

AIR QUALITY ASSESSMENT REPORT

**AT
HOLGATE SCHOOL/SR GENT SITE
BARNSELEY**

**ON BEHALF OF
G L HEARN LIMITED**



Report No.

1045/01r2

AIR QUALITY ASSESSMENT REPORT

AT

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BARNSELY**

ON BEHALF OF

GL HEARN LIMITED

FEBRUARY 2009

ARP ASSOCIATES

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1.0 INTRODUCTION

- 1.1 Barnsley Metropolitan Borough Council Education Department are proposing to redevelop the sites of the existing Holgate and Kingstone Schools, Barnsley by relocation to the site of the existing Holgate school, playing fields and the former SR Gent factory in Barnsley. As part of the Application for planning approval for the development, it was necessary for an Air Quality Assessment Report to be prepared.
- 1.2 ARP Associates have been appointed by GL Hearn Ltd to carry out a comparison assessment of the original and proposed sites, in relation to traffic flows, traffic generations and air quality.
- 1.3 The proposed development relocates the existing Holgate School onto the former SR Gent factory site with access directly onto Dodworth Road. At the present time, the school access is via Shaw Lane.
- 1.4 Site location, existing layout and proposed development plans are presented in Appendix A.
- 1.5 It is known that Dodworth Road, between junction 37 of the M1 motorway and the Town End roundabout near to the centre of Barnsley, has poor air quality and is within an Air Quality Management Area (AQMA). Monitoring equipment is set up within the AQMA and the Local Authority have an objective to reduce pollution within the Local Transport Plan. The Authority have a proposal to introduce an 'Intelligent Transport System' in an attempt to keep traffic at a constant speed as possible, which will reduce the overall pollution concentrations to acceptable levels in accordance with government guidance.
- 1.6 Traffic Impact Assessment and Travel Plan Reports are being prepared by Bryan G Hall, Traffic Consultants of Leeds, and reference should be made to these reports. Information relating to traffic counts and traffic generations have been provided by Bryan G Hall for assessment within this report.

2.0 SYNOPSIS OF AIR QUALITY ASSESSMENT

- 2.1 Consultations with Barnsley MDC have identified that actual pollution levels have been monitored on Dodworth Road, and that any additional generation traffic from the proposed school development directly onto Dodworth Road may have an adverse impact on this system. It would be possible to utilise the existing pollution data and assess pollution from the new development using a sophisticated air quality model program to fine tune the existing pollution levels. This would enable the Authority to utilise revised information for their proposals to reduce pollution in the Local Transport Plan.
- 2.2 However, it should be realised that the new school is located on the site of the former SR Gents factory and warehouse, and that the original traffic generations would have included a significant number of HGV movements, which will not be present from the new school. A photograph from Google Earth of the SR Gent site is presented in Appendix G and this shows a number of parked cars, articulated lorries within the loading area and a further lorry turning into the site. Therefore, it is possible that an air pollution comparison assessment using the Design Manual for Roads and Bridges, Volume 11 'Environmental Assessment', Section 3 'Environmental Assessment Techniques', Part 1 HA207/07 'Air Quality' may show that there is no greater pollution concentrations from school generated traffic than exists at present. This initial assessment will identify whether the proposed school has created additional pollution in the first instance. If additional pollution has been created, then a further model using a sophisticated program could then be undertaken to give an update on the monitored pollution within the AQMA. Therefore, this report is based on a comparison of the existing and future pollution levels using the DMRB screening methods specified in Annex D of the document.
- 2.3 This assessment requires the road network within the study area to be divided into sections where traffic conditions (flow, composition and average speed) are reasonably homogeneous. Therefore, for the area within the AQMA (M1 to Town End roundabout), there has been 9No. different Links identified, due to the variation in speeds and location of side roads. These Links are presented on Figure 1 in Appendix B. It should be noted that a Link has been created on Dodworth Road at the junction with Shaw Lane, but there

Dodworth Road at this location. For comparison purposes, this should not affect the assessment.

2.4 Within each of the Road Links, Receptors have been identified, based on the nearest distance from roadside buildings to the centre line of the road, and these are also shown on Figure 1, presented in Appendix B. A summary of the Road Links, Receptors and data relating to each receptor is presented on Table 1 below.

2.5 The Road Links and Receptors have been used as a base for purely comparison purposes of the existing and proposed sites.

Table 1

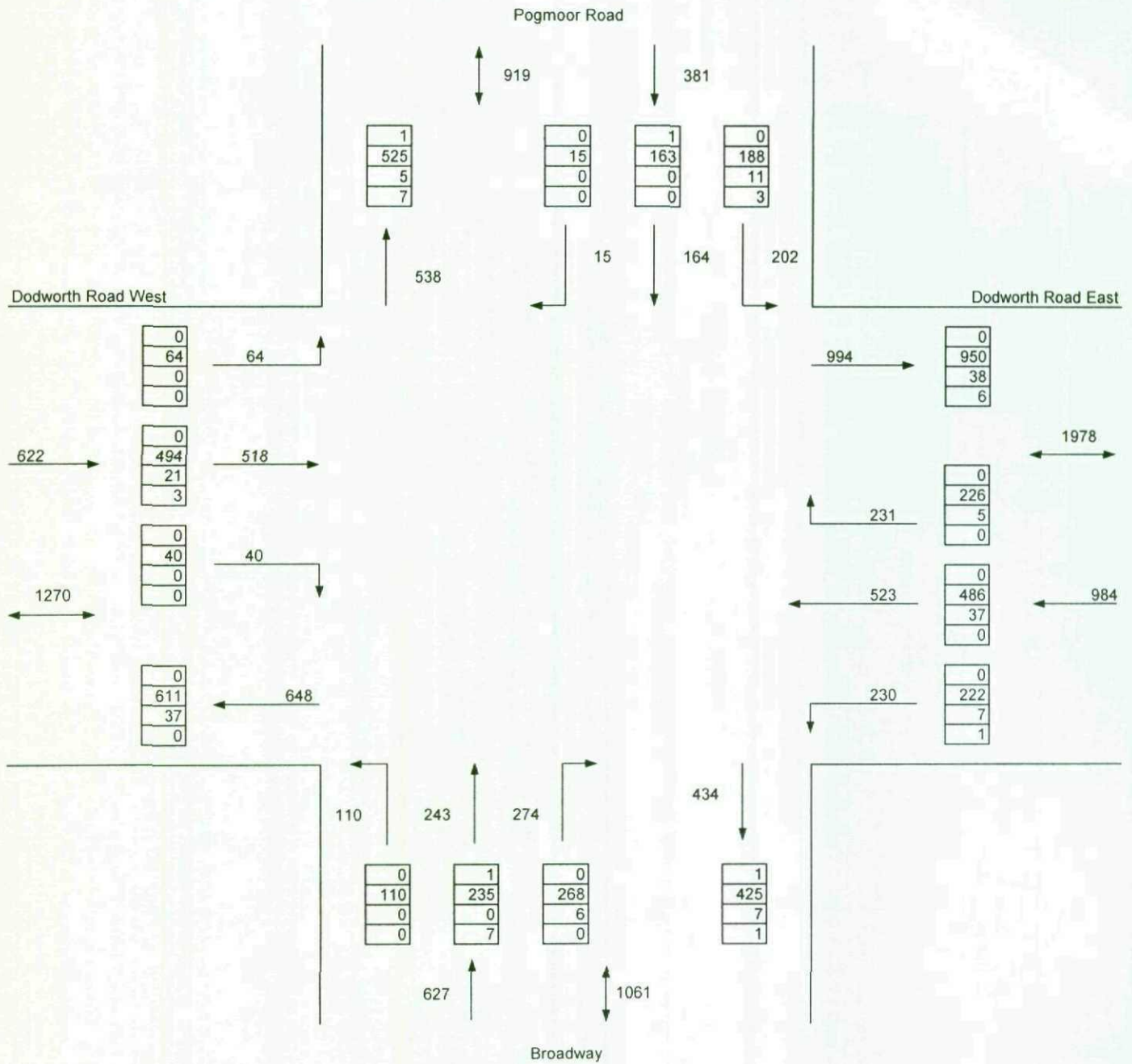
Receptor reference	No. Links	Link reference	Distance from link to centre receptor (m)	AADT (combined veh/day)	Speed	
					km/h	mp/h
1	1	A - B	14	13024	56.3	35
2	2	B - E	13	20322	32.2	20
		C - D	31	10773		
3	2	D - C	18	9245	32.2	20
		A - B	19	13024		
4	2	E - F	14	20322	32.2	20
		G - E	25	678		
5	1	F - H	15	19916	48.3	30
6	1	H - I	14	19916	48.3	30
7	1	I - J	10	19916	40.2	25
8	1	J - K	8	19916	48.3	30

3.0 EXISTING TRAFFIC FLOWS

- 3.1 A traffic count was carried out by Road Data Services Ltd on the 13th January 2009, at the Dodworth Road/Pogmoor Road/Broadway signalised junction. The recorded results are presented in tabular form in Appendix C. These traffic figures have been used to assess the traffic flows along the full length of the AQMA, without any information relating to Shaw Lane junction with Dodworth Road. Whilst this is not an ideal situation, the impact of the traffic movements at Shaw Lane will not cause a significant impact on the remainder of the AQMA area, although the exact pollution levels at this junction may be slightly underestimated. However, as this assessment is purely comparative, this should not affect the overall assessment.
- 3.2 In order to obtain the Annual Average Daily Traffic (AADT) flow (16 hour) an assumption has been made that the worst (peak) hourly flow will represent 10% of the AADT. This is a realistic assessment used from experience and judgement due to the lack of a full traffic count for a 16 hour period. The greatest volume of traffic at the signalised junction has been shown to be between 15.00 - 16.00 hours as presented in Figure 2 on page 7.
- 3.3 This traffic count does not include the original traffic flows from the SR Gents site, which has only recently become vacant. As there is no specific traffic counts for this particular location, the TRICS 2008 database has been interrogated by Bryan G Hall and a copy of the print outs for this use is presented in Appendix D for reference purposes. The two sets of information gives one trip rate for total vehicles, including Other Goods Vehicles (OGV's) and the other provides trip rates for OGV's only. This indicates that OGV's are in the order of 14% of the total daily trips. The trip rates are expressed in terms of 100m² GFA and the total gross floor area of 18,947m² shows that the vehicles between 06.00 hours - 23.00 hours equates to 678 two way daily trips. Therefore, the AADT traffic count flows have been adjusted by the number of trips from the SR Gents factory site and the results and the assumed assignments are presented on Figure 3 on page 8 to give a full picture of the cars, HGV's and bus movements within the AQMA for the existing assessment of air pollution on this length of road.

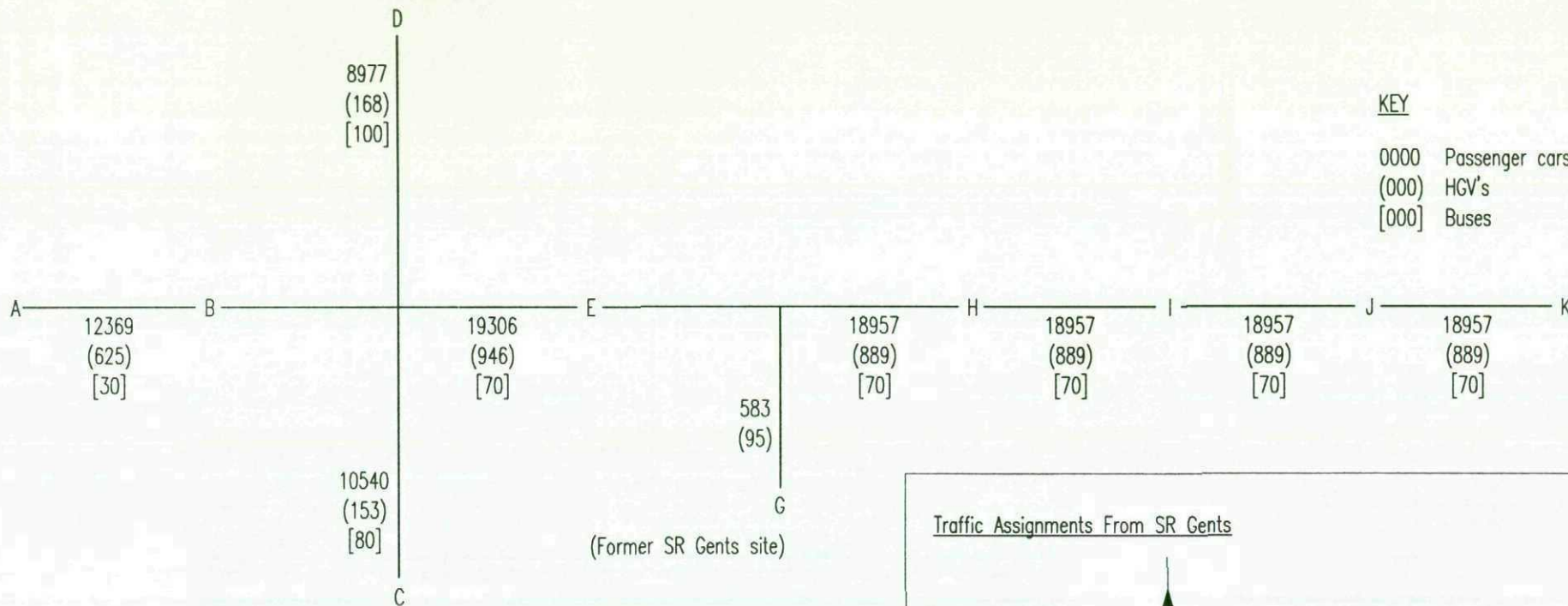
EXISTING VEHICULAR FLOWS
A628 Dodworth Rd / Pogmoor Road / Broadway
0
15:00 - 16:00

Figure 2



Vehicular Flows

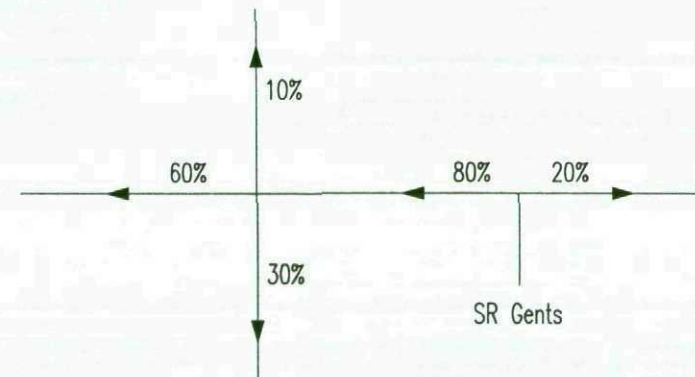
Motor cycles and pedal cycles
Cars and light goods vehicles
Heavy goods vehicles
Buses



KEY

0000 Passenger cars
 (000) HGV's
 [000] Buses

Traffic Assignments From SR Gents



Title
 EXISTING TRAFFIC FLOWS

Project/Client
 HOLGATE/KINGSTONE ADVANCE LEARNING CENTRE
 GL HEARN LIMITED

Rev	By	Date	Amendment		Chk
			Scale	NTS	Drawn MJB
			Date	JAN 09	Chk. ARP
			Drq. No.	1045/01/fig. 3	
					Rev



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4.0 EXISTING POLLUTION LEVELS

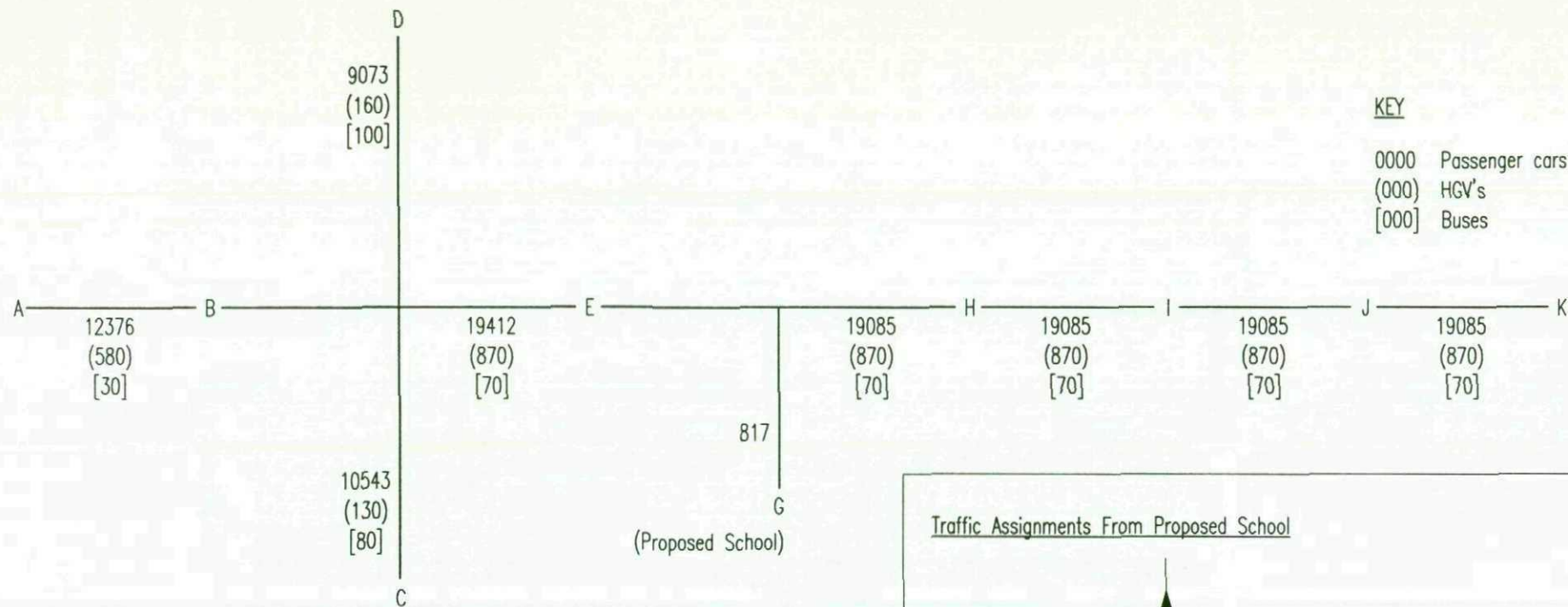
- 4.1 The information which has been calculated from Section 3.0 of the report has been input into the DMRB Screening Method Spreadsheet to calculate the generated pollution levels. As this is a comparative assessment procedure, the background concentrations have been set at zero. It is realised that, in practice, this is highly unlikely to be the case, but this will be satisfactory for the purpose of this report.
- 4.2 The input and output sheets, showing the pollution concentrations at each Receptor are presented in Appendix E.

5.0 PROPOSED TRAFFIC FLOWS

- 5.1 The information calculated from the traffic count on the 13th January 2009 at the Dodworth Road/Pogmoor Road/Broadway signalised junction has been taken, together with the calculations for the AADT flow. These are as presented on Figure 2 on page 7.
- 5.2 Traffic generations from the new school have been assessed from the TRICS 2008 database to determine the average total person trips to the proposed development. Using the categories Education-Secondary, information prepared by Bryan G Hall shows that the proposed traffic generation to the school equates to the following:-

Assessment Period	Traffic Generation
08.00 - 09.00 hrs	400
15.00 - 16.00 hrs	357
17.00 - 18.00 hrs	60

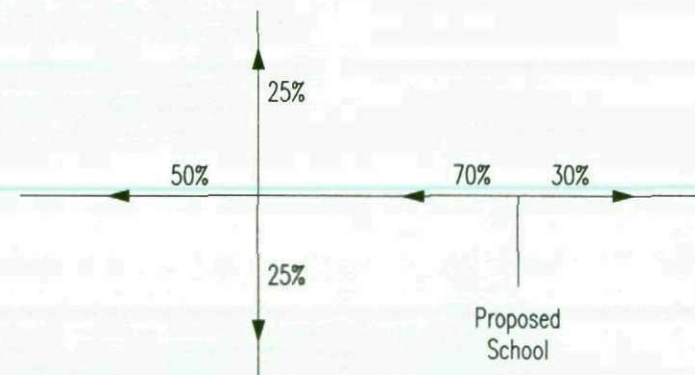
- 5.3 It is assumed that all of these trips are by cars and this level of traffic generation has been added to the calculated AADT already on Dodworth Road. The calculated vehicular flow for the proposed assessment of air pollution with the AQMA is presented on Figure 4 on page 11. The anticipated traffic assignments out of the school are also shown on this schematic layout.
- 5.4 This assessment is considered to be extremely conservative, as there would have been school trips already on the AQMA highway network to the existing schools. However, these have been discounted in the overall assessment to ensure that a robust comparison of the air pollution is obtained.



KEY

0000 Passenger cars
(000) HGV's
[000] Buses

Traffic Assignments From Proposed School



Title
PROPOSED TRAFFIC FLOWS

Project/Client
HOLGATE/KINGSTONE ADVANCE LEARNING CENTRE
GL HEARN LIMITED

Rev	By	Date	Amendment	Chk
			Scale NTS	Drawn MJB
			Date JAN 09	Chk. ARP
			Drg. No. 1045/01/fig. 4	Rev



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6.0 FUTURE POLLUTION LEVELS

- 6.1 All the information calculated in Section 5.0 above was input into the DMRB Screening Method Spreadsheet to calculate the anticipated pollution concentrations from the proposed school. Again, the background concentrations were set at zero to give a comparison of the two levels of pollution.
- 6.2 The input and output sheets, showing the pollution concentrations at each Receptor after the new development, are presented in Appendix F.

7.0 COMPARISON OF RESULTS

- 7.1 The information obtained from the output sheets of the existing and future air pollution concentrations at each Receptor for each Determinand have been compared and are presented on Table 2 on page 14.
- 7.2 This shows that concentration levels for carbon monoxide, benzene and butadiene are all at the same values for each of the Road Links and Receptors. However, it is important to note that the concentration levels for nitrogen oxide, nitrogen dioxide and particulate are all lower for the proposed development than the original use by SR Gents. This shows that the proposed development will not create any greater adverse effect on the existing pollution levels within the AQMA, and should not affect any proposals by Barnsley MDC to reduce pollution levels in their Local Transport Plan.

Table 2

Receptor No.	Receptor reference	CO annual mean mg/m ³	Benzene annual mean µg/m ³	1,3-butadiene annual mean µg/m ³	NOx annual mean µg/m ³	NO2 annual mean µg/m ³	PM ₁₀	
							annual mean µg/m ³	annual mean µg/m ³
1	A - B	0.05	0.05	0.04	10.03	3.73	0.64	0.00
		0.05	0.05	0.04	9.73	3.64	0.62	0.00
	Difference	=	=	=	- 0.3	- 0.09	- 0.62	=
2	B - E	0.14	0.17	0.11	18.94	6.22	1.58	0.00
		0.14	0.17	0.11	18.11	6.01	1.54	0.00
	Difference	=	=	=	- 0.83	- 0.21	- 0.04	=
3	D - C	0.11	0.12	0.08	15.14	5.21	1.28	0.00
		0.11	0.12	0.08	14.80	5.11	1.26	0.00
	Difference	=	=	=	- 0.34	- 0.1	- 0.02	=
4	E - F	0.10	0.13	0.09	15.21	5.23	1.22	0.00
		0.10	0.13	0.08	13.98	4.88	1.16	0.00
	Difference	=	=	=	- 1.23	- 0.35	- 0.06	=
5	F - H	0.07	0.09	0.06	12.48	4.46	0.87	0.00
		0.07	0.09	0.06	12.37	4.42	0.86	0.00
	Difference	=	=	=	- 0.11	- 0.04	- 0.01	=
6	H - I	0.07	0.09	0.06	12.84	4.56	0.89	0.00
		0.07	0.09	0.06	12.72	4.53	0.89	0.00
	Difference	=	=	=	- 0.12	- 0.03	=	=
7	I - J	0.09	0.12	0.08	14.81	5.12	1.12	0.00
		0.09	0.12	0.08	14.67	5.08	1.11	0.00
	Difference	=	=	=	- 0.14	- 0.04	- 0.01	=
8	J - K	0.08	0.11	0.07	15.09	5.19	1.05	0.00
		0.08	0.11	0.07	14.95	5.15	1.04	0.00
	Difference	=	=	=	- 0.14	- 0.04	- 0.01	=

Existing levels in bold text

8.0 SUMMARY

8.1 The assessment carried out has taken base data and utilised a comparison of existing and future air pollution levels from actual traffic count information, using the following assumptions:-

8.1.1 Traffic count information for the Shaw Lane/Dodworth Road junction was not available for inclusion in the assessment.

8.1.2 The AADT has been calculated assuming that the worst or peak hour traffic flow equates to 10% of the overall AADT flow.

8.1.3 The traffic assignments out of the SR Gent factory site and the future school site, together with the distribution of traffic at the Dodworth Road/Pogmoor Road/Broadway signalised junction has been assumed, but in terms of overall two way traffic, this is not considered to be a major significant factor in the air quality calculations.

8.1.4 The background pollution levels have been set at zero for comparison purposes between the before and after uses of the site. In actual terms, the pollution levels will be above the zero level and may need to be taken into account, together with recorded levels, if this is needed to be considered for actual assessment to reduce overall air pollution levels in accordance with government guidelines.

8.2 The assessment which has been undertaken shows that there is a reduction of pollution from the previous uses of factory and warehouse as against the proposed new school. This is despite the fact that existing traffic movements to the existing schools within the AQMA have been disregarded and the full traffic movements from the new school onto Dodworth Road have been taken without reduction. The assessment is therefore considered to give conservative results.

- 8.3 The proposed new school development on the Holgate site does not create any adverse effect on the air quality adjacent to the properties fronting onto Dodworth Road and there are no mitigation measures proposed, as a result of the new school development, and there is no requirement to prepare any further assessment of the actual pollution within the AQMA.

APPENDIX A

**SITE LOCATION PLAN, EXISTING LAYOUT
AND PROPOSED DEVELOPMENT**



MJB 06.02.09 Issued for information

ARP

Rev

By

Date

Amendment

Chk

Title

SITE LOCATION PLAN

Project/Client

HOLGATE/KINGSTONE ALC, BARNESLEY
GL HEARN LIMITED



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Scale

1:10,000

Drawn

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Date

JAN 09

Chk.

ARP

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1045/01/AQ.01

Rev

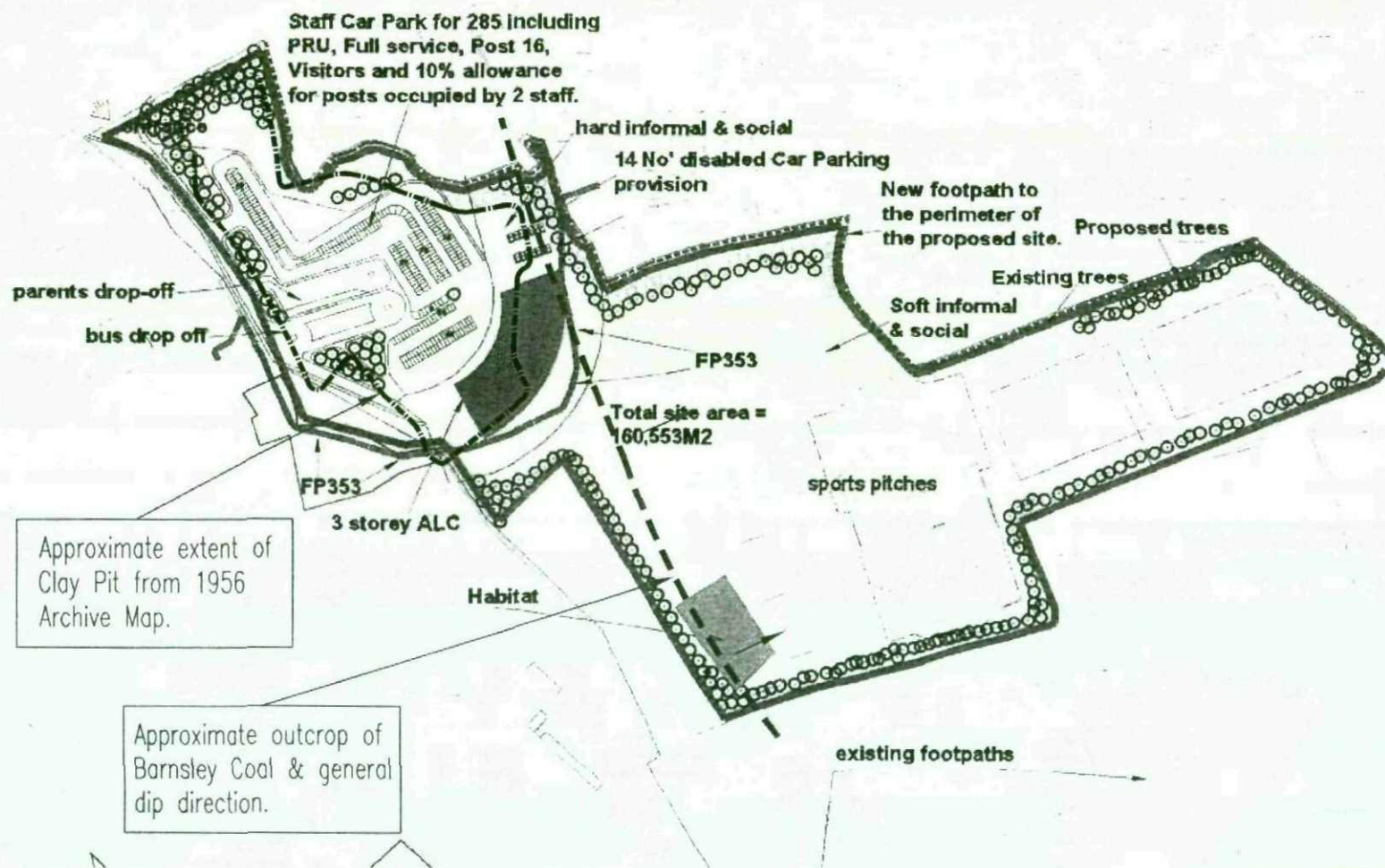
Project/Client

PROPOSED SITE LAYOUT

Title



- The main registered footpath ref: FP353 (highlighted on this plan) is to be extinguished. An alternative route is to be dedicated through the site in accordance with Public Rights of Way consultation and approval. This 'dedicated' route is to be applied for in a separate Footpath Diversion Application and is to be detailed within the full planning submission for the site development
- The existing footpaths enclosed within the proposed site area that are classed as 'Non-Definite Routes' are to be relocated in accordance with the same footpath diversion application.

[illegible]

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Scale	NTS	Drawn	MW
Date	JAN 09	Chk.	ARP

1045/01/AQ.03

Drg. No.

Re

A P P E N D I X B

P L A N O F R O A D L I N K S A N D R E C E P T O R S

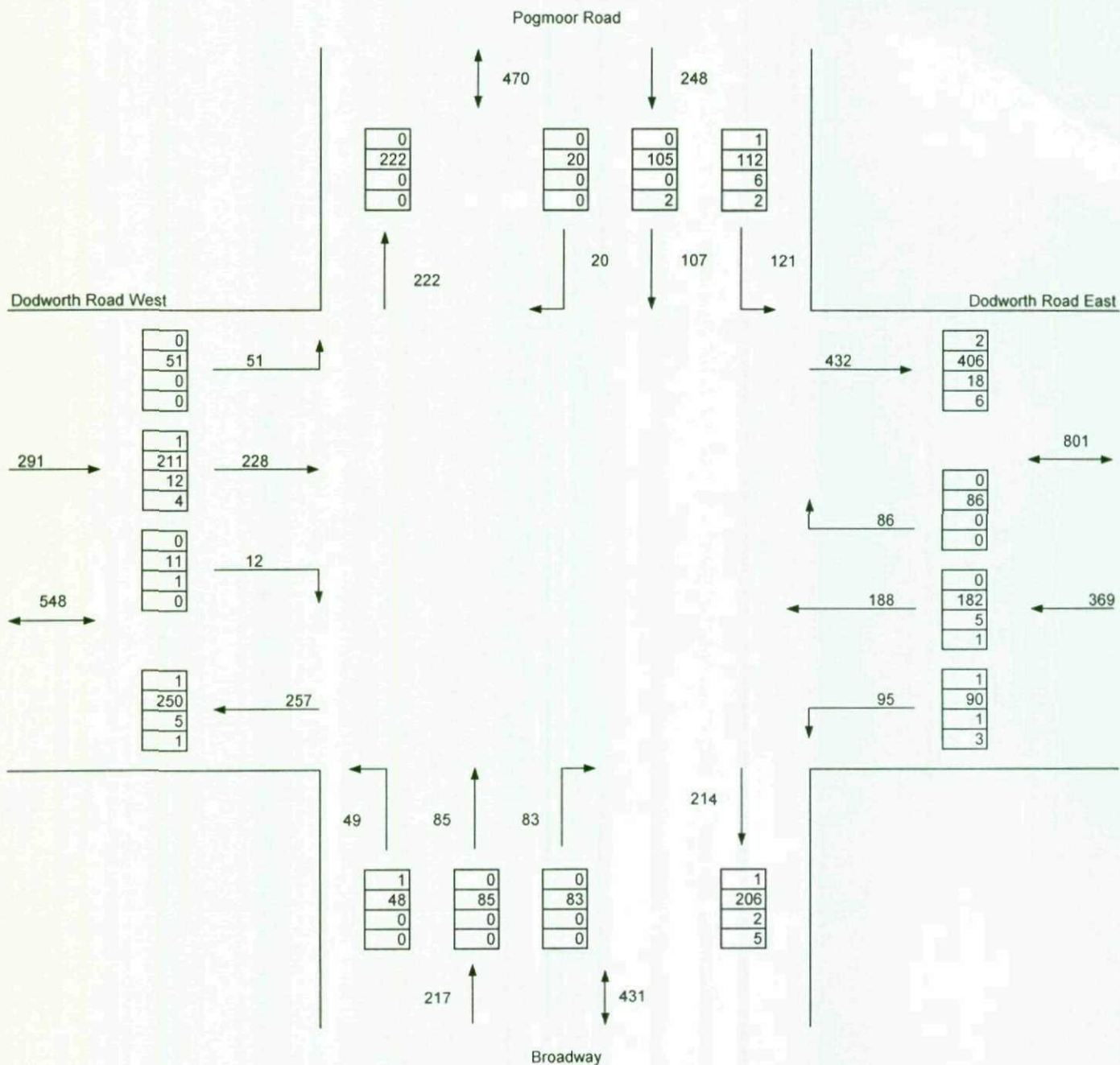
APPENDIX C

TRAFFIC COUNT INFORMATION

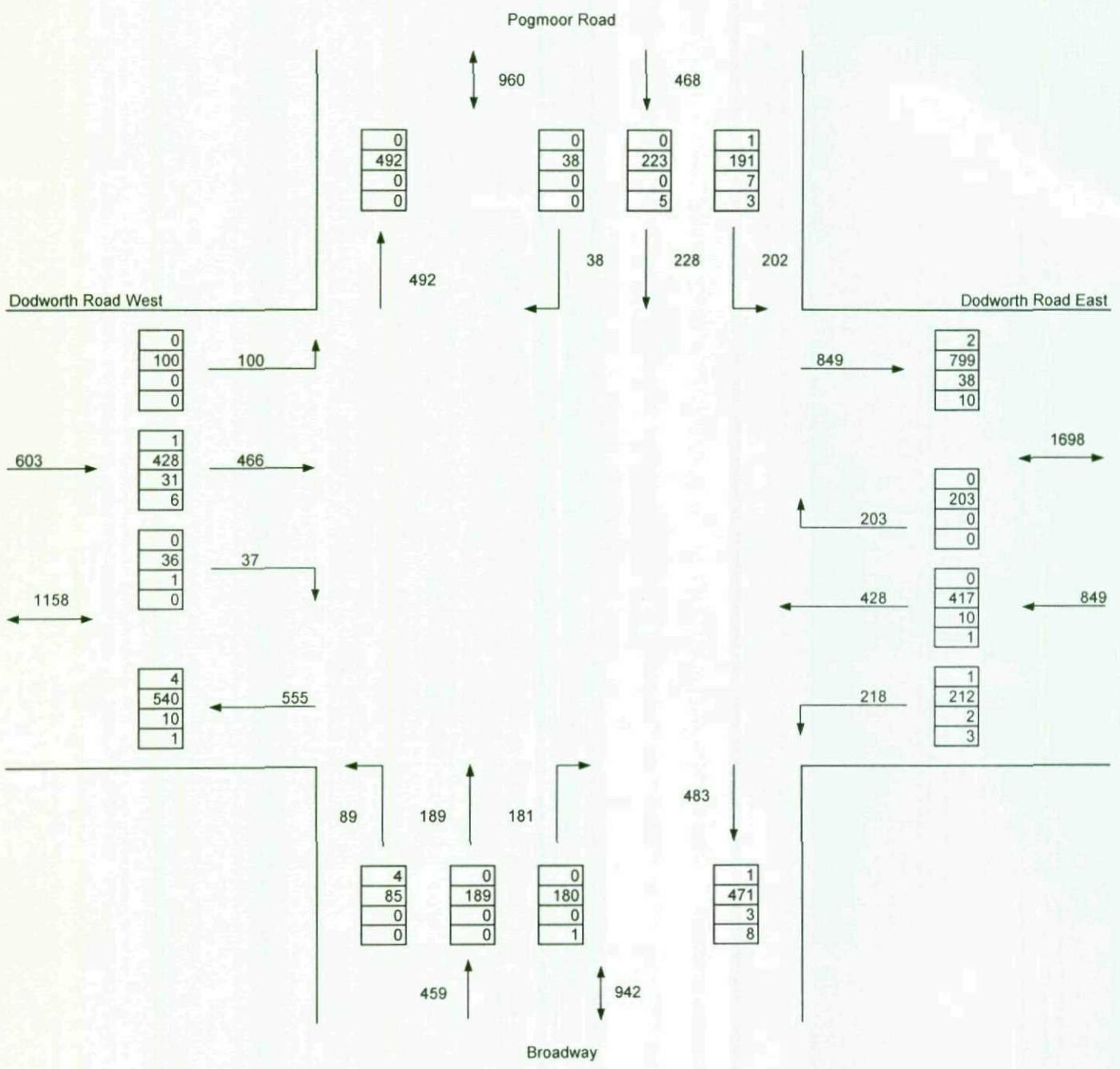
EXISTING VEHICULAR FLOWS

A628 Dodworth Rd / Pogmoor Road / Broadway

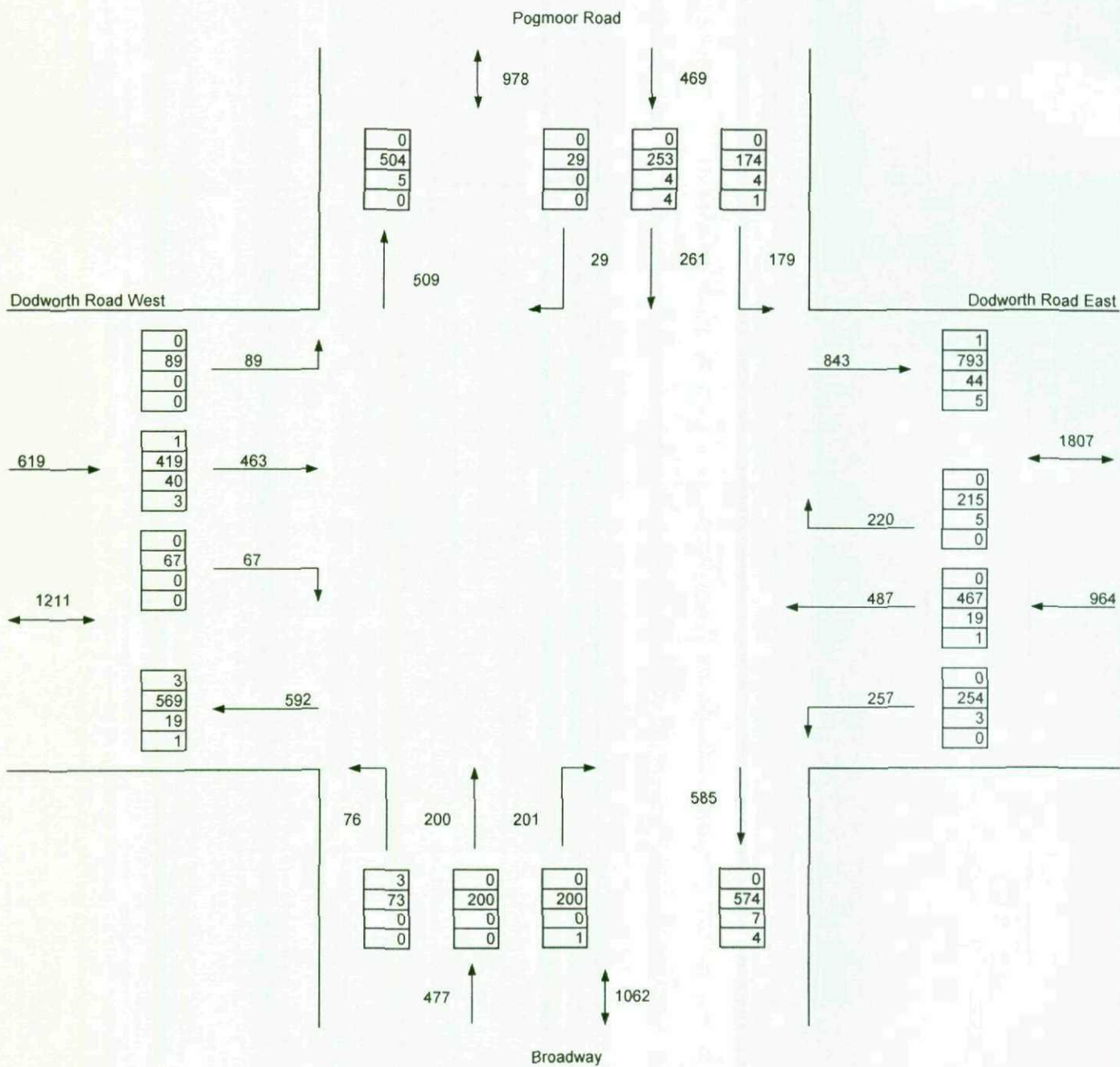
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7:00 am - 8:00 am



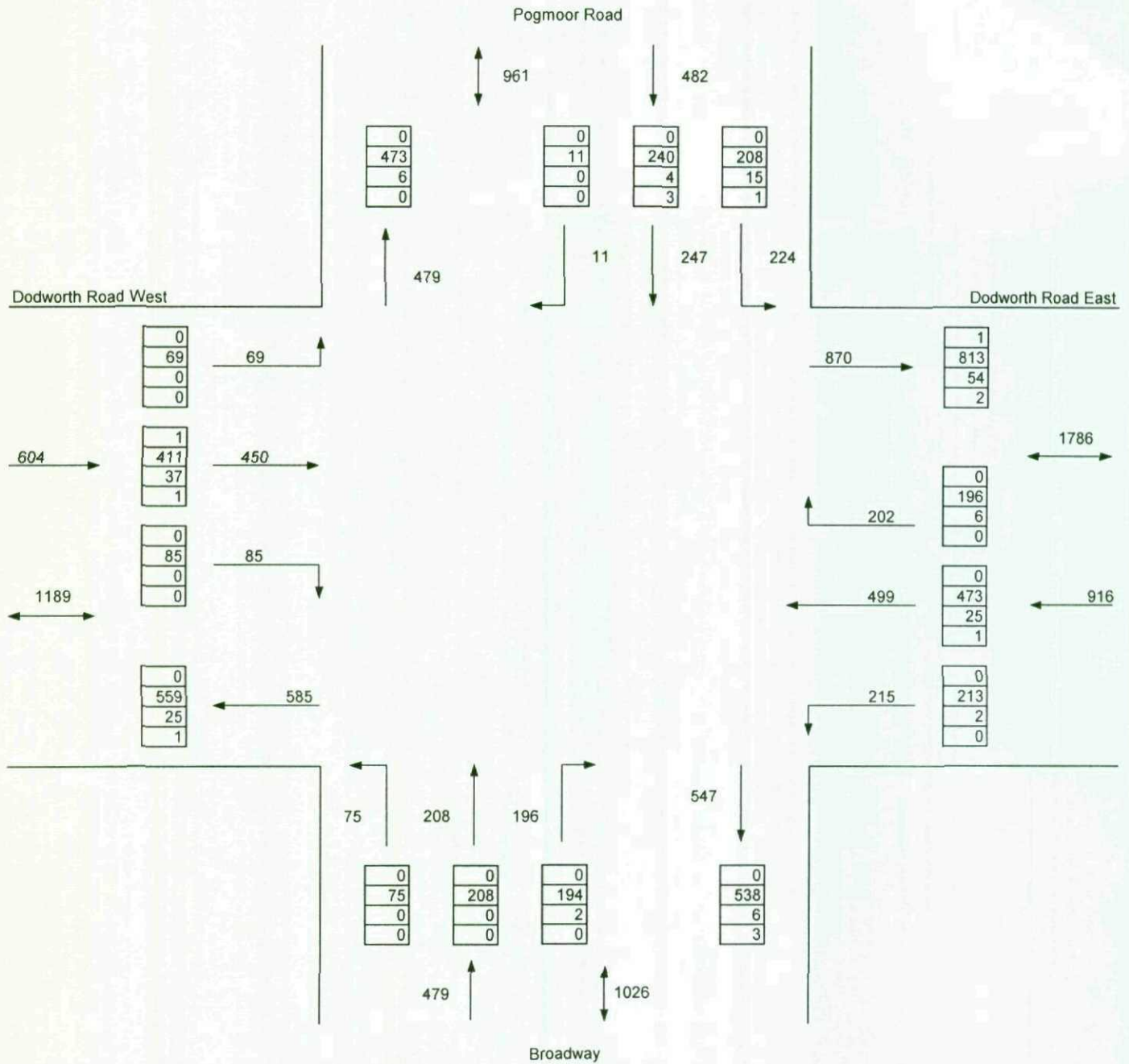
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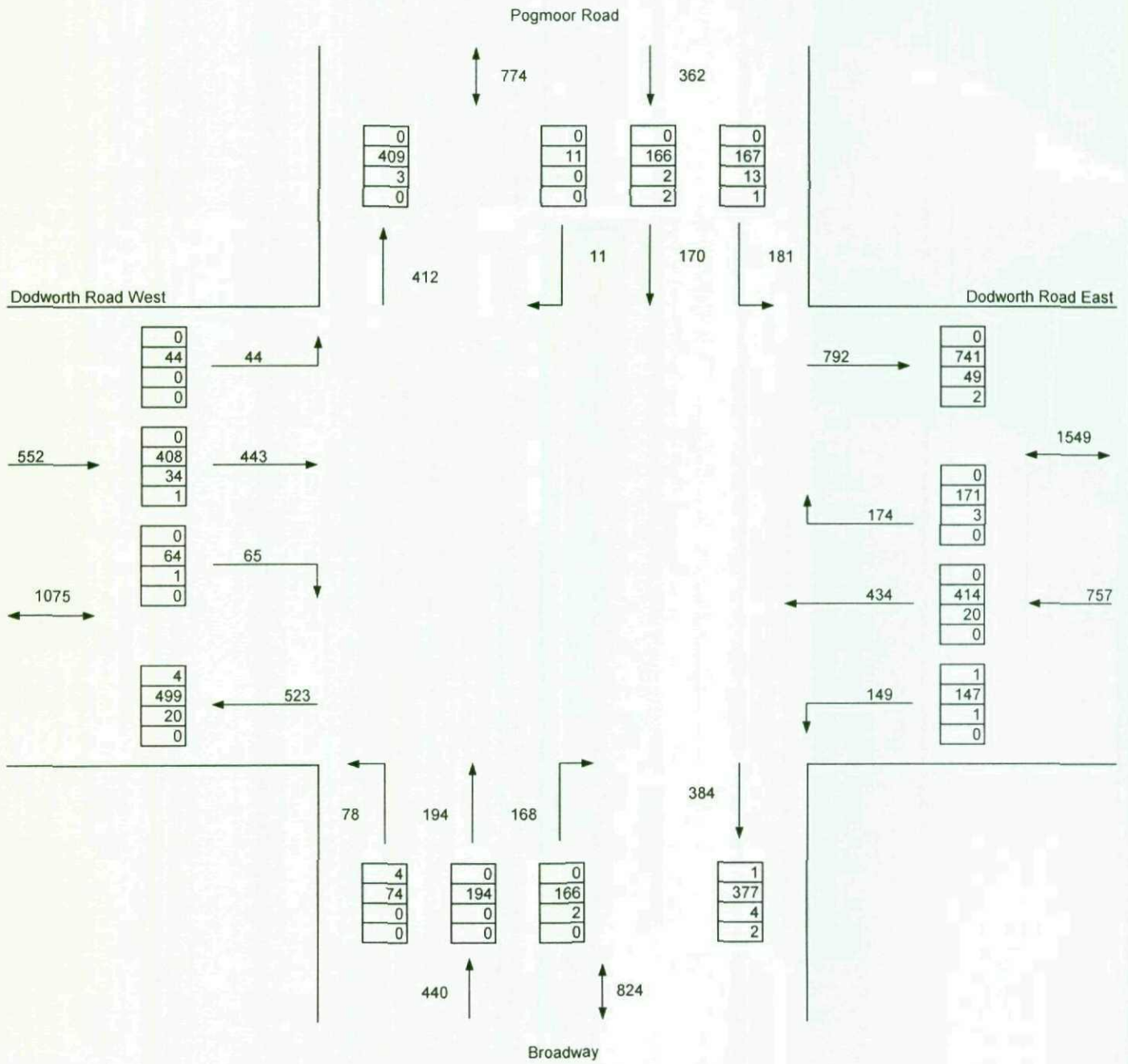
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0
8:00 am - 9:00 am



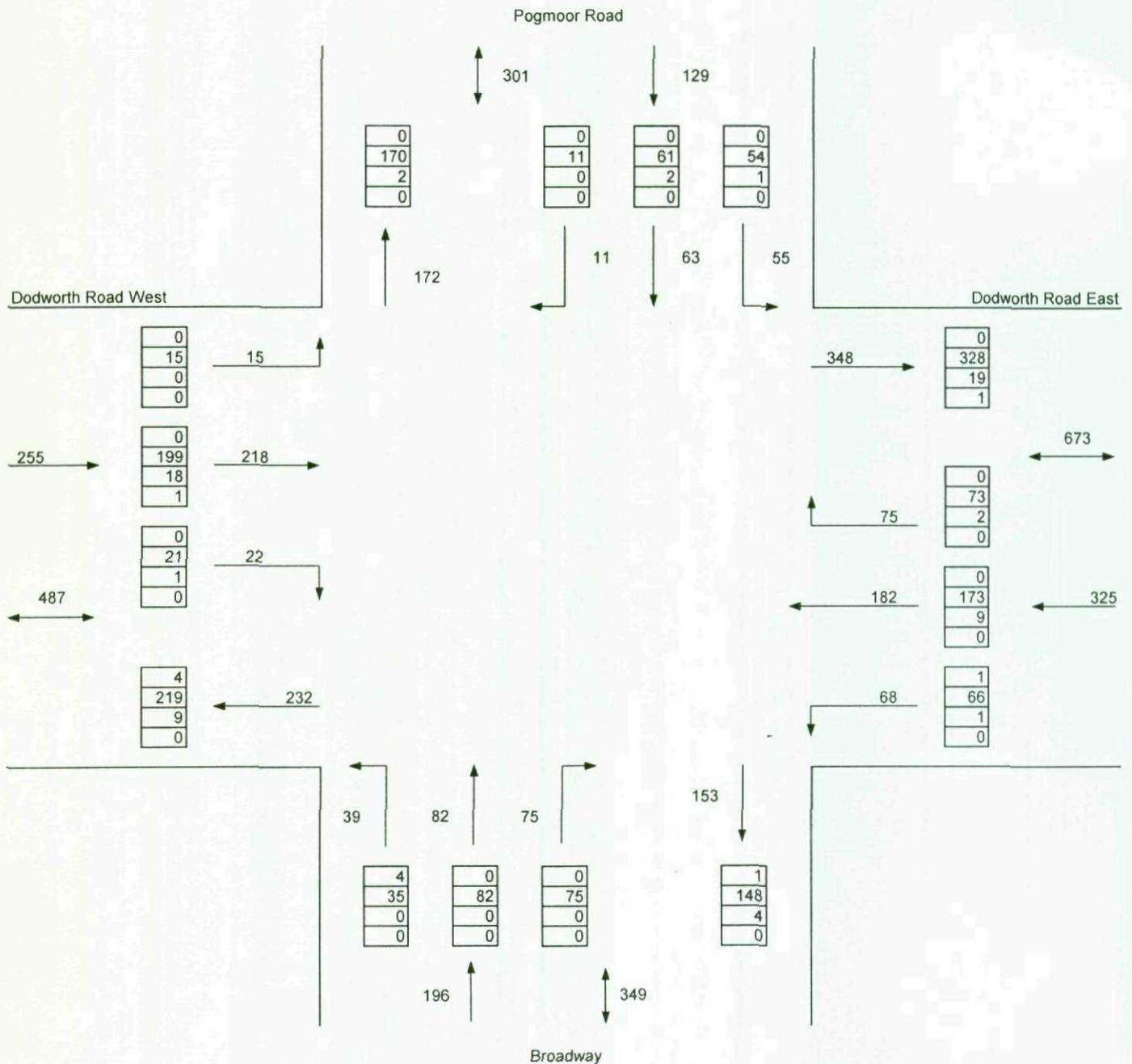
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A628 Dodworth Rd / Pogmoor Road / Broadway
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8:30 am - 9:30 am



EXISTING VEHICULAR FLOWS
A628 Dodworth Rd / Pogmoor Road / Broadway
0
9:00 am - 10:00 am



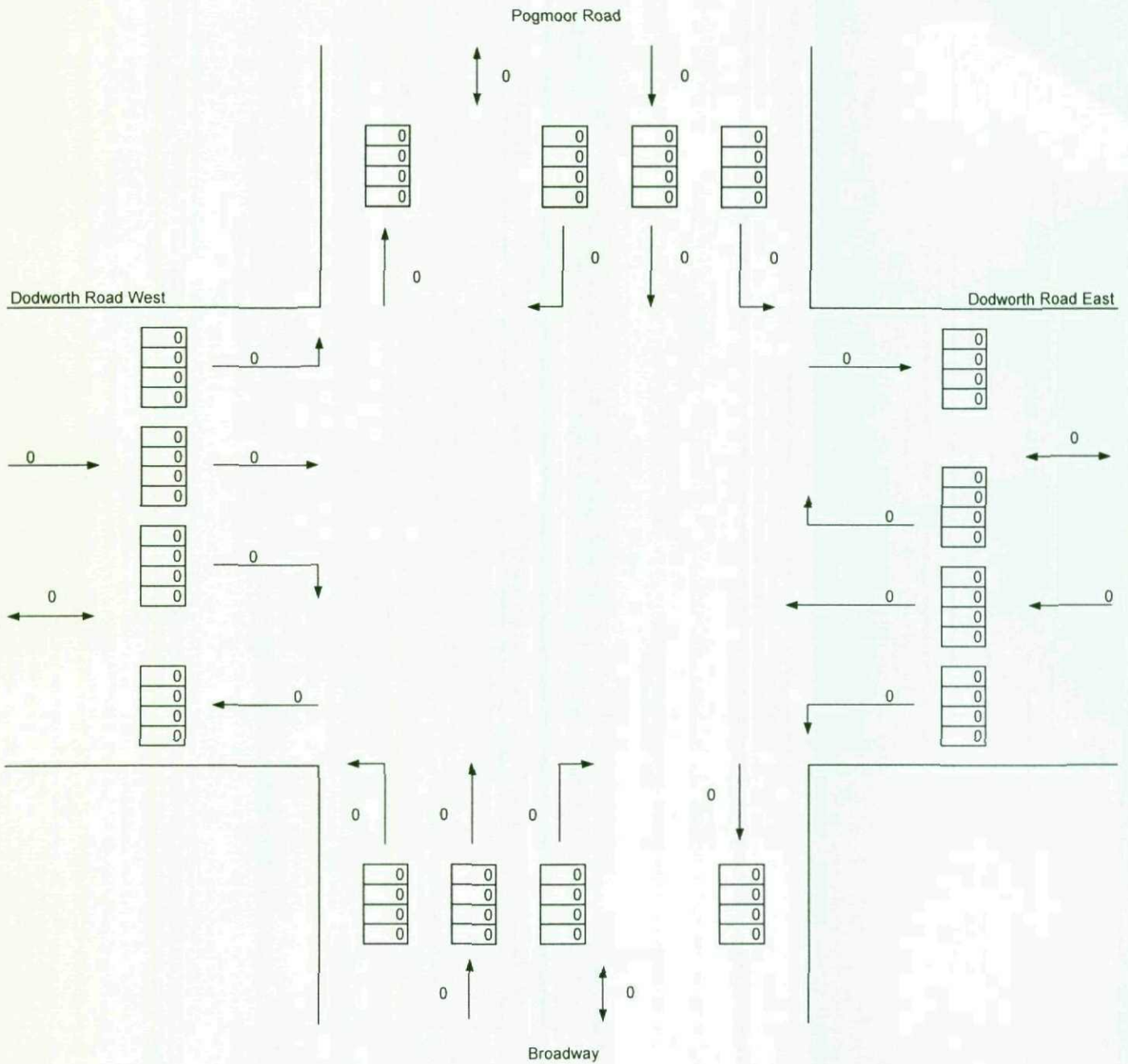
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0
9:30 am - 10:30 am



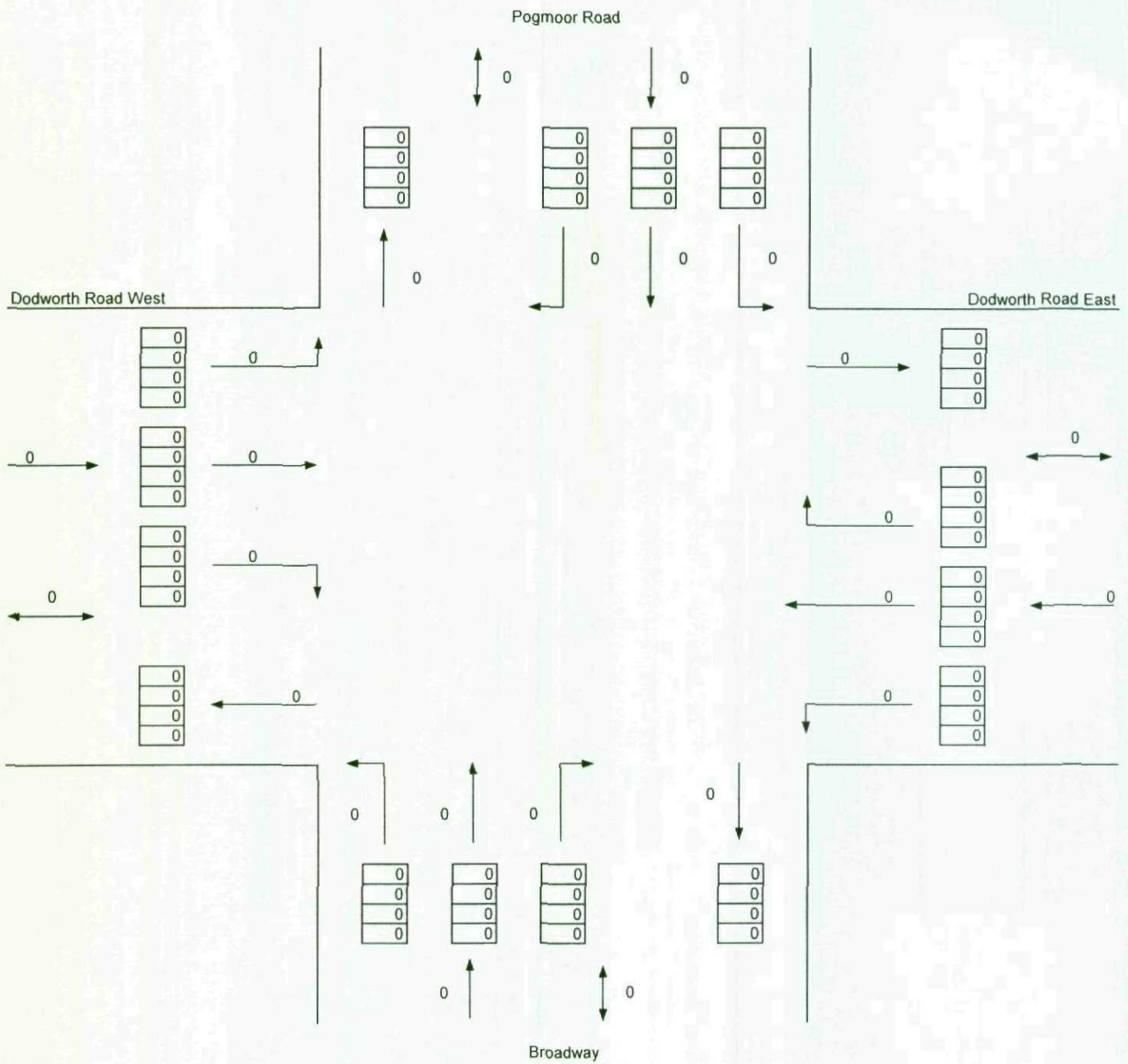
Vehicular Flows

Motor cycles and pedal cycles
Cars and light goods vehicles
Heavy goods vehicles
Buses

EXISTING VEHICULAR FLOWS
A628 Dodworth Rd / Pogmoor Road / Broadway
 0
 10:00 am - 11:00 am



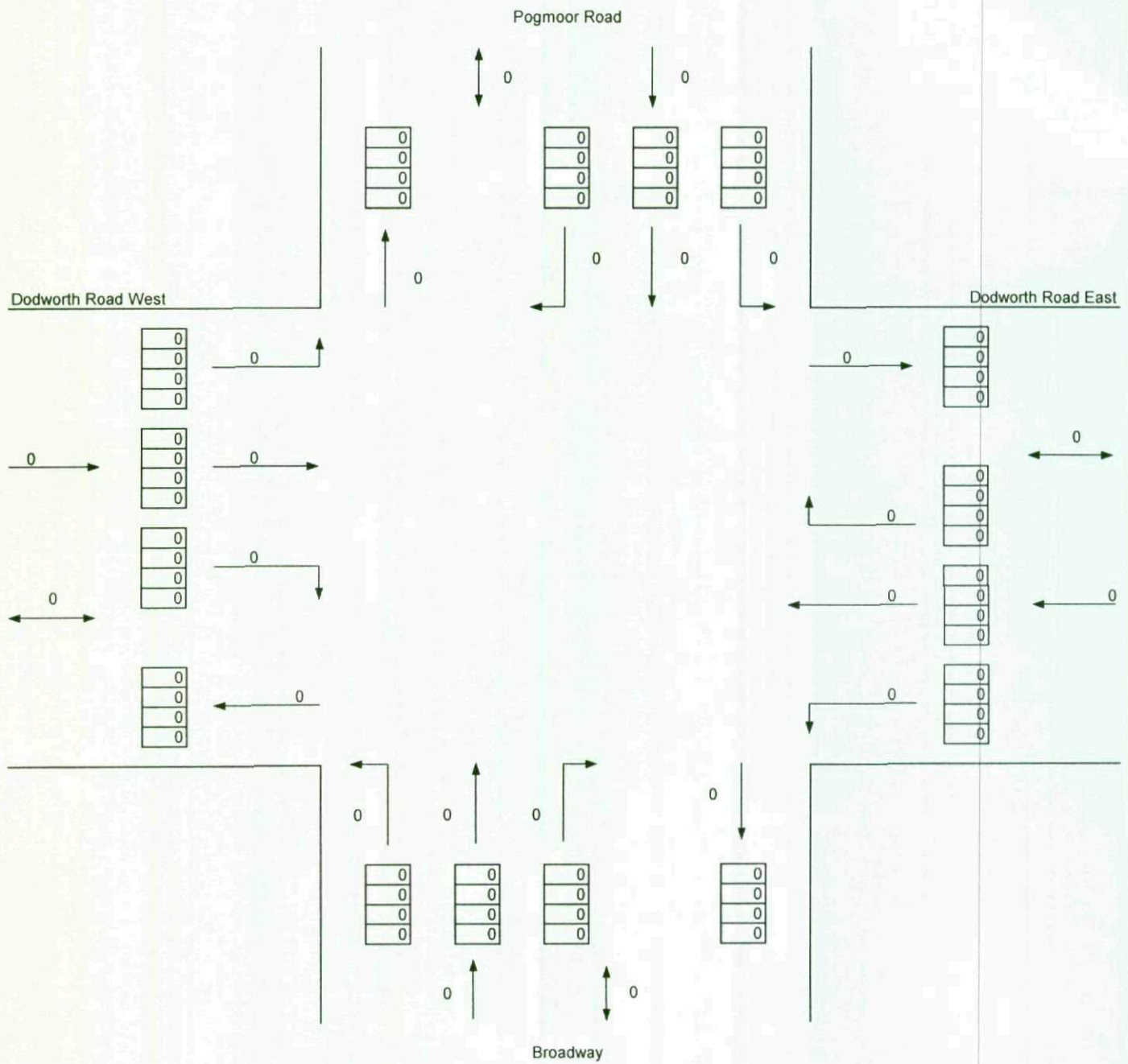
EXISTING VEHICULAR FLOWS
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0
10:30 am - 11:30 am



Vehicular Flows

Motor cycles and pedal cycles
Cars and light goods vehicles
Heavy goods vehicles
Buses

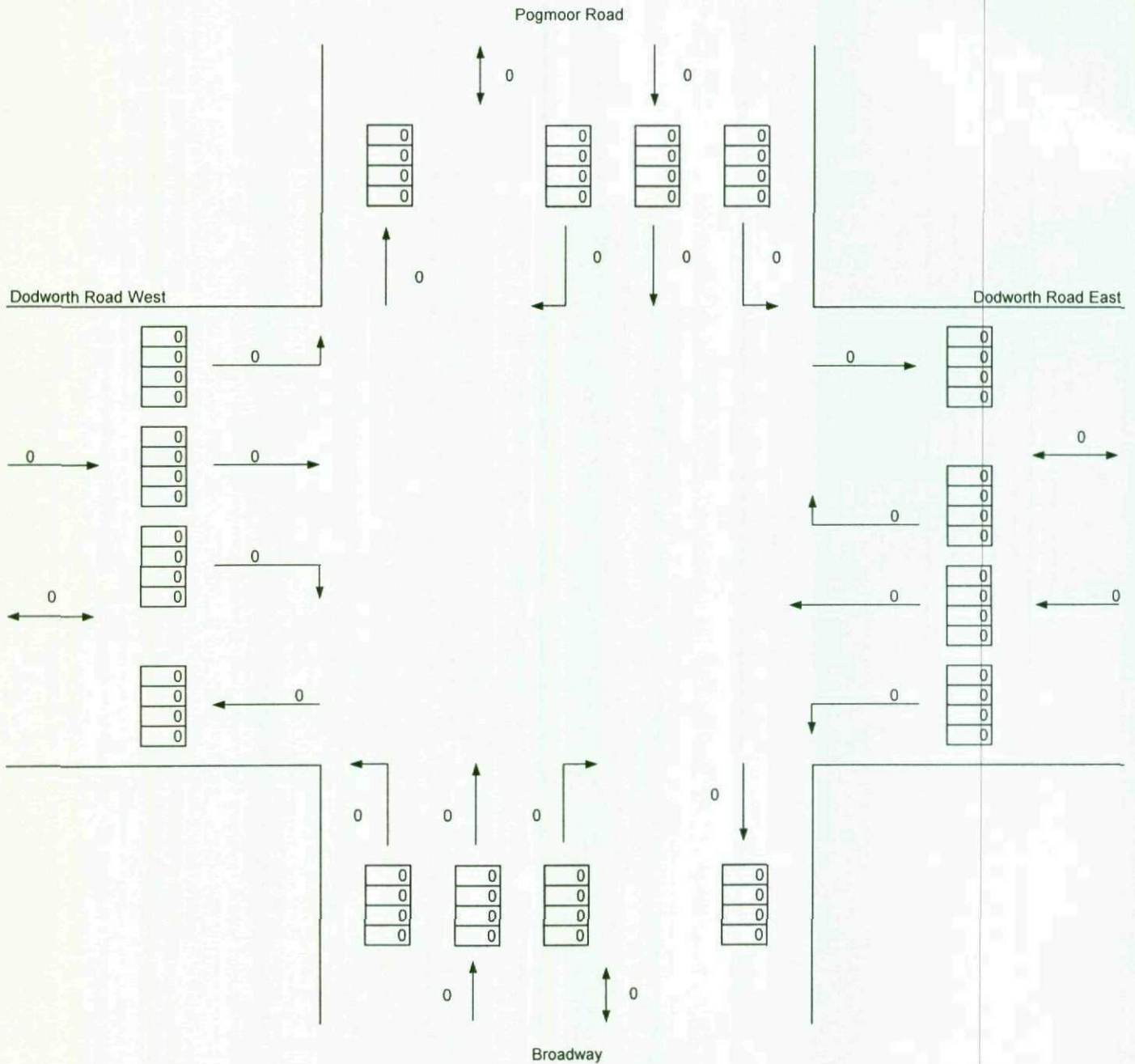
EXISTING VEHICULAR FLOWS
A628 Dodworth Rd / Pogmoor Road / Broadway
0
11:00 am - 12:00 noon



Vehicular Flows

	Motor cycles and pedal cycles
	Cars and light goods vehicles
	Heavy goods vehicles
	Buses

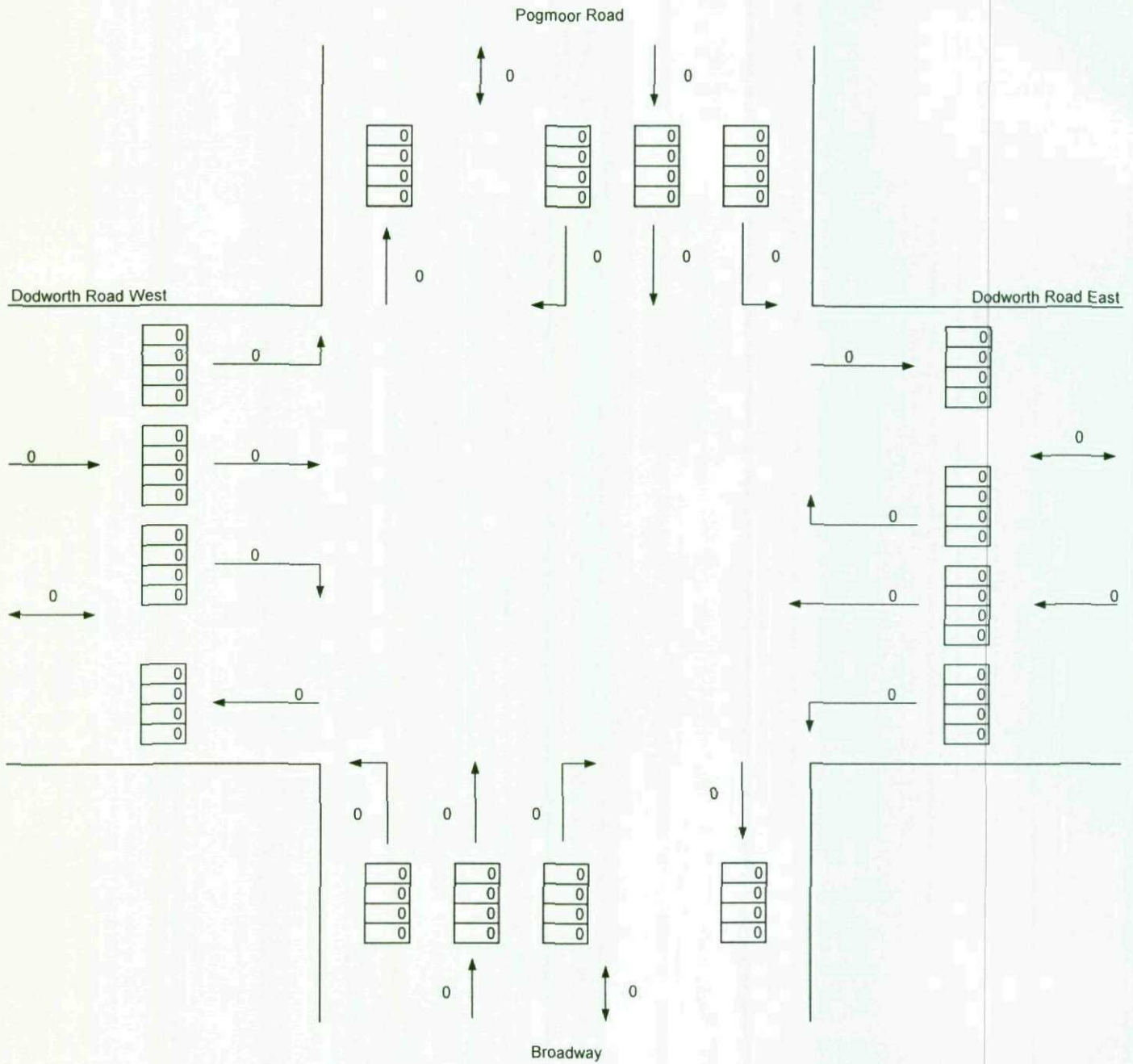
EXISTING VEHICULAR FLOWS
A628 Dodworth Rd / Pogmoor Road / Broadway
 0
 11:30 am - 12:30 pm



Vehicular Flows

0	Motor cycles and pedal cycles
1	Cars and light goods vehicles
2	Heavy goods vehicles
3	Buses

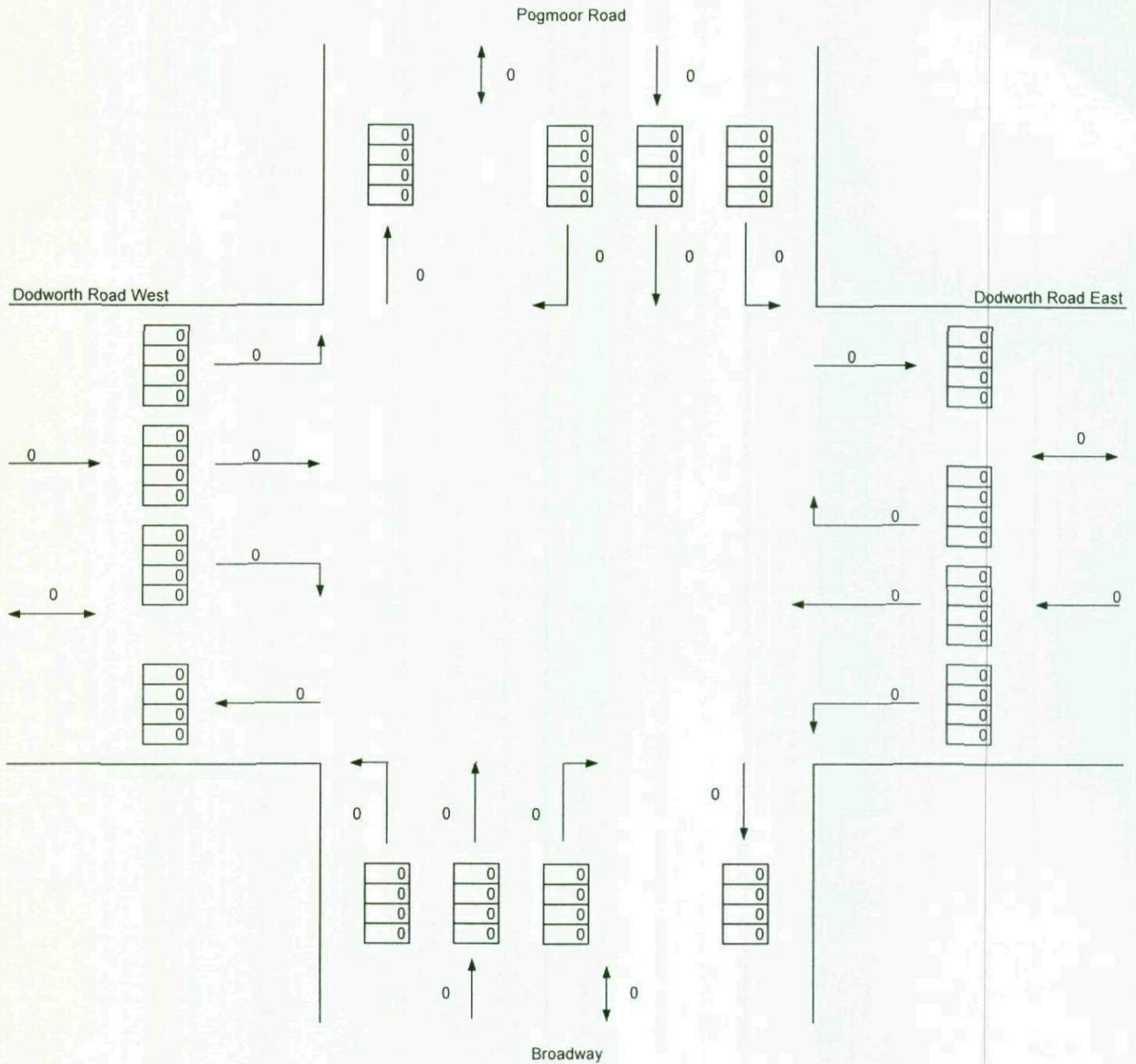
EXISTING VEHICULAR FLOWS
A628 Dodworth Rd / Pogmoor Road / Broadway
 0
 12:00 noon - 1:00 pm



Vehicular Flows

	Motor cycles and pedal cycles
	Cars and light goods vehicles
	Heavy goods vehicles
	Buses

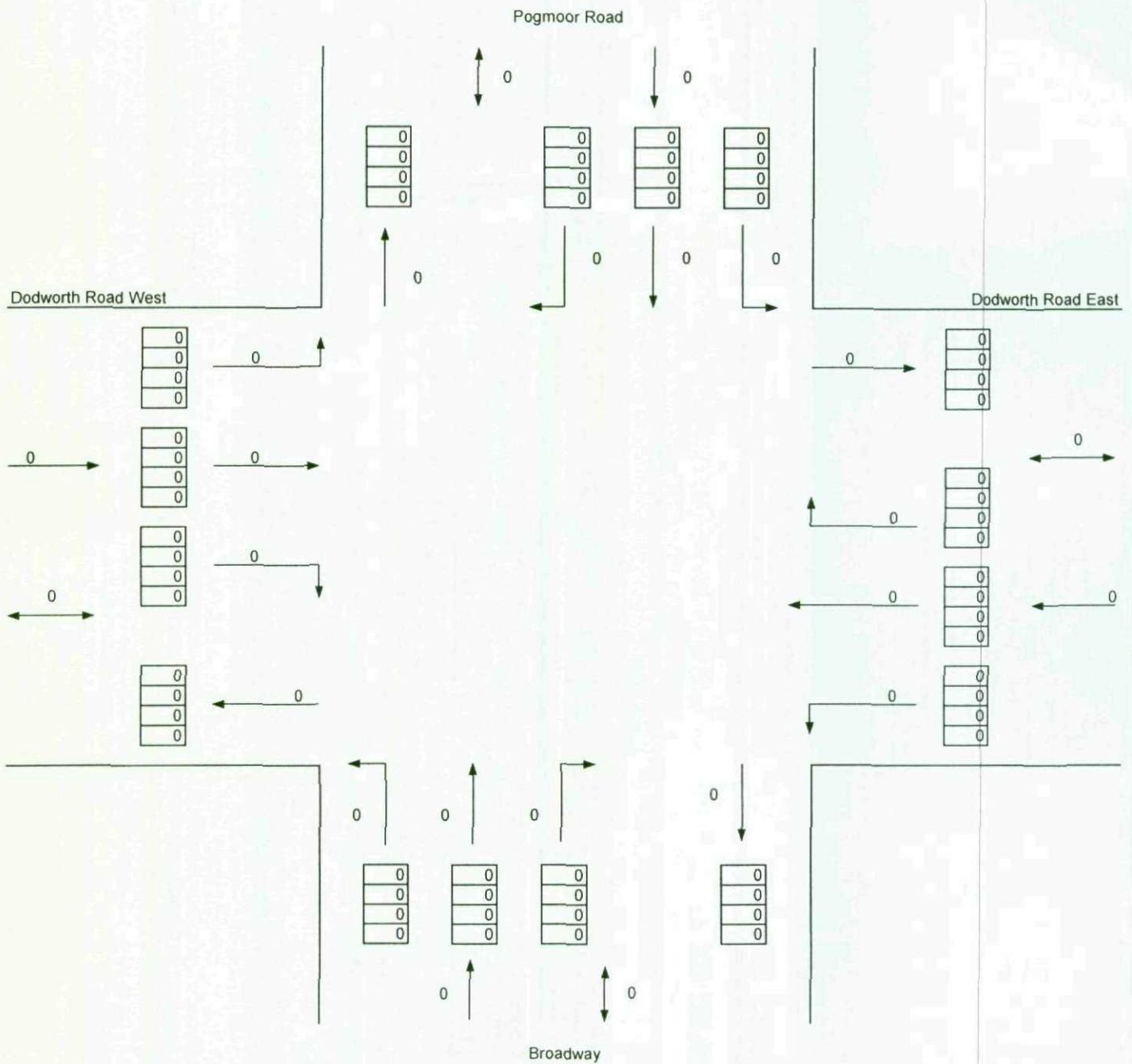
EXISTING VEHICULAR FLOWS
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 12:30 pm - 1:30 pm



Vehicular Flows

Motor cycles and pedal cycles
Cars and light goods vehicles
Heavy goods vehicles
Buses

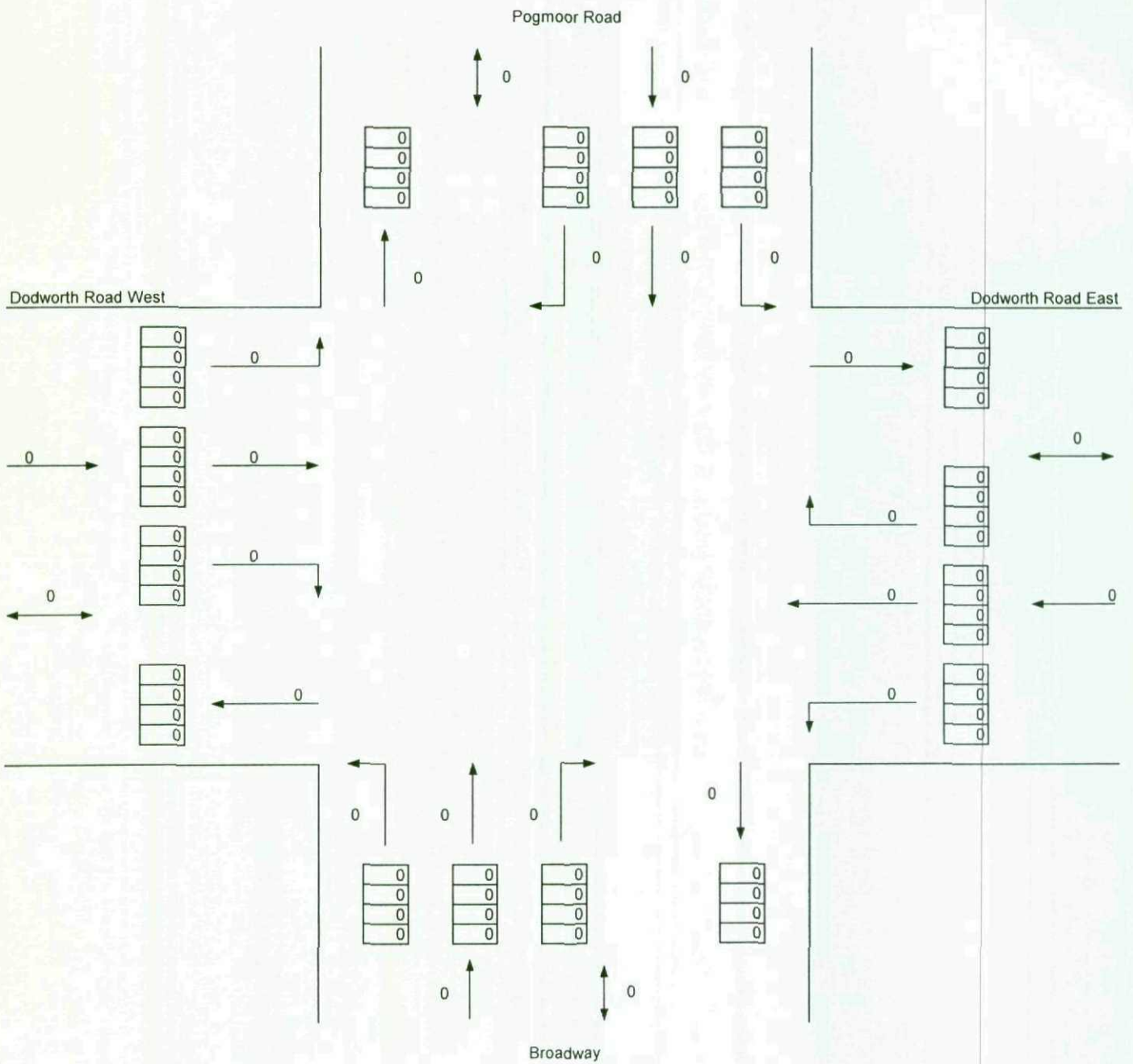
EXISTING VEHICULAR FLOWS
A628 Dodworth Rd / Pogmoor Road / Broadway
 0
 1:00 pm - 2:00 pm



Vehicular Flows

Motor cycles and pedal cycles
Cars and light goods vehicles
Heavy goods vehicles
Buses

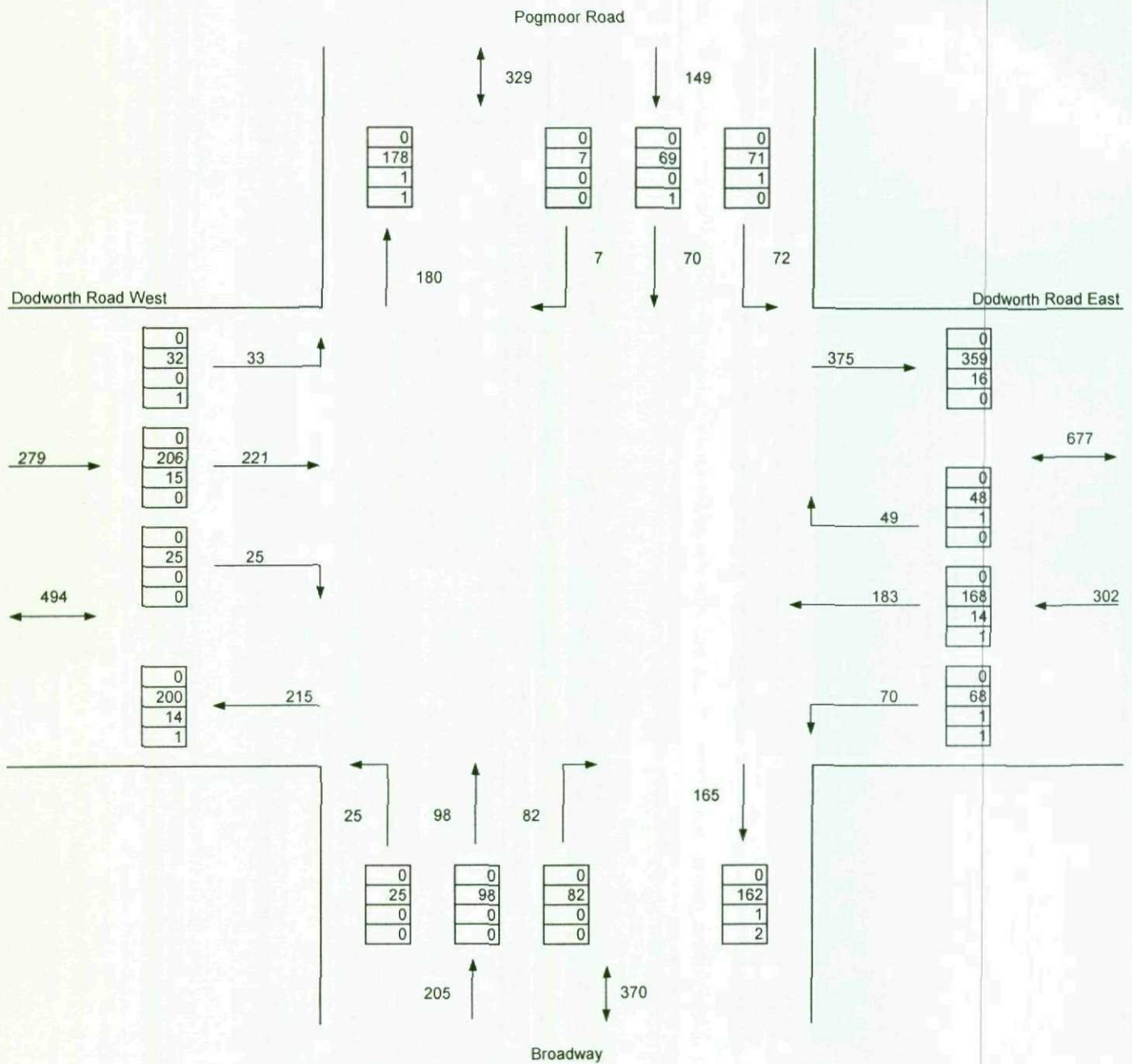
EXISTING VEHICULAR FLOWS
A628 Dodworth Rd / Pogmoor Road / Broadway
0
1:30 pm - 2:30 pm



Vehicular Flows

	Motor cycles and pedal cycles
	Cars and light goods vehicles
	Heavy goods vehicles
	Buses

EXISTING VEHICULAR FLOWS
A628 Dodworth Rd / Pogmoor Road / Broadway
0
2:00 pm - 3:00 pm



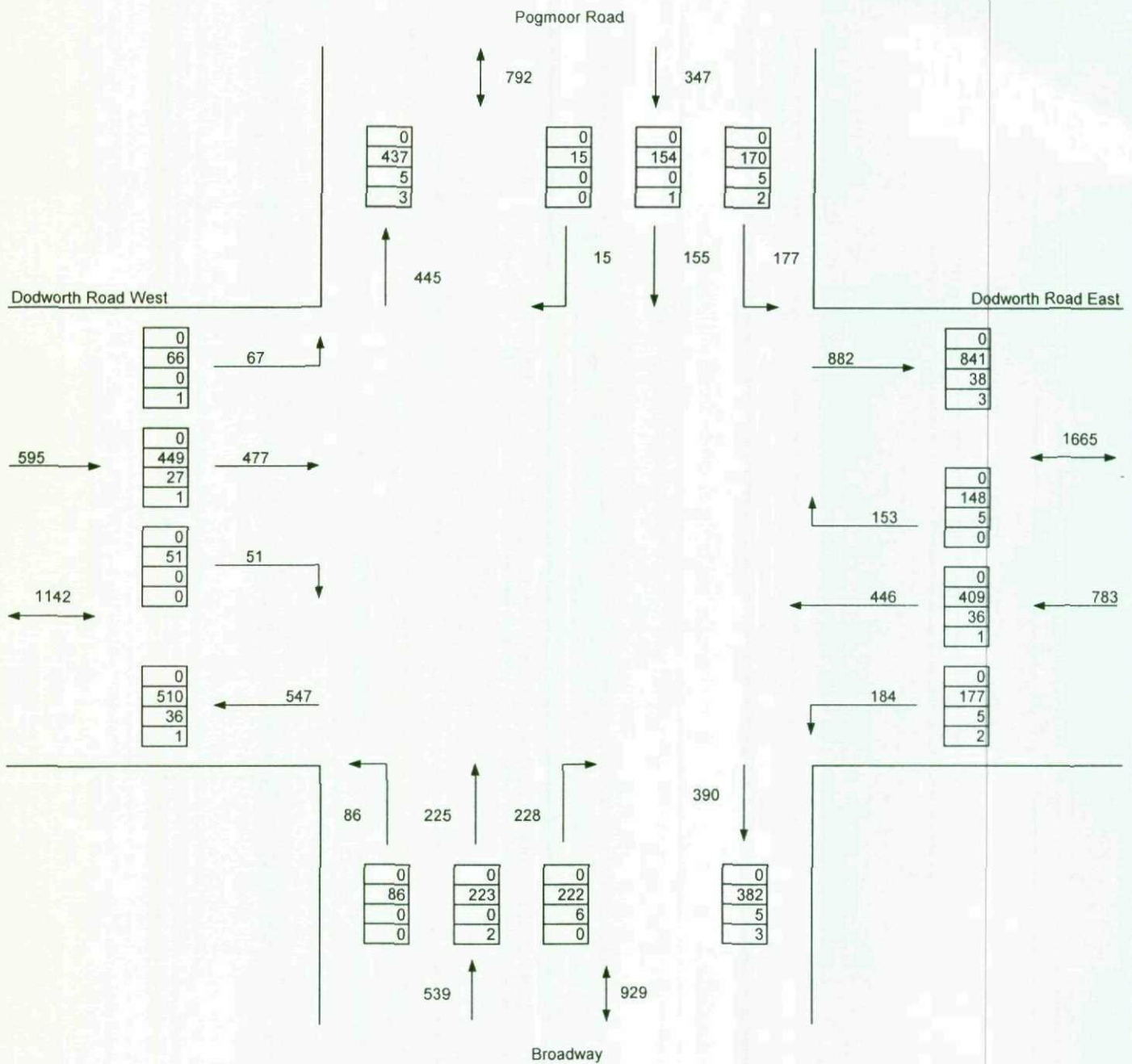
Vehicular Flows

- Motor cycles and pedal cycles
- Cars and light goods vehicles
- Heavy goods vehicles
- Buses

EXISTING VEHICULAR FLOWS

A628 Dodworth Rd / Pogmoor Road / Broadway

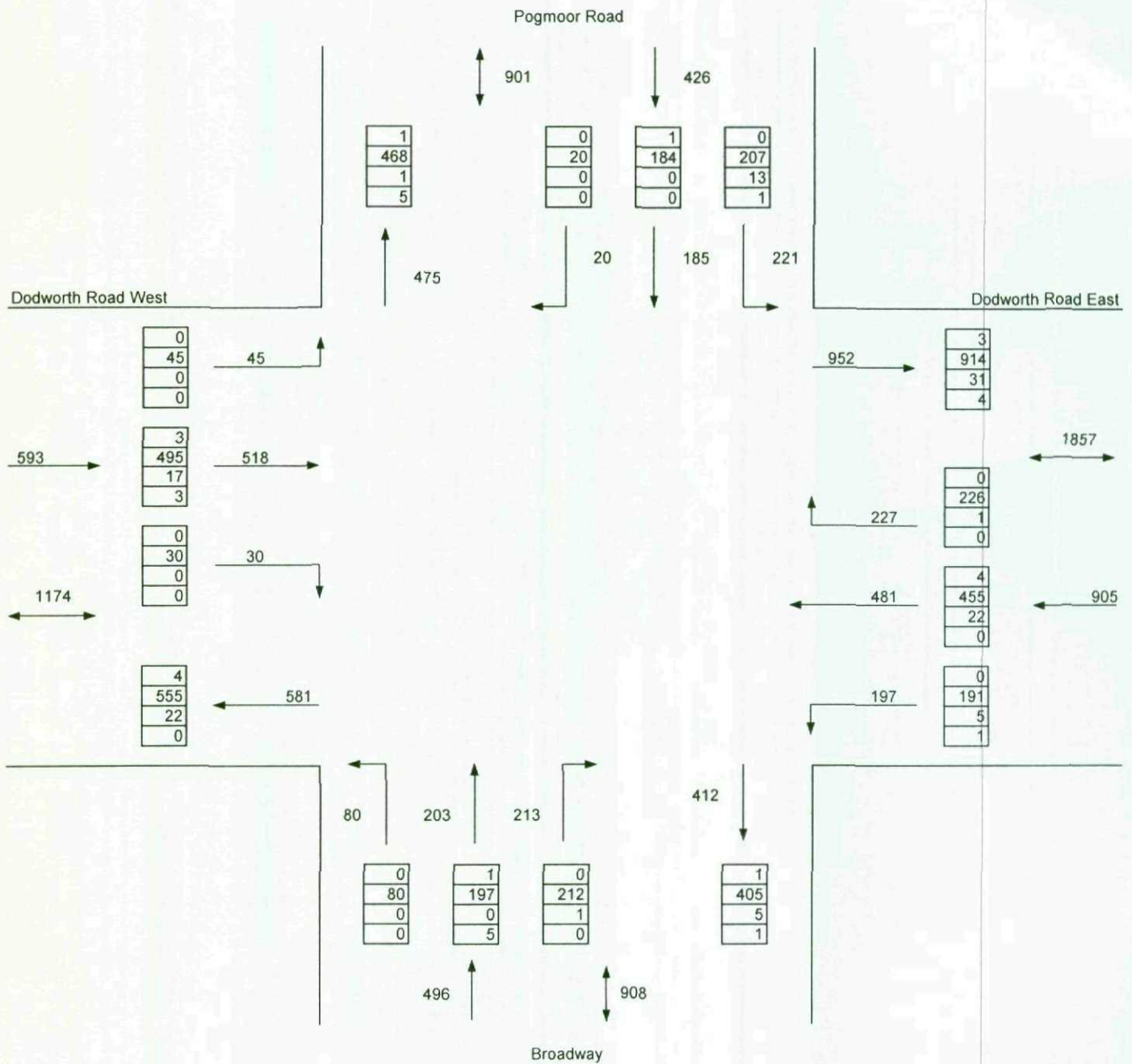
0
2:30 pm - 3:30 pm



EXISTING VEHICULAR FLOWS

A628 Dodworth Rd / Pogmoor Road / Broadway

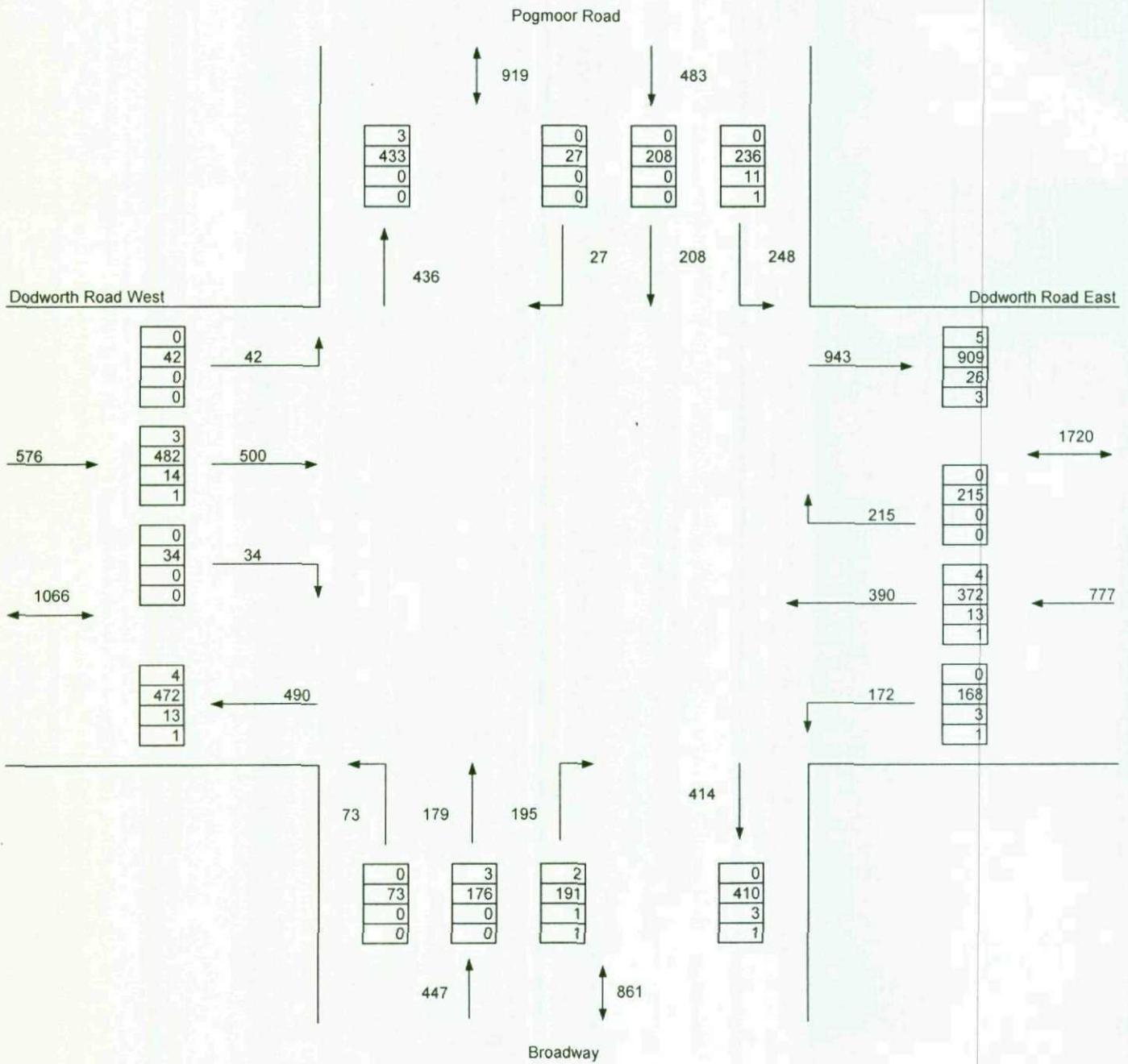
0
3:30 pm - 4:30 pm



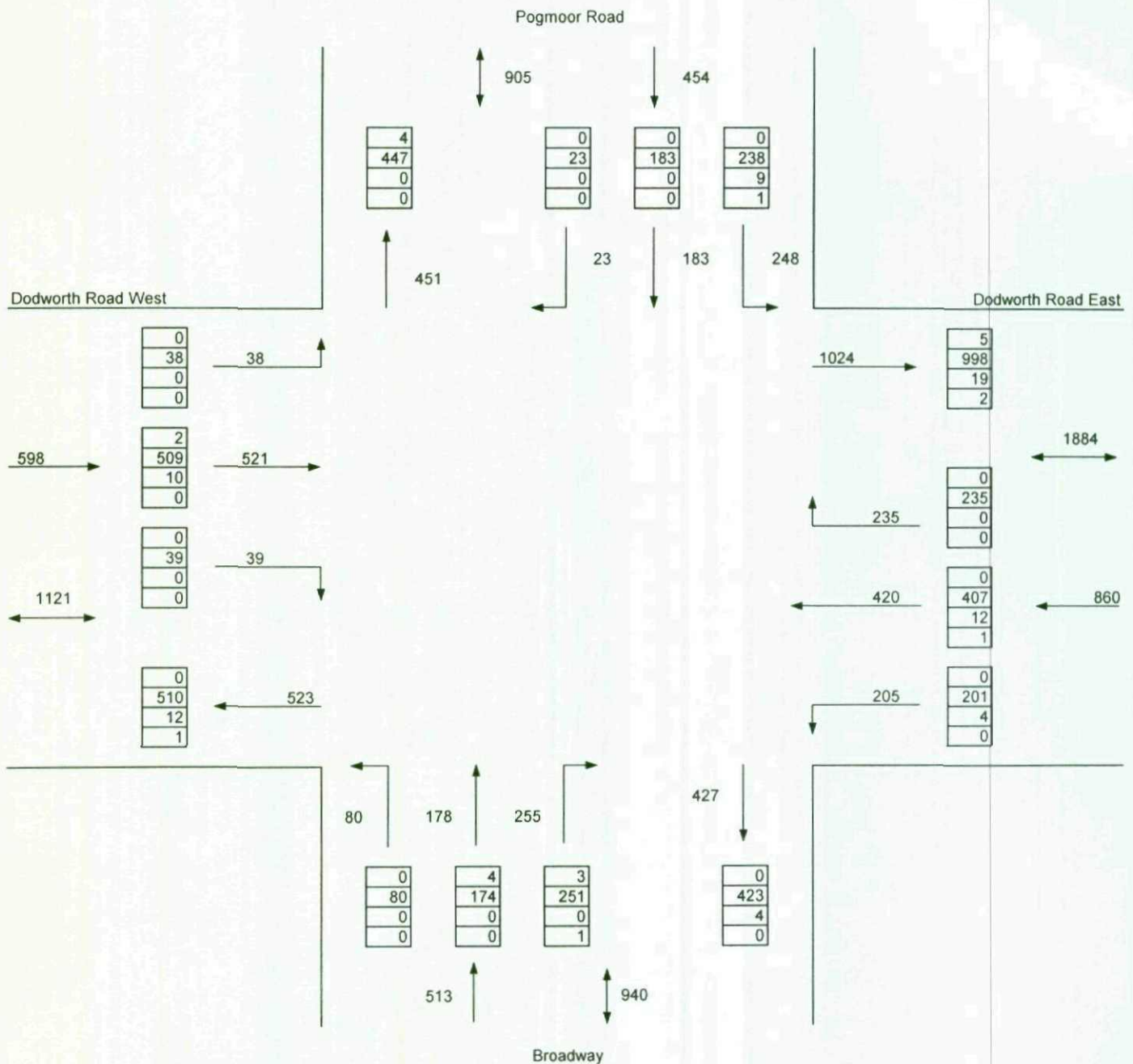
Vehicular Flows

- Motor cycles and pedal cycles
- Cars and light goods vehicles
- Heavy goods vehicles
- Buses

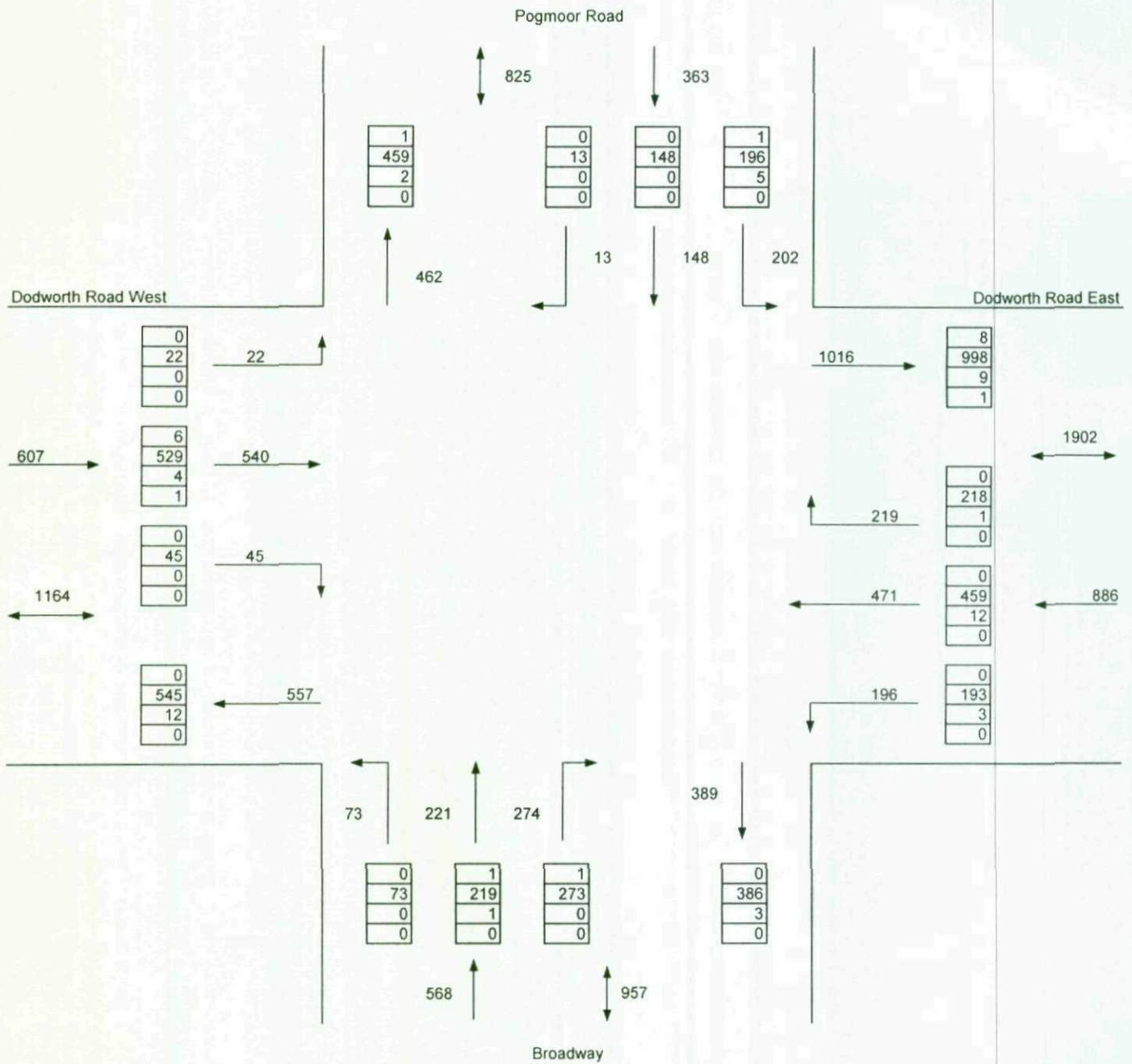
EXISTING VEHICULAR FLOWS
A628 Dodworth Rd / Pogmoor Road / Broadway
0
4:00 pm - 5:00 pm



EXISTING VEHICULAR FLOWS
A628 Dodworth Rd / Pogmoor Road / Broadway
0
4:30 pm - 5:30 pm

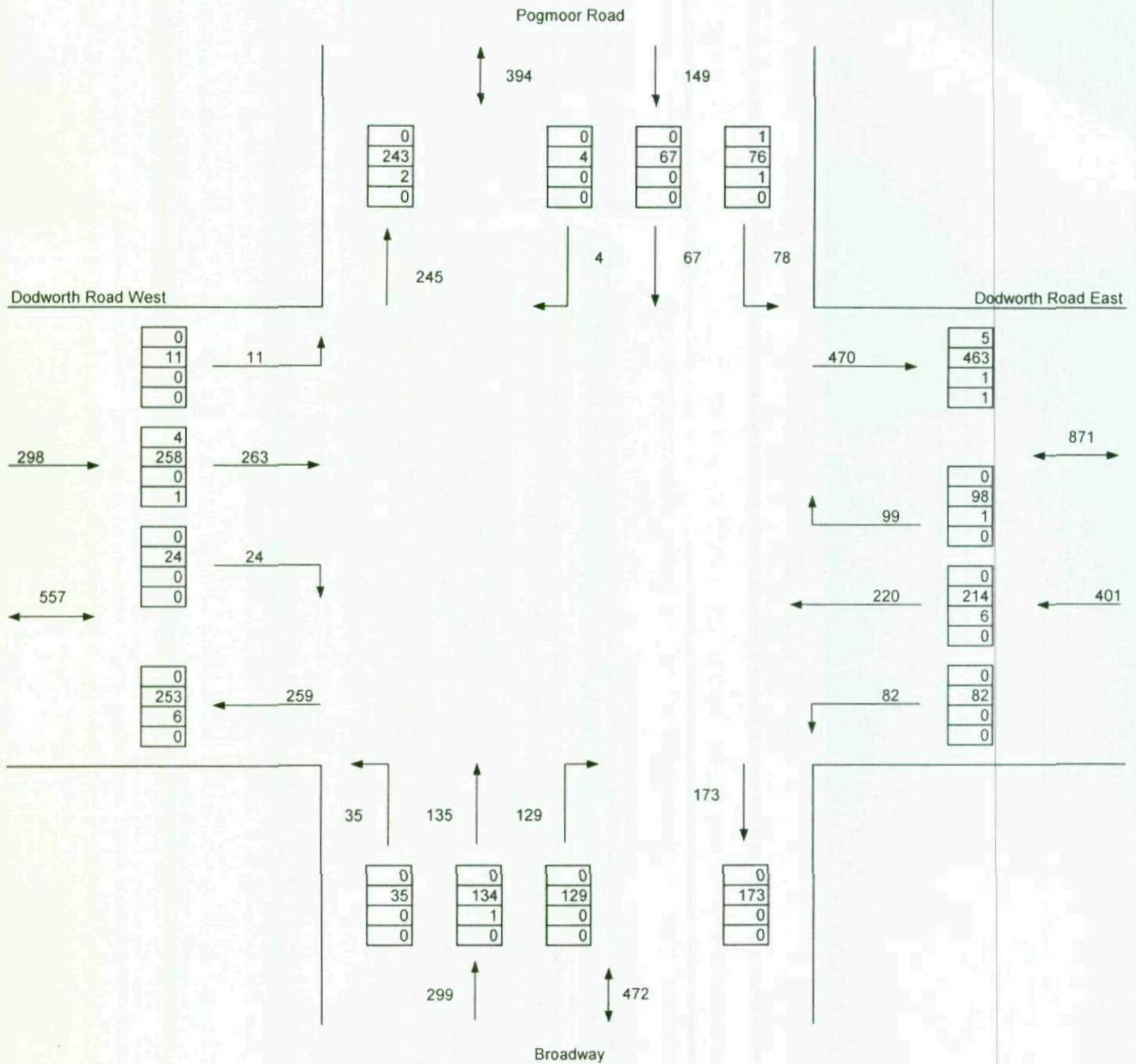


EXISTING VEHICULAR FLOWS
A628 Dodworth Rd / Pogmoor Road / Broadway
0
5:00 pm - 6:00 pm



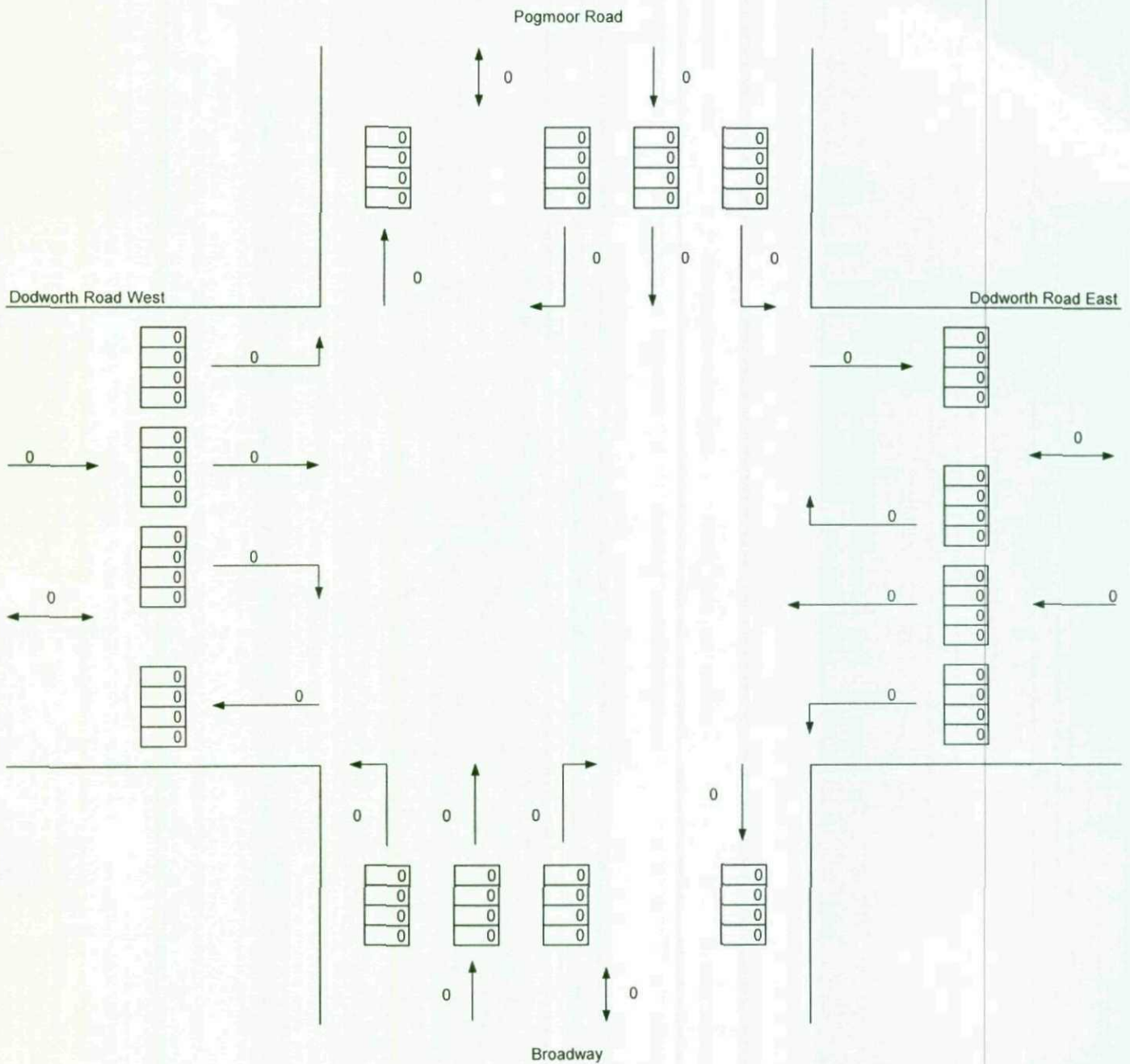
EXISTING VEHICULAR FLOWS A628 Dodworth Rd / Pogmoor Road / Broadway

0
5:30 pm - 6:30 pm



EXISTING VEHICULAR FLOWS A628 Dodworth Rd / Pogmoor Road / Broadway

0
6:00 pm - 7:00 pm



Vehicular Flows

- ☐ Motor cycles and pedal cycles
- ☐ Cars and light goods vehicles
- ☐ Heavy goods vehicles
- ☐ Buses

APPENDIX D

SR GENT TRAFFIC GENERATION

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : C - INDUSTRIAL UNIT

VEHICLES

Selected regions and areas:

03	SOUTH WEST	
	CW CORNWALL	2 days
	DC DORSET	4 days
	GS GLOUCESTERSHIRE	1 days
04	EAST ANGLIA	
	NF NORFOLK	2 days
05	EAST MIDLANDS	
	DS DERBYSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	WY WEST YORKSHIRE	1 days
08	NORTH WEST	
	CH CHESHIRE	1 days
	GM GREATER MANCHESTER	1 days
	LC LANCASHIRE	1 days
09	NORTH	
	TV TEES VALLEY	1 days
10	WALES	
	CF CARDIFF	1 days
	MT MERTHYR TYDFIL	1 days
11	SCOTLAND	
	ER EAST RENFREWSHIRE	2 days
	FI FIFE	1 days
	HI HIGHLAND	1 days

Main parameter selection:

Parameter: Gross floor area
Range: 1068 to 43325 (units: sqm)

Date Range: 01/01/00 to 09/10/07

Selected survey days:

Monday	3 days
Tuesday	7 days
Wednesday	4 days
Thursday	5 days
Friday	2 days

Selected survey types:

Manual count	21 days
Directional ATC Count	0 days

Selected Locations:

Edge of Town Centre	4
Suburban Area (PPS6 Out of Centre)	3
Edge of Town	11
Free Standing (PPS6 Out of Town)	3

Selected Location Sub Categories:

Industrial Zone	11
Built-Up Zone	5
Out of Town	2
No Sub Category	3

Optional parameter selection:

Use Class:

Not Known	1 days
B1	15 days
B2	4 days

Population within 1 mile:

1,001 to 5,000	7 days
5,001 to 10,000	4 days
15,001 to 20,000	6 days
20,001 to 25,000	3 days
25,001 to 50,000	1 days

Population within 5 miles:

5,001 to 25,000	2 days
25,001 to 50,000	3 days
50,001 to 75,000	5 days
75,001 to 100,000	2 days
100,001 to 125,000	1 days
125,001 to 250,000	5 days
250,001 to 500,000	2 days
500,001 or More	1 days

Car ownership within 5 miles:

0.5 or Less	1 days
0.6 to 1.0	12 days
1.1 to 1.5	8 days

Optional parameter selection (Cont.):

Travel Plan:

Not Known

No

8 days

13 days

LIST OF SITES relevant to selection parameters

- | | | | |
|----------|-------------------------|-------------------------------------|---------------------|
| 1 | CF-02-C-01 | PLASTICS COMPANY, CARDIFF | CARDIFF |
| | PARC-TY-GLAS | | |
| | LLANISHEN | | |
| | CARDIFF | | |
| | Total Gross floor area: | 1068 sqm | |
| | Survey date: TUESDAY | 24/10/06 | Survey Type: MANUAL |
| 2 | CH-02-C-01 | BAKERY, NORTHWICH | CHESHIRE |
| | GADBROOK PARK | | |
| | HIGH SHURLACH | | |
| | NORTHWICH | | |
| | Total Gross floor area: | 15000 sqm | |
| | Survey date: THURSDAY | 21/06/07 | Survey Type: MANUAL |
| 3 | CW-02-C-01 | FOOD DISTRIBUTION, CAMBORNE | CORNWALL |
| | WILSON WAY | | |
| | POOL | | |
| | CAMBORNE | | |
| | Total Gross floor area: | 10200 sqm | |
| | Survey date: FRIDAY | 08/06/07 | Survey Type: MANUAL |
| 4 | CW-02-C-02 | LIGHTING COMPANY, BODMIN | CORNWALL |
| | NORMANDY WAY | | |
| | BODMIN | | |
| | Total Gross floor area: | 17675 sqm | |
| | Survey date: WEDNESDAY | 06/06/07 | Survey Type: MANUAL |
| 5 | DC-02-C-02 | NEWSPAPER HQ, WEYMOUTH | DORSET |
| | HAMPSHIRE ROAD | | |
| | CHICKERELL | | |
| | WEYMOUTH | | |
| | Total Gross floor area: | 3035 sqm | |
| | Survey date: TUESDAY | 04/07/00 | Survey Type: MANUAL |
| 6 | DC-02-C-03 | INDUSTRIAL UNIT, NR WIMBORNE | DORSET |
| | NIMROD WAY | | |
| | STAPEHILL | | |
| | NEAR WIMBORNE MINSTER | | |
| | Total Gross floor area: | 1626 sqm | |
| | Survey date: TUESDAY | 15/05/01 | Survey Type: MANUAL |
| 7 | DC-02-C-04 | BREWERY, DORCHESTER | DORSET |
| | WEYMOUTH AVENUE | | |
| | DORCHESTER | | |
| | Total Gross floor area: | 19857 sqm | |
| | Survey date: MONDAY | 09/07/01 | Survey Type: MANUAL |
| 8 | DC-02-C-05 | ELECTRONICS CO., WEYMOUTH | DORSET |
| | HAMPSHIRE ROAD | | |
| | GRANBY IND. ESTATE | | |
| | WEYMOUTH | | |
| | Total Gross floor area: | 4600 sqm | |
| | Survey date: THURSDAY | 11/10/01 | Survey Type: MANUAL |
| 9 | DS-02-C-01 | BAKERY, NEAR SHEFFIELD | DERBYSHIRE |
| | STUBLEY LANE | | |
| | DRONFIELD | | |
| | NEAR SHEFFIELD | | |
| | Total Gross floor area: | 23500 sqm | |
| | Survey date: THURSDAY | 22/06/06 | Survey Type: MANUAL |

LIST OF SITES relevant to selection parameters (Cont.)

- | | | | |
|-----------|-------------------|------------------------------------|---------------------------|
| 10 | ER-02-C-01 | PET FOODS, BARRHEAD | EAST RENFREWSHIRE |
| | | GLASGOW ROAD | |
| | | BARRHEAD | |
| | | Total Gross floor area: 22926 sqm | |
| | | Survey date: THURSDAY 11/10/01 | Survey Type: MANUAL |
| 11 | ER-02-C-02 | DIYWORKS, NEWTON MEARNES | EAST RENFREWSHIRE |
| | | NETHERPLACE ROAD | |
| | | NETHERPLACE | |
| | | NEWTON MEARNES | |
| | | Total Gross floor area: 11972 sqm | |
| | | Survey date: WEDNESDAY 08/05/02 | Survey Type: MANUAL |
| 12 | FI-02-C-01 | REFRIGERATION, DUNFERMLINE | FIFE |
| | | HALBEATH PLACE | |
| | | DUNFERMLINE | |
| | | Total Gross floor area: 4900 sqm | |
| | | Survey date: FRIDAY 20/04/07 | Survey Type: MANUAL |
| 13 | GM-02-C-02 | BREWERY, MANCHESTER | GREATER MANCHESTER |
| | | GREAT DUCIE STREET | |
| | | STRANGEWAYS | |
| | | MANCHESTER | |
| | | Total Gross floor area: 33470 sqm | |
| | | Survey date: TUESDAY 08/06/04 | Survey Type: MANUAL |
| 14 | GS-02-C-01 | HEALTH PRODUCTS, GLOUCESTER | GLOUCESTERSHIRE |
| | | ST CATHERINE STREET | |
| | | GLOUCESTER | |
| | | Total Gross floor area: 6604 sqm | |
| | | Survey date: WEDNESDAY 26/05/04 | Survey Type: MANUAL |
| 15 | HI-02-C-01 | DAIRY, NAIRN | HIGHLAND |
| | | TOM SEMPLE ROAD | |
| | | BALMAKEITH BUSINESS PK | |
| | | NAIRN | |
| | | Total Gross floor area: 3000 sqm | |
| | | Survey date: WEDNESDAY 24/05/06 | Survey Type: MANUAL |
| 16 | LC-02-C-01 | BREWERY, BLACKBURN | LANCASHIRE |
| | | PENNY STREET | |
| | | BLACKBURN | |
| | | Total Gross floor area: 34581 sqm | |
| | | Survey date: MONDAY 21/06/04 | Survey Type: MANUAL |
| 17 | MT-02-C-01 | CONFECTIONERY, DOWLAIS | MERTHYR TYDFIL |
| | | HIGH STREET | |
| | | DOWLAIS | |
| | | MERTHYR TYDFIL | |
| | | Total Gross floor area: 15450 sqm | |
| | | Survey date: TUESDAY 09/10/07 | Survey Type: MANUAL |
| 18 | NF-02-C-01 | INDUSTRIAL UNIT, NORWICH | NORFOLK |
| | | KERRISON ROAD | |
| | | NORWICH | |
| | | Total Gross floor area: 32000 sqm | |
| | | Survey date: THURSDAY 16/11/00 | Survey Type: MANUAL |

LIST OF SITES relevant to selection parameters (Cont.)

- | | | | |
|-----------|-------------------------|--------------------------------------|-----------------------|
| 19 | NF-02-C-02 | GROCERY FACTORY, KINGS LYNN | NORFOLK |
| | HARDWICK ROAD | | |
| | KINGS LYNN | | |
| | Total Gross floor area: | 43325 sqm | |
| | Survey date: MONDAY | 19/09/05 | Survey Type: MANUAL |
| 20 | TV-02-C-01 | ELECTRONICS CO.,NR BILLINGHAM | TEES VALLEY |
| | SAMSUNG AVENUE | | |
| | WOLVISTON | | |
| | NEAR BILLINGHAM | | |
| | Total Gross floor area: | 21841 sqm | |
| | Survey date: TUESDAY | 02/10/01 | Survey Type: MANUAL |
| 21 | WY-02-C-01 | ANIMAL FEEDS, NEAR SHERBURN | WEST YORKSHIRE |
| | BISHOPDYKE ROAD | | |
| | NEAR SHERBURN IN ELMET | | |
| | Total Gross floor area: | 9835 sqm | |
| | Survey date: TUESDAY | 19/04/05 | Survey Type: MANUAL |

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT

VEHICLES

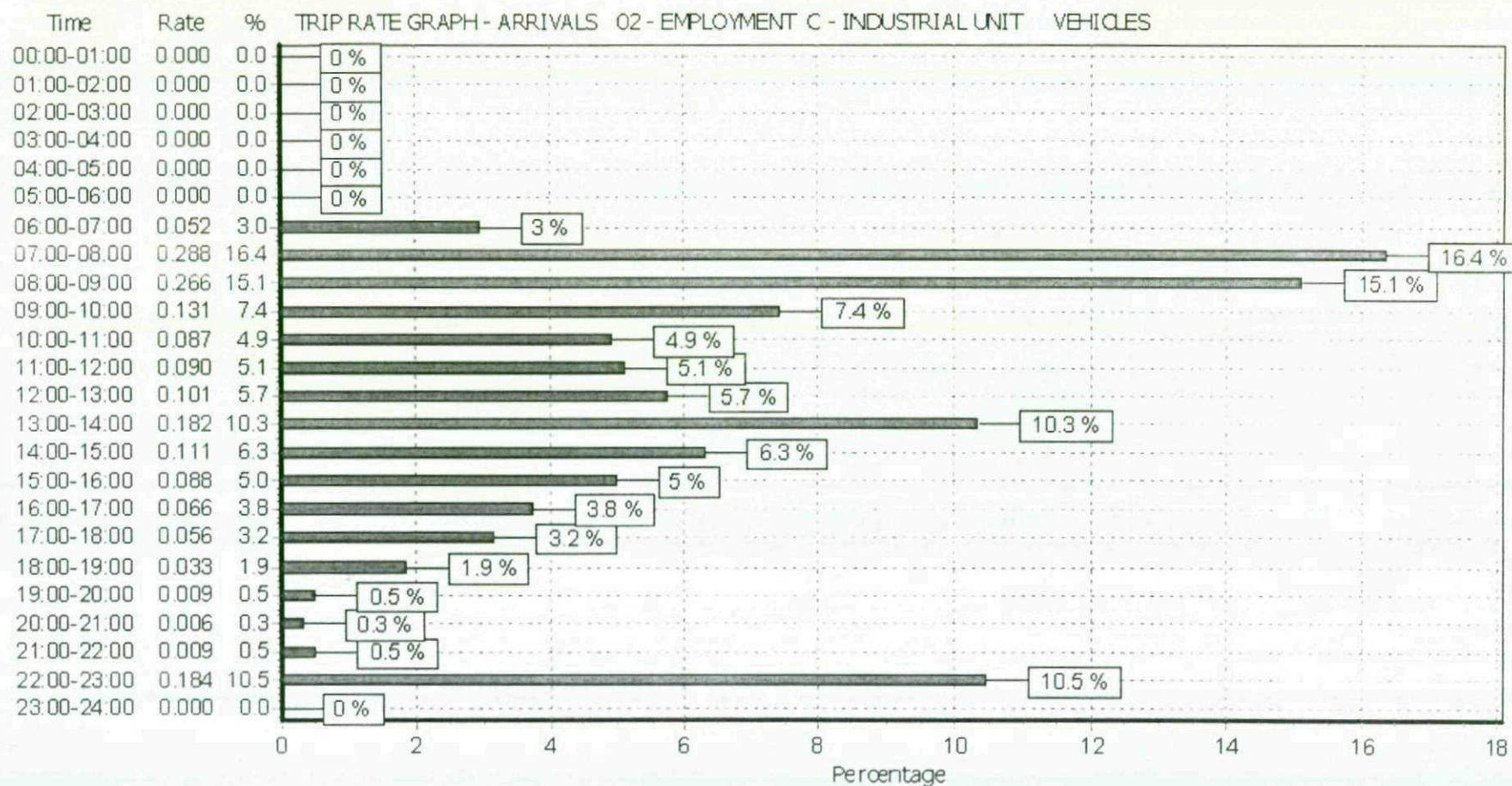
Calculation factor: 100 sqm

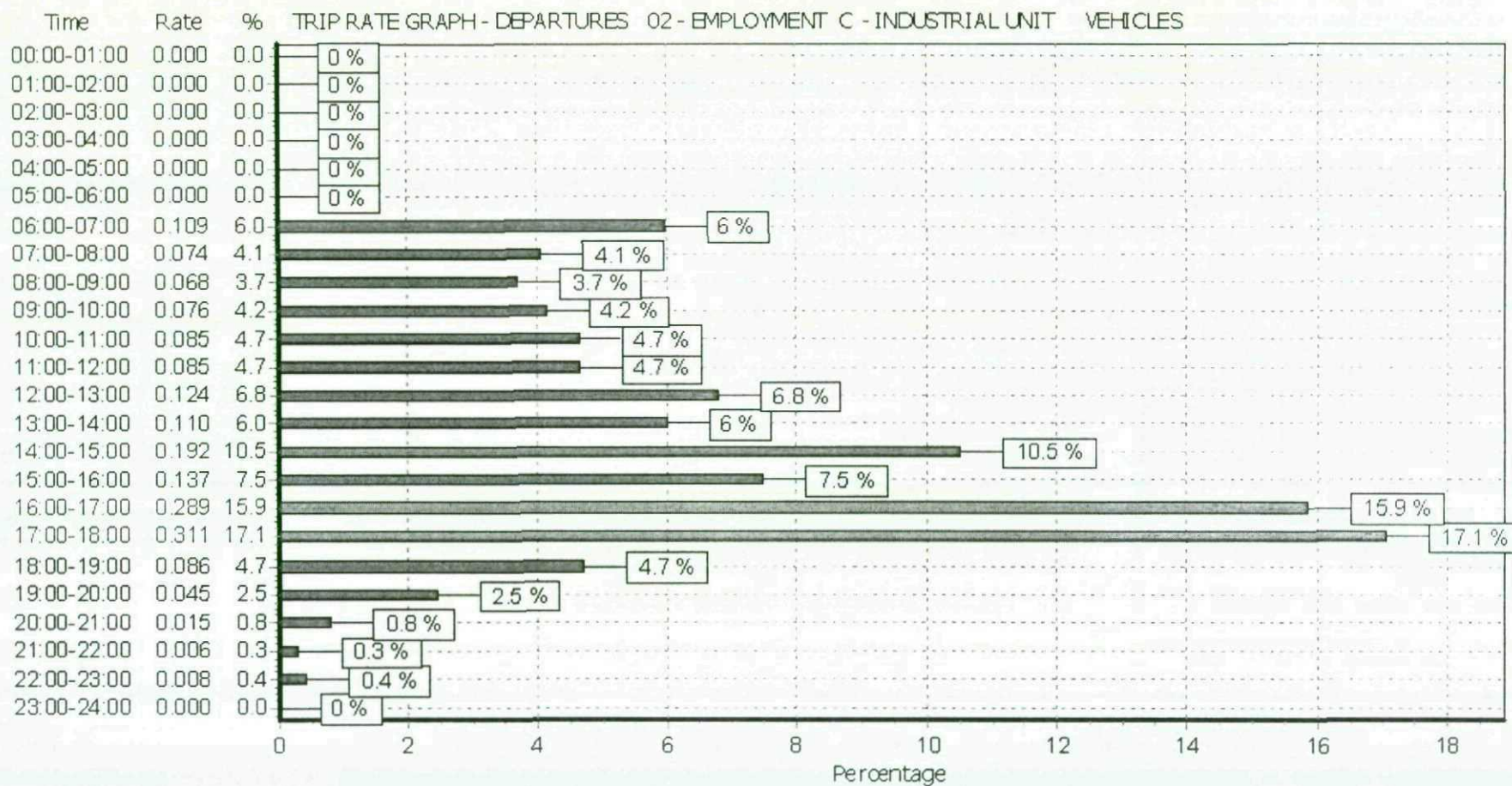
BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30	0	0	0.000	0	0	0.000	0	0	0.000
00:30 - 01:00	0	0	0.000	0	0	0.000	0	0	0.000
01:00 - 01:30	0	0	0.000	0	0	0.000	0	0	0.000
01:30 - 02:00	0	0	0.000	0	0	0.000	0	0	0.000
02:00 - 02:30	0	0	0.000	0	0	0.000	0	0	0.000
02:30 - 03:00	0	0	0.000	0	0	0.000	0	0	0.000
03:00 - 03:30	0	0	0.000	0	0	0.000	0	0	0.000
03:30 - 04:00	0	0	0.000	0	0	0.000	0	0	0.000
04:00 - 04:30	0	0	0.000	0	0	0.000	0	0	0.000
04:30 - 05:00	0	0	0.000	0	0	0.000	0	0	0.000
05:00 - 05:30	0	0	0.000	0	0	0.000	0	0	0.000
05:30 - 06:00	0	0	0.000	0	0	0.000	0	0	0.000
06:00 - 06:30	1	22926	0.017	1	22926	0.087	1	22926	0.104
06:30 - 07:00	1	22926	0.035	1	22926	0.022	1	22926	0.057
07:00 - 07:30	21	16022	0.107	21	16022	0.039	21	16022	0.146
07:30 - 08:00	21	16022	0.181	21	16022	0.035	21	16022	0.216
08:00 - 08:30	21	16022	0.150	21	16022	0.031	21	16022	0.181
08:30 - 09:00	21	16022	0.116	21	16022	0.037	21	16022	0.153
09:00 - 09:30	21	16022	0.077	21	16022	0.036	21	16022	0.113
09:30 - 10:00	21	16022	0.054	21	16022	0.040	21	16022	0.094
10:00 - 10:30	21	16022	0.044	21	16022	0.045	21	16022	0.089
10:30 - 11:00	21	16022	0.043	21	16022	0.040	21	16022	0.083
11:00 - 11:30	21	16022	0.043	21	16022	0.040	21	16022	0.083
11:30 - 12:00	21	16022	0.047	21	16022	0.045	21	16022	0.092
12:00 - 12:30	21	16022	0.043	21	16022	0.065	21	16022	0.108
12:30 - 13:00	21	16022	0.058	21	16022	0.059	21	16022	0.117
13:00 - 13:30	21	16022	0.080	21	16022	0.055	21	16022	0.135
13:30 - 14:00	21	16022	0.102	21	16022	0.055	21	16022	0.157
14:00 - 14:30	21	16022	0.053	21	16022	0.136	21	16022	0.189
14:30 - 15:00	21	16022	0.058	21	16022	0.056	21	16022	0.114
15:00 - 15:30	21	16022	0.048	21	16022	0.070	21	16022	0.118
15:30 - 16:00	21	16022	0.040	21	16022	0.067	21	16022	0.107
16:00 - 16:30	21	16022	0.033	21	16022	0.105	21	16022	0.138
16:30 - 17:00	21	16022	0.033	21	16022	0.184	21	16022	0.217
17:00 - 17:30	21	16022	0.025	21	16022	0.211	21	16022	0.236
17:30 - 18:00	21	16022	0.031	21	16022	0.100	21	16022	0.131
18:00 - 18:30	20	16578	0.016	20	16578	0.057	20	16578	0.073
18:30 - 19:00	20	16578	0.017	20	16578	0.029	20	16578	0.046
19:00 - 19:30	2	17449	0.003	2	17449	0.034	2	17449	0.037
19:30 - 20:00	2	17449	0.006	2	17449	0.011	2	17449	0.017
20:00 - 20:30	2	17449	0.003	2	17449	0.009	2	17449	0.012
20:30 - 21:00	2	17449	0.003	2	17449	0.006	2	17449	0.009
21:00 - 21:30	2	17449	0.003	2	17449	0.003	2	17449	0.006
21:30 - 22:00	2	17449	0.006	2	17449	0.003	2	17449	0.009
22:00 - 22:30	1	11972	0.000	1	11972	0.000	1	11972	0.000
22:30 - 23:00	1	11972	0.184	1	11972	0.008	1	11972	0.192
23:00 - 23:30	0	0	0.000	0	0	0.000	0	0	0.000
23:30 - 24:00	0	0	0.000	0	0	0.000	0	0	0.000
Total Rates:			1.759			1.820			3.579

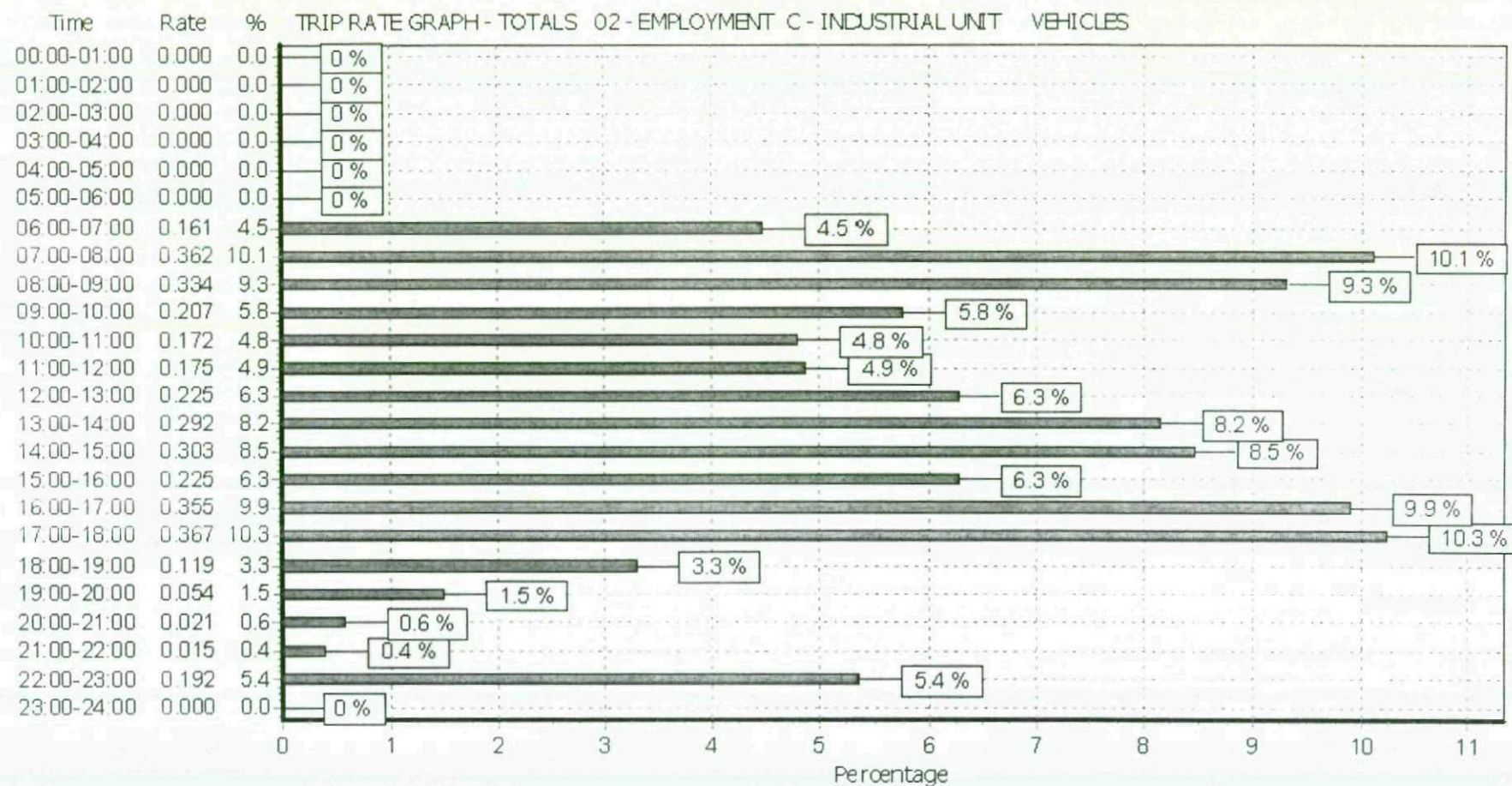
Parameter summary

Trip rate parameter range selected:	1068 - 43325 (units: sqm)
Survey date date range:	01/01/00 - 09/10/07
Number of weekdays (Monday-Friday):	21
Number of Saturdays:	0
Number of Sundays:	0
Optional parameters used in selection:	NO
Surveys manually removed from selection:	1





Licence No: 604801



TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : C - INDUSTRIAL UNIT

OGVS

Selected regions and areas:

03	SOUTH WEST	
	CW CORNWALL	2 days
	DC DORSET	4 days
	GS GLOUCESTERSHIRE	1 days
04	EAST ANGLIA	
	NF NORFOLK	2 days
05	EAST MIDLANDS	
	DS DERBYSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	WY WEST YORKSHIRE	1 days
08	NORTH WEST	
	CH CHESHIRE	1 days
	GM GREATER MANCHESTER	1 days
	LC LANCASHIRE	1 days
09	NORTH	
	TV TEES VALLEY	1 days
10	WALES	
	CF CARDIFF	1 days
	MT MERTHYR TYDFIL	1 days
11	SCOTLAND	
	ER EAST RENFREWSHIRE	2 days
	FI FIFE	1 days
	HI HIGHLAND	1 days

Main parameter selection:

Parameter: Gross floor area
Range: 1068 to 43325 (units: sqm)

Date Range: 01/01/00 to 09/10/07

Selected survey days:

Monday	3 days
Tuesday	7 days
Wednesday	4 days
Thursday	5 days
Friday	2 days

Selected survey types:

Manual count	21 days
Directional ATC Count	0 days

Selected Locations:

Edge of Town Centre	4
Suburban Area (PPS6 Out of Centre)	3
Edge of Town	11
Free Standing (PPS6 Out of Town)	3

Selected Location Sub Categories:

Industrial Zone	11
Built-Up Zone	5
Out of Town	2
No Sub Category	3

Optional parameter selection:

Use Class:

Not Known	1 days
B1	15 days
B2	4 days

Population within 1 mile:

1,001 to 5,000	7 days
5,001 to 10,000	4 days
15,001 to 20,000	6 days
20,001 to 25,000	3 days
25,001 to 50,000	1 days

Population within 5 miles:

5,001 to 25,000	2 days
25,001 to 50,000	3 days
50,001 to 75,000	5 days
75,001 to 100,000	2 days
100,001 to 125,000	1 days
125,001 to 250,000	5 days
250,001 to 500,000	2 days
500,001 or More	1 days

Car ownership within 5 miles:

0.5 or Less	1 days
0.6 to 1.0	12 days
1.1 to 1.5	8 days

Optional parameter selection (Cont.):

Travel Plan:

Not Known

No

8 days

13 days

LIST OF SITES relevant to selection parameters

- | | | | |
|----------|-------------------------|-------------------------------------|---------------------|
| 1 | CF-02-C-01 | PLASTICS COMPANY, CARDIFF | CARDIFF |
| | PARC-TY-GLAS | | |
| | LLANISHEN | | |
| | CARDIFF | | |
| | Total Gross floor area: | 1068 sqm | |
| | Survey date: TUESDAY | 24/10/06 | Survey Type: MANUAL |
| 2 | CH-02-C-01 | BAKERY, NORTHWICH | CHESHIRE |
| | GADBROOK PARK | | |
| | HIGH SHURLACH | | |
| | NORTHWICH | | |
| | Total Gross floor area: | 15000 sqm | |
| | Survey date: THURSDAY | 21/06/07 | Survey Type: MANUAL |
| 3 | CW-02-C-01 | FOOD DISTRIBUTION, CAMBORNE | CORNWALL |
| | WILSON WAY | | |
| | POOL | | |
| | CAMBORNE | | |
| | Total Gross floor area: | 10200 sqm | |
| | Survey date: FRIDAY | 08/06/07 | Survey Type: MANUAL |
| 4 | CW-02-C-02 | LIGHTING COMPANY, BODMIN | CORNWALL |
| | NORMANDY WAY | | |
| | BODMIN | | |
| | Total Gross floor area: | 17675 sqm | |
| | Survey date: WEDNESDAY | 06/06/07 | Survey Type: MANUAL |
| 5 | DC-02-C-02 | NEWSPAPER HQ, WEYMOUTH | DORSET |
| | HAMPSHIRE ROAD | | |
| | CHICKERELL | | |
| | WEYMOUTH | | |
| | Total Gross floor area: | 3035 sqm | |
| | Survey date: TUESDAY | 04/07/00 | Survey Type: MANUAL |
| 6 | DC-02-C-03 | INDUSTRIAL UNIT, NR WIMBORNE | DORSET |
| | NIMROD WAY | | |
| | STAPEHILL | | |
| | NEAR WIMBORNE MINSTER | | |
| | Total Gross floor area: | 1626 sqm | |
| | Survey date: TUESDAY | 15/05/01 | Survey Type: MANUAL |
| 7 | DC-02-C-04 | BREWERY, DORCHESTER | DORSET |
| | WEYMOUTH AVENUE | | |
| | DORCHESTER | | |
| | Total Gross floor area: | 19857 sqm | |
| | Survey date: MONDAY | 09/07/01 | Survey Type: MANUAL |
| 8 | DC-02-C-05 | ELECTRONICS CO., WEYMOUTH | DORSET |
| | HAMPSHIRE ROAD | | |
| | GRANBY IND. ESTATE | | |
| | WEYMOUTH | | |
| | Total Gross floor area: | 4600 sqm | |
| | Survey date: THURSDAY | 11/10/01 | Survey Type: MANUAL |
| 9 | DS-02-C-01 | BAKERY, NEAR SHEFFIELD | DERBYSHIRE |
| | STUBLEY LANE | | |
| | DRONFIELD | | |
| | NEAR SHEFFIELD | | |
| | Total Gross floor area: | 23500 sqm | |
| | Survey date: THURSDAY | 22/06/06 | Survey Type: MANUAL |

LIST OF SITES relevant to selection parameters (Cont.)

10	ER-02-C-01	PET FOODS, BARRHEAD	EAST RENFREWSHIRE
	GLASGOW ROAD		
	BARRHEAD		
	Total Gross floor area:	22926 sqm	
	Survey date: THURSDAY	11/10/01	Survey Type: MANUAL
11	ER-02-C-02	DYEWORKS, NEWTON MEARNES	EAST RENFREWSHIRE
	NETHERPLACE ROAD		
	NETHERPLACE		
	NEWTON MEARNES		
	Total Gross floor area:	11972 sqm	
	Survey date: WEDNESDAY	08/05/02	Survey Type: MANUAL
12	FI-02-C-01	REFRIGERATION, DUNFERMLINE	FIFE
	HALBEATH PLACE		
	DUNFERMLINE		
	Total Gross floor area:	4900 sqm	
	Survey date: FRIDAY	20/04/07	Survey Type: MANUAL
13	GM-02-C-02	BREWERY, MANCHESTER	GREATER MANCHESTER
	GREAT DUCIE STREET		
	STRANGWAYS		
	MANCHESTER		
	Total Gross floor area:	33470 sqm	
	Survey date: TUESDAY	08/06/04	Survey Type: MANUAL
14	GS-02-C-01	HEALTH PRODUCTS, GLOUCESTER	GLOUCESTERSHIRE
	ST CATHERINE STREET		
	GLOUCESTER		
	Total Gross floor area:	6604 sqm	
	Survey date: WEDNESDAY	26/05/04	Survey Type: MANUAL
15	HI-02-C-01	DAIRY, NAIRN	HIGHLAND
	TOM SEMPLE ROAD		
	BALMAKEITH BUSINESS PK		
	NAIRN		
	Total Gross floor area:	3000 sqm	
	Survey date: WEDNESDAY	24/05/06	Survey Type: MANUAL
16	LC-02-C-01	BREWERY, BLACKBURN	LANCASHIRE
	PENNY STREET		
	BLACKBURN		
	Total Gross floor area:	34581 sqm	
	Survey date: MONDAY	21/06/04	Survey Type: MANUAL
17	MT-02-C-01	CONFECTIONERY, DOWLAIS	MERTHYR TYDFIL
	HIGH STREET		
	DOWLAIS		
	MERTHYR TYDFIL		
	Total Gross floor area:	15450 sqm	
	Survey date: TUESDAY	09/10/07	Survey Type: MANUAL
18	NF-02-C-01	INDUSTRIAL UNIT, NORWICH	NORFOLK
	KERRISON ROAD		
	NORWICH		
	Total Gross floor area:	32000 sqm	
	Survey date: THURSDAY	16/11/00	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

- | | | | |
|-----------|-------------------------|--------------------------------------|-----------------------|
| 19 | NF-02-C-02 | GROCERY FACTORY, KINGS LYNN | NORFOLK |
| | HARDWICK ROAD | | |
| | KINGS LYNN | | |
| | Total Gross floor area: | 43325 sqm | |
| | Survey date: MONDAY | 19/09/05 | Survey Type: MANUAL |
| 20 | TV-02-C-01 | ELECTRONICS CO.,NR BILLINGHAM | TEES VALLEY |
| | SAMSUNG AVENUE | | |
| | WOLVISTON | | |
| | NEAR BILLINGHAM | | |
| | Total Gross floor area: | 21841 sqm | |
| | Survey date: TUESDAY | 02/10/01 | Survey Type: MANUAL |
| 21 | WY-02-C-01 | ANIMAL FEEDS, NEAR SHERBURN | WEST YORKSHIRE |
| | BISHOPDYKE ROAD | | |
| | NEAR SHERBURN IN ELMET | | |
| | Total Gross floor area: | 9835 sqm | |
| | Survey date: TUESDAY | 19/04/05 | Survey Type: MANUAL |

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT

OGVS

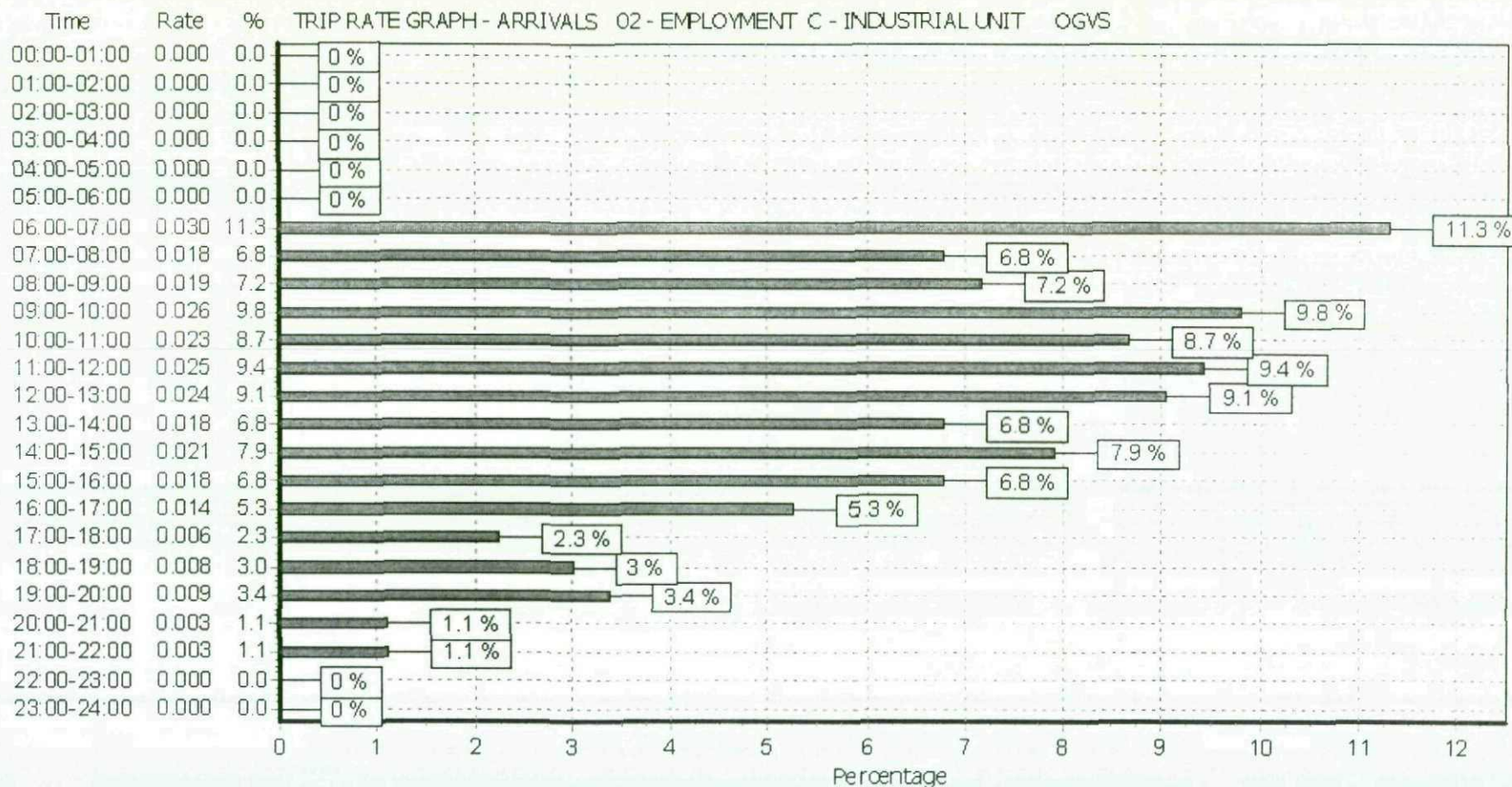
Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

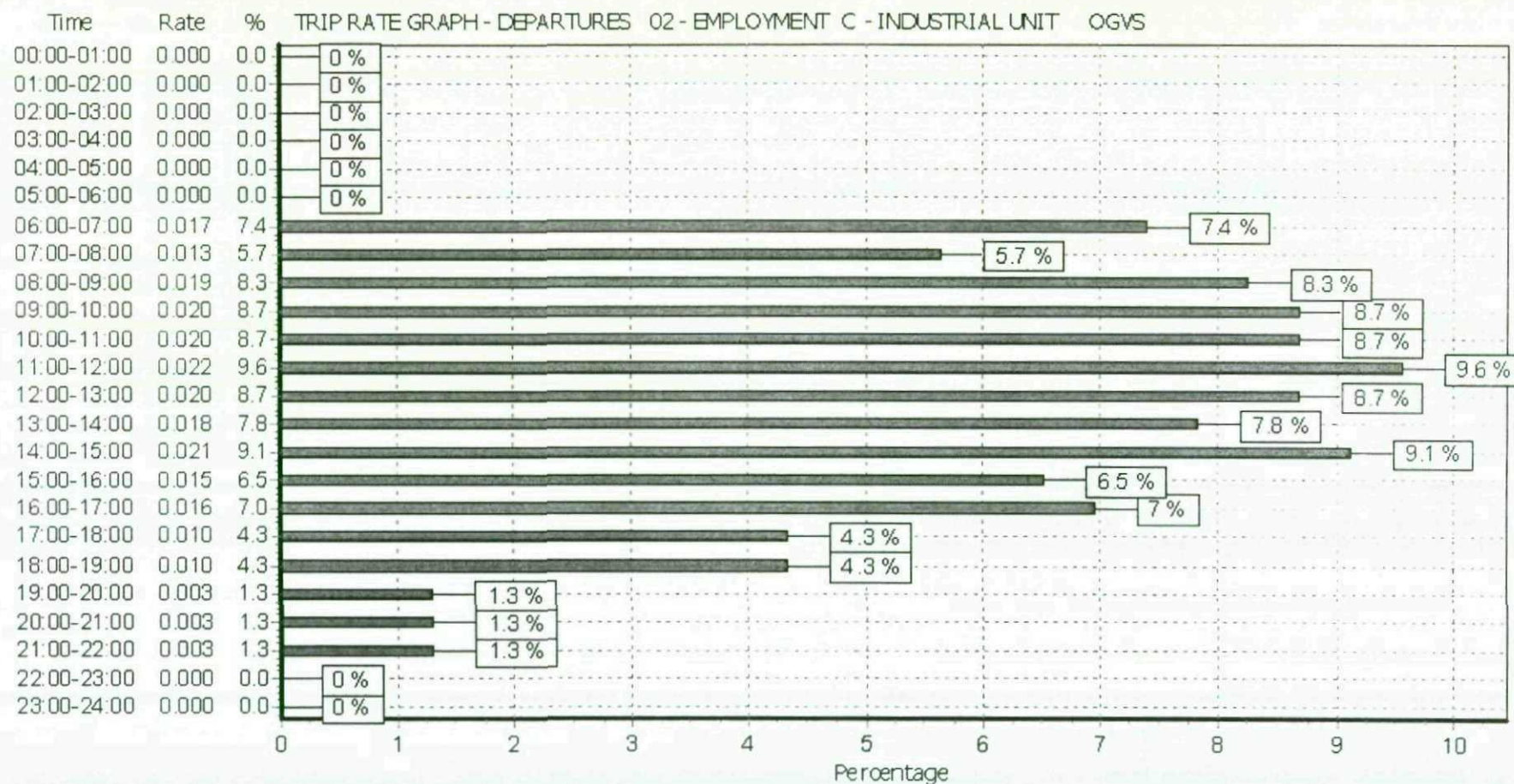
Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30	0	0	0.000	0	0	0.000	0	0	0.000
00:30 - 01:00	0	0	0.000	0	0	0.000	0	0	0.000
01:00 - 01:30	0	0	0.000	0	0	0.000	0	0	0.000
01:30 - 02:00	0	0	0.000	0	0	0.000	0	0	0.000
02:00 - 02:30	0	0	0.000	0	0	0.000	0	0	0.000
02:30 - 03:00	0	0	0.000	0	0	0.000	0	0	0.000
03:00 - 03:30	0	0	0.000	0	0	0.000	0	0	0.000
03:30 - 04:00	0	0	0.000	0	0	0.000	0	0	0.000
04:00 - 04:30	0	0	0.000	0	0	0.000	0	0	0.000
04:30 - 05:00	0	0	0.000	0	0	0.000	0	0	0.000
05:00 - 05:30	0	0	0.000	0	0	0.000	0	0	0.000
05:30 - 06:00	0	0	0.000	0	0	0.000	0	0	0.000
06:00 - 06:30	1	22926	0.013	1	22926	0.000	1	22926	0.013
06:30 - 07:00	1	22926	0.017	1	22926	0.017	1	22926	0.034
07:00 - 07:30	21	16022	0.010	21	16022	0.006	21	16022	0.016
07:30 - 08:00	21	16022	0.008	21	16022	0.007	21	16022	0.015
08:00 - 08:30	21	16022	0.010	21	16022	0.009	21	16022	0.019
08:30 - 09:00	21	16022	0.009	21	16022	0.010	21	16022	0.019
09:00 - 09:30	21	16022	0.012	21	16022	0.010	21	16022	0.022
09:30 - 10:00	21	16022	0.014	21	16022	0.010	21	16022	0.024
10:00 - 10:30	21	16022	0.011	21	16022	0.011	21	16022	0.022
10:30 - 11:00	21	16022	0.012	21	16022	0.009	21	16022	0.021
11:00 - 11:30	21	16022	0.013	21	16022	0.011	21	16022	0.024
11:30 - 12:00	21	16022	0.012	21	16022	0.011	21	16022	0.023
12:00 - 12:30	21	16022	0.013	21	16022	0.011	21	16022	0.024
12:30 - 13:00	21	16022	0.011	21	16022	0.009	21	16022	0.020
13:00 - 13:30	21	16022	0.012	21	16022	0.009	21	16022	0.021
13:30 - 14:00	21	16022	0.006	21	16022	0.009	21	16022	0.015
14:00 - 14:30	21	16022	0.010	21	16022	0.011	21	16022	0.021
14:30 - 15:00	21	16022	0.011	21	16022	0.010	21	16022	0.021
15:00 - 15:30	21	16022	0.010	21	16022	0.008	21	16022	0.018
15:30 - 16:00	21	16022	0.008	21	16022	0.007	21	16022	0.015
16:00 - 16:30	21	16022	0.005	21	16022	0.009	21	16022	0.014
16:30 - 17:00	21	16022	0.009	21	16022	0.007	21	16022	0.016
17:00 - 17:30	21	16022	0.003	21	16022	0.004	21	16022	0.007
17:30 - 18:00	21	16022	0.003	21	16022	0.006	21	16022	0.009
18:00 - 18:30	20	16578	0.006	20	16578	0.006	20	16578	0.012
18:30 - 19:00	20	16578	0.002	20	16578	0.004	20	16578	0.006
19:00 - 19:30	2	17449	0.003	2	17449	0.000	2	17449	0.003
19:30 - 20:00	2	17449	0.006	2	17449	0.003	2	17449	0.009
20:00 - 20:30	2	17449	0.000	2	17449	0.003	2	17449	0.003
20:30 - 21:00	2	17449	0.003	2	17449	0.000	2	17449	0.003
21:00 - 21:30	2	17449	0.003	2	17449	0.003	2	17449	0.006
21:30 - 22:00	2	17449	0.000	2	17449	0.000	2	17449	0.000
22:00 - 22:30	1	11972	0.000	1	11972	0.000	1	11972	0.000
22:30 - 23:00	1	11972	0.000	1	11972	0.000	1	11972	0.000
23:00 - 23:30	0	0	0.000	0	0	0.000	0	0	0.000
23:30 - 24:00	0	0	0.000	0	0	0.000	0	0	0.000
Total Rates:			0.265			0.230			0.495

Parameter summary

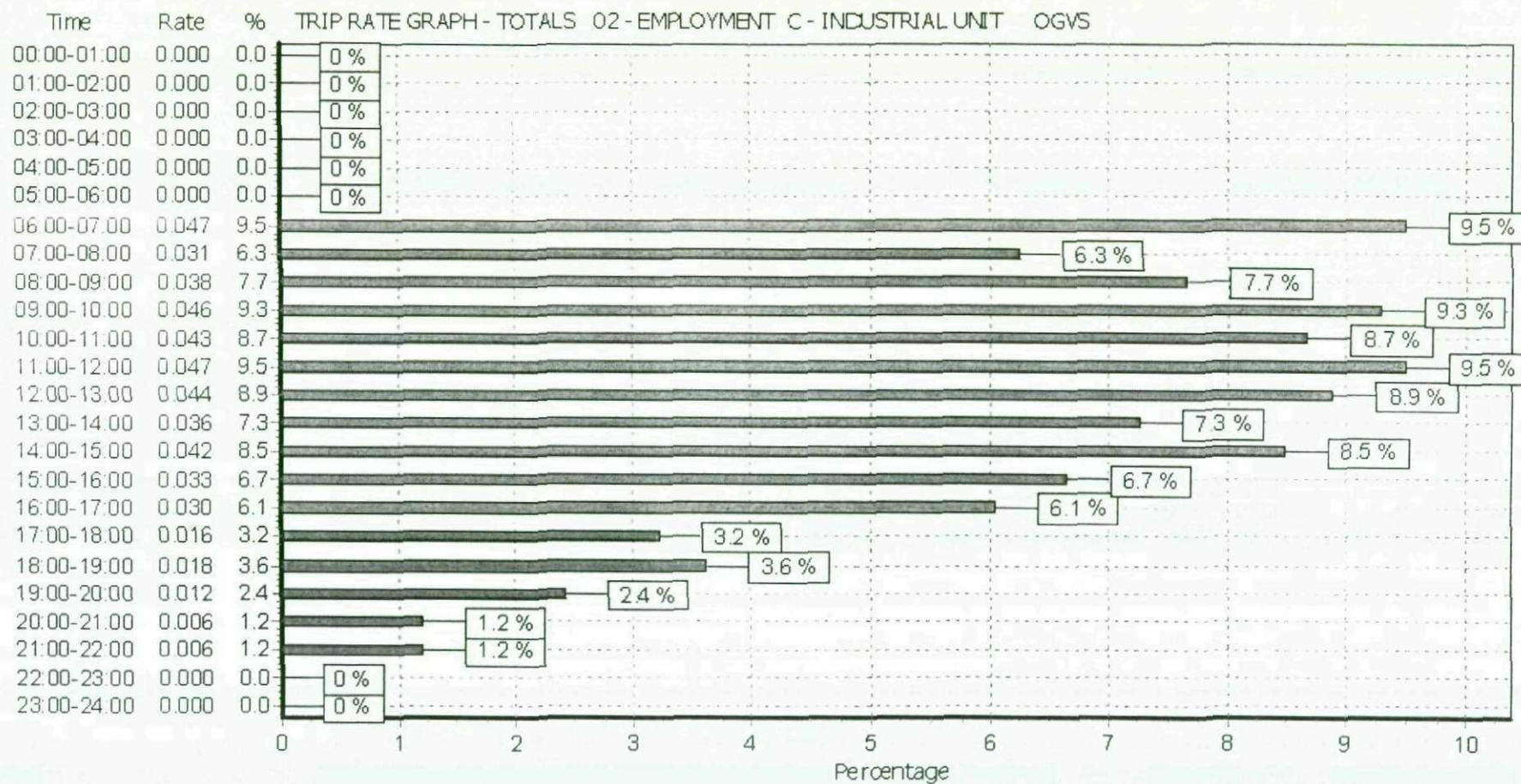
Trip rate parameter range selected:	1068 - 43325 (units: sqm)
Survey date range:	01/01/00 - 09/10/07
Number of weekdays (Monday-Friday):	21
Number of Saturdays:	0
Number of Sundays:	0
Optional parameters used in selection:	NO
Surveys manually removed from selection:	1



Licence No: 604801



Licence No: 604801



APPENDIX E

EXISTING POLLUTION CONCENTRATIONS

OUTPUT SHEET

Receptor Name	J - K	Receptor number	8
Assessment year	2009		

Pollutant	Annual mean				For comparison with Air Quality Standards		
	Background concentration	Road traffic component	Total	Units	Metric	Value	Units
CO	0.00	0.08	0.08	mg/m ³	Annual mean*	0.08	mg/m ³
Benzene	0.00	0.11	0.11	µg/m ³	Annual mean	0.11	µg/m ³
1,3-butadiene	0.00	0.07	0.07	µg/m ³	Annual mean	0.07	µg/m ³
NO _x	0.0	15.1	15.1	µg/m ³	Not applicable		
NO ₂	0.0	5.2	5.2	µg/m ³	Annual mean*	5.2	µg/m ³
PM ₁₀	0.0	1.05	1.05	µg/m ³	Annual mean	1.0	µg/m ³
					Dave >50 µg/m ³	0	Dave

Link number	CO (mg/m ³)	Benzene (µg/m ³)	1,3-butadiene (µg/m ³)	NOx (µg/m ³)	PM ₁₀ (µg/m ³)
1	0.08	0.11	0.07	15.09	1.05
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					

[illegible]

* See Footnote 32 in DMRB Volume 11 Chapter 3

INPUT SHEET

Step 6

Step 7

[illegible]

DMRB: Assessment of Local Air Quality

INPUT SHEET

Step 1	Receptor name	D - C	Receptor number	3
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Step 6

Step 2	Year	2009
--------	------	------

Step 7

Step 3	Number of links	2
--------	-----------------	---

Step 4	Background concentrations for 2009					
	CO (mg/m ³)	Benzene (µg/m ³)	1,3-butadiene (µg/m ³)	NO _x (µg/m ³)	NO ₂ (µg/m ³)	PM ₁₀ (µg/m ³)
	0	0	0	0	0	0

[illegible]

INPUT SHEET

Step 6

Step 7

Step 7

Step 7

Step 7

DMRB: Assessment of Local Air Quality

INPUT SHEET

Step 1	Receptor name	F - H	Receptor number	5
--------	---------------	-------	-----------------	---

Step 6

Step 2	Year	2009
--------	------	------

Step 7

Step 3	Number of links	1
--------	-----------------	---

Step 4	Background concentrations for 2009					
	CO (mg/m ³)	Benzene (µg/m ³)	1,3-butadiene (µg/m ³)	NO _x (µg/m ³)	NO ₂ (µg/m ³)	PM ₁₀ (µg/m ³)
	0	0	0	0	0	0

[illegible]

INPUT SHEET

Step 6

Step 7

Step 7

Step 7

Step 7

INPUT SHEET

Step 6

Step 7

Step 4	Background concentrations for 2009					
	CO (mg/m ³)	Benzene (µg/m ³)	1,3-butadiene (µg/m ³)	NO _x (µg/m ³)	NO ₂ (µg/m ³)	PM ₁₀ (µg/m ³)
	0	0	0	0	0	0

[illegible]

INPUT SHEET

Step 6

Step 7

[illegible]

APPENDIX F

PROPOSED POLLUTION CONCENTRATIONS

INPUT SHEET

Step 1	Receptor name	Proposed A - B	Receptor number	1
--------	---------------	----------------	-----------------	---

Step 6

Step 2	Year	2009
--------	------	------

Step 7

Step 3	Number of links	1
--------	-----------------	---

Step 4	Background concentrations for 2009					
	CO (mg/m ³)	Benzene (µg/m ³)	1,3-butadiene (µg/m ³)	NO _x (µg/m ³)	NO ₂ (µg/m ³)	PM ₁₀ (µg/m ³)
	0	0	0	0	0	0

[illegible]

INPUT SHEET

Step 6

Step 7

Step 7

Step 7

Step 7

INPUT SHEET

Step 6

Step 7

Step 7

Step 7

Step 7

INPUT SHEET

Step 6

Step 7

Traffic co
(LDV)

INPUT SHEET

Step 1	Receptor name	Proposed F - H	Receptor number	5
--------	---------------	----------------	-----------------	---

Step 6

Step 2	Year	2009
--------	------	------

Step 7

Step 3	Number of links	1
--------	-----------------	---

Step 4	Background concentrations for 2009					
	CO (mg/m ³)	Benzene (µg/m ³)	1,3-butadiene (µg/m ³)	NO _x (µg/m ³)	NO ₂ (µg/m ³)	PM ₁₀ (µg/m ³)
	0	0	0	0	0	0

[illegible]

INPUT SHEET

Step 6

Step 7

Step 7

Step 7

Step 7

INPUT SHEET

Step 6

Step 7

Step 7

Step 7

[illegible]

INPUT SHEET

Step 6

Step 7

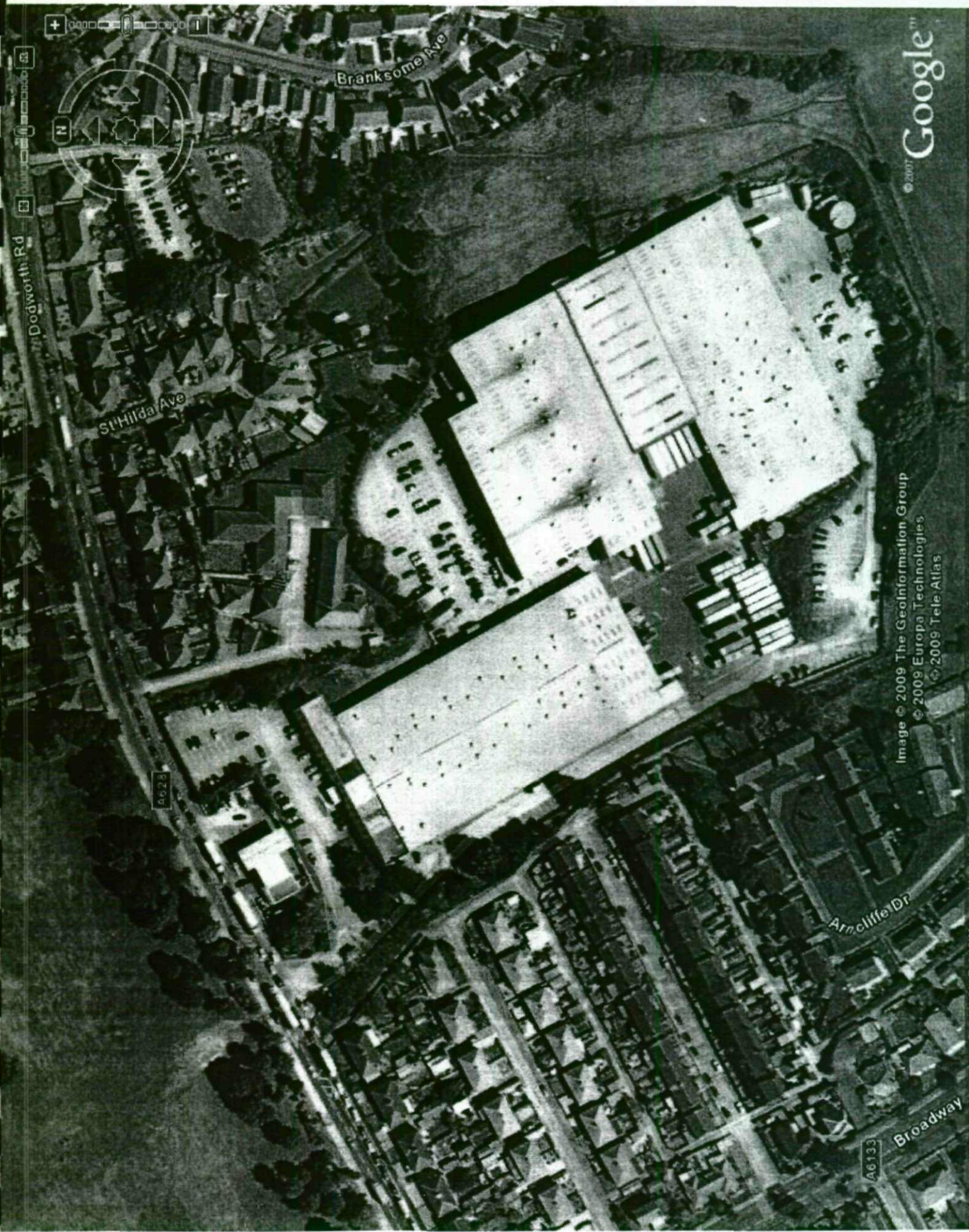
Step 7

Step 4	Background concentrations for 2009					
	CO (mg/m ³)	Benzene (μg/m ³)	1,3-butadiene (μg/m ³)	NO _x (μg/m ³)	NO ₂ (μg/m ³)	PM ₁₀ (μg/m ³)
	0	0	0	0	0	0

[illegible]

APPENDIX G

PHOTOGRAPH OF SR GENT SITE



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Image © 2009 The GeoInformation Group
© 2009 Europa Technologies
© 2009 Tele Atlas

53°22'02.53"N 1°00'45.24"W
Easting: 111111.100m
Northing: 518.0m
Altitude: 4.0m