PFA consulting

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Website
www.pfaplc.com

Preliminary
This drawing is produced for initial discussion and illustrative purposes only, and should not be relied upon for tender or pricing purposes.

NOTES

1. Based on Topographical Survey undertaken by Ruxton Surveys shown in Drawings 18169/01–03 dated November 2018 and the Illustrative Masterplan produced by Robert Hitchins Ltd shown in drawing 333.P.3.9 dated August 2019.

2. Visibility Splays based on 85th %ile speeds recorded in September 2019.

KEY

- 2.4x49m/2.4x44m Visibility Splays
- Proposed Carriageway
- Proposed Footway/Footpath
- Proposed Service Margin

Rev	Date	Description	Drawn	Check
B	26/02/20	Illustrative Masterplan Base Updated and Project Title Changed.	RH	ECS
A	21/01/20	Visibility Splays revised to reflect recorded speeds September 2019.	THP	ECS
#	18/10/19	First Issue.	THP	ECS

Status
PRELIMINARY

Client
RobertHitchins
The Complete Development Solution

Project
Land at Oakley Farm, Battledown, Cheltenham

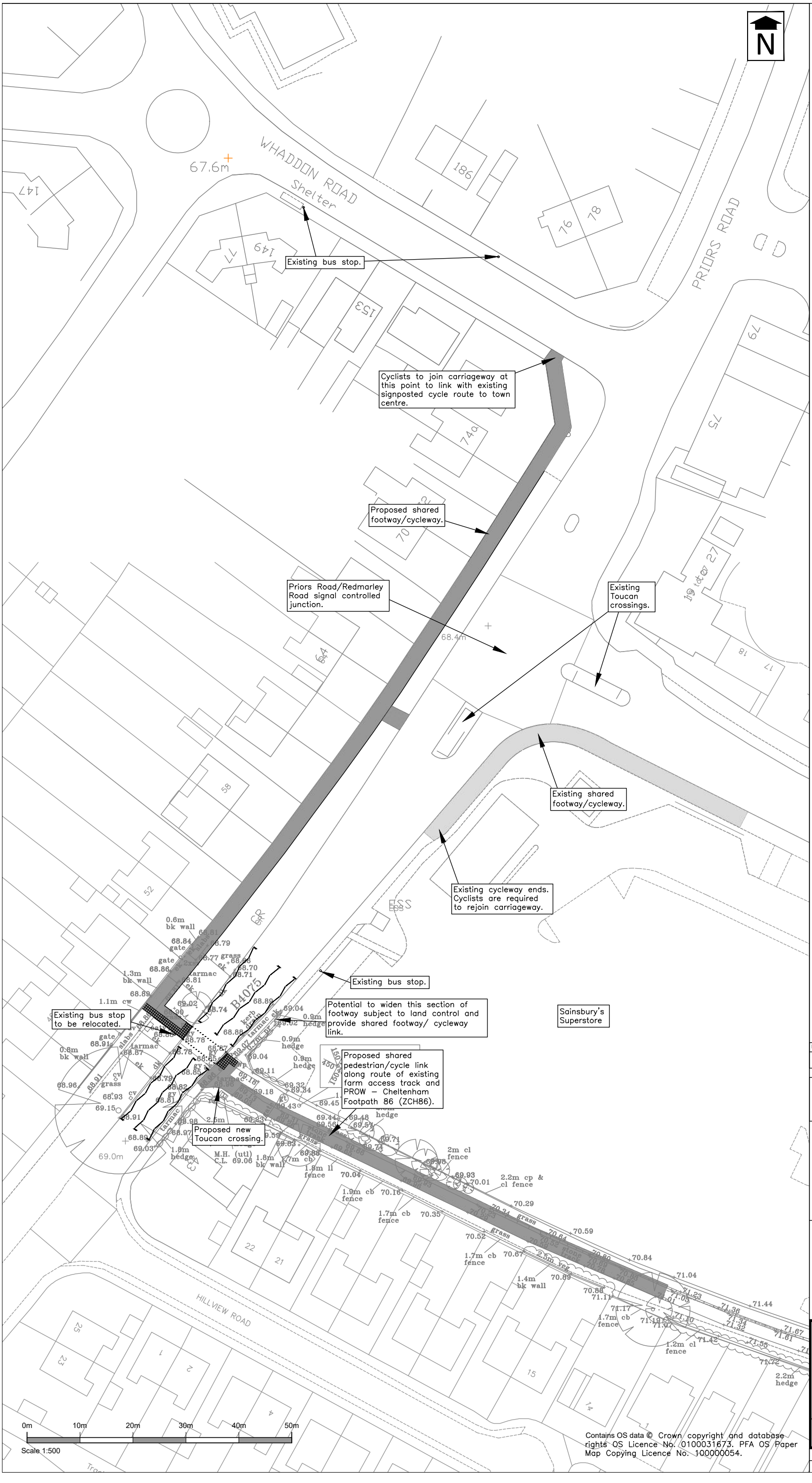
Drawing Title
Preliminary Access Arrangements

Drawing No. H628/02 Rev B

Date: October 2019 | Scale: 1:500 @ A3

E-Mail: espencer@pfaplc.com

Appendix H



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NOTES

1. Based on Topographical Survey undertaken by Ruxton Surveys shown in Drawings 18169/01–03 dated November 2018, supplemented by Detail OS Mapping.

KEY

Existing Footway / Cycleway

Proposed Footway / Cycleway

Rev	Date	Description	Drawn	Check
A	26.02.20	Notes Amended, Drawing Status and Project Title Changed.	RH	ECS
#	21.02.20	First Issue.	RH	ECS

Status
PRELIMINARY

Client
Robert Hitchins
The Complete Development Solution

Project
Land at Oakley Farm, Battledown, Cheltenham

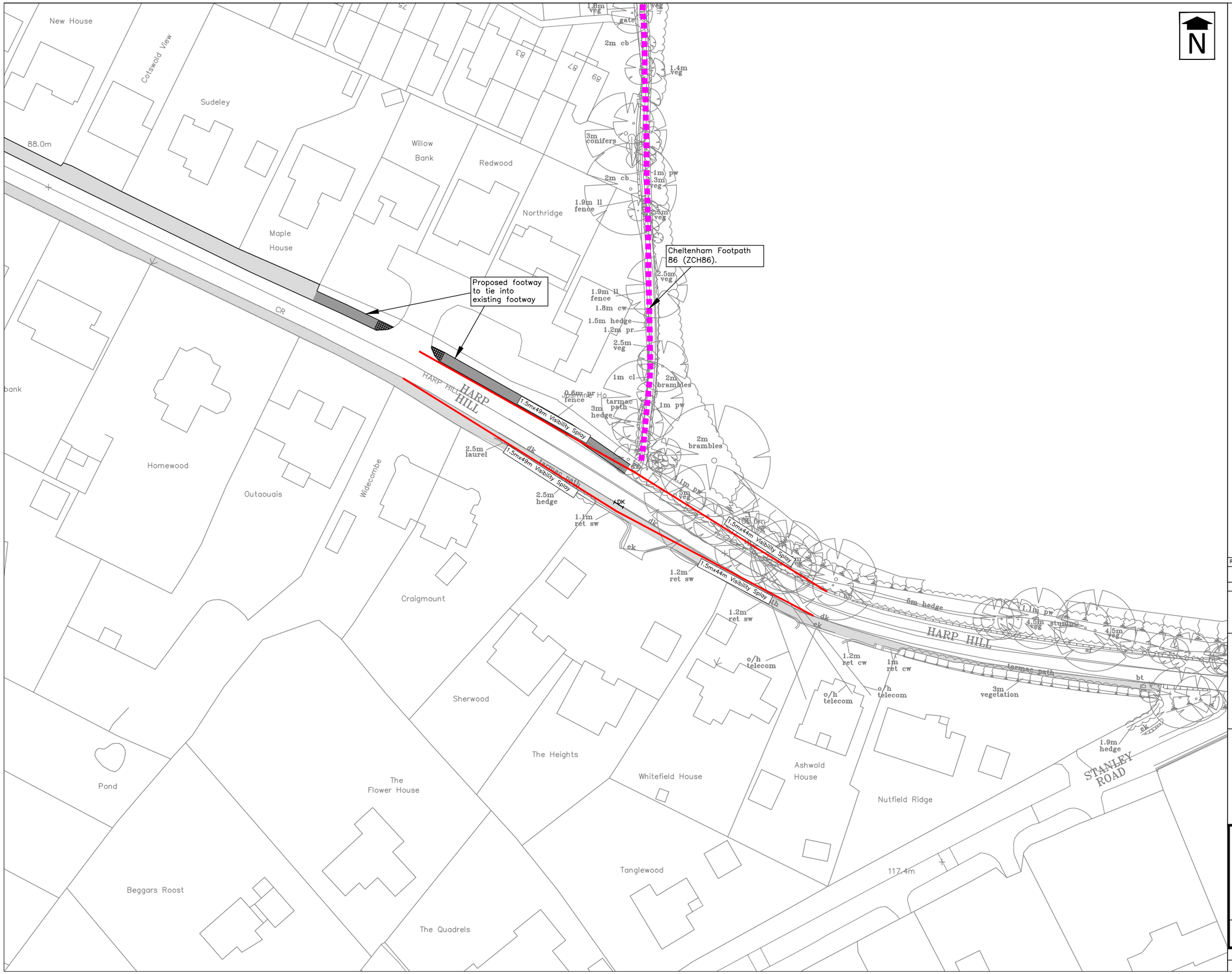
Drawing Title
B4075 Priors Road Pedestrian/Cycle Linkages

Drawing No.
H628/06 Rev A

Date: February 2020 | Scale: 1:500 @ A2

E-Mail: rharries@pfaplc.com

Appendix I



N

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NOTES

1. Based on Topographical Survey undertaken by Ruxton Surveys shown in Drawings 18169/01–03 dated November 2018 and the Illustrative Masterplan produced by Robert Hitchins Ltd shown in drawing 333.P.3.9 dated August 2019.

2. Visibility Splays based on 85th %ile speeds recorded in September 2019.

KEY

- Visibility Splays
- DK — Dropped Kerb
- Extent of Public Highway
- Existing Footway
- Proposed Footway

Rev	Date	Description	Drawn	Check
A	26.02.20	Illustrative Masterplan Base Updated, Drawing Status and Project Title Changed.	RH	ECS
#	18.02.20	First Issue.	RH	ECS

Status
PRELIMINARY

Client
Robert Hitchins — The Complete Development Solution

Project
Land at Oakley Farm, Battledown, Cheltenham

Drawing Title
Harp Hill Pedestrian Linkages

Drawing No.
H628/05 Rev A

Date: February 2020 | Scale: 1:500 @ A2

E-Mail: espencer@pfaplc.com

Appendix J

Calculation Reference: AUDIT-712101-190430-0438

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : A - HOUSES PRIVATELY OWNED
MULTI-MODAL VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	ES	EAST SUSSEX	1 days
	HC	HAMPSHIRE	3 days
	KC	KENT	1 days
	SC	SURREY	1 days
	WS	WEST SUSSEX	5 days
03	SOUTH WEST		
	DV	DEVON	1 days
	SM	SOMERSET	1 days
06	WEST MIDLANDS		
	SH	SHROPSHIRE	1 days
	ST	STAFFORDSHIRE	1 days

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

Secondary Filtering selection:

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

Parameter: Number of dwellings
Actual Range: 33 to 248 (units:)
Range Selected by User: 25 to 350 (units:)

Parking Spaces Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/11 to 20/11/18

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	2 days
Tuesday	2 days
Wednesday	4 days
Thursday	7 days

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

Selected survey types:

Manual count	15 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:

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

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

Selected Location Sub Categories:

Residential Zone	15

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

C3	15 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 1 mile:

5,001 to 10,000	3 days
10,001 to 15,000	5 days
15,001 to 20,000	4 days
20,001 to 25,000	3 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

5,001 to 25,000	1 days
25,001 to 50,000	2 days
50,001 to 75,000	1 days
75,001 to 100,000	4 days
100,001 to 125,000	1 days
125,001 to 250,000	6 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

1.1 to 1.5	15 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

Yes	8 days
No	7 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	15 days

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

LIST OF SITES relevant to selection parameters

1 DV-03-A-03 TERRACED & SEMI DETACHED DEVON
LOWER BRAND LANE
HONITON

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 70
Survey date: MONDAY *28/09/15* *Survey Type: MANUAL*

2 ES-03-A-03 MIXED HOUSES & FLATS EAST SUSSEX
SHEPHAM LANE
POLEGATE

Edge of Town
Residential Zone
Total Number of dwellings: 212
Survey date: MONDAY *11/07/16* *Survey Type: MANUAL*

3 HC-03-A-20 HOUSES & FLATS HAMPSHIRE
CANADA WAY
LIPHOOK

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 62
Survey date: TUESDAY *20/11/18* *Survey Type: MANUAL*

4 HC-03-A-21 TERRACED & SEMI-DETACHED HAMPSHIRE
PRIESTLEY ROAD
BASINGSTOKE
HOUNDMILLS
Edge of Town
Residential Zone
Total Number of dwellings: 39
Survey date: TUESDAY *13/11/18* *Survey Type: MANUAL*

5 HC-03-A-22 MIXED HOUSES HAMPSHIRE
BOW LAKE GARDENS
NEAR EASTLEIGH
BISHOPSTOKE
Edge of Town
Residential Zone
Total Number of dwellings: 40
Survey date: WEDNESDAY *31/10/18* *Survey Type: MANUAL*

6 KC-03-A-03 MIXED HOUSES & FLATS KENT
HYTHE ROAD
ASHFORD
WILLESBOROUGH
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 51
Survey date: THURSDAY *14/07/16* *Survey Type: MANUAL*

7 SC-03-A-04 DETACHED & TERRACED SURREY
HIGH ROAD
BYFLEET

Edge of Town
Residential Zone
Total Number of dwellings: 71
Survey date: THURSDAY *23/01/14* *Survey Type: MANUAL*

8 SH-03-A-05 SEMI-DETACHED/TERRACED SHROPSHIRE
SANDCROFT
TELFORD
SUTTON HILL
Edge of Town
Residential Zone
Total Number of dwellings: 54
Survey date: THURSDAY *24/10/13* *Survey Type: MANUAL*

9 SM-03-A-01 DETACHED & SEMI SOMERSET
WEMBDON ROAD
BRIDGWATER
NORTHFIELD
Edge of Town
Residential Zone
Total Number of dwellings: 33
Survey date: THURSDAY *24/09/15* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

10 ST-03-A-07 DETACHED & SEMI-DETACHED STAFFORDSHIRE
BEACONSIDE
STAFFORD
MARSTON GATE
Edge of Town
Residential Zone
Total Number of dwellings: 248
Survey date: WEDNESDAY *22/11/17* *Survey Type: MANUAL*

11 WS-03-A-04 MIXED HOUSES WEST SUSSEX
HILLS FARM LANE
HORSHAM
BROADBRIDGE HEATH
Edge of Town
Residential Zone
Total Number of dwellings: 151
Survey date: THURSDAY *11/12/14* *Survey Type: MANUAL*

12 WS-03-A-05 TERRACED & FLATS WEST SUSSEX
UPPER SHOREHAM ROAD
SHOREHAM BY SEA

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 48
Survey date: WEDNESDAY *18/04/12* *Survey Type: MANUAL*

13 WS-03-A-08 MIXED HOUSES WEST SUSSEX
ROUNDSTONE LANE
ANGMERING

Edge of Town
Residential Zone
Total Number of dwellings: 180
Survey date: THURSDAY *19/04/18* *Survey Type: MANUAL*

14 WS-03-A-09 MIXED HOUSES & FLATS WEST SUSSEX
LITTLEHAMPTON ROAD
WORTHING
WEST DURRINGTON
Edge of Town
Residential Zone
Total Number of dwellings: 197
Survey date: THURSDAY *05/07/18* *Survey Type: MANUAL*

15 WS-03-A-10 MIXED HOUSES WEST SUSSEX
TODDINGTON LANE
LITTLEHAMPTON
WICK
Edge of Town
Residential Zone
Total Number of dwellings: 79
Survey date: WEDNESDAY *07/11/18* *Survey Type: MANUAL*

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
CA-03-A-05	More departures than arrival trips in the PM peak hour 17-18
DV-03-A-02	site includes a large proportion of bungalows
DV-03-A-02	site includes a large proportion of bungalows
ES-03-A-04	large proportion of unoccupied dwellings with no description as to why
KC-03-A-07	unusual parking accumulation, 100 additional cars parked at the end of the da
NF-03-A-02	similar no. of arrival & departure trips in the AM peak
NY-03-A-06	site includes a large proportion of bungalows
NY-03-A-09	site includes a large proportion of bungalows
PS-03-A-02	Proportion of bungalows
WO-03-A-07	very low trip generation for size of site

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL VEHICLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	15	102	0.098	15	102	0.331	15	102	0.429
08:00 - 09:00	15	102	0.119	15	102	0.374	15	102	0.493
09:00 - 10:00	15	102	0.163	15	102	0.175	15	102	0.338
10:00 - 11:00	15	102	0.127	15	102	0.158	15	102	0.285
11:00 - 12:00	15	102	0.152	15	102	0.161	15	102	0.313
12:00 - 13:00	15	102	0.163	15	102	0.152	15	102	0.315
13:00 - 14:00	15	102	0.179	15	102	0.168	15	102	0.347
14:00 - 15:00	15	102	0.156	15	102	0.204	15	102	0.360
15:00 - 16:00	15	102	0.251	15	102	0.175	15	102	0.426
16:00 - 17:00	15	102	0.283	15	102	0.166	15	102	0.449
17:00 - 18:00	15	102	0.339	15	102	0.154	15	102	0.493
18:00 - 19:00	15	102	0.289	15	102	0.170	15	102	0.459
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.319			2.388			4.707

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:	33 - 248 (units:)
Survey date date range:	01/01/11 - 20/11/18
Number of weekdays (Monday-Friday):	15
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	3
Surveys manually removed from selection:	10

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 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL TAXIS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	15	102	0.005	15	102	0.005	15	102	0.010
08:00 - 09:00	15	102	0.004	15	102	0.003	15	102	0.007
09:00 - 10:00	15	102	0.002	15	102	0.002	15	102	0.004
10:00 - 11:00	15	102	0.001	15	102	0.000	15	102	0.001
11:00 - 12:00	15	102	0.003	15	102	0.003	15	102	0.006
12:00 - 13:00	15	102	0.001	15	102	0.002	15	102	0.003
13:00 - 14:00	15	102	0.001	15	102	0.002	15	102	0.003
14:00 - 15:00	15	102	0.005	15	102	0.004	15	102	0.009
15:00 - 16:00	15	102	0.007	15	102	0.007	15	102	0.014
16:00 - 17:00	15	102	0.003	15	102	0.004	15	102	0.007
17:00 - 18:00	15	102	0.003	15	102	0.002	15	102	0.005
18:00 - 19:00	15	102	0.002	15	102	0.002	15	102	0.004
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.037			0.036			0.073

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.

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TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL OGVS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	15	102	0.001	15	102	0.001	15	102	0.002
08:00 - 09:00	15	102	0.001	15	102	0.001	15	102	0.002
09:00 - 10:00	15	102	0.003	15	102	0.003	15	102	0.006
10:00 - 11:00	15	102	0.002	15	102	0.002	15	102	0.004
11:00 - 12:00	15	102	0.002	15	102	0.002	15	102	0.004
12:00 - 13:00	15	102	0.002	15	102	0.003	15	102	0.005
13:00 - 14:00	15	102	0.004	15	102	0.001	15	102	0.005
14:00 - 15:00	15	102	0.001	15	102	0.005	15	102	0.006
15:00 - 16:00	15	102	0.001	15	102	0.001	15	102	0.002
16:00 - 17:00	15	102	0.001	15	102	0.001	15	102	0.002
17:00 - 18:00	15	102	0.000	15	102	0.000	15	102	0.000
18:00 - 19:00	15	102	0.000	15	102	0.000	15	102	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.018			0.020			0.038

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.

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TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL PSVS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	15	102	0.001	15	102	0.001	15	102	0.002
08:00 - 09:00	15	102	0.000	15	102	0.000	15	102	0.000
09:00 - 10:00	15	102	0.000	15	102	0.000	15	102	0.000
10:00 - 11:00	15	102	0.000	15	102	0.000	15	102	0.000
11:00 - 12:00	15	102	0.001	15	102	0.001	15	102	0.002
12:00 - 13:00	15	102	0.000	15	102	0.000	15	102	0.000
13:00 - 14:00	15	102	0.000	15	102	0.000	15	102	0.000
14:00 - 15:00	15	102	0.000	15	102	0.000	15	102	0.000
15:00 - 16:00	15	102	0.001	15	102	0.001	15	102	0.002
16:00 - 17:00	15	102	0.000	15	102	0.000	15	102	0.000
17:00 - 18:00	15	102	0.000	15	102	0.000	15	102	0.000
18:00 - 19:00	15	102	0.000	15	102	0.000	15	102	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.003			0.003			0.006

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.

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TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL CYCLISTS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	15	102	0.005	15	102	0.011	15	102	0.016
08:00 - 09:00	15	102	0.005	15	102	0.017	15	102	0.022
09:00 - 10:00	15	102	0.000	15	102	0.002	15	102	0.002
10:00 - 11:00	15	102	0.003	15	102	0.003	15	102	0.006
11:00 - 12:00	15	102	0.003	15	102	0.002	15	102	0.005
12:00 - 13:00	15	102	0.005	15	102	0.005	15	102	0.010
13:00 - 14:00	15	102	0.003	15	102	0.001	15	102	0.004
14:00 - 15:00	15	102	0.005	15	102	0.003	15	102	0.008
15:00 - 16:00	15	102	0.010	15	102	0.002	15	102	0.012
16:00 - 17:00	15	102	0.007	15	102	0.008	15	102	0.015
17:00 - 18:00	15	102	0.019	15	102	0.008	15	102	0.027
18:00 - 19:00	15	102	0.014	15	102	0.012	15	102	0.026
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.079			0.074			0.153

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

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL VEHICLE OCCUPANTS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	15	102	0.109	15	102	0.459	15	102	0.568
08:00 - 09:00	15	102	0.143	15	102	0.621	15	102	0.764
09:00 - 10:00	15	102	0.205	15	102	0.242	15	102	0.447
10:00 - 11:00	15	102	0.164	15	102	0.221	15	102	0.385
11:00 - 12:00	15	102	0.196	15	102	0.210	15	102	0.406
12:00 - 13:00	15	102	0.221	15	102	0.210	15	102	0.431
13:00 - 14:00	15	102	0.246	15	102	0.222	15	102	0.468
14:00 - 15:00	15	102	0.214	15	102	0.270	15	102	0.484
15:00 - 16:00	15	102	0.418	15	102	0.247	15	102	0.665
16:00 - 17:00	15	102	0.445	15	102	0.247	15	102	0.692
17:00 - 18:00	15	102	0.482	15	102	0.216	15	102	0.698
18:00 - 19:00	15	102	0.416	15	102	0.248	15	102	0.664
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.259			3.413			6.672

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

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL PEDESTRIANS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	15	102	0.015	15	102	0.043	15	102	0.058
08:00 - 09:00	15	102	0.036	15	102	0.117	15	102	0.153
09:00 - 10:00	15	102	0.035	15	102	0.042	15	102	0.077
10:00 - 11:00	15	102	0.034	15	102	0.032	15	102	0.066
11:00 - 12:00	15	102	0.029	15	102	0.028	15	102	0.057
12:00 - 13:00	15	102	0.038	15	102	0.027	15	102	0.065
13:00 - 14:00	15	102	0.035	15	102	0.034	15	102	0.069
14:00 - 15:00	15	102	0.035	15	102	0.045	15	102	0.080
15:00 - 16:00	15	102	0.104	15	102	0.035	15	102	0.139
16:00 - 17:00	15	102	0.065	15	102	0.033	15	102	0.098
17:00 - 18:00	15	102	0.061	15	102	0.045	15	102	0.106
18:00 - 19:00	15	102	0.045	15	102	0.048	15	102	0.093
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.532			0.529			1.061

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

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL BUS/TRAM PASSENGERS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	15	102	0.000	15	102	0.016	15	102	0.016
08:00 - 09:00	15	102	0.000	15	102	0.008	15	102	0.008
09:00 - 10:00	15	102	0.003	15	102	0.005	15	102	0.008
10:00 - 11:00	15	102	0.001	15	102	0.003	15	102	0.004
11:00 - 12:00	15	102	0.001	15	102	0.002	15	102	0.003
12:00 - 13:00	15	102	0.003	15	102	0.003	15	102	0.006
13:00 - 14:00	15	102	0.001	15	102	0.004	15	102	0.005
14:00 - 15:00	15	102	0.004	15	102	0.003	15	102	0.007
15:00 - 16:00	15	102	0.009	15	102	0.001	15	102	0.010
16:00 - 17:00	15	102	0.014	15	102	0.001	15	102	0.015
17:00 - 18:00	15	102	0.007	15	102	0.000	15	102	0.007
18:00 - 19:00	15	102	0.008	15	102	0.001	15	102	0.009
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.051			0.047			0.098

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

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL TOTAL RAIL PASSENGERS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	15	102	0.003	15	102	0.010	15	102	0.013
08:00 - 09:00	15	102	0.000	15	102	0.014	15	102	0.014
09:00 - 10:00	15	102	0.001	15	102	0.008	15	102	0.009
10:00 - 11:00	15	102	0.000	15	102	0.004	15	102	0.004
11:00 - 12:00	15	102	0.000	15	102	0.003	15	102	0.003
12:00 - 13:00	15	102	0.000	15	102	0.005	15	102	0.005
13:00 - 14:00	15	102	0.001	15	102	0.002	15	102	0.003
14:00 - 15:00	15	102	0.003	15	102	0.001	15	102	0.004
15:00 - 16:00	15	102	0.006	15	102	0.001	15	102	0.007
16:00 - 17:00	15	102	0.005	15	102	0.001	15	102	0.006
17:00 - 18:00	15	102	0.005	15	102	0.002	15	102	0.007
18:00 - 19:00	15	102	0.005	15	102	0.000	15	102	0.005
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.029			0.051			0.080

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

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL COACH PASSENGERS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	15	102	0.000	15	102	0.001	15	102	0.001
08:00 - 09:00	15	102	0.000	15	102	0.000	15	102	0.000
09:00 - 10:00	15	102	0.000	15	102	0.000	15	102	0.000
10:00 - 11:00	15	102	0.000	15	102	0.000	15	102	0.000
11:00 - 12:00	15	102	0.000	15	102	0.000	15	102	0.000
12:00 - 13:00	15	102	0.000	15	102	0.000	15	102	0.000
13:00 - 14:00	15	102	0.000	15	102	0.000	15	102	0.000
14:00 - 15:00	15	102	0.000	15	102	0.000	15	102	0.000
15:00 - 16:00	15	102	0.001	15	102	0.000	15	102	0.001
16:00 - 17:00	15	102	0.000	15	102	0.000	15	102	0.000
17:00 - 18:00	15	102	0.000	15	102	0.000	15	102	0.000
18:00 - 19:00	15	102	0.000	15	102	0.000	15	102	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.001			0.001			0.002

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

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL PUBLIC TRANSPORT USERS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	15	102	0.003	15	102	0.028	15	102	0.031
08:00 - 09:00	15	102	0.000	15	102	0.022	15	102	0.022
09:00 - 10:00	15	102	0.003	15	102	0.012	15	102	0.015
10:00 - 11:00	15	102	0.001	15	102	0.007	15	102	0.008
11:00 - 12:00	15	102	0.001	15	102	0.005	15	102	0.006
12:00 - 13:00	15	102	0.003	15	102	0.008	15	102	0.011
13:00 - 14:00	15	102	0.001	15	102	0.006	15	102	0.007
14:00 - 15:00	15	102	0.007	15	102	0.004	15	102	0.011
15:00 - 16:00	15	102	0.016	15	102	0.002	15	102	0.018
16:00 - 17:00	15	102	0.019	15	102	0.002	15	102	0.021
17:00 - 18:00	15	102	0.012	15	102	0.002	15	102	0.014
18:00 - 19:00	15	102	0.013	15	102	0.001	15	102	0.014
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.079			0.099			0.178

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

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL TOTAL PEOPLE
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	15	102	0.132	15	102	0.541	15	102	0.673
08:00 - 09:00	15	102	0.184	15	102	0.777	15	102	0.961
09:00 - 10:00	15	102	0.244	15	102	0.298	15	102	0.542
10:00 - 11:00	15	102	0.201	15	102	0.263	15	102	0.464
11:00 - 12:00	15	102	0.229	15	102	0.245	15	102	0.474
12:00 - 13:00	15	102	0.267	15	102	0.250	15	102	0.517
13:00 - 14:00	15	102	0.285	15	102	0.263	15	102	0.548
14:00 - 15:00	15	102	0.261	15	102	0.322	15	102	0.583
15:00 - 16:00	15	102	0.548	15	102	0.286	15	102	0.834
16:00 - 17:00	15	102	0.536	15	102	0.291	15	102	0.827
17:00 - 18:00	15	102	0.575	15	102	0.271	15	102	0.846
18:00 - 19:00	15	102	0.488	15	102	0.309	15	102	0.797
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.950			4.116			8.066

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

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL Servicing Vehicles
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

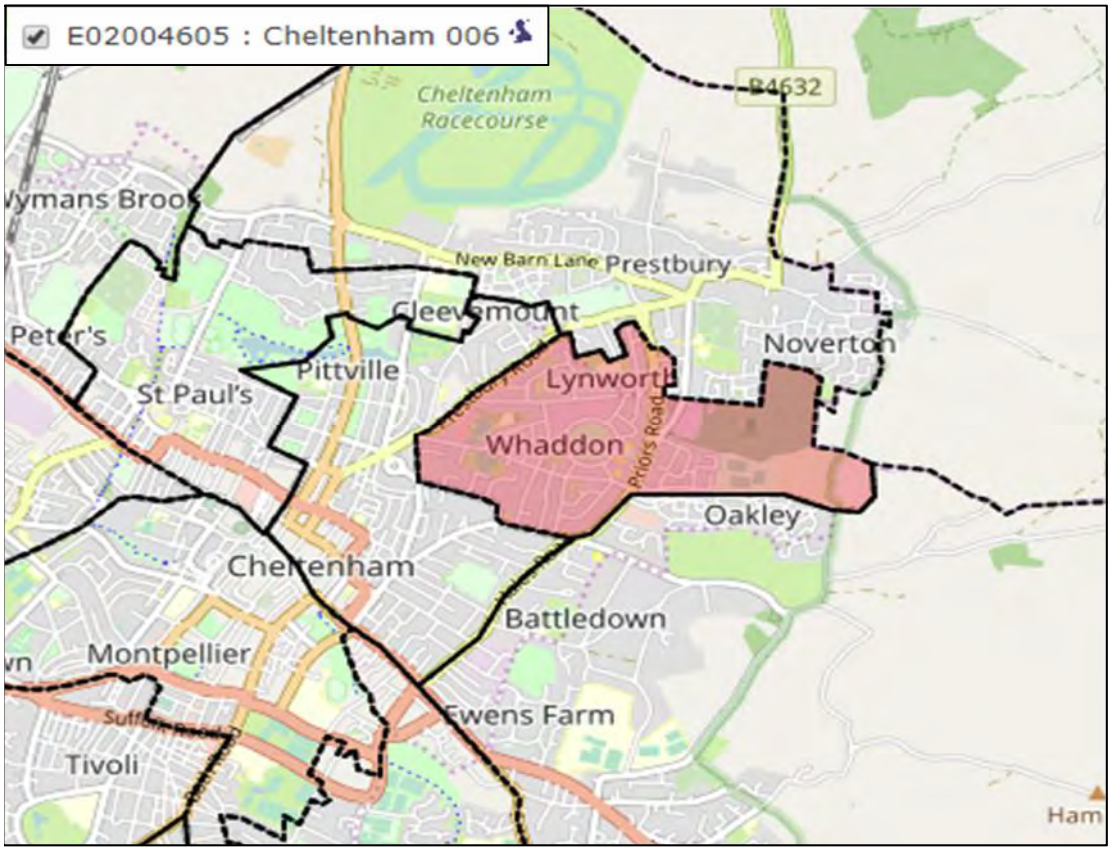
	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	15	102	0.010	15	102	0.003	15	102	0.013
08:00 - 09:00	15	102	0.007	15	102	0.006	15	102	0.013
09:00 - 10:00	15	102	0.014	15	102	0.010	15	102	0.024
10:00 - 11:00	15	102	0.014	15	102	0.012	15	102	0.026
11:00 - 12:00	15	102	0.010	15	102	0.014	15	102	0.024
12:00 - 13:00	15	102	0.014	15	102	0.008	15	102	0.022
13:00 - 14:00	15	102	0.021	15	102	0.021	15	102	0.042
14:00 - 15:00	15	102	0.009	15	102	0.017	15	102	0.026
15:00 - 16:00	15	102	0.008	15	102	0.007	15	102	0.015
16:00 - 17:00	15	102	0.006	15	102	0.008	15	102	0.014
17:00 - 18:00	15	102	0.003	15	102	0.006	15	102	0.009
18:00 - 19:00	15	102	0.003	15	102	0.004	15	102	0.007
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.119			0.116			0.235

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.*

Appendix K

2011 Census - Middle Super Output Area - Cheltenham 006



WU03EW - Location of usual residence and place of work by method of travel to work (MSOA level)

population	All usual residents aged 16 and over in employment the week before the census
units	Persons
date	2011
method of travel to work	Driving a car or van

Distribution Summary Table

Route Choice	Trips	Distribution
Deep Street	66	6%
B4075 Tatchley Lane	187	18%
Hewlett Road	117	11%
A40 London Road	146	14%
A40 Old Bath Road	317	30%
Moorend Road	21	2%
A435 Cirencester Road	41	4%
Redmarley Rd	35	3%
Harp Hill	8	1%
A435 London Road	79	8%
B4632 Prestbury Rd	37	3%
Total	1052	100%

place of work : 2011 super output area - middle layer	Route Choice	E02004605 : Cheltenham 006
E02004009 : Eden 002	Hewlett Road	1
E02005239 : Lancaster 019	Hewlett Road	1
E02002911 : Herefordshire 007	Hewlett Road	1
E02006040 : Shropshire 028	deep street	1
E02002930 : Telford and Wrekin 003	Hewlett Road	1
E02006492 : Rugby 001	Harp Hill	1
E02006494 : Rugby 003	Harp Hill	2
E02006511 : Stratford-on-Avon 008	Hewlett Road	1
E02006516 : Stratford-on-Avon 013	Hewlett Road	1
E02006530 : Warwick 012	Hewlett Road	2
E02001879 : Birmingham 053	Hewlett Road	1
E02001892 : Birmingham 066	Hewlett Road	1
E02001963 : Coventry 006	Hewlett Road	1
E02001988 : Coventry 031	Hewlett Road	1
E02002010 : Dudley 011	Hewlett Road	1
E02002039 : Dudley 040	Hewlett Road	2
E02002162 : Wolverhampton 014	Hewlett Road	1
E02006704 : Bromsgrove 009	Hewlett Road	1
E02006717 : Malvern Hills 008	Hewlett Road	1
E02006718 : Malvern Hills 009	Hewlett Road	1
E02006723 : Redditch 003	Hewlett Road	1
E02006729 : Redditch 009	Hewlett Road	1
E02006736 : Worcester 003	Hewlett Road	1
E02006741 : Worcester 008	Hewlett Road	1
E02006744 : Worcester 011	Hewlett Road	1
E02006757 : Wychavon 010	Hewlett Road	2
E02006760 : Wychavon 013	Hewlett Road	2
E02006761 : Wychavon 014	Hewlett Road	2
E02006762 : Wychavon 015	Hewlett Road	1
E02006763 : Wychavon 016	Hewlett Road	1
E02006764 : Wychavon 017	Hewlett Road	1
E02006765 : Wychavon 018	Hewlett Road	7
E02006766 : Wychavon 019	Hewlett Road	4
E02004544 : Harlow 001	A40 London Road	1
E02004986 : Welwyn Hatfield 007	A40 London Road	1
E02005522 : Broadland 003	A40 London Road	1
E02006278 : St Edmundsbury 006	A40 London Road	1
E02000455 : Harrow 023	A40 London Road	1
E02000780 : Redbridge 030	A40 London Road	1
E02003405 : Reading 017	A40 London Road	1
E02004691 : Basingstoke and Deane 017	A40 London Road	1
E02004805 : Rushmoor 004	A40 London Road	1
E02004809 : Rushmoor 008	A40 London Road	1
E02005947 : Oxford 008	Harp Hill	2
E02005956 : Oxford 017	Harp Hill	1

place of work : 2011 super output area - middle layer	Route Choice	E02004605 : Cheltenham 006
E02005982 : Vale of White Horse 005	A40 London Road	1
E02005993 : West Oxfordshire 001	A40 London Road	1
E02006001 : West Oxfordshire 009	A40 London Road	2
E02006003 : West Oxfordshire 011	A40 London Road	1
E02006004 : West Oxfordshire 012	A40 London Road	1
E02006006 : West Oxfordshire 014	A40 London Road	5
E02002994 : Bath and North East Somerset 010	A40 Old Bath Road	1
E02003001 : Bath and North East Somerset 017	A40 Old Bath Road	1
E02003015 : Bristol 004	A40 Old Bath Road	1
E02003028 : Bristol 017	A40 Old Bath Road	2
E02003029 : Bristol 018	A40 Old Bath Road	2
E02003043 : Bristol 032	A40 Old Bath Road	1
E02003052 : Bristol 041	A40 Old Bath Road	1
E02003076 : North Somerset 012	A40 Old Bath Road	2
E02003092 : South Gloucestershire 003	A40 Old Bath Road	1
E02003093 : South Gloucestershire 004	A40 Old Bath Road	1
E02003095 : South Gloucestershire 006	A40 Old Bath Road	1
E02003100 : South Gloucestershire 011	A40 Old Bath Road	2
E02003105 : South Gloucestershire 016	A40 Old Bath Road	1
E02003106 : South Gloucestershire 017	A40 Old Bath Road	2
E02003219 : Swindon 008	A40 London Road	3
E02003220 : Swindon 009	A40 London Road	1
E02003223 : Swindon 012	A40 London Road	2
E02003226 : Swindon 015	A40 London Road	2
E02003230 : Swindon 019	A40 London Road	1
E02003233 : Swindon 022	A40 London Road	1
E02006637 : Wiltshire 025	A40 London Road	1
E02006645 : Wiltshire 002	A40 London Road	2
E02006650 : Wiltshire 007	A40 London Road	1
E02006652 : Wiltshire 009	A40 London Road	1
E02006659 : Wiltshire 017	A40 London Road	1
E02004179 : North Devon 005	A40 Old Bath Road	1
E02004600 : Cheltenham 001	Hewlett Road	20
	B4075 Tatchley Lane	59
E02004601 : Cheltenham 002	Deep Street	7
	B4075 Tatchley Lane	7
E02004602 : Cheltenham 003	Hewlett Road	11
E02004603 : Cheltenham 004	Hewlett Road	21
	B4075 Tatchley Lane	21
E02004604 : Cheltenham 005	Hewlett Road	12
E02004605 : Cheltenham 006	Redmarley Rd	0
	B4632 Prestbury Rd	36
E02004606 : Cheltenham 007	Hewlett Road	42
E02004607 : Cheltenham 008	Hewlett Road	9
	B4632 Prestbury Rd	19
	A435 London Road	9
E02004608 : Cheltenham 009	A40 London Road	67
	A435 London Road	67
E02004609 : Cheltenham 010	A40 Old Bath Road	41

place of work : 2011 super output area - middle layer	Route Choice	E02004605 : Cheltenham 006
E02004610 : Cheltenham 011	A40 Old Bath Road	27
E02004611 : Cheltenham 012	Redmarley Rd	17
	A40 London Road	17
E02004612 : Cheltenham 013	A40 Old Bath Road	11
E02004613 : Cheltenham 014	A435 Cirencester Road	18
	Moorend Road	18
E02004614 : Cheltenham 015	A40 Old Bath Road	8
	Moorend Road	3
E02004615 : Cotswold 001	Harp Hill	2
E02004616 : Cotswold 002	A40 London Road	3
E02004617 : Cotswold 003	A40 London Road	5
E02004618 : Cotswold 004	A40 London Road	16
E02004619 : Cotswold 005	A40 London Road	2
E02004621 : Cotswold 007	A435 Cirencester Road	12
E02004622 : Cotswold 008	A435 Cirencester Road	4
E02004623 : Cotswold 009	A435 Cirencester Road	1
E02004624 : Cotswold 010	A435 Cirencester Road	2
E02004625 : Cotswold 011	A435 Cirencester Road	4
E02004628 : Forest of Dean 003	A40 Old Bath Road	1
E02004630 : Forest of Dean 005	A40 Old Bath Road	4
E02004632 : Forest of Dean 007	A40 Old Bath Road	1
E02004636 : Gloucester 001	A40 Old Bath Road	2
E02004637 : Gloucester 002	A40 Old Bath Road	15
E02004638 : Gloucester 003	A40 Old Bath Road	2
E02004639 : Gloucester 004	A40 Old Bath Road	21
E02004640 : Gloucester 005	A40 Old Bath Road	5
E02004641 : Gloucester 006	A40 Old Bath Road	2
E02004642 : Gloucester 007	A40 Old Bath Road	25
E02004643 : Gloucester 008	A40 Old Bath Road	2
E02004644 : Gloucester 009	A40 Old Bath Road	10
E02004645 : Gloucester 010	A40 Old Bath Road	2
E02004646 : Gloucester 011	A40 Old Bath Road	1
E02004647 : Gloucester 012	A40 Old Bath Road	1
E02004648 : Gloucester 013	A40 Old Bath Road	1
E02004649 : Gloucester 014	A40 Old Bath Road	3
E02004650 : Gloucester 015	A40 Old Bath Road	9
E02004651 : Stroud 001	A40 Old Bath Road	4
E02004652 : Stroud 002	A40 Old Bath Road	1
E02004653 : Stroud 003	A40 Old Bath Road	7
E02004654 : Stroud 004	A40 Old Bath Road	1
E02004655 : Stroud 005	A40 Old Bath Road	9
E02004656 : Stroud 006	A40 Old Bath Road	4
E02004657 : Stroud 007	A40 Old Bath Road	2
E02004659 : Stroud 009	A40 Old Bath Road	1
E02004660 : Stroud 010	A40 Old Bath Road	1
E02004662 : Stroud 012	A40 Old Bath Road	1
E02004663 : Stroud 013	A40 Old Bath Road	1
E02004664 : Stroud 014	A40 Old Bath Road	2

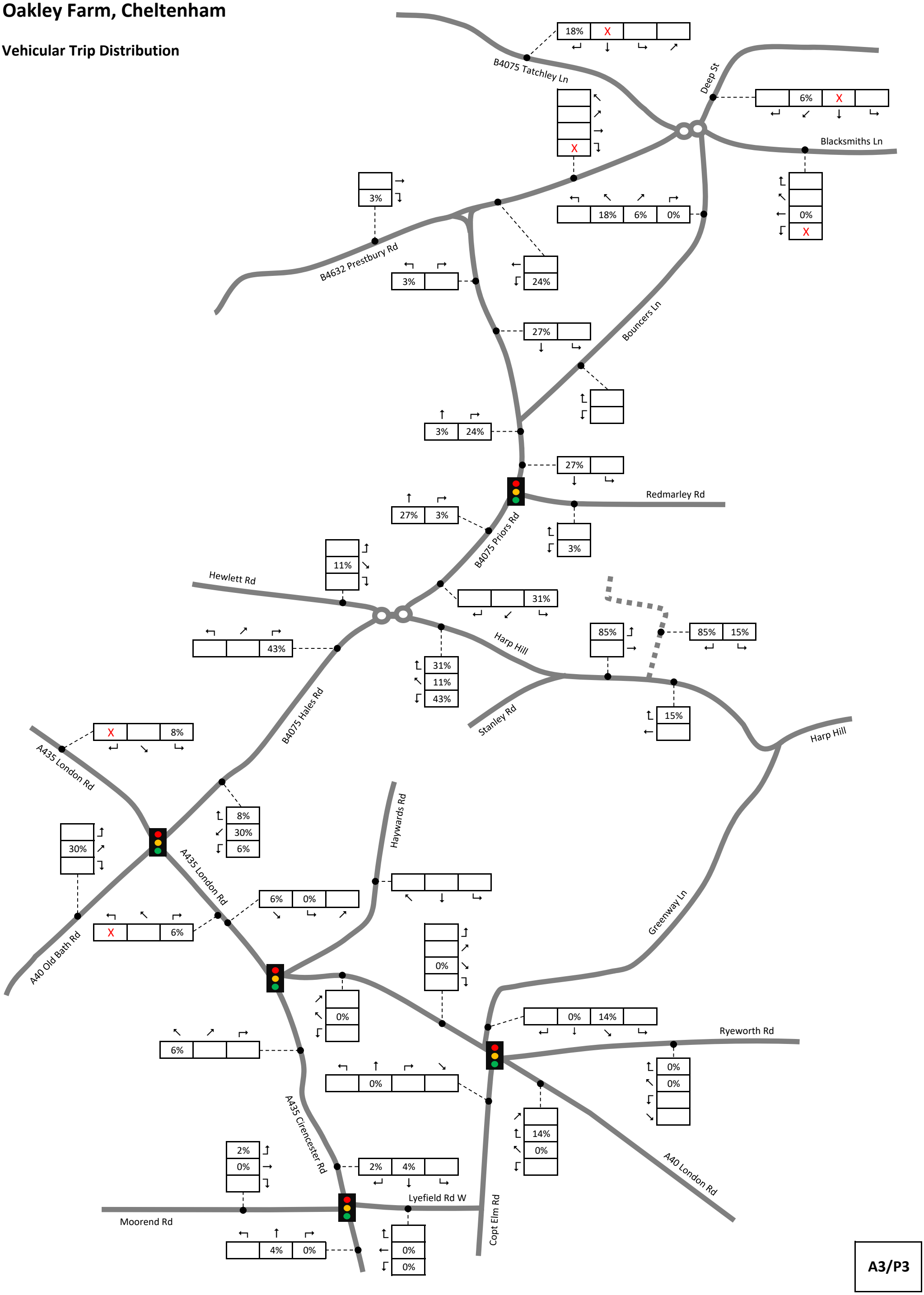
place of work : 2011 super output area - middle layer	Route Choice	E02004605 : Cheltenham 006
E02004666 : Tewkesbury 001	Hewlett Road	16
	B4075 Tatchley Lane	16
E02004667 : Tewkesbury 002	Hewlett Road	1
	B4075 Tatchley Lane	1
E02004668 : Tewkesbury 003	Deep Street	12
E02004669 : Tewkesbury 004	Deep Street	17
	B4075 Tatchley Lane	17
E02004670 : Tewkesbury 005	Deep Street	20
	Hewlett Road	20
E02004671 : Tewkesbury 006	A40 Old Bath Road	7
E02004672 : Tewkesbury 007	A40 Old Bath Road	13
E02004673 : Tewkesbury 008	A40 Old Bath Road	27
E02004674 : Tewkesbury 009	A40 Old Bath Road	20
W02000232 : Bridgend 015	A40 Old Bath Road	1
W02000335 : Torfaen 013	A40 Old Bath Road	1
W02000343 : Monmouthshire 008	Hewlett Road	1
		1,052

In order to protect against disclosure of personal information, records have been swapped between different geographic areas. Some counts will be affected, particularly small counts at the lowest geographies.

Appendix L

Oakley Farm, Cheltenham

Vehicular Trip Distribution



A3/P3

F:\Workfile\H628\Traffic Modelling\Traffic Counts Spreadsheet
October 2019

Oakley Farm, Cheltenham

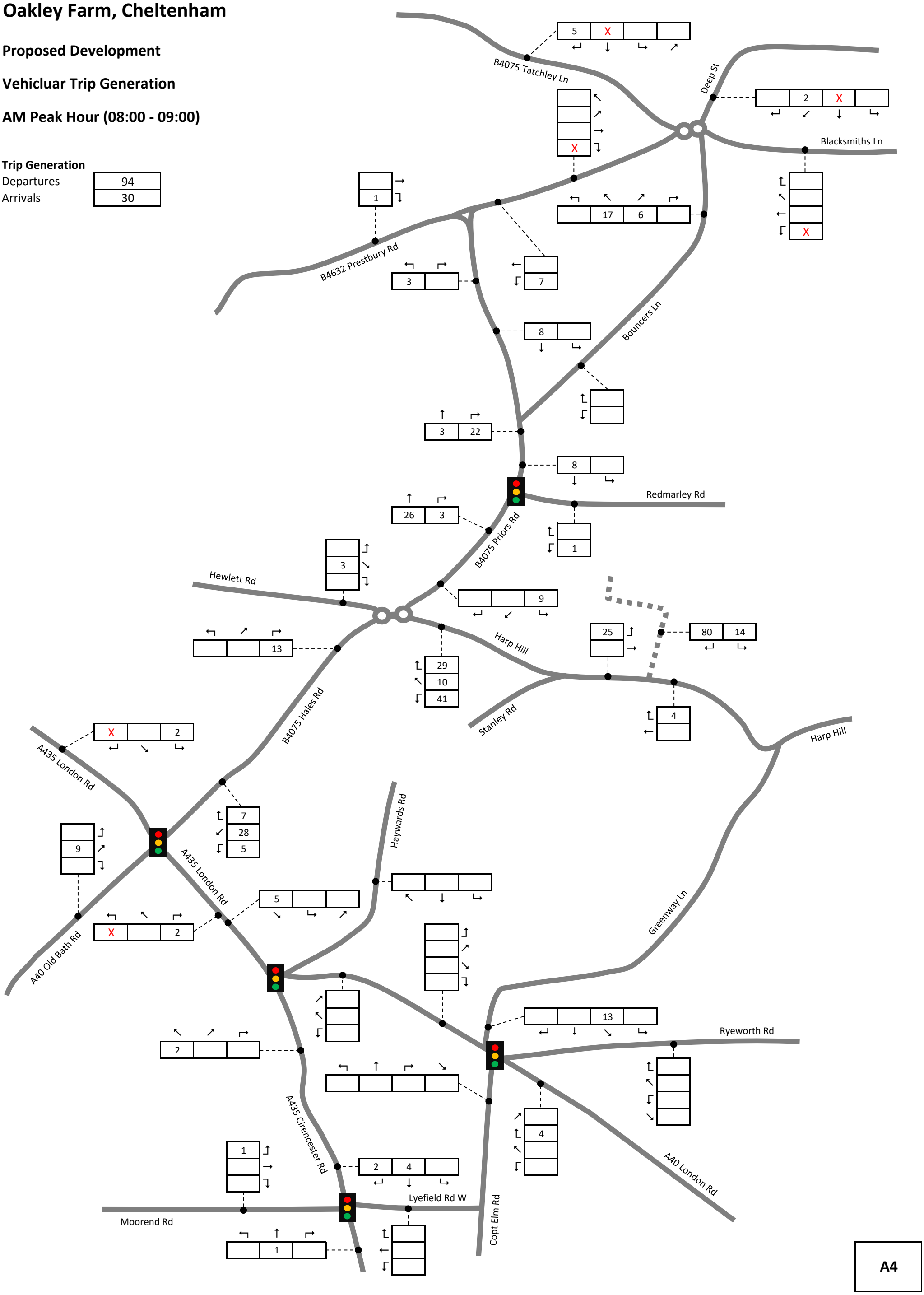
Proposed Development

Vehicluar Trip Generation

AM Peak Hour (08:00 - 09:00)

Trip Generation

Departures	94
Arrivals	30



A4

F:\Workfile\H628\Traffic Modelling\Traffic Counts Spreadsheet
October 2019

Oakley Farm, Cheltenham

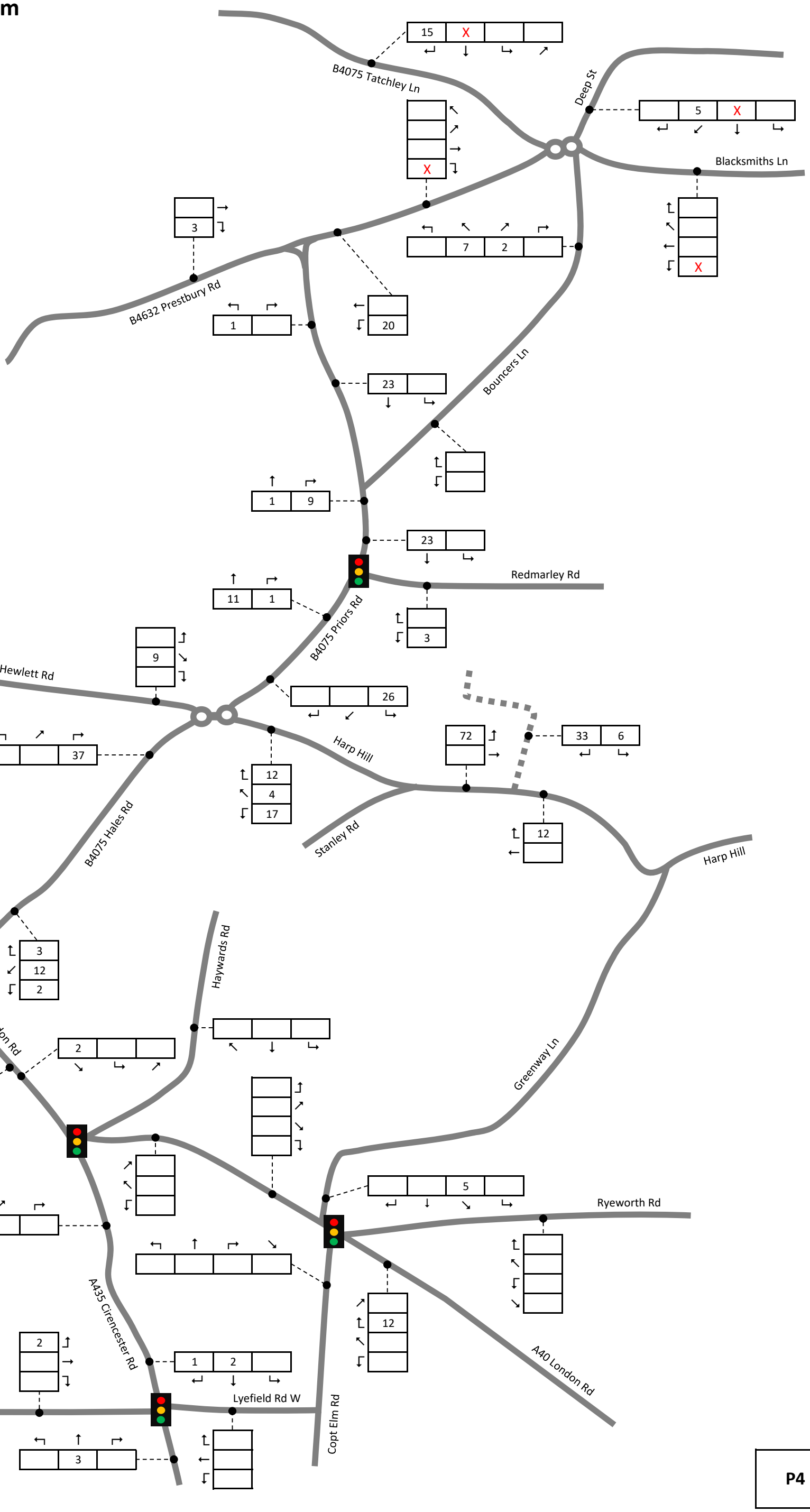
Proposed Development

Vehicluar Trip Generation

PM Peak Hour (17:00 - 18:00)

Trip Generation

Departures	39
Arrivals	85



P4

Appendix M

TRAFFIC GROWTH CALCULATIONS

TRAFFIC GROWTH: 2019 to 2024

Traffic Growth factors to be applied to base traffic using factors derived from TEMPRO (NTEM Dataset 7.2) and NTM.

Traffic Analysis Guidance (TAG) Unit M4 identifies that NTM forecast growth factors should be adjusted using the ratio of the local TEMPRO growth factors to the national average day car driver trip end growth derived using TEMPRO v7.2b. The calculation can be undertaken within the TEMPRO software as identified in TAG Unit M4.

NTM - 2018 Forecast

Area Type: Urban
Road Type: Principal

Local Tempro Zone: Cheltenham

TEMPRO Local AM Peak Hour Factors

Weekday AM Peak Car Driver Trip End Growth for Cheltenham

Origin 1.0503
Destination 1.0423 Average: 1.0463

TEMPRO Local PM Peak Hour Factors

Weekday PM Peak Car Driver Trip End Growth for Cheltenham

Origin 1.0407
Destination 1.0459 Average: 1.0433

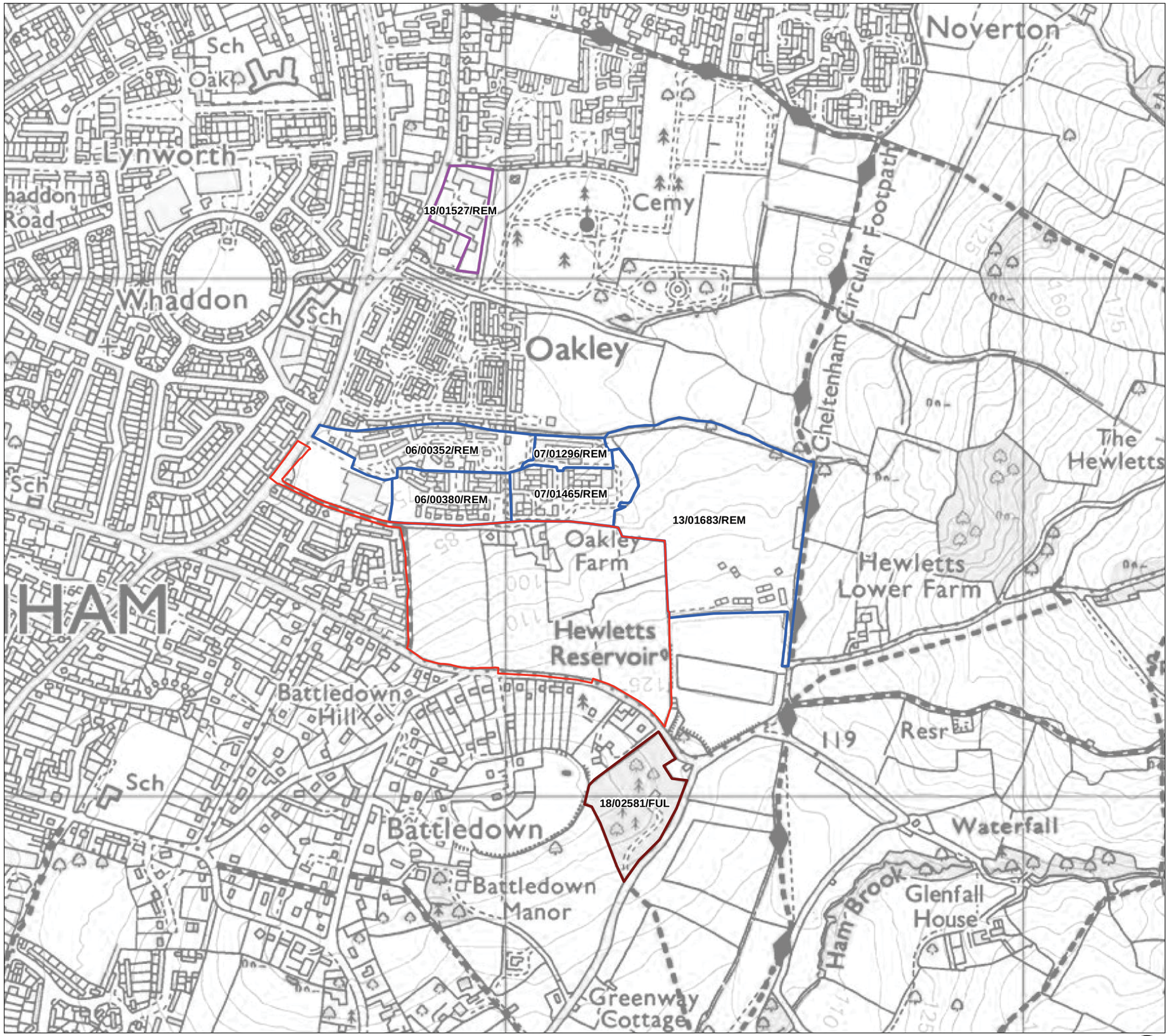
Adjusted Local Peak Period AM Growth Factors to be applied to Base Traffic
2019 to 2024

1.0705

Adjusted Local Peak Period PM Growth Factors to be applied to Base Traffic
2019 to 2024

1.0674

Appendix N



KEY

- Site Boundary
- Bouncers Lane, 18/01527/REM
- Cromwell Court, 18/02581/FUL

GCHQ Applications

- GCHQ - Phase 1, 06/00352/REM
- GCHQ - Phase 1, 06/00380/REM
- GCHQ - Phase 2, 07/01296/REM
- GCHQ - Phase 2, 07/01465/REM
- GCHQ - Phase 3, 13/01683/REM

FIGURE 2.1

Cumulative Plan

DRWG No: **P18-0847_06** Sheet No: **-** REV: **-**

Date: 14/10/2019

Scale: 1:7,500 @ A3

Appendix O

Oakley Farm, Cheltenham

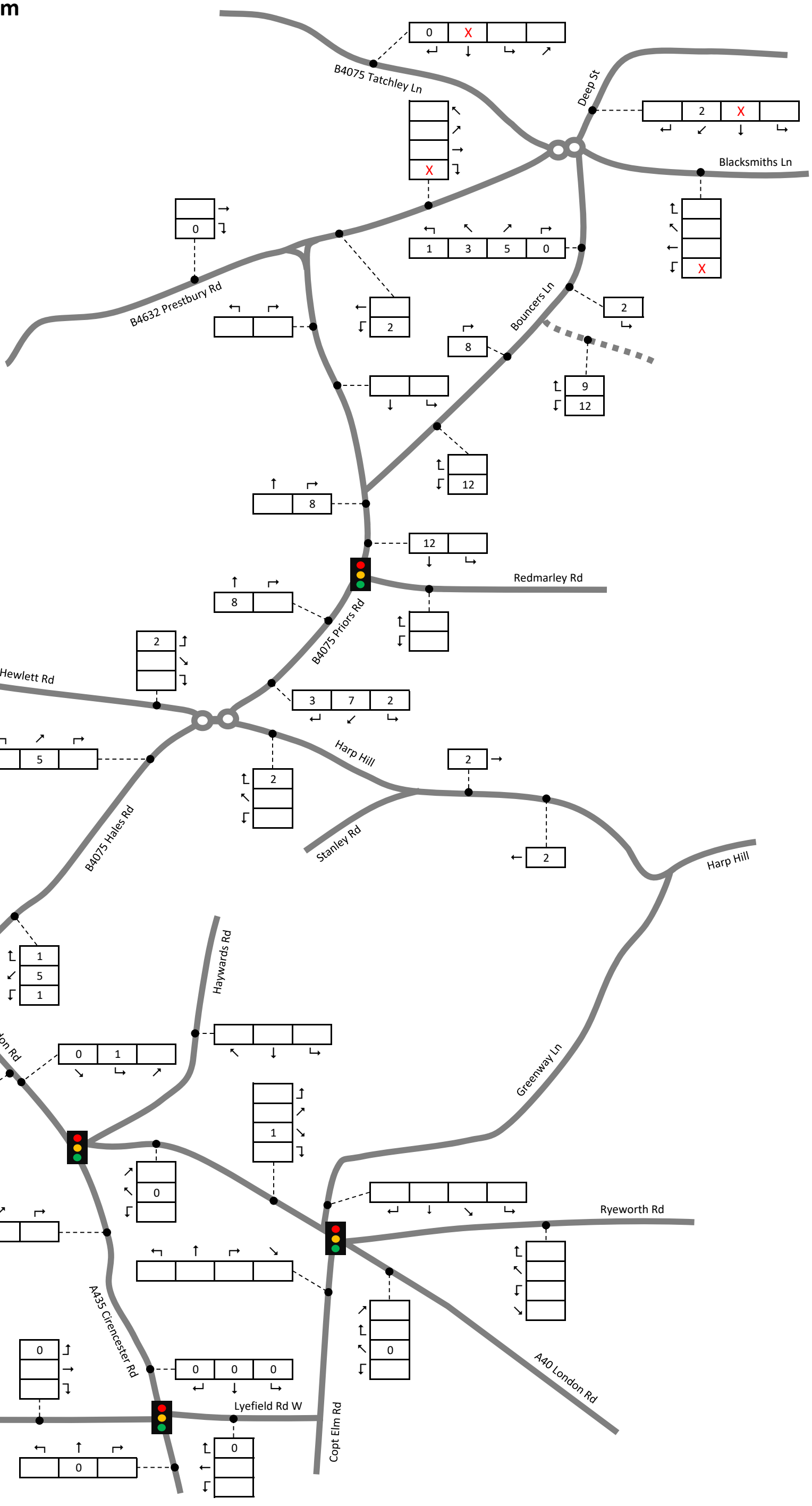
Proposed Development

Vehicluar Trip Generation

AM Peak Hour (08:00 - 09:00)

Trip Generation

Departures	21	21
Arrivals	10	10



Oakley Farm, Cheltenham

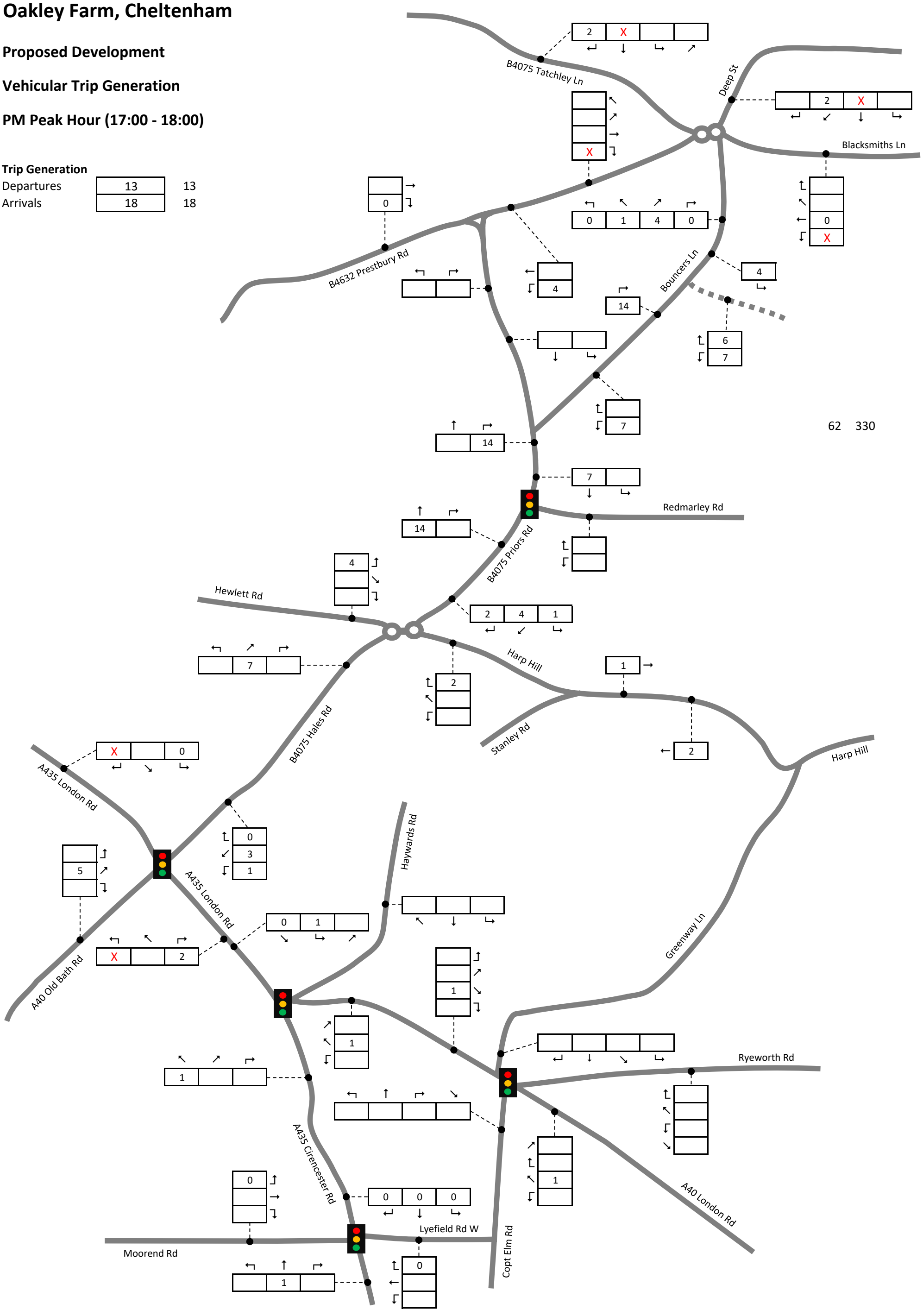
Proposed Development

Vehicular Trip Generation

PM Peak Hour (17:00 - 18:00)

Trip Generation

Departures	13	13
Arrivals	18	18

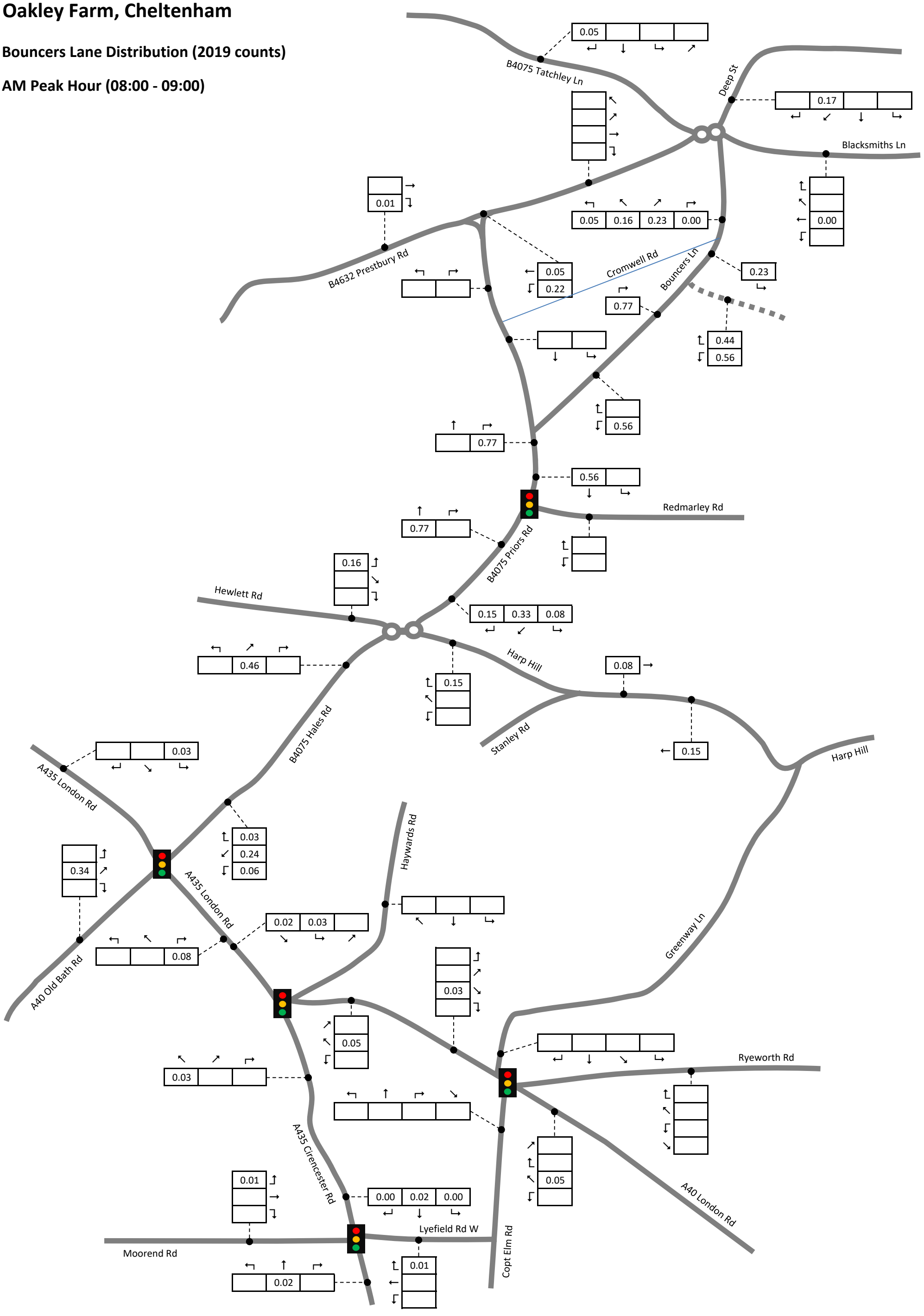


62 330

Oakley Farm, Cheltenham

Bouncers Lane Distribution (2019 counts)

AM Peak Hour (08:00 - 09:00)

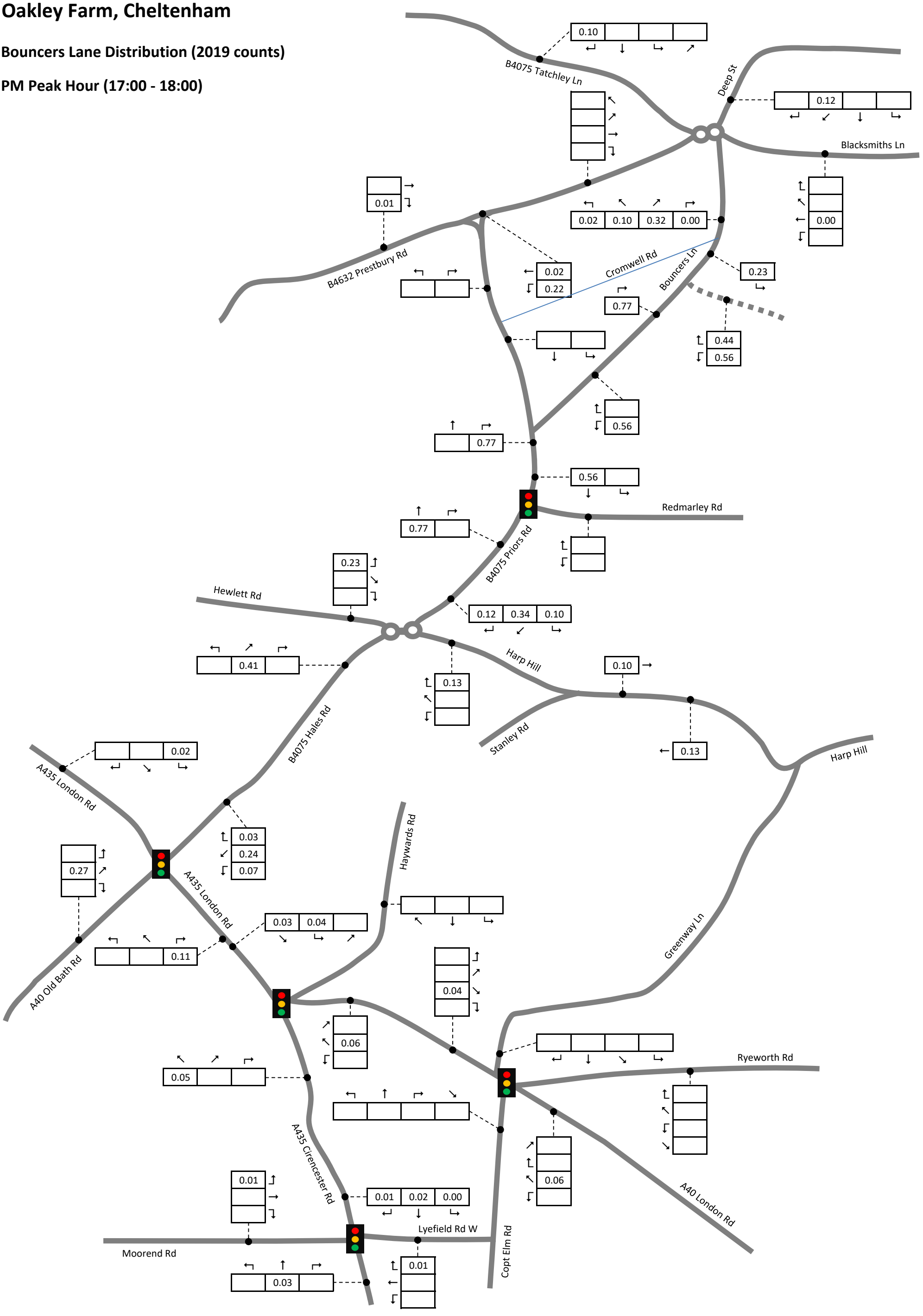


F:\Workfile\H628\Traffic Modelling\Traffic Counts Spreadsheet
October 2019

Oakley Farm, Cheltenham

Bouncers Lane Distribution (2019 counts)

PM Peak Hour (17:00 - 18:00)



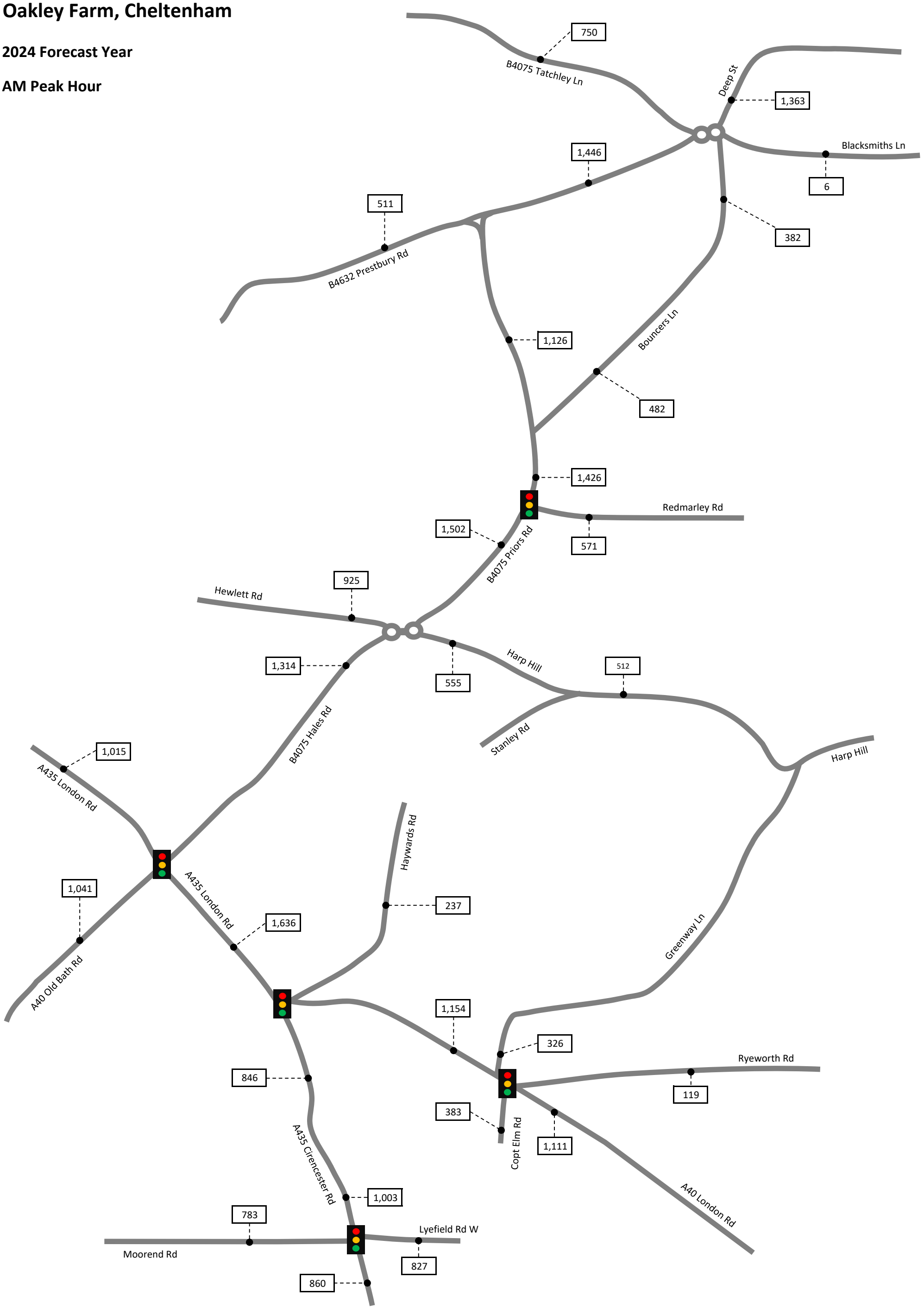
F:\Workfile\H628\Traffic Modelling\Traffic Counts Spreadsheet
October 2019

Appendix P

Oakley Farm, Cheltenham

2024 Forecast Year

AM Peak Hour

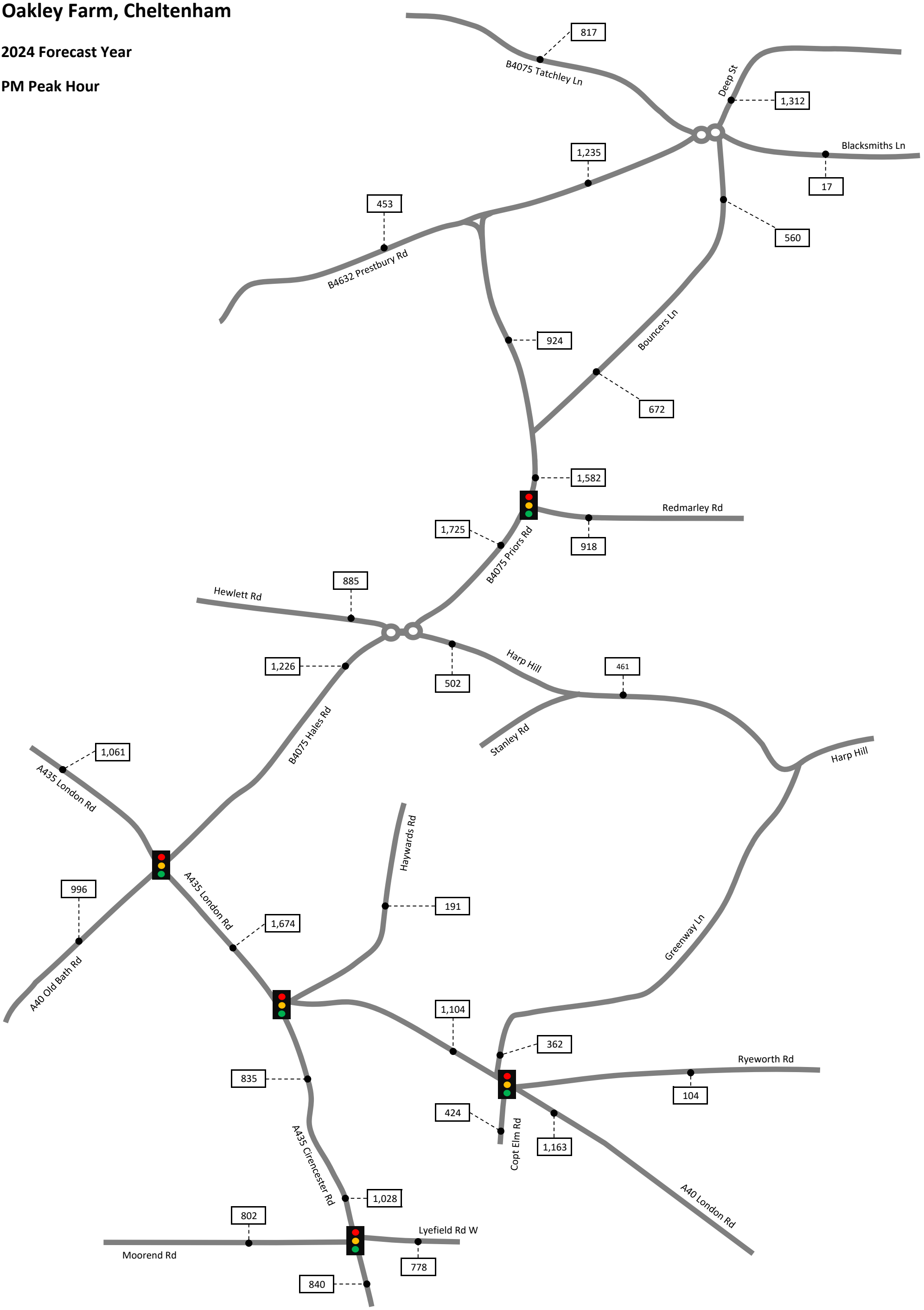


F:\Workfile\H628\Traffic Modelling\Traffic Counts Spreadsheet
December 2019

Oakley Farm, Cheltenham

2024 Forecast Year

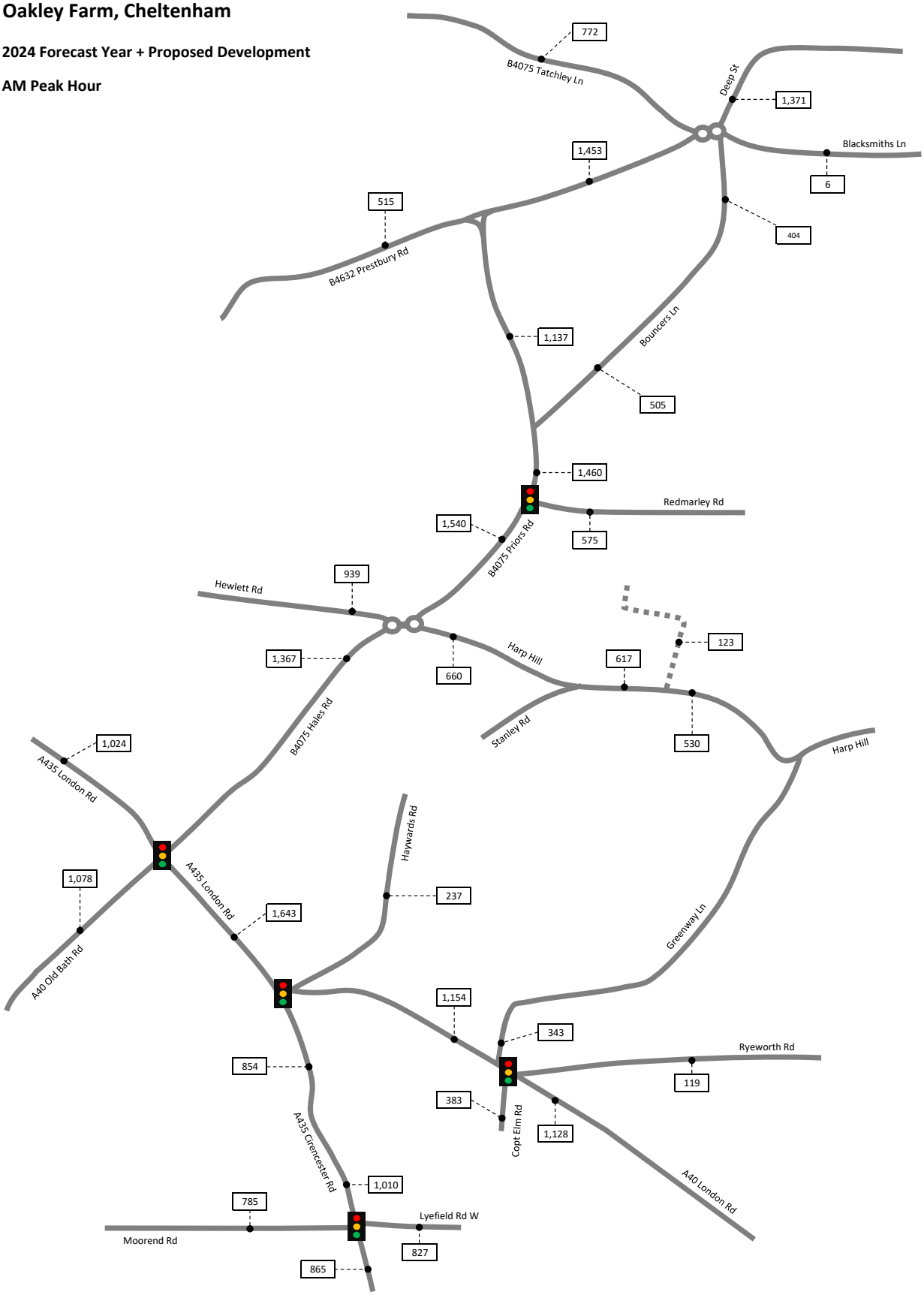
PM Peak Hour



Oakley Farm, Cheltenham

2024 Forecast Year + Proposed Development

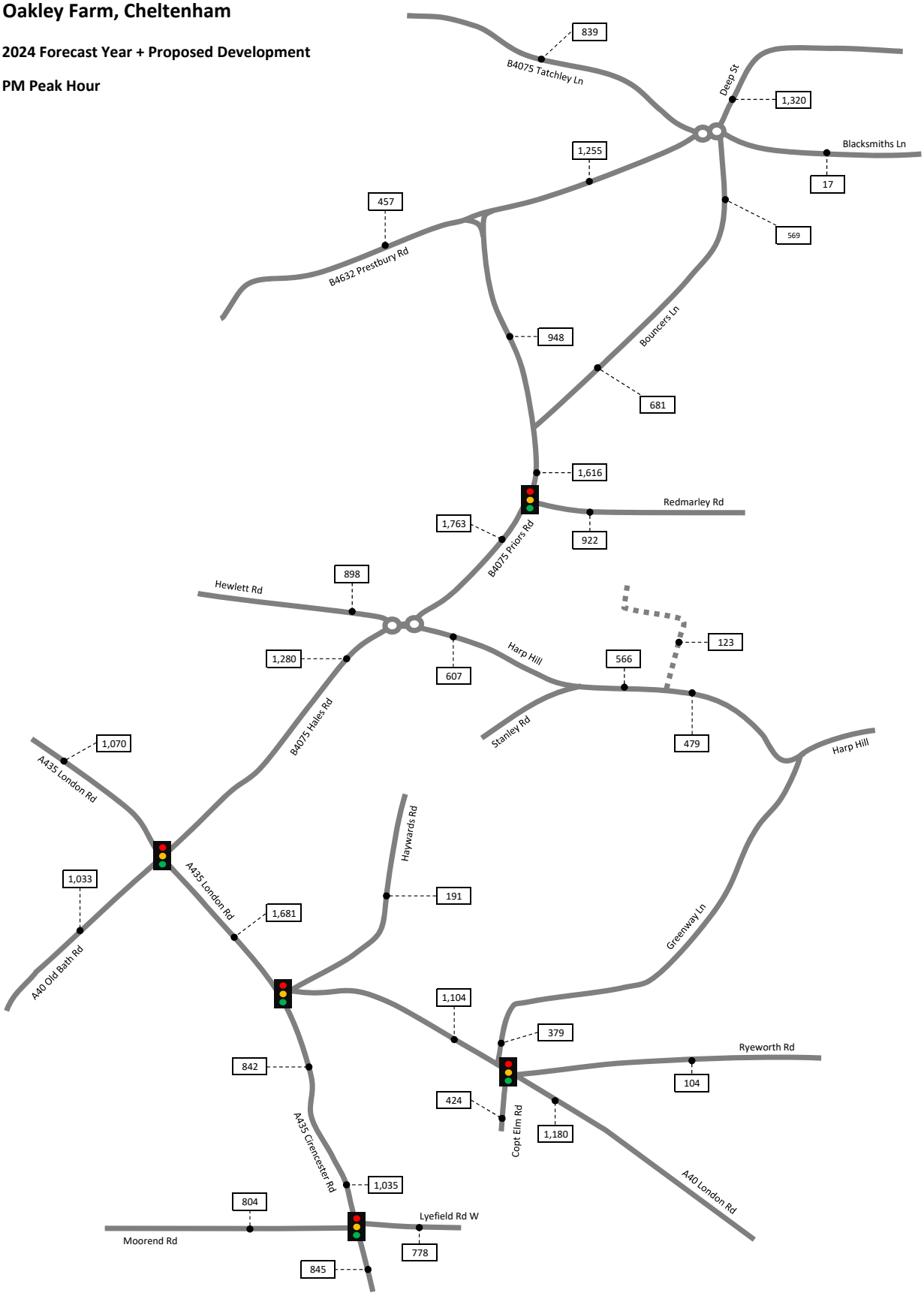
AM Peak Hour



Oakley Farm, Cheltenham

2024 Forecast Year + Proposed Development

PM Peak Hour



Appendix Q

Junctions 9

ARCADY 9 - Roundabout Module

Filename: J1_B4075 Priors Road_Hales Road_Double Rdbt_flat.j9
Path: F:\Workfile\H628\Traffic Modelling\Junctions9
Report generation date: 19/11/2019 15:10:50

Summary of junction performance

	AM				PM			
	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS
	2019 Base Year							
1 - West Rdbt (Compact) - A - Westbound Internal	2.2	9.16	0.69	A	0.8	5.05	0.45	A
1 - West Rdbt (Compact) - B - B4075 Hales Road	1.6	9.96	0.61	A	1.6	8.85	0.62	A
1 - West Rdbt (Compact) - C - Hewlett Road	0.5	5.65	0.35	A	1.1	8.07	0.53	A
2 - East Rdbt (Mini) - A - B4075 Priors Road	9.4	41.95	0.91	E	1.6	10.06	0.62	B
2 - East Rdbt (Mini) - B - Harp Hill	3.7	46.92	0.80	E	1.3	16.36	0.56	C
2 - East Rdbt (Mini) - C - Eastbound Internal	1.1	6.59	0.54	A	2.8	11.58	0.74	B
	2024 Forecast Year							
1 - West Rdbt (Compact) - A - Westbound Internal	2.7	10.54	0.73	B	0.9	5.32	0.48	A
1 - West Rdbt (Compact) - B - B4075 Hales Road	1.9	11.30	0.66	B	1.9	9.93	0.66	A
1 - West Rdbt (Compact) - C - Hewlett Road	0.6	5.98	0.38	A	1.3	9.01	0.57	A
2 - East Rdbt (Mini) - A - B4075 Priors Road	20.1	83.81	0.97	F	1.9	11.18	0.66	B
2 - East Rdbt (Mini) - B - Harp Hill	6.4	79.56	0.89	F	1.5	18.78	0.60	C
2 - East Rdbt (Mini) - C - Eastbound Internal	1.3	7.12	0.57	A	3.7	14.21	0.79	B
	2024 Forecast Year + Proposed Development							
1 - West Rdbt (Compact) - A - Westbound Internal	3.0	11.31	0.75	B	1.0	5.48	0.50	A
1 - West Rdbt (Compact) - B - B4075 Hales Road	2.0	11.77	0.67	B	7.6	39.61	0.91	E
1 - West Rdbt (Compact) - C - Hewlett Road	0.6	6.09	0.39	A	5.2	36.74	0.86	E
2 - East Rdbt (Mini) - A - B4075 Priors Road	27.0	109.62	0.99	F	2.4	13.17	0.70	B
2 - East Rdbt (Mini) - B - Harp Hill	42.5	402.95	1.11	F	2.0	22.68	0.67	C
2 - East Rdbt (Mini) - C - Eastbound Internal	1.4	7.44	0.59	A	4.5	16.95	0.83	C

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

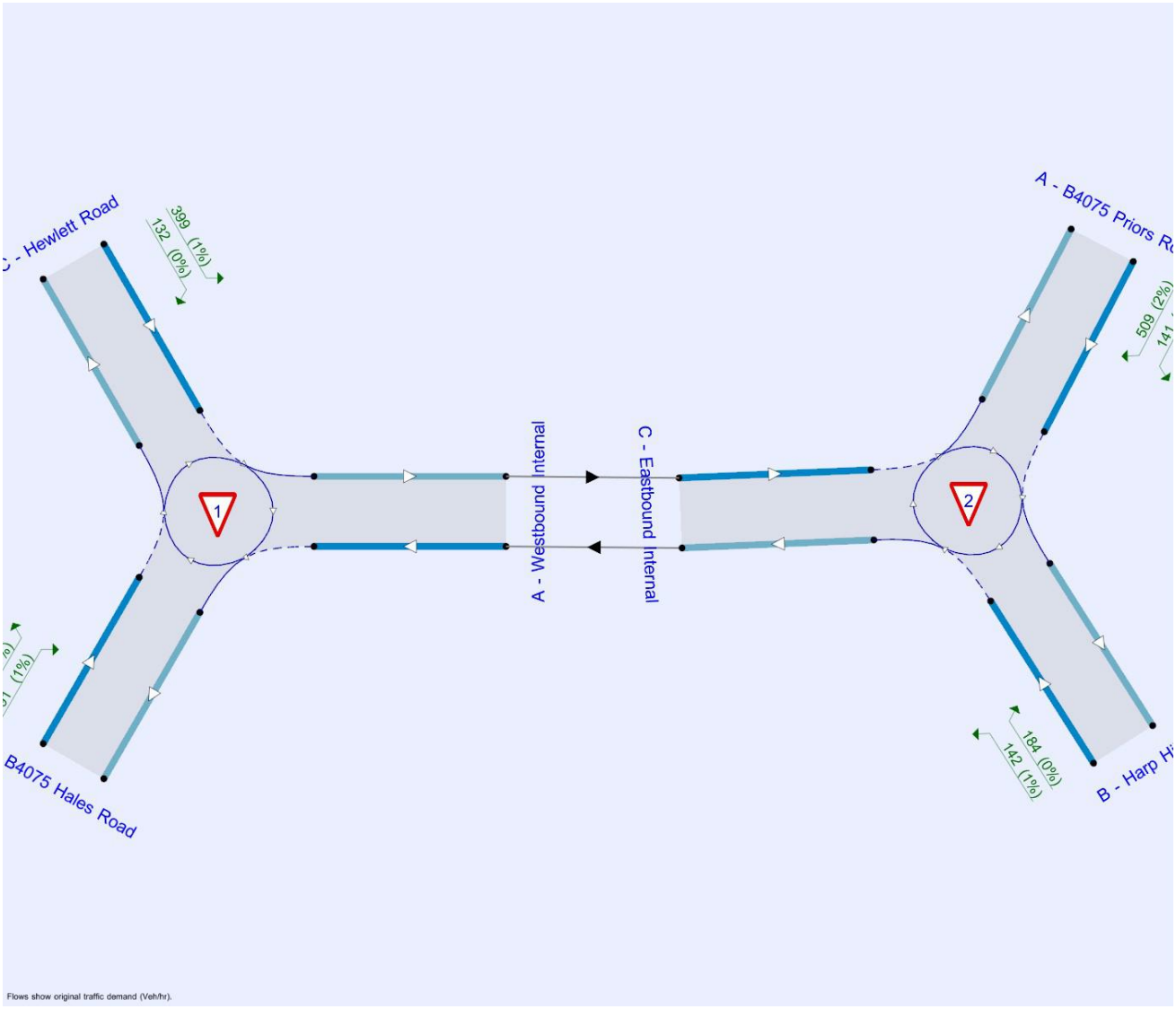
File summary

File Description

Title	B4075 Priors Road / Hales Road / Harp Hill / Hewlett Road Double Roundabout
Location	Battledown, Cheltenham
Site number	J1
Date	12/06/2019
Version	
Status	Existing
Identifier	
Client	
Jobnumber	H628
Enumerator	PFA\trafficteam
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin



The junction diagram reflects the last run of Junctions.

Analysis Options

Mini-roundabout model	Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
JUNCTIONS 9	5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	2019 Base Year	AM	FLAT	08:00	09:00	60	15	✓
D2	2019 Base Year	PM	FLAT	17:00	18:00	60	15	✓
D3	2024 Forecast Year	AM	FLAT	08:00	09:00	60	15	✓
D4	2024 Forecast Year	PM	FLAT	17:00	18:00	60	15	✓
D5	2024 Forecast Year + Proposed Development	AM	FLAT	08:00	09:00	60	15	✓
D6	2024 Forecast Year + Proposed Development	PM	FLAT	17:00	18:00	60	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2019 Base Year, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout	2 - East Rdbt (Mini)	Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms A and C have 83% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	West Rdbt (Compact)	Standard Roundabout		A, B, C	8.76	A
2	East Rdbt (Mini)	Mini-roundabout		A, B, C	30.02	D

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Junction	Arm	Name	Description
1 - West Rdbt (Compact)	A	Westbound Internal	
	B	B4075 Hales Road	
	C	Hewlett Road	
2 - East Rdbt (Mini)	A	B4075 Priors Road	
	B	Harp Hill	
	C	Eastbound Internal	

Roundabout Geometry

Junction	Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - West Rdbt (Compact)	A - Westbound Internal	3.25	3.25	0.0	200.0	20.0	6.0	
	B - B4075 Hales Road	3.75	4.75	2.5	13.0	20.0	40.0	
	C - Hewlett Road	3.50	4.00	2.0	999.0	20.0	11.5	

Mini Roundabout Geometry

Junction	Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
2 - East Rdbt (Mini)	A - B4075 Priors Road	3.50	3.50	4.00	1.5	6.50	4.00	0.0	✓
	B - Harp Hill	3.50	2.25	3.50	3.5	8.50	10.00	0.0	✓
	C - Eastbound Internal	3.25	3.25	3.25	0.0	13.50	13.00	0.0	✓

Slope / Intercept / Capacity

Arm Intercept Adjustments

Junction	Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
1 - West Rdbt (Compact)	A - Westbound Internal	Direct		300
	B - B4075 Hales Road	None		
	C - Hewlett Road	None		
2 - East Rdbt (Mini)	A - B4075 Priors Road	None		
	B - Harp Hill	None		
	C - Eastbound Internal	Direct		300

Roundabout Slope and Intercept used in model

Junction	Arm	Final slope	Final intercept (PCU/hr)
1 - West Rdbt (Compact)	A - Westbound Internal	0.582	1410
	B - B4075 Hales Road	0.540	1192
	C - Hewlett Road	0.611	1273
2 - East Rdbt (Mini)	A - B4075 Priors Road	0.507	1018
	B - Harp Hill	0.475	733
	C - Eastbound Internal	0.498	1299

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	2019 Base Year	AM	FLAT	08:00	09:00	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - West Rdbt (Compact)	A - Westbound Internal	2	C	Queue limited	Normal	0	100.00	4.50
2 - East Rdbt (Mini)	C - Eastbound Internal	1	A	Queue limited	Normal	0	100.00	4.50

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - West Rdbt (Compact)	A - Westbound Internal	✓				
	B - B4075 Hales Road		FLAT	✓	576	100.000
	C - Hewlett Road		FLAT	✓	350	100.000
2 - East Rdbt (Mini)	A - B4075 Priors Road		FLAT	✓	850	100.000
	B - Harp Hill		FLAT	✓	294	100.000
	C - Eastbound Internal	✓				

Origin-Destination Data

Demand (Veh/hr)

1 - West Rdbt (Compact)

		To		
		A - Westbound Internal	B - B4075 Hales Road	C - Hewlett Road
From	A - Westbound Internal	0	531	368
	B - B4075 Hales Road	417	0	159
	C - Hewlett Road	216	134	0

Demand (Veh/hr)

2 - East Rdbt (Mini)

		To		
		A - B4075 Priors Road	B - Harp Hill	C - Eastbound Internal
From	A - B4075 Priors Road	0	117	733
	B - Harp Hill	128	0	166
	C - Eastbound Internal	518	115	0

Vehicle Mix

Heavy Vehicle Percentages

1 - West Rdbt (Compact)

		To		
		A - Westbound Internal	B - B4075 Hales Road	C - Hewlett Road
From	A - Westbound Internal	0	4	3
	B - B4075 Hales Road	6	0	4
	C - Hewlett Road	2	1	0

Heavy Vehicle Percentages

2 - East Rdbt (Mini)

		To		
		A - B4075 Priors Road	B - Harp Hill	C - Eastbound Internal
From	A - B4075 Priors Road	0	2	3
	B - Harp Hill	0	0	3
	C - Eastbound Internal	5	5	0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - West Rdbt (Compact)	A - Westbound Internal	0.69	9.16	2.2	A	884	884
	B - B4075 Hales Road	0.61	9.96	1.6	A	576	576
	C - Hewlett Road	0.35	5.65	0.5	A	350	350
2 - East Rdbt (Mini)	A - B4075 Priors Road	0.91	41.95	9.4	E	850	850
	B - Harp Hill	0.80	46.92	3.7	E	294	294
	C - Eastbound Internal	0.54	6.59	1.1	A	629	629

2019 Base Year, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout	2 - East Rdbt (Mini)	Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms A and C have 84% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	West Rdbt (Compact)	Standard Roundabout		A, B, C	7.33	A
2	East Rdbt (Mini)	Mini-roundabout		A, B, C	11.81	B

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	2019 Base Year	PM	FLAT	17:00	18:00	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - West Rdbt (Compact)	A - Westbound Internal	2	C	Queue limited	Normal	0	100.00	4.50
2 - East Rdbt (Mini)	C - Eastbound Internal	1	A	Queue limited	Normal	0	100.00	4.50

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - West Rdbt (Compact)	A - Westbound Internal	✓				
	B - B4075 Hales Road		FLAT	✓	656	100.000
	C - Hewlett Road		FLAT	✓	494	100.000
2 - East Rdbt (Mini)	A - B4075 Priors Road		FLAT	✓	590	100.000
	B - Harp Hill		FLAT	✓	278	100.000
	C - Eastbound Internal	✓				

Origin-Destination Data

1 - West Rdbt (Compact)

Demand (Veh/hr)

		To		
		A - Westbound Internal	B - B4075 Hales Road	C - Hewlett Road
From	A - Westbound Internal	0	379	218
	B - B4075 Hales Road	528	0	128
	C - Hewlett Road	368	126	0

2 - East Rdbt (Mini)

Demand (Veh/hr)

		To		
		A - B4075 Priors Road	B - Harp Hill	C - Eastbound Internal
From	A - B4075 Priors Road	0	109	481
	B - Harp Hill	162	0	116
	C - Eastbound Internal	807	89	0

Vehicle Mix

1 - West Rdbt (Compact)

Heavy Vehicle Percentages

		To		
		A - Westbound Internal	B - B4075 Hales Road	C - Hewlett Road
From	A - Westbound Internal	0	3	1
	B - B4075 Hales Road	1	0	1
	C - Hewlett Road	1	0	0

2 - East Rdbt (Mini)

Heavy Vehicle Percentages

		To		
		A - B4075 Priors Road	B - Harp Hill	C - Eastbound Internal
From	A - B4075 Priors Road	0	5	2
	B - Harp Hill	0	0	1
	C - Eastbound Internal	1	1	0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - West Rdbt (Compact)	A - Westbound Internal	0.45	5.05	0.8	A	592	592
	B - B4075 Hales Road	0.62	8.85	1.6	A	656	656
	C - Hewlett Road	0.53	8.07	1.1	A	494	494
2 - East Rdbt (Mini)	A - B4075 Priors Road	0.62	10.06	1.6	B	590	590
	B - Harp Hill	0.56	16.36	1.3	C	278	278
	C - Eastbound Internal	0.74	11.58	2.8	B	894	894

2024 Forecast Year, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout	2 - East Rdbt (Mini)	Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms A and C have 83% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	West Rdbt (Compact)	Standard Roundabout		A, B, C	9.92	A
2	East Rdbt (Mini)	Mini-roundabout		A, B, C	55.52	F

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D3	2024 Forecast Year	AM	FLAT	08:00	09:00	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - West Rdbt (Compact)	A - Westbound Internal	2	C	Queue limited	Normal	0	100.00	4.50
2 - East Rdbt (Mini)	C - Eastbound Internal	1	A	Queue limited	Normal	0	100.00	4.50

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - West Rdbt (Compact)	A - Westbound Internal	✓				
	B - B4075 Hales Road		FLAT	✓	609	100.000
	C - Hewlett Road		FLAT	✓	369	100.000
2 - East Rdbt (Mini)	A - B4075 Priors Road		FLAT	✓	903	100.000
	B - Harp Hill		FLAT	✓	310	100.000
	C - Eastbound Internal	✓				

Origin-Destination Data

Demand (Veh/hr)

1 - West Rdbt (Compact)

		To		
		A - Westbound Internal	B - B4075 Hales Road	C - Hewlett Road
From	A - Westbound Internal	0	564	389
	B - B4075 Hales Road	442	0	167
	C - Hewlett Road	228	141	0

Demand (Veh/hr)

2 - East Rdbt (Mini)

		To		
		A - B4075 Priors Road	B - Harp Hill	C - Eastbound Internal
From	A - B4075 Priors Road	0	124	779
	B - Harp Hill	136	0	174
	C - Eastbound Internal	550	121	0

Vehicle Mix

Heavy Vehicle Percentages

1 - West Rdbt (Compact)

		To		
		A - Westbound Internal	B - B4075 Hales Road	C - Hewlett Road
From	A - Westbound Internal	0	4	3
	B - B4075 Hales Road	6	0	4
	C - Hewlett Road	2	1	0

Heavy Vehicle Percentages

2 - East Rdbt (Mini)

		To		
		A - B4075 Priors Road	B - Harp Hill	C - Eastbound Internal
From	A - B4075 Priors Road	0	2	3
	B - Harp Hill	0	0	3
	C - Eastbound Internal	5	5	0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - West Rdbt (Compact)	A - Westbound Internal	0.73	10.54	2.7	B	927	927
	B - B4075 Hales Road	0.66	11.30	1.9	B	609	609
	C - Hewlett Road	0.38	5.98	0.6	A	369	369
2 - East Rdbt (Mini)	A - B4075 Priors Road	0.97	83.81	20.1	F	903	903
	B - Harp Hill	0.89	79.56	6.4	F	310	310
	C - Eastbound Internal	0.57	7.12	1.3	A	666	666

2024 Forecast Year, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout	2 - East Rdbt (Mini)	Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms A and C have 84% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	West Rdbt (Compact)	Standard Roundabout		A, B, C	8.09	A
2	East Rdbt (Mini)	Mini-roundabout		A, B, C	13.90	B

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D4	2024 Forecast Year	PM	FLAT	17:00	18:00	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - West Rdbt (Compact)	A - Westbound Internal	2	C	Queue limited	Normal	0	100.00	4.50
2 - East Rdbt (Mini)	C - Eastbound Internal	1	A	Queue limited	Normal	0	100.00	4.50

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - West Rdbt (Compact)	A - Westbound Internal	✓				
	B - B4075 Hales Road		FLAT	✓	694	100.000
	C - Hewlett Road		FLAT	✓	521	100.000
2 - East Rdbt (Mini)	A - B4075 Priors Road		FLAT	✓	624	100.000
	B - Harp Hill		FLAT	✓	293	100.000
	C - Eastbound Internal	✓				

Origin-Destination Data

1 - West Rdbt (Compact)

Demand (Veh/hr)

		To		
		A - Westbound Internal	B - B4075 Hales Road	C - Hewlett Road
From	A - Westbound Internal	0	401	230
	B - B4075 Hales Road	560	0	134
	C - Hewlett Road	389	132	0

2 - East Rdbt (Mini)

Demand (Veh/hr)

		To		
		A - B4075 Priors Road	B - Harp Hill	C - Eastbound Internal
From	A - B4075 Priors Road	0	115	509
	B - Harp Hill	172	0	121
	C - Eastbound Internal	856	93	0

Vehicle Mix

1 - West Rdbt (Compact)

Heavy Vehicle Percentages

		To		
		A - Westbound Internal	B - B4075 Hales Road	C - Hewlett Road
From	A - Westbound Internal	0	3	1
	B - B4075 Hales Road	1	0	1
	C - Hewlett Road	1	0	0

2 - East Rdbt (Mini)

Heavy Vehicle Percentages

		To		
		A - B4075 Priors Road	B - Harp Hill	C - Eastbound Internal
From	A - B4075 Priors Road	0	5	2
	B - Harp Hill	0	0	1
	C - Eastbound Internal	1	1	0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - West Rdbt (Compact)	A - Westbound Internal	0.48	5.32	0.9	A	625	625
	B - B4075 Hales Road	0.66	9.93	1.9	A	694	694
	C - Hewlett Road	0.57	9.01	1.3	A	521	521
2 - East Rdbt (Mini)	A - B4075 Priors Road	0.66	11.18	1.9	B	624	624
	B - Harp Hill	0.60	18.78	1.5	C	293	293
	C - Eastbound Internal	0.79	14.21	3.7	B	946	946

2024 Forecast Year + Proposed Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	West Rdbt (Compact)	Standard Roundabout		A, B, C	10.48	B
2	East Rdbt (Mini)	Mini-roundabout		A, B, C	130.69	F

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D5	2024 Forecast Year + Proposed Development	AM	FLAT	08:00	09:00	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - West Rdbt (Compact)	A - Westbound Internal	2	C	Queue limited	Normal	0	100.00	4.50
2 - East Rdbt (Mini)	C - Eastbound Internal	1	A	Queue limited	Normal	0	100.00	4.50

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - West Rdbt (Compact)	A - Westbound Internal	✓				
	B - B4075 Hales Road		FLAT	✓	622	100.000
	C - Hewlett Road		FLAT	✓	372	100.000
2 - East Rdbt (Mini)	A - B4075 Priors Road		FLAT	✓	913	100.000
	B - Harp Hill		FLAT	✓	390	100.000
	C - Eastbound Internal	✓				

Origin-Destination Data

Demand (Veh/hr)

1 - West Rdbt (Compact)

		To		
		A - Westbound Internal	B - B4075 Hales Road	C - Hewlett Road
From	A - Westbound Internal	0	605	400
	B - B4075 Hales Road	455	0	167
	C - Hewlett Road	231	141	0

Demand (Veh/hr)

2 - East Rdbt (Mini)

		To		
		A - B4075 Priors Road	B - Harp Hill	C - Eastbound Internal
From	A - B4075 Priors Road	0	134	779
	B - Harp Hill	165	0	225
	C - Eastbound Internal	550	137	0

Vehicle Mix

Heavy Vehicle Percentages

1 - West Rdbt (Compact)

		To		
		A - Westbound Internal	B - B4075 Hales Road	C - Hewlett Road
From	A - Westbound Internal	0	4	3
	B - B4075 Hales Road	6	0	4
	C - Hewlett Road	2	1	0

Heavy Vehicle Percentages

2 - East Rdbt (Mini)

		To		
		A - B4075 Priors Road	B - Harp Hill	C - Eastbound Internal
From	A - B4075 Priors Road	0	2	3
	B - Harp Hill	0	0	3
	C - Eastbound Internal	5	5	0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - West Rdbt (Compact)	A - Westbound Internal	0.75	11.31	3.0	B	951	951
	B - B4075 Hales Road	0.67	11.77	2.0	B	622	622
	C - Hewlett Road	0.39	6.09	0.6	A	372	372
2 - East Rdbt (Mini)	A - B4075 Priors Road	0.99	109.62	27.0	F	913	913
	B - Harp Hill	1.11	402.95	42.5	F	390	390
	C - Eastbound Internal	0.59	7.44	1.4	A	682	682

2024 Forecast Year + Proposed Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout	2 - East Rdbt (Mini)	Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms A and C have 83% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	West Rdbt (Compact)	Standard Roundabout		A, B, C	27.13	D
2	East Rdbt (Mini)	Mini-roundabout		A, B, C	16.62	C

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D6	2024 Forecast Year + Proposed Development	PM	FLAT	17:00	18:00	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - West Rdbt (Compact)	A - Westbound Internal	2	C	Queue limited	Normal	0	100.00	4.50
2 - East Rdbt (Mini)	C - Eastbound Internal	1	A	Queue limited	Normal	0	100.00	4.50

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - West Rdbt (Compact)	A - Westbound Internal	✓				
	B - B4075 Hales Road		FLAT	✓	725	100.000
	C - Hewlett Road		FLAT	✓	531	100.000
2 - East Rdbt (Mini)	A - B4075 Priors Road		FLAT	✓	650	100.000
	B - Harp Hill		FLAT	✓	326	100.000
	C - Eastbound Internal	✓				

Origin-Destination Data

Demand (Veh/hr)

1 - West Rdbt (Compact)

		To		
		A - Westbound Internal	B - B4075 Hales Road	C - Hewlett Road
From	A - Westbound Internal	0	418	234
	B - B4075 Hales Road	591	0	134
	C - Hewlett Road	399	132	0

Demand (Veh/hr)

2 - East Rdbt (Mini)

		To		
		A - B4075 Priors Road	B - Harp Hill	C - Eastbound Internal
From	A - B4075 Priors Road	0	141	509
	B - Harp Hill	184	0	142
	C - Eastbound Internal	856	139	0

Vehicle Mix

Heavy Vehicle Percentages

1 - West Rdbt (Compact)

		To		
		A - Westbound Internal	B - B4075 Hales Road	C - Hewlett Road
From	A - Westbound Internal	0	3	1
	B - B4075 Hales Road	1	0	1
	C - Hewlett Road	1	0	0

Heavy Vehicle Percentages

2 - East Rdbt (Mini)

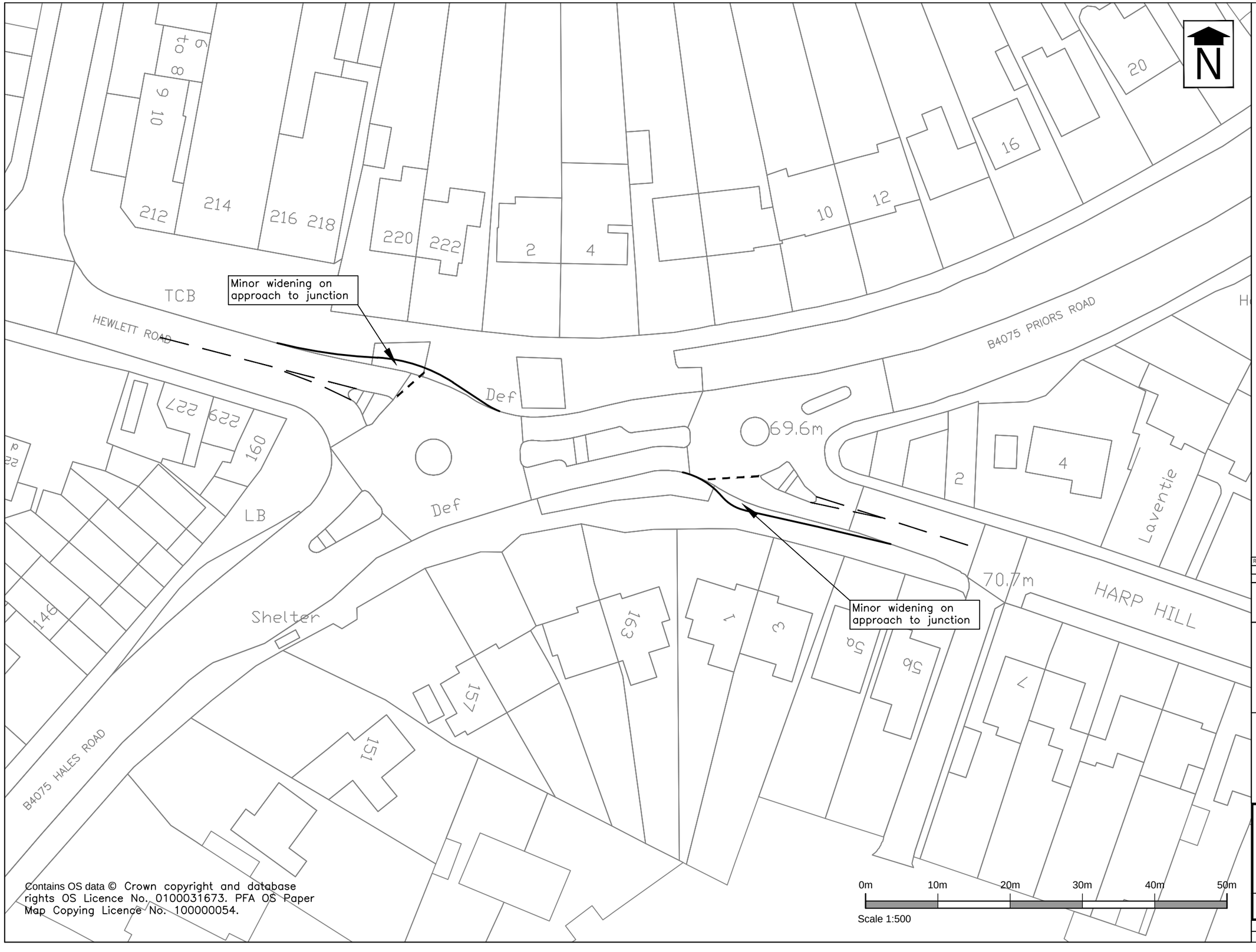
		To		
		A - B4075 Priors Road	B - Harp Hill	C - Eastbound Internal
From	A - B4075 Priors Road	0	5	2
	B - Harp Hill	0	0	1
	C - Eastbound Internal	1	1	0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - West Rdbt (Compact)	A - Westbound Internal	0.50	5.48	1.0	A	645	645
	B - B4075 Hales Road	0.91	39.61	7.6	E	725	725
	C - Hewlett Road	0.86	36.74	5.2	E	531	531
2 - East Rdbt (Mini)	A - B4075 Priors Road	0.70	13.17	2.4	B	650	650
	B - Harp Hill	0.67	22.68	2.0	C	326	326
	C - Eastbound Internal	0.83	16.95	4.5	C	980	980

Appendix R



0m 10m 20m 30m 40m 50m

Scale 1:500

PFA consulting

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Preliminary
This drawing is produced for initial discussion and illustrative purposes only, and should not be relied upon for tender or pricing purposes.

NOTES

1. Road markings are approximate.

Rev	Date	Description	Drawn	Check
A	26/02/20	Drawing Status and Project Title Changed.	RH	ECS
#	13/02/20	First Issue.	THP	ECS

Status
PRELIMINARY

Client
RobertHitchins
The Complete Development Solution

Project
Land at Oakley Farm, Battledown, Cheltenham

Drawing title
B4075 Priors Road/Hales Road/Harp Hill/Hewlett Road Double Roundabout Potential Minor Improvements

Drawing No. H628/04 Rev A

Date: February 2020 Scale: 1:500 @ A3

E-Mail: jalexander@pfaplc.com

Appendix S

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.0.6896

Filename: J1_B4075 Priors Road_Hales Road_Double Rdbt_flat_Improvements.j9
Path: F:\Workfile\H628\Traffic Modelling\Junctions9
Report generation date: 06/12/2019 15:57:25

Summary of junction performance

	AM				PM			
	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS
	2019 Base Year							
1 - West Rdbt (Compact) - A - Westbound Internal	2.2	9.17	0.69	A	0.8	5.05	0.45	A
1 - West Rdbt (Compact) - B - B4075 Hales Road	1.6	9.96	0.61	A	1.6	8.85	0.62	A
1 - West Rdbt (Compact) - C - Hewlett Road	0.5	4.83	0.32	A	0.9	6.51	0.47	A
2 - East Rdbt (Mini) - A - B4075 Priors Road	9.4	41.96	0.91	E	1.6	10.06	0.62	B
2 - East Rdbt (Mini) - B - Harp Hill	1.9	23.84	0.66	C	0.9	11.94	0.48	B
2 - East Rdbt (Mini) - C - Eastbound Internal	1.1	6.59	0.54	A	2.8	11.58	0.74	B
	2024 Forecast Year							
1 - West Rdbt (Compact) - A - Westbound Internal	2.7	10.56	0.73	B	0.9	5.32	0.48	A
1 - West Rdbt (Compact) - B - B4075 Hales Road	1.9	11.30	0.66	B	1.9	9.93	0.66	A
1 - West Rdbt (Compact) - C - Hewlett Road	0.5	5.07	0.34	A	1.0	7.12	0.51	A
2 - East Rdbt (Mini) - A - B4075 Priors Road	20.1	83.81	0.97	F	1.9	11.18	0.66	B
2 - East Rdbt (Mini) - B - Harp Hill	2.6	31.20	0.73	D	1.1	13.21	0.52	B
2 - East Rdbt (Mini) - C - Eastbound Internal	1.3	7.12	0.57	A	3.7	14.21	0.79	B
	2024 Forecast Year + Proposed Development							
1 - West Rdbt (Compact) - A - Westbound Internal	3.2	12.13	0.77	B	1.0	5.48	0.50	A
1 - West Rdbt (Compact) - B - B4075 Hales Road	2.0	11.94	0.67	B	7.8	40.66	0.92	E
1 - West Rdbt (Compact) - C - Hewlett Road	0.5	5.15	0.35	A	4.8	33.81	0.85	D
2 - East Rdbt (Mini) - A - B4075 Priors Road	27.0	109.62	0.99	F	2.4	13.17	0.70	B
2 - East Rdbt (Mini) - B - Harp Hill	8.1	80.31	0.91	F	1.3	15.03	0.58	C
2 - East Rdbt (Mini) - C - Eastbound Internal	1.4	7.56	0.59	A	4.5	16.94	0.83	C

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

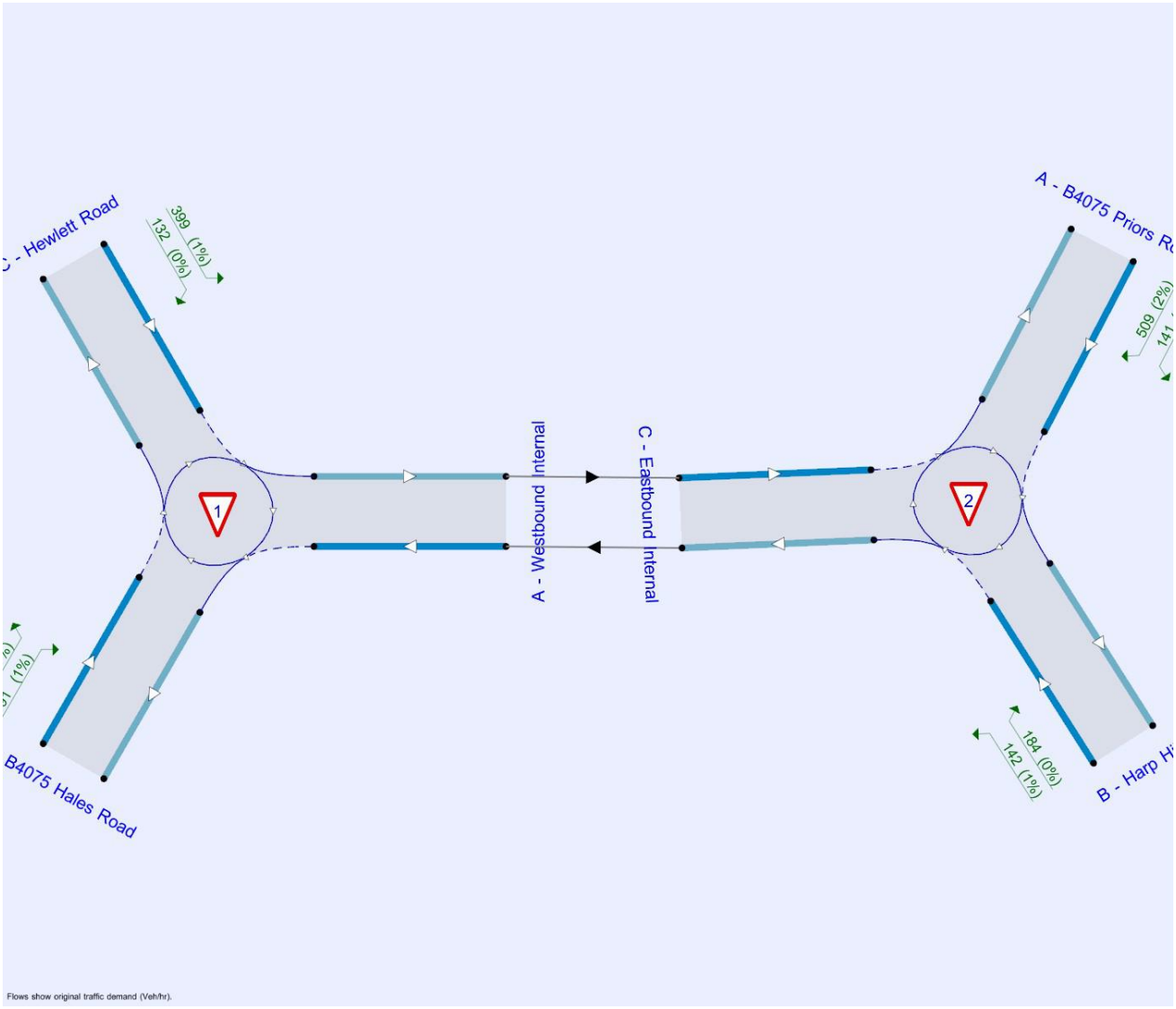
File summary

File Description

Title	B4075 Priors Road / Hales Road / Harp Hill / Hewlett Road Double Roundabout
Location	Battledown, Cheltenham
Site number	J1
Date	12/06/2019
Version	
Status	Existing
Identifier	
Client	
Jobnumber	H628
Enumerator	PFA\trafficteam
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin



The junction diagram reflects the last run of Junctions.

Analysis Options

Mini-roundabout model	Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
JUNCTIONS 9	5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	2019 Base Year	AM	FLAT	08:00	09:00	60	15	✓
D2	2019 Base Year	PM	FLAT	17:00	18:00	60	15	✓
D3	2024 Forecast Year	AM	FLAT	08:00	09:00	60	15	✓
D4	2024 Forecast Year	PM	FLAT	17:00	18:00	60	15	✓
D5	2024 Forecast Year + Proposed Development	AM	FLAT	08:00	09:00	60	15	✓
D6	2024 Forecast Year + Proposed Development	PM	FLAT	17:00	18:00	60	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2019 Base Year, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout	2 - East Rdbt (Mini)	Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms A and C have 83% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	West Rdbt (Compact)	Standard Roundabout		A, B, C	8.60	A
2	East Rdbt (Mini)	Mini-roundabout		A, B, C	26.26	D

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Junction	Arm	Name	Description
1 - West Rdbt (Compact)	A	Westbound Internal	
	B	B4075 Hales Road	
	C	Hewlett Road	
2 - East Rdbt (Mini)	A	B4075 Priors Road	
	B	Harp Hill	
	C	Eastbound Internal	

Roundabout Geometry

Junction	Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - West Rdbt (Compact)	A - Westbound Internal	3.25	3.25	0.0	200.0	20.0	6.0	
	B - B4075 Hales Road	3.75	4.75	2.5	13.0	20.0	40.0	
	C - Hewlett Road	3.50	5.50	3.0	999.0	20.0	11.5	

Mini Roundabout Geometry

Junction	Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
2 - East Rdbt (Mini)	A - B4075 Priors Road	3.50	3.50	4.00	1.5	6.50	4.00	0.0	✓
	B - Harp Hill	3.50	2.25	5.50	5.0	8.50	10.00	0.0	✓
	C - Eastbound Internal	3.25	3.25	3.25	0.0	13.50	13.00	0.0	✓

Slope / Intercept / Capacity

Arm Intercept Adjustments

Junction	Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
1 - West Rdbt (Compact)	A - Westbound Internal	Direct		300
	B - B4075 Hales Road	None		
	C - Hewlett Road	None		
2 - East Rdbt (Mini)	A - B4075 Priors Road	None		
	B - Harp Hill	None		
	C - Eastbound Internal	Direct		300

Roundabout Slope and Intercept used in model

Junction	Arm	Final slope	Final intercept (PCU/hr)
1 - West Rdbt (Compact)	A - Westbound Internal	0.582	1410
	B - B4075 Hales Road	0.540	1192
	C - Hewlett Road	0.636	1394
2 - East Rdbt (Mini)	A - B4075 Priors Road	0.507	1018
	B - Harp Hill	0.493	824
	C - Eastbound Internal	0.498	1299

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	2019 Base Year	AM	FLAT	08:00	09:00	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - West Rdbt (Compact)	A - Westbound Internal	2	C	Queue limited	Normal	0	100.00	4.50
2 - East Rdbt (Mini)	C - Eastbound Internal	1	A	Queue limited	Normal	0	100.00	4.50

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - West Rdbt (Compact)	A - Westbound Internal	✓				
	B - B4075 Hales Road		FLAT	✓	576	100.000
	C - Hewlett Road		FLAT	✓	350	100.000
2 - East Rdbt (Mini)	A - B4075 Priors Road		FLAT	✓	850	100.000
	B - Harp Hill		FLAT	✓	294	100.000
	C - Eastbound Internal	✓				

Origin-Destination Data

Demand (Veh/hr)

1 - West Rdbt (Compact)

		To		
		A - Westbound Internal	B - B4075 Hales Road	C - Hewlett Road
From	A - Westbound Internal	0	531	368
	B - B4075 Hales Road	417	0	159
	C - Hewlett Road	216	134	0

Demand (Veh/hr)

2 - East Rdbt (Mini)

		To		
		A - B4075 Priors Road	B - Harp Hill	C - Eastbound Internal
From	A - B4075 Priors Road	0	117	733
	B - Harp Hill	128	0	166
	C - Eastbound Internal	518	115	0

Vehicle Mix

Heavy Vehicle Percentages

1 - West Rdbt (Compact)

		To		
		A - Westbound Internal	B - B4075 Hales Road	C - Hewlett Road
From	A - Westbound Internal	0	4	3
	B - B4075 Hales Road	6	0	4
	C - Hewlett Road	2	1	0

Heavy Vehicle Percentages

2 - East Rdbt (Mini)

		To		
		A - B4075 Priors Road	B - Harp Hill	C - Eastbound Internal
From	A - B4075 Priors Road	0	2	3
	B - Harp Hill	0	0	3
	C - Eastbound Internal	5	5	0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - West Rdbt (Compact)	A - Westbound Internal	0.69	9.17	2.2	A	885	885
	B - B4075 Hales Road	0.61	9.96	1.6	A	576	576
	C - Hewlett Road	0.32	4.83	0.5	A	350	350
2 - East Rdbt (Mini)	A - B4075 Priors Road	0.91	41.96	9.4	E	850	850
	B - Harp Hill	0.66	23.84	1.9	C	294	294
	C - Eastbound Internal	0.54	6.59	1.1	A	629	629

2019 Base Year, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout	2 - East Rdbt (Mini)	Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms A and C have 84% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	West Rdbt (Compact)	Standard Roundabout		A, B, C	6.89	A
2	East Rdbt (Mini)	Mini-roundabout		A, B, C	11.12	B

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	2019 Base Year	PM	FLAT	17:00	18:00	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - West Rdbt (Compact)	A - Westbound Internal	2	C	Queue limited	Normal	0	100.00	4.50
2 - East Rdbt (Mini)	C - Eastbound Internal	1	A	Queue limited	Normal	0	100.00	4.50

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - West Rdbt (Compact)	A - Westbound Internal	✓				
	B - B4075 Hales Road		FLAT	✓	656	100.000
	C - Hewlett Road		FLAT	✓	494	100.000
2 - East Rdbt (Mini)	A - B4075 Priors Road		FLAT	✓	590	100.000
	B - Harp Hill		FLAT	✓	278	100.000
	C - Eastbound Internal	✓				

Origin-Destination Data

1 - West Rdbt (Compact)

Demand (Veh/hr)

		To		
		A - Westbound Internal	B - B4075 Hales Road	C - Hewlett Road
From	A - Westbound Internal	0	379	218
	B - B4075 Hales Road	528	0	128
	C - Hewlett Road	368	126	0

2 - East Rdbt (Mini)

Demand (Veh/hr)

		To		
		A - B4075 Priors Road	B - Harp Hill	C - Eastbound Internal
From	A - B4075 Priors Road	0	109	481
	B - Harp Hill	162	0	116
	C - Eastbound Internal	807	89	0

Vehicle Mix

1 - West Rdbt (Compact)

Heavy Vehicle Percentages

		To		
		A - Westbound Internal	B - B4075 Hales Road	C - Hewlett Road
From	A - Westbound Internal	0	3	1
	B - B4075 Hales Road	1	0	1
	C - Hewlett Road	1	0	0

2 - East Rdbt (Mini)

Heavy Vehicle Percentages

		To		
		A - B4075 Priors Road	B - Harp Hill	C - Eastbound Internal
From	A - B4075 Priors Road	0	5	2
	B - Harp Hill	0	0	1
	C - Eastbound Internal	1	1	0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - West Rdbt (Compact)	A - Westbound Internal	0.45	5.05	0.8	A	593	593
	B - B4075 Hales Road	0.62	8.85	1.6	A	656	656
	C - Hewlett Road	0.47	6.51	0.9	A	494	494
2 - East Rdbt (Mini)	A - B4075 Priors Road	0.62	10.06	1.6	B	590	590
	B - Harp Hill	0.48	11.94	0.9	B	278	278
	C - Eastbound Internal	0.74	11.58	2.8	B	894	894

2024 Forecast Year, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout	2 - East Rdbt (Mini)	Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms A and C have 83% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	West Rdbt (Compact)	Standard Roundabout		A, B, C	9.76	A
2	East Rdbt (Mini)	Mini-roundabout		A, B, C	47.68	E

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D3	2024 Forecast Year	AM	FLAT	08:00	09:00	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - West Rdbt (Compact)	A - Westbound Internal	2	C	Queue limited	Normal	0	100.00	4.50
2 - East Rdbt (Mini)	C - Eastbound Internal	1	A	Queue limited	Normal	0	100.00	4.50

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - West Rdbt (Compact)	A - Westbound Internal	✓				
	B - B4075 Hales Road		FLAT	✓	609	100.000
	C - Hewlett Road		FLAT	✓	369	100.000
2 - East Rdbt (Mini)	A - B4075 Priors Road		FLAT	✓	903	100.000
	B - Harp Hill		FLAT	✓	310	100.000
	C - Eastbound Internal	✓				

Origin-Destination Data

1 - West Rdbt (Compact)

Demand (Veh/hr)

		To		
		A - Westbound Internal	B - B4075 Hales Road	C - Hewlett Road
From	A - Westbound Internal	0	564	389
	B - B4075 Hales Road	442	0	167
	C - Hewlett Road	228	141	0

2 - East Rdbt (Mini)

Demand (Veh/hr)

		To		
		A - B4075 Priors Road	B - Harp Hill	C - Eastbound Internal
From	A - B4075 Priors Road	0	124	779
	B - Harp Hill	136	0	174
	C - Eastbound Internal	550	121	0

Vehicle Mix

1 - West Rdbt (Compact)

Heavy Vehicle Percentages

		To		
		A - Westbound Internal	B - B4075 Hales Road	C - Hewlett Road
From	A - Westbound Internal	0	4	3
	B - B4075 Hales Road	6	0	4
	C - Hewlett Road	2	1	0

2 - East Rdbt (Mini)

Heavy Vehicle Percentages

		To		
		A - B4075 Priors Road	B - Harp Hill	C - Eastbound Internal
From	A - B4075 Priors Road	0	2	3
	B - Harp Hill	0	0	3
	C - Eastbound Internal	5	5	0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - West Rdbt (Compact)	A - Westbound Internal	0.73	10.56	2.7	B	929	929
	B - B4075 Hales Road	0.66	11.30	1.9	B	609	609
	C - Hewlett Road	0.34	5.07	0.5	A	369	369
2 - East Rdbt (Mini)	A - B4075 Priors Road	0.97	83.81	20.1	F	903	903
	B - Harp Hill	0.73	31.20	2.6	D	310	310
	C - Eastbound Internal	0.57	7.12	1.3	A	666	666

2024 Forecast Year, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout	2 - East Rdbt (Mini)	Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms A and C have 84% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	West Rdbt (Compact)	Standard Roundabout		A, B, C	7.56	A
2	East Rdbt (Mini)	Mini-roundabout		A, B, C	13.03	B

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D4	2024 Forecast Year	PM	FLAT	17:00	18:00	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - West Rdbt (Compact)	A - Westbound Internal	2	C	Queue limited	Normal	0	100.00	4.50
2 - East Rdbt (Mini)	C - Eastbound Internal	1	A	Queue limited	Normal	0	100.00	4.50

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - West Rdbt (Compact)	A - Westbound Internal	✓				
	B - B4075 Hales Road		FLAT	✓	694	100.000
	C - Hewlett Road		FLAT	✓	521	100.000
2 - East Rdbt (Mini)	A - B4075 Priors Road		FLAT	✓	624	100.000
	B - Harp Hill		FLAT	✓	293	100.000
	C - Eastbound Internal	✓				

Origin-Destination Data

1 - West Rdbt (Compact)

Demand (Veh/hr)

		To		
		A - Westbound Internal	B - B4075 Hales Road	C - Hewlett Road
From	A - Westbound Internal	0	401	230
	B - B4075 Hales Road	560	0	134
	C - Hewlett Road	389	132	0

2 - East Rdbt (Mini)

Demand (Veh/hr)

		To		
		A - B4075 Priors Road	B - Harp Hill	C - Eastbound Internal
From	A - B4075 Priors Road	0	115	509
	B - Harp Hill	172	0	121
	C - Eastbound Internal	856	93	0

Vehicle Mix

1 - West Rdbt (Compact)

Heavy Vehicle Percentages

		To		
		A - Westbound Internal	B - B4075 Hales Road	C - Hewlett Road
From	A - Westbound Internal	0	3	1
	B - B4075 Hales Road	1	0	1
	C - Hewlett Road	1	0	0

2 - East Rdbt (Mini)

Heavy Vehicle Percentages

		To		
		A - B4075 Priors Road	B - Harp Hill	C - Eastbound Internal
From	A - B4075 Priors Road	0	5	2
	B - Harp Hill	0	0	1
	C - Eastbound Internal	1	1	0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - West Rdbt (Compact)	A - Westbound Internal	0.48	5.32	0.9	A	625	625
	B - B4075 Hales Road	0.66	9.93	1.9	A	694	694
	C - Hewlett Road	0.51	7.12	1.0	A	521	521
2 - East Rdbt (Mini)	A - B4075 Priors Road	0.66	11.18	1.9	B	624	624
	B - Harp Hill	0.52	13.21	1.1	B	293	293
	C - Eastbound Internal	0.79	14.21	3.7	B	947	947

2024 Forecast Year + Proposed Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	West Rdbt (Compact)	Standard Roundabout		A, B, C	10.78	B
2	East Rdbt (Mini)	Mini-roundabout		A, B, C	68.34	F

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D5	2024 Forecast Year + Proposed Development	AM	FLAT	08:00	09:00	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - West Rdbt (Compact)	A - Westbound Internal	2	C	Queue limited	Normal	0	100.00	4.50
2 - East Rdbt (Mini)	C - Eastbound Internal	1	A	Queue limited	Normal	0	100.00	4.50

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - West Rdbt (Compact)	A - Westbound Internal	✓				
	B - B4075 Hales Road		FLAT	✓	622	100.000
	C - Hewlett Road		FLAT	✓	372	100.000
2 - East Rdbt (Mini)	A - B4075 Priors Road		FLAT	✓	913	100.000
	B - Harp Hill		FLAT	✓	390	100.000
	C - Eastbound Internal	✓				

Origin-Destination Data

Demand (Veh/hr)

1 - West Rdbt (Compact)

		To		
		A - Westbound Internal	B - B4075 Hales Road	C - Hewlett Road
From	A - Westbound Internal	0	605	400
	B - B4075 Hales Road	455	0	167
	C - Hewlett Road	231	141	0

Demand (Veh/hr)

2 - East Rdbt (Mini)

		To		
		A - B4075 Priors Road	B - Harp Hill	C - Eastbound Internal
From	A - B4075 Priors Road	0	134	779
	B - Harp Hill	165	0	225
	C - Eastbound Internal	550	137	0

Vehicle Mix

Heavy Vehicle Percentages

1 - West Rdbt (Compact)

		To		
		A - Westbound Internal	B - B4075 Hales Road	C - Hewlett Road
From	A - Westbound Internal	0	4	3
	B - B4075 Hales Road	6	0	4
	C - Hewlett Road	2	1	0

Heavy Vehicle Percentages

2 - East Rdbt (Mini)

		To		
		A - B4075 Priors Road	B - Harp Hill	C - Eastbound Internal
From	A - B4075 Priors Road	0	2	3
	B - Harp Hill	0	0	3
	C - Eastbound Internal	5	5	0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - West Rdbt (Compact)	A - Westbound Internal	0.77	12.13	3.2	B	971	971
	B - B4075 Hales Road	0.67	11.94	2.0	B	622	622
	C - Hewlett Road	0.35	5.15	0.5	A	372	372
2 - East Rdbt (Mini)	A - B4075 Priors Road	0.99	109.62	27.0	F	913	913
	B - Harp Hill	0.91	80.31	8.1	F	390	390
	C - Eastbound Internal	0.59	7.56	1.4	A	682	682

2024 Forecast Year + Proposed Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout	2 - East Rdbt (Mini)	Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms A and C have 83% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	West Rdbt (Compact)	Standard Roundabout		A, B, C	26.71	D
2	East Rdbt (Mini)	Mini-roundabout		A, B, C	15.36	C

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D6	2024 Forecast Year + Proposed Development	PM	FLAT	17:00	18:00	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - West Rdbt (Compact)	A - Westbound Internal	2	C	Queue limited	Normal	0	100.00	4.50
2 - East Rdbt (Mini)	C - Eastbound Internal	1	A	Queue limited	Normal	0	100.00	4.50

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - West Rdbt (Compact)	A - Westbound Internal	✓				
	B - B4075 Hales Road		FLAT	✓	725	100.000
	C - Hewlett Road		FLAT	✓	531	100.000
2 - East Rdbt (Mini)	A - B4075 Priors Road		FLAT	✓	650	100.000
	B - Harp Hill		FLAT	✓	326	100.000
	C - Eastbound Internal	✓				

Origin-Destination Data

1 - West Rdbt (Compact)

Demand (Veh/hr)

		To		
		A - Westbound Internal	B - B4075 Hales Road	C - Hewlett Road
From	A - Westbound Internal	0	418	234
	B - B4075 Hales Road	591	0	134
	C - Hewlett Road	399	132	0

2 - East Rdbt (Mini)

Demand (Veh/hr)

		To		
		A - B4075 Priors Road	B - Harp Hill	C - Eastbound Internal
From	A - B4075 Priors Road	0	141	509
	B - Harp Hill	184	0	142
	C - Eastbound Internal	856	139	0

Vehicle Mix

1 - West Rdbt (Compact)

Heavy Vehicle Percentages

		To		
		A - Westbound Internal	B - B4075 Hales Road	C - Hewlett Road
From	A - Westbound Internal	0	3	1
	B - B4075 Hales Road	1	0	1
	C - Hewlett Road	1	0	0

2 - East Rdbt (Mini)

Heavy Vehicle Percentages

		To		
		A - B4075 Priors Road	B - Harp Hill	C - Eastbound Internal
From	A - B4075 Priors Road	0	5	2
	B - Harp Hill	0	0	1
	C - Eastbound Internal	1	1	0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - West Rdbt (Compact)	A - Westbound Internal	0.50	5.48	1.0	A	645	645
	B - B4075 Hales Road	0.92	40.66	7.8	E	725	725
	C - Hewlett Road	0.85	33.81	4.8	D	531	531
2 - East Rdbt (Mini)	A - B4075 Priors Road	0.70	13.17	2.4	B	650	650
	B - Harp Hill	0.58	15.03	1.3	C	326	326
	C - Eastbound Internal	0.83	16.94	4.5	C	980	980

Appendix T

PFA Template

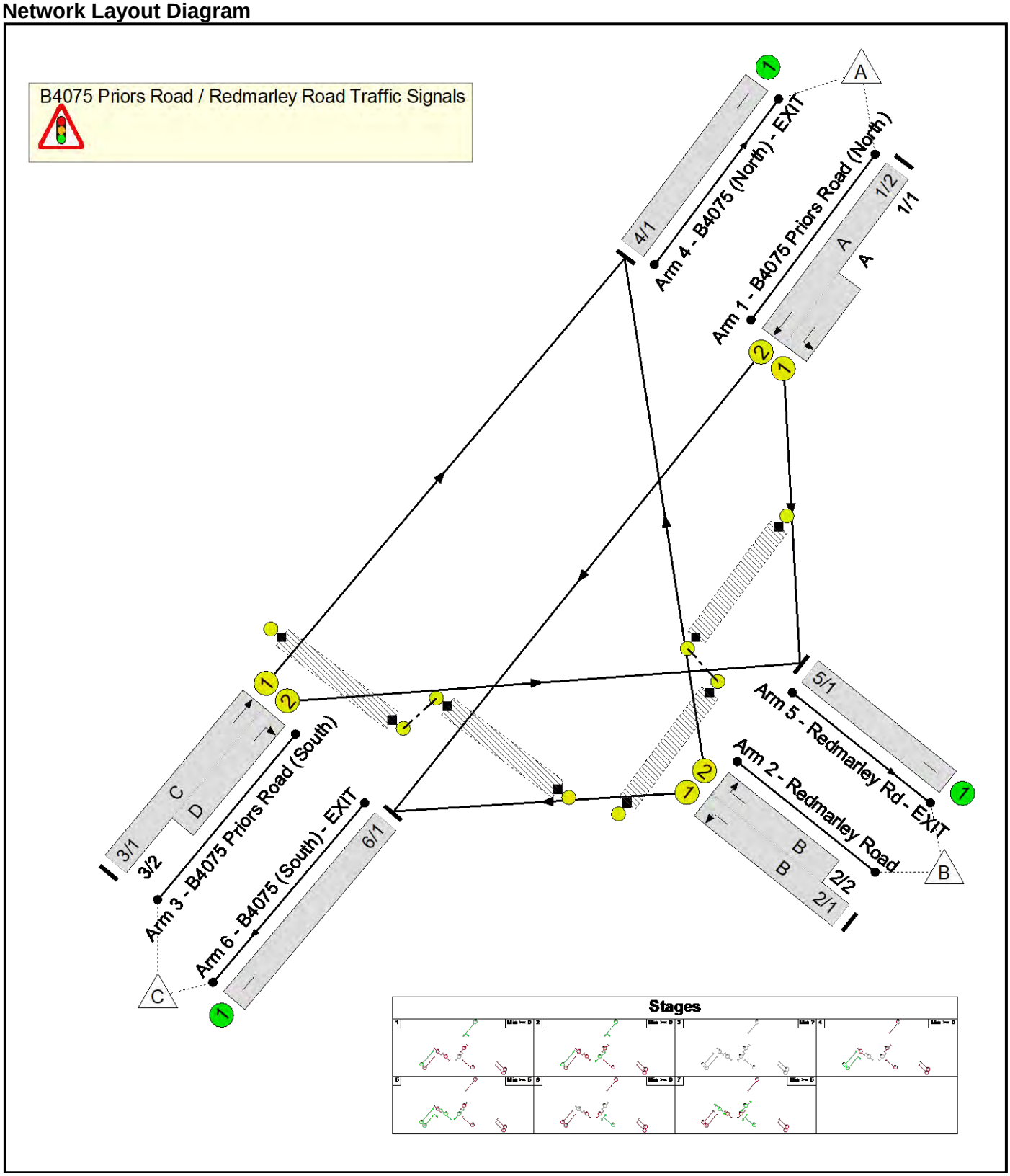
Project and User Details

Project:	**Oakley Farm, Battledown, Cheltenham**
Title:	**Existing Junction**
Location:	
Additional detail:	Model set up using signal spec TS-062
File name:	J2 - B4075 Priors Road_Redmarley Road Traffic Signals.lsg3x
Author:	A Miles
Company:	PFA Consulting
Address:	Swindon
Linsig Version:	3, 2, 39, 0

Scenarios

Number	Scenario Name	Flow Group	Network Control Plan	Time	Cycle Time (s)	PRC (%)	Delay (pcuHr)
1	2019 Base Year AM	2019 Base Year AM	Network Control Plan 1	08:00 - 09:00	90	22.2	11.03
2	2019 Base Year PM	2019 Base Year PM	Network Control Plan 1	17:00 - 18:00	90	-6.9	21.33
3	2024 Forecast Year AM	2024 Forecast Year AM	Network Control Plan 1	08:00 - 09:00	90	14.7	12.26
4	2024 Forecast Year PM	2024 Forecast Year PM	Network Control Plan 1	17:00 - 18:00	90	-12.0	32.26
5	2024 Forecast Year With Proposed Development AM	2024 Forecast Year With Proposed Development AM	Network Control Plan 1	08:00 - 09:00	90	13.3	12.59
6	2024 Forecast Year With Proposed Development PM	2024 Forecast Year With Proposed Development PM	Network Control Plan 1	17:00 - 18:00	90	-12.4	33.84

Network Layout Diagram



Lane Input Data

Junction: B4075 Priors Road / Redmarley Road Traffic Signals												
Lane	**Lane Type**	**Phases**	**Start Disp.**	**End Disp.**	**Physical Length (PCU)**	**Sat Flow Type**	**Def User Saturation Flow (PCU/Hr)**	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Turns**	**Turning Radius (m)**
1/1 (B4075 Priors Road (North))	U	A	2	3	4.9	Geom	-	3.00	0.00	Y	Arm 5 Left	11.00
1/2 (B4075 Priors Road (North))	U	A	2	3	60.0	Geom	-	3.10	0.00	Y	Arm 6 Ahead	Inf
2/1 (Redmarley Road)	U	B	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 6 Left	15.00
2/2 (Redmarley Road)	U	B	2	3	7.7	Geom	-	3.20	0.00	Y	Arm 4 Right	12.00
3/1 (B4075 Priors Road (South))	U	C	2	3	60.0	Geom	-	3.38	0.00	Y	Arm 4 Ahead	Inf
3/2 (B4075 Priors Road (South))	U	D	2	3	7.8	Geom	-	3.20	0.00	Y	Arm 5 Right	7.50
4/1 (B4075 (North) - EXIT)	U		2	3	60.0	Inf	-	-	-	-	-	-
5/1 (Redmarley Rd - EXIT)	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1 (B4075 (South) - EXIT)	U		2	3	60.0	Inf	-	-	-	-	-	-

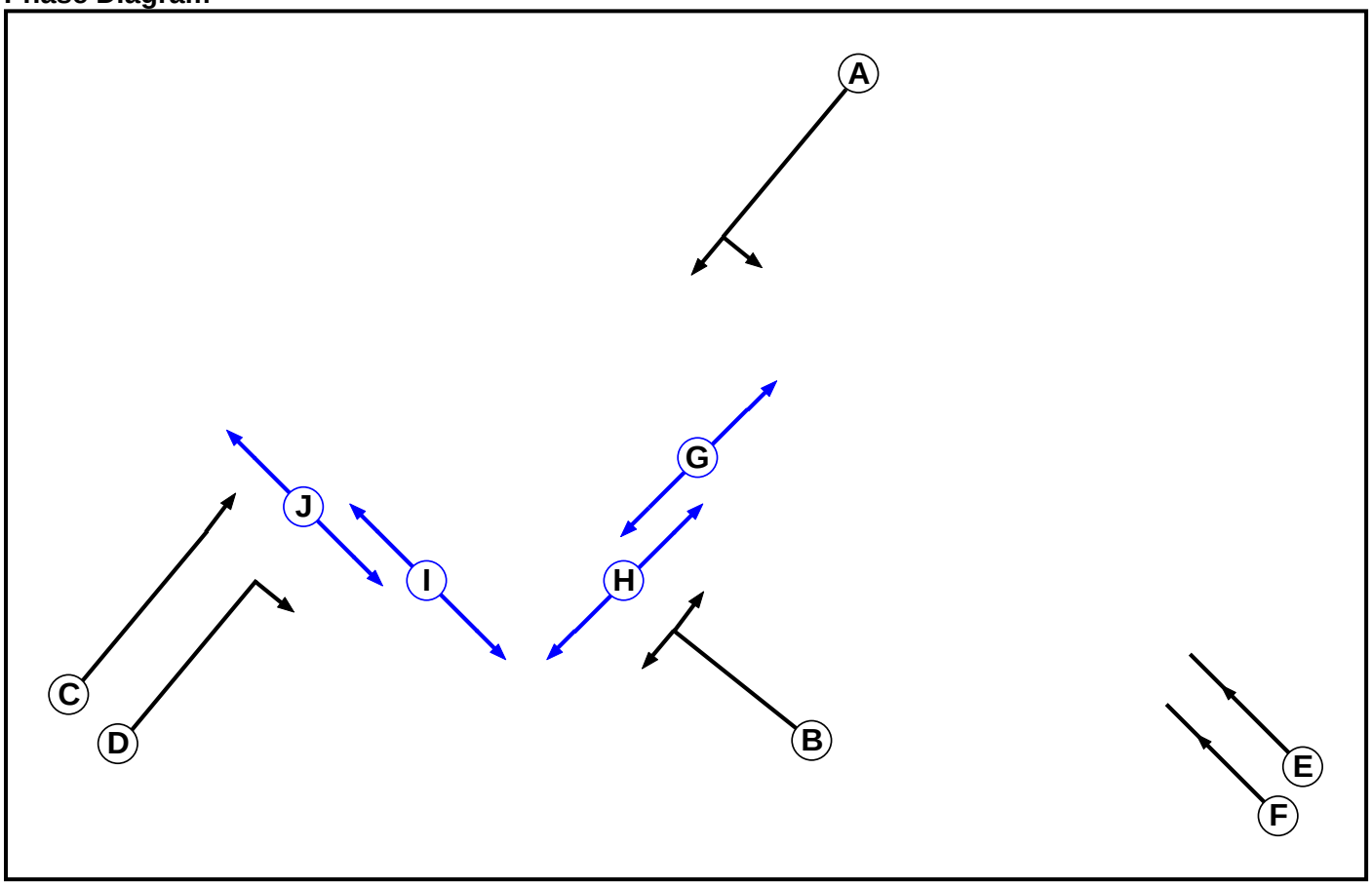
Give-Way Lane Input Data

Junction: B4075 Priors Road / Redmarley Road Traffic Signals
There are no Opposed Lanes in this Junction

Lane Connector Input Data

Junction: B4075 Priors Road / Redmarley Road Traffic Signals				
Org Lane	**Dest Lane**	**Junction**	**Mean Cruise Time**	**Platoon Dispersion**
1/1	5/1	Internal	5	35
1/2	6/1	Internal	5	35
2/1	6/1	Internal	5	35
2/2	4/1	Internal	5	35
3/1	4/1	Internal	5	35
3/2	5/1	Internal	5	35

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Traffic		7	7
E	Traffic		7	7
F	Traffic		7	7
G	Pedestrian		5	5
H	Pedestrian		5	5
I	Pedestrian		5	5
J	Pedestrian		5	5

Phase Intergreens Matrix

Terminating Phase \ Starting Phase	A	B	C	D	E	F	G	H	I	J
A		7	-	5	12	7	9	-	11	-
B	5		5	5	8	11	-	6	9	-
C	-	5		-	7	12	-	-	-	7
D	5	6	-		6	8	12	-	-	7
E	5	5	5	5		5	10	-	8	6
F	5	5	5	5	5		9	-	12	-
G	0	-	-	0	0	0		-	-	-
H	-	0	-	-	-	-	-		-	-
I	0	0	-	-	0	0	-	-		-
J	-	-	0	0	0	-	-	-	-	

Phases in Stage

Stage No.	Phases in Stage
1	A C
2	A C H
3	
4	C D
5	C D H I
6	B
7	B G J

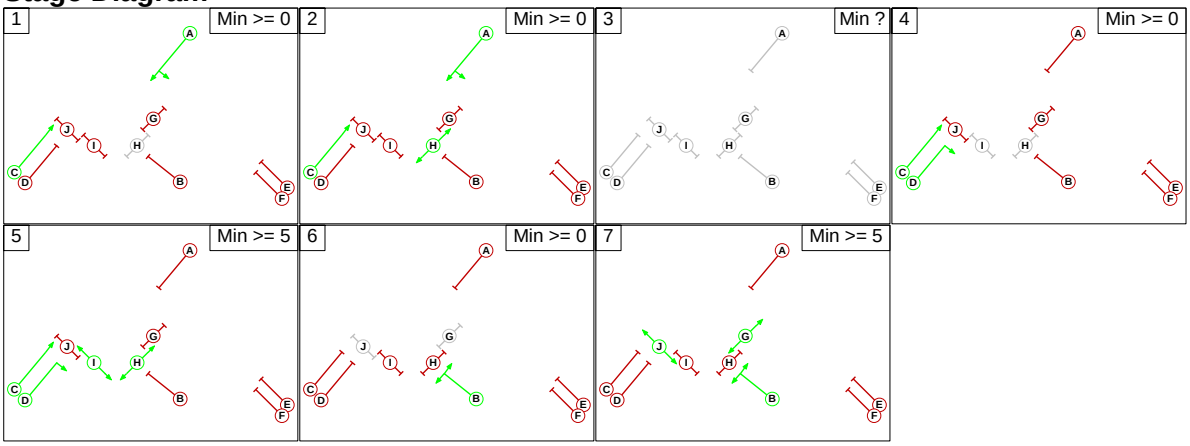
Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

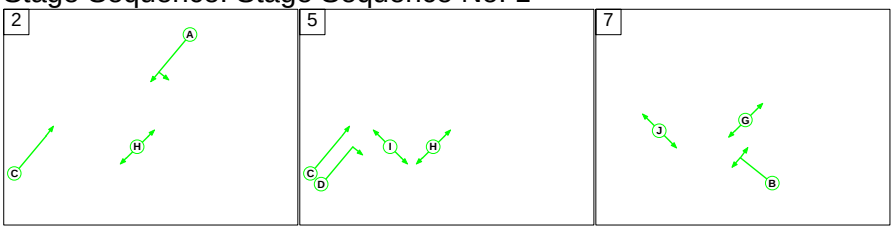
From Stage \ To Stage	1	2	3	4	5	6	7
1		0	X	5	11	7	9
2	0		X	5	11	7	9
3	X	X		X	X	X	X
4	5	5	X		0	6	12
5	5	5	X	0		6	12
6	5	6	X	5	9		0
7	5	6	X	5	9	0	

Stage Diagram



Stage Sequence Summary

Stage Sequence: Stage Sequence No. 1



Network Control Plans

Plan	Controller	Sequence Name	Sequence
Network Control Plan 1	C1	Stage Sequence No. 1	2,5,7

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2019 Base Year AM'	08:00	09:00	01:00	
2: '2019 Base Year PM'	17:00	18:00	01:00	
3: '2024 Forecast Year AM'	08:00	09:00	01:00	
4: '2024 Forecast Year PM'	17:00	18:00	01:00	
5: '2024 Forecast Year With Proposed Development AM'	08:00	09:00	01:00	
6: '2024 Forecast Year With Proposed Development PM'	17:00	18:00	01:00	

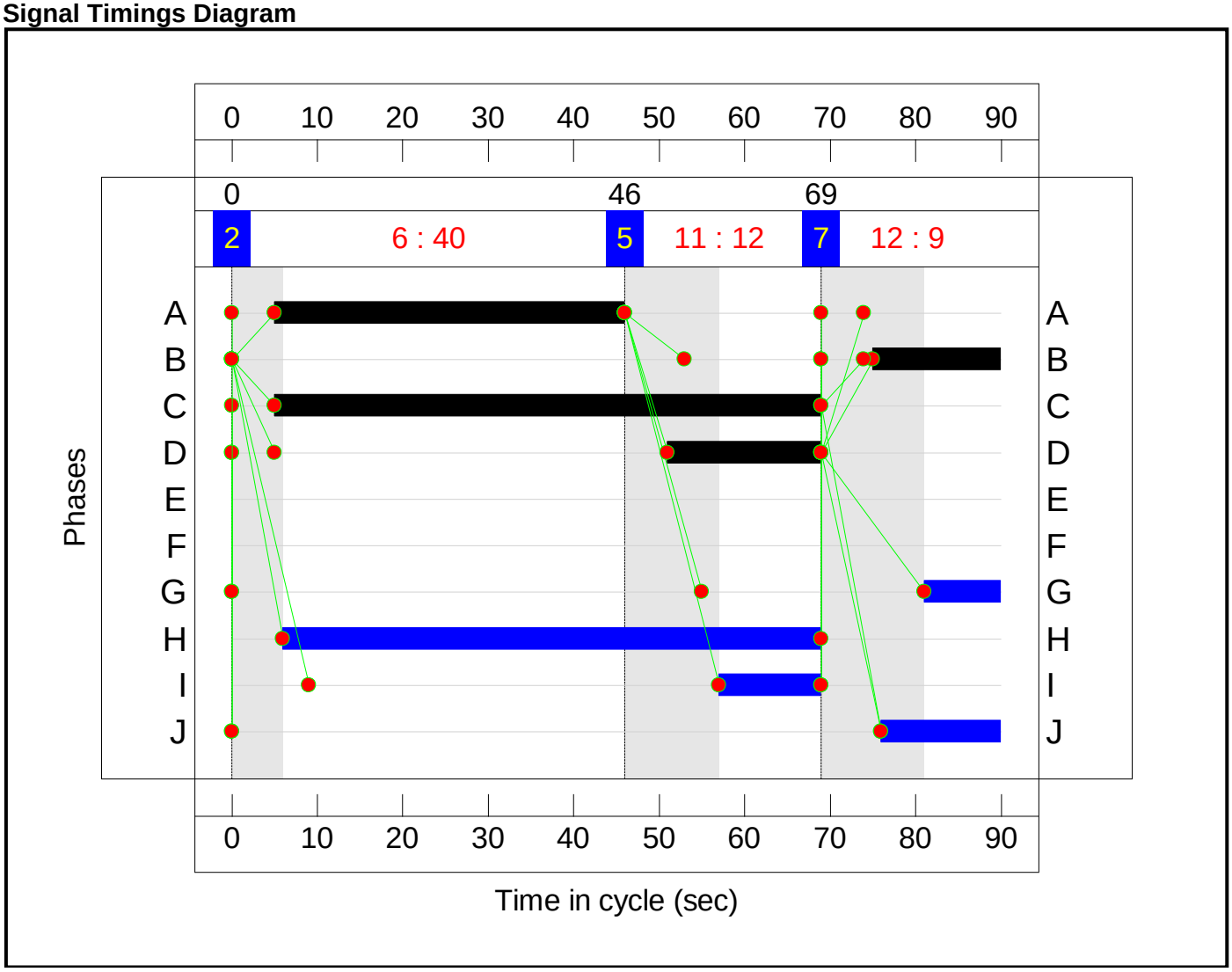
Scenario 1: '2019 Base Year AM' (FG1: '2019 Base Year AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Actual

Actual Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	92	602	694
	B	147	0	190	337
	C	537	123	0	660
	Tot.	684	215	792	1691

Signal Timings Diagram



Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
1/2+1/1	B4075 Priors Road (North) Left Ahead	U	A		1	41	-	694	1925:1685	817+125	73.7 : 73.7%	-	-	-	5.0	25.8	14.3
2/1+2/2	Redmarley Road Right Left	U	B		1	15	-	337	1786:1720	318+246	59.8 : 59.8%	-	-	-	3.9	41.6	5.1
3/1+3/2	B4075 Priors Road (South) Ahead Right	U	C D		1	64:18	-	660	1953:1613	1183+271	45.4 : 45.4%	-	-	-	2.2	11.8	5.5
P1	B4075 (South) - Approach Ped C.	-	J		1	14	-	0	-	0	0.0%	-	-	-	-	-	-
P2	B4075 (South) - EXIT Ped C.	-	I		1	12	-	0	-	0	0.0%	-	-	-	-	-	-
P3	Redmarley Rd - Approach Ped C.	-	H		1	63	-	0	-	0	0.0%	-	-	-	-	-	-
P4	Redmarley Rd - EXIT Ped C.	-	G		1	9	-	0	-	0	0.0%	-	-	-	-	-	-

C1

PRC for Signalled Lanes (%): 22.2
PRC Over All Lanes (%): 22.2

Total Delay for Signalled Lanes (pcuHr): 11.03
Total Delay Over All Lanes(pcuHr): 11.03

Cycle Time (s): 90

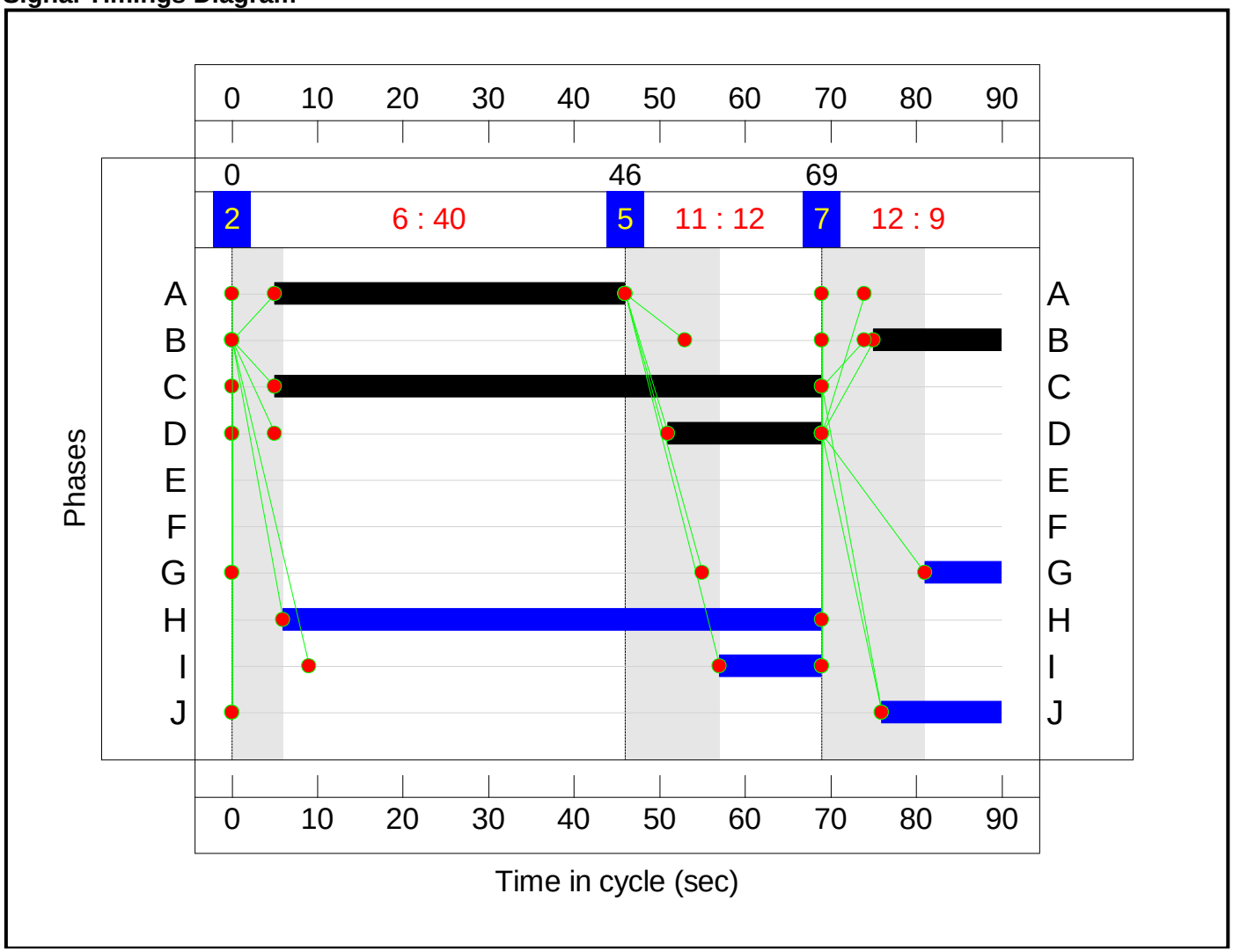
Scenario 2: '2019 Base Year PM' (FG2: '2019 Base Year PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Actual

Actual Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	172	458	630
	B	201	0	193	394
	C	682	315	0	997
	Tot.	883	487	651	2021

Signal Timings Diagram



Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
1/2+1/1	B4075 Priors Road (North) Left Ahead	U	A		1	41	-	630	1925:1685	707+265	64.8 : 64.8%	-	-	-	3.8	21.9	10.3
2/1+2/2	Redmarley Road Right Left	U	B		1	15	-	394	1786:1720	294+306	65.7 : 65.7%	-	-	-	4.7	43.0	5.6
3/1+3/2	B4075 Priors Road (South) Ahead Right	U	C D		1	64:18	-	997	1953:1613	709+327	96.2 : 96.2%	-	-	-	12.8	46.2	16.4
P1	B4075 (South) - Approach Ped C.	-	J		1	14	-	0	-	0	0.0%	-	-	-	-	-	-
P2	B4075 (South) - EXIT Ped C.	-	I		1	12	-	0	-	0	0.0%	-	-	-	-	-	-
P3	Redmarley Rd - Approach Ped C.	-	H		1	63	-	0	-	0	0.0%	-	-	-	-	-	-
P4	Redmarley Rd - EXIT Ped C.	-	G		1	9	-	0	-	0	0.0%	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): -6.9 Total Delay for Signalled Lanes (pcuHr): 21.33 Cycle Time (s): 90
PRC Over All Lanes (%): -6.9 Total Delay Over All Lanes(pcuHr): 21.33

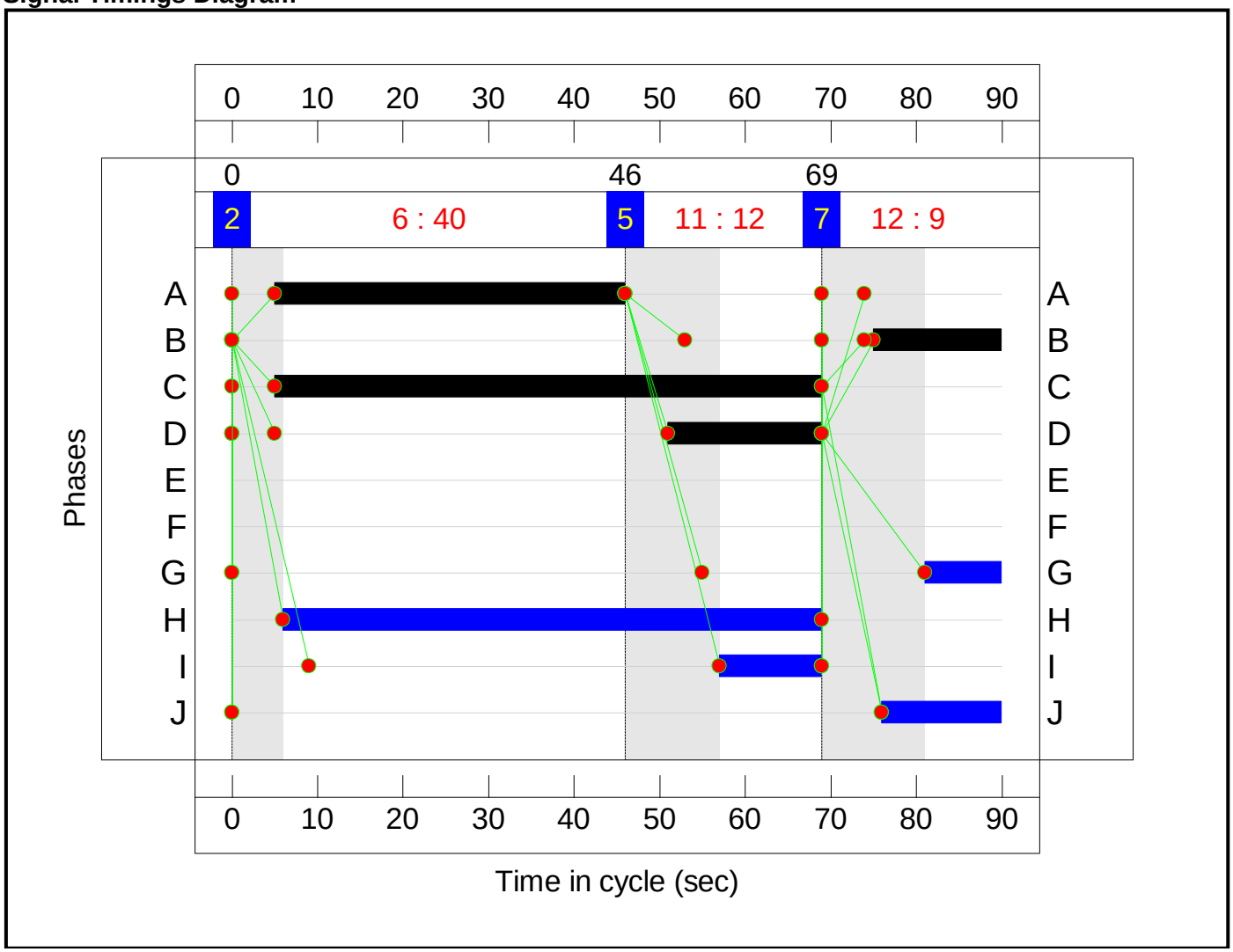
Scenario 3: '2024 Forecast Year AM' (FG3: '2024 Forecast Year AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Actual

Actual Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	96	643	739
	B	154	0	200	354
	C	571	129	0	700
	Tot.	725	225	843	1793

Signal Timings Diagram



Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
1/2+1/1	B4075 Priors Road (North) Left Ahead	U	A		1	41	-	739	1925:1685	819+122	78.5 : 78.5%	-	-	-	5.8	28.0	16.3
2/1+2/2	Redmarley Road Right Left	U	B		1	15	-	354	1786:1720	318+244	63.0 : 63.0%	-	-	-	4.2	42.5	5.5
3/1+3/2	B4075 Priors Road (South) Ahead Right	U	C D		1	64:18	-	700	1953:1613	1185+268	48.2 : 48.2%	-	-	-	2.3	12.0	6.0
P1	B4075 (South) - Approach Ped C.	-	J		1	14	-	0	-	0	0.0%	-	-	-	-	-	-
P2	B4075 (South) - EXIT Ped C.	-	I		1	12	-	0	-	0	0.0%	-	-	-	-	-	-
P3	Redmarley Rd - Approach Ped C.	-	H		1	63	-	0	-	0	0.0%	-	-	-	-	-	-
P4	Redmarley Rd - EXIT Ped C.	-	G		1	9	-	0	-	0	0.0%	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): 14.7 Total Delay for Signalled Lanes (pcuHr): 12.26 Cycle Time (s): 90
PRC Over All Lanes (%): 14.7 Total Delay Over All Lanes(pcuHr): 12.26

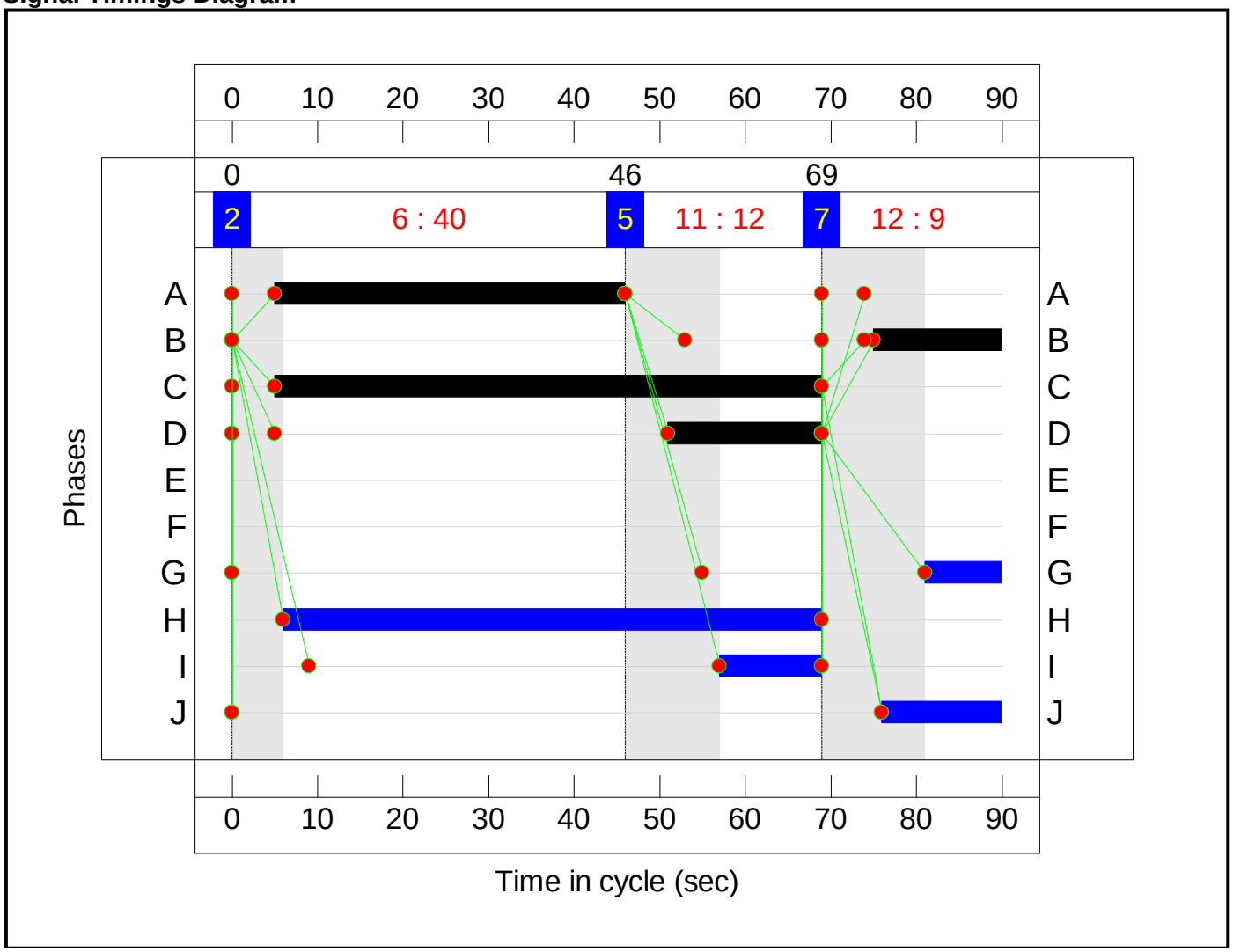
Scenario 4: '2024 Forecast Year PM' (FG4: '2024 Forecast Year PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Actual

Actual Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	180	486	666
	B	210	0	202	412
	C	728	330	0	1058
	Tot.	938	510	688	2136

Signal Timings Diagram



Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
1/2+1/1	B4075 Priors Road (North) Left Ahead	U	A		1	41	-	666	1925:1685	709+263	68.5 : 68.5%	-	-	-	4.2	22.9	11.5
2/1+2/2	Redmarley Road Right Left	U	B		1	15	-	412	1786:1720	294+306	68.7 : 68.7%	-	-	-	5.0	44.0	6.0
3/1+3/2	B4075 Priors Road (South) Ahead Right	U	C D		1	64:18	-	1058	1953:1613	722+327	100.8 : 100.8%	-	-	-	23.0	78.2	28.7
P1	B4075 (South) - Approach Ped C.	-	J		1	14	-	0	-	0	0.0%	-	-	-	-	-	-
P2	B4075 (South) - EXIT Ped C.	-	I		1	12	-	0	-	0	0.0%	-	-	-	-	-	-
P3	Redmarley Rd - Approach Ped C.	-	H		1	63	-	0	-	0	0.0%	-	-	-	-	-	-
P4	Redmarley Rd - EXIT Ped C.	-	G		1	9	-	0	-	0	0.0%	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): -12.0 Total Delay for Signalled Lanes (pcuHr): 32.26 Cycle Time (s): 90

PRC Over All Lanes (%): -12.0 Total Delay Over All Lanes(pcuHr): 32.26

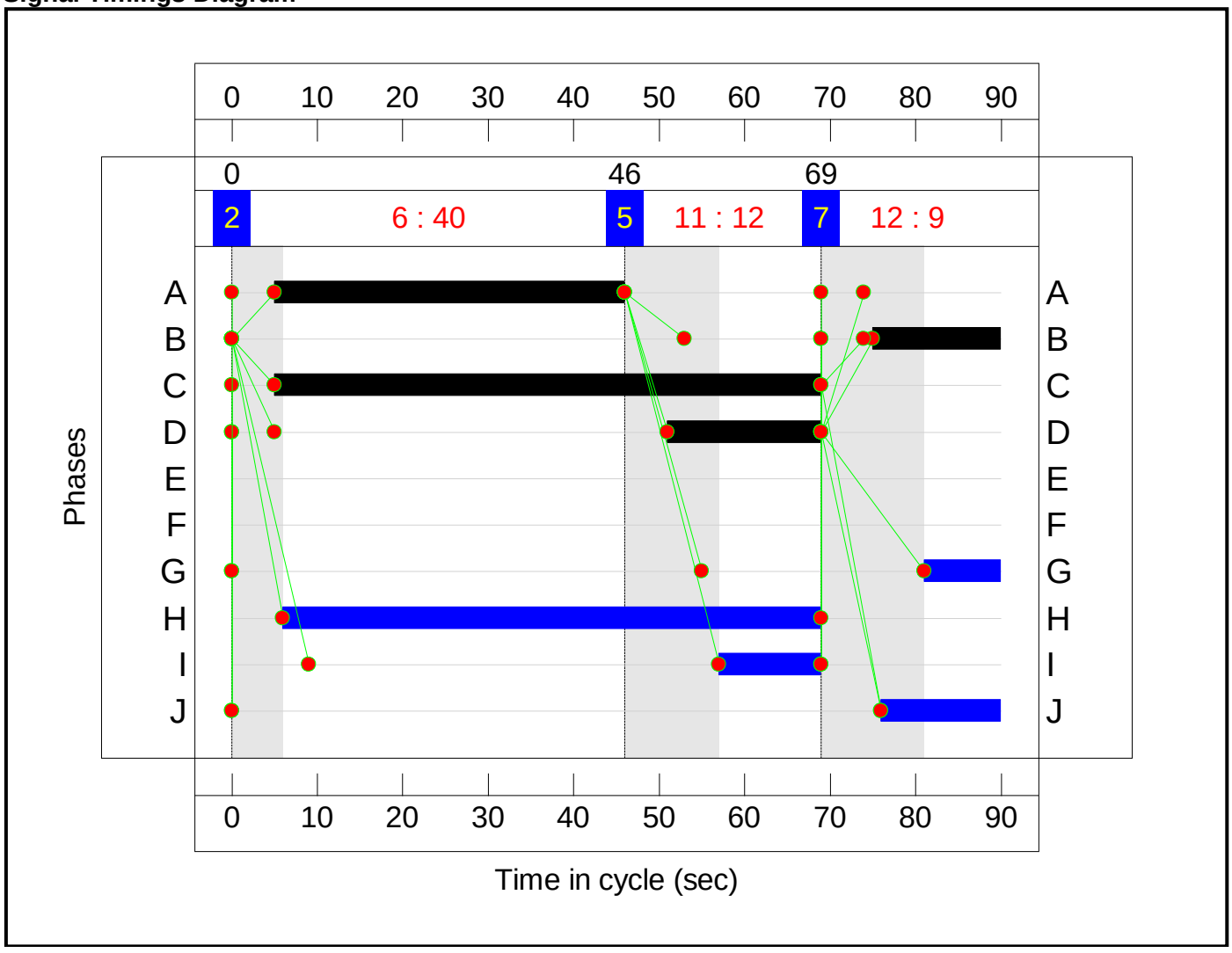
Scenario 5: '2024 Forecast Year With Proposed Development AM' (FG5: '2024 Forecast Year With Proposed Development AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Actual

Actual Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	96	652	748
	B	154	0	201	355
	C	597	132	0	729
	Tot.	751	228	853	1832

Signal Timings Diagram



Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
1/2+1/1	B4075 Priors Road (North) Left Ahead	U	A		1	41	-	748	1925:1685	821+121	79.5 : 79.5%	-	-	-	5.9	28.6	16.6
2/1+2/2	Redmarley Road Right Left	U	B		1	15	-	355	1786:1720	318+243	63.3 : 63.3%	-	-	-	4.2	42.6	5.5
3/1+3/2	B4075 Priors Road (South) Ahead Right	U	C D		1	64:18	-	729	1953:1613	1189+263	50.2 : 50.2%	-	-	-	2.5	12.1	6.5
P1	B4075 (South) - Approach Ped C.	-	J		1	14	-	0	-	0	0.0%	-	-	-	-	-	-
P2	B4075 (South) - EXIT Ped C.	-	I		1	12	-	0	-	0	0.0%	-	-	-	-	-	-
P3	Redmarley Rd - Approach Ped C.	-	H		1	63	-	0	-	0	0.0%	-	-	-	-	-	-
P4	Redmarley Rd - EXIT Ped C.	-	G		1	9	-	0	-	0	0.0%	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): 13.3 Total Delay for Signalled Lanes (pcuHr): 12.59 Cycle Time (s): 90
PRC Over All Lanes (%): 13.3 Total Delay Over All Lanes(pcuHr): 12.59

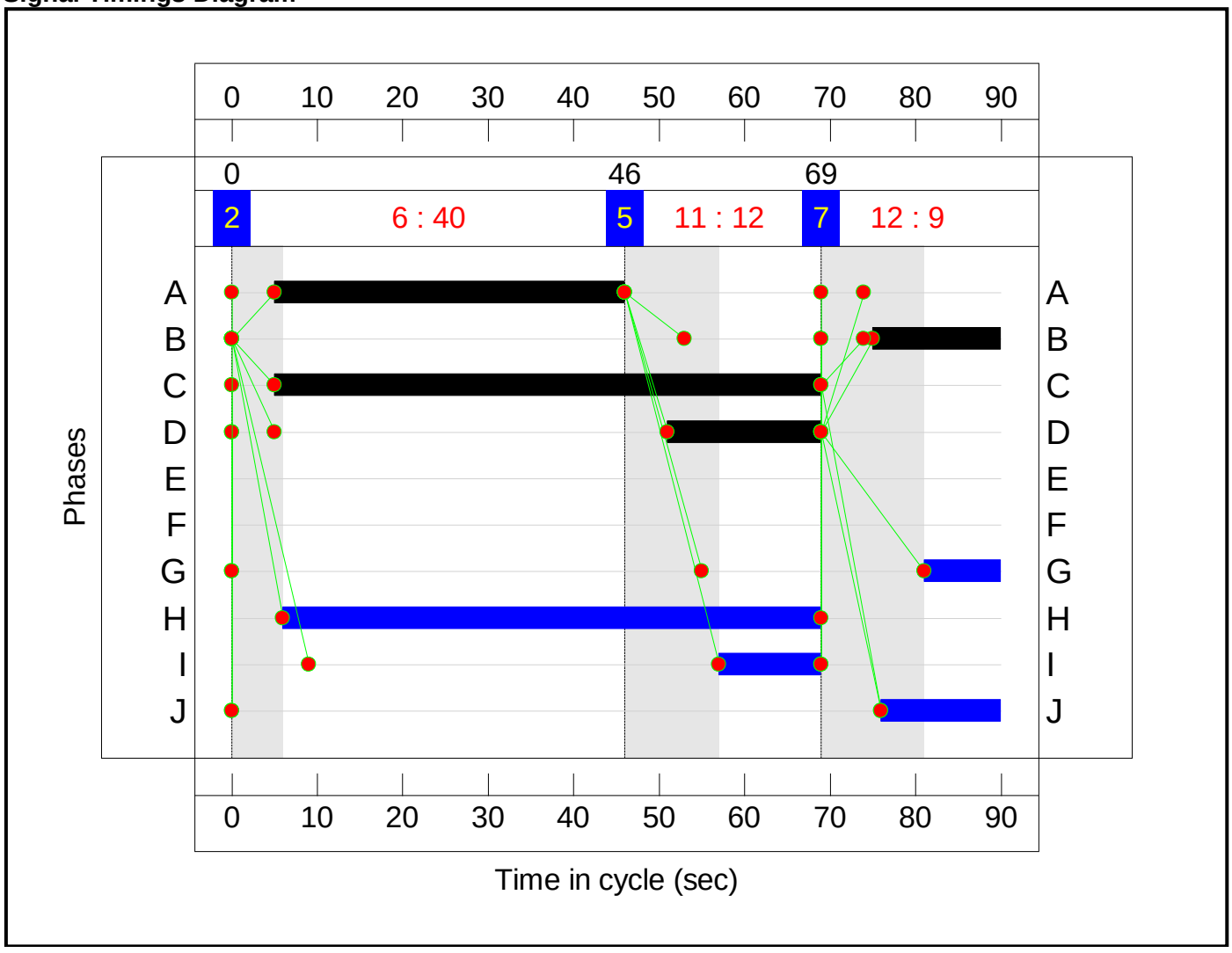
Scenario 6: '2024 Forecast Year With Proposed Development PM' (FG6: '2024 Forecast Year With Proposed Development PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Actual

Actual Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	180	510	690
	B	210	0	205	415
	C	738	331	0	1069
	Tot.	948	511	715	2174

Signal Timings Diagram



Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
1/2+1/1	B4075 Priors Road (North) Left Ahead	U	A		1	41	-	690	1925:1685	716+253	71.2 : 71.2%	-	-	-	4.6	23.8	12.5
2/1+2/2	Redmarley Road Right Left	U	B		1	15	-	415	1786:1720	299+306	68.6 : 68.7%	-	-	-	5.1	43.9	6.0
3/1+3/2	B4075 Priors Road (South) Ahead Right	U	C D		1	64:18	-	1069	1953:1613	730+327	101.2 : 101.2%	-	-	-	24.2	81.5	30.1
P1	B4075 (South) - Approach Ped C.	-	J		1	14	-	0	-	0	0.0%	-	-	-	-	-	-
P2	B4075 (South) - EXIT Ped C.	-	I		1	12	-	0	-	0	0.0%	-	-	-	-	-	-
P3	Redmarley Rd - Approach Ped C.	-	H		1	63	-	0	-	0	0.0%	-	-	-	-	-	-
P4	Redmarley Rd - EXIT Ped C.	-	G		1	9	-	0	-	0	0.0%	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): -12.4 Total Delay for Signalled Lanes (pcuHr): 33.84 Cycle Time (s): 90

PRC Over All Lanes (%): -12.4 Total Delay Over All Lanes(pcuHr): 33.84

Appendix U

Junctions 9

PICADY 9 - Priority Intersection Module

Filename: J3_B4075 Priors Road_Bouncers Lane Priority Junction.j9
Path: F:\Workfile\H628\Traffic Modelling\Junctions9
Report generation date: 19/11/2019 15:41:34

Summary of junction performance

	AM				PM			
	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS
	2019 Base Year							
1 - B4075 Priors Road_Bouncers Lane Priority Junction (South) - Stream B-C	0.1	7.04	0.10	A	0.1	6.38	0.09	A
1 - B4075 Priors Road_Bouncers Lane Priority Junction (South) - Stream B-A	0.0	0.00	0.00	A	0.0	0.00	0.00	A
1 - B4075 Priors Road_Bouncers Lane Priority Junction (South) - Stream C-AB	1.8	18.94	0.64	C	8.4	48.33	0.89	E
2 - B4075 Priors Road_Bouncers Lane Priority Junction (North) - Stream B-C	0.0	0.00	0.00	A	0.0	0.00	0.00	A
2 - B4075 Priors Road_Bouncers Lane Priority Junction (North) - Stream B-A	0.1	10.80	0.05	B	0.0	9.38	0.01	A
2 - B4075 Priors Road_Bouncers Lane Priority Junction (North) - Stream C-AB	0.0	0.00	0.00	A	0.0	0.00	0.00	A
3 - B4075 Priors Road_Bouncers Lane Priority Junction (East) - Stream B-C	0.0	6.46	0.05	A	0.1	7.33	0.09	A
3 - B4075 Priors Road_Bouncers Lane Priority Junction (East) - Stream B-A	0.0	0.00	0.00	A	0.0	0.00	0.00	A
3 - B4075 Priors Road_Bouncers Lane Priority Junction (East) - Stream C-AB	0.1	6.97	0.04	A	0.0	7.25	0.01	A
	2024 Forecast Year							
1 - B4075 Priors Road_Bouncers Lane Priority Junction (South) - Stream B-C	0.2	7.39	0.13	A	0.1	6.58	0.11	A
1 - B4075 Priors Road_Bouncers Lane Priority Junction (South) - Stream B-A	0.0	0.00	0.00	A	0.0	0.00	0.00	A
1 - B4075 Priors Road_Bouncers Lane Priority Junction (South) - Stream C-AB	2.4	22.51	0.70	C	20.4	95.59	0.97	F
2 - B4075 Priors Road_Bouncers Lane Priority Junction (North) - Stream B-C	0.0	0.00	0.00	A	0.0	0.00	0.00	A
2 - B4075 Priors Road_Bouncers Lane Priority Junction (North) - Stream B-A	0.1	11.21	0.06	B	0.0	9.60	0.01	A
2 - B4075 Priors Road_Bouncers Lane Priority Junction (North) - Stream C-AB	0.0	0.00	0.00	A	0.0	0.00	0.00	A
3 - B4075 Priors Road_Bouncers Lane Priority Junction (East) - Stream B-C	0.1	6.55	0.05	A	0.1	7.51	0.10	A
3 - B4075 Priors Road_Bouncers Lane Priority Junction (East) - Stream B-A	0.0	0.00	0.00	A	0.0	0.00	0.00	A
3 - B4075 Priors Road_Bouncers Lane Priority Junction (East) - Stream C-AB	0.1	6.92	0.04	A	0.0	7.26	0.01	A
	2024 Forecast Year + Proposed Development							
1 - B4075 Priors Road_Bouncers Lane Priority Junction (South) - Stream B-C	0.2	7.43	0.13	A	0.1	6.67	0.11	A
1 - B4075 Priors Road_Bouncers Lane Priority Junction (South) - Stream B-A	0.0	0.00	0.00	A	0.0	0.00	0.00	A
1 - B4075 Priors Road_Bouncers Lane Priority Junction (South) - Stream C-AB	3.1	26.25	0.75	D	30.1	128.70	1.00	F
2 - B4075 Priors Road_Bouncers Lane Priority Junction (North) - Stream B-C	0.0	0.00	0.00	A	0.0	0.00	0.00	A
2 - B4075 Priors Road_Bouncers Lane Priority Junction (North) - Stream B-A	0.1	11.30	0.06	B	0.0	9.77	0.01	A
2 - B4075 Priors Road_Bouncers Lane Priority Junction (North) - Stream C-AB	0.0	0.00	0.00	A	0.0	0.00	0.00	A
3 - B4075 Priors Road_Bouncers Lane Priority Junction (East) - Stream B-C	0.1	6.63	0.05	A	0.1	7.55	0.10	A
3 - B4075 Priors Road_Bouncers Lane Priority Junction (East) - Stream B-A	0.0	0.00	0.00	A	0.0	0.00	0.00	A
3 - B4075 Priors Road_Bouncers Lane Priority Junction (East) - Stream C-AB	0.1	6.99	0.04	A	0.0	7.29	0.01	A

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

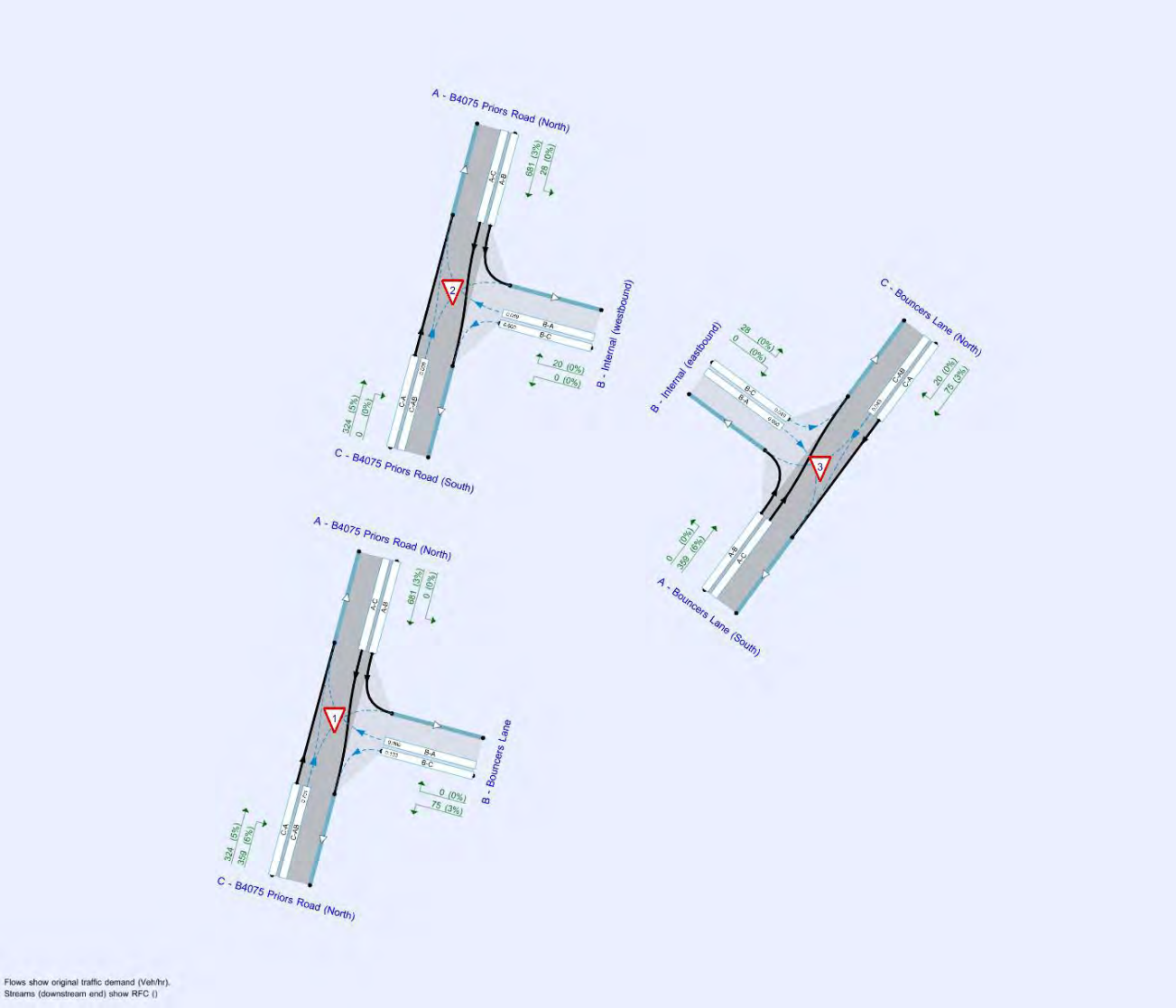
File summary

File Description

Title	B4075 Priors Road / Bouncers Lane Priority Junction
Location	Battledown, Cheltenham
Site number	J3
Date	12/06/2019
Version	
Status	Existing
Identifier	
Client	
Jobnumber	H628
Enumerator	PFA\trafficteam
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin



The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	2019 Base Year	AM	FLAT	08:00	09:00	60	15	✓
D2	2019 Base Year	PM	FLAT	17:00	18:00	60	15	✓
D3	2024 Forecast Year	AM	FLAT	08:00	09:00	60	15	✓
D4	2024 Forecast Year	PM	FLAT	17:00	18:00	60	15	✓
D5	2024 Forecast Year + Proposed Development	AM	FLAT	08:00	09:00	60	15	✓
D6	2024 Forecast Year + Proposed Development	PM	FLAT	17:00	18:00	60	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2019 Base Year, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	B4075 Priors Road_Bouncers Lane Priority Junction (South)	T-Junction	Two-way		5.18	A
2	B4075 Priors Road_Bouncers Lane Priority Junction (North)	T-Junction	Two-way		0.20	A
3	B4075 Priors Road_Bouncers Lane Priority Junction (East)	T-Junction	Two-way		0.70	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Junction	Arm	Name	Description	Arm type
1 - B4075 Priors Road_Bouncers Lane Priority Junction (South)	A	B4075 Priors Road (North)		Major
	B	Bouncers Lane		Minor
	C	B4075 Priors Road (North)		Major
2 - B4075 Priors Road_Bouncers Lane Priority Junction (North)	A	B4075 Priors Road (North)		Major
	B	Internal (westbound)		Minor
	C	B4075 Priors Road (South)		Major
3 - B4075 Priors Road_Bouncers Lane Priority Junction (East)	A	Bouncers Lane (South)		Major
	B	Internal (eastbound)		Minor
	C	Bouncers Lane (North)		Major

Major Arm Geometry

Junction	Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocki queu (PCU
1 - B4075 Priors Road_Bouncers Lane Priority Junction (South)	C - B4075 Priors Road (North)	6.60		✓	2.65	225.0	✓	8.00
2 - B4075 Priors Road_Bouncers Lane Priority Junction (North)	C - B4075 Priors Road (South)	6.60				0.0	✓	0.00
3 - B4075 Priors Road_Bouncers Lane Priority Junction (East)	C - Bouncers Lane (North)	6.00				0.0	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Junction	Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visib to l (m
1 - B4075 Priors Road_Bouncers Lane Priority Junction (South)	B - Bouncers Lane	One lane plus flare	10.00	5.25	4.30	4.00	4.00		1.25	9
2 - B4075 Priors Road_Bouncers Lane Priority Junction (North)	B - Internal (westbound)	One lane plus flare	7.60	4.00	3.00	3.00	3.00		1.00	10
3 - B4075 Priors Road_Bouncers Lane Priority Junction (East)	B - Internal (eastbound)	One lane plus flare	10.00	3.60	3.00	3.00	3.00		1.00	9

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	536	0.095	0.240	0.151	0.344
1	B-C	787	0.118	0.297	-	-
1	C-B	739	0.279	0.279	-	-

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
2	B-A	584	0.104	0.262	0.165	0.374
2	B-C	647	0.097	0.244	-	-
2	C-B	574	0.217	0.217	-	-

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
3	B-A	627	0.114	0.288	0.181	0.412
3	B-C	677	0.104	0.262	-	-
3	C-B	574	0.222	0.222	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	2019 Base Year	AM	FLAT	08:00	09:00	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - B4075 Priors Road_Bouncers Lane Priority Junction (South)	A - B4075 Priors Road (North)		FLAT	✓	649	100.000
	B - Bouncers Lane		FLAT	✓	60	100.000
	C - B4075 Priors Road (North)		FLAT	✓	644	100.000
2 - B4075 Priors Road_Bouncers Lane Priority Junction (North)	A - B4075 Priors Road (North)		FLAT	✓	676	100.000
	B - Internal (westbound)		FLAT	✓	19	100.000
	C - B4075 Priors Road (South)		FLAT	✓	309	100.000
3 - B4075 Priors Road_Bouncers Lane Priority Junction (East)	A - Bouncers Lane (South)		FLAT	✓	335	100.000
	B - Internal (eastbound)		FLAT	✓	27	100.000
	C - Bouncers Lane (North)		FLAT	✓	79	100.000

Origin-Destination Data

1 - B4075 Priors Road_Bouncers Lane Priority Junction (South)

Demand (Veh/hr)

		To		
		A - B4075 Priors Road (North)	B - Bouncers Lane	C - B4075 Priors Road (North)
From	A - B4075 Priors Road (North)	0	0	649
	B - Bouncers Lane	0	0	60
	C - B4075 Priors Road (North)	309	335	0

2 - B4075 Priors Road_Bouncers Lane Priority Junction (North)

Demand (Veh/hr)

		To		
		A - B4075 Priors Road (North)	B - Internal (westbound)	C - B4075 Priors Road (South)
From	A - B4075 Priors Road (North)	0	27	649
	B - Internal (westbound)	19	0	0
	C - B4075 Priors Road (South)	309	0	0

3 - B4075 Priors Road_Bouncers Lane Priority Junction (East)

Demand (Veh/hr)

		To		
		A - Bouncers Lane (South)	B - Internal (eastbound)	C - Bouncers Lane (North)
From	A - Bouncers Lane (South)	0	0	335
	B - Internal (eastbound)	0	0	27
	C - Bouncers Lane (North)	60	19	0

Vehicle Mix

1 - B4075 Priors Road_Bouncers Lane Priority Junction (South)

Heavy Vehicle Percentages

		To		
		A - B4075 Priors Road (North)	B - Bouncers Lane	C - B4075 Priors Road (North)
From	A - B4075 Priors Road (North)	0	0	3
	B - Bouncers Lane	0	0	3
	C - B4075 Priors Road (North)	5	6	0

2 - B4075 Priors Road_Bouncers Lane Priority Junction (North)

Heavy Vehicle Percentages

		To		
		A - B4075 Priors Road (North)	B - Internal (westbound)	C - B4075 Priors Road (South)
From	A - B4075 Priors Road (North)	0	0	3
	B - Internal (westbound)	0	0	0
	C - B4075 Priors Road (South)	5	0	0

3 - B4075 Priors Road_Bouncers Lane Priority Junction (East)

Heavy Vehicle Percentages

		To		
		A - Bouncers Lane (South)	B - Internal (eastbound)	C - Bouncers Lane (North)
From	A - Bouncers Lane (South)	0	0	6
	B - Internal (eastbound)	0	0	0
	C - Bouncers Lane (North)	3	0	0

Results

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - B4075 Priors Road_Bouncers Lane Priority Junction (South)	B-C	0.10	7.04	0.1	A	60	60
	B-A	0.00	0.00	0.0	A	0	0
	C-AB	0.64	18.94	1.8	C	342	342
	C-A					302	302
	A-B					0	0
	A-C					649	649
2 - B4075 Priors Road_Bouncers Lane Priority Junction (North)	B-C	0.00	0.00	0.0	A	0	0
	B-A	0.05	10.80	0.1	B	19	19
	C-AB	0.00	0.00	0.0	A	0	0
	C-A					309	309
	A-B					27	27
	A-C					649	649
3 - B4075 Priors Road_Bouncers Lane Priority Junction (East)	B-C	0.05	6.46	0.0	A	27	27
	B-A	0.00	0.00	0.0	A	0	0
	C-AB	0.04	6.97	0.1	A	21	21
	C-A					58	58
	A-B					0	0
	A-C					335	335

2019 Base Year, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	B4075 Priors Road_Bouncers Lane Priority Junction (South)	T-Junction	Two-way		21.58	C
2	B4075 Priors Road_Bouncers Lane Priority Junction (North)	T-Junction	Two-way		0.04	A
3	B4075 Priors Road_Bouncers Lane Priority Junction (East)	T-Junction	Two-way		0.62	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	2019 Base Year	PM	FLAT	17:00	18:00	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - B4075 Priors Road_Bouncers Lane Priority Junction (South)	A - B4075 Priors Road (North)		FLAT	✓	544	100.000
	B - Bouncers Lane		FLAT	✓	58	100.000
	C - B4075 Priors Road (North)		FLAT	✓	779	100.000
2 - B4075 Priors Road_Bouncers Lane Priority Junction (North)	A - B4075 Priors Road (North)		FLAT	✓	593	100.000
	B - Internal (westbound)		FLAT	✓	4	100.000
	C - B4075 Priors Road (South)		FLAT	✓	268	100.000
3 - B4075 Priors Road_Bouncers Lane Priority Junction (East)	A - Bouncers Lane (South)		FLAT	✓	511	100.000
	B - Internal (eastbound)		FLAT	✓	49	100.000
	C - Bouncers Lane (North)		FLAT	✓	62	100.000

Origin-Destination Data

1 - B4075 Priors Road_Bouncers Lane Priority Junction (South)

Demand (Veh/hr)

		To		
		A - B4075 Priors Road (North)	B - Bouncers Lane	C - B4075 Priors Road (North)
From	A - B4075 Priors Road (North)	0	0	544
	B - Bouncers Lane	0	0	58
	C - B4075 Priors Road (North)	268	511	0

2 - B4075 Priors Road_Bouncers Lane Priority Junction (North)

Demand (Veh/hr)

		To		
		A - B4075 Priors Road (North)	B - Internal (westbound)	C - B4075 Priors Road (South)
From	A - B4075 Priors Road (North)	0	49	544
	B - Internal (westbound)	4	0	0
	C - B4075 Priors Road (South)	268	0	0

3 - B4075 Priors Road_Bouncers Lane Priority Junction (East)

Demand (Veh/hr)

		To		
		A - Bouncers Lane (South)	B - Internal (eastbound)	C - Bouncers Lane (North)
From	A - Bouncers Lane (South)	0	0	511
	B - Internal (eastbound)	0	0	49
	C - Bouncers Lane (North)	58	4	0

Vehicle Mix

1 - B4075 Priors Road_Bouncers Lane Priority Junction (South)

Heavy Vehicle Percentages

		To		
		A - B4075 Priors Road (North)	B - Bouncers Lane	C - B4075 Priors Road (North)
From	A - B4075 Priors Road (North)	0	0	2
	B - Bouncers Lane	0	0	0
	C - B4075 Priors Road (North)	3	2	0

2 - B4075 Priors Road_Bouncers Lane Priority Junction (North)

Heavy Vehicle Percentages

		To		
		A - B4075 Priors Road (North)	B - Internal (westbound)	C - B4075 Priors Road (South)
From	A - B4075 Priors Road (North)	0	0	2
	B - Internal (westbound)	0	0	0
	C - B4075 Priors Road (South)	3	0	0

3 - B4075 Priors Road_Bouncers Lane Priority Junction (East)

Heavy Vehicle Percentages

		To		
		A - Bouncers Lane (South)	B - Internal (eastbound)	C - Bouncers Lane (North)
From	A - Bouncers Lane (South)	0	0	2
	B - Internal (eastbound)	0	0	0
	C - Bouncers Lane (North)	0	0	0

Results

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - B4075 Priors Road_Bouncers Lane Priority Junction (South)	B-C	0.09	6.38	0.1	A	58	58
	B-A	0.00	0.00	0.0	A	0	0
	C-AB	0.89	48.33	8.4	E	609	609
	C-A					170	170
	A-B					0	0
	A-C					544	544
2 - B4075 Priors Road_Bouncers Lane Priority Junction (North)	B-C	0.00	0.00	0.0	A	0	0
	B-A	0.01	9.38	0.0	A	4	4
	C-AB	0.00	0.00	0.0	A	0	0
	C-A					268	268
	A-B					49	49
	A-C					544	544
3 - B4075 Priors Road_Bouncers Lane Priority Junction (East)	B-C	0.09	7.33	0.1	A	49	49
	B-A	0.00	0.00	0.0	A	0	0
	C-AB	0.01	7.25	0.0	A	5	5
	C-A					57	57
	A-B					0	0
	A-C					511	511

2024 Forecast Year, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	B4075 Priors Road_Bouncers Lane Priority Junction (South)	T-Junction	Two-way		6.34	A
2	B4075 Priors Road_Bouncers Lane Priority Junction (North)	T-Junction	Two-way		0.21	A
3	B4075 Priors Road_Bouncers Lane Priority Junction (East)	T-Junction	Two-way		0.68	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D3	2024 Forecast Year	AM	FLAT	08:00	09:00	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - B4075 Priors Road_Bouncers Lane Priority Junction (South)	A - B4075 Priors Road (North)		FLAT	✓	681	100.000
	B - Bouncers Lane		FLAT	✓	75	100.000
	C - B4075 Priors Road (North)		FLAT	✓	683	100.000
2 - B4075 Priors Road_Bouncers Lane Priority Junction (North)	A - B4075 Priors Road (North)		FLAT	✓	709	100.000
	B - Internal (westbound)		FLAT	✓	20	100.000
	C - B4075 Priors Road (South)		FLAT	✓	324	100.000
3 - B4075 Priors Road_Bouncers Lane Priority Junction (East)	A - Bouncers Lane (South)		FLAT	✓	359	100.000
	B - Internal (eastbound)		FLAT	✓	28	100.000
	C - Bouncers Lane (North)		FLAT	✓	95	100.000

Origin-Destination Data

1 - B4075 Priors Road_Bouncers Lane Priority Junction (South)

Demand (Veh/hr)

		To		
		A - B4075 Priors Road (North)	B - Bouncers Lane	C - B4075 Priors Road (North)
From	A - B4075 Priors Road (North)	0	0	681
	B - Bouncers Lane	0	0	75
	C - B4075 Priors Road (North)	324	359	0

2 - B4075 Priors Road_Bouncers Lane Priority Junction (North)

Demand (Veh/hr)

		To		
		A - B4075 Priors Road (North)	B - Internal (westbound)	C - B4075 Priors Road (South)
From	A - B4075 Priors Road (North)	0	28	681
	B - Internal (westbound)	20	0	0
	C - B4075 Priors Road (South)	324	0	0

3 - B4075 Priors Road_Bouncers Lane Priority Junction (East)

Demand (Veh/hr)

		To		
		A - Bouncers Lane (South)	B - Internal (eastbound)	C - Bouncers Lane (North)
From	A - Bouncers Lane (South)	0	0	359
	B - Internal (eastbound)	0	0	28
	C - Bouncers Lane (North)	75	20	0

Vehicle Mix

1 - B4075 Priors Road_Bouncers Lane Priority Junction (South)

Heavy Vehicle Percentages

		To		
		A - B4075 Priors Road (North)	B - Bouncers Lane	C - B4075 Priors Road (North)
From	A - B4075 Priors Road (North)	0	0	3
	B - Bouncers Lane	0	0	3
	C - B4075 Priors Road (North)	5	6	0

2 - B4075 Priors Road_Bouncers Lane Priority Junction (North)

Heavy Vehicle Percentages

		To		
		A - B4075 Priors Road (North)	B - Internal (westbound)	C - B4075 Priors Road (South)
From	A - B4075 Priors Road (North)	0	0	3
	B - Internal (westbound)	0	0	0
	C - B4075 Priors Road (South)	5	0	0

3 - B4075 Priors Road_Bouncers Lane Priority Junction (East)

Heavy Vehicle Percentages

		To		
		A - Bouncers Lane (South)	B - Internal (eastbound)	C - Bouncers Lane (North)
From	A - Bouncers Lane (South)	0	0	6
	B - Internal (eastbound)	0	0	0
	C - Bouncers Lane (North)	3	0	0

Results

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - B4075 Priors Road_Bouncers Lane Priority Junction (South)	B-C	0.13	7.39	0.2	A	75	75
	B-A	0.00	0.00	0.0	A	0	0
	C-AB	0.70	22.51	2.4	C	374	374
	C-A					309	309
	A-B					0	0
	A-C					681	681
2 - B4075 Priors Road_Bouncers Lane Priority Junction (North)	B-C	0.00	0.00	0.0	A	0	0
	B-A	0.06	11.21	0.1	B	20	20
	C-AB	0.00	0.00	0.0	A	0	0
	C-A					324	324
	A-B					28	28
	A-C					681	681
3 - B4075 Priors Road_Bouncers Lane Priority Junction (East)	B-C	0.05	6.55	0.1	A	28	28
	B-A	0.00	0.00	0.0	A	0	0
	C-AB	0.04	6.92	0.1	A	23	23
	C-A					72	72
	A-B					0	0
	A-C					359	359

2024 Forecast Year, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	B4075 Priors Road_Bouncers Lane Priority Junction (South)	T-Junction	Two-way		49.95	E
2	B4075 Priors Road_Bouncers Lane Priority Junction (North)	T-Junction	Two-way		0.04	A
3	B4075 Priors Road_Bouncers Lane Priority Junction (East)	T-Junction	Two-way		0.61	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D4	2024 Forecast Year	PM	FLAT	17:00	18:00	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - B4075 Priors Road_Bouncers Lane Priority Junction (South)	A - B4075 Priors Road (North)		FLAT	✓	569	100.000
	B - Bouncers Lane		FLAT	✓	68	100.000
	C - B4075 Priors Road (North)		FLAT	✓	828	100.000
2 - B4075 Priors Road_Bouncers Lane Priority Junction (North)	A - B4075 Priors Road (North)		FLAT	✓	620	100.000
	B - Internal (westbound)		FLAT	✓	4	100.000
	C - B4075 Priors Road (South)		FLAT	✓	280	100.000
3 - B4075 Priors Road_Bouncers Lane Priority Junction (East)	A - Bouncers Lane (South)		FLAT	✓	548	100.000
	B - Internal (eastbound)		FLAT	✓	51	100.000
	C - Bouncers Lane (North)		FLAT	✓	72	100.000

Origin-Destination Data

1 - B4075 Priors Road_Bouncers Lane Priority Junction (South)

Demand (Veh/hr)

		To		
		A - B4075 Priors Road (North)	B - Bouncers Lane	C - B4075 Priors Road (North)
From	A - B4075 Priors Road (North)	0	0	569
	B - Bouncers Lane	0	0	68
	C - B4075 Priors Road (North)	280	548	0

2 - B4075 Priors Road_Bouncers Lane Priority Junction (North)

Demand (Veh/hr)

		To		
		A - B4075 Priors Road (North)	B - Internal (westbound)	C - B4075 Priors Road (South)
From	A - B4075 Priors Road (North)	0	51	569
	B - Internal (westbound)	4	0	0
	C - B4075 Priors Road (South)	280	0	0

3 - B4075 Priors Road_Bouncers Lane Priority Junction (East)

Demand (Veh/hr)

		To		
		A - Bouncers Lane (South)	B - Internal (eastbound)	C - Bouncers Lane (North)
From	A - Bouncers Lane (South)	0	0	548
	B - Internal (eastbound)	0	0	51
	C - Bouncers Lane (North)	68	4	0

Vehicle Mix

1 - B4075 Priors Road_Bouncers Lane Priority Junction (South)

Heavy Vehicle Percentages

		To		
		A - B4075 Priors Road (North)	B - Bouncers Lane	C - B4075 Priors Road (North)
From	A - B4075 Priors Road (North)	0	0	2
	B - Bouncers Lane	0	0	0
	C - B4075 Priors Road (North)	3	2	0

2 - B4075 Priors Road_Bouncers Lane Priority Junction (North)

Heavy Vehicle Percentages

		To		
		A - B4075 Priors Road (North)	B - Internal (westbound)	C - B4075 Priors Road (South)
From	A - B4075 Priors Road (North)	0	0	2
	B - Internal (westbound)	0	0	0
	C - B4075 Priors Road (South)	3	0	0

3 - B4075 Priors Road_Bouncers Lane Priority Junction (East)

Heavy Vehicle Percentages

		To		
		A - Bouncers Lane (South)	B - Internal (eastbound)	C - Bouncers Lane (North)
From	A - Bouncers Lane (South)	0	0	2
	B - Internal (eastbound)	0	0	0
	C - Bouncers Lane (North)	0	0	0

Results

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - B4075 Priors Road_Bouncers Lane Priority Junction (South)	B-C	0.11	6.58	0.1	A	68	68
	B-A	0.00	0.00	0.0	A	0	0
	C-AB	0.97	95.59	20.4	F	760	760
	C-A					68	68
	A-B					0	0
	A-C					569	569
2 - B4075 Priors Road_Bouncers Lane Priority Junction (North)	B-C	0.00	0.00	0.0	A	0	0
	B-A	0.01	9.60	0.0	A	4	4
	C-AB	0.00	0.00	0.0	A	0	0
	C-A					280	280
	A-B					51	51
	A-C					569	569
3 - B4075 Priors Road_Bouncers Lane Priority Junction (East)	B-C	0.10	7.51	0.1	A	51	51
	B-A	0.00	0.00	0.0	A	0	0
	C-AB	0.01	7.26	0.0	A	5	5
	C-A					67	67
	A-B					0	0
	A-C					548	548

2024 Forecast Year + Proposed Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	B4075 Priors Road_Bouncers Lane Priority Junction (South)	T-Junction	Two-way		7.79	A
2	B4075 Priors Road_Bouncers Lane Priority Junction (North)	T-Junction	Two-way		0.21	A
3	B4075 Priors Road_Bouncers Lane Priority Junction (East)	T-Junction	Two-way		0.66	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D5	2024 Forecast Year + Proposed Development	AM	FLAT	08:00	09:00	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - B4075 Priors Road_Bouncers Lane Priority Junction (South)	A - B4075 Priors Road (North)		FLAT	✓	689	100.000
	B - Bouncers Lane		FLAT	✓	75	100.000
	C - B4075 Priors Road (North)		FLAT	✓	709	100.000
2 - B4075 Priors Road_Bouncers Lane Priority Junction (North)	A - B4075 Priors Road (North)		FLAT	✓	717	100.000
	B - Internal (westbound)		FLAT	✓	20	100.000
	C - B4075 Priors Road (South)		FLAT	✓	327	100.000
3 - B4075 Priors Road_Bouncers Lane Priority Junction (East)	A - Bouncers Lane (South)		FLAT	✓	382	100.000
	B - Internal (eastbound)		FLAT	✓	28	100.000
	C - Bouncers Lane (North)		FLAT	✓	95	100.000

Origin-Destination Data

1 - B4075 Priors Road_Bouncers Lane Priority Junction (South)

Demand (Veh/hr)

		To		
		A - B4075 Priors Road (North)	B - Bouncers Lane	C - B4075 Priors Road (North)
From	A - B4075 Priors Road (North)	0	0	689
	B - Bouncers Lane	0	0	75
	C - B4075 Priors Road (North)	327	382	0

2 - B4075 Priors Road_Bouncers Lane Priority Junction (North)

Demand (Veh/hr)

		To		
		A - B4075 Priors Road (North)	B - Internal (westbound)	C - B4075 Priors Road (South)
From	A - B4075 Priors Road (North)	0	28	689
	B - Internal (westbound)	20	0	0
	C - B4075 Priors Road (South)	327	0	0

3 - B4075 Priors Road_Bouncers Lane Priority Junction (East)

Demand (Veh/hr)

		To		
		A - Bouncers Lane (South)	B - Internal (eastbound)	C - Bouncers Lane (North)
From	A - Bouncers Lane (South)	0	0	382
	B - Internal (eastbound)	0	0	28
	C - Bouncers Lane (North)	75	20	0

Vehicle Mix

1 - B4075 Priors Road_Bouncers Lane Priority Junction (South)

Heavy Vehicle Percentages

		To		
		A - B4075 Priors Road (North)	B - Bouncers Lane	C - B4075 Priors Road (North)
From	A - B4075 Priors Road (North)	0	0	3
	B - Bouncers Lane	0	0	3
	C - B4075 Priors Road (North)	5	6	0

2 - B4075 Priors Road_Bouncers Lane Priority Junction (North)

Heavy Vehicle Percentages

		To		
		A - B4075 Priors Road (North)	B - Internal (westbound)	C - B4075 Priors Road (South)
From	A - B4075 Priors Road (North)	0	0	3
	B - Internal (westbound)	0	0	0
	C - B4075 Priors Road (South)	5	0	0

3 - B4075 Priors Road_Bouncers Lane Priority Junction (East)

Heavy Vehicle Percentages

		To		
		A - Bouncers Lane (South)	B - Internal (eastbound)	C - Bouncers Lane (North)
From	A - Bouncers Lane (South)	0	0	6
	B - Internal (eastbound)	0	0	0
	C - Bouncers Lane (North)	3	0	0

Results

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - B4075 Priors Road_Bouncers Lane Priority Junction (South)	B-C	0.13	7.43	0.2	A	75	75
	B-A	0.00	0.00	0.0	A	0	0
	C-AB	0.75	26.25	3.1	D	410	410
	C-A					299	299
	A-B					0	0
	A-C					689	689
2 - B4075 Priors Road_Bouncers Lane Priority Junction (North)	B-C	0.00	0.00	0.0	A	0	0
	B-A	0.06	11.30	0.1	B	20	20
	C-AB	0.00	0.00	0.0	A	0	0
	C-A					327	327
	A-B					28	28
	A-C					689	689
3 - B4075 Priors Road_Bouncers Lane Priority Junction (East)	B-C	0.05	6.63	0.1	A	28	28
	B-A	0.00	0.00	0.0	A	0	0
	C-AB	0.04	6.99	0.1	A	23	23
	C-A					72	72
	A-B					0	0
	A-C					382	382

2024 Forecast Year + Proposed Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	B4075 Priors Road_Bouncers Lane Priority Junction (South)	T-Junction	Two-way		72.06	F
2	B4075 Priors Road_Bouncers Lane Priority Junction (North)	T-Junction	Two-way		0.04	A
3	B4075 Priors Road_Bouncers Lane Priority Junction (East)	T-Junction	Two-way		0.61	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D6	2024 Forecast Year + Proposed Development	PM	FLAT	17:00	18:00	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - B4075 Priors Road_Bouncers Lane Priority Junction (South)	A - B4075 Priors Road (North)		FLAT	✓	592	100.000
	B - Bouncers Lane		FLAT	✓	68	100.000
	C - B4075 Priors Road (North)		FLAT	✓	840	100.000
2 - B4075 Priors Road_Bouncers Lane Priority Junction (North)	A - B4075 Priors Road (North)		FLAT	✓	643	100.000
	B - Internal (westbound)		FLAT	✓	4	100.000
	C - B4075 Priors Road (South)		FLAT	✓	282	100.000
3 - B4075 Priors Road_Bouncers Lane Priority Junction (East)	A - Bouncers Lane (South)		FLAT	✓	558	100.000
	B - Internal (eastbound)		FLAT	✓	51	100.000
	C - Bouncers Lane (North)		FLAT	✓	72	100.000

Origin-Destination Data

1 - B4075 Priors Road_Bouncers Lane Priority Junction (South)

Demand (Veh/hr)

		To		
		A - B4075 Priors Road (North)	B - Bouncers Lane	C - B4075 Priors Road (North)
From	A - B4075 Priors Road (North)	0	0	592
	B - Bouncers Lane	0	0	68
	C - B4075 Priors Road (North)	282	558	0

2 - B4075 Priors Road_Bouncers Lane Priority Junction (North)

Demand (Veh/hr)

		To		
		A - B4075 Priors Road (North)	B - Internal (westbound)	C - B4075 Priors Road (South)
From	A - B4075 Priors Road (North)	0	51	592
	B - Internal (westbound)	4	0	0
	C - B4075 Priors Road (South)	282	0	0

3 - B4075 Priors Road_Bouncers Lane Priority Junction (East)

Demand (Veh/hr)

		To		
		A - Bouncers Lane (South)	B - Internal (eastbound)	C - Bouncers Lane (North)
From	A - Bouncers Lane (South)	0	0	558
	B - Internal (eastbound)	0	0	51
	C - Bouncers Lane (North)	68	4	0

Vehicle Mix

1 - B4075 Priors Road_Bouncers Lane Priority Junction (South)

Heavy Vehicle Percentages

		To		
		A - B4075 Priors Road (North)	B - Bouncers Lane	C - B4075 Priors Road (North)
From	A - B4075 Priors Road (North)	0	0	2
	B - Bouncers Lane	0	0	0
	C - B4075 Priors Road (North)	3	2	0

2 - B4075 Priors Road_Bouncers Lane Priority Junction (North)

Heavy Vehicle Percentages

		To		
		A - B4075 Priors Road (North)	B - Internal (westbound)	C - B4075 Priors Road (South)
From	A - B4075 Priors Road (North)	0	0	2
	B - Internal (westbound)	0	0	0
	C - B4075 Priors Road (South)	3	0	0

3 - B4075 Priors Road_Bouncers Lane Priority Junction (East)

Heavy Vehicle Percentages

		To		
		A - Bouncers Lane (South)	B - Internal (eastbound)	C - Bouncers Lane (North)
From	A - Bouncers Lane (South)	0	0	2
	B - Internal (eastbound)	0	0	0
	C - Bouncers Lane (North)	0	0	0

Results

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - B4075 Priors Road_Bouncers Lane Priority Junction (South)	B-C	0.11	6.67	0.1	A	68	68
	B-A	0.00	0.00	0.0	A	0	0
	C-AB	1.00	128.70	30.1	F	835	835
	C-A					5	5
	A-B					0	0
	A-C					592	592
2 - B4075 Priors Road_Bouncers Lane Priority Junction (North)	B-C	0.00	0.00	0.0	A	0	0
	B-A	0.01	9.77	0.0	A	4	4
	C-AB	0.00	0.00	0.0	A	0	0
	C-A					282	282
	A-B					51	51
	A-C					592	592
3 - B4075 Priors Road_Bouncers Lane Priority Junction (East)	B-C	0.10	7.55	0.1	A	51	51
	B-A	0.00	0.00	0.0	A	0	0
	C-AB	0.01	7.29	0.0	A	5	5
	C-A					67	67
	A-B					0	0
	A-C					558	558

Appendix V

Junctions 9

PICADY 9 - Priority Intersection Module

Filename: J4_B4075 Priors Road_B4632 Prestbury Road Priority Junction.j9
Path: F:\Workfile\H628\Traffic Modelling\Junctions9
Report generation date: 07/11/2019 11:27:49

Summary of junction performance

	AM				PM			
	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS
2019 Base Year								
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction - Stream B-C	0.1	8.42	0.10	A	0.1	7.30	0.09	A
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction - Stream B-A	2.4	29.27	0.71	D	1.2	17.61	0.54	C
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction - Stream C-AB	0.0	0.00	0.00	A	0.0	0.00	0.00	A
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction - Stream B-ACD	0.0	0.00	0.00	A	0.0	0.00	0.00	A
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction - Stream A-BC	3.0	5.21	0.60	A	1.8	3.75	0.47	A
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction - Stream A-D	0.0	0.00	0.00	A	0.0	0.00	0.00	A
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction - Stream D-AB	0.0	0.00	0.00	A	0.0	0.00	0.00	A
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction - Stream D-BC	0.0	0.00	0.00	A	0.0	0.00	0.00	A
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction - Stream C-ABD	0.6	6.41	0.21	A	0.2	5.29	0.10	A
2024 Forecast Year								
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction - Stream B-C	0.1	8.67	0.10	A	0.1	7.44	0.09	A
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction - Stream B-A	2.9	34.86	0.76	D	1.3	18.99	0.57	C
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction - Stream C-AB	0.0	0.00	0.00	A	0.0	0.00	0.00	A
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction - Stream B-ACD	0.0	0.00	0.00	A	0.0	0.00	0.00	A
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction - Stream A-BC	3.4	5.67	0.63	A	1.9	3.93	0.49	A
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction - Stream A-D	0.0	0.00	0.00	A	0.0	0.00	0.00	A
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction - Stream D-AB	0.0	0.00	0.00	A	0.0	0.00	0.00	A
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction - Stream D-BC	0.0	0.00	0.00	A	0.0	0.00	0.00	A
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction - Stream C-ABD	0.7	6.54	0.24	A	0.2	5.28	0.10	A
2024 Forecast Year + Proposed Development								
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction - Stream B-C	0.1	8.74	0.11	A	0.1	7.46	0.10	A
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction - Stream B-A	2.9	34.92	0.76	D	1.3	19.04	0.57	C
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction - Stream C-AB	0.0	0.00	0.00	A	0.0	0.00	0.00	A
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction - Stream B-ACD	0.0	0.00	0.00	A	0.0	0.00	0.00	A
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction - Stream A-BC	3.5	5.74	0.64	A	2.0	4.02	0.50	A
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction - Stream A-D	0.0	0.00	0.00	A	0.0	0.00	0.00	A
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction - Stream D-AB	0.0	0.00	0.00	A	0.0	0.00	0.00	A
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction - Stream D-BC	0.0	0.00	0.00	A	0.0	0.00	0.00	A
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction - Stream C-ABD	0.7	6.61	0.24	A	0.3	5.34	0.12	A

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	B4075 Priors Road / B4632 Prestbury Road Priority Junction
Location	Battledown, Cheltenham
Site number	J4
Date	12/06/2019
Version	
Status	Existing
Identifier	
Client	
Jobnumber	H628
Enumerator	PFA\trafficteam
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2019 Base Year	AM	ONE HOUR	07:45	09:15	15	✓
D2	2019 Base Year	PM	ONE HOUR	16:45	18:15	15	✓
D3	2024 Forecast Year	AM	ONE HOUR	07:45	09:15	15	✓
D4	2024 Forecast Year	PM	ONE HOUR	16:45	18:15	15	✓
D5	2024 Forecast Year + Proposed Development	AM	ONE HOUR	07:45	09:15	15	✓
D6	2024 Forecast Year + Proposed Development	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2019 Base Year, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	B4632 Prestbury Road / B4075 Priors Road Priority Junction	T-Junction	Two-way		10.92	B
2	B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	Crossroads	Two-way		3.99	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Junction	Arm	Name	Description	Arm type
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction	A	B4632 Prestbury Road (East)		Major
	B	B4075 Priors Road		Minor
	C	B4632 Prestbury Road (West)		Major
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	A	B4632 Prestbury Road (East)		Major
	B	B4075 Priors Road		Minor
	C	B4632 Prestbury Road (West)		Major
	D	Laurel Drive		Minor

Major Arm Geometry

Junction	Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction	C - B4632 Prestbury Road (West)	7.00			0.0	✓
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	A - B4632 Prestbury Road (East)	7.00			170.0	
	C - B4632 Prestbury Road (West)	7.00			150.0	✓

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Junction	Arm	Minor arm type	Lane width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Wi a 15 (
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction	B - B4075 Priors Road	Two lanes		3.10	2.70				
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	B - B4075 Priors Road	One lane	2.20						
	D - Laurel Drive	One lane plus flare				10.00	3.70	2.20	2.

Pelican/Puffin Crossings

Junction	Arm	Space between crossing and junc. entry (Signalised) (PCU)	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Tim peri gree ma sho (s)
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	A - B4632 Prestbury Road (East)	1.00	3.00	2.90	1.00	6.0

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	541	0.094	0.238	0.150	0.341
1	B-C	684	0.100	0.254	-	-
1	C-B	574	0.213	0.213	-	-

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
2	A-D	672	-	-	-	-	-	-	0.249	0.356	0.249	-	-	-
2	B-A	440	0.077	0.194	0.194	-	-	-	0.122	0.277	-	0.194	0.194	0.097
2	B-C	574	0.084	0.213	-	-	-	-	-	-	-	-	-	-
2	B-D, nearside lane	440	0.077	0.194	0.194	-	-	-	0.122	0.277	0.122	-	-	-
2	B-D, offside lane	440	0.077	0.194	0.194	-	-	-	0.122	0.277	0.122	-	-	-
2	C-B	661	0.245	0.245	0.350	-	-	-	-	-	-	-	-	-
2	D-A	772	-	-	-	-	-	-	0.286	-	0.113	-	-	-
2	D-B, nearside lane	605	0.167	0.167	0.380	-	-	-	0.266	0.266	0.105	-	-	-
2	D-B, offside lane	507	0.140	0.140	0.319	-	-	-	0.223	0.223	0.088	-	-	-
2	D-C	507	-	0.140	0.319	0.112	0.223	0.223	0.223	0.223	0.088	-	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2019 Base Year	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction	A - B4632 Prestbury Road (East)		ONE HOUR	✓	260	100.000
	B - B4075 Priors Road		ONE HOUR	✓	318	100.000
	C - B4632 Prestbury Road (West)		ONE HOUR	✓	185	100.000
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	A - B4632 Prestbury Road (East)		ONE HOUR	✓	963	100.000
	B - B4075 Priors Road		ONE HOUR	✓	0	100.000
	C - B4632 Prestbury Road (West)		ONE HOUR	✓	461	100.000
	D - Laurel Drive		ONE HOUR	✓	0	100.000

Demand overview (Pedestrians)

Junction	Arm	Profile type	Average pedestrian flow (Ped/hr)
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction	A - B4632 Prestbury Road (East)		
	B - B4075 Priors Road		
	C - B4632 Prestbury Road (West)		
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	A - B4632 Prestbury Road (East)	[ONEHOUR]	30.00
	B - B4075 Priors Road		
	C - B4632 Prestbury Road (West)		
	D - Laurel Drive		

Origin-Destination Data

1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction

Demand (Veh/hr)

		To		
		A - B4632 Prestbury Road (East)	B - B4075 Priors Road	C - B4632 Prestbury Road (West)
From	A - B4632 Prestbury Road (East)	0	0	260
	B - B4075 Priors Road	276	0	42
	C - B4632 Prestbury Road (West)	185	0	0

2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction

Demand (Veh/hr)

		To			
		A - B4632 Prestbury Road (East)	B - B4075 Priors Road	C - B4632 Prestbury Road (West)	D - Laurel Drive
From	A - B4632 Prestbury Road (East)	0	703	260	0
	B - B4075 Priors Road	0	0	0	0
	C - B4632 Prestbury Road (West)	411	50	0	0
	D - Laurel Drive	0	0	0	0

Vehicle Mix

1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction

Heavy Vehicle Percentages

		To		
		A - B4632 Prestbury Road (East)	B - B4075 Priors Road	C - B4632 Prestbury Road (West)
From	A - B4632 Prestbury Road (East)	0	0	3
	B - B4075 Priors Road	3	0	5
	C - B4632 Prestbury Road (West)	8	0	0

2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction

Heavy Vehicle Percentages

		To			
		A - B4632 Prestbury Road (East)	B - B4075 Priors Road	C - B4632 Prestbury Road (West)	D - Laurel Drive
From	A - B4632 Prestbury Road (East)	0	0	3	0
	B - B4075 Priors Road	0	0	0	0
	C - B4632 Prestbury Road (West)	8	10	0	0
	D - Laurel Drive	0	0	0	0

Results

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction	B-C	0.10	8.42	0.1	A	39	58
	B-A	0.71	29.27	2.4	D	253	380
	C-AB	0.00	0.00	0.0	A	0	0
	C-A					170	255
	A-B					0	0
	A-C					239	358
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	B-ACD	0.00	0.00	0.0	A	0	0
	A-BC	0.60	5.21	3.0	A	884	1325
	A-D	0.00	0.00	0.0	A	0	0
	D-AB	0.00	0.00	0.0	A	0	0
	D-BC	0.00	0.00	0.0	A	0	0
	C-ABD	0.21	6.41	0.6	A	107	160
	C-D					0	0
	C-A					316	474

Main Results for each time segment

07:45 - 08:00

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	q
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction	B-C	32	8		534	0.059	31	0.0	
	B-A	208	52		457	0.455	205	0.0	
	C-AB	0	0		511	0.000	0	0.0	
	C-A	139	35				139		
	A-B	0	0				0		
	A-C	196	49				196		
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	B-ACD	0	0		339	0.000	0	0.0	
	A-BC	725	181	22.59	1794	0.404	720	0.0	
	A-D	0	0	22.59	0	0.000	0	0.0	
	D-AB	0	0		488	0.000	0	0.0	
	D-BC	0	0		354	0.000	0	0.0	
	C-ABD	70	18		666	0.106	69	0.0	
	C-D	0	0				0		
	C-A	277	69				277		

08:00 - 08:15

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	q
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction	B-C	38	9		509	0.074	38	0.1	
	B-A	248	62		444	0.559	246	0.8	
	C-AB	0	0		503	0.000	0	0.0	
	C-A	166	42				166		
	A-B	0	0				0		
	A-C	234	58				234		
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	B-ACD	0	0		313	0.000	0	0.0	
	A-BC	866	216	26.97	1781	0.486	864	1.3	
	A-D	0	0	26.97	0	0.000	0	0.0	
	D-AB	0	0		446	0.000	0	0.0	
	D-BC	0	0		322	0.000	0	0.0	
	C-ABD	98	25		685	0.143	98	0.2	
	C-D	0	0				0		
	C-A	316	79				316		

08:15 - 08:30

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	q
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction	B-C	46	12		475	0.097	46	0.1	
	B-A	304	76		425	0.714	300	1.2	
	C-AB	0	0		492	0.000	0	0.0	
	C-A	204	51				204		
	A-B	0	0				0		
	A-C	286	72				286		
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	B-ACD	0	0		277	0.000	0	0.0	
	A-BC	1060	265	33.03	1763	0.601	1056	1.9	
	A-D	0	0	33.03	0	0.000	0	0.0	
	D-AB	0	0		386	0.000	0	0.0	
	D-BC	0	0		277	0.000	0	0.0	
	C-ABD	151	38		716	0.211	150	0.3	
	C-D	0	0				0		
	C-A	357	89				357		

08:30 - 08:45

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	q
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction	B-C	46	12		474	0.098	46	0.1	
	B-A	304	76		425	0.714	303	2.3	
	C-AB	0	0		492	0.000	0	0.0	
	C-A	204	51				204		
	A-B	0	0				0		
	A-C	286	72				286		
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	B-ACD	0	0		276	0.000	0	0.0	
	A-BC	1060	265	33.03	1763	0.601	1060	2.9	
	A-D	0	0	33.03	0	0.000	0	0.0	
	D-AB	0	0		385	0.000	0	0.0	
	D-BC	0	0		276	0.000	0	0.0	
	C-ABD	152	38		716	0.212	152	0.6	
	C-D	0	0				0		
	C-A	356	89				356		

08:45 - 09:00

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	q
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction	B-C	38	9		507	0.074	38	0.1	
	B-A	248	62		444	0.559	252	2.4	
	C-AB	0	0		503	0.000	0	0.0	
	C-A	166	42				166		
	A-B	0	0				0		
	A-C	234	58				234		
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	B-ACD	0	0		312	0.000	0	0.0	
	A-BC	866	216	26.97	1781	0.486	870	3.0	
	A-D	0	0	26.97	0	0.000	0	0.0	
	D-AB	0	0		445	0.000	0	0.0	
	D-BC	0	0		321	0.000	0	0.0	
	C-ABD	99	25		685	0.144	100	0.6	
	C-D	0	0				0		
	C-A	316	79				316		

09:00 - 09:15

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	q
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction	B-C	32	8		533	0.059	32	0.1	
	B-A	208	52		457	0.455	210	1.3	
	C-AB	0	0		511	0.000	0	0.0	
	C-A	139	35				139		
	A-B	0	0				0		
	A-C	196	49				196		
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	B-ACD	0	0		338	0.000	0	0.0	
	A-BC	725	181	22.59	1794	0.404	727	1.9	
	A-D	0	0	22.59	0	0.000	0	0.0	
	D-AB	0	0		487	0.000	0	0.0	
	D-BC	0	0		352	0.000	0	0.0	
	C-ABD	71	18		665	0.107	71	0.4	
	C-D	0	0				0		
	C-A	276	69				276		

2019 Base Year, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction - A - B4632 Prestbury Road (East) - Pedestrian crossing	Pedestrian crossing uses default flow of 0. Is this correct?

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	B4632 Prestbury Road / B4075 Priors Road Priority Junction	T-Junction	Two-way		6.35	A
2	B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	Crossroads	Two-way		2.69	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2019 Base Year	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction	A - B4632 Prestbury Road (East)		ONE HOUR	✓	190	100.000
	B - B4075 Priors Road		ONE HOUR	✓	264	100.000
	C - B4632 Prestbury Road (West)		ONE HOUR	✓	199	100.000
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	A - B4632 Prestbury Road (East)		ONE HOUR	✓	776	100.000
	B - B4075 Priors Road		ONE HOUR	✓	0	100.000
	C - B4632 Prestbury Road (West)		ONE HOUR	✓	419	100.000
	D - Laurel Drive		ONE HOUR	✓	0	100.000

Demand overview (Pedestrians)

Junction	Arm	Profile type	Average pedestrian flow (Ped/hr)
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction	A - B4632 Prestbury Road (East)		
	B - B4075 Priors Road		
	C - B4632 Prestbury Road (West)		
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	A - B4632 Prestbury Road (East)	[ONEHOUR]	0.00
	B - B4075 Priors Road		
	C - B4632 Prestbury Road (West)		
	D - Laurel Drive		

Origin-Destination Data

1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction

Demand (Veh/hr)

		To		
		A - B4632 Prestbury Road (East)	B - B4075 Priors Road	C - B4632 Prestbury Road (West)
From	A - B4632 Prestbury Road (East)	0	0	190
	B - B4075 Priors Road	220	0	44
	C - B4632 Prestbury Road (West)	199	0	0

2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction

Demand (Veh/hr)

		To			
		A - B4632 Prestbury Road (East)	B - B4075 Priors Road	C - B4632 Prestbury Road (West)	D - Laurel Drive
From	A - B4632 Prestbury Road (East)	0	586	190	0
	B - B4075 Priors Road	0	0	0	0
	C - B4632 Prestbury Road (West)	390	29	0	0
	D - Laurel Drive	0	0	0	0

Vehicle Mix

1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction

Heavy Vehicle Percentages

		To		
		A - B4632 Prestbury Road (East)	B - B4075 Priors Road	C - B4632 Prestbury Road (West)
From	A - B4632 Prestbury Road (East)	0	0	5
	B - B4075 Priors Road	2	0	0
	C - B4632 Prestbury Road (West)	3	0	0

2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction

Heavy Vehicle Percentages

		To			
		A - B4632 Prestbury Road (East)	B - B4075 Priors Road	C - B4632 Prestbury Road (West)	D - Laurel Drive
From	A - B4632 Prestbury Road (East)	0	3	5	0
	B - B4075 Priors Road	0	0	0	0
	C - B4632 Prestbury Road (West)	3	0	0	0
	D - Laurel Drive	0	0	0	0

Results

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction	B-C	0.09	7.30	0.1	A	40	61
	B-A	0.54	17.61	1.2	C	202	303
	C-AB	0.00	0.00	0.0	A	0	0
	C-A					183	274
	A-B					0	0
	A-C					174	262
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	B-ACD	0.00	0.00	0.0	A	0	0
	A-BC	0.47	3.75	1.8	A	712	1068
	A-D	0.00	0.00	0.0	A	0	0
	D-AB	0.00	0.00	0.0	A	0	0
	D-BC	0.00	0.00	0.0	A	0	0
	C-ABD	0.10	5.29	0.2	A	53	80
	C-D					0	0
	C-A					331	497

Main Results for each time segment

16:45 - 17:00

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	q
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction	B-C	33	8		590	0.056	33	0.0	
	B-A	166	41		473	0.350	164	0.0	
	C-AB	0	0		534	0.000	0	0.0	
	C-A	150	37				150		
	A-B	0	0				0		
	A-C	143	36				143		
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	B-ACD	0	0		364	0.000	0	0.0	
	A-BC	584	146	0.00	1823	0.321	580	0.0	
	A-D	0	0	0.00	0	0.000	0	0.0	
	D-AB	0	0		518	0.000	0	0.0	
	D-BC	0	0		379	0.000	0	0.0	
	C-ABD	37	9		720	0.051	37	0.0	
	C-D	0	0				0		
	C-A	279	70				279		

17:00 - 17:15

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	q
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction	B-C	40	10		570	0.069	39	0.1	
	B-A	198	49		462	0.428	197	0.5	
	C-AB	0	0		528	0.000	0	0.0	
	C-A	179	45				179		
	A-B	0	0				0		
	A-C	171	43				171		
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	B-ACD	0	0		343	0.000	0	0.0	
	A-B-C	698	174	0.00	1823	0.383	696	0.9	
	A-D	0	0	0.00	0	0.000	0	0.0	
	D-AB	0	0		484	0.000	0	0.0	
	D-B-C	0	0		353	0.000	0	0.0	
	C-ABD	50	12		737	0.068	50	0.1	
	C-D	0	0				0		
	C-A	327	82				327		

17:15 - 17:30

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	q
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction	B-C	48	12		542	0.089	48	0.1	
	B-A	242	61		446	0.543	241	0.7	
	C-AB	0	0		519	0.000	0	0.0	
	C-A	219	55				219		
	A-B	0	0				0		
	A-C	209	52				209		
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	B-ACD	0	0		314	0.000	0	0.0	
	A-B-C	854	214	0.00	1823	0.469	852	1.2	
	A-D	0	0	0.00	0	0.000	0	0.0	
	D-AB	0	0		436	0.000	0	0.0	
	D-B-C	0	0		316	0.000	0	0.0	
	C-ABD	73	18		764	0.096	73	0.1	
	C-D	0	0				0		
	C-A	388	97				388		

17:30 - 17:45

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	q
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction	B-C	48	12		542	0.089	48	0.1	
	B-A	242	61		446	0.543	242	1.1	
	C-AB	0	0		519	0.000	0	0.0	
	C-A	219	55				219		
	A-B	0	0				0		
	A-C	209	52				209		
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	B-ACD	0	0		314	0.000	0	0.0	
	A-B-C	854	214	0.00	1823	0.469	854	1.7	
	A-D	0	0	0.00	0	0.000	0	0.0	
	D-AB	0	0		436	0.000	0	0.0	
	D-B-C	0	0		316	0.000	0	0.0	
	C-ABD	73	18		763	0.096	73	0.2	
	C-D	0	0				0		
	C-A	388	97				388		

17:45 - 18:00

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	q
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction	B-C	40	10		569	0.070	40	0.1	
	B-A	198	49		462	0.428	199	1.2	
	C-AB	0	0		528	0.000	0	0.0	
	C-A	179	45				179		
	A-B	0	0				0		
	A-C	171	43				171		
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	B-ACD	0	0		342	0.000	0	0.0	
	A-BC	698	174	0.00	1823	0.383	700	1.8	
	A-D	0	0	0.00	0	0.000	0	0.0	
	D-AB	0	0		484	0.000	0	0.0	
	D-BC	0	0		352	0.000	0	0.0	
	C-ABD	50	13		736	0.068	50	0.2	
	C-D	0	0				0		
	C-A	327	82				327		

18:00 - 18:15

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	q
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction	B-C	33	8		589	0.056	33	0.1	
	B-A	166	41		473	0.350	167	0.8	
	C-AB	0	0		534	0.000	0	0.0	
	C-A	150	37				150		
	A-B	0	0				0		
	A-C	143	36				143		
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	B-ACD	0	0		363	0.000	0	0.0	
	A-BC	584	146	0.00	1823	0.321	585	1.3	
	A-D	0	0	0.00	0	0.000	0	0.0	
	D-AB	0	0		518	0.000	0	0.0	
	D-BC	0	0		378	0.000	0	0.0	
	C-ABD	37	9		719	0.052	37	0.1	
	C-D	0	0				0		
	C-A	278	70				278		

2024 Forecast Year, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	B4632 Prestbury Road / B4075 Priors Road Priority Junction	T-Junction	Two-way		12.93	B
2	B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	Crossroads	Two-way		4.35	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2024 Forecast Year	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction	A - B4632 Prestbury Road (East)		ONE HOUR	✓	273	100.000
	B - B4075 Priors Road		ONE HOUR	✓	334	100.000
	C - B4632 Prestbury Road (West)		ONE HOUR	✓	195	100.000
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	A - B4632 Prestbury Road (East)		ONE HOUR	✓	1013	100.000
	B - B4075 Priors Road		ONE HOUR	✓	0	100.000
	C - B4632 Prestbury Road (West)		ONE HOUR	✓	485	100.000
	D - Laurel Drive		ONE HOUR	✓	0	100.000

Demand overview (Pedestrians)

Junction	Arm	Profile type	Average pedestrian flow (Ped/hr)
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction	A - B4632 Prestbury Road (East)		
	B - B4075 Priors Road		
	C - B4632 Prestbury Road (West)		
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	A - B4632 Prestbury Road (East)	[ONEHOUR]	30.00
	B - B4075 Priors Road		
	C - B4632 Prestbury Road (West)		
	D - Laurel Drive		

Origin-Destination Data

1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction

Demand (Veh/hr)

		To		
		A - B4632 Prestbury Road (East)	B - B4075 Priors Road	C - B4632 Prestbury Road (West)
From	A - B4632 Prestbury Road (East)	0	0	273
	B - B4075 Priors Road	290	0	44
	C - B4632 Prestbury Road (West)	195	0	0

2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction

Demand (Veh/hr)

		To			
		A - B4632 Prestbury Road (East)	B - B4075 Priors Road	C - B4632 Prestbury Road (West)	D - Laurel Drive
From	A - B4632 Prestbury Road (East)	0	740	273	0
	B - B4075 Priors Road	0	0	0	0
	C - B4632 Prestbury Road (West)	432	53	0	0
	D - Laurel Drive	0	0	0	0

Vehicle Mix

1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction

Heavy Vehicle Percentages

		To		
		A - B4632 Prestbury Road (East)	B - B4075 Priors Road	C - B4632 Prestbury Road (West)
From	A - B4632 Prestbury Road (East)	0	0	3
	B - B4075 Priors Road	3	0	5
	C - B4632 Prestbury Road (West)	8	0	0

2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction

Heavy Vehicle Percentages

		To			
		A - B4632 Prestbury Road (East)	B - B4075 Priors Road	C - B4632 Prestbury Road (West)	D - Laurel Drive
From	A - B4632 Prestbury Road (East)	0	0	3	0
	B - B4075 Priors Road	0	0	0	0
	C - B4632 Prestbury Road (West)	8	10	0	0
	D - Laurel Drive	0	0	0	0

Results

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction	B-C	0.10	8.67	0.1	A	40	61
	B-A	0.76	34.86	2.9	D	266	399
	C-AB	0.00	0.00	0.0	A	0	0
	C-A					179	268
	A-B					0	0
	A-C					251	376
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	B-ACD	0.00	0.00	0.0	A	0	0
	A-BC	0.63	5.67	3.4	A	930	1394
	A-D	0.00	0.00	0.0	A	0	0
	D-AB	0.00	0.00	0.0	A	0	0
	D-BC	0.00	0.00	0.0	A	0	0
	C-ABD	0.24	6.54	0.7	A	120	180
	C-D					0	0
	C-A					325	488

Main Results for each time segment

07:45 - 08:00

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	q
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction	B-C	33	8		528	0.063	33	0.0	
	B-A	218	55		454	0.481	215	0.0	
	C-AB	0	0		509	0.000	0	0.0	
	C-A	147	37				147		
	A-B	0	0				0		
	A-C	206	51				206		
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	B-ACD	0	0		332	0.000	0	0.0	
	A-BC	763	191	22.59	1794	0.425	757	0.0	
	A-D	0	0	22.59	0	0.000	0	0.0	
	D-AB	0	0		478	0.000	0	0.0	
	D-BC	0	0		345	0.000	0	0.0	
	C-ABD	77	19		671	0.115	76	0.0	
	C-D	0	0				0		
	C-A	288	72				288		

08:00 - 08:15

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	q
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction	B-C	40	10		502	0.079	39	0.1	
	B-A	261	65		440	0.593	259	0.9	
	C-AB	0	0		500	0.000	0	0.0	
	C-A	175	44				175		
	A-B	0	0				0		
	A-C	245	61				245		
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	B-ACD	0	0		305	0.000	0	0.0	
	A-B-C	911	228	26.97	1781	0.511	908	1.5	
	A-D	0	0	26.97	0	0.000	0	0.0	
	D-AB	0	0		433	0.000	0	0.0	
	D-B-C	0	0		312	0.000	0	0.0	
	C-ABD	109	27		692	0.158	109	0.2	
	C-D	0	0				0		
	C-A	327	82				327		

08:15 - 08:30

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	q
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction	B-C	48	12		465	0.104	48	0.1	
	B-A	319	80		420	0.760	314	1.4	
	C-AB	0	0		489	0.000	0	0.0	
	C-A	215	54				215		
	A-B	0	0				0		
	A-C	301	75				301		
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	B-ACD	0	0		267	0.000	0	0.0	
	A-B-C	1115	279	33.03	1763	0.633	1110	2.1	
	A-D	0	0	33.03	0	0.000	0	0.0	
	D-AB	0	0		368	0.000	0	0.0	
	D-B-C	0	0		264	0.000	0	0.0	
	C-ABD	171	43		725	0.236	170	0.4	
	C-D	0	0				0		
	C-A	363	91				363		

08:30 - 08:45

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	q
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction	B-C	48	12		463	0.105	48	0.1	
	B-A	319	80		420	0.760	319	2.8	
	C-AB	0	0		489	0.000	0	0.0	
	C-A	215	54				215		
	A-B	0	0				0		
	A-C	301	75				301		
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	B-ACD	0	0		266	0.000	0	0.0	
	A-B-C	1115	279	33.03	1763	0.633	1115	3.3	
	A-D	0	0	33.03	0	0.000	0	0.0	
	D-AB	0	0		366	0.000	0	0.0	
	D-B-C	0	0		263	0.000	0	0.0	
	C-ABD	172	43		725	0.237	172	0.7	
	C-D	0	0				0		
	C-A	362	90				362		

08:45 - 09:00

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	q
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction	B-C	40	10		499	0.079	40	0.1	
	B-A	261	65		440	0.593	266	2.9	
	C-AB	0	0		500	0.000	0	0.0	
	C-A	175	44				175		
	A-B	0	0				0		
	A-C	245	61				245		
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	B-ACD	0	0		303	0.000	0	0.0	
	A-BC	911	228	26.97	1781	0.511	916	3.4	
	A-D	0	0	26.97	0	0.000	0	0.0	
	D-AB	0	0		431	0.000	0	0.0	
	D-BC	0	0		310	0.000	0	0.0	
	C-ABD	110	28		692	0.160	112	0.7	
	C-D	0	0				0		
	C-A	326	81				326		

09:00 - 09:15

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	q
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction	B-C	33	8		526	0.063	33	0.1	
	B-A	218	55		454	0.481	221	1.5	
	C-AB	0	0		509	0.000	0	0.0	
	C-A	147	37				147		
	A-B	0	0				0		
	A-C	206	51				206		
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	B-ACD	0	0		331	0.000	0	0.0	
	A-BC	763	191	22.59	1794	0.425	765	2.1	
	A-D	0	0	22.59	0	0.000	0	0.0	
	D-AB	0	0		476	0.000	0	0.0	
	D-BC	0	0		344	0.000	0	0.0	
	C-ABD	78	20		670	0.117	79	0.4	
	C-D	0	0				0		
	C-A	287	72				287		

2024 Forecast Year, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction - A - B4632 Prestbury Road (East) - Pedestrian crossing	Pedestrian crossing uses default flow of 0. Is this correct?

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	B4632 Prestbury Road / B4075 Priors Road Priority Junction	T-Junction	Two-way		6.82	A
2	B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	Crossroads	Two-way		2.82	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2024 Forecast Year	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction	A - B4632 Prestbury Road (East)		ONE HOUR	✓	199	100.000
	B - B4075 Priors Road		ONE HOUR	✓	276	100.000
	C - B4632 Prestbury Road (West)		ONE HOUR	✓	208	100.000
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	A - B4632 Prestbury Road (East)		ONE HOUR	✓	816	100.000
	B - B4075 Priors Road		ONE HOUR	✓	0	100.000
	C - B4632 Prestbury Road (West)		ONE HOUR	✓	438	100.000
	D - Laurel Drive		ONE HOUR	✓	0	100.000

Demand overview (Pedestrians)

Junction	Arm	Profile type	Average pedestrian flow (Ped/hr)
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction	A - B4632 Prestbury Road (East)		
	B - B4075 Priors Road		
	C - B4632 Prestbury Road (West)		
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	A - B4632 Prestbury Road (East)	[ONEHOUR]	0.00
	B - B4075 Priors Road		
	C - B4632 Prestbury Road (West)		
	D - Laurel Drive		

Origin-Destination Data

1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction

Demand (Veh/hr)

		To		
		A - B4632 Prestbury Road (East)	B - B4075 Priors Road	C - B4632 Prestbury Road (West)
From	A - B4632 Prestbury Road (East)	0	0	199
	B - B4075 Priors Road	230	0	46
	C - B4632 Prestbury Road (West)	208	0	0

2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction

Demand (Veh/hr)

		To			
		A - B4632 Prestbury Road (East)	B - B4075 Priors Road	C - B4632 Prestbury Road (West)	D - Laurel Drive
From	A - B4632 Prestbury Road (East)	0	617	199	0
	B - B4075 Priors Road	0	0	0	0
	C - B4632 Prestbury Road (West)	408	30	0	0
	D - Laurel Drive	0	0	0	0

Vehicle Mix

1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction

Heavy Vehicle Percentages

		To		
		A - B4632 Prestbury Road (East)	B - B4075 Priors Road	C - B4632 Prestbury Road (West)
From	A - B4632 Prestbury Road (East)	0	0	5
	B - B4075 Priors Road	2	0	0
	C - B4632 Prestbury Road (West)	3	0	0

2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction

Heavy Vehicle Percentages

		To			
		A - B4632 Prestbury Road (East)	B - B4075 Priors Road	C - B4632 Prestbury Road (West)	D - Laurel Drive
From	A - B4632 Prestbury Road (East)	0	3	5	0
	B - B4075 Priors Road	0	0	0	0
	C - B4632 Prestbury Road (West)	3	0	0	0
	D - Laurel Drive	0	0	0	0

Results

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction	B-C	0.09	7.44	0.1	A	42	63
	B-A	0.57	18.99	1.3	C	211	317
	C-AB	0.00	0.00	0.0	A	0	0
	C-A					191	286
	A-B					0	0
	A-C					183	274
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	B-ACD	0.00	0.00	0.0	A	0	0
	A-BC	0.49	3.93	1.9	A	749	1123
	A-D	0.00	0.00	0.0	A	0	0
	D-AB	0.00	0.00	0.0	A	0	0
	D-BC	0.00	0.00	0.0	A	0	0
	C-ABD	0.10	5.28	0.2	A	58	86
	C-D					0	0
	C-A					344	516

Main Results for each time segment

16:45 - 17:00

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	q
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction	B-C	35	9		585	0.059	34	0.0	
	B-A	173	43		470	0.368	171	0.0	
	C-AB	0	0		533	0.000	0	0.0	
	C-A	157	39				157		
	A-B	0	0				0		
	A-C	150	37				150		
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	B-ACD	0	0		359	0.000	0	0.0	
	A-BC	614	154	0.00	1823	0.337	610	0.0	
	A-D	0	0	0.00	0	0.000	0	0.0	
	D-AB	0	0		510	0.000	0	0.0	
	D-BC	0	0		372	0.000	0	0.0	
	C-ABD	39	10		724	0.054	39	0.0	
	C-D	0	0				0		
	C-A	291	73				291		

17:00 - 17:15

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	q
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction	B-C	41	10		564	0.073	41	0.1	
	B-A	207	52		459	0.451	206	0.6	
	C-AB	0	0		526	0.000	0	0.0	
	C-A	187	47				187		
	A-B	0	0				0		
	A-C	179	45				179		
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	B-ACD	0	0		337	0.000	0	0.0	
	A-B-C	734	183	0.00	1823	0.402	732	1.0	
	A-D	0	0	0.00	0	0.000	0	0.0	
	D-AB	0	0		474	0.000	0	0.0	
	D-B-C	0	0		345	0.000	0	0.0	
	C-ABD	54	13		741	0.072	53	0.1	
	C-D	0	0				0		
	C-A	340	85				340		

17:15 - 17:30

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	q
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction	B-C	51	13		535	0.095	51	0.1	
	B-A	253	63		442	0.572	251	0.8	
	C-AB	0	0		517	0.000	0	0.0	
	C-A	229	57				229		
	A-B	0	0				0		
	A-C	219	55				219		
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	B-ACD	0	0		307	0.000	0	0.0	
	A-B-C	898	225	0.00	1823	0.493	896	1.3	
	A-D	0	0	0.00	0	0.000	0	0.0	
	D-AB	0	0		423	0.000	0	0.0	
	D-B-C	0	0		306	0.000	0	0.0	
	C-ABD	80	20		770	0.103	79	0.1	
	C-D	0	0				0		
	C-A	403	101				403		

17:30 - 17:45

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	q
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction	B-C	51	13		535	0.095	51	0.1	
	B-A	253	63		442	0.572	253	1.3	
	C-AB	0	0		517	0.000	0	0.0	
	C-A	229	57				229		
	A-B	0	0				0		
	A-C	219	55				219		
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	B-ACD	0	0		306	0.000	0	0.0	
	A-B-C	898	225	0.00	1823	0.493	898	1.9	
	A-D	0	0	0.00	0	0.000	0	0.0	
	D-AB	0	0		422	0.000	0	0.0	
	D-B-C	0	0		306	0.000	0	0.0	
	C-ABD	80	20		770	0.104	80	0.2	
	C-D	0	0				0		
	C-A	402	101				402		

17:45 - 18:00

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	q
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction	B-C	41	10		563	0.073	41	0.1	
	B-A	207	52		459	0.451	209	1.3	
	C-AB	0	0		526	0.000	0	0.0	
	C-A	187	47				187		
	A-B	0	0				0		
	A-C	179	45				179		
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	B-ACD	0	0		336	0.000	0	0.0	
	A-BC	734	183	0.00	1823	0.402	736	1.9	
	A-D	0	0	0.00	0	0.000	0	0.0	
	D-AB	0	0		473	0.000	0	0.0	
	D-BC	0	0		344	0.000	0	0.0	
	C-ABD	54	13		741	0.073	54	0.2	
	C-D	0	0				0		
	C-A	340	85				340		

18:00 - 18:15

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	q
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction	B-C	35	9		584	0.059	35	0.1	
	B-A	173	43		470	0.368	174	0.8	
	C-AB	0	0		533	0.000	0	0.0	
	C-A	157	39				157		
	A-B	0	0				0		
	A-C	150	37				150		
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	B-ACD	0	0		358	0.000	0	0.0	
	A-BC	614	154	0.00	1823	0.337	616	1.4	
	A-D	0	0	0.00	0	0.000	0	0.0	
	D-AB	0	0		509	0.000	0	0.0	
	D-BC	0	0		372	0.000	0	0.0	
	C-ABD	39	10		722	0.055	40	0.1	
	C-D	0	0				0		
	C-A	290	73				290		

2024 Forecast Year + Proposed Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	B4632 Prestbury Road / B4075 Priors Road Priority Junction	T-Junction	Two-way		12.92	B
2	B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	Crossroads	Two-way		4.41	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2024 Forecast Year + Proposed Development	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction	A - B4632 Prestbury Road (East)		ONE HOUR	✓	273	100.000
	B - B4075 Priors Road		ONE HOUR	✓	337	100.000
	C - B4632 Prestbury Road (West)		ONE HOUR	✓	196	100.000
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	A - B4632 Prestbury Road (East)		ONE HOUR	✓	1020	100.000
	B - B4075 Priors Road		ONE HOUR	✓	0	100.000
	C - B4632 Prestbury Road (West)		ONE HOUR	✓	486	100.000
	D - Laurel Drive		ONE HOUR	✓	0	100.000

Demand overview (Pedestrians)

Junction	Arm	Profile type	Average pedestrian flow (Ped/hr)
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction	A - B4632 Prestbury Road (East)		
	B - B4075 Priors Road		
	C - B4632 Prestbury Road (West)		
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	A - B4632 Prestbury Road (East)	[ONEHOUR]	30.00
	B - B4075 Priors Road		
	C - B4632 Prestbury Road (West)		
	D - Laurel Drive		

Origin-Destination Data

1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction

Demand (Veh/hr)

		To		
		A - B4632 Prestbury Road (East)	B - B4075 Priors Road	C - B4632 Prestbury Road (West)
From	A - B4632 Prestbury Road (East)	0	0	273
	B - B4075 Priors Road	290	0	47
	C - B4632 Prestbury Road (West)	196	0	0

2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction

Demand (Veh/hr)

		To			
		A - B4632 Prestbury Road (East)	B - B4075 Priors Road	C - B4632 Prestbury Road (West)	D - Laurel Drive
From	A - B4632 Prestbury Road (East)	0	747	273	0
	B - B4075 Priors Road	0	0	0	0
	C - B4632 Prestbury Road (West)	432	54	0	0
	D - Laurel Drive	0	0	0	0

Vehicle Mix

1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction

Heavy Vehicle Percentages

		To		
		A - B4632 Prestbury Road (East)	B - B4075 Priors Road	C - B4632 Prestbury Road (West)
From	A - B4632 Prestbury Road (East)	0	0	3
	B - B4075 Priors Road	3	0	5
	C - B4632 Prestbury Road (West)	8	0	0

2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction

Heavy Vehicle Percentages

		To			
		A - B4632 Prestbury Road (East)	B - B4075 Priors Road	C - B4632 Prestbury Road (West)	D - Laurel Drive
From	A - B4632 Prestbury Road (East)	0	0	3	0
	B - B4075 Priors Road	0	0	0	0
	C - B4632 Prestbury Road (West)	8	10	0	0
	D - Laurel Drive	0	0	0	0

Results

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction	B-C	0.11	8.74	0.1	A	43	65
	B-A	0.76	34.92	2.9	D	266	399
	C-AB	0.00	0.00	0.0	A	0	0
	C-A					180	270
	A-B					0	0
	A-C					251	376
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	B-ACD	0.00	0.00	0.0	A	0	0
	A-BC	0.64	5.74	3.5	A	936	1404
	A-D	0.00	0.00	0.0	A	0	0
	D-AB	0.00	0.00	0.0	A	0	0
	D-BC	0.00	0.00	0.0	A	0	0
	C-ABD	0.24	6.61	0.7	A	122	184
	C-D					0	0
	C-A					324	485

Main Results for each time segment

07:45 - 08:00

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	q
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction	B-C	35	9		528	0.067	35	0.0	
	B-A	218	55		453	0.482	215	0.0	
	C-AB	0	0		509	0.000	0	0.0	
	C-A	148	37				148		
	A-B	0	0				0		
	A-C	206	51				206		
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	B-ACD	0	0		332	0.000	0	0.0	
	A-BC	768	192	22.59	1794	0.428	762	0.0	
	A-D	0	0	22.59	0	0.000	0	0.0	
	D-AB	0	0		477	0.000	0	0.0	
	D-BC	0	0		345	0.000	0	0.0	
	C-ABD	79	20		670	0.118	78	0.0	
	C-D	0	0				0		
	C-A	287	72				287		

08:00 - 08:15

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	q
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction	B-C	42	11		502	0.084	42	0.1	
	B-A	261	65		439	0.593	259	0.9	
	C-AB	0	0		500	0.000	0	0.0	
	C-A	176	44				176		
	A-B	0	0				0		
	A-C	245	61				245		
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	B-ACD	0	0		304	0.000	0	0.0	
	A-B-C	917	229	26.97	1781	0.515	915	1.5	
	A-D	0	0	26.97	0	0.000	0	0.0	
	D-AB	0	0		431	0.000	0	0.0	
	D-B-C	0	0		311	0.000	0	0.0	
	C-ABD	112	28		691	0.162	111	0.3	
	C-D	0	0				0		
	C-A	325	81				325		

08:15 - 08:30

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	q
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction	B-C	52	13		465	0.111	52	0.1	
	B-A	319	80		420	0.760	314	1.4	
	C-AB	0	0		489	0.000	0	0.0	
	C-A	216	54				216		
	A-B	0	0				0		
	A-C	301	75				301		
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	B-ACD	0	0		266	0.000	0	0.0	
	A-B-C	1123	281	33.03	1763	0.637	1118	2.1	
	A-D	0	0	33.03	0	0.000	0	0.0	
	D-AB	0	0		366	0.000	0	0.0	
	D-B-C	0	0		263	0.000	0	0.0	
	C-ABD	175	44		724	0.242	174	0.4	
	C-D	0	0				0		
	C-A	360	90				360		

08:30 - 08:45

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	q
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction	B-C	52	13		463	0.112	52	0.1	
	B-A	319	80		420	0.760	319	2.8	
	C-AB	0	0		489	0.000	0	0.0	
	C-A	216	54				216		
	A-B	0	0				0		
	A-C	301	75				301		
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	B-ACD	0	0		265	0.000	0	0.0	
	A-B-C	1123	281	33.03	1763	0.637	1123	3.4	
	A-D	0	0	33.03	0	0.000	0	0.0	
	D-AB	0	0		365	0.000	0	0.0	
	D-B-C	0	0		262	0.000	0	0.0	
	C-ABD	176	44		724	0.243	176	0.7	
	C-D	0	0				0		
	C-A	359	90				359		

08:45 - 09:00

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	q
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction	B-C	42	11		499	0.085	42	0.1	
	B-A	261	65		439	0.593	266	2.9	
	C-AB	0	0		500	0.000	0	0.0	
	C-A	176	44				176		
	A-B	0	0				0		
	A-C	245	61				245		
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	B-ACD	0	0		303	0.000	0	0.0	
	A-BC	917	229	26.97	1781	0.515	922	3.5	
	A-D	0	0	26.97	0	0.000	0	0.0	
	D-AB	0	0		430	0.000	0	0.0	
	D-BC	0	0		309	0.000	0	0.0	
	C-ABD	113	28		690	0.163	114	0.7	
	C-D	0	0				0		
	C-A	324	81				324		

09:00 - 09:15

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	q
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction	B-C	35	9		526	0.067	35	0.1	
	B-A	218	55		453	0.482	221	1.5	
	C-AB	0	0		509	0.000	0	0.0	
	C-A	148	37				148		
	A-B	0	0				0		
	A-C	206	51				206		
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	B-ACD	0	0		330	0.000	0	0.0	
	A-BC	768	192	22.59	1794	0.428	770	2.2	
	A-D	0	0	22.59	0	0.000	0	0.0	
	D-AB	0	0		475	0.000	0	0.0	
	D-BC	0	0		343	0.000	0	0.0	
	C-ABD	80	20		669	0.119	80	0.4	
	C-D	0	0				0		
	C-A	286	72				286		

2024 Forecast Year + Proposed Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction - A - B4632 Prestbury Road (East) - Pedestrian crossing	Pedestrian crossing uses default flow of 0. Is this correct?

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	B4632 Prestbury Road / B4075 Priors Road Priority Junction	T-Junction	Two-way		6.81	A
2	B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	Crossroads	Two-way		2.93	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2024 Forecast Year + Proposed Development	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction	A - B4632 Prestbury Road (East)		ONE HOUR	✓	199	100.000
	B - B4075 Priors Road		ONE HOUR	✓	277	100.000
	C - B4632 Prestbury Road (West)		ONE HOUR	✓	211	100.000
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	A - B4632 Prestbury Road (East)		ONE HOUR	✓	836	100.000
	B - B4075 Priors Road		ONE HOUR	✓	0	100.000
	C - B4632 Prestbury Road (West)		ONE HOUR	✓	441	100.000
	D - Laurel Drive		ONE HOUR	✓	0	100.000

Demand overview (Pedestrians)

Junction	Arm	Profile type	Average pedestrian flow (Ped/hr)
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction	A - B4632 Prestbury Road (East)		
	B - B4075 Priors Road		
	C - B4632 Prestbury Road (West)		
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	A - B4632 Prestbury Road (East)	[ONEHOUR]	0.00
	B - B4075 Priors Road		
	C - B4632 Prestbury Road (West)		
	D - Laurel Drive		

Origin-Destination Data

1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction

Demand (Veh/hr)

		To		
		A - B4632 Prestbury Road (East)	B - B4075 Priors Road	C - B4632 Prestbury Road (West)
From	A - B4632 Prestbury Road (East)	0	0	199
	B - B4075 Priors Road	230	0	47
	C - B4632 Prestbury Road (West)	211	0	0

2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction

Demand (Veh/hr)

		To			
		A - B4632 Prestbury Road (East)	B - B4075 Priors Road	C - B4632 Prestbury Road (West)	D - Laurel Drive
From	A - B4632 Prestbury Road (East)	0	637	199	0
	B - B4075 Priors Road	0	0	0	0
	C - B4632 Prestbury Road (West)	408	33	0	0
	D - Laurel Drive	0	0	0	0

Vehicle Mix

1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction

Heavy Vehicle Percentages

		To		
		A - B4632 Prestbury Road (East)	B - B4075 Priors Road	C - B4632 Prestbury Road (West)
From	A - B4632 Prestbury Road (East)	0	0	5
	B - B4075 Priors Road	2	0	0
	C - B4632 Prestbury Road (West)	3	0	0

2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction

Heavy Vehicle Percentages

		To			
		A - B4632 Prestbury Road (East)	B - B4075 Priors Road	C - B4632 Prestbury Road (West)	D - Laurel Drive
From	A - B4632 Prestbury Road (East)	0	3	5	0
	B - B4075 Priors Road	0	0	0	0
	C - B4632 Prestbury Road (West)	3	0	0	0
	D - Laurel Drive	0	0	0	0

Results

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction	B-C	0.10	7.46	0.1	A	43	65
	B-A	0.57	19.04	1.3	C	211	317
	C-AB	0.00	0.00	0.0	A	0	0
	C-A					194	290
	A-B					0	0
	A-C					183	274
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	B-ACD	0.00	0.00	0.0	A	0	0
	A-BC	0.50	4.02	2.0	A	767	1151
	A-D	0.00	0.00	0.0	A	0	0
	D-AB	0.00	0.00	0.0	A	0	0
	D-BC	0.00	0.00	0.0	A	0	0
	C-ABD	0.12	5.34	0.3	A	64	96
	C-D					0	0
	C-A					341	511

Main Results for each time segment

16:45 - 17:00

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	q
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction	B-C	35	9		585	0.060	35	0.0	
	B-A	173	43		470	0.368	171	0.0	
	C-AB	0	0		533	0.000	0	0.0	
	C-A	159	40				159		
	A-B	0	0				0		
	A-C	150	37				150		
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	B-ACD	0	0		357	0.000	0	0.0	
	A-BC	629	157	0.00	1823	0.345	625	0.0	
	A-D	0	0	0.00	0	0.000	0	0.0	
	D-AB	0	0		508	0.000	0	0.0	
	D-BC	0	0		371	0.000	0	0.0	
	C-ABD	43	11		720	0.060	43	0.0	
	C-D	0	0				0		
	C-A	289	72				289		

17:00 - 17:15

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	q
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction	B-C	42	11		564	0.075	42	0.1	
	B-A	207	52		458	0.451	206	0.6	
	C-AB	0	0		526	0.000	0	0.0	
	C-A	190	47				190		
	A-B	0	0				0		
	A-C	179	45				179		
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	B-ACD	0	0		335	0.000	0	0.0	
	A-B-C	752	188	0.00	1823	0.412	750	1.0	
	A-D	0	0	0.00	0	0.000	0	0.0	
	D-AB	0	0		471	0.000	0	0.0	
	D-B-C	0	0		343	0.000	0	0.0	
	C-ABD	59	15		738	0.080	59	0.1	
	C-D	0	0				0		
	C-A	337	84				337		

17:15 - 17:30

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	q
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction	B-C	52	13		535	0.097	52	0.1	
	B-A	253	63		442	0.573	251	0.8	
	C-AB	0	0		517	0.000	0	0.0	
	C-A	232	58				232		
	A-B	0	0				0		
	A-C	219	55				219		
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	B-ACD	0	0		304	0.000	0	0.0	
	A-B-C	920	230	0.00	1823	0.505	918	1.4	
	A-D	0	0	0.00	0	0.000	0	0.0	
	D-AB	0	0		418	0.000	0	0.0	
	D-B-C	0	0		303	0.000	0	0.0	
	C-ABD	88	22		766	0.115	88	0.1	
	C-D	0	0				0		
	C-A	397	99				397		

17:30 - 17:45

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	q
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction	B-C	52	13		534	0.097	52	0.1	
	B-A	253	63		442	0.573	253	1.3	
	C-AB	0	0		517	0.000	0	0.0	
	C-A	232	58				232		
	A-B	0	0				0		
	A-C	219	55				219		
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	B-ACD	0	0		304	0.000	0	0.0	
	A-B-C	920	230	0.00	1823	0.505	920	2.0	
	A-D	0	0	0.00	0	0.000	0	0.0	
	D-AB	0	0		418	0.000	0	0.0	
	D-B-C	0	0		303	0.000	0	0.0	
	C-ABD	89	22		766	0.116	89	0.3	
	C-D	0	0				0		
	C-A	397	99				397		

17:45 - 18:00

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	q
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction	B-C	42	11		563	0.075	42	0.1	
	B-A	207	52		458	0.451	209	1.3	
	C-AB	0	0		526	0.000	0	0.0	
	C-A	190	47				190		
	A-B	0	0				0		
	A-C	179	45				179		
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	B-ACD	0	0		334	0.000	0	0.0	
	A-BC	752	188	0.00	1823	0.412	754	2.0	
	A-D	0	0	0.00	0	0.000	0	0.0	
	D-AB	0	0		470	0.000	0	0.0	
	D-BC	0	0		342	0.000	0	0.0	
	C-ABD	60	15		737	0.081	60	0.3	
	C-D	0	0				0		
	C-A	337	84				337		

18:00 - 18:15

Junction	Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	q
1 - B4632 Prestbury Road / B4075 Priors Road Priority Junction	B-C	35	9		584	0.061	35	0.1	
	B-A	173	43		470	0.368	174	0.8	
	C-AB	0	0		533	0.000	0	0.0	
	C-A	159	40				159		
	A-B	0	0				0		
	A-C	150	37				150		
2 - B4632 Prestbury Road / Laurel Drive / B4075 Priors Road Priority Junction	B-ACD	0	0		356	0.000	0	0.0	
	A-BC	629	157	0.00	1823	0.345	631	1.4	
	A-D	0	0	0.00	0	0.000	0	0.0	
	D-AB	0	0		507	0.000	0	0.0	
	D-BC	0	0		370	0.000	0	0.0	
	C-ABD	44	11		719	0.061	44	0.2	
	C-D	0	0				0		
	C-A	288	72				288		

Appendix W

Junctions 9

ARCADY 9 - Roundabout Module

Filename: J5_B4632PrestburyRd_B4075TatchleyLn_DeepStLn_BouncersLn Double Mini Rdbt_rA.j9
Path: F:\Workfile\H628\Traffic Modelling\Junctions9
Report generation date: 20/02/2020 10:49:50

Summary of junction performance

	AM				PM			
	Queue (Veh)	Delay (s)	RFC	LOS	Queue (Veh)	Delay (s)	RFC	LOS
2019 Base Year								
1 - West Mini Rdbt - A - Westbound Internal	0.0	10.70	0.76	B	0.0	6.48	0.54	A
1 - West Mini Rdbt - B - B4632 Prestbury Road	1.1	10.13	0.53	B	1.0	8.99	0.50	A
1 - West Mini Rdbt - C - B4075 Tatchley Lane	1.0	13.29	0.51	B	4.9	41.03	0.84	E
2 - East Mini Rdbt - A - Deep Street	1.8	7.77	0.64	A	0.6	4.62	0.38	A
2 - East Mini Rdbt - B - Blacksmiths Lane	0.0	16.36	0.01	C	0.0	8.91	0.03	A
2 - East Mini Rdbt - C - Bouncers Lane	3.9	41.28	0.81	E	4.1	28.60	0.81	D
2 - East Mini Rdbt - D - Eastbound Internal	0.0	3.80	0.23	A	0.0	4.69	0.33	A
2024 Forecast Year								
1 - West Mini Rdbt - A - Westbound Internal	0.0	12.88	0.81	B	0.0	7.05	0.57	A
1 - West Mini Rdbt - B - B4632 Prestbury Road	1.3	11.03	0.56	B	1.1	9.62	0.53	A
1 - West Mini Rdbt - C - B4075 Tatchley Lane	1.2	14.39	0.54	B	7.4	59.77	0.90	F
2 - East Mini Rdbt - A - Deep Street	2.0	8.54	0.67	A	0.7	4.78	0.40	A
2 - East Mini Rdbt - B - Blacksmiths Lane	0.0	18.39	0.02	C	0.0	9.25	0.03	A
2 - East Mini Rdbt - C - Bouncers Lane	8.8	88.42	0.92	F	6.5	43.73	0.88	E
2 - East Mini Rdbt - D - Eastbound Internal	0.0	3.90	0.24	A	0.0	4.92	0.35	A
2024 Forecast Year + Proposed Development								
1 - West Mini Rdbt - A - Westbound Internal	0.0	13.76	0.82	B	0.0	7.38	0.59	A
1 - West Mini Rdbt - B - B4632 Prestbury Road	1.3	11.36	0.57	B	1.1	9.71	0.53	A
1 - West Mini Rdbt - C - B4075 Tatchley Lane	1.2	14.68	0.55	B	9.5	74.73	0.92	F
2 - East Mini Rdbt - A - Deep Street	2.1	8.58	0.67	A	0.7	4.81	0.41	A
2 - East Mini Rdbt - B - Blacksmiths Lane	0.0	18.50	0.02	C	0.0	9.32	0.03	A
2 - East Mini Rdbt - C - Bouncers Lane	15.1	141.65	0.98	F	7.6	50.58	0.90	F
2 - East Mini Rdbt - D - Eastbound Internal	0.0	3.92	0.24	A	0.0	4.92	0.35	A

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

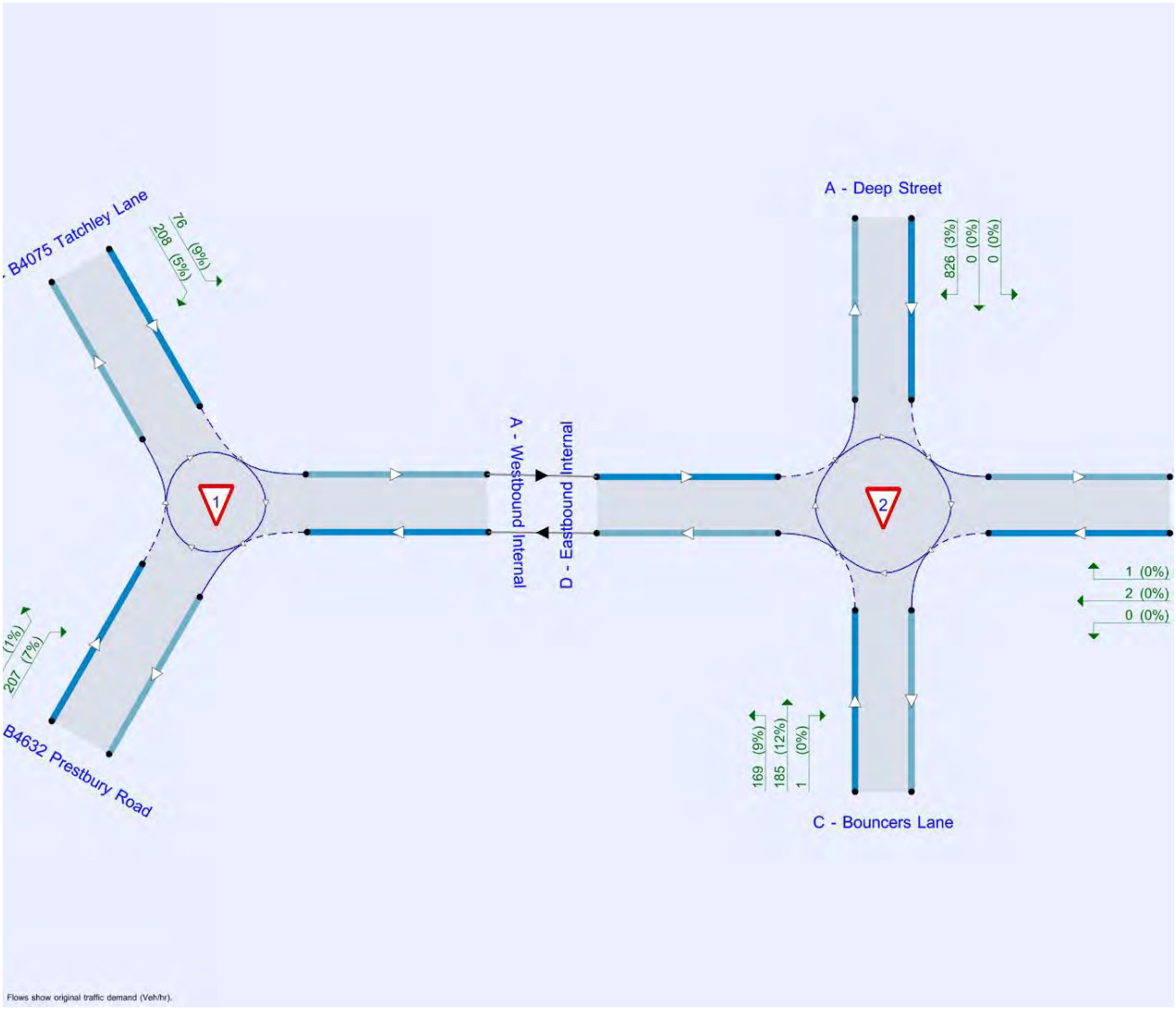
File summary

File Description

Title	J5 - B4632 Prestbury Road / B4075 Tatchley Lane / Deep Street / Blacksmiths Lane / Bouncers Lane Double Mini-Roundabout
Location	Battledown, Cheltenham
Site number	J5
Date	12/06/2019
Version	
Status	Existing
Identifier	
Client	
Jobnumber	H628
Enumerator	PFA\trafficteam
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin



The junction diagram reflects the last run of Junctions.

Analysis Options

Mini-roundabout model	Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
JUNCTIONS 9	5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	2019 Base Year	AM	FLAT	08:00	09:00	60	15	✓
D2	2019 Base Year	PM	FLAT	17:00	18:00	60	15	✓
D3	2024 Forecast Year	AM	FLAT	08:00	09:00	60	15	✓
D4	2024 Forecast Year	PM	FLAT	17:00	18:00	60	15	✓
D5	2024 Forecast Year + Proposed Development	AM	FLAT	08:00	09:00	60	15	✓
D6	2024 Forecast Year + Proposed Development	PM	FLAT	17:00	18:00	60	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2019 Base Year, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout	1 - West Mini Rdbt	Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms A and B have 82% of the total flow for the roundabout for one or more time segments]
Warning	Mini-roundabout	2 - East Mini Rdbt	Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms A and C have 80% of the total flow for the roundabout for one or more time segments][Arms A and D have 74% of the total flow for the roundabout for one or more time segments]
Warning	Linked Roundabout	1 - West Mini Rdbt - A - Westbound Internal	Internal storage space between linked junctions is small (1 PCU PCU). Linked junction results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked Roundabout	2 - East Mini Rdbt - D - Eastbound Internal	Internal storage space between linked junctions is small (1 PCU PCU). Linked junction results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	West Mini Rdbt	Mini-roundabout		A, B, C	11.01	B
2	East Mini Rdbt	Mini-roundabout		A, B, C, D	15.49	C

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Junction	Arm	Name	Description
1 - West Mini Rdbt	A	Westbound Internal	
	B	B4632 Prestbury Road	
	C	B4075 Tatchley Lane	
2 - East Mini Rdbt	A	Deep Street	
	B	Blacksmiths Lane	
	C	Bouncers Lane	
	D	Eastbound Internal	

Mini Roundabout Geometry

Junction	Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
1 - West Mini Rdbt	A - Westbound Internal	8.00	8.00	8.00	0.0	15.25	13.50	0.0	
	B - B4632 Prestbury Road	3.05	3.05	4.25	2.5	10.50	7.00	0.0	
	C - B4075 Tatchley Lane	2.50	2.00	4.00	3.0	11.50	10.00	0.0	
2 - East Mini Rdbt	A - Deep Street	2.75	2.75	6.25	19.0	12.00	6.00	0.0	
	B - Blacksmiths Lane	2.00	2.00	4.00	1.0	7.00	4.50	0.0	
	C - Bouncers Lane	3.00	2.80	6.30	10.0	14.00	9.50	0.0	
	D - Eastbound Internal	8.00	8.00	8.00	0.0	15.00	11.00	0.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Junction	Arm	Final slope	Final intercept (PCU/hr)
1 - West Mini Rdbt	A - Westbound Internal	0.792	1536
	B - B4632 Prestbury Road	0.610	935
	C - B4075 Tatchley Lane	0.578	717
2 - East Mini Rdbt	A - Deep Street	0.664	1330
	B - Blacksmiths Lane	0.562	702
	C - Bouncers Lane	0.647	1039
	D - Eastbound Internal	0.783	1487

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	2019 Base Year	AM	FLAT	08:00	09:00	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - West Mini Rdbt	A - Westbound Internal	2	D	Closely spaced	Normal	0	100.00	1.00
2 - East Mini Rdbt	D - Eastbound Internal	1	A	Closely spaced	Normal	0	100.00	1.00

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - West Mini Rdbt	A - Westbound Internal	✓				
	B - B4632 Prestbury Road		FLAT	✓	402	100.000
	C - B4075 Tatchley Lane		FLAT	✓	284	100.000
2 - East Mini Rdbt	A - Deep Street		FLAT	✓	826	100.000
	B - Blacksmiths Lane		FLAT	✓	3	100.000
	C - Bouncers Lane		FLAT	✓	355	100.000
	D - Eastbound Internal	✓				

Origin-Destination Data

Demand (Veh/hr)

1 - West Mini Rdbt

		To		
		A - Westbound Internal	B - B4632 Prestbury Road	C - B4075 Tatchley Lane
From	A - Westbound Internal	0	765	232
	B - B4632 Prestbury Road	207	0	195
	C - B4075 Tatchley Lane	76	208	0

Demand (Veh/hr)

2 - East Mini Rdbt

		To			
		A - Deep Street	B - Blacksmiths Lane	C - Bouncers Lane	D - Eastbound Internal
From	A - Deep Street	0	0	0	826
	B - Blacksmiths Lane	1	0	0	2
	C - Bouncers Lane	185	1	0	169
	D - Eastbound Internal	281	2	0	0

Vehicle Mix

Heavy Vehicle Percentages

1 - West Mini Rdbt

		To		
		A - Westbound Internal	B - B4632 Prestbury Road	C - B4075 Tatchley Lane
From	A - Westbound Internal	0	4	4
	B - B4632 Prestbury Road	7	0	1
	C - B4075 Tatchley Lane	9	5	0

Heavy Vehicle Percentages

2 - East Mini Rdbt

		To			
		A - Deep Street	B - Blacksmiths Lane	C - Bouncers Lane	D - Eastbound Internal
From	A - Deep Street	0	0	0	3
	B - Blacksmiths Lane	0	0	0	0
	C - Bouncers Lane	12	0	0	9
	D - Eastbound Internal	8	0	0	0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - West Mini Rdbt	A - Westbound Internal	0.76	10.70	0.0	B	993	993
	B - B4632 Prestbury Road	0.53	10.13	1.1	B	402	402
	C - B4075 Tatchley Lane	0.51	13.29	1.0	B	284	284
2 - East Mini Rdbt	A - Deep Street	0.64	7.77	1.8	A	826	826
	B - Blacksmiths Lane	0.01	16.36	0.0	C	3	3
	C - Bouncers Lane	0.81	41.28	3.9	E	355	355
	D - Eastbound Internal	0.23	3.80	0.0	A	281	281

2019 Base Year, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout	2 - East Mini Rdbt	Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms A and C have 73% of the total flow for the roundabout for one or more time segments]
Warning	Linked Roundabout	1 - West Mini Rdbt - A - Westbound Internal	Internal storage space between linked junctions is small (1 PCU PCU). Linked junction results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked Roundabout	2 - East Mini Rdbt - D - Eastbound Internal	Internal storage space between linked junctions is small (1 PCU PCU). Linked junction results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	West Mini Rdbt	Mini-roundabout		A, B, C	17.69	C
2	East Mini Rdbt	Mini-roundabout		A, B, C, D	13.93	B

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	2019 Base Year	PM	FLAT	17:00	18:00	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - West Mini Rdbt	A - Westbound Internal	2	D	Closely spaced	Normal	0	100.00	1.00
2 - East Mini Rdbt	D - Eastbound Internal	1	A	Closely spaced	Normal	0	100.00	1.00

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - West Mini Rdbt	A - Westbound Internal	✓				
	B - B4632 Prestbury Road		FLAT	✓	397	100.000
	C - B4075 Tatchley Lane		FLAT	✓	450	100.000
2 - East Mini Rdbt	A - Deep Street		FLAT	✓	485	100.000
	B - Blacksmiths Lane		FLAT	✓	11	100.000
	C - Bouncers Lane		FLAT	✓	530	100.000
	D - Eastbound Internal	✓				

Origin-Destination Data

1 - West Mini Rdbt

Demand (Veh/hr)

		To		
		A - Westbound Internal	B - B4632 Prestbury Road	C - B4075 Tatchley Lane
From	A - Westbound Internal	0	451	187
	B - B4632 Prestbury Road	256	0	141
	C - B4075 Tatchley Lane	123	327	0

2 - East Mini Rdbt

Demand (Veh/hr)

		To			
		A - Deep Street	B - Blacksmiths Lane	C - Bouncers Lane	D - Eastbound Internal
From	A - Deep Street	0	0	0	485
	B - Blacksmiths Lane	2	0	0	9
	C - Bouncers Lane	385	1	0	144
	D - Eastbound Internal	376	4	0	0

Vehicle Mix

1 - West Mini Rdbt

Heavy Vehicle Percentages

		To		
		A - Westbound Internal	B - B4632 Prestbury Road	C - B4075 Tatchley Lane
From	A - Westbound Internal	0	6	7
	B - B4632 Prestbury Road	2	0	2
	C - B4075 Tatchley Lane	2	7	0

2 - East Mini Rdbt

Heavy Vehicle Percentages

		To			
		A - Deep Street	B - Blacksmiths Lane	C - Bouncers Lane	D - Eastbound Internal
From	A - Deep Street	0	0	0	5
	B - Blacksmiths Lane	0	0	0	0
	C - Bouncers Lane	6	0	0	11
	D - Eastbound Internal	2	0	0	0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - West Mini Rdbt	A - Westbound Internal	0.54	6.48	0.0	A	636	636
	B - B4632 Prestbury Road	0.50	8.99	1.0	A	397	397
	C - B4075 Tatchley Lane	0.84	41.03	4.9	E	450	450
2 - East Mini Rdbt	A - Deep Street	0.38	4.62	0.6	A	485	485
	B - Blacksmiths Lane	0.03	8.91	0.0	A	11	11
	C - Bouncers Lane	0.81	28.60	4.1	D	530	530
	D - Eastbound Internal	0.33	4.69	0.0	A	377	377

2024 Forecast Year, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout	1 - West Mini Rdbt	Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms A and B have 82% of the total flow for the roundabout for one or more time segments]
Warning	Mini-roundabout	2 - East Mini Rdbt	Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms A and C have 80% of the total flow for the roundabout for one or more time segments][Arms A and D have 74% of the total flow for the roundabout for one or more time segments]
Warning	Linked Roundabout	1 - West Mini Rdbt - A - Westbound Internal	Internal storage space between linked junctions is small (1 PCU PCU). Linked junction results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked Roundabout	2 - East Mini Rdbt - D - Eastbound Internal	Internal storage space between linked junctions is small (1 PCU PCU). Linked junction results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	West Mini Rdbt	Mini-roundabout		A, B, C	12.70	B
2	East Mini Rdbt	Mini-roundabout		A, B, C, D	28.25	D

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D3	2024 Forecast Year	AM	FLAT	08:00	09:00	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - West Mini Rdbt	A - Westbound Internal	2	D	Closely spaced	Normal	0	100.00	1.00
2 - East Mini Rdbt	D - Eastbound Internal	1	A	Closely spaced	Normal	0	100.00	1.00

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - West Mini Rdbt	A - Westbound Internal	✓				
	B - B4632 Prestbury Road		FLAT	✓	422	100.000
	C - B4075 Tatchley Lane		FLAT	✓	299	100.000
2 - East Mini Rdbt	A - Deep Street		FLAT	✓	868	100.000
	B - Blacksmiths Lane		FLAT	✓	3	100.000
	C - Bouncers Lane		FLAT	✓	382	100.000
	D - Eastbound Internal	✓				

Origin-Destination Data

1 - West Mini Rdbt

Demand (Veh/hr)

		To		
		A - Westbound Internal	B - B4632 Prestbury Road	C - B4075 Tatchley Lane
From	A - Westbound Internal	0	805	247
	B - B4632 Prestbury Road	217	0	205
	C - B4075 Tatchley Lane	80	219	0

2 - East Mini Rdbt

Demand (Veh/hr)

		To			
		A - Deep Street	B - Blacksmiths Lane	C - Bouncers Lane	D - Eastbound Internal
From	A - Deep Street	0	0	0	868
	B - Blacksmiths Lane	1	0	0	2
	C - Bouncers Lane	199	1	0	182
	D - Eastbound Internal	295	2	0	0

Vehicle Mix

1 - West Mini Rdbt

Heavy Vehicle Percentages

		To		
		A - Westbound Internal	B - B4632 Prestbury Road	C - B4075 Tatchley Lane
From	A - Westbound Internal	0	4	4
	B - B4632 Prestbury Road	7	0	1
	C - B4075 Tatchley Lane	9	5	0

2 - East Mini Rdbt

Heavy Vehicle Percentages

		To			
		A - Deep Street	B - Blacksmiths Lane	C - Bouncers Lane	D - Eastbound Internal
From	A - Deep Street	0	0	0	3
	B - Blacksmiths Lane	0	0	0	0
	C - Bouncers Lane	12	0	0	9
	D - Eastbound Internal	8	0	0	0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - West Mini Rdbt	A - Westbound Internal	0.81	12.88	0.0	B	1046	1046
	B - B4632 Prestbury Road	0.56	11.03	1.3	B	422	422
	C - B4075 Tatchley Lane	0.54	14.39	1.2	B	299	299
2 - East Mini Rdbt	A - Deep Street	0.67	8.54	2.0	A	868	868
	B - Blacksmiths Lane	0.02	18.39	0.0	C	3	3
	C - Bouncers Lane	0.92	88.42	8.8	F	382	382
	D - Eastbound Internal	0.24	3.90	0.0	A	295	295

2024 Forecast Year, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout	2 - East Mini Rdbt	Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms A and C have 73% of the total flow for the roundabout for one or more time segments]
Warning	Linked Roundabout	1 - West Mini Rdbt - A - Westbound Internal	Internal storage space between linked junctions is small (1 PCU PCU). Linked junction results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked Roundabout	2 - East Mini Rdbt - D - Eastbound Internal	Internal storage space between linked junctions is small (1 PCU PCU). Linked junction results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	West Mini Rdbt	Mini-roundabout		A, B, C	23.83	C
2	East Mini Rdbt	Mini-roundabout		A, B, C, D	19.95	C

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D4	2024 Forecast Year	PM	FLAT	17:00	18:00	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - West Mini Rdbt	A - Westbound Internal	2	D	Closely spaced	Normal	0	100.00	1.00
2 - East Mini Rdbt	D - Eastbound Internal	1	A	Closely spaced	Normal	0	100.00	1.00

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - West Mini Rdbt	A - Westbound Internal	✓				
	B - B4632 Prestbury Road		FLAT	✓	417	100.000
	C - B4075 Tatchley Lane		FLAT	✓	473	100.000
2 - East Mini Rdbt	A - Deep Street		FLAT	✓	510	100.000
	B - Blacksmiths Lane		FLAT	✓	11	100.000
	C - Bouncers Lane		FLAT	✓	560	100.000
	D - Eastbound Internal	✓				

Origin-Destination Data

1 - West Mini Rdbt

Demand (Veh/hr)

		To		
		A - Westbound Internal	B - B4632 Prestbury Road	C - B4075 Tatchley Lane
From	A - Westbound Internal	0	474	197
	B - B4632 Prestbury Road	269	0	148
	C - B4075 Tatchley Lane	129	344	0

2 - East Mini Rdbt

Demand (Veh/hr)

		To			
		A - Deep Street	B - Blacksmiths Lane	C - Bouncers Lane	D - Eastbound Internal
From	A - Deep Street	0	0	0	510
	B - Blacksmiths Lane	2	0	0	9
	C - Bouncers Lane	407	1	0	152
	D - Eastbound Internal	394	4	0	0

Vehicle Mix

1 - West Mini Rdbt

Heavy Vehicle Percentages

		To		
		A - Westbound Internal	B - B4632 Prestbury Road	C - B4075 Tatchley Lane
From	A - Westbound Internal	0	6	7
	B - B4632 Prestbury Road	2	0	2
	C - B4075 Tatchley Lane	2	7	0

2 - East Mini Rdbt

Heavy Vehicle Percentages

		To			
		A - Deep Street	B - Blacksmiths Lane	C - Bouncers Lane	D - Eastbound Internal
From	A - Deep Street	0	0	0	5
	B - Blacksmiths Lane	0	0	0	0
	C - Bouncers Lane	6	0	0	11
	D - Eastbound Internal	2	0	0	0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - West Mini Rdbt	A - Westbound Internal	0.57	7.05	0.0	A	668	668
	B - B4632 Prestbury Road	0.53	9.62	1.1	A	417	417
	C - B4075 Tatchley Lane	0.90	59.77	7.4	F	473	473
2 - East Mini Rdbt	A - Deep Street	0.40	4.78	0.7	A	510	510
	B - Blacksmiths Lane	0.03	9.25	0.0	A	11	11
	C - Bouncers Lane	0.88	43.73	6.5	E	560	560
	D - Eastbound Internal	0.35	4.92	0.0	A	395	395

2024 Forecast Year + Proposed Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout	1 - West Mini Rdbt	Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms A and B have 82% of the total flow for the roundabout for one or more time segments]
Warning	Mini-roundabout	2 - East Mini Rdbt	Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms A and C have 80% of the total flow for the roundabout for one or more time segments][Arms A and D have 73% of the total flow for the roundabout for one or more time segments]
Warning	Linked Roundabout	1 - West Mini Rdbt - A - Westbound Internal	Internal storage space between linked junctions is small (1 PCU PCU). Linked junction results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked Roundabout	2 - East Mini Rdbt - D - Eastbound Internal	Internal storage space between linked junctions is small (1 PCU PCU). Linked junction results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	West Mini Rdbt	Mini-roundabout		A, B, C	13.36	B
2	East Mini Rdbt	Mini-roundabout		A, B, C, D	43.41	E

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D5	2024 Forecast Year + Proposed Development	AM	FLAT	08:00	09:00	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - West Mini Rdbt	A - Westbound Internal	2	D	Closely spaced	Normal	0	100.00	1.00
2 - East Mini Rdbt	D - Eastbound Internal	1	A	Closely spaced	Normal	0	100.00	1.00

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - West Mini Rdbt	A - Westbound Internal	✓				
	B - B4632 Prestbury Road		FLAT	✓	422	100.000
	C - B4075 Tatchley Lane		FLAT	✓	304	100.000
2 - East Mini Rdbt	A - Deep Street		FLAT	✓	870	100.000
	B - Blacksmiths Lane		FLAT	✓	3	100.000
	C - Bouncers Lane		FLAT	✓	404	100.000
	D - Eastbound Internal	✓				

Origin-Destination Data

1 - West Mini Rdbt

Demand (Veh/hr)

		To		
		A - Westbound Internal	B - B4632 Prestbury Road	C - B4075 Tatchley Lane
From	A - Westbound Internal	0	807	263
	B - B4632 Prestbury Road	217	0	205
	C - B4075 Tatchley Lane	80	224	0

2 - East Mini Rdbt

Demand (Veh/hr)

		To			
		A - Deep Street	B - Blacksmiths Lane	C - Bouncers Lane	D - Eastbound Internal
From	A - Deep Street	0	0	0	870
	B - Blacksmiths Lane	1	0	0	2
	C - Bouncers Lane	205	1	0	198
	D - Eastbound Internal	295	2	0	0

Vehicle Mix

1 - West Mini Rdbt

Heavy Vehicle Percentages

		To		
		A - Westbound Internal	B - B4632 Prestbury Road	C - B4075 Tatchley Lane
From	A - Westbound Internal	0	4	4
	B - B4632 Prestbury Road	7	0	1
	C - B4075 Tatchley Lane	9	5	0

2 - East Mini Rdbt

Heavy Vehicle Percentages

		To			
		A - Deep Street	B - Blacksmiths Lane	C - Bouncers Lane	D - Eastbound Internal
From	A - Deep Street	0	0	0	3
	B - Blacksmiths Lane	0	0	0	0
	C - Bouncers Lane	12	0	0	9
	D - Eastbound Internal	8	0	0	0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - West Mini Rdbt	A - Westbound Internal	0.82	13.76	0.0	B	1061	1061
	B - B4632 Prestbury Road	0.57	11.36	1.3	B	422	422
	C - B4075 Tatchley Lane	0.55	14.68	1.2	B	304	304
2 - East Mini Rdbt	A - Deep Street	0.67	8.58	2.1	A	870	870
	B - Blacksmiths Lane	0.02	18.50	0.0	C	3	3
	C - Bouncers Lane	0.98	141.65	15.1	F	404	404
	D - Eastbound Internal	0.24	3.92	0.0	A	295	295

2024 Forecast Year + Proposed Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout	2 - East Mini Rdbt	Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms A and C have 73% of the total flow for the roundabout for one or more time segments]
Warning	Linked Roundabout	1 - West Mini Rdbt - A - Westbound Internal	Internal storage space between linked junctions is small (1 PCU PCU). Linked junction results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked Roundabout	2 - East Mini Rdbt - D - Eastbound Internal	Internal storage space between linked junctions is small (1 PCU PCU). Linked junction results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	West Mini Rdbt	Mini-roundabout		A, B, C	28.86	D
2	East Mini Rdbt	Mini-roundabout		A, B, C, D	22.75	C

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D6	2024 Forecast Year + Proposed Development	PM	FLAT	17:00	18:00	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - West Mini Rdbt	A - Westbound Internal	2	D	Closely spaced	Normal	0	100.00	1.00
2 - East Mini Rdbt	D - Eastbound Internal	1	A	Closely spaced	Normal	0	100.00	1.00

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - West Mini Rdbt	A - Westbound Internal	✓				
	B - B4632 Prestbury Road		FLAT	✓	416	100.000
	C - B4075 Tatchley Lane		FLAT	✓	488	100.000
2 - East Mini Rdbt	A - Deep Street		FLAT	✓	515	100.000
	B - Blacksmiths Lane		FLAT	✓	11	100.000
	C - Bouncers Lane		FLAT	✓	569	100.000
	D - Eastbound Internal	✓				

Origin-Destination Data

1 - West Mini Rdbt

Demand (Veh/hr)

		To		
		A - Westbound Internal	B - B4632 Prestbury Road	C - B4075 Tatchley Lane
From	A - Westbound Internal	0	480	204
	B - B4632 Prestbury Road	268	0	148
	C - B4075 Tatchley Lane	129	359	0

2 - East Mini Rdbt

Demand (Veh/hr)

		To			
		A - Deep Street	B - Blacksmiths Lane	C - Bouncers Lane	D - Eastbound Internal
From	A - Deep Street	0	0	0	515
	B - Blacksmiths Lane	2	0	0	9
	C - Bouncers Lane	409	1	0	159
	D - Eastbound Internal	394	4	0	0

Vehicle Mix

1 - West Mini Rdbt

Heavy Vehicle Percentages

		To		
		A - Westbound Internal	B - B4632 Prestbury Road	C - B4075 Tatchley Lane
From	A - Westbound Internal	0	6	7
	B - B4632 Prestbury Road	2	0	2
	C - B4075 Tatchley Lane	2	7	0

2 - East Mini Rdbt

Heavy Vehicle Percentages

		To			
		A - Deep Street	B - Blacksmiths Lane	C - Bouncers Lane	D - Eastbound Internal
From	A - Deep Street	0	0	0	5
	B - Blacksmiths Lane	0	0	0	0
	C - Bouncers Lane	6	0	0	11
	D - Eastbound Internal	2	0	0	0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - West Mini Rdbt	A - Westbound Internal	0.59	7.38	0.0	A	680	680
	B - B4632 Prestbury Road	0.53	9.71	1.1	A	416	416
	C - B4075 Tatchley Lane	0.92	74.73	9.5	F	488	488
2 - East Mini Rdbt	A - Deep Street	0.41	4.81	0.7	A	515	515
	B - Blacksmiths Lane	0.03	9.32	0.0	A	11	11
	C - Bouncers Lane	0.90	50.58	7.6	F	569	569
	D - Eastbound Internal	0.35	4.92	0.0	A	394	394

Appendix X

PFA Template

Project and User Details

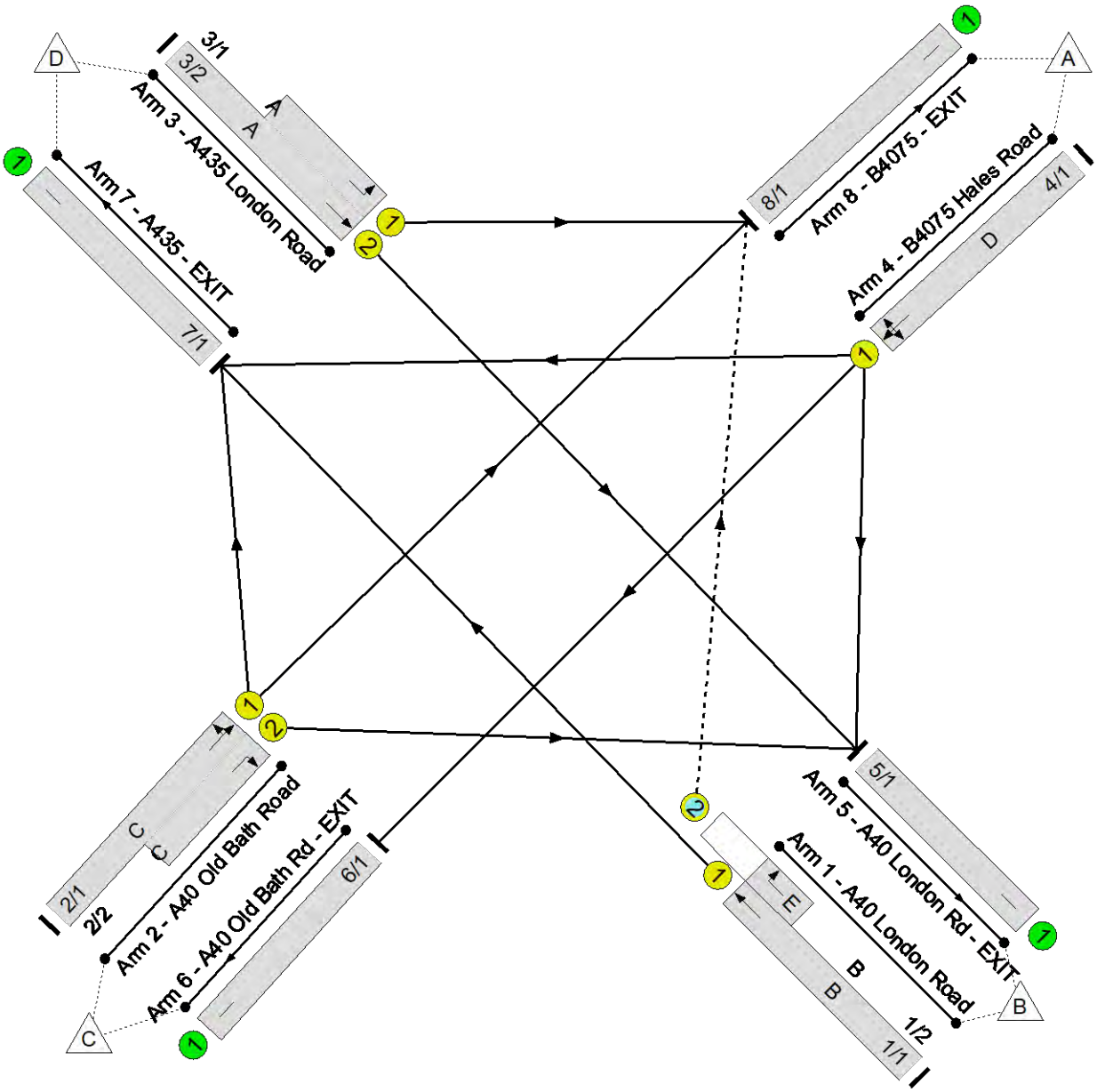
Project:	**Oakley Farm, Battledown, Cheltenham**
Title:	**Existing Junction**
Location:	
Additional detail:	Junction model set up using signal spec TS-104
File name:	J6 - A40 London Road_A40 Old Bath Road_B4075 Hales Road Traffic Signals.lsg3x
Author:	A Miles
Company:	PFA Consulting
Address:	Swindon
Linsig Version:	3, 2, 39, 0

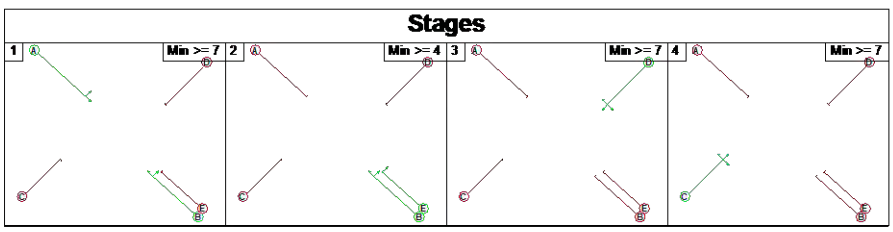
Scenarios

Number	Scenario Name	Flow Group	Network Control Plan	Time	Cycle Time (s)	PRC (%)	Delay (pcuHr)
1	2019 Base Year AM	2019 Base Year AM	Network Control Plan 1	08:00 - 09:00	125	-11.6	73.07
2	2019 Base Year PM	2019 Base Year PM	Network Control Plan 1	17:00 - 18:00	130	-13.1	75.86
3	2024 Forecast Year AM	2024 Forecast Year AM	Network Control Plan 1	08:00 - 09:00	125	-17.5	120.73
4	2024 Forecast Year PM	2024 Forecast Year PM	Network Control Plan 1	17:00 - 18:00	130	-21.6	147.88
5	2024 Forecast Year With Proposed Development AM	2024 Forecast Year With Proposed Development AM	Network Control Plan 1	08:00 - 09:00	125	-21.9	153.85
6	2024 Forecast Year With Proposed Development PM	2024 Forecast Year With Proposed Development PM	Network Control Plan 1	17:00 - 18:00	130	-24.2	181.79

Network Layout Diagram

A40 London Road / A40 Old Bath Road / B4075 Hales Road Traffic Signals





Lane Input Data

Junction: A40 London Road / A40 Old Bath Road / B4075 Hales Road Traffic Signals

Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (A40 London Road)	U	B	2	3	60.0	Geom	-	2.50	0.00	Y	Arm 7 Ahead	Inf
1/2 (A40 London Road)	O	B E	2	3	3.0	Geom	-	2.00	0.00	Y	Arm 8 Right	8.00
2/1 (A40 Old Bath Road)	U	C	2	3	60.0	Geom	-	3.05	0.00	Y	Arm 7 Left	15.00
											Arm 8 Ahead	Inf
2/2 (A40 Old Bath Road)	U	C	2	3	7.0	Geom	-	3.38	0.00	Y	Arm 5 Right	10.00
3/1 (A435 London Road)	U	A	2	3	6.6	Geom	-	2.80	0.00	Y	Arm 8 Left	13.00
3/2 (A435 London Road)	U	A	2	3	60.0	Geom	-	3.05	0.00	Y	Arm 5 Ahead	Inf
4/1 (B4075 Hales Road)	U	D	2	3	60.0	Geom	-	3.38	0.00	Y	Arm 5 Left	15.00
											Arm 6 Ahead	Inf
											Arm 7 Right	7.50
5/1 (A40 London Rd - EXIT)	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1 (A40 Old Bath Rd - EXIT)	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1 (A435 - EXIT)	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1 (B4075 - EXIT)	U		2	3	60.0	Inf	-	-	-	-	-	-

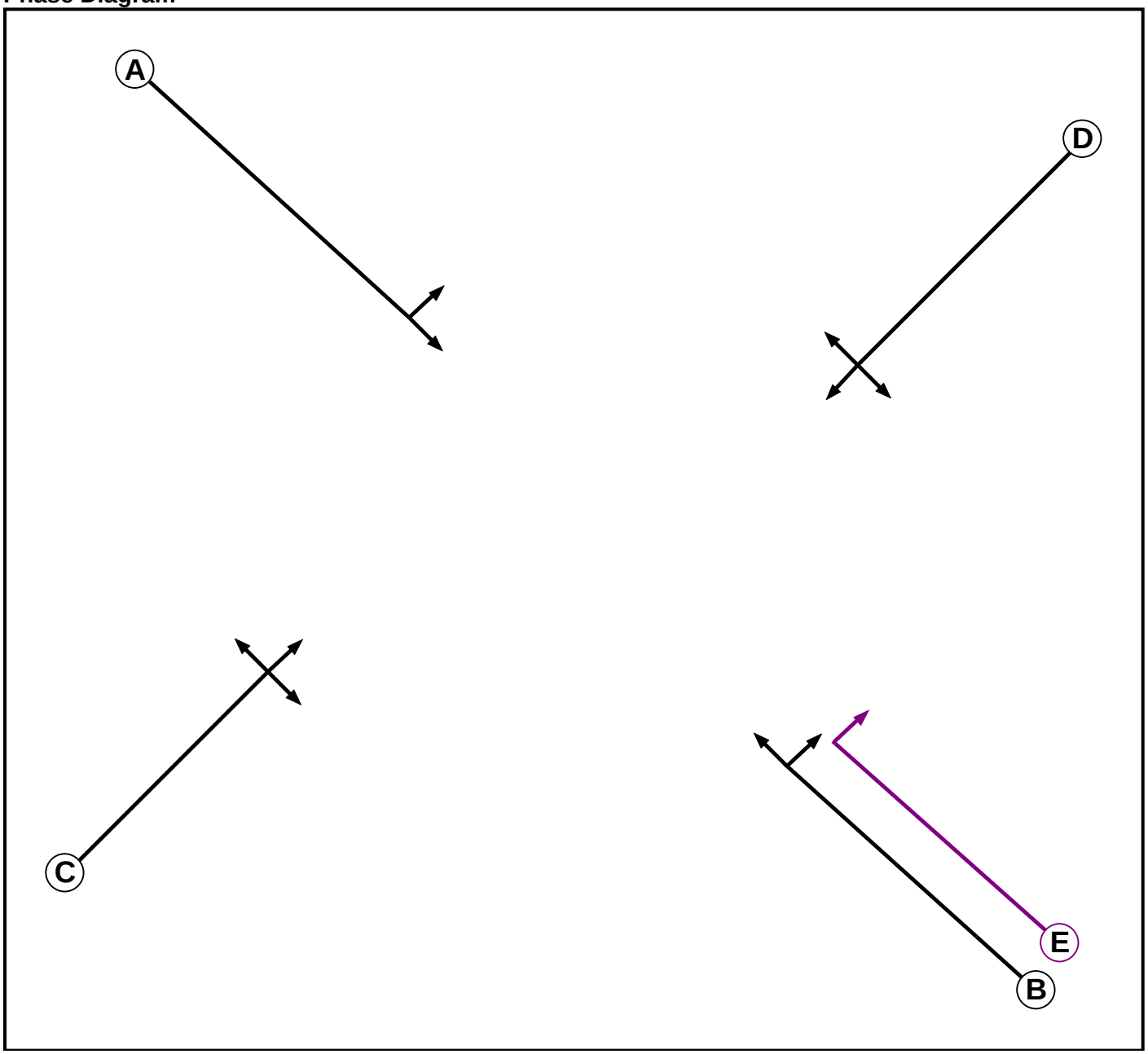
Give-Way Lane Input Data

Junction: A40 London Road / A40 Old Bath Road / B4075 Hales Road Traffic Signals											
Lane	**Movement**	**Max Flow when Giving Way (PCU/Hr)**	**Min Flow when Giving Way (PCU/Hr)**	**Opposing Lane**	**Opp. Lane Coeff.**	**Opp. Mvmnts.**	**Right Turn Storage (PCU)**	**Non-Blocking Storage (PCU)**	**RTF**	**Right Turn Move up (s)**	**Max Turns in Intergreen (PCU)**
1/2 (A40 London Road)	8/1 (Right)	1439	0	3/1 3/2	1.09 1.09	All All	3.00	-	0.50	3	3.00

Lane Connector Input Data

Junction: A40 London Road / A40 Old Bath Road / B4075 Hales Road Traffic Signals				
Org Lane	**Dest Lane**	**Junction**	**Mean Cruise Time**	**Platoon Dispersion**
1/1	7/1	Internal	5	35
1/2	8/1	Internal	5	35
2/1	7/1	Internal	5	35
2/1	8/1	Internal	5	35
2/2	5/1	Internal	5	35
3/1	8/1	Internal	5	35
3/2	5/1	Internal	5	35
4/1	5/1	Internal	5	35
4/1	6/1	Internal	5	35
4/1	7/1	Internal	5	35

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Traffic		7	7
E	Ind. Arrow	B	4	4

Phase Intergreens Matrix

Terminating Phase \ Starting Phase	A	B	C	D	E
A		-	6	6	6
B	-		6	6	-
C	6	6		6	6
D	6	6	6		6
E	6	-	6	6	

Phases in Stage

Stage No.	Phases in Stage
1	A B
2	B E
3	D
4	C

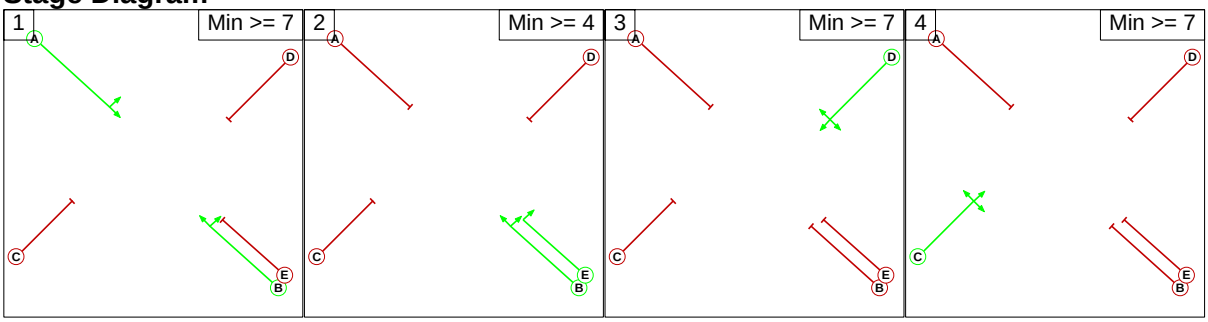
Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

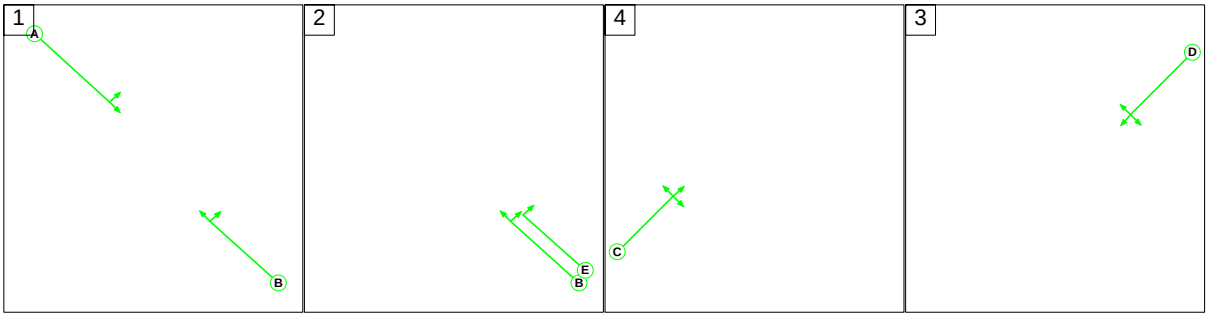
From Stage \ To Stage	1	2	3	4
1		6	6	6
2	6		6	6
3	6	6		6
4	6	6	6	

Stage Diagram



Stage Sequence Summary

Stage Sequence: Stage Sequence No. 1



Network Control Plans

Plan	Controller	Sequence Name	Sequence
Network Control Plan 1	C1	Stage Sequence No. 1	1,2,4,3

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2019 Base Year AM'	08:00	09:00	01:00	
2: '2019 Base Year PM'	17:00	18:00	01:00	
3: '2024 Forecast Year AM'	08:00	09:00	01:00	
4: '2024 Forecast Year PM'	17:00	18:00	01:00	
5: '2024 Forecast Year With Proposed Development AM'	08:00	09:00	01:00	
6: '2024 Forecast Year With Proposed Development PM'	17:00	18:00	01:00	

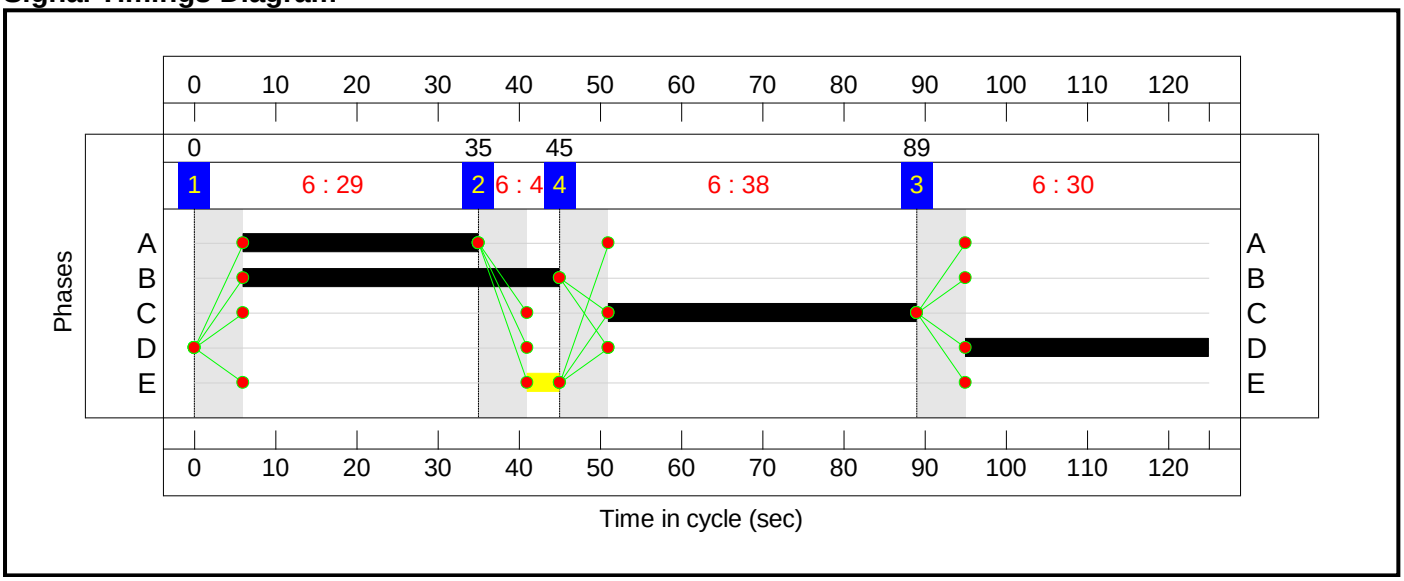
Scenario 1: '2019 Base Year AM' (FG1: '2019 Base Year AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Actual

Actual Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	76	338	49	463
	B	104	0	0	492	596
	C	417	225	0	41	683
	D	44	436	0	0	480
	Tot.	565	737	338	582	2222

Signal Timings Diagram



Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
1/1+1/2	A40 London Road Ahead Right	U+O	B	E	1	39	4	596	1865:1528	490+104	100.5 : 100.5%	4	92	8	20.5	123.9	33.1
2/1+2/2	A40 Old Bath Road Right Left Ahead	U	C		1	38	-	683	1903:1698	457+224	100.2 : 100.2%	-	-	-	21.5	113.1	33.8
3/2+3/1	A435 London Road Ahead Left	U	A		1	29	-	480	1920:1699	444+45	98.2 : 98.2%	-	-	-	15.2	114.0	24.8
4/1	B4075 Hales Road Left Ahead Right	U	D		1	30	-	463	1882	467	99.2%	-	-	-	15.9	123.6	25.8

C1

PRC for Signalled Lanes (%): -11.6
PRC Over All Lanes (%): -11.6

Total Delay for Signalled Lanes (pcuHr): 73.07
Total Delay Over All Lanes(pcuHr): 73.07

Cycle Time (s): 125

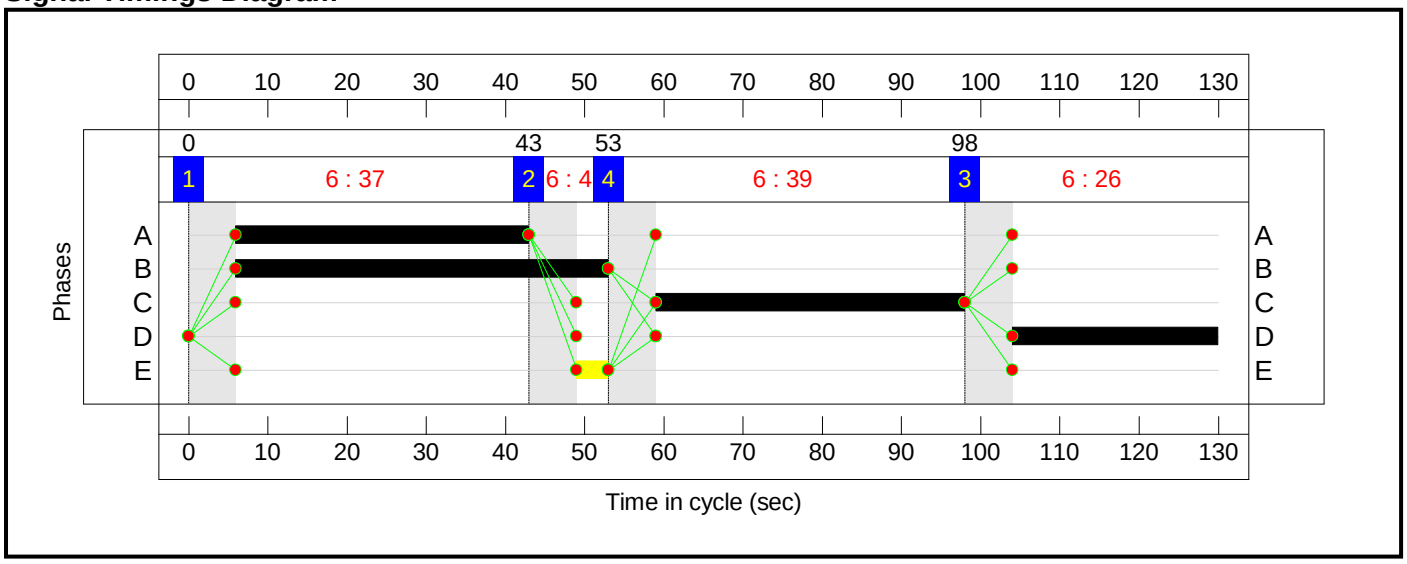
Scenario 2: '2019 Base Year PM' (FG2: '2019 Base Year PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Actual

Actual Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	81	272	38	391
	B	180	0	0	466	646
	C	419	247	0	27	693
	D	36	497	0	0	533
	Tot.	635	825	272	531	2263

Signal Timings Diagram



Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
1/1+1/2	A40 London Road Ahead Right	U+O	B	E	1	47	4	646	1865:1528	459+177	101.4 : 101.4%	28	94	55	23.5	130.9	37.6
2/1+2/2	A40 Old Bath Road Right Left Ahead	U	C		1	39	-	693	1908:1698	438+243	101.8 : 101.8%	-	-	-	25.6	132.7	38.6
3/2+3/1	A435 London Road Ahead Left	U	A		1	37	-	533	1920:1699	543+39	91.5 : 91.5%	-	-	-	11.0	74.5	22.6
4/1	B4075 Hales Road Left Ahead Right	U	D		1	26	-	391	1878	390	100.2%	-	-	-	15.8	145.4	24.3

C1

PRC for Signalled Lanes (%): -13.1
PRC Over All Lanes (%): -13.1

Total Delay for Signalled Lanes (pcuHr): 75.86
Total Delay Over All Lanes(pcuHr): 75.86

Cycle Time (s): 130

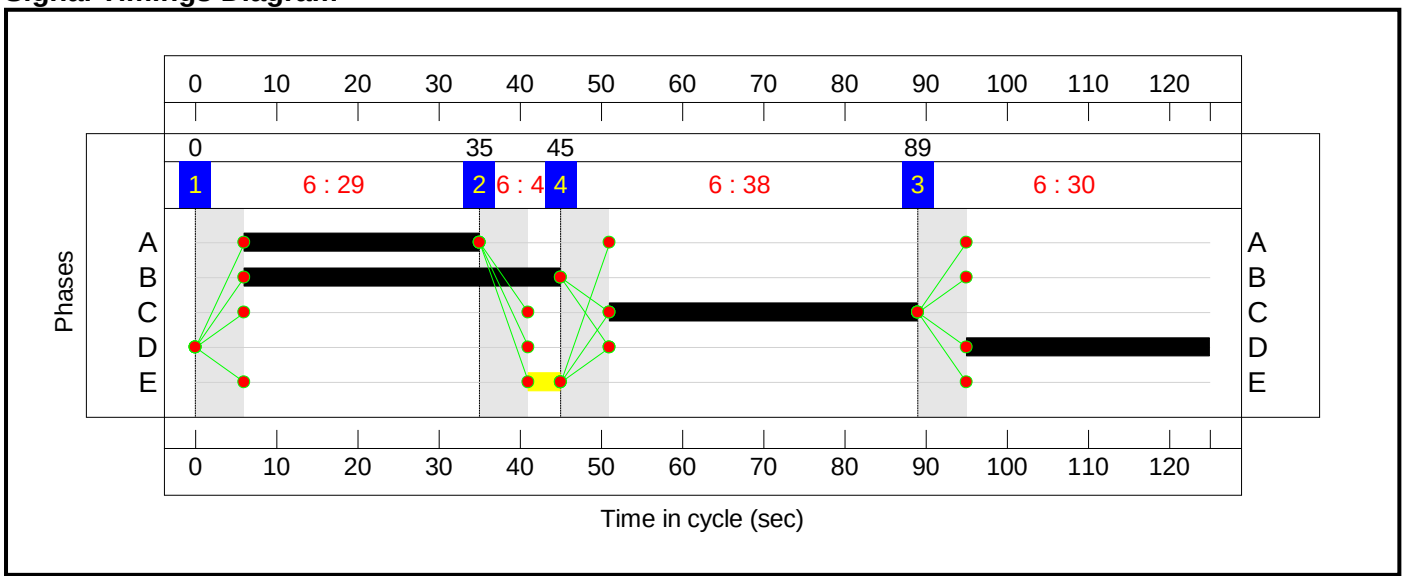
Scenario 3: '2024 Forecast Year AM' (FG3: '2024 Forecast Year AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Actual

Actual Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	81	360	52	493
	B	110	0	0	516	626
	C	441	236	0	43	720
	D	46	458	0	0	504
	Tot.	597	775	360	611	2343

Signal Timings Diagram



Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
1/1+1/2	A40 London Road Ahead Right	U+O	B	E	1	39	4	626	1865:1528	489+104	105.5 : 105.5%	0	97	8	33.0	189.5	45.9
2/1+2/2	A40 Old Bath Road Right Left Ahead	U	C		1	38	-	720	1903:1698	458+223	105.8 : 105.8%	-	-	-	36.7	183.7	50.6
3/2+3/1	A435 London Road Ahead Left	U	A		1	29	-	504	1920:1699	444+45	103.1 : 103.1%	-	-	-	23.2	165.8	33.3
4/1	B4075 Hales Road Left Ahead Right	U	D		1	30	-	493	1882	467	105.6%	-	-	-	27.8	203.1	38.0

C1

PRC for Signalled Lanes (%): -17.5
PRC Over All Lanes (%): -17.5

Total Delay for Signalled Lanes (pcuHr): 120.73
Total Delay Over All Lanes(pcuHr): 120.73

Cycle Time (s): 125

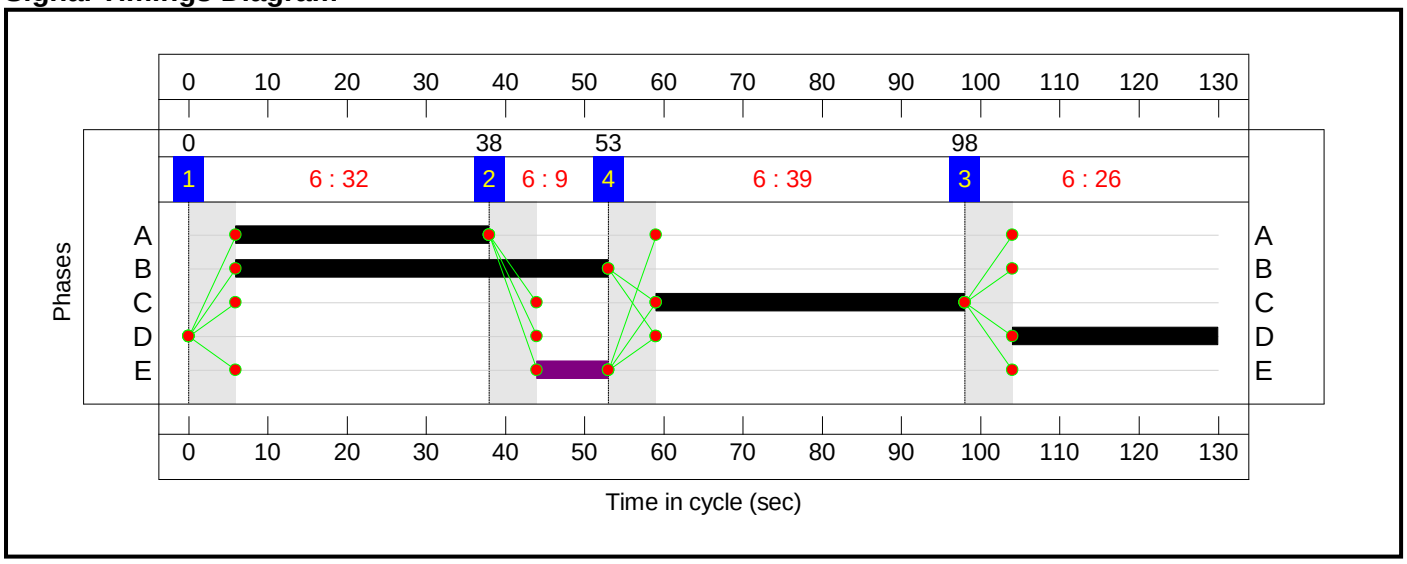
Scenario 4: '2024 Forecast Year PM' (FG4: '2024 Forecast Year PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Actual

Actual Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	86	288	40	414
	B	191	0	0	488	679
	C	443	259	0	28	730
	D	38	520	0	0	558
	Tot.	672	865	288	556	2381

Signal Timings Diagram



Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
1/1+1/2	A40 London Road Ahead Right	U+O	B	E	1	47	9	679	1865:1528	454+178	107.6 : 107.6%	0	153	25	40.6	215.3	54.9
2/1+2/2	A40 Old Bath Road Right Left Ahead	U	C		1	39	-	730	1909:1698	439+241	107.3 : 107.3%	-	-	-	42.1	207.8	56.4
3/2+3/1	A435 London Road Ahead Left	U	A		1	32	-	558	1920:1699	475+35	109.5 : 109.5%	-	-	-	39.6	255.7	51.2
4/1	B4075 Hales Road Left Ahead Right	U	D		1	26	-	414	1878	390	106.1%	-	-	-	25.5	221.9	34.1

C1 PRC for Signalled Lanes (%): -21.6 Total Delay for Signalled Lanes (pcuHr): 147.88 Cycle Time (s): 130

PRC Over All Lanes (%): -21.6 Total Delay Over All Lanes(pcuHr): 147.88

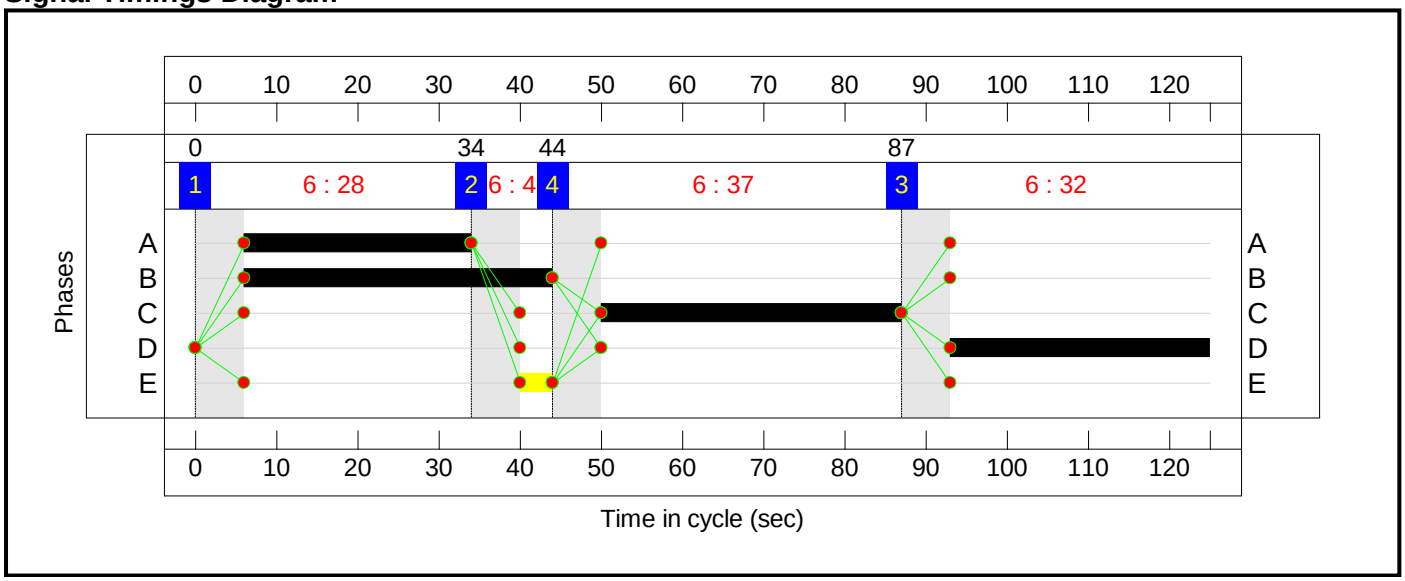
Scenario 5: '2024 Forecast Year With Proposed Development AM' (FG5: '2024 Forecast Year With Proposed Development AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Actual

Actual Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	87	388	59	534
	B	112	0	0	516	628
	C	450	236	0	43	729
	D	48	458	0	0	506
	Tot.	610	781	388	618	2397

Signal Timings Diagram



Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
1/1+1/2	A40 London Road Ahead Right	U+O	B	E	1	38	4	628	1865:1528	476+103	108.5 : 108.5%	0	96	8	40.7	233.4	53.2
2/1+2/2	A40 Old Bath Road Right Left Ahead	U	C		1	37	-	729	1903:1698	449+215	109.7 : 109.7%	-	-	-	49.0	241.8	62.6
3/2+3/1	A435 London Road Ahead Left	U	A		1	28	-	506	1920:1699	429+45	106.7 : 106.7%	-	-	-	30.4	216.1	40.3
4/1	B4075 Hales Road Left Ahead Right	U	D		1	32	-	534	1881	497	107.5%	-	-	-	33.8	227.8	44.9

C1

PRC for Signalled Lanes (%): -21.9
PRC Over All Lanes (%): -21.9

Total Delay for Signalled Lanes (pcuHr): 153.85
Total Delay Over All Lanes(pcuHr): 153.85

Cycle Time (s): 125

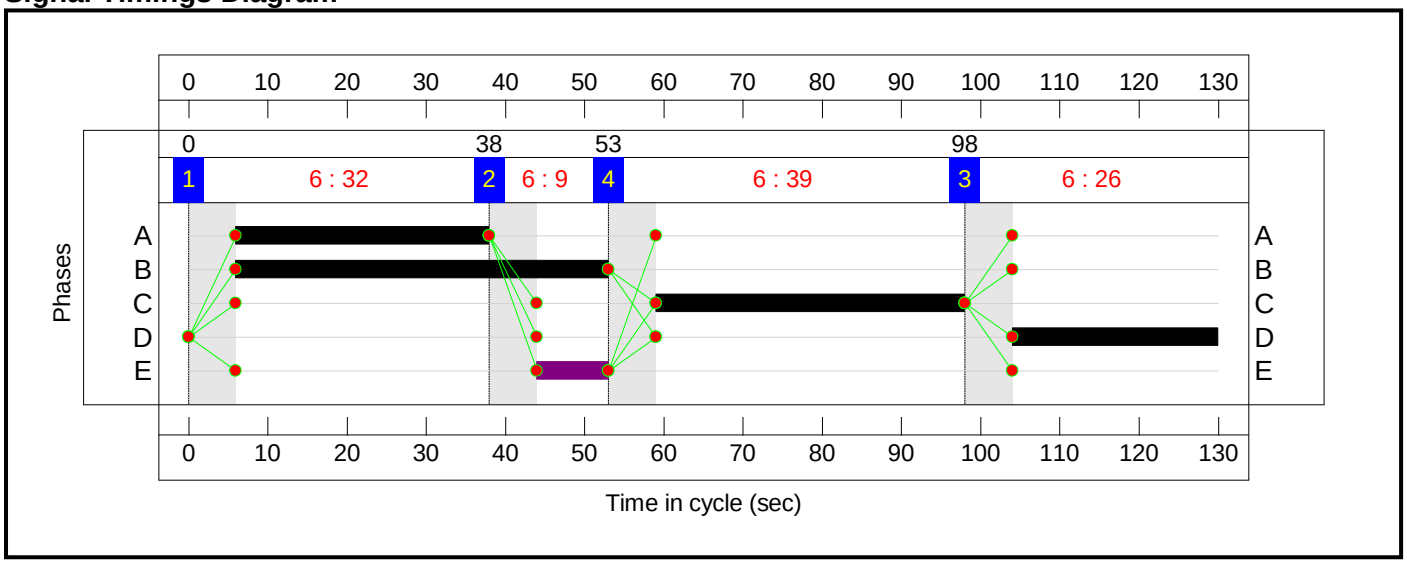
Scenario 6: '2024 Forecast Year With Proposed Development PM' (FG6: '2024 Forecast Year With Proposed Development PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Actual

Actual Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	88	300	43	431
	B	196	0	0	488	684
	C	468	259	0	28	755
	D	44	520	0	0	564
	Tot.	708	867	300	559	2434

Signal Timings Diagram



Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
1/1+1/2	A40 London Road Ahead Right	U+O	B	E	1	47	9	684	1865:1528	443+178	110.3 : 110.3%	0	153	25	48.5	255.4	62.6
2/1+2/2	A40 Old Bath Road Right Left Ahead	U	C		1	39	-	755	1909:1698	444+232	111.8 : 111.8%	-	-	-	57.2	272.8	71.9
3/2+3/1	A435 London Road Ahead Left	U	A		1	32	-	564	1920:1699	472+40	110.3 : 110.3%	-	-	-	41.9	267.2	53.3
4/1	B4075 Hales Road Left Ahead Right	U	D		1	26	-	431	1877	390	110.6%	-	-	-	34.2	285.4	43.1

C1

PRC for Signalled Lanes (%): -24.2
PRC Over All Lanes (%): -24.2

Total Delay for Signalled Lanes (pcuHr): 181.79
Total Delay Over All Lanes(pcuHr): 181.79

Cycle Time (s): 130

Appendix Y

PFA Template

Project and User Details

Project:	**Oakley Farm, Battledown, Cheltenham**
Title:	**Existing Junction**
Location:	
Additional detail:	Junction model set up using signal spec TS-043
File name:	J8 - A40 London Road_Greenway Lane_Ryeworth Road_Copt Elm Road Traffic Signals.lsg3x
Author:	A Miles
Company:	PFA Consulting
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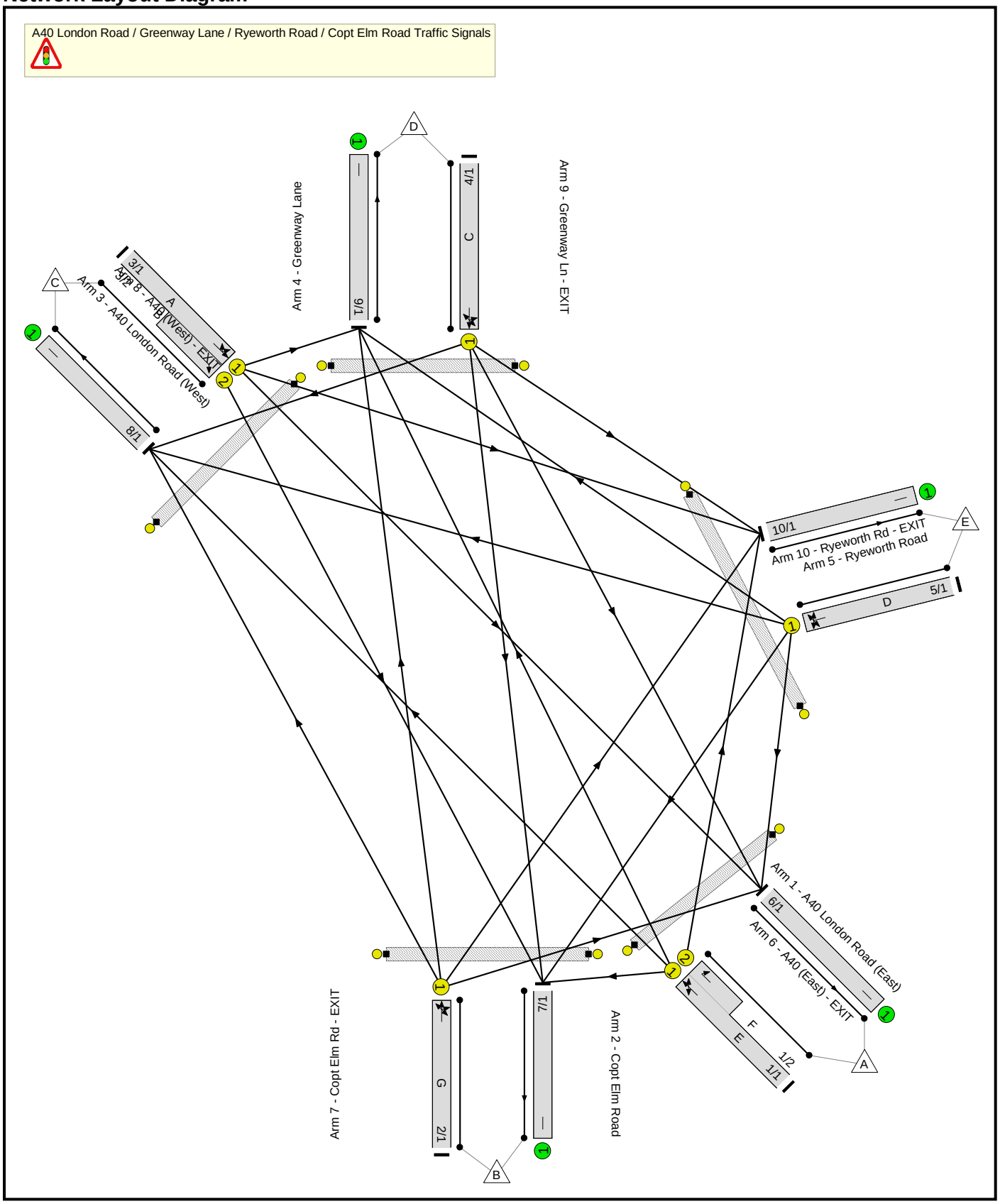
Linsig Version:	3, 2, 39, 0

Scenarios

Number	Scenario Name	Flow Group	Network Control Plan	Time	Cycle Time (s)	PRC (%)	Delay (pcuHr)
1	2019 Base Year AM	2019 Base Year AM	Network Control Plan 1	08:00 - 09:00	190	16.2	33.59
2	2019 Base Year PM	2019 Base Year PM	Network Control Plan 1	17:00 - 18:00	180	13.3	32.67
3	2024 Forecast Year AM	2024 Forecast Year AM	Network Control Plan 1	08:00 - 09:00	190	10.3	36.91
4	2024 Forecast Year PM	2024 Forecast Year PM	Network Control Plan 1	17:00 - 18:00	180	8.1	35.88
5	2024 Forecast Year With Proposed Development AM	2024 Forecast Year With Proposed Development AM	Network Control Plan 1	08:00 - 09:00	190	7.6	38.20
6	2024 Forecast Year With Proposed Development PM	2024 Forecast Year With Proposed Development PM	Network Control Plan 1	17:00 - 18:00	180	5.7	36.94

Network Layout Diagram



Lane Input Data

Junction: A40 London Road / Greenway Lane / Ryeworth Road / Copt Elm Road Traffic Signals

Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (A40 London Road (East))	U	E	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 7 Left	7.00
											Arm 8 Ahead	Inf
											Arm 9 Right	12.00
1/2 (A40 London Road (East))	U	F	2	3	4.7	Geom	-	2.50	0.00	Y	Arm 10 Right	8.00
2/1 (Copt Elm Road)	U	G	2	3	60.0	Geom	-	3.65	0.00	Y	Arm 6 U-Turn	10.00
											Arm 8 Left	15.00
											Arm 9 Ahead	Inf
											Arm 10 Right	10.00
3/1 (A40 London Road (West))	U	A	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 6 Ahead	Inf
											Arm 9 U-Turn	7.00
											Arm 10 Left	10.00
3/2 (A40 London Road (West))	U	B	2	3	6.1	Geom	-	3.38	0.00	Y	Arm 7 Right	19.00
4/1 (Greenway Lane)	U	C	2	3	60.0	Geom	-	2.50	0.00	Y	Arm 6 Left	11.00
											Arm 7 Ahead	Inf
											Arm 8 Right	10.00
											Arm 10 Left	10.00
5/1 (Ryeworth Road)	U	D	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 6 Left	6.00
											Arm 7 Left	7.00
											Arm 8 Right	10.00
											Arm 9 Right	12.00
6/1 (A40 (East) - EXIT)	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1 (Copt Elm Rd - EXIT)	U		2	3	60.0	Inf	-	-	-	-	-	-

8/1 (A40 (West) - EXIT)	U		2	3	60.0	Inf	-	-	-	-	-	-
9/1 (Greenway Ln - EXIT)	U		2	3	60.0	Inf	-	-	-	-	-	-
10/1 (Ryeworth Rd - EXIT)	U		2	3	60.0	Inf	-	-	-	-	-	-

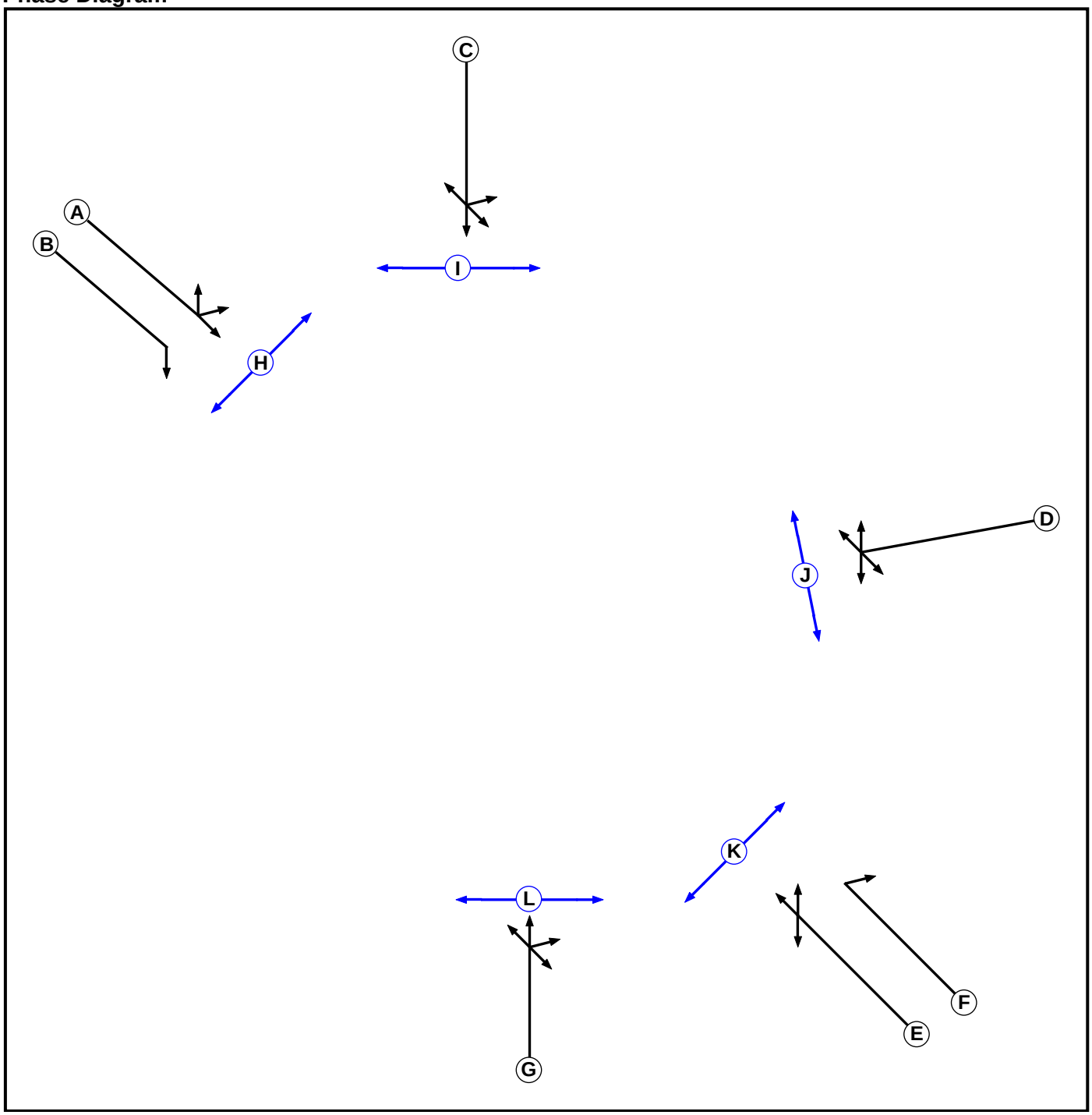
Give-Way Lane Input Data

Junction: A40 London Road / Greenway Lane / Ryeworth Road / Copt Elm Road Traffic Signals
There are no Opposed Lanes in this Junction

Lane Connector Input Data

Junction: A40 London Road / Greenway Lane / Ryeworth Road / Copt Elm Road Traffic Signals				
Org Lane	**Dest Lane**	**Junction**	**Mean Cruise Time**	**Platoon Dispersion**
1/1	7/1	Internal	5	35
1/1	8/1	Internal	5	35
1/1	9/1	Internal	5	35
1/2	10/1	Internal	5	35
2/1	6/1	Internal	5	35
2/1	8/1	Internal	5	35
2/1	9/1	Internal	5	35
2/1	10/1	Internal	5	35
3/1	6/1	Internal	5	35
3/1	9/1	Internal	5	35
3/1	10/1	Internal	5	35
3/2	7/1	Internal	5	35
4/1	6/1	Internal	5	35
4/1	7/1	Internal	5	35
4/1	8/1	Internal	5	35
4/1	10/1	Internal	5	35
5/1	6/1	Internal	5	35
5/1	7/1	Internal	5	35
5/1	8/1	Internal	5	35
5/1	9/1	Internal	5	35

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Traffic		7	7
E	Traffic		7	7
F	Traffic		7	7
G	Traffic		7	7
H	Pedestrian		7	7
I	Pedestrian		7	7
J	Pedestrian		7	7
K	Pedestrian		7	7
L	Pedestrian		7	7

Phase Intergreens Matrix

Terminating Phase \ Starting Phase	A	B	C	D	E	F	G	H	I	J	K	L
A		-	5	8	-	7	6	12	12	12	12	12
B	-		5	7	5	6	8	12	12	12	12	12
C	5	6		11	7	8	7	12	12	12	12	12
D	8	8	8		5	5	5	12	12	12	12	12
E	-	5	7	5		-	5	12	12	12	12	12
F	8	8	8	5	-		5	12	12	12	12	12
G	7	7	7	9	6	6		12	12	12	12	12
H	0	0	0	0	0	0	0		-	-	-	-
I	0	0	0	0	0	0	0	-		-	-	-
J	0	0	0	0	0	0	0	-	-		-	-
K	0	0	0	0	0	0	0	-	-	-		-
L	0	0	0	0	0	0	0	-	-	-	-	

Phases in Stage

Stage No.	Phases in Stage
1	A E
2	A B
3	E F
4	G
5	H I J K L
6	A E
7	A B
8	E F
9	C
10	D
11	H I J K L

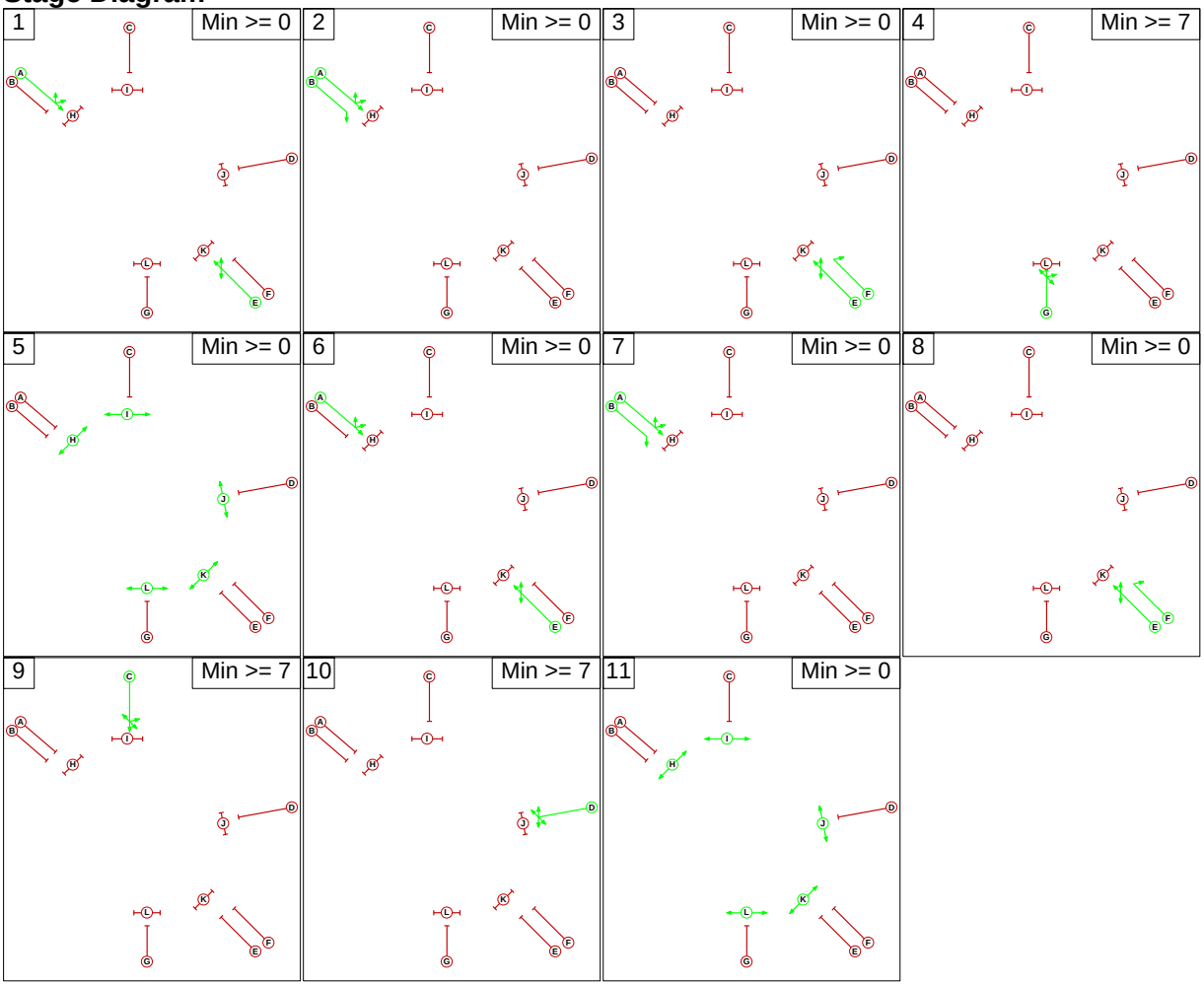
Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

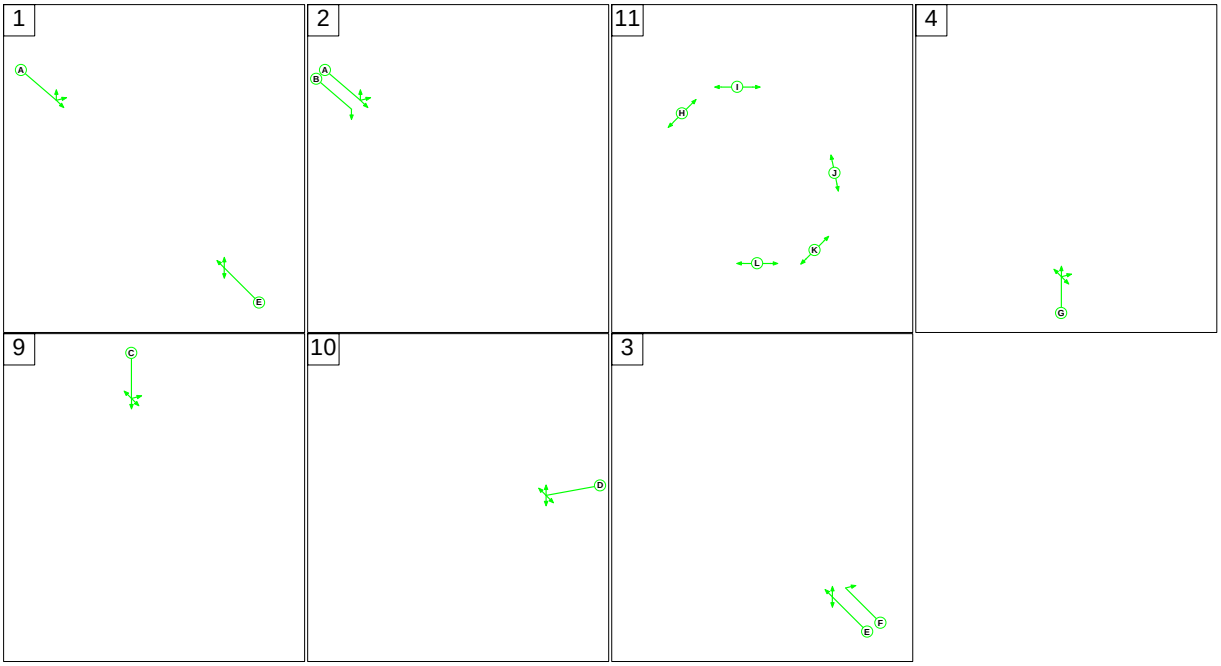
From Stage \ To Stage	1	2	3	4	5	6	7	8	9	10	11
1		5	7	6	12	0	5	7	7	8	12
2	5		7	8	12	5	0	7	5	8	12
3	8	8		5	12	8	8	0	8	5	12
4	7	7	6		12	7	7	6	7	9	12
5	2	2	2	2		2	2	2	2	2	0
6	0	5	7	6	12		5	7	7	8	12
7	5	0	7	8	12	5		7	5	8	12
8	8	8	0	5	12	8	8		8	5	12
9	7	6	8	7	12	7	6	8		11	12
10	8	8	5	5	12	8	8	5	8		12
11	2	2	2	2	0	2	2	2	2	2	

Stage Diagram



Stage Sequence Summary

Stage Sequence: Stage Sequence No. 1



Network Control Plans

Plan	Controller	Sequence Name	Sequence
Network Control Plan 1	C1	Stage Sequence No. 1	1,2,11,4,9,10,3

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2019 Base Year AM'	08:00	09:00	01:00	
2: '2019 Base Year PM'	17:00	18:00	01:00	
3: '2024 Forecast Year AM'	08:00	09:00	01:00	
4: '2024 Forecast Year PM'	17:00	18:00	01:00	
5: '2024 Forecast Year With Proposed Development AM'	08:00	09:00	01:00	
6: '2024 Forecast Year With Proposed Development PM'	17:00	18:00	01:00	

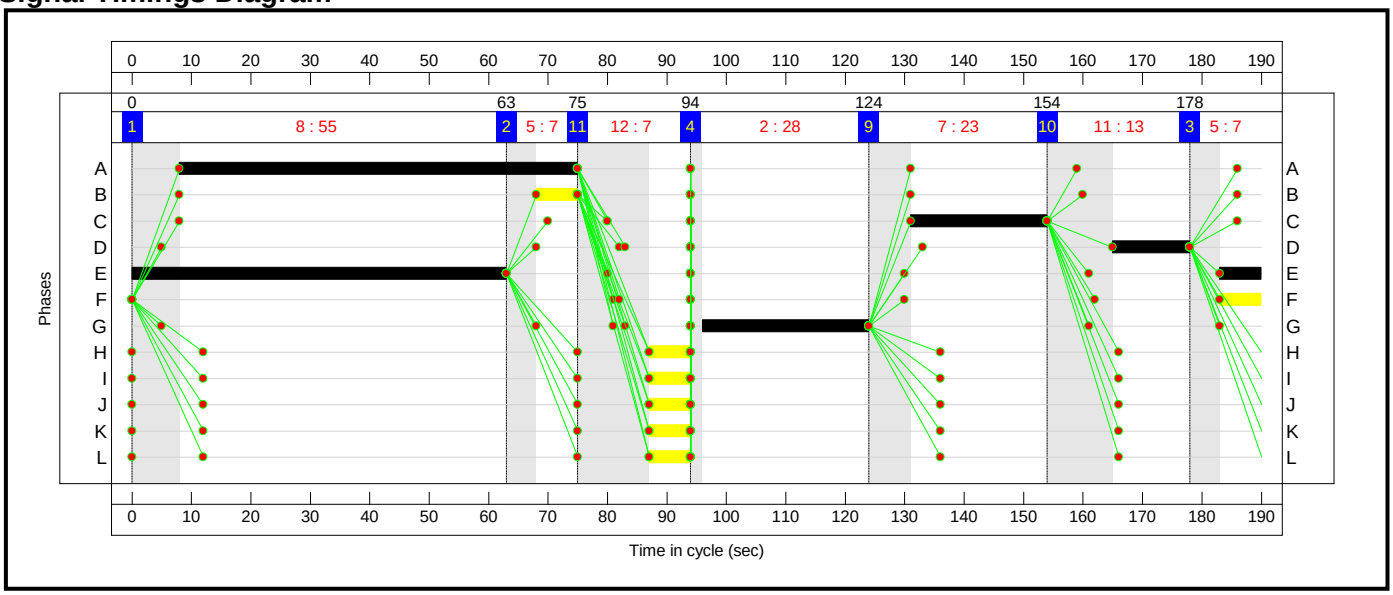
Scenario 1: '2019 Base Year AM' (FG1: '2019 Base Year AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Actual

Actual Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	24	476	42	1	543
	B	53	0	70	85	8	216
	C	435	39	0	8	14	496
	D	56	74	39	0	0	169
	E	3	21	58	9	0	91
	Tot.	547	158	643	144	23	1515

Signal Timings Diagram



Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
1/1+1/2	A40 London Road (East) Left Ahead Right Right2	U	E F		1	70:7	-	543	1879:1571	702+1	77.2 : 77.2%	-	-	-	9.6	63.6	26.8
2/1	Copt Elm Road U-Turn Left Ahead Right	U	G		1	28	-	216	1842	281	76.8%	-	-	-	6.2	103.6	12.5
3/1+3/2	A40 London Road (West) Ahead Right U-Turn Left	U	A B		1	67:7	-	496	1899:1810	638+54	71.7 : 71.7%	-	-	-	8.8	64.0	23.2
4/1	Greenway Lane Left Ahead Right Left2	U	C		1	23	-	169	1727	218	77.5%	-	-	-	5.4	114.7	10.3
5/1	Ryeworth Road Left Left2 Right Right2	U	D		1	13	-	91	1643	121	75.2%	-	-	-	3.6	141.1	6.1
P1	A40 (West) - Ped C.	-	H		1	7	-	0	-	0	0.0%	-	-	-	-	-	-
P2	Copt Elm Rd - Ped C.	-	L		1	7	-	0	-	0	0.0%	-	-	-	-	-	-
P3	A40 (East) - Ped C.	-	K		1	7	-	0	-	0	0.0%	-	-	-	-	-	-
P4	Ryeworth Rd - Ped C.	-	J		1	7	-	0	-	0	0.0%	-	-	-	-	-	-
P5	Greenway Ln - Ped C.	-	I		1	7	-	0	-	0	0.0%	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): 16.2 Total Delay for Signalled Lanes (pcuHr): 33.59 Cycle Time (s): 190

PRC Over All Lanes (%): 16.2 Total Delay Over All Lanes(pcuHr): 33.59

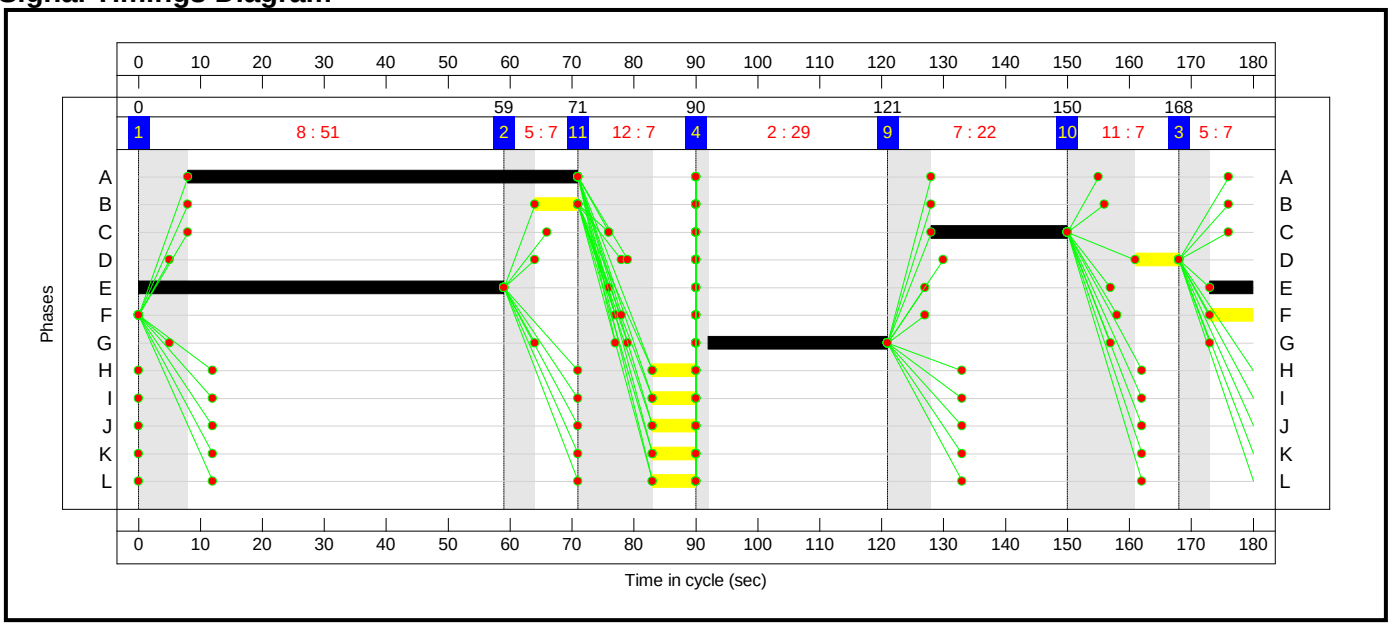
Scenario 2: '2019 Base Year PM' (FG2: '2019 Base Year PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Actual

Actual Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	34	463	53	5	555
	B	72	0	54	95	18	239
	C	436	40	0	19	19	514
	D	53	85	26	0	12	176
	E	9	15	18	3	0	45
	Tot.	570	174	561	170	54	1529

Signal Timings Diagram



Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
1/1+1/2	A40 London Road (East) Left Ahead Right Right2	U	E F		1	66:7	-	555	1868:1571	693+6	79.4 : 79.4%	-	-	-	9.8	63.6	26.5
2/1	Copt Elm Road U-Turn Left Ahead Right	U	G		1	29	-	239	1835	306	78.1%	-	-	-	6.5	97.5	13.1
3/1+3/2	A40 London Road (West) Ahead Right U-Turn Left	U	A B		1	63:7	-	514	1887:1810	632+53	75.0 : 75.0%	-	-	-	9.0	63.3	23.4
4/1	Greenway Lane Left Ahead Right Left2	U	C		1	22	-	176	1737	222	79.3%	-	-	-	5.5	112.6	10.3
5/1	Ryeworth Road Left Left2 Right Right2	U	D		1	7	-	45	1610	72	62.9%	-	-	-	1.9	148.5	3.0
P1	A40 (West) - Ped C.	-	H		1	7	-	0	-	0	0.0%	-	-	-	-	-	-
P2	Copt Elm Rd - Ped C.	-	L		1	7	-	0	-	0	0.0%	-	-	-	-	-	-
P3	A40 (East) - Ped C.	-	K		1	7	-	0	-	0	0.0%	-	-	-	-	-	-
P4	Ryeworth Rd - Ped C.	-	J		1	7	-	0	-	0	0.0%	-	-	-	-	-	-
P5	Greenway Ln - Ped C.	-	I		1	7	-	0	-	0	0.0%	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): 13.3 Total Delay for Signalled Lanes (pcuHr): 32.67 Cycle Time (s): 180

PRC Over All Lanes (%): 13.3 Total Delay Over All Lanes(pcuHr): 32.67

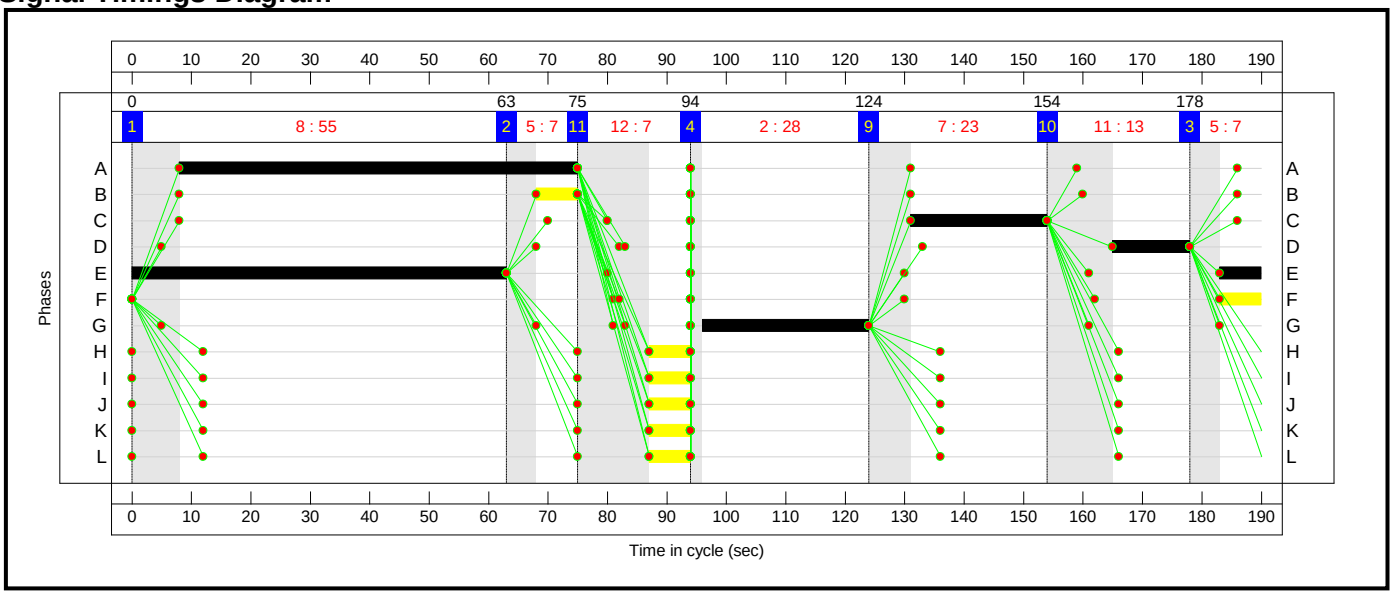
Scenario 3: '2024 Forecast Year AM' (FG3: '2024 Forecast Year AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Actual

Actual Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	25	499	44	1	569
	B	56	0	74	89	8	227
	C	458	40	0	9	15	522
	D	59	78	41	0	0	178
	E	3	22	61	9	0	95
	Tot.	576	165	675	151	24	1591

Signal Timings Diagram



Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
1/1+1/2	A40 London Road (East) Left Ahead Right Right2	U	E F		1	70:7	-	569	1879:1571	702+1	80.9 : 80.9%	-	-	-	10.5	66.6	28.9
2/1	Copt Elm Road U-Turn Left Ahead Right	U	G		1	28	-	227	1842	281	80.7%	-	-	-	6.9	108.8	13.5
3/1+3/2	A40 London Road (West) Ahead Right U-Turn Left	U	A B		1	67:7	-	522	1899:1810	639+53	75.5 : 75.5%	-	-	-	9.6	66.2	25.1
4/1	Greenway Lane Left Ahead Right Left2	U	C		1	23	-	178	1727	218	81.6%	-	-	-	6.0	121.6	11.2
5/1	Ryeworth Road Left Left2 Right Right2	U	D		1	13	-	95	1643	121	78.5%	-	-	-	3.9	147.9	6.5
P1	A40 (West) - Ped C.	-	H		1	7	-	0	-	0	0.0%	-	-	-	-	-	-
P2	Copt Elm Rd - Ped C.	-	L		1	7	-	0	-	0	0.0%	-	-	-	-	-	-
P3	A40 (East) - Ped C.	-	K		1	7	-	0	-	0	0.0%	-	-	-	-	-	-
P4	Ryeworth Rd - Ped C.	-	J		1	7	-	0	-	0	0.0%	-	-	-	-	-	-
P5	Greenway Ln - Ped C.	-	I		1	7	-	0	-	0	0.0%	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): 10.3 Total Delay for Signalled Lanes (pcuHr): 36.91 Cycle Time (s): 190

PRC Over All Lanes (%): 10.3 Total Delay Over All Lanes(pcuHr): 36.91

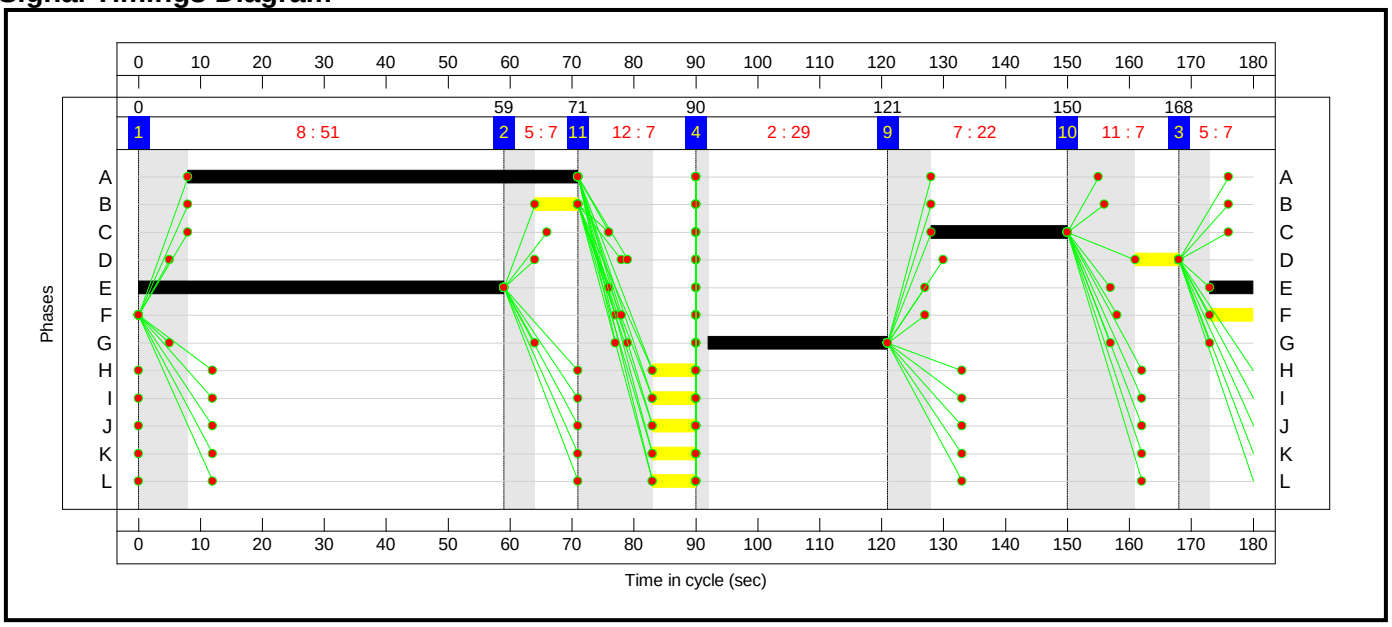
Scenario 4: '2024 Forecast Year PM' (FG4: '2024 Forecast Year PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Actual

Actual Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	36	486	55	5	582
	B	76	0	56	99	19	250
	C	457	41	0	20	20	538
	D	55	89	27	0	13	184
	E	9	16	19	3	0	47
	Tot.	597	182	588	177	57	1601

Signal Timings Diagram



Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
1/1+1/2	A40 London Road (East) Left Ahead Right Right2	U	E F		1	66:7	-	582	1868:1571	693+6	83.3 : 83.3%	-	-	-	10.9	67.2	28.7
2/1	Copt Elm Road U-Turn Left Ahead Right	U	G		1	29	-	250	1834	306	81.8%	-	-	-	7.1	102.4	14.1
3/1+3/2	A40 London Road (West) Ahead Right U-Turn Left	U	A B		1	63:7	-	538	1887:1810	633+52	78.5 : 78.5%	-	-	-	9.8	65.7	25.2
4/1	Greenway Lane Left Ahead Right Left2	U	C		1	22	-	184	1738	222	82.9%	-	-	-	6.1	119.0	11.1
5/1	Ryeworth Road Left Left2 Right Right2	U	D		1	7	-	47	1610	72	65.7%	-	-	-	2.0	153.0	3.2
P1	A40 (West) - Ped C.	-	H		1	7	-	0	-	0	0.0%	-	-	-	-	-	-
P2	Copt Elm Rd - Ped C.	-	L		1	7	-	0	-	0	0.0%	-	-	-	-	-	-
P3	A40 (East) - Ped C.	-	K		1	7	-	0	-	0	0.0%	-	-	-	-	-	-
P4	Ryeworth Rd - Ped C.	-	J		1	7	-	0	-	0	0.0%	-	-	-	-	-	-
P5	Greenway Ln - Ped C.	-	I		1	7	-	0	-	0	0.0%	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): 8.1 Total Delay for Signalled Lanes (pcuHr): 35.88 Cycle Time (s): 180

PRC Over All Lanes (%): 8.1 Total Delay Over All Lanes(pcuHr): 35.88

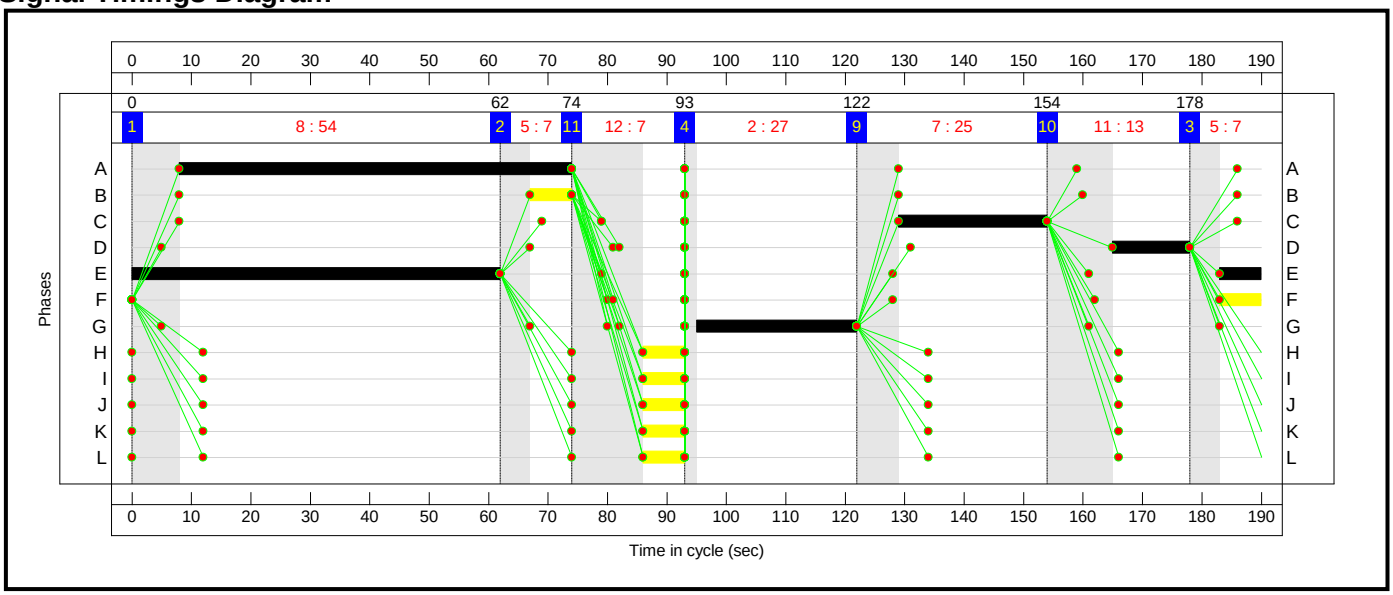
Scenario 5: '2024 Forecast Year With Proposed Development AM' (FG5: '2024 Forecast Year With Proposed Development AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Actual

Actual Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	25	499	48	1	573
	B	56	0	74	89	8	227
	C	458	40	0	9	15	522
	D	72	78	41	0	0	191
	E	3	22	61	9	0	95
	Tot.	589	165	675	155	24	1608

Signal Timings Diagram



Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
1/1+1/2	A40 London Road (East) Left Ahead Right Right2	U	E F		1	69:7	-	573	1878:1571	692+1	82.7 : 82.7%	-	-	-	11.0	69.2	29.7
2/1	Copt Elm Road U-Turn Left Ahead Right	U	G		1	27	-	227	1842	271	83.6%	-	-	-	7.3	115.5	13.9
3/1+3/2	A40 London Road (West) Ahead Right U-Turn Left	U	A B		1	66:7	-	522	1899:1810	630+52	76.6 : 76.6%	-	-	-	9.8	67.7	25.3
4/1	Greenway Lane Left Ahead Right Left2	U	C		1	25	-	191	1721	236	81.1%	-	-	-	6.2	116.8	11.7
5/1	Ryeworth Road Left Left2 Right Right2	U	D		1	13	-	95	1643	121	78.5%	-	-	-	3.9	147.9	6.5
P1	A40 (West) - Ped C.	-	H		1	7	-	0	-	0	0.0%	-	-	-	-	-	-
P2	Copt Elm Rd - Ped C.	-	L		1	7	-	0	-	0	0.0%	-	-	-	-	-	-
P3	A40 (East) - Ped C.	-	K		1	7	-	0	-	0	0.0%	-	-	-	-	-	-
P4	Ryeworth Rd - Ped C.	-	J		1	7	-	0	-	0	0.0%	-	-	-	-	-	-
P5	Greenway Ln - Ped C.	-	I		1	7	-	0	-	0	0.0%	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): 7.6 Total Delay for Signalled Lanes (pcuHr): 38.20 Cycle Time (s): 190

PRC Over All Lanes (%): 7.6 Total Delay Over All Lanes(pcuHr): 38.20

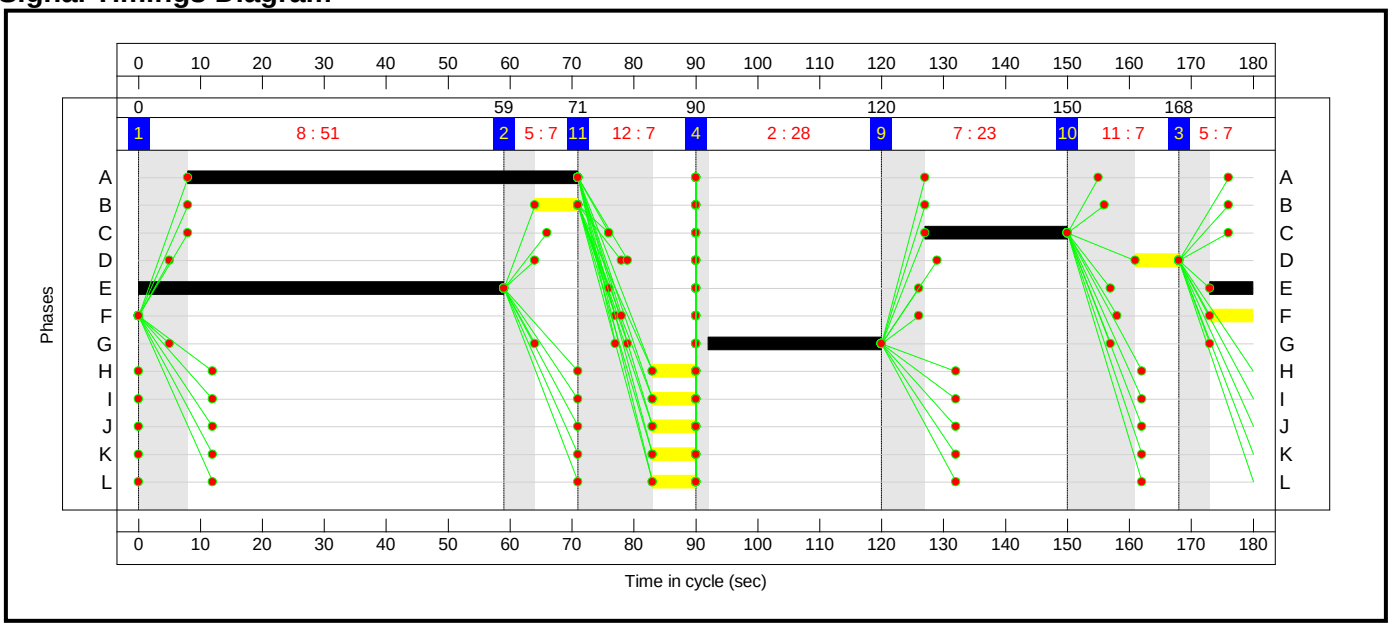
Scenario 6: '2024 Forecast Year With Proposed Development PM' (FG6: '2024 Forecast Year With Proposed Development PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Actual

Actual Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	36	486	67	5	594
	B	76	0	56	99	19	250
	C	457	41	0	20	20	538
	D	61	89	27	0	13	190
	E	9	16	19	3	0	47
	Tot.	603	182	588	189	57	1619

Signal Timings Diagram



Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
1/1+1/2	A40 London Road (East) Left Ahead Right Right2	U	E F		1	66:7	-	594	1864:1571	692+6	85.1 : 85.1%	-	-	-	11.4	69.4	29.9
2/1	Copt Elm Road U-Turn Left Ahead Right	U	G		1	28	-	250	1834	295	84.6%	-	-	-	7.6	109.0	14.6
3/1+3/2	A40 London Road (West) Ahead Right U-Turn Left	U	A B		1	63:7	-	538	1887:1810	633+52	78.5 : 78.5%	-	-	-	9.8	65.7	25.2
4/1	Greenway Lane Left Ahead Right Left2	U	C		1	23	-	190	1734	231	82.2%	-	-	-	6.1	115.6	11.3
5/1	Ryeworth Road Left Left2 Right Right2	U	D		1	7	-	47	1610	72	65.7%	-	-	-	2.0	153.0	3.2
P1	A40 (West) - Ped C.	-	H		1	7	-	0	-	0	0.0%	-	-	-	-	-	-
P2	Copt Elm Rd - Ped C.	-	L		1	7	-	0	-	0	0.0%	-	-	-	-	-	-
P3	A40 (East) - Ped C.	-	K		1	7	-	0	-	0	0.0%	-	-	-	-	-	-
P4	Ryeworth Rd - Ped C.	-	J		1	7	-	0	-	0	0.0%	-	-	-	-	-	-
P5	Greenway Ln - Ped C.	-	I		1	7	-	0	-	0	0.0%	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): 5.7 Total Delay for Signalled Lanes (pcuHr): 36.94 Cycle Time (s): 180

PRC Over All Lanes (%): 5.7 Total Delay Over All Lanes(pcuHr): 36.94