	0	0	0	0	150	0	0	0	0
47)=	31	543	0	0	0	0	0	0	0	0	0	150	0	0	0	0
48)=	31	600	0	0	0	0	0	0	0	0	0	300	0	787	0	0
49)=	31	630	0	0	0	0	0	0	0	0	0	208	0	1980	0	0
50)=	31	631	0	0	0	0	0	0	0	0	0	208	0	0	0	0
51)=	31	632	0	0	0	0	0	0	0	0	0	208	0	0	0	0
52)=	31	640	0	0	0	0	0	0	0	0	0	208	0	3800	0	0
53)=	31	641	0	0	0	0	0	0	0	0	0	208	0	0	0	0
54)=	31	642	0	0	0	0	0	0	0	0	0	208	0	0	0	0
55)=	31	643	0	0	0	0	0	0	0	0	0	208	0	0	0	0

LINK CARDS: FLOW DATA

CARD NO.	CARD TYPE	LINK NO.	TOTAL FLOW	UNIFORM FLOW	ENTRY 1 .... LINK NO.	FLOW	CRUISE SPEED	ENTRY 2 .... LINK NO.	FLOW	CRUISE SPEED	ENTRY 3 .... LINK NO.	FLOW	CRUISE SPEED	ENTRY 4 .... LINK NO.	FLOW	CRUISE SPEED
56)=	32	100	1780	0	0	0	30	0	0	0	0	0	0	0	0	0
57)=	32	130	357	0	600	357	30	0	0	0	0	0	0	0	0	0
58)=	32	131	10	0	630	10	30	0	0	0	0	0	0	0	0	0
59)=	32	140	94	0	600	94	30	0	0	0	0	0	0	0	0	0
60)=	32	141	918	0	630	918	30	0	0	0	0	0	0	0	0	0
61)=	32	142	21	0	631	21	30	0	0	0	0	0	0	0	0	0
62)=	32	143	31	0	632	31	30	0	0	0	0	0	0	0	0	0
63)=	32	200	70	0	0	0	30	0	0	0	0	0	0	0	0	0
64)=	32	230	1770	0	100	1770	30	0	0	0	0	0	0	0	0	0
65)=	32	231	359	0	130	357	30	140	10	30	0	0	0	0	0	0
66)=	32	232	917	0	131	10	30	141	917	30	0	0	0	0	0	0
67)=	32	233	10	0	142	10	30	0	0	0	0	0	0	0	0	0
68)=	32	300	2177	0	0	0	30	0	0	0	0	0	0	0	0	0
69)=	32	330	47	0	200	47	30	0	0	0	0	0	0	0	0	0
70)=	32	331	228	0	230	228	30	0	0	0	0	0	0	0	0	0
71)=	32	332	356	0	231	356	30	0	0	0	0	0	0	0	0	0
72)=	32	340	10	0	200	10	30	0	0	0	0	0	0	0	0	0
73)=	32	341	10	0	230	10	30	0	0	0	0	0	0	0	0	0
74)=	32	342	10	0	231	10	30	0	0	0	0	0	0	0	0	0
75)=	32	343	10	0	232	60	10	0	0	0	0	0	0	0	0	0
76)=	32	400	75	0	0	0	30	0	0	0	0	0	0	0	0	0
77)=	32	500	1394	0	0	0	30	0	0	0	0	0	0	0	0	0
78)=	32	530	49	0	400	49	30	0	0	0	0	0	0	0	0	0
79)=	32	531	1633	0	300	1633	30	0	0	0	0	0	0	0	0	0
80)=	32	532	24	0	330	24	30	0	0	0	0	0	0	0	0	0
81)=	32	540	12	0	400	12	30	0	0	0	0	0	0	0	0	0
82)=	32	541	10	0	300	10	30	0	0	0	0	0	0	0	0	0
83)=	32	542	10	0	330	10	30	0	0	0	0	0	0	0	0	0
84)=	32	543	222	0	331	222	30	0	0	0	0	0	0	0	0	0
85)=	32	600	683	0	0	0	30	0	0	0	0	0	0	0	0	0
86)=	32	630	918	0	500	918	30	0	0	0	0	0	0	0	0	0
87)=	32	631	21	0	530	21	30	0	0	0	0	0	0	0	0	0
88)=	32	632	31	0	531	31	30	0	0	0	0	0	0	0	0	0
89)=	32	640	10	0	500	10	30	0	0	0	0	0	0	0	0	0
90)=	32	641	28	0	530	28	30	0	0	0	0	0	0	0	0	0
91)=	32	642	1602	0	531	1602	30	0	0	0	0	0	0	0	0	0
92)=	32	643	24	0	532	24	30	0	0	0	0	0	0	0	0	0

LINK CARDS : FLARE SATURATION FLOW DATA

	CARD TYPE	LINK NO.	..LANE 1.. SAT. FLOW	CAPAC VEH.	..LANE 2.. SAT. FLOW	CAPAC VEH.	..LANE 3.. SAT. FLOW	CAPAC VEH.
93)=	33	100	1906	3	0	0	0	0

*****END OF SUBROUTINE TINPUT*****

.

60 SECOND CYCLE 60 STEPS

INITIAL SETTINGS
- (SECONDS)

NODE NO	NUMBER OF STAGES	STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 5	STAGE 6	STAGE 7	STAGE 8	STAGE 9	STAGE 10
1	2	27	53								
3	3	5	18	53							

LINK NUMBER	FLOW INTO LINK (PCU/H)	SAT FLOW (PCU/H)	DEGREE OF SAT (%)	MEAN TIMES PER PCU CRUISE (SEC)	MEAN TIMES PER PCU DELAY (SEC)	-------DELAY-------- UNIFORM RANDOM+ OVERSAT (U+R+O=MEAN Q) (PCU-H/H)	COST OF DELAY ($/H)	----STOPS---- MEAN STOPS /PCU (%)	COST OF STOPS ($/H)	----QUEUE---- MEAN MAX. (PCU)	AVERAGE EXCESS (PCU)	PERFORMANCE INDEX. WEIGHTED SUM OF ( ) VALUES ($/H)	EXIT NODE	GREEN TIMES START END 1ST (SECONDS)	START END 2ND
100	1780	4334f	88	36.0	20.6	6.6 + 3.6	(144.8)	95	(21.3)	30		166.1	1	0	27
130	357	1980S	55	18.0	22.4	1.6 + 0.6	(31.5)	88	(3.9)	5		35.4	1	34	53
131	7	130L	55	18.0	23.3	0.0 + 0.0	(0.6)	64	(0.1)	5		0.7	1	34	53
140	94	3801S	69	18.0	21.9	0.5 + 0.1	(8.1)	90	(1.1)	13		9.2	1	34	53
141	726<	140L	69	18.0	21.8	3.5 + 0.9	(62.5)	71	(8.2)	13		70.7	1	34	53
142	21	140L	69	18.0	29.9	0.1 + 0.0	(2.5)	90	(0.2)	13		2.7	1	34	53
143	29	140L	69	18.0	17.2	0.1 + 0.0	(2.0)	77	(0.3)	13		2.3	1	34	53
200	70	2022	16	18.0	11.9	0.1 + 0.1	(3.3)	80	(0.7)	1		4.0			
230	1769	5400S	53	8.8	0.7	0.0 + 0.3	(4.9)	1	(0.3)	1		5.2			
231	358	230L	53	8.8	0.7	0.0 + 0.1	(1.0)	1	(0.1)	1		1.1			
232	725<	230L	53	8.8	0.7	0.0 + 0.1	(2.0)	1	(0.1)	1		2.1			
233	10	230L	53	8.8	0.7	0.0 + 0.0	(0.0)	1	(0.0)	1		0.0			
300	2177	4082	97	36.0	32.6	7.9 + 11.9	(280.1)	121	(32.9)	46		313.1	3	23	55
330	47	3900S	74	19.2	24.5	0.2 + 0.1	(4.5)	101	(0.6)	11		5.1	3	10	22
331	226	330L	74	19.2	39.3	2.0 + 0.5	(35.1)	112	(3.2)	11		38.3	3	10	22
332	356	330L	74	19.2	18.8	1.0 + 0.8	(26.4)	103	(4.6)	11		31.0	3	10	22
340	10	1800S	10	19.2	18.3	0.0 + 0.0	(0.7)	74	(0.1)	1		0.8	3	10	22
341	11	340L	10	19.2	33.2	0.1 + 0.0	(1.4)	114	(0.1)	1		1.6	3	10	22
342	10	340L	10	19.2	11.5	0.0 + 0.0	(0.5)	69	(0.1)	1		0.5	3	10	22
343	7	340L	10	57.6	28.1	0.0 + 0.0	(0.8)	72	(0.0)	1		0.8	3	10	22
400	75	3800	15	18.0	27.2	0.5 + 0.1	(8.0)	93	(0.9)	1		8.9	3	58	5
500	1394	1104	126	36.0	399.4	7.3 +147.4	(999.9)	271	(47.3)	194	+	2243.5			
530	49	3900S	43	18.0	0.8	0.0 + 0.0	(0.2)	1	(0.0)	0		0.2			
531	1633	530L	43	18.0	0.8	0.0 + 0.4	(5.2)	1	(0.3)	0		5.5			
532	0<	530L	43	18.0	0.0	0.0 + 0.0	(0.0)	0	(0.0)	0		0.0			
540	12	1800S	14	18.0	1.2	0.0 + 0.0	(0.1)	2	(0.0)	0		0.1			
541	9	540L	14	18.0	1.1	0.0 + 0.0	(0.0)	2	(0.0)	0		0.0			
542	10	540L	14	18.0	1.2	0.0 + 0.0	(0.0)	2	(0.0)	0		0.0			
543	221	540L	14	18.0	1.2	0.0 + 0.1	(1.0)	2	(0.1)	0		1.1			
600	683	787	87	36.0	16.3	0.0 + 3.1	(44.0)	25	(2.2)	3		46.2			
630	726<	1980S	39	25.0	1.5	0.0 + 0.3	(4.3)	2	(0.2)	0		4.5			
631	21	630L	39	25.0	1.5	0.0 + 0.0	(0.1)	2	(0.0)	0		0.1			
632	29	630L	39	25.0	1.5	0.0 + 0.0	(0.2)	2	(0.0)	0		0.2			
640	9	3800S	43	25.0	0.8	0.0 + 0.0	(0.0)	1	(0.0)	0		0.0			
641	28	640L	43	25.0	0.8	0.0 + 0.0	(0.1)	1	(0.0)	0		0.1			
642	1603	640L	43	25.0	0.8	0.0 + 0.4	(5.3)	1	(0.3)	0		5.5			
643	0<	640L	43	25.0	0.0	0.0 + 0.0	(0.0)	0	(0.0)	0		0.0			

*** f - average saturation flow for flared link ***

.

60 SECOND CYCLE 60 STEPS

TOTAL DISTANCE TRAVELLED (PCU-KM/H)	TOTAL TIME SPENT (PCU-H/H)	MEAN JOURNEY SPEED (KM/H)	TOTAL UNIFORM DELAY (PCU-H/H)	TOTAL RANDOM+ OVERSAT DELAY (PCU-H/H)	TOTAL COST OF DELAY ($/H)	TOTAL COST OF STOPS ($/H)	PENALTY FOR EXCESS QUEUES ($/H)	TOTAL PERFORMANCE INDEX ($/H)	
3218.9	310.0	10.4	31.7	171.0	(2877.4) +	129.1) +	(0.0) =	3006.5	TOTALS

****

	CRUISE LITRES PER HOUR		DELAY LITRES PER HOUR		STOPS LITRES PER HOUR		TOTALS LITRES PER HOUR
FUEL CONSUMPTION PREDICTIONS	205.9	+	233.0	+	58.8	=	497.8

NO. OF ENTRIES TO SUBPT = 1
NO. OF LINKS RECALCULATED= 53
.

60 SECOND CYCLE 60 STEPS

INTERMEDIATE SETTINGS - INCREMENTS SO FAR :- 9
- (SECONDS)

1 2 36 2
3 3 5 18 53

TOTAL DISTANCE TRAVELLED (PCU-KM/H)	TOTAL TIME SPENT (PCU-H/H)	MEAN JOURNEY SPEED (KM/H)	TOTAL UNIFORM DELAY (PCU-H/H)	TOTAL RANDOM+ OVERSAT DELAY (PCU-H/H)	TOTAL COST OF DELAY ($/H)	TOTAL COST OF STOPS ($/H)	PENALTY FOR EXCESS QUEUES ($/H)	TOTAL PERFORMANCE INDEX ($/H)	
3218.9	309.8	10.4	31.4	171.0	(2874.0) +	128.1) +	(0.0) =	3002.2	TOTALS

NO. OF ENTRIES TO SUBPT = 5
NO. OF LINKS RECALCULATED= 197
.

60 SECOND CYCLE 60 STEPS

INTERMEDIATE SETTINGS - INCREMENTS SO FAR :- 9 24
- (SECONDS)

1 2 36 2
3 3 5 18 53

TOTAL DISTANCE TRAVELLED (PCU-KM/H)	TOTAL TIME SPENT (PCU-H/H)	MEAN JOURNEY SPEED (KM/H)	TOTAL UNIFORM DELAY (PCU-H/H)	TOTAL RANDOM+ OVERSAT DELAY (PCU-H/H)	TOTAL COST OF DELAY ($/H)	TOTAL COST OF STOPS ($/H)	PENALTY FOR EXCESS QUEUES ($/H)	TOTAL PERFORMANCE INDEX ($/H)	
3218.9	309.8	10.4	31.4	171.0	(2874.0) +	128.1) +	(0.0) =	3002.2	TOTALS

NO. OF ENTRIES TO SUBPT = 5
NO. OF LINKS RECALCULATED= 201
.

60 SECOND CYCLE 60 STEPS

INTERMEDIATE SETTINGS - INCREMENTS SO FAR :- 9 24 -1
- (SECONDS)

1 2 38 2
3 3 5 18 53

TOTAL DISTANCE TRAVELLED (PCU-KM/H)	TOTAL TIME SPENT (PCU-H/H)	MEAN JOURNEY SPEED (KM/H)	TOTAL UNIFORM DELAY (PCU-H/H)	TOTAL RANDOM+ OVERSAT DELAY (PCU-H/H)	TOTAL COST OF DELAY ($/H)	TOTAL COST OF STOPS ($/H)	PENALTY FOR EXCESS QUEUES ($/H)	TOTAL PERFORMANCE INDEX ($/H)	
3218.9	309.2	10.4	31.4	170.5	(2865.9) +	126.9) +	(0.0) =	2992.8	TOTALS

NO. OF ENTRIES TO SUBPT = 7
NO. OF LINKS RECALCULATED= 236
.

60 SECOND CYCLE 60 STEPS

INTERMEDIATE SETTINGS - INCREMENTS SO FAR :- 9 24 -1 9
- (SECONDS)

1 2 38 2
3 3 5 18 53

TOTAL DISTANCE TRAVELLED (PCU-KM/H)	TOTAL TIME SPENT (PCU-H/H)	MEAN JOURNEY SPEED (KM/H)	TOTAL UNIFORM DELAY (PCU-H/H)	TOTAL RANDOM+ OVERSAT DELAY (PCU-H/H)	TOTAL COST OF DELAY ($/H)	TOTAL COST OF STOPS ($/H)	PENALTY FOR EXCESS QUEUES ($/H)	TOTAL PERFORMANCE INDEX ($/H)	
3218.9	309.2	10.4	31.4	170.5	(2865.9) +	126.9) +	(0.0) =	2992.8	TOTALS

NO. OF ENTRIES TO SUBPT = 5
NO. OF LINKS RECALCULATED= 204
.

60 SECOND CYCLE 60 STEPS

INTERMEDIATE SETTINGS - INCREMENTS SO FAR :- 9 24 -1 9 24
- (SECONDS)

1 2 38 2
3 3 5 18 53

TOTAL DISTANCE TRAVELLED (PCU-KM/H)	TOTAL TIME SPENT (PCU-H/H)	MEAN JOURNEY SPEED (KM/H)	TOTAL UNIFORM DELAY (PCU-H/H)	TOTAL RANDOM+ OVERSAT DELAY (PCU-H/H)	TOTAL COST OF DELAY ($/H)	TOTAL COST OF STOPS ($/H)	PENALTY FOR EXCESS QUEUES ($/H)	TOTAL PERFORMANCE INDEX ($/H)	
3218.9	309.2	10.4	31.4	170.5	(2865.9) +	126.9) +	(0.0) =	2992.8	TOTALS

NO. OF ENTRIES TO SUBPT = 5
NO. OF LINKS RECALCULATED= 215
.

60 SECOND CYCLE 60 STEPS

INTERMEDIATE SETTINGS - INCREMENTS SO FAR :- 9 24 -1 9 24 1
- (SECONDS)

1	2	34	58	
3	3	5	18	53

TOTAL DISTANCE TRAVELLED (PCU-KM/H)	TOTAL TIME SPENT (PCU-H/H)	MEAN JOURNEY SPEED (KM/H)	TOTAL UNIFORM DELAY (PCU-H/H)	TOTAL RANDOM+ OVERSAT DELAY (PCU-H/H)	TOTAL COST OF DELAY ($/H)		TOTAL COST OF STOPS ($/H)		PENALTY FOR EXCESS QUEUES ($/H)		TOTAL PERFORMANCE INDEX ($/H)	
3218.9	309.0	10.4	31.1	170.5	(2862.3)	+	(127.3)	+	(0.0)	=	2989.6	TOTALS

NO. OF ENTRIES TO SUBPT = 9
NO. OF LINKS RECALCULATED= 306
.

60 SECOND CYCLE 60 STEPS

INTERMEDIATE SETTINGS - INCREMENTS SO FAR :- 9 24 -1 9 24 1 -1
- (SECONDS)

1	2	34	58	
3	3	5	18	53

TOTAL DISTANCE TRAVELLED (PCU-KM/H)	TOTAL TIME SPENT (PCU-H/H)	MEAN JOURNEY SPEED (KM/H)	TOTAL UNIFORM DELAY (PCU-H/H)	TOTAL RANDOM+ OVERSAT DELAY (PCU-H/H)	TOTAL COST OF DELAY ($/H)		TOTAL COST OF STOPS ($/H)		PENALTY FOR EXCESS QUEUES ($/H)		TOTAL PERFORMANCE INDEX ($/H)	
3218.9	309.0	10.4	31.1	170.5	(2862.3)	+	(127.3)	+	(0.0)	=	2989.6	TOTALS

NO. OF ENTRIES TO SUBPT = 5
NO. OF LINKS RECALCULATED= 176
.

60 SECOND CYCLE 60 STEPS

FINAL SETTINGS OBTAINED WITH INCREMENTS :- 9 24 -1 9 24 1 -1 1
- (SECONDS)

NODE NO	NUMBER OF STAGES	STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 5	STAGE 6	STAGE 7	STAGE 8	STAGE 9	STAGE 10
1	2	34	58								
3	3	5	18	53							

LINK NUMBER	FLOW INTO LINK (PCU/H)	SAT FLOW (PCU/H)	DEGREE OF SAT (%)	MEAN TIMES PER PCU CRUISE (SEC)	DELAY (SEC)	DELAY UNIFORM	RANDOM+ OVERSAT (U+R+O=MEAN Q) (PCU-H/H)	COST OF DELAY ($/H)	STOPS MEAN STOPS /PCU (%)	COST OF STOPS ($/H)	QUEUE MEAN MAX. (PCU)	AVERAGE EXCESS (PCU)	PERFORMANCE INDEX. WEIGHTED SUM OF ( ) VALUES ($/H)	EXIT NODE	GREEN TIMES START END 1ST (SECONDS)	START END 2ND (SECONDS)
100	1780	4309f	83	36.0	16.5	5.8 +	2.3	(115.5)	85	(19.1)	27		134.6	1	5	34
130	357	1980S	61	18.0	25.7	1.8 +	0.8	(36.3)	95	(4.3)	6		40.5	1	41	58
131	7	130L	61	18.0	26.8	0.0 +	0.0	(0.7)	69	(0.1)	6		0.8	1	41	58
140	94	3801S	76	18.0	25.7	0.5 +	0.2	(9.5)	98	(1.2)	15		10.7	1	41	58
141	726<	140L	76	18.0	25.6	3.8 +	1.3	(73.4)	77	(8.9)	15		82.3	1	41	58
142	21	140L	76	18.0	27.7	0.1 +	0.0	(2.3)	82	(0.2)	15		2.5	1	41	58
143	29	140L	76	18.0	20.8	0.1 +	0.1	(2.4)	91	(0.4)	15		2.7	1	41	58
200	70	2022	16	18.0	11.4	0.1 +	0.1	(3.2)	78	(0.7)	1		3.8			
230	1769	5400S	53	8.8	0.7	0.0 +	0.3	(4.9)	1	(0.3)	1		5.2			
231	358	230L	53	8.8	0.7	0.0 +	0.1	(1.0)	1	(0.1)	1		1.1			
232	725<	230L	53	8.8	0.7	0.0 +	0.1	(2.0)	1	(0.1)	1		2.1			
233	10	230L	53	8.8	0.7	0.0 +	0.0	(0.0)	1	(0.0)	1		0.0			
300	2177	4082	97	36.0	32.6	7.9 +	11.9	(280.1)	121	(32.9)	46		313.1	3	23	55
330	47	3900S	74	19.2	27.4	0.3 +	0.1	(5.1)	96	(0.6)	11		5.6	3	10	22
331	226	330L	74	19.2	35.0	1.7 +	0.5	(31.2)	112	(3.2)	11		34.4	3	10	22
332	356	330L	74	19.2	18.8	1.0 +	0.8	(26.4)	86	(3.8)	11		30.2	3	10	22
340	10	1800S	10	19.2	21.6	0.0 +	0.0	(0.9)	86	(0.1)	1		1.0	3	10	22
341	11	340L	10	19.2	28.3	0.1 +	0.0	(1.2)	112	(0.1)	1		1.4	3	10	22
342	10	340L	10	19.2	13.3	0.0 +	0.0	(0.5)	40	(0.1)	1		0.6	3	10	22
343	7	340L	10	57.6	23.3	0.0 +	0.0	(0.6)	69	(0.0)	1		0.7	3	10	22
400	75	3800	15	18.0	27.2	0.5 +	0.1	(8.0)	93	(0.9)	1		8.9	3	58	5
500	1394	1104	126	36.0	399.4	7.3 +	147.4	(999.9)	271	(47.3)	194	+	2243.5			
530	49	3900S	44	18.0	0.8	0.0 +	0.0	(0.2)	1	(0.0)	0		0.2			
531	1633	530L	44	18.0	0.8	0.0 +	0.4	(5.3)	1	(0.3)	0		5.6			
532	24	530L	44	18.0	0.8	0.0 +	0.0	(0.1)	1	(0.0)	0		0.1			
540	12	1800S	14	18.0	1.2	0.0 +	0.0	(0.1)	2	(0.0)	0		0.1			
541	9	540L	14	18.0	1.1	0.0 +	0.0	(0.0)	2	(0.0)	0		0.0			
542	10	540L	14	18.0	1.2	0.0 +	0.0	(0.0)	2	(0.0)	0		0.0			
543	221	540L	14	18.0	1.2	0.0 +	0.1	(1.0)	2	(0.1)	0		1.1			
600	683	787	87	36.0	16.3	0.0 +	3.1	(44.0)	25	(2.2)	3		46.2			
630	726<	1980S	39	25.0	1.5	0.0 +	0.3	(4.3)	2	(0.2)	0		4.5			
631	21	630L	39	25.0	1.5	0.0 +	0.0	(0.1)	2	(0.0)	0		0.1			
632	29	630L	39	25.0	1.5	0.0 +	0.0	(0.2)	2	(0.0)	0		0.2			
640	9	3800S	44	25.0	0.8	0.0 +	0.0	(0.0)	1	(0.0)	0		0.0			
641	28	640L	44	25.0	0.8	0.0 +	0.0	(0.1)	1	(0.0)	0		0.1			
642	1603	640L	44	25.0	0.8	0.0 +	0.4	(5.3)	1	(0.3)	0		5.6			
643	24	640L	44	25.0	0.8	0.0 +	0.0	(0.1)	1	(0.0)	0		0.1			

*** f - average saturation flow for flared link ***
.

60 SECOND CYCLE 60 STEPS

TOTAL DISTANCE TRAVELLED (PCU-KM/H)	TOTAL TIME SPENT (PCU-H/H)	MEAN JOURNEY SPEED (KM/H)	TOTAL UNIFORM DELAY (PCU-H/H)	TOTAL RANDOM+ OVERSAT DELAY (PCU-H/H)	TOTAL COST OF DELAY ($/H)		TOTAL COST OF STOPS ($/H)		PENALTY FOR EXCESS QUEUES ($/H)		TOTAL PERFORMANCE INDEX ($/H)	
3218.9	309.0	10.4	31.1	170.5	(2862.3)	+	(127.3)	+	(0.0)	=	2989.6	TOTALS

ROUTE

****

	CRUISE LITRES PER HOUR		DELAY LITRES PER HOUR		STOPS LITRES PER HOUR		TOTALS LITRES PER HOUR
FUEL CONSUMPTION PREDICTIONS	205.9	+	231.8	+	58.0	=	495.7

NO. OF ENTRIES TO SUBPT = 5
NO. OF LINKS RECALCULATED= 189

PROGRAM TRANSYT FINISHED

1 _____ T R A N S Y T 12 _____

Traffic Network Study Tool

Analysis Program Release 7 (July 2010)
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Run with file:- "M25_J29_2030 BASE_PM1.DAT" at 10:15 on 20130930

TRANSYT 12.0

M25 J29: Existing layout 2030 + Base flows, PM peak

PARAMETERS CONTROLLING DIMENSIONS OF PROBLEM :

NUMBER OF NODES	= 2
NUMBER OF LINKS	= 37
NUMBER OF OPTIMISED NODES	= 2
MAXIMUM NUMBER OF GRAPHIC PLOTS	= 0
NUMBER OF STEPS IN CYCLE	= 70
MAXIMUM NUMBER OF SHARED STOPLINES	= 4
MAXIMUM NUMBER OF TIMING POINTS	= 3
MAXIMUM LINKS AT ANY NODE	= 4

CORE REQUESTED = 10019 WORDS
CORE AVAILABLE = 72000 WORDS

DATA INPUT :-

(1)= TITLE:- M25 J29: Existing layout 2030 + Base flows, PM peak

CARD NO.	CARD TYPE	CYCLE TIME (SEC)	NO. OF STEPS PER CYCLE	TIME PERIOD MINS.	EFFECTIVE-GREEN DISPLACEMENTS START (SEC)	EFFECTIVE-GREEN DISPLACEMENTS END (SEC)	EQUISAT SETTINGS 0=UNEQUAL 1=YES	EQUISAT SETTINGS 1=EQUAL CYCLE	FLOW SCALE 10-200 %	CRUISE-SPEEDS SCALE 50-200 %	CRUISE-SPEEDS 0=TIMES 1=SPEEDS	OPTIMISE 1=O/SET 2=FULL	EXTRA COPIES FINAL OUTPUT	HILL-CLIMB 1=FULL	DELAY VALUE P PER PCU-H	STOP VALUE P PER 100
2)=	1	70	70	60	2	3	1	1	100	100	1	2	0	0	1420	260

CARD NO.	CARD TYPE	LIST OF NODES TO BE OPTIMISED													
3)=	2	1	3	0	0	0	0	0	0	0	0	0	0	0	0

LINKS HAVING SHARED STOPLINES

CARD NO.	CARD TYPE	FIRST SET				SECOND SET				THIRD SET					
4)=	7	130	131	0	0	0	0	0	0	0	0	0	0	0	0
5)=	7	140	141	142	143	0	0	0	0	0	0	0	0	0	0
6)=	7	230	231	232	233	0	0	0	0	0	0	0	0	0	0
7)=	7	330	331	332	0	0	0	0	0	0	0	0	0	0	0
8)=	7	340	341	342	343	0	0	0	0	0	0	0	0	0	0
9)=	7	530	531	532	0	0	0	0	0	0	0	0	0	0	0
10)=	7	540	541	542	543	0	0	0	0	0	0	0	0	0	0
11)=	7	630	631	632	0	0	0	0	0	0	0	0	0	0	0
12)=	7	640	641	642	643	0	0	0	0	0	0	0	0	0	0

NODE CARDS: MINIMUM STAGE TIMES (WORKING)

CARD NO.	CARD TYPE	NODE NO.	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10
13)=	10	1	18	38								
14)=	10	3	7	7	7							

NODE CARDS: PRECEDING INTERSTAGE TIMES (WORKING)

CARD NO.	CARD TYPE	NODE NO.	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10
15)=	11	1	7	7								
16)=	11	3	5	5	5							

NODE CARDS: STAGE CHANGE TIMES (WORKING)

CARD NO.	CARD TYPE	NODE NO.	Sgl/Dbl Cycled	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10
17)=	12	1	1	0	25								
18)=	12	3	1	0	46	58							

LINK CARDS: GIVEWAY DATA

CARD NO.	CARD TYPE	LINK NO.	PRIORITY LINKS LINK1 NO.	PRIORITY LINKS LINK2 NO.	ONLY % FLOW	LINK1 GIVEWAY COEFFS. A1 X100	LINK1 GIVEWAY COEFFS. A2 X100				LINK LENGTH	STOP WT.X100	MAX FLOW	DELAY WT.X100	DISPSN X100
19)=	30	200	230	0	0	76	0	0	0	0	0	150	0	2022	0	0

LINK CARDS: FIXED DATA

CARD NO.	CARD TYPE	LINK NO.	EXIT NODE	FIRST GREEN START STAGE	FIRST GREEN START LAG	FIRST GREEN END STAGE	FIRST GREEN END LAG	SECOND GREEN START STAGE	SECOND GREEN START LAG	SECOND GREEN END STAGE	SECOND GREEN END LAG	LINK LENGTH	STOP WT.X100	SAT FLOW	DELAY WT.X100	DISPSN X100
20)=	31	100	1	2	7	1	0	0	0	0	0	300	0	3949	0	0
21)=	31	130	1	1	7	2	0	0	0	0	0	150	0	1980	0	0
22)=	31	131	0	0	0	0	0	0	0	0	0	150	0	0	0	0
23)=	31	140	1	1	7	2	0	0	0	0	0	150	0	3801	0	0
24)=	31	141	0	0	0	0	0	0	0	0	0	150	0	0	0	0
25)=	31	142	0	0	0	0	0	0	0	0	0	150	0	0	0	0
26)=	31	143	0	0	0	0	0	0	0	0	0	150	0	0	0	0
27)=	31	230	0	0	0	0	0	0	0	0	0	73	0	5400	0	0
28)=	31	231	0	0	0	0	0	0	0	0	0	73	0	0	0	0
29)=	31	232	0	0	0	0	0	0	0	0	0	73	0	0	0	0
30)=	31	233	0	0	0	0	0	0	0	0	0	73	0	0	0	0
31)=	31	300	3	2	5	3	1	0	0	0	0	300	0	4082	0	0
32)=	31	330	3	1	5	2	1	0	0	0	0	160	0	3900	0	0
33)=	31	331	0	0	0	0	0	0	0	0	0	160	0	0	0	0
34)=	31	332	0	0	0	0	0	0	0	0	0	160	0	0	0	0
35)=	31	340	3	1	5	2	1	0	0	0	0	160	0	1800	0	0
36)=	31	341	0	0	0	0	0	0	0	0	0	160	0	0	0	0
37)=	31	342	0	0	0	0	0	0	0	0	0	160	0	0	0	0
38)=	31	343	0	0	0	0	0	0	0	0	0	160	0	0	0	0
39)=	31	400	3	3	5	1	0	0	0	0	0	150	0	3800	0	0

40)=	31	500	0	0	0	0	0	0	0	0	0	300	0	1310	0	0
41)=	31	530	0	0	0	0	0	0	0	0	0	150	0	3900	0	0
42)=	31	531	0	0	0	0	0	0	0	0	0	150	0	0	0	0
43)=	31	532	0	0	0	0	0	0	0	0	0	150	0	0	0	0
44)=	31	540	0	0	0	0	0	0	0	0	0	150	0	1800	0	0
45)=	31	541	0	0	0	0	0	0	0	0	0	150	0	0	0	0
46)=	31	542	0	0	0	0	0	0	0	0	0	150	0	0	0	0
47)=	31	543	0	0	0	0	0	0	0	0	0	150	0	0	0	0
48)=	31	600	0	0	0	0	0	0	0	0	0	300	0	886	0	0
49)=	31	630	0	0	0	0	0	0	0	0	0	208	0	1980	0	0
50)=	31	631	0	0	0	0	0	0	0	0	0	208	0	0	0	0
51)=	31	632	0	0	0	0	0	0	0	0	0	208	0	0	0	0
52)=	31	640	0	0	0	0	0	0	0	0	0	208	0	3800	0	0
53)=	31	641	0	0	0	0	0	0	0	0	0	208	0	0	0	0
54)=	31	642	0	0	0	0	0	0	0	0	0	208	0	0	0	0
55)=	31	643	0	0	0	0	0	0	0	0	0	208	0	0	0	0

LINK CARDS: FLOW DATA

					ENTRY 1			ENTRY 2			ENTRY 3			ENTRY 4		
CARD NO.	CARD TYPE	LINK NO.	TOTAL FLOW	UNIFORM FLOW	LINK NO.	FLOW	CRUISE SPEED	LINK NO.	FLOW	CRUISE SPEED	LINK NO.	FLOW	CRUISE SPEED	LINK NO.	FLOW	CRUISE SPEED
56)=	32	100	2148	0	0	0	30	0	0	0	0	0	0	0	0	0
57)=	32	130	365	0	600	365	30	0	0	0	0	0	0	0	0	0
58)=	32	131	10	0	630	10	30	0	0	0	0	0	0	0	0	0
59)=	32	140	36	0	600	36	30	0	0	0	0	0	0	0	0	0
60)=	32	141	858	0	630	858	30	0	0	0	0	0	0	0	0	0
61)=	32	142	10	0	631	10	30	0	0	0	0	0	0	0	0	0
62)=	32	143	16	0	632	16	30	0	0	0	0	0	0	0	0	0
63)=	32	200	94	0	0	0	30	0	0	0	0	0	0	0	0	0
64)=	32	230	2133	0	100	2133	30	0	0	0	0	0	0	0	0	0
65)=	32	231	370	0	130	365	30	140	10	30	0	0	0	0	0	0
66)=	32	232	856	0	131	10	30	141	858	30	0	0	0	0	0	0
67)=	32	233	10	0	142	10	30	0	0	0	0	0	0	0	0	0
68)=	32	300	1820	0	0	0	30	0	0	0	0	0	0	0	0	0
69)=	32	330	61	0	200	61	30	0	0	0	0	0	0	0	0	0
70)=	32	331	296	0	230	296	30	0	0	0	0	0	0	0	0	0
71)=	32	332	365	0	231	365	30	0	0	0	0	0	0	0	0	0
72)=	32	340	10	0	200	10	30	0	0	0	0	0	0	0	0	0
73)=	32	341	14	0	230	14	30	0	0	0	0	0	0	0	0	0
74)=	32	342	10	0	231	10	30	0	0	0	0	0	0	0	0	0
75)=	32	343	10	0	232	10	10	0	0	0	0	0	0	0	0	0
76)=	32	400	41	0	0	0	30	0	0	0	0	0	0	0	0	0
77)=	32	500	1355	0	0	0	30	0	0	0	0	0	0	0	0	0
78)=	32	530	18	0	400	18	30	0	0	0	0	0	0	0	0	0
79)=	32	531	1281	0	300	1281	30	0	0	0	0	0	0	0	0	0
80)=	32	532	30	0	330	30	30	0	0	0	0	0	0	0	0	0
81)=	32	540	19	0	400	19	30	0	0	0	0	0	0	0	0	0
82)=	32	541	10	0	300	10	30	0	0	0	0	0	0	0	0	0
83)=	32	542	10	0	330	10	30	0	0	0	0	0	0	0	0	0
84)=	32	543	286	0	331	286	30	0	0	0	0	0	0	0	0	0
85)=	32	600	569	0	0	0	30	0	0	0	0	0	0	0	0	0
86)=	32	630	860	0	500	860	30	0	0	0	0	0	0	0	0	0
87)=	32	631	10	0	530	10	30	0	0	0	0	0	0	0	0	0
88)=	32	632	16	0	531	16	30	0	0	0	0	0	0	0	0	0
89)=	32	640	10	0	500	10	30	0	0	0	0	0	0	0	0	0
90)=	32	641	10	0	530	10	30	0	0	0	0	0	0	0	0	0
91)=	32	642	1265	0	531	1265	30	0	0	0	0	0	0	0	0	0
92)=	32	643	30	0	532	30	30	0	0	0	0	0	0	0	0	0

LINK CARDS : FLARE SATURATION FLOW DATA

			..LANE 1..		..LANE 2..		..LANE 3..	
	CARD TYPE	LINK NO.	SAT. FLOW	CAPAC VEH.	SAT. FLOW	CAPAC VEH.	SAT. FLOW	CAPAC VEH.
93)=	33	100	1906	3	0	0	0	0

*****END OF SUBROUTINE TINPUT*****

.

70 SECOND CYCLE 70 STEPS

INITIAL SETTINGS
- (SECONDS)

NODE NO	NUMBER OF STAGES	STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 5	STAGE 6	STAGE 7	STAGE 8	STAGE 9	STAGE 10
1	2	0	25								
3	3	0	18	58							

LINK NUMBER	FLOW INTO LINK (PCU/H)	SAT FLOW (PCU/H)	DEGREE OF SAT (%)	MEAN TIMES PER PCU CRUISE (SEC)	DELAY (SEC)	-------DELAY-------- UNIFORM (U+R+O=MEAN Q) (PCU-H/H)	RANDOM+ OVERSAT	COST OF DELAY ($/H)	----STOPS---- MEAN STOPS /PCU (%)	COST OF STOPS ($/H)	----QUEUE---- MEAN MAX. (PCU)	AVERAGE EXCESS (PCU)	PERFORMANCE INDEX. WEIGHTED SUM OF ( ) VALUES ($/H)	EXIT NODE	GREEN TIMES START END 1ST (SECONDS)	START END 2ND
100	2148	4225f	91	36.0	21.1	7.6 +	5.0	(179.1)	95	(25.5)	41		204.6	1	32	0
130	365	1980S	70	18.0	33.9	2.3 +	1.1	(48.8)	102	(4.7)	8		53.5	1	7	25
131	10	130L	70	18.0	33.5	0.1 +	0.0	(1.3)	101	(0.1)	8		1.4	1	7	25
140	36	3801S	86	18.0	37.0	0.2 +	0.1	(5.3)	110	(0.5)	19		5.7	1	7	25
141	829<	140L	86	18.0	36.6	5.6 +	2.8	(119.5)	105	(11.3)	19		130.9	1	7	25
142	10	140L	86	18.0	38.4	0.1 +	0.0	(1.5)	116	(0.1)	19		1.7	1	7	25
143	15	140L	86	18.0	41.6	0.1 +	0.1	(2.5)	100	(0.2)	19		2.7	1	7	25
200	94	2022	33	18.0	22.7	0.3 +	0.3	(8.4)	107	(1.3)	1		9.7			
230	2135	5400S	62	8.8	0.9	0.0 +	0.5	(7.4)	1	(0.3)	1		7.7			
231	370	230L	62	8.8	0.9	0.0 +	0.1	(1.3)	1	(0.1)	1		1.3			
232	827<	230L	62	8.8	0.9	0.0 +	0.2	(2.9)	1	(0.1)	1		3.0			
233	10	230L	62	8.8	0.9	0.0 +	0.0	(0.0)	1	(0.0)	1		0.0			
300	1820	4082	84	36.0	19.3	7.1 +	2.7	(138.5)	88	(20.1)	32		158.6	3	23	59
330	61	3900S	86	19.2	54.8	0.7 +	0.3	(13.2)	119	(0.9)	17		14.1	3	5	19
331	295	330L	86	19.2	34.0	1.6 +	1.2	(39.6)	109	(4.1)	17		43.6	3	5	19
332	365	330L	86	19.2	51.2	3.7 +	1.5	(73.7)	120	(5.5)	17		79.2	3	5	19
340	10	1800S	11	19.2	42.0	0.1 +	0.0	(1.7)	106	(0.1)	1		1.8	3	5	19
341	13	340L	11	19.2	18.8	0.0 +	0.0	(1.0)	63	(0.1)	1		1.1	3	5	19
342	10	340L	11	19.2	38.5	0.1 +	0.0	(1.5)	111	(0.1)	1		1.7	3	5	19
343	10	340L	11	57.6	19.6	0.0 +	0.0	(0.8)	63	(0.0)	1		0.8	3	5	19
400	41	3800	9	18.0	32.5	0.3 +	0.1	(5.3)	93	(0.5)	1		5.7	3	63	0
500	1355	1310	103	36.0	90.7	1.3 +	32.8	(484.8)	174	(29.6)	85	+	514.4			
530	18	3900S	33	18.0	0.7	0.0 +	0.0	(0.0)	1	(0.0)	0		0.1			
531	1281	530L	33	18.0	0.7	0.0 +	0.2	(3.5)	1	(0.2)	0		3.7			
532	0<	530L	33	18.0	0.0	0.0 +	0.0	(0.0)	0	(0.0)	0		0.0			
540	19	1800S	18	18.0	1.2	0.0 +	0.0	(0.1)	2	(0.0)	1		0.1			
541	11	540L	18	18.0	1.2	0.0 +	0.0	(0.1)	2	(0.0)	1		0.1			
542	10	540L	18	18.0	1.2	0.0 +	0.0	(0.0)	2	(0.0)	1		0.1			
543	285	540L	18	18.0	1.2	0.0 +	0.1	(1.4)	3	(0.1)	1		1.5			
600	569	886	64	36.0	5.6	0.0 +	0.9	(12.7)	8	(0.6)	1		13.2			
630	831<	1980S	43	25.0	1.6	0.0 +	0.4	(5.2)	2	(0.2)	0		5.5			
631	10	630L	43	25.0	1.6	0.0 +	0.0	(0.1)	2	(0.0)	0		0.1			
632	15	630L	43	25.0	1.6	0.0 +	0.0	(0.1)	2	(0.0)	0		0.1			
640	10	3800S	34	25.0	0.8	0.0 +	0.0	(0.0)	1	(0.0)	0		0.0			
641	10	640L	34	25.0	0.7	0.0 +	0.0	(0.0)	1	(0.0)	0		0.0			
642	1266	640L	34	25.0	0.7	0.0 +	0.3	(3.6)	1	(0.2)	0		3.7			
643	0<	640L	34	25.0	0.0	0.0 +	0.0	(0.0)	0	(0.0)	0		0.0			

*** f - average saturation flow for flared link ***

.

70 SECOND CYCLE 70 STEPS

TOTAL DISTANCE TRAVELLED (PCU-KM/H)	TOTAL TIME SPENT (PCU-H/H)	MEAN JOURNEY SPEED (KM/H)	TOTAL UNIFORM DELAY (PCU-H/H)	TOTAL RANDOM+ OVERSAT DELAY (PCU-H/H)	TOTAL COST OF DELAY ($/H)	TOTAL COST OF STOPS ($/H)	PENALTY FOR EXCESS QUEUES ($/H)	TOTAL PERFORMANCE INDEX ($/H)	
3056.5	184.0	16.6	31.4	50.7	(1164.7) + (106.5)	+ (	0.0)	= 1271.2	TOTALS

****

	CRUISE LITRES PER HOUR		DELAY LITRES PER HOUR		STOPS LITRES PER HOUR		TOTALS LITRES PER HOUR
FUEL CONSUMPTION PREDICTIONS	195.5	+	94.3	+	48.5	=	338.4

NO. OF ENTRIES TO SUBPT = 1
NO. OF LINKS RECALCULATED= 53
.

70 SECOND CYCLE 70 STEPS

INTERMEDIATE SETTINGS - INCREMENTS SO FAR :- 10
- (SECONDS)

1 2 40 65
3 3 0 18 58

TOTAL DISTANCE TRAVELLED (PCU-KM/H)	TOTAL TIME SPENT (PCU-H/H)	MEAN JOURNEY SPEED (KM/H)	TOTAL UNIFORM DELAY (PCU-H/H)	TOTAL RANDOM+ OVERSAT DELAY (PCU-H/H)	TOTAL COST OF DELAY ($/H)	TOTAL COST OF STOPS ($/H)	PENALTY FOR EXCESS QUEUES ($/H)	TOTAL PERFORMANCE INDEX ($/H)	
3056.5	182.2	16.8	29.5	50.7	(1138.8) + (106.1)	+ (	0.0)	= 1244.9	TOTALS

NO. OF ENTRIES TO SUBPT = 8
NO. OF LINKS RECALCULATED= 283
.

70 SECOND CYCLE 70 STEPS

INTERMEDIATE SETTINGS - INCREMENTS SO FAR :- 10 28
- (SECONDS)

1 2 40 65
3 3 0 18 58

TOTAL DISTANCE TRAVELLED (PCU-KM/H)	TOTAL TIME SPENT (PCU-H/H)	MEAN JOURNEY SPEED (KM/H)	TOTAL UNIFORM DELAY (PCU-H/H)	TOTAL RANDOM+ OVERSAT DELAY (PCU-H/H)	TOTAL COST OF DELAY ($/H)	TOTAL COST OF STOPS ($/H)	PENALTY FOR EXCESS QUEUES ($/H)	TOTAL PERFORMANCE INDEX ($/H)	
3056.5	182.2	16.8	29.5	50.7	(1138.8) + (106.1)	+ (	0.0)	= 1244.9	TOTALS

NO. OF ENTRIES TO SUBPT = 5
NO. OF LINKS RECALCULATED= 201
.

70 SECOND CYCLE 70 STEPS

INTERMEDIATE SETTINGS - INCREMENTS SO FAR :- 10 28 -1
- (SECONDS)

1 2 40 65
3 3 0 19 58

TOTAL DISTANCE TRAVELLED (PCU-KM/H)	TOTAL TIME SPENT (PCU-H/H)	MEAN JOURNEY SPEED (KM/H)	TOTAL UNIFORM DELAY (PCU-H/H)	TOTAL RANDOM+ OVERSAT DELAY (PCU-H/H)	TOTAL COST OF DELAY ($/H)	TOTAL COST OF STOPS ($/H)	PENALTY FOR EXCESS QUEUES ($/H)	TOTAL PERFORMANCE INDEX ($/H)	
3056.5	182.0	16.8	29.7	50.3	(1136.1) + (106.2)	+ (	0.0)	= 1242.3	TOTALS

NO. OF ENTRIES TO SUBPT = 6
NO. OF LINKS RECALCULATED= 174
.

70 SECOND CYCLE 70 STEPS

INTERMEDIATE SETTINGS - INCREMENTS SO FAR :- 10 28 -1 10
- (SECONDS)

1 2 40 65
3 3 0 19 58

TOTAL DISTANCE TRAVELLED (PCU-KM/H)	TOTAL TIME SPENT (PCU-H/H)	MEAN JOURNEY SPEED (KM/H)	TOTAL UNIFORM DELAY (PCU-H/H)	TOTAL RANDOM+ OVERSAT DELAY (PCU-H/H)	TOTAL COST OF DELAY ($/H)	TOTAL COST OF STOPS ($/H)	PENALTY FOR EXCESS QUEUES ($/H)	TOTAL PERFORMANCE INDEX ($/H)	
3056.5	182.0	16.8	29.7	50.3	(1136.1) + (106.2)	+ (	0.0)	= 1242.3	TOTALS

NO. OF ENTRIES TO SUBPT = 6
NO. OF LINKS RECALCULATED= 239
.

70 SECOND CYCLE 70 STEPS

INTERMEDIATE SETTINGS - INCREMENTS SO FAR :- 10 28 -1 10 28
- (SECONDS)

1 2 40 65
3 3 0 19 58

TOTAL DISTANCE TRAVELLED (PCU-KM/H)	TOTAL TIME SPENT (PCU-H/H)	MEAN JOURNEY SPEED (KM/H)	TOTAL UNIFORM DELAY (PCU-H/H)	TOTAL RANDOM+ OVERSAT DELAY (PCU-H/H)	TOTAL COST OF DELAY ($/H)	TOTAL COST OF STOPS ($/H)	PENALTY FOR EXCESS QUEUES ($/H)	TOTAL PERFORMANCE INDEX ($/H)	
3056.5	182.0	16.8	29.7	50.3	(1136.1) + (106.2)	+ (	0.0)	= 1242.3	TOTALS

NO. OF ENTRIES TO SUBPT = 5
NO. OF LINKS RECALCULATED= 211
.

70 SECOND CYCLE 70 STEPS

INTERMEDIATE SETTINGS - INCREMENTS SO FAR :- 10 28 -1 10 28 1
- (SECONDS)

1	2	39	64	
3	3	0	19	58

TOTAL DISTANCE TRAVELLED (PCU-KM/H)	TOTAL TIME SPENT (PCU-H/H)	MEAN JOURNEY SPEED (KM/H)	TOTAL UNIFORM DELAY (PCU-H/H)	TOTAL RANDOM+ OVERSAT DELAY (PCU-H/H)	TOTAL COST OF DELAY ($/H)	TOTAL COST OF STOPS ($/H)	PENALTY FOR EXCESS QUEUES ($/H)	TOTAL PERFORMANCE INDEX ($/H)	
3056.5	182.0	16.8	29.7	50.3	(1136.0) +	(106.3) +	(0.0) =	1242.3	TOTALS

NO. OF ENTRIES TO SUBPT = 6
NO. OF LINKS RECALCULATED= 223

.

70 SECOND CYCLE 70 STEPS

INTERMEDIATE SETTINGS - INCREMENTS SO FAR :- 10 28 -1 10 28 1 -1
- (SECONDS)

1	2	39	64	
3	3	0	19	58

TOTAL DISTANCE TRAVELLED (PCU-KM/H)	TOTAL TIME SPENT (PCU-H/H)	MEAN JOURNEY SPEED (KM/H)	TOTAL UNIFORM DELAY (PCU-H/H)	TOTAL RANDOM+ OVERSAT DELAY (PCU-H/H)	TOTAL COST OF DELAY ($/H)	TOTAL COST OF STOPS ($/H)	PENALTY FOR EXCESS QUEUES ($/H)	TOTAL PERFORMANCE INDEX ($/H)	
3056.5	182.0	16.8	29.7	50.3	(1136.0) +	(106.3) +	(0.0) =	1242.3	TOTALS

NO. OF ENTRIES TO SUBPT = 6
NO. OF LINKS RECALCULATED= 241

.

70 SECOND CYCLE 70 STEPS

FINAL SETTINGS OBTAINED WITH INCREMENTS :- 10 28 -1 10 28 1 -1 1
- (SECONDS)

NODE NO	NUMBER OF STAGES	STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 5	STAGE 6	STAGE 7	STAGE 8	STAGE 9	STAGE 10
1	2	39	64								
3	3	0	19	58							

LINK NUMBER	FLOW INTO LINK (PCU/H)	SAT FLOW (PCU/H)	DEGREE OF SAT (%)	MEAN TIMES PER PCU CRUISE (SEC)	MEAN TIMES PER PCU DELAY (SEC)	DELAY UNIFORM (U+R+O=MEAN Q) (PCU-H/H)	DELAY RANDOM+ OVERSAT (PCU-H/H)	DELAY COST OF DELAY ($/H)	STOPS MEAN STOPS /PCU (%)	STOPS COST OF STOPS ($/H)	QUEUE MEAN MAX. (PCU)	QUEUE AVERAGE EXCESS (PCU)	PERFORMANCE INDEX. WEIGHTED SUM OF ( ) VALUES ($/H)	EXIT NODE	GREEN TIMES START 1ST (SECONDS)	GREEN TIMES END 1ST (SECONDS)	GREEN TIMES START 2ND (SECONDS)	GREEN TIMES END 2ND (SECONDS)
100	2148	4225f	91	36.0	21.1	7.6 +	5.0	(179.1)	95	(25.5)	41		204.6	1	1	39		
130	365	1980S	70	18.0	33.9	2.3 +	1.1	(48.8)	102	(4.7)	8		53.5	1	46	64		
131	10	130L	70	18.0	33.8	0.1 +	0.0	(1.3)	101	(0.1)	8		1.5	1	46	64		
140	36	3801S	86	18.0	36.9	0.2 +	0.1	(5.2)	110	(0.5)	19		5.7	1	46	64		
141	829<	140L	86	18.0	36.5	5.6 +	2.8	(119.3)	105	(11.3)	19		130.6	1	46	64		
142	10	140L	86	18.0	27.1	0.0 +	0.0	(1.1)	100	(0.1)	19		1.2	1	46	64		
143	15	140L	86	18.0	35.2	0.1 +	0.1	(2.1)	110	(0.2)	19		2.3	1	46	64		
200	94	2022	34	18.0	22.8	0.3 +	0.3	(8.4)	107	(1.3)	1		9.7					
230	2135	5400S	62	8.8	0.9	0.0 +	0.5	(7.4)	1	(0.3)	1		7.7					
231	370	230L	62	8.8	0.9	0.0 +	0.1	(1.3)	1	(0.1)	1		1.3					
232	827<	230L	62	8.8	0.9	0.0 +	0.2	(2.9)	1	(0.1)	1		3.0					
233	10	230L	62	8.8	0.9	0.0 +	0.0	(0.0)	1	(0.0)	1		0.0					
300	1820	4082	87	36.0	21.2	7.5 +	3.2	(152.2)	92	(21.0)	34		173.2	3	24	59		
330	61	3900S	81	19.2	29.7	0.3 +	0.2	(7.1)	98	(0.8)	15		7.9	3	5	20		
331	295	330L	81	19.2	41.6	2.6 +	0.8	(48.4)	113	(4.2)	15		52.6	3	5	20		
332	365	330L	81	19.2	20.8	1.1 +	1.0	(30.0)	91	(4.2)	15		34.2	3	5	20		
340	10	1800S	10	19.2	20.6	0.0 +	0.0	(0.8)	84	(0.1)	1		0.9	3	5	20		
341	13	340L	10	19.2	32.5	0.1 +	0.0	(1.7)	96	(0.2)	1		1.8	3	5	20		
342	10	340L	10	19.2	12.5	0.0 +	0.0	(0.5)	37	(0.0)	1		0.5	3	5	20		
343	10	340L	10	57.6	28.3	0.1 +	0.0	(1.1)	98	(0.0)	1		1.1	3	5	20		
400	41	3800	9	18.0	32.5	0.3 +	0.1	(5.3)	93	(0.5)	1		5.7	3	63	0		
500	1355	1310	103	36.0	90.7	1.3 +	32.8	(484.8)	174	(29.6)	85	+	514.4					
530	18	3900S	34	18.0	0.7	0.0 +	0.0	(0.0)	1	(0.0)	0		0.1					
531	1281	530L	34	18.0	0.7	0.0 +	0.2	(3.5)	1	(0.2)	0		3.7					
532	30	530L	34	18.0	0.7	0.0 +	0.0	(0.1)	1	(0.0)	0		0.1					
540	19	1800S	18	18.0	1.2	0.0 +	0.0	(0.1)	2	(0.0)	3		0.1					
541	11	540L	18	18.0	1.2	0.0 +	0.0	(0.1)	2	(0.0)	3		0.1					
542	10	540L	18	18.0	1.3	0.0 +	0.0	(0.1)	8	(0.0)	3		0.1					
543	285	540L	18	18.0	1.3	0.0 +	0.1	(1.5)	9	(0.3)	3		1.8					
600	569	886	64	36.0	5.6	0.0 +	0.9	(12.7)	8	(0.6)	1		13.2					
630	831<	1980S	43	25.0	1.6	0.0 +	0.4	(5.2)	2	(0.2)	0		5.5					
631	10	630L	43	25.0	1.6	0.0 +	0.0	(0.1)	2	(0.0)	0		0.1					
632	15	630L	43	25.0	1.6	0.0 +	0.0	(0.1)	2	(0.0)	0		0.1					
640	10	3800S	35	25.0	0.8	0.0 +	0.0	(0.0)	1	(0.0)	0		0.0					
641	10	640L	35	25.0	0.7	0.0 +	0.0	(0.0)	1	(0.0)	0		0.0					
642	1266	640L	35	25.0	0.7	0.0 +	0.3	(3.6)	1	(0.2)	0		3.8					
643	30	640L	35	25.0	0.7	0.0 +	0.0	(0.1)	1	(0.0)	0		0.1					

*** f - average saturation flow for flared link ***

.

70 SECOND CYCLE 70 STEPS

TOTAL DISTANCE TRAVELLED (PCU-KM/H)	TOTAL TIME SPENT (PCU-H/H)	MEAN JOURNEY SPEED (KM/H)	TOTAL UNIFORM DELAY (PCU-H/H)	TOTAL RANDOM+ OVERSAT DELAY (PCU-H/H)	TOTAL COST OF DELAY ($/H)	TOTAL COST OF STOPS ($/H)	PENALTY FOR EXCESS QUEUES ($/H)	TOTAL PERFORMANCE INDEX ($/H)	
3056.5	182.0	16.8	29.7	50.3	(1136.0) +	(106.3) +	(0.0) =	1242.3	TOTALS

ROUTE

****

	CRUISE LITRES PER HOUR		DELAY LITRES PER HOUR		STOPS LITRES PER HOUR		TOTALS LITRES PER HOUR
FUEL CONSUMPTION PREDICTIONS	195.5	+	92.0	+	48.4	=	336.0

NO. OF ENTRIES TO SUBPT = 6
NO. OF LINKS RECALCULATED= 245

PROGRAM TRANSYT FINISHED

1 _____ T R A N S Y T 12 _____

Traffic Network Study Tool

Analysis Program Release 7 (July 2010)
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Run with file:- "M25_J29_2030+DEVT_AM1.DAT" at 19:04 on 20130929

TRANSYT 12.0

M25 J29: Proposed gyratory 2030 + Development flows, AM peak

PARAMETERS CONTROLLING DIMENSIONS OF PROBLEM :

NUMBER OF NODES	4
NUMBER OF LINKS	37
NUMBER OF OPTIMISED NODES	4
MAXIMUM NUMBER OF GRAPHIC PLOTS	0
NUMBER OF STEPS IN CYCLE	60
MAXIMUM NUMBER OF SHARED STOPLINES	4
MAXIMUM NUMBER OF TIMING POINTS	3
MAXIMUM LINKS AT ANY NODE	4

CORE REQUESTED = 9685 WORDS
CORE AVAILABLE = 72000 WORDS

DATA INPUT :-

CARD NO.	CARD TYPE														
(1)=	TITLE:- M25 J29: Proposed gyratory 2030 + Development flows, AM peak														
CARD NO.	CARD TYPE	CYCLE TIME (SEC)	NO. OF STEPS PER CYCLE	TIME PERIOD MINS.	EFFECTIVE-GREEN DISPLACEMENTS 1-1200 (SEC)	EFFECTIVE-GREEN START (SEC)	EQUISAT SETTINGS END 0=NO 1=YES	0=UNEQUAL 1=EQUAL CYCLE	FLOW SCALE 10-200 %	CRUISE-SPEEDS SCALE 50-200 %	CARD32 0=TIMES 1=SPEEDS	OPTIMISE 0=NONE 1=O/SET 2=FULL	EXTRA COPIES FINAL OUTPUT	HILL-CLIMB VALUE 0=FULL 1=FULL	DELAY VALUE P PER PCU-H	STOP VALUE P PER 100
2)=	1	60	60	60	2	3	1	1	100	100	1	2	0	0	1420	260
CARD NO.	CARD TYPE	LIST OF NODES TO BE OPTIMISED														
3)=	2	1	3	5	6	0	0	0	0	0	0	0	0	0	0	0

		LINKS HAVING SHARED STOPLINES													
CARD NO.	CARD TYPE	FIRST SET.....				SECOND SET.....					THIRD SET.....				
4)=	7	130	131	0	0	0	0	0	0	0	0	0	0	0	0
5)=	7	140	141	142	143	0	0	0	0	0	0	0	0	0	0
6)=	7	230	231	232	233	0	0	0	0	0	0	0	0	0	0
7)=	7	330	331	332	0	0	0	0	0	0	0	0	0	0	0
8)=	7	340	341	342	343	0	0	0	0	0	0	0	0	0	0
9)=	7	530	531	532	0	0	0	0	0	0	0	0	0	0	0
10)=	7	540	541	542	543	0	0	0	0	0	0	0	0	0	0
11)=	7	630	631	632	0	0	0	0	0	0	0	0	0	0	0
12)=	7	640	641	642	643	0	0	0	0	0	0	0	0	0	0

		NODE CARDS: MINIMUM STAGE TIMES (WORKING)									
CARD NO.	CARD TYPE	NODE NO.	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10
13)=	10	1	7	7								
14)=	10	3	7	7	7							
15)=	10	5	7	7								
16)=	10	6	7	7								

		NODE CARDS: PRECEDING INTERSTAGE TIMES (WORKING)									
CARD NO.	CARD TYPE	NODE NO.	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10
17)=	11	1	7	7								
18)=	11	3	5	5	5							
19)=	11	5	5	5								
20)=	11	6	5	5								

		NODE CARDS: STAGE CHANGE TIMES (WORKING)										
CARD NO.	CARD TYPE	NODE NO.	Sgl/Dbl Cycled	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10
21)=	12	1	1	0	46								
22)=	12	3	1	0	36	48							
23)=	12	5	1	0	48								
24)=	12	6	1	0	48								

				LINK CARDS: GIVEWAY DATA										
			PRIORITY LINKS	LINK1 GIVEWAY COEFFS.										
CARD NO.	CARD TYPE	LINK NO.	LINK1 NO.	LINK2 NO.	ONLY % FLOW	A1 X100	A2 X100					LINK LENGTH	STOP WT.X100	MAX FLOW	DELAY WT.X100	DISPSN X100
25)=	30	200	230	0	0	76	0	0	0	0	0	150	0	2022	0	0

				LINK CARDS: FIXED DATA												
				FIRST GREEN START		FIRST GREEN END		SECOND GREEN START		SECOND GREEN END						
CARD NO.	CARD TYPE	LINK NO.	EXIT NODE	STAGE	LAG	STAGE	LAG	STAGE	LAG	STAGE	LAG	LINK LENGTH	STOP WT.X100	SAT FLOW	DELAY WT.X100	DISPSN X100
26)=	31	100	1	2	7	1	0	0	0	0	0	300	0	3949	0	0
27)=	31	130	1	1	7	2	0	0	0	0	0	150	0	1980	0	0
28)=	31	131	0	0	0	0	0	0	0	0	0	150	0	0	0	0
29)=	31	140	1	1	7	2	0	0	0	0	0	150	0	3801	0	0
30)=	31	141	0	0	0	0	0	0	0	0	0	150	0	0	0	0
31)=	31	142	0	0	0	0	0	0	0	0	0	150	0	0	0	0
32)=	31	143	0	0	0	0	0	0	0	0	0	150	0	0	0	0
33)=	31	230	0	0	0	0	0	0	0	0	0	73	0	5400	0	0
34)=	31	231	0	0	0	0	0	0	0	0	0	73	0	0	0	0
35)=	31	232	0	0	0	0	0	0	0	0	0	73	0	0	0	0
36)=	31	233	0	0	0	0	0	0	0	0	0	73	0	0	0	0
37)=	31	300	3	2	5	3	0	0	0	0	0	300	0	4000	0	0
38)=	31	330	3	1	5	2	0	0	0	0	0	160	0	3900	0	0
39)=	31	331	0	0	0	0	0	0	0	0	0	160	0	0	0	0

40)=	31	332	0	0	0	0	0	0	0	0	0	160	0	0	0	0
41)=	31	340	3	1	5	2	0	0	0	0	0	160	0	1800	0	0
42)=	31	341	0	0	0	0	0	0	0	0	0	160	0	0	0	0
43)=	31	342	0	0	0	0	0	0	0	0	0	160	0	0	0	0
44)=	31	343	0	0	0	0	0	0	0	0	0	160	0	0	0	0
45)=	31	400	3	3	5	1	0	0	0	0	0	150	0	3800	0	0
46)=	31	500	5	2	5	1	0	0	0	0	0	300	0	4000	0	0
47)=	31	530	5	1	5	2	0	0	0	0	0	150	0	3900	0	0
48)=	31	531	0	0	0	0	0	0	0	0	0	150	0	0	0	0
49)=	31	532	0	0	0	0	0	0	0	0	0	150	0	0	0	0
50)=	31	540	5	1	5	2	0	0	0	0	0	150	0	1800	0	0
51)=	31	541	0	0	0	0	0	0	0	0	0	150	0	0	0	0
52)=	31	542	0	0	0	0	0	0	0	0	0	150	0	0	0	0
53)=	31	543	0	0	0	0	0	0	0	0	0	150	0	0	0	0
54)=	31	600	6	2	5	1	0	0	0	0	0	300	0	4000	0	0
55)=	31	630	6	1	5	2	0	0	0	0	0	208	0	1980	0	0
56)=	31	631	0	0	0	0	0	0	0	0	0	208	0	0	0	0
57)=	31	632	0	0	0	0	0	0	0	0	0	208	0	0	0	0
58)=	31	640	6	1	5	2	0	0	0	0	0	208	0	3800	0	0
59)=	31	641	0	0	0	0	0	0	0	0	0	208	0	0	0	0
60)=	31	642	0	0	0	0	0	0	0	0	0	208	0	0	0	0
61)=	31	643	0	0	0	0	0	0	0	0	0	208	0	0	0	0

LINK CARDS: FLOW DATA

CARD NO.	CARD TYPE	LINK NO.	TOTAL FLOW	UNIFORM FLOW	ENTRY 1 .... LINK NO.	FLOW	CRUISE SPEED	ENTRY 2 .... LINK NO.	FLOW	CRUISE SPEED	ENTRY 3 .... LINK NO.	FLOW	CRUISE SPEED	ENTRY 4 .... LINK NO.	FLOW	CRUISE SPEED
62)=	32	100	1987	0	0	0	30	0	0	0	0	0	0	0	0	0
63)=	32	130	569	0	600	569	30	0	0	0	0	0	0	0	0	0
64)=	32	131	60	0	630	60	30	0	0	0	0	0	0	0	0	0
65)=	32	140	94	0	600	94	30	0	0	0	0	0	0	0	0	0
66)=	32	141	918	0	630	918	30	0	0	0	0	0	0	0	0	0
67)=	32	142	64	0	631	64	30	0	0	0	0	0	0	0	0	0
68)=	32	143	31	0	632	31	30	0	0	0	0	0	0	0	0	0
69)=	32	200	66	0	0	0	30	0	0	0	0	0	0	0	0	0
70)=	32	230	1977	0	100	1977	30	0	0	0	0	0	0	0	0	0
71)=	32	231	571	0	130	569	30	140	10	30	0	0	0	0	0	0
72)=	32	232	977	0	131	60	30	141	917	30	0	0	0	0	0	0
73)=	32	233	64	0	142	64	30	0	0	0	0	0	0	0	0	0
74)=	32	300	2380	0	0	0	30	0	0	0	0	0	0	0	0	0
75)=	32	330	47	0	200	47	30	0	0	0	0	0	0	0	0	0
76)=	32	331	228	0	230	228	30	0	0	0	0	0	0	0	0	0
77)=	32	332	356	0	231	356	30	0	0	0	0	0	0	0	0	0
78)=	32	340	10	0	200	10	30	0	0	0	0	0	0	0	0	0
79)=	32	341	211	0	230	211	30	0	0	0	0	0	0	0	0	0
80)=	32	342	213	0	231	213	30	0	0	0	0	0	0	0	0	0
81)=	32	343	60	0	232	60	30	0	0	0	0	0	0	0	0	0
82)=	32	400	211	0	0	0	30	0	0	0	0	0	0	0	0	0
83)=	32	500	1455	0	0	0	30	0	0	0	0	0	0	0	0	0
84)=	32	530	128	0	400	128	30	0	0	0	0	0	0	0	0	0
85)=	32	531	1633	0	300	1633	30	0	0	0	0	0	0	0	0	0
86)=	32	532	24	0	330	24	30	0	0	0	0	0	0	0	0	0
87)=	32	540	65	0	400	65	30	0	0	0	0	0	0	0	0	0
88)=	32	541	10	0	300	10	30	0	0	0	0	0	0	0	0	0
89)=	32	542	10	0	330	10	30	0	0	0	0	0	0	0	0	0
90)=	32	543	222	0	331	228	30	0	0	0	0	0	0	0	0	0
91)=	32	600	897	0	0	0	30	0	0	0	0	0	0	0	0	0
92)=	32	630	978	0	500	978	30	0	0	0	0	0	0	0	0	0
93)=	32	631	64	0	530	64	30	0	0	0	0	0	0	0	0	0
94)=	32	632	31	0	531	31	30	0	0	0	0	0	0	0	0	0
95)=	32	640	10	0	500	10	30	0	0	0	0	0	0	0	0	0
96)=	32	641	64	0	530	64	30	0	0	0	0	0	0	0	0	0
97)=	32	642	1602	0	531	1602	30	0	0	0	0	0	0	0	0	0
98)=	32	643	24	0	532	24	30	0	0	0	0	0	0	0	0	0

LINK CARDS : FLARE SATURATION FLOW DATA

	CARD TYPE	LINK NO.	..LANE 1.. SAT. FLOW	CAPAC VEH.	..LANE 2.. SAT. FLOW	CAPAC VEH.	..LANE 3.. SAT. FLOW	CAPAC VEH.
99)=	33	100	1906	3	0	0	0	0
100)=	33	300	1800	6	1800	6	0	0
101)=	33	340	1800	3	0	0	0	0

*****END OF SUBROUTINE TINPUT*****

.

60 SECOND CYCLE 60 STEPS

INITIAL SETTINGS
- (SECONDS)

NODE NO	NUMBER OF STAGES	STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 5	STAGE 6	STAGE 7	STAGE 8	STAGE 9	STAGE 10
1	2	0	26								
3	3	0	16	48							
5	2	0	33								
6	2	0	41								

LINK NUMBER	FLOW INTO LINK (PCU/H)	SAT FLOW (PCU/H)	DEGREE OF SAT (%)	MEAN TIMES PER PCU CRUISE (SEC)	DELAY (SEC)	-------DELAY-------- UNIFORM RANDOM+ OVERSAT (U+R+O=MEAN Q) (PCU-H/H)	COST OF DELAY ($/H)	----STOPS---- MEAN STOPS /PCU (%)	COST OF STOPS ($/H)	----QUEUE---- MEAN MAX. (PCU)	AVERAGE EXCESS (PCU)	PERFORMANCE INDEX. WEIGHTED SUM OF ( ) VALUES ($/H)	EXIT NODE	GREEN TIMES START END 1ST (SECONDS)	START END 2ND
100	1987	4334f	98	36.0	42.0	8.1 + 15.1	(329.4)	133	(33.2)	47		362.6	1	33	0
130	569	1980S	95	18.0	47.4	1.1 + 6.4	(106.5)	152	(10.9)	17		117.3	1	7	26
131	61	130L	95	18.0	63.3	0.4 + 0.7	(15.2)	153	(1.2)	17		16.4	1	7	26
140	93	3801S	87	18.0	21.9	0.3 + 0.3	(8.0)	109	(1.3)	20		9.3	1	7	26
141	917	140L	87	18.0	39.1	7.3 + 2.7	(141.6)	108	(12.5)	20		154.0	1	7	26
142	64	140L	87	18.0	25.0	0.3 + 0.2	(6.3)	71	(0.6)	20		6.9	1	7	26
143	29	140L	87	18.0	27.6	0.1 + 0.1	(3.2)	85	(0.3)	20		3.5	1	7	26
200	66	2022	26	18.0	20.2	0.2 + 0.2	(5.3)	109	(0.9)	1		6.2			
230	1975	5400S	66	8.8	1.0	0.0 + 0.5	(7.7)	2	(0.4)	9		8.1			
231	570	230L	66	8.8	1.0	0.0 + 0.2	(2.3)	3	(0.2)	9		2.5			
232	976	230L	66	8.8	1.0	0.0 + 0.3	(3.9)	3	(0.4)	9		4.3			
233	64	230L	66	8.8	1.0	0.0 + 0.0	(0.3)	2	(0.0)	9		0.3			
300	2380	5542f	92	36.0	21.0	8.4 + 5.5	(196.9)	94	(28.0)	40		224.8	3	21	48
330	47	3900S	81	19.2	39.3	0.4 + 0.2	(7.3)	118	(0.7)	12		8.0	3	5	16
331	229	330L	81	19.2	32.9	1.3 + 0.8	(29.7)	105	(3.0)	12		32.7	3	5	16
332	356	330L	81	19.2	34.7	2.3 + 1.2	(48.7)	118	(5.3)	12		54.0	3	5	16
340	10	2700Sf	91	19.2	59.3	0.1 + 0.1	(2.3)	147	(0.2)	12		2.5	3	5	16
341	209	340L	91	19.2	53.2	1.2 + 1.9	(43.9)	132	(3.5)	12		47.4	3	5	16
342	213	340L	91	19.2	54.7	1.3 + 1.9	(45.9)	147	(3.9)	12		49.8	3	5	16
343	61	340L	91	19.2	56.2	0.4 + 0.5	(13.5)	148	(1.1)	12		14.6	3	5	16
400	211	3800	42	18.0	29.9	1.4 + 0.4	(24.9)	99	(2.6)	4		27.5	3	53	0
500	1455	4000	95	36.0	37.1	7.2 + 7.8	(213.0)	122	(22.3)	31		235.3	5	38	0
530	128	3900S	93	18.0	30.3	0.6 + 0.5	(15.3)	120	(1.9)	36		17.2	5	5	33
531	1633	530L	93	18.0	40.1	12.3 + 5.9	(258.4)	121	(24.7)	36		283.2	5	5	33
532	0<	530L	93	18.0	0.0	0.0 + 0.0	(0.0)	0	(0.0)	36		0.0	5	5	33
540	65	1800S	35	18.0	3.4	0.0 + 0.1	(0.9)	6	(0.1)	1		0.9	5	5	33
541	10	540L	35	18.0	18.3	0.0 + 0.0	(0.7)	93	(0.1)	1		0.8	5	5	33
542	10	540L	35	18.0	6.7	0.0 + 0.0	(0.3)	18	(0.0)	1		0.3	5	5	33

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 543     223    540L    35  18.0   8.4    0.3 +  0.2  (  7.4)     25  (  0.7)      1              8.1      5      5  33
 600     897   4000     90  36.0  38.0    5.4 +  4.0  (134.3)    118  ( 13.3)     18            147.6      6     46   0
 630     978   1980S    88  25.0  18.6    1.9 +  3.1  ( 71.9)    114  ( 14.0)     21             85.8      6      5  41
 631      64    630L    88  25.0  22.3    0.2 +  0.2  (  5.6)    117  (  0.9)     21              6.6      6      5  41
 632      29    630L    88  25.0  21.5    0.1 +  0.1  (  2.5)     89  (  0.3)     21              2.8      6      5  41
 640       9   3800S    72  25.0   9.1    0.0 +  0.0  (  0.3)     62  (  0.1)     18              0.4      6      5  41
 641      64    640L    72  25.0  21.6    0.3 +  0.0  (  5.4)    101  (  0.8)     18              6.3      6      5  41
 642    1603    640L    72  25.0  14.7    5.4 +  1.2  ( 93.2)     61  ( 12.3)     18            105.5      6      5  41
 643      0<    640L    72  25.0   0.0    0.0 +  0.0  (  0.0)      0  (  0.0)     18              0.0      6      5  41
                *** f - average saturation flow for flared link ***
.

     60 SECOND CYCLE  60 STEPS

  TOTAL          TOTAL        MEAN          TOTAL    TOTAL    TOTAL       TOTAL        PENALTY      TOTAL
 DISTANCE         TIME      JOURNEY        UNIFORM  RANDOM+    COST        COST          FOR      PERFORMANCE
TRAVELLED         SPENT      SPEED          DELAY   OVERSAT     OF          OF          EXCESS       INDEX
                                                     DELAY    DELAY       STOPS        QUEUES
(PCU-KM/H)     (PCU-H/H)    (KM/H)      (PCU-H/H)(PCU-H/H)   ($/H)       ($/H)         ($/H)        ($/H)

  3650.2         252.1       14.5          68.4     62.0    (1852.0) + (  201.6)  +  (   0.0)   =    2053.7     TOTALS

*****************************************************************************************************************************
                                  CRUISE               DELAY               STOPS               TOTALS
                              LITRES PER HOUR    LITRES PER HOUR     LITRES PER HOUR     LITRES PER HOUR

FUEL CONSUMPTION PREDICTIONS       233.4        +     150.0        +      91.9        =     475.3

NO. OF ENTRIES TO SUBPT  =    1
NO. OF LINKS RECALCULATED=   53
.

     60 SECOND CYCLE  60 STEPS

INTERMEDIATE SETTINGS - INCREMENTS SO FAR :-    9
 - (SECONDS)

    1       2       0       26
    3       3      36       52       24
    5       2       0       33
    6       2       9       50

  TOTAL          TOTAL        MEAN          TOTAL    TOTAL    TOTAL       TOTAL        PENALTY      TOTAL
 DISTANCE         TIME      JOURNEY        UNIFORM  RANDOM+    COST        COST          FOR      PERFORMANCE
TRAVELLED         SPENT      SPEED          DELAY   OVERSAT     OF          OF          EXCESS       INDEX
                                                     DELAY    DELAY       STOPS        QUEUES
(PCU-KM/H)     (PCU-H/H)    (KM/H)      (PCU-H/H)(PCU-H/H)   ($/H)       ($/H)         ($/H)        ($/H)

  3650.2         242.1       15.1          57.1     63.3    (1710.5) + (  182.9)  +  (   0.0)   =    1893.3     TOTALS

NO. OF ENTRIES TO SUBPT  =   12
NO. OF LINKS RECALCULATED=  398
.

     60 SECOND CYCLE  60 STEPS

INTERMEDIATE SETTINGS - INCREMENTS SO FAR :-    9  24
 - (SECONDS)

    1       2       0       26
    3       3      36       52       24
    5       2       0       33
    6       2       9       50

  TOTAL          TOTAL        MEAN          TOTAL    TOTAL    TOTAL       TOTAL        PENALTY      TOTAL
 DISTANCE         TIME      JOURNEY        UNIFORM  RANDOM+    COST        COST          FOR      PERFORMANCE
TRAVELLED         SPENT      SPEED          DELAY   OVERSAT     OF          OF          EXCESS       INDEX
                                                     DELAY    DELAY       STOPS        QUEUES
(PCU-KM/H)     (PCU-H/H)    (KM/H)      (PCU-H/H)(PCU-H/H)   ($/H)       ($/H)         ($/H)        ($/H)

  3650.2         242.1       15.1          57.1     63.3    (1710.5) + (  182.9)  +  (   0.0)   =    1893.3     TOTALS

NO. OF ENTRIES TO SUBPT  =    9
NO. OF LINKS RECALCULATED=  308
.

     60 SECOND CYCLE  60 STEPS

INTERMEDIATE SETTINGS - INCREMENTS SO FAR :-    9  24  -1
 - (SECONDS)

    1       2       0       26
    3       3      36       52       24
    5       2       0       33
    6       2      10       50

  TOTAL          TOTAL        MEAN          TOTAL    TOTAL    TOTAL       TOTAL        PENALTY      TOTAL
 DISTANCE         TIME      JOURNEY        UNIFORM  RANDOM+    COST        COST          FOR      PERFORMANCE
TRAVELLED         SPENT      SPEED          DELAY   OVERSAT     OF          OF          EXCESS       INDEX
                                                     DELAY    DELAY       STOPS        QUEUES
(PCU-KM/H)     (PCU-H/H)    (KM/H)      (PCU-H/H)(PCU-H/H)   ($/H)       ($/H)         ($/H)        ($/H)

  3650.2         241.6       15.1          57.1     62.8    (1702.8) + (  182.4)  +  (   0.0)   =    1885.2     TOTALS

NO. OF ENTRIES TO SUBPT  =   18
NO. OF LINKS RECALCULATED=  541
.

     60 SECOND CYCLE  60 STEPS

INTERMEDIATE SETTINGS - INCREMENTS SO FAR :-    9  24  -1   9
 - (SECONDS)

    1       2       0       26
    3       3      36       52       24
    5       2       0       33
    6       2      10       50

  TOTAL          TOTAL        MEAN          TOTAL    TOTAL    TOTAL       TOTAL        PENALTY      TOTAL
 DISTANCE         TIME      JOURNEY        UNIFORM  RANDOM+    COST        COST          FOR      PERFORMANCE
TRAVELLED         SPENT      SPEED          DELAY   OVERSAT     OF          OF          EXCESS       INDEX
                                                     DELAY    DELAY       STOPS        QUEUES
(PCU-KM/H)     (PCU-H/H)    (KM/H)      (PCU-H/H)(PCU-H/H)   ($/H)       ($/H)         ($/H)        ($/H)

  3650.2         241.6       15.1          57.1     62.8    (1702.8) + (  182.4)  +  (   0.0)   =    1885.2     TOTALS

NO. OF ENTRIES TO SUBPT  =    9
NO. OF LINKS RECALCULATED=  341
.

     60 SECOND CYCLE  60 STEPS

INTERMEDIATE SETTINGS - INCREMENTS SO FAR :-    9  24  -1   9  24
```

- (SECONDS)

1	2	0	26	
3	3	36	52	24
5	2	0	33	
6	2	10	50	

TOTAL DISTANCE TRAVELLED (PCU-KM/H)	TOTAL TIME SPENT (PCU-H/H)	MEAN JOURNEY SPEED (KM/H)	TOTAL UNIFORM DELAY (PCU-H/H)	TOTAL RANDOM+ OVERSAT DELAY (PCU-H/H)	TOTAL COST OF DELAY ($/H)	TOTAL COST OF STOPS ($/H)	PENALTY FOR EXCESS QUEUES ($/H)	TOTAL PERFORMANCE INDEX ($/H)	
3650.2	241.6	15.1	57.1	62.8	(1702.8) + (182.4)	+ (0.0)	= 1885.2	TOTALS	

NO. OF ENTRIES TO SUBPT = 10
NO. OF LINKS RECALCULATED= 438

.

60 SECOND CYCLE 60 STEPS

INTERMEDIATE SETTINGS - INCREMENTS SO FAR :- 9 24 -1 9 24 1
- (SECONDS)

1	2	59	25	
3	3	34	50	22
5	2	0	33	
6	2	11	51	

TOTAL DISTANCE TRAVELLED (PCU-KM/H)	TOTAL TIME SPENT (PCU-H/H)	MEAN JOURNEY SPEED (KM/H)	TOTAL UNIFORM DELAY (PCU-H/H)	TOTAL RANDOM+ OVERSAT DELAY (PCU-H/H)	TOTAL COST OF DELAY ($/H)	TOTAL COST OF STOPS ($/H)	PENALTY FOR EXCESS QUEUES ($/H)	TOTAL PERFORMANCE INDEX ($/H)	
3650.2	241.0	15.1	56.5	62.9	(1694.4) + (180.9)	+ (0.0)	= 1875.3	TOTALS	

NO. OF ENTRIES TO SUBPT = 12
NO. OF LINKS RECALCULATED= 443

.

60 SECOND CYCLE 60 STEPS

INTERMEDIATE SETTINGS - INCREMENTS SO FAR :- 9 24 -1 9 24 1 -1
- (SECONDS)

1	2	59	25	
3	3	34	50	22
5	2	0	33	
6	2	11	51	

TOTAL DISTANCE TRAVELLED (PCU-KM/H)	TOTAL TIME SPENT (PCU-H/H)	MEAN JOURNEY SPEED (KM/H)	TOTAL UNIFORM DELAY (PCU-H/H)	TOTAL RANDOM+ OVERSAT DELAY (PCU-H/H)	TOTAL COST OF DELAY ($/H)	TOTAL COST OF STOPS ($/H)	PENALTY FOR EXCESS QUEUES ($/H)	TOTAL PERFORMANCE INDEX ($/H)	
3650.2	241.0	15.1	56.5	62.9	(1694.4) + (180.9)	+ (0.0)	= 1875.3	TOTALS	

NO. OF ENTRIES TO SUBPT = 17
NO. OF LINKS RECALCULATED= 685

.

60 SECOND CYCLE 60 STEPS

FINAL SETTINGS OBTAINED WITH INCREMENTS :- 9 24 -1 9 24 1 -1 1
- (SECONDS)

NODE NO	NUMBER OF STAGES	STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 5	STAGE 6	STAGE 7	STAGE 8	STAGE 9	STAGE 10
1	2	59	25								
3	3	34	50	22							
5	2	0	33								
6	2	11	51								

LINK NUMBER	FLOW INTO LINK (PCU/H)	SAT FLOW (PCU/H)	DEGREE OF SAT (%)	MEAN TIMES PER PCU CRUISE (SEC)	DELAY (SEC)	DELAY UNIFORM (U+R+O=MEAN Q) (PCU-H/H)	DELAY RANDOM+ OVERSAT (PCU-H/H)	COST OF DELAY ($/H)	STOPS MEAN /PCU (%)	STOPS COST OF STOPS ($/H)	QUEUE MEAN MAX. (PCU)	QUEUE AVERAGE EXCESS (PCU)	PERFORMANCE INDEX. WEIGHTED SUM OF ( ) VALUES ($/H)	EXIT NODE	GREEN TIMES START 1ST (SECONDS)	GREEN TIMES START 2ND (SECONDS)	GREEN TIMES END 1ST (SECONDS)	GREEN TIMES END 2ND (SECONDS)
100	1987	4334f	98	36.0	42.0	8.1 +	15.1	(329.4)	133	(33.2)	47		362.6	1	32	59		
130	569	1980S	95	18.0	48.6	1.3 +	6.4	(109.1)	88	(6.2)	11		115.3	1	6	25		
131	61	130L	95	18.0	60.5	0.3 +	0.7	(14.6)	156	(1.2)	11		15.7	1	6	25		
140	93	3801S	87	18.0	21.5	0.3 +	0.3	(7.9)	91	(1.1)	21		9.0	1	6	25		
141	917	140L	87	18.0	34.4	6.1 +	2.7	(124.4)	117	(13.4)	21		137.8	1	6	25		
142	64	140L	87	18.0	27.1	0.3 +	0.2	(6.8)	116	(0.9)	21		7.8	1	6	25		
143	29	140L	87	18.0	30.5	0.2 +	0.1	(3.5)	110	(0.4)	21		3.9	1	6	25		
200	66	2022	26	18.0	19.9	0.2 +	0.2	(5.2)	108	(0.9)	1		6.1					
230	1975	5400S	66	8.8	1.0	0.0 +	0.5	(7.7)	2	(0.4)	7		8.1					
231	570	230L	66	8.8	1.0	0.0 +	0.2	(2.3)	2	(0.2)	7		2.4					
232	976	230L	66	8.8	1.0	0.0 +	0.3	(3.9)	2	(0.3)	7		4.1					
233	64	230L	66	8.8	1.0	0.0 +	0.0	(0.3)	3	(0.0)	7		0.3					
300	2380	5542f	92	36.0	21.0	8.4 +	5.5	(196.9)	94	(28.0)	40		224.8	3	55	22		
330	47	3900S	81	19.2	34.3	0.3 +	0.2	(6.4)	107	(0.6)	11		7.0	3	39	50		
331	229	330L	81	19.2	40.0	1.8 +	0.8	(36.1)	119	(3.4)	11		39.5	3	39	50		
332	356	330L	81	19.2	26.7	1.5 +	1.2	(37.5)	93	(4.2)	11		41.7	3	39	50		
340	10	2700Sf	91	19.2	54.6	0.1 +	0.1	(2.2)	135	(0.2)	12		2.3	3	39	50		
341	209	340L	91	19.2	60.0	1.6 +	1.9	(49.5)	146	(3.9)	12		53.3	3	39	50		
342	213	340L	91	19.2	46.9	0.9 +	1.9	(39.4)	122	(3.3)	12		42.7	3	39	50		
343	61	340L	91	19.2	42.4	0.2 +	0.5	(10.2)	128	(1.0)	12		11.2	3	39	50		
400	211	3800	42	18.0	29.9	1.4 +	0.4	(24.9)	99	(2.6)	4		27.5	3	27	34		
500	1455	4000	95	36.0	37.1	7.2 +	7.8	(213.0)	122	(22.3)	31		235.3	5	38	0		
530	128	3900S	95	18.0	37.4	0.8 +	0.6	(18.9)	124	(2.0)	22		20.9	5	5	33		
531	1633	530L	95	18.0	20.4	2.2 +	7.0	(131.3)	58	(11.9)	22		143.2	5	5	33		
532	24	530L	95	18.0	24.8	0.1 +	0.1	(2.3)	114	(0.3)	22		2.7	5	5	33		
540	65	1800S	35	18.0	21.9	0.3 +	0.1	(5.6)	105	(0.9)	5		6.5	5	5	33		
541	10	540L	35	18.0	7.3	0.0 +	0.0	(0.3)	28	(0.0)	5		0.3	5	5	33		
542	10	540L	35	18.0	12.4	0.0 +	0.0	(0.5)	98	(0.1)	5		0.6	5	5	33		
543	223	540L	35	18.0	13.0	0.6 +	0.2	(11.4)	101	(2.8)	5		14.3	5	5	33		
600	897	4000	84	36.0	31.1	5.2 +	2.6	(110.0)	107	(12.1)	17		122.1	6	56	11		
630	978	1980S	90	25.0	29.9	4.2 +	3.9	(115.3)	122	(15.0)	22		130.3	6	16	51		
631	64	630L	90	25.0	25.1	0.2 +	0.3	(6.3)	117	(0.9)	22		7.3	6	16	51		
632	29	630L	90	25.0	24.5	0.1 +	0.1	(2.8)	97	(0.4)	22		3.2	6	16	51		
640	9	3800S	75	25.0	11.2	0.0 +	0.0	(0.4)	71	(0.1)	9		0.5	6	16	51		
641	64	640L	75	25.0	4.1	0.0 +	0.1	(1.0)	10	(0.1)	9		1.1	6	16	51		
642	1603	640L	75	25.0	9.0	2.6 +	1.4	(56.8)	34	(6.7)	9		63.5	6	16	51		
643	24	640L	75	25.0	4.5	0.0 +	0.0	(0.4)	12	(0.0)	9		0.5	6	16	51		

*** f - average saturation flow for flared link ***

.

60 SECOND CYCLE 60 STEPS

TOTAL DISTANCE TRAVELLED (PCU-KM/H)	TOTAL TIME SPENT (PCU-H/H)	MEAN JOURNEY SPEED (KM/H)	TOTAL UNIFORM DELAY (PCU-H/H)	TOTAL RANDOM+ OVERSAT DELAY (PCU-H/H)	TOTAL COST OF DELAY ($/H)		TOTAL COST OF STOPS ($/H)		PENALTY FOR EXCESS QUEUES ($/H)	TOTAL PERFORMANCE INDEX ($/H)	
3650.2	241.0	15.1	56.5	62.9	(1694.4)	+	(180.9)	+	(0.0)	= 1875.3	TOTALS
											ROUTE

	CRUISE LITRES PER HOUR		DELAY LITRES PER HOUR		STOPS LITRES PER HOUR		TOTALS LITRES PER HOUR
FUEL CONSUMPTION PREDICTIONS	233.4	+	137.2	+	82.4	=	453.1

NO. OF ENTRIES TO SUBPT = 10
NO. OF LINKS RECALCULATED= 439

PROGRAM TRANSYT FINISHED

1 _____ T R A N S Y T 12 _____

Traffic Network Study Tool

Analysis Program Release 7 (July 2010)
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Run with file:- "M25_J29_2030+DEVT_PM1.DAT" at 10:32 on 20130930

TRANSYT 12.0

M25 J29: Proposed gyratory 2030 + Development flows, PM peak

PARAMETERS CONTROLLING DIMENSIONS OF PROBLEM :

NUMBER OF NODES	= 4
NUMBER OF LINKS	= 37
NUMBER OF OPTIMISED NODES	= 4
MAXIMUM NUMBER OF GRAPHIC PLOTS	= 0
NUMBER OF STEPS IN CYCLE	= 70
MAXIMUM NUMBER OF SHARED STOPLINES	= 4
MAXIMUM NUMBER OF TIMING POINTS	= 3
MAXIMUM LINKS AT ANY NODE	= 4

CORE REQUESTED = 10175 WORDS
CORE AVAILABLE = 72000 WORDS

DATA INPUT :-

CARD NO.	CARD TYPE														
(1)=	TITLE:- M25 J29: Proposed gyratory 2030 + Development flows, PM peak														
CARD NO.	CARD TYPE	CYCLE TIME (SEC)	NO. OF STEPS PER CYCLE	TIME PERIOD 1-1200 MINS.	DISPLACEMENTS START (SEC)	DISPLACEMENTS END (SEC)	EQUISAT 0=UNEQUAL SETTINGS 1=YES	FLOW CYCLE 0=NO 1=EQUAL	SCALE %	CRUISE-SPEEDS SCALE %	CARD32 0=TIMES 1=SPEEDS	OPTIMISE 0=NONE 1=O/SET 2=FULL	EXTRA COPIES FINAL OUTPUT	HILL-CLIMB VALUE 1=FULL	DELAY VALUE P PER PCU-H	STOP VALUE P PER 100
2)=	1	70	70	60	2	3	1	1	100	100	1	2	0	0	1420	260
CARD NO.	CARD TYPE	LIST OF NODES TO BE OPTIMISED														
3)=	2	1	3	5	6	0	0	0	0	0	0	0	0	0	0	0

		LINKS HAVING SHARED STOPLINES													
CARD NO.	CARD TYPE	FIRST SET.....				SECOND SET.....				THIRD SET.....					
4)=	7	130	131	0	0	0	0	0	0	0	0	0	0	0	0
5)=	7	140	141	142	143	0	0	0	0	0	0	0	0	0	0
6)=	7	230	231	232	233	0	0	0	0	0	0	0	0	0	0
7)=	7	330	331	332	0	0	0	0	0	0	0	0	0	0	0
8)=	7	340	341	342	343	0	0	0	0	0	0	0	0	0	0
9)=	7	530	531	532	0	0	0	0	0	0	0	0	0	0	0
10)=	7	540	541	542	543	0	0	0	0	0	0	0	0	0	0
11)=	7	630	631	632	0	0	0	0	0	0	0	0	0	0	0
12)=	7	640	641	642	643	0	0	0	0	0	0	0	0	0	0

		NODE CARDS: MINIMUM STAGE TIMES (WORKING)									
CARD NO.	CARD TYPE	NODE NO.	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10
13)=	10	1	7	7								
14)=	10	3	7	7	7							
15)=	10	5	7	7								
16)=	10	6	7	7								

		NODE CARDS: PRECEDING INTERSTAGE TIMES (WORKING)									
CARD NO.	CARD TYPE	NODE NO.	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10
17)=	11	1	7	7								
18)=	11	3	5	5	5							
19)=	11	5	5	5								
20)=	11	6	5	5								

		NODE CARDS: STAGE CHANGE TIMES (WORKING)										
CARD NO.	CARD TYPE	NODE NO.	Sgl/Dbl Cycled	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10
21)=	12	1	1	0	56								
22)=	12	3	1	0	46	58							
23)=	12	5	1	0	58								
24)=	12	6	1	0	58								

				LINK CARDS: GIVEWAY DATA										
			PRIORITY LINKS	LINK1 GIVEWAY COEFFS.										
CARD NO.	CARD TYPE	LINK NO.	LINK1 NO.	LINK2 NO.	ONLY % FLOW	A1 X100	A2 X100					LINK LENGTH	STOP WT.X100	MAX FLOW	DELAY WT.X100	DISPSN X100
25)=	30	200	230	0	0	76	0	0	0	0	0	150	0	2022	0	0

				LINK CARDS: FIXED DATA												
				FIRST GREEN START				SECOND GREEN START								
CARD NO.	CARD TYPE	LINK NO.	EXIT NODE	STAGE	LAG	STAGE	LAG	STAGE	LAG	STAGE	LAG	LINK LENGTH	STOP WT.X100	SAT FLOW	DELAY WT.X100	DISPSN X100
26)=	31	100	1	2	7	1	0	0	0	0	0	300	0	3949	0	0
27)=	31	130	1	1	7	2	0	0	0	0	0	150	0	1980	0	0
28)=	31	131	0	0	0	0	0	0	0	0	0	150	0	0	0	0
29)=	31	140	1	1	7	2	0	0	0	0	0	150	0	3801	0	0
30)=	31	141	0	0	0	0	0	0	0	0	0	150	0	0	0	0
31)=	31	142	0	0	0	0	0	0	0	0	0	150	0	0	0	0
32)=	31	143	0	0	0	0	0	0	0	0	0	150	0	0	0	0
33)=	31	230	0	0	0	0	0	0	0	0	0	73	0	5400	0	0
34)=	31	231	0	0	0	0	0	0	0	0	0	73	0	0	0	0
35)=	31	232	0	0	0	0	0	0	0	0	0	73	0	0	0	0
36)=	31	233	0	0	0	0	0	0	0	0	0	73	0	0	0	0
37)=	31	300	3	2	5	3	0	0	0	0	0	300	0	4000	0	0
38)=	31	330	3	1	5	2	0	0	0	0	0	160	0	3900	0	0
39)=	31	331	0	0	0	0	0	0	0	0	0	160	0	0	0	0

40)=	31	332	0	0	0	0	0	0	0	0	0	160	0	0	0
41)=	31	340	3	1	5	2	0	0	0	0	0	160	0	1800	0
42)=	31	341	0	0	0	0	0	0	0	0	0	160	0	0	0
43)=	31	342	0	0	0	0	0	0	0	0	0	160	0	0	0
44)=	31	343	0	0	0	0	0	0	0	0	0	160	0	0	0
45)=	31	400	3	3	5	1	0	0	0	0	0	150	0	3800	0
46)=	31	500	5	2	5	1	0	0	0	0	0	300	0	4000	0
47)=	31	530	5	1	5	2	0	0	0	0	0	150	0	3900	0
48)=	31	531	0	0	0	0	0	0	0	0	0	150	0	0	0
49)=	31	532	0	0	0	0	0	0	0	0	0	150	0	0	0
50)=	31	540	5	1	5	2	0	0	0	0	0	150	0	1800	0
51)=	31	541	0	0	0	0	0	0	0	0	0	150	0	0	0
52)=	31	542	0	0	0	0	0	0	0	0	0	150	0	0	0
53)=	31	543	0	0	0	0	0	0	0	0	0	150	0	0	0
54)=	31	600	6	2	5	1	0	0	0	0	0	300	0	4000	0
55)=	31	630	6	1	5	2	0	0	0	0	0	208	0	1980	0
56)=	31	631	0	0	0	0	0	0	0	0	0	208	0	0	0
57)=	31	632	0	0	0	0	0	0	0	0	0	208	0	0	0
58)=	31	640	6	1	5	2	0	0	0	0	0	208	0	3800	0
59)=	31	641	0	0	0	0	0	0	0	0	0	208	0	0	0
60)=	31	642	0	0	0	0	0	0	0	0	0	208	0	0	0
61)=	31	643	0	0	0	0	0	0	0	0	0	208	0	0	0

LINK CARDS: FLOW DATA

					ENTRY 1			ENTRY 2			ENTRY 3			ENTRY 4		
CARD NO.	CARD TYPE	LINK NO.	TOTAL FLOW	UNIFORM FLOW	LINK NO.	FLOW	CRUISE SPEED	LINK NO.	FLOW	CRUISE SPEED	LINK NO.	FLOW	CRUISE SPEED	LINK NO.	FLOW	CRUISE SPEED
62)=	32	100	2196	0	0	0	30	0	0	0	0	0	0	0	0	0
63)=	32	130	426	0	600	426	30	0	0	0	0	0	0	0	0	0
64)=	32	131	117	0	630	117	30	0	0	0	0	0	0	0	0	0
65)=	32	140	36	0	600	36	30	0	0	0	0	0	0	0	0	0
66)=	32	141	758	0	630	758	30	0	0	0	0	0	0	0	0	0
67)=	32	142	176	0	631	176	30	0	0	0	0	0	0	0	0	0
68)=	32	143	16	0	632	16	30	0	0	0	0	0	0	0	0	0
69)=	32	200	91	0	0	0	30	0	0	0	0	0	0	0	0	0
70)=	32	230	2180	0	100	2180	30	0	0	0	0	0	0	0	0	0
71)=	32	231	431	0	130	426	30	140	10	30	0	0	0	0	0	0
72)=	32	232	871	0	131	17	30	141	858	30	0	0	0	0	0	0
73)=	32	233	176	0	142	176	30	0	0	0	0	0	0	0	0	0
74)=	32	300	1873	0	0	0	30	0	0	0	0	0	0	0	0	0
75)=	32	330	61	0	200	61	30	0	0	0	0	0	0	0	0	0
76)=	32	331	296	0	230	296	30	0	0	0	0	0	0	0	0	0
77)=	32	332	365	0	231	365	30	0	0	0	0	0	0	0	0	0
78)=	32	340	10	0	200	10	30	0	0	0	0	0	0	0	0	0
79)=	32	341	60	0	230	60	30	0	0	0	0	0	0	0	0	0
80)=	32	342	61	0	231	61	30	0	0	0	0	0	0	0	0	0
81)=	32	343	17	0	232	17	30	0	0	0	0	0	0	0	0	0
82)=	32	400	584	0	0	0	30	0	0	0	0	0	0	0	0	0
83)=	32	500	1370	0	0	0	30	0	0	0	0	0	0	0	0	0
84)=	32	530	354	0	400	354	30	0	0	0	0	0	0	0	0	0
85)=	32	531	1281	0	300	1281	30	0	0	0	0	0	0	0	0	0
86)=	32	532	30	0	330	30	30	0	0	0	0	0	0	0	0	0
87)=	32	540	180	0	400	180	30	0	0	0	0	0	0	0	0	0
88)=	32	541	10	0	300	10	30	0	0	0	0	0	0	0	0	0
89)=	32	542	10	0	330	10	30	0	0	0	0	0	0	0	0	0
90)=	32	543	286	0	331	296	30	0	0	0	0	0	0	0	0	0
91)=	32	600	628	0	0	0	30	0	0	0	0	0	0	0	0	0
92)=	32	630	875	0	500	875	30	0	0	0	0	0	0	0	0	0
93)=	32	631	176	0	530	176	30	0	0	0	0	0	0	0	0	0
94)=	32	632	16	0	531	16	30	0	0	0	0	0	0	0	0	0
95)=	32	640	10	0	500	10	30	0	0	0	0	0	0	0	0	0
96)=	32	641	178	0	530	178	30	0	0	0	0	0	0	0	0	0
97)=	32	642	1265	0	531	1265	30	0	0	0	0	0	0	0	0	0
98)=	32	643	30	0	532	30	30	0	0	0	0	0	0	0	0	0

LINK CARDS : FLARE SATURATION FLOW DATA

			..LANE 1..		..LANE 2..		..LANE 3..	
	CARD TYPE	LINK NO.	SAT. FLOW	CAPAC VEH.	SAT. FLOW	CAPAC VEH.	SAT. FLOW	CAPAC VEH.
99)=	33	100	1906	3	0	0	0	0
100)=	33	300	1800	6	1800	6	0	0
101)=	33	340	1800	3	0	0	0	0

*****END OF SUBROUTINE TINPUT*****

.

70 SECOND CYCLE 70 STEPS

INITIAL SETTINGS
- (SECONDS)

NODE NO	NUMBER OF STAGES	STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 5	STAGE 6	STAGE 7	STAGE 8	STAGE 9	STAGE 10
1	2	0	26								
3	3	0	20	53							
5	2	0	38								
6	2	0	52								

LINK NUMBER	FLOW INTO LINK (PCU/H)	SAT FLOW (PCU/H)	DEGREE OF SAT (%)	MEAN TIMES PER PCU CRUISE (SEC)	MEAN TIMES PER PCU DELAY (SEC)	DELAY UNIFORM (U+R+O=MEAN Q) (PCU-H/H)	DELAY RANDOM+ OVERSAT	DELAY COST OF DELAY ($/H)	STOPS MEAN STOPS /PCU (%)	STOPS COST OF STOPS ($/H)	QUEUE MEAN MAX. (PCU)	QUEUE AVERAGE EXCESS (PCU)	PERFORMANCE INDEX. WEIGHTED SUM OF ( ) VALUES ($/H)	EXIT NODE	GREEN TIMES START END 1ST (SECONDS)	GREEN TIMES START END 2ND (SECONDS)
100	2196	4233f	96	36.0	29.0	8.6 +	9.1	(251.6)	109	(30.0)	49		281.6	1	33	0
130	426	1980S	96	18.0	56.8	1.0 +	5.7	(95.5)	155	(8.3)	18		103.8	1	7	26
131	117	130L	96	18.0	81.3	1.1 +	1.6	(37.5)	155	(2.3)	18		39.8	1	7	26
140	36	3801S	91	18.0	29.3	0.1 +	0.2	(4.2)	119	(0.5)	23		4.7	1	7	26
141	757	140L	91	18.0	54.2	8.0 +	3.4	(162.0)	117	(11.2)	23		173.1	1	7	26
142	176	140L	91	18.0	36.4	1.0 +	0.8	(25.3)	94	(2.1)	23		27.4	1	7	26
143	15	140L	91	18.0	44.6	0.1 +	0.1	(2.6)	112	(0.2)	23		2.9	1	7	26
200	91	2022	41	18.0	27.6	0.3 +	0.3	(9.9)	119	(1.4)	1		11.3			
230	2178	5400S	68	8.8	1.0	0.0 +	0.6	(8.9)	1	(0.4)	19		9.3			
231	431	230L	68	8.8	1.3	0.0 +	0.1	(2.3)	18	(1.0)	19		3.3			
232	869	230L	68	8.8	1.3	0.1 +	0.2	(4.3)	13	(1.5)	19		5.8			
233	176	230L	68	8.8	1.3	0.0 +	0.1	(0.9)	17	(0.4)	19		1.3			
300	1873	5489f	82	36.0	20.4	8.3 +	2.3	(151.0)	83	(19.5)	31		170.5	3	25	53
330	61	3900S	81	19.2	48.8	0.7 +	0.2	(11.7)	114	(0.9)	16		12.6	3	5	20
331	296	330L	81	19.2	28.8	1.5 +	0.9	(33.6)	101	(3.7)	16		37.3	3	5	20
332	364	330L	81	19.2	42.1	3.2 +	1.0	(60.4)	114	(5.2)	16		65.6	3	5	20
340	10	2475Sf	26	19.2	40.2	0.1 +	0.0	(1.6)	106	(0.1)	3		1.7	3	5	20
341	61	340L	26	19.2	18.2	0.2 +	0.1	(4.4)	69	(0.5)	3		4.9	3	5	20
342	61	340L	26	19.2	32.1	0.5 +	0.1	(7.7)	106	(0.8)	3		8.5	3	5	20
343	17	340L	26	19.2	36.2	0.2 +	0.0	(2.4)	108	(0.2)	3		2.7	3	5	20
400	584	3800	83	18.0	41.7	4.4 +	2.3	(96.0)	113	(8.3)	13		104.3	3	58	0
500	1370	4000	86	36.0	26.8	7.3 +	2.9	(144.8)	98	(16.9)	27		161.7	5	43	0
530	354	3900S	86	18.0	25.6	1.8 +	0.7	(35.7)	109	(4.8)	35		40.5	5	5	38
531	1281	530L	86	18.0	39.4	11.6 +	2.4	(199.3)	109	(17.6)	35		216.9	5	5	38
532	0<	530L	86	18.0	0.0	0.0 +	0.0	(0.0)	0	(0.0)	35		0.0	5	5	38
540	180	1800S	56	18.0	5.4	0.0 +	0.2	(3.8)	28	(0.6)	3		4.4	5	5	38
541	11	540L	56	18.0	28.0	0.1 +	0.0	(1.2)	118	(0.1)	3		1.4	5	5	38
542	10	540L	56	18.0	6.3	0.0 +	0.0	(0.2)	12	(0.0)	3		0.3	5	5	38

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  543     286    540L    56  18.0   9.3    0.4 +  0.4  ( 10.5)    22  (  0.8)      3              11.3     5      5  38
  600     628   4000     79  36.0  36.8    4.6 +  1.8  ( 91.2)   106  (  8.4)     13              99.6     6     57   0
  630     874   1980S    78  25.0  19.0    3.1 +  1.5  ( 65.6)   107  ( 11.7)     21              77.4     6      5  52
  631     176    630L    78  25.0  19.4    0.6 +  0.3  ( 13.4)    82  (  1.8)     21              15.2     6      5  52
  632      15    630L    78  25.0  11.3    0.0 +  0.0  (  0.7)    56  (  0.1)     21               0.8     6      5  52
  640      11   3800S    56  25.0   4.8    0.0 +  0.0  (  0.2)    47  (  0.1)      7               0.3     6      5  52
  641     178    640L    56  25.0  14.4    0.6 +  0.1  ( 10.1)    73  (  1.6)      7              11.7     6      5  52
  642    1266    640L    56  25.0   4.3    1.0 +  0.5  ( 21.4)    17  (  2.7)      7              24.1     6      5  52
  643       0<   640L    56  25.0   0.0    0.0 +  0.0  (  0.0)     0  (  0.0)      7               0.0     6      5  52
                 *** f - average saturation flow for flared link ***
.

     70 SECOND CYCLE  70 STEPS

  TOTAL          TOTAL       MEAN         TOTAL    TOTAL    TOTAL       TOTAL        PENALTY       TOTAL
 DISTANCE         TIME     JOURNEY       UNIFORM  RANDOM+    COST        COST          FOR       PERFORMANCE
TRAVELLED        SPENT      SPEED         DELAY   OVERSAT     OF          OF          EXCESS        INDEX
                                                   DELAY    DELAY       STOPS        QUEUES
(PCU-KM/H)     (PCU-H/H)    (KM/H)     (PCU-H/H)(PCU-H/H)   ($/H)       ($/H)         ($/H)        ($/H)

  3410.0         224.4       15.2         70.7     40.0    (1571.9) + (  165.8)  +  (    0.0)  =    1737.7      TOTALS

*********************************************************************************************************************************
                             CRUISE              DELAY             STOPS              TOTALS
                         LITRES PER HOUR    LITRES PER HOUR    LITRES PER HOUR    LITRES PER HOUR

FUEL CONSUMPTION PREDICTIONS       218.1        +     127.3        +      75.5        =     420.9

NO. OF ENTRIES TO SUBPT  =    1
NO. OF LINKS RECALCULATED=   53
.

     70 SECOND CYCLE  70 STEPS

INTERMEDIATE SETTINGS - INCREMENTS SO FAR :-   10
 - (SECONDS)

    1       2      30      56
    3       3      20      40       3
    5       2       0      38
    6       2       0      52

  TOTAL          TOTAL       MEAN         TOTAL    TOTAL    TOTAL       TOTAL        PENALTY       TOTAL
 DISTANCE         TIME     JOURNEY       UNIFORM  RANDOM+    COST        COST          FOR       PERFORMANCE
TRAVELLED        SPENT      SPEED         DELAY   OVERSAT     OF          OF          EXCESS        INDEX
                                                   DELAY    DELAY       STOPS        QUEUES
(PCU-KM/H)     (PCU-H/H)    (KM/H)     (PCU-H/H)(PCU-H/H)   ($/H)       ($/H)         ($/H)        ($/H)

  3410.0         216.3       15.8         62.2     40.4    (1456.9) + (  167.7)  +  (    0.0)  =    1624.6      TOTALS

NO. OF ENTRIES TO SUBPT  =   12
NO. OF LINKS RECALCULATED=  394
.

     70 SECOND CYCLE  70 STEPS

INTERMEDIATE SETTINGS - INCREMENTS SO FAR :-   10  28
 - (SECONDS)

    1       2      30      56
    3       3      48      68      31
    5       2       0      38
    6       2       0      52

  TOTAL          TOTAL       MEAN         TOTAL    TOTAL    TOTAL       TOTAL        PENALTY       TOTAL
 DISTANCE         TIME     JOURNEY       UNIFORM  RANDOM+    COST        COST          FOR       PERFORMANCE
TRAVELLED        SPENT      SPEED         DELAY   OVERSAT     OF          OF          EXCESS        INDEX
                                                   DELAY    DELAY       STOPS        QUEUES
(PCU-KM/H)     (PCU-H/H)    (KM/H)     (PCU-H/H)(PCU-H/H)   ($/H)       ($/H)         ($/H)        ($/H)

  3410.0         215.0       15.9         60.9     40.4    (1438.3) + (  162.3)  +  (    0.0)  =    1600.6      TOTALS

NO. OF ENTRIES TO SUBPT  =    9
NO. OF LINKS RECALCULATED=  329
.

     70 SECOND CYCLE  70 STEPS

INTERMEDIATE SETTINGS - INCREMENTS SO FAR :-   10  28  -1
 - (SECONDS)

    1       2      30      56
    3       3      48      68      31
    5       2       0      38
    6       2       0      52

  TOTAL          TOTAL       MEAN         TOTAL    TOTAL    TOTAL       TOTAL        PENALTY       TOTAL
 DISTANCE         TIME     JOURNEY       UNIFORM  RANDOM+    COST        COST          FOR       PERFORMANCE
TRAVELLED        SPENT      SPEED         DELAY   OVERSAT     OF          OF          EXCESS        INDEX
                                                   DELAY    DELAY       STOPS        QUEUES
(PCU-KM/H)     (PCU-H/H)    (KM/H)     (PCU-H/H)(PCU-H/H)   ($/H)       ($/H)         ($/H)        ($/H)

  3410.0         215.0       15.9         60.9     40.4    (1438.3) + (  162.3)  +  (    0.0)  =    1600.6      TOTALS

NO. OF ENTRIES TO SUBPT  =   19
NO. OF LINKS RECALCULATED=  567
.

     70 SECOND CYCLE  70 STEPS

INTERMEDIATE SETTINGS - INCREMENTS SO FAR :-   10  28  -1  10
 - (SECONDS)

    1       2      20      46
    3       3      48      68      31
    5       2       0      38
    6       2       0      52

  TOTAL          TOTAL       MEAN         TOTAL    TOTAL    TOTAL       TOTAL        PENALTY       TOTAL
 DISTANCE         TIME     JOURNEY       UNIFORM  RANDOM+    COST        COST          FOR       PERFORMANCE
TRAVELLED        SPENT      SPEED         DELAY   OVERSAT     OF          OF          EXCESS        INDEX
                                                   DELAY    DELAY       STOPS        QUEUES
(PCU-KM/H)     (PCU-H/H)    (KM/H)     (PCU-H/H)(PCU-H/H)   ($/H)       ($/H)         ($/H)        ($/H)

  3410.0         214.4       15.9         60.3     40.4    (1430.7) + (  159.9)  +  (    0.0)  =    1590.7      TOTALS

NO. OF ENTRIES TO SUBPT  =   10
NO. OF LINKS RECALCULATED=  395
.

     70 SECOND CYCLE  70 STEPS

INTERMEDIATE SETTINGS - INCREMENTS SO FAR :-   10  28  -1  10  28
```

- (SECONDS)

1	2	20	46	
3	3	48	68	31
5	2	0	38	
6	2	28	10	

TOTAL DISTANCE TRAVELLED (PCU-KM/H)	TOTAL TIME SPENT (PCU-H/H)	MEAN JOURNEY SPEED (KM/H)	TOTAL UNIFORM DELAY (PCU-H/H)	TOTAL RANDOM+ OVERSAT DELAY (PCU-H/H)	TOTAL COST OF DELAY ($/H)	TOTAL COST OF STOPS ($/H)	PENALTY FOR EXCESS QUEUES ($/H)	TOTAL PERFORMANCE INDEX ($/H)	
3410.0	214.4	15.9	60.3	40.5	(1430.5) + (152.9)	+ (0.0)	=	1583.4	TOTALS

NO. OF ENTRIES TO SUBPT = 9
NO. OF LINKS RECALCULATED= 416

.

70 SECOND CYCLE 70 STEPS

INTERMEDIATE SETTINGS - INCREMENTS SO FAR :- 10 28 -1 10 28 1
- (SECONDS)

1	2	16	42	
3	3	49	69	32
5	2	0	38	
6	2	28	10	

TOTAL DISTANCE TRAVELLED (PCU-KM/H)	TOTAL TIME SPENT (PCU-H/H)	MEAN JOURNEY SPEED (KM/H)	TOTAL UNIFORM DELAY (PCU-H/H)	TOTAL RANDOM+ OVERSAT DELAY (PCU-H/H)	TOTAL COST OF DELAY ($/H)	TOTAL COST OF STOPS ($/H)	PENALTY FOR EXCESS QUEUES ($/H)	TOTAL PERFORMANCE INDEX ($/H)	
3410.0	213.3	16.0	59.1	40.5	(1414.3) + (150.5)	+ (0.0)	=	1564.8	TOTALS

NO. OF ENTRIES TO SUBPT = 13
NO. OF LINKS RECALCULATED= 492

.

70 SECOND CYCLE 70 STEPS

INTERMEDIATE SETTINGS - INCREMENTS SO FAR :- 10 28 -1 10 28 1 -1
- (SECONDS)

1	2	16	42	
3	3	49	69	32
5	2	0	38	
6	2	29	10	

TOTAL DISTANCE TRAVELLED (PCU-KM/H)	TOTAL TIME SPENT (PCU-H/H)	MEAN JOURNEY SPEED (KM/H)	TOTAL UNIFORM DELAY (PCU-H/H)	TOTAL RANDOM+ OVERSAT DELAY (PCU-H/H)	TOTAL COST OF DELAY ($/H)	TOTAL COST OF STOPS ($/H)	PENALTY FOR EXCESS QUEUES ($/H)	TOTAL PERFORMANCE INDEX ($/H)	
3410.0	213.0	16.0	59.1	40.3	(1411.0) + (151.0)	+ (0.0)	=	1562.0	TOTALS

NO. OF ENTRIES TO SUBPT = 20
NO. OF LINKS RECALCULATED= 782

.

70 SECOND CYCLE 70 STEPS

FINAL SETTINGS OBTAINED WITH INCREMENTS :- 10 28 -1 10 28 1 -1 1
- (SECONDS)

NODE NO	NUMBER OF STAGES	STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 5	STAGE 6	STAGE 7	STAGE 8	STAGE 9	STAGE 10
1	2	16	42								
3	3	48	68	31							
5	2	0	38								
6	2	29	10								

LINK NUMBER	FLOW INTO LINK (PCU/H)	SAT FLOW (PCU/H)	DEGREE OF SAT (%)	MEAN TIMES PER PCU CRUISE (SEC)	DELAY (SEC)	DELAY UNIFORM (U+R+O=MEAN Q) (PCU-H/H)	DELAY RANDOM+ OVERSAT (PCU-H/H)	COST OF DELAY ($/H)	STOPS MEAN /PCU (%)	STOPS COST OF STOPS ($/H)	QUEUE MEAN MAX. (PCU)	QUEUE AVERAGE EXCESS (PCU)	PERFORMANCE INDEX. WEIGHTED SUM OF ( ) VALUES ($/H)	EXIT NODE	GREEN TIMES START 1ST (SECONDS)	GREEN TIMES START 2ND (SECONDS)	END
100	2196	4233f	96	36.0	29.0	8.6 +	9.1	(251.6)	109	(30.0)	49		281.6	1	49	16	
130	426	1980S	96	18.0	59.5	1.3 +	5.7	(99.9)	89	(4.8)	12		104.7	1	23	42	
131	117	130L	96	18.0	71.6	0.8 +	1.6	(33.1)	152	(2.2)	12		35.3	1	23	42	
140	36	3801S	91	18.0	30.6	0.1 +	0.2	(4.3)	101	(0.5)	24		4.8	1	23	42	
141	757	140L	91	18.0	42.9	5.6 +	3.4	(128.1)	121	(11.5)	24		139.6	1	23	42	
142	176	140L	91	18.0	45.7	1.4 +	0.8	(31.7)	122	(2.7)	24		34.4	1	23	42	
143	15	140L	91	18.0	44.3	0.1 +	0.1	(2.6)	117	(0.2)	24		2.9	1	23	42	
200	91	2022	43	18.0	28.8	0.4 +	0.4	(10.3)	123	(1.4)	1		11.7				
230	2178	5400S	68	8.8	1.0	0.0 +	0.6	(8.9)	1	(0.4)	12		9.3				
231	431	230L	68	8.8	1.1	0.0 +	0.1	(1.9)	7	(0.4)	12		2.3				
232	869	230L	68	8.8	1.1	0.0 +	0.2	(3.8)	6	(0.7)	12		4.5				
233	176	230L	68	8.8	1.1	0.0 +	0.1	(0.7)	4	(0.1)	12		0.8				
300	1873	5489f	82	36.0	20.4	8.3 +	2.3	(151.0)	83	(19.5)	31		170.5	3	3	31	
330	61	3900S	81	19.2	33.1	0.4 +	0.2	(8.0)	103	(0.8)	14		8.8	3	53	68	
331	296	330L	81	19.2	42.3	2.6 +	0.9	(49.4)	114	(4.2)	14		53.6	3	53	68	
332	364	330L	81	19.2	25.6	1.5 +	1.0	(36.7)	81	(3.7)	14		40.4	3	53	68	
340	10	2475Sf	26	19.2	23.4	0.1 +	0.0	(0.9)	89	(0.1)	2		1.0	3	53	68	
341	61	340L	26	19.2	32.7	0.5 +	0.1	(7.9)	106	(0.8)	2		8.7	3	53	68	
342	61	340L	26	19.2	17.2	0.2 +	0.1	(4.1)	43	(0.3)	2		4.5	3	53	68	
343	17	340L	26	19.2	14.0	0.0 +	0.0	(0.9)	41	(0.1)	2		1.0	3	53	68	
400	584	3800	83	18.0	41.7	4.4 +	2.3	(96.0)	113	(8.3)	13		104.3	3	36	48	
500	1370	4000	86	36.0	26.8	7.3 +	2.9	(144.8)	98	(16.9)	27		161.7	5	43	0	
530	354	3900S	88	18.0	30.1	2.2 +	0.7	(42.1)	110	(4.9)	16		47.0	5	5	38	
531	1281	530L	88	18.0	14.6	2.5 +	2.7	(73.7)	43	(7.0)	16		80.7	5	5	38	
532	30	530L	88	18.0	16.2	0.1 +	0.1	(1.9)	95	(0.4)	16		2.3	5	5	38	
540	180	1800S	56	18.0	23.2	0.9 +	0.2	(16.5)	106	(2.4)	10		18.9	5	5	38	
541	11	540L	56	18.0	11.7	0.0 +	0.0	(0.5)	44	(0.1)	10		0.6	5	5	38	
542	10	540L	56	18.0	15.2	0.0 +	0.0	(0.6)	102	(0.1)	10		0.7	5	5	38	
543	286	540L	56	18.0	15.8	0.9 +	0.4	(17.9)	104	(3.7)	10		21.6	5	5	38	
600	628	4000	73	36.0	33.4	4.5 +	1.4	(82.7)	101	(8.0)	13		90.7	6	15	29	
630	874	1980S	80	25.0	19.2	3.0 +	1.6	(66.3)	66	(7.3)	15		73.5	6	34	10	
631	176	630L	80	25.0	20.5	0.7 +	0.3	(14.2)	105	(2.3)	15		16.6	6	34	10	
632	15	630L	80	25.0	14.0	0.0 +	0.0	(0.8)	70	(0.1)	15		1.0	6	34	10	
640	11	3800S	58	25.0	9.4	0.0 +	0.0	(0.4)	57	(0.1)	9		0.5	6	34	10	
641	178	640L	58	25.0	3.8	0.1 +	0.1	(2.7)	55	(1.2)	9		3.9	6	34	10	
642	1266	640L	58	25.0	2.8	0.4 +	0.6	(14.0)	20	(3.2)	9		17.2	6	34	10	
643	30	640L	58	25.0	2.6	0.0 +	0.0	(0.3)	34	(0.1)	9		0.4	6	34	10	

*** f - average saturation flow for flared link ***

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70 SECOND CYCLE 70 STEPS

TOTAL DISTANCE TRAVELLED (PCU-KM/H)	TOTAL TIME SPENT (PCU-H/H)	MEAN JOURNEY SPEED (KM/H)	TOTAL UNIFORM DELAY (PCU-H/H)	TOTAL RANDOM+ OVERSAT DELAY (PCU-H/H)	TOTAL COST OF DELAY ($/H)		TOTAL COST OF STOPS ($/H)		PENALTY FOR EXCESS QUEUES ($/H)		TOTAL PERFORMANCE INDEX ($/H)	
3410.0	213.1	16.0	59.1	40.3	(1411.4)	+	(150.5)	+	(0.0)	=	1561.9	TOTALS

ROUTE

	CRUISE LITRES PER HOUR		DELAY LITRES PER HOUR		STOPS LITRES PER HOUR		TOTALS LITRES PER HOUR
FUEL CONSUMPTION PREDICTIONS	218.1	+	114.3	+	68.6	=	400.9

NO. OF ENTRIES TO SUBPT = 10
NO. OF LINKS RECALCULATED= 441

PROGRAM TRANSYT FINISHED