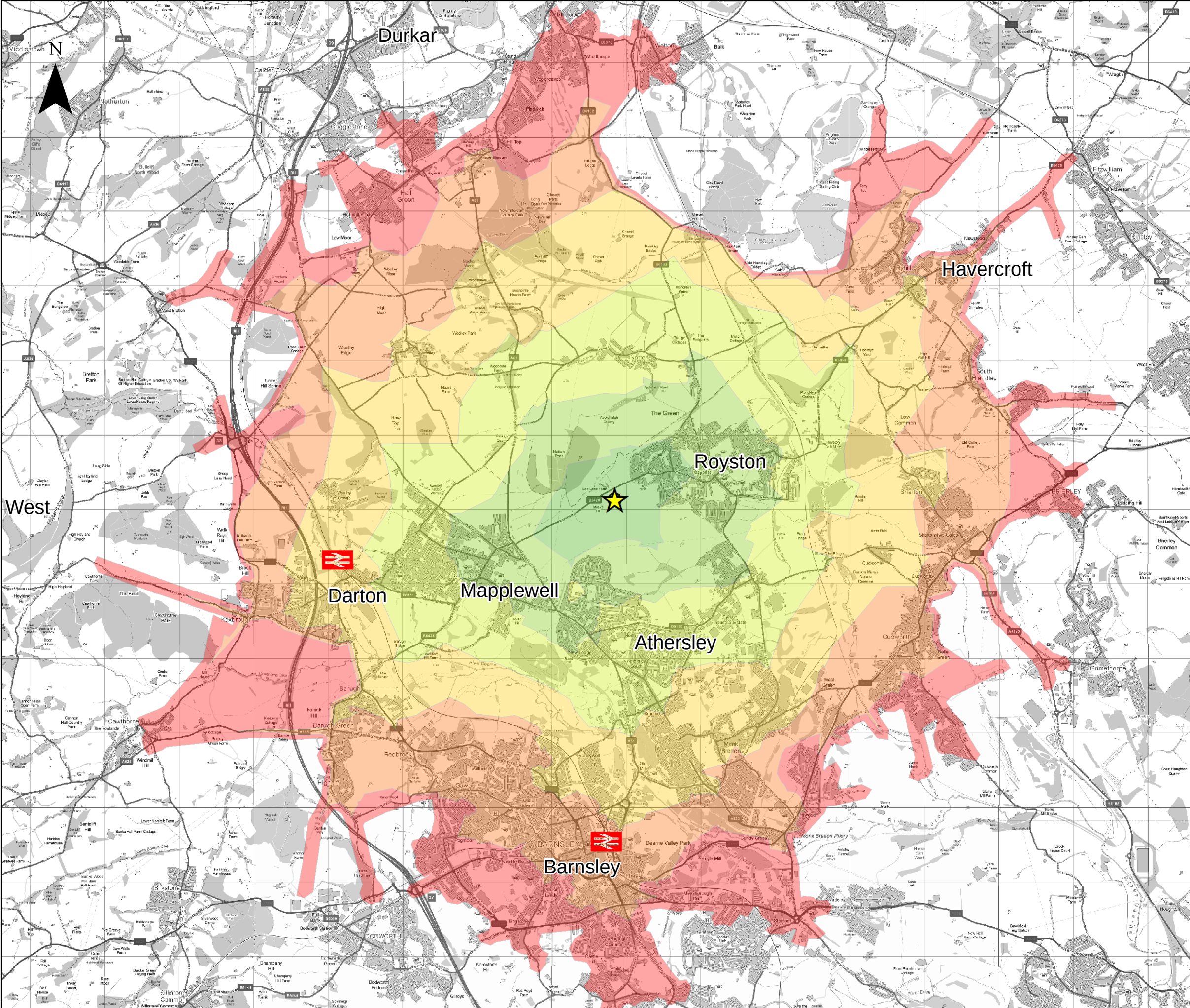


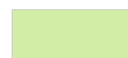
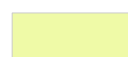
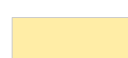
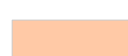
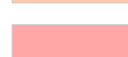
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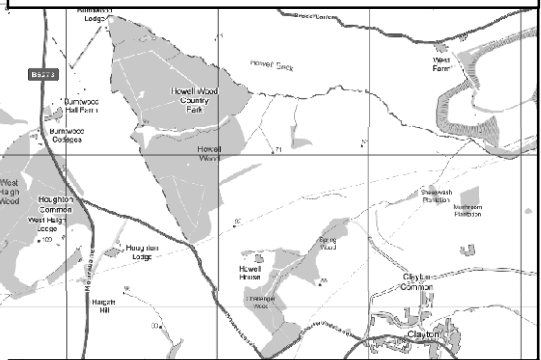
Key

-  Site Location
-  Train Station

**Cycle Accessibility
(Cycle Speed 16kph)**

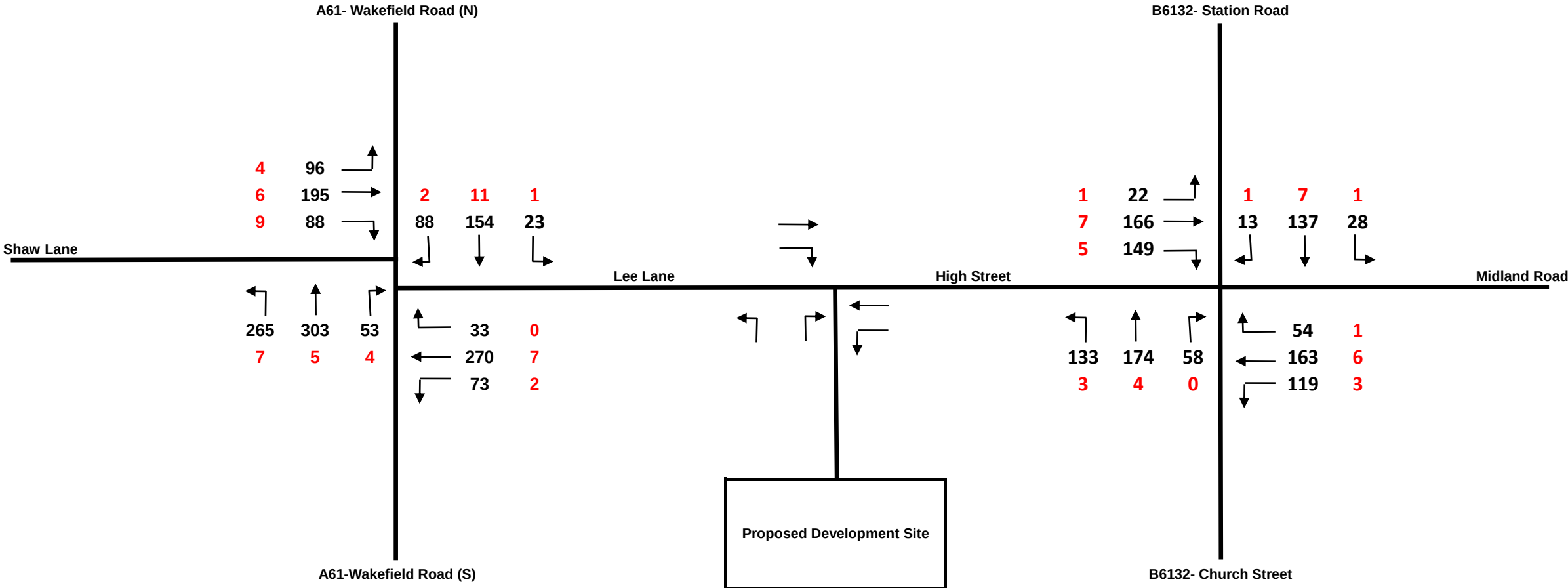
-  0-5 Minutes
-  5-10 Minutes
-  10-15 Minutes
-  15-20 Minutes*
-  20-25 Minutes
-  25-30 Minutes**

*19 mins (5km) = LTN 2/08
Standard for General Cycling
**30 mins (8km) = LTN 2/08
Standard for Commuting
Isochrones generated using
Network Analyst 10.0 Copyright
(C) 1999-2010 ESRI Inc. All

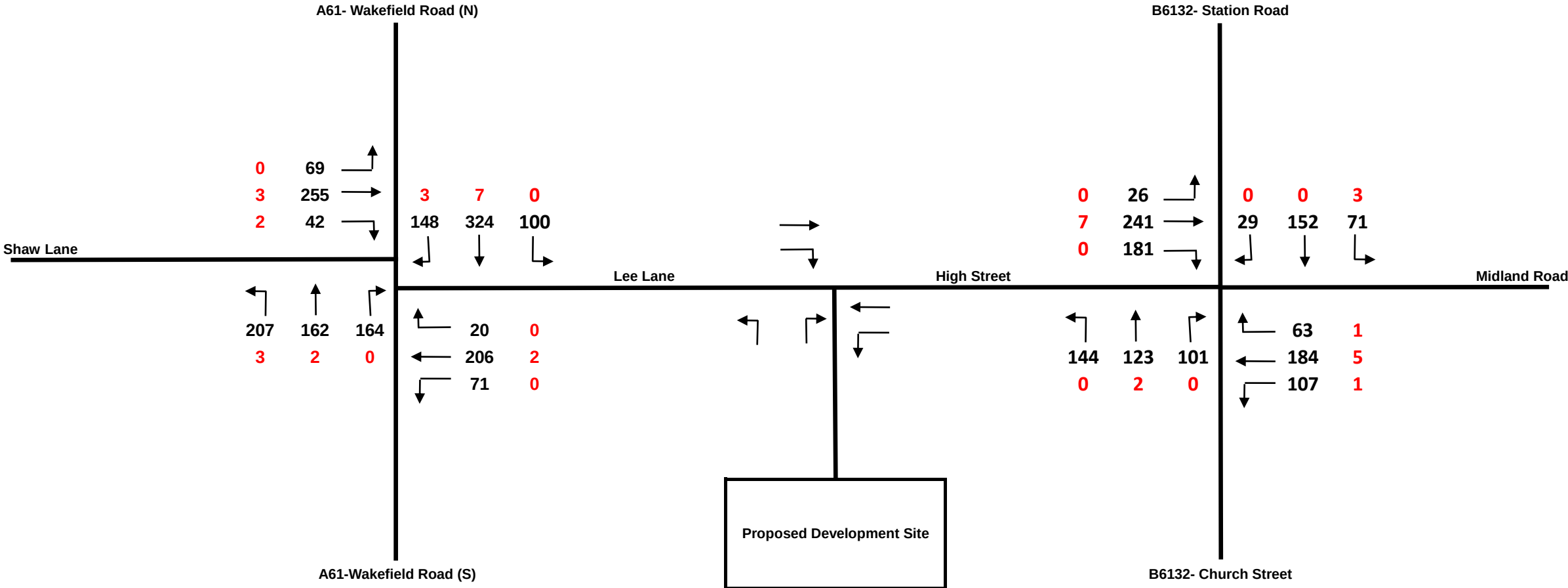


TITLE	
Lee Lane, Royston Proposed Residential Development Cycle Accessibility	
SCALE @ A3	1:50,000
FIGURE 4	
	Suite 1, 3rd Floor Goodbard House Infirmay Street Leeds LS1 2JP Tel: 0113 245 1679

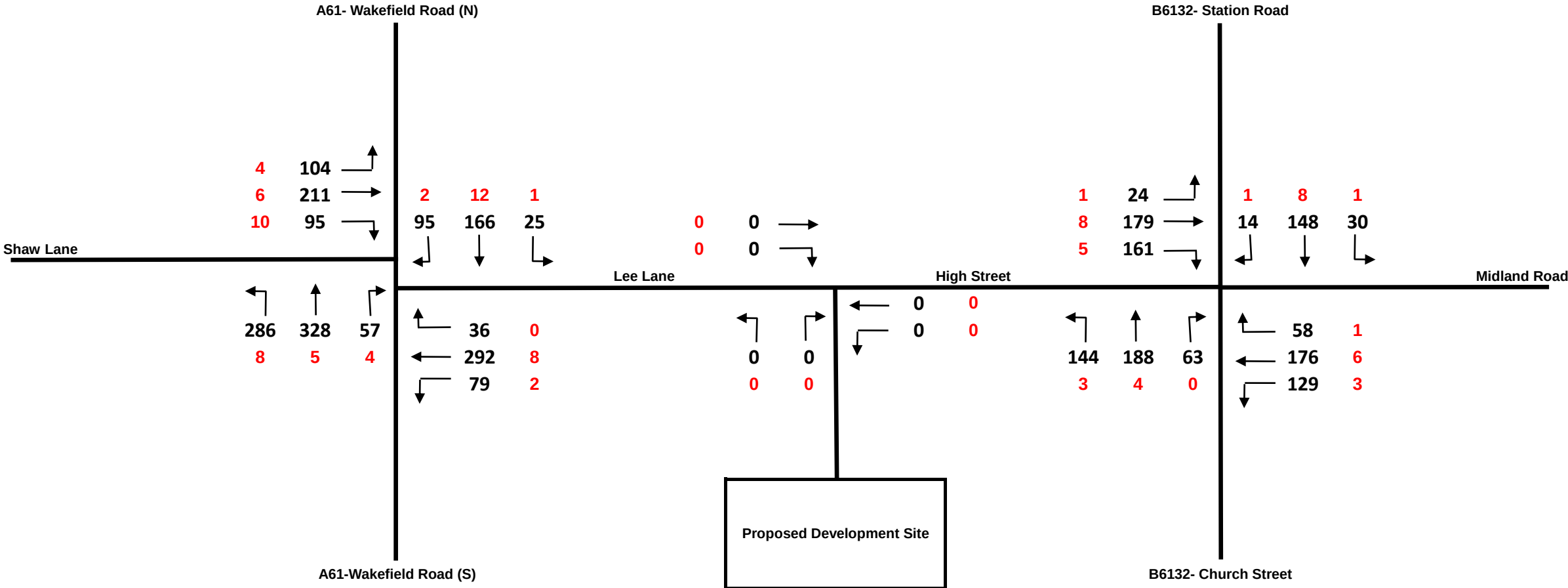
Total Vehicles	0
HGV	0



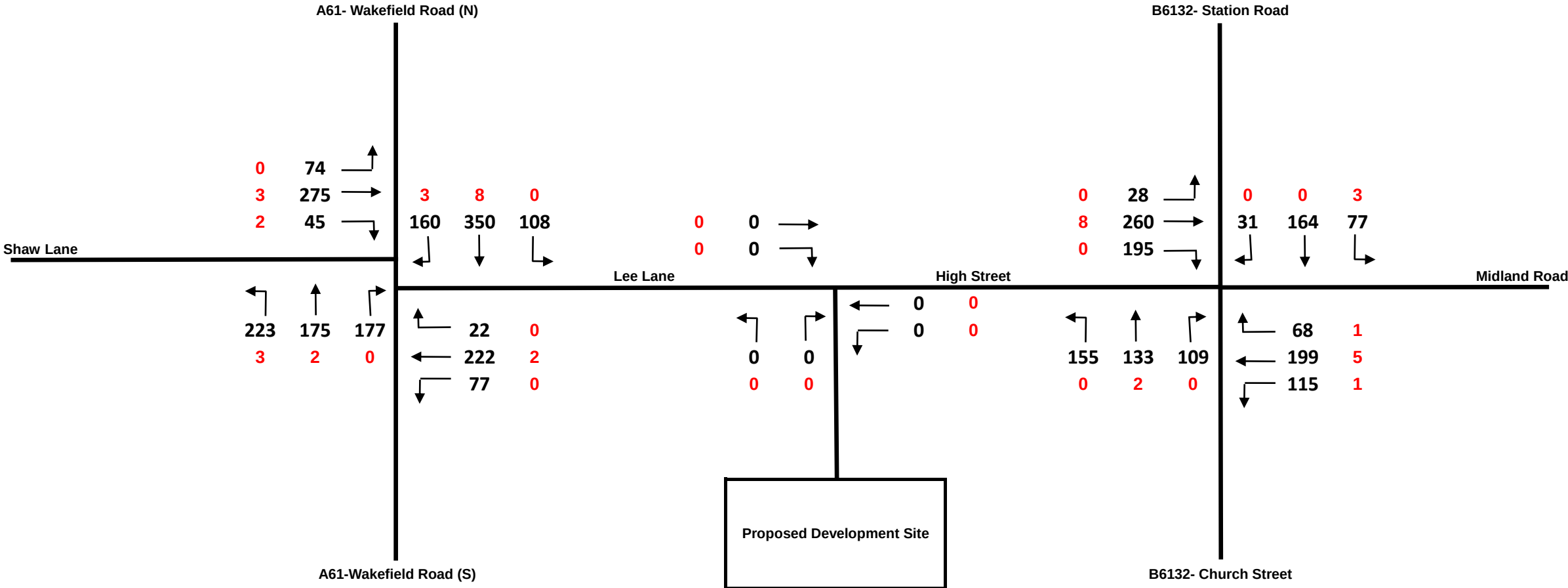
Total Vehicles	0
HGV	0

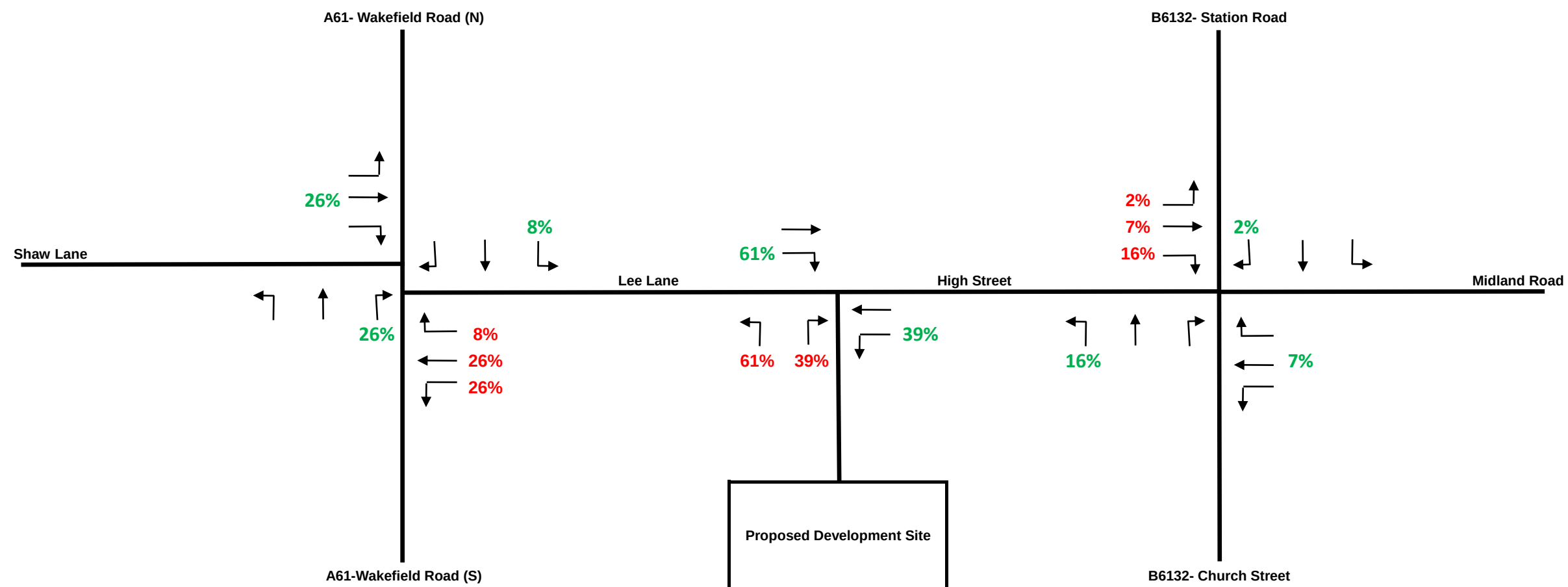


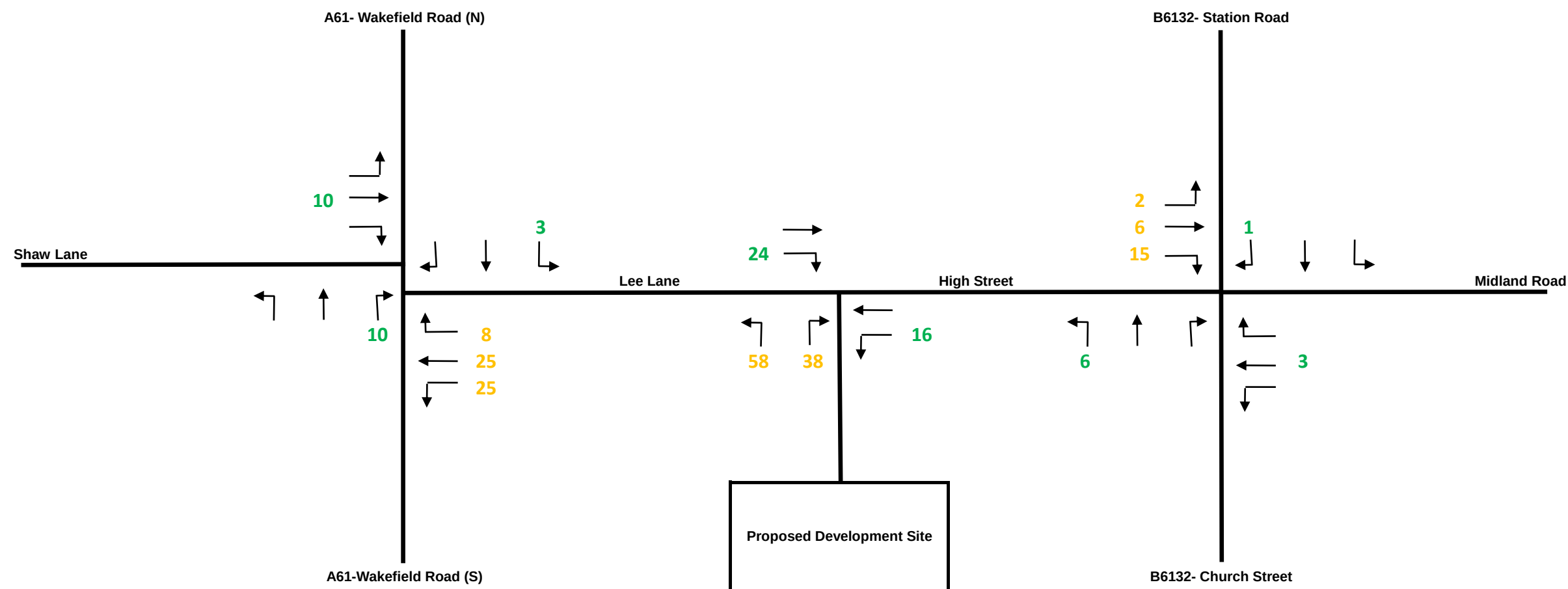
Total Vehicles	0
HGV	0
Growth factor	1.081



Total Vehicles	0
HGV	0
Growth factor	1.079







250 Units

Trip Rates	ARR	DEP
AM	0.158	0.382

Trip Gens	ARR	DEP
	40	96

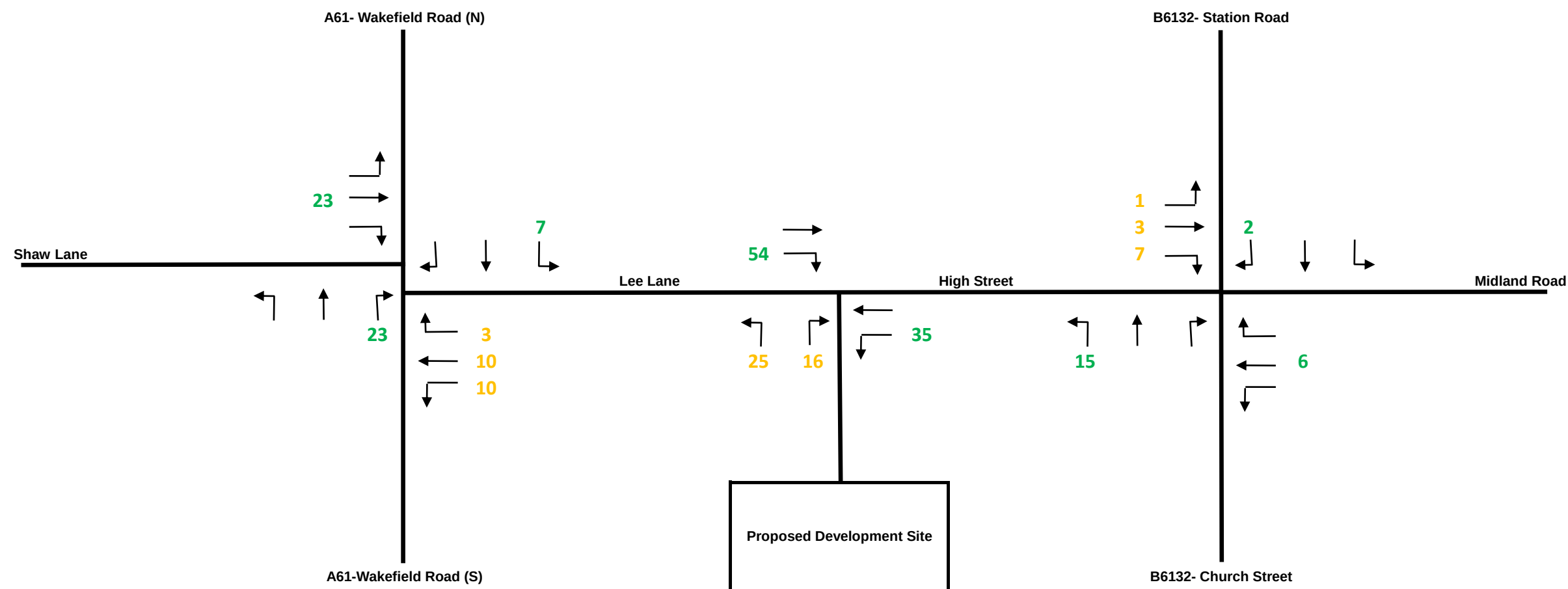


Lee Road - Royston

AM TRIP GENERATION

Figure:

15



250 Units

Trip Rates	ARR	DEP
AM		
PM	0.359	0.162
Trip Gens	ARR	DEP
	90	41



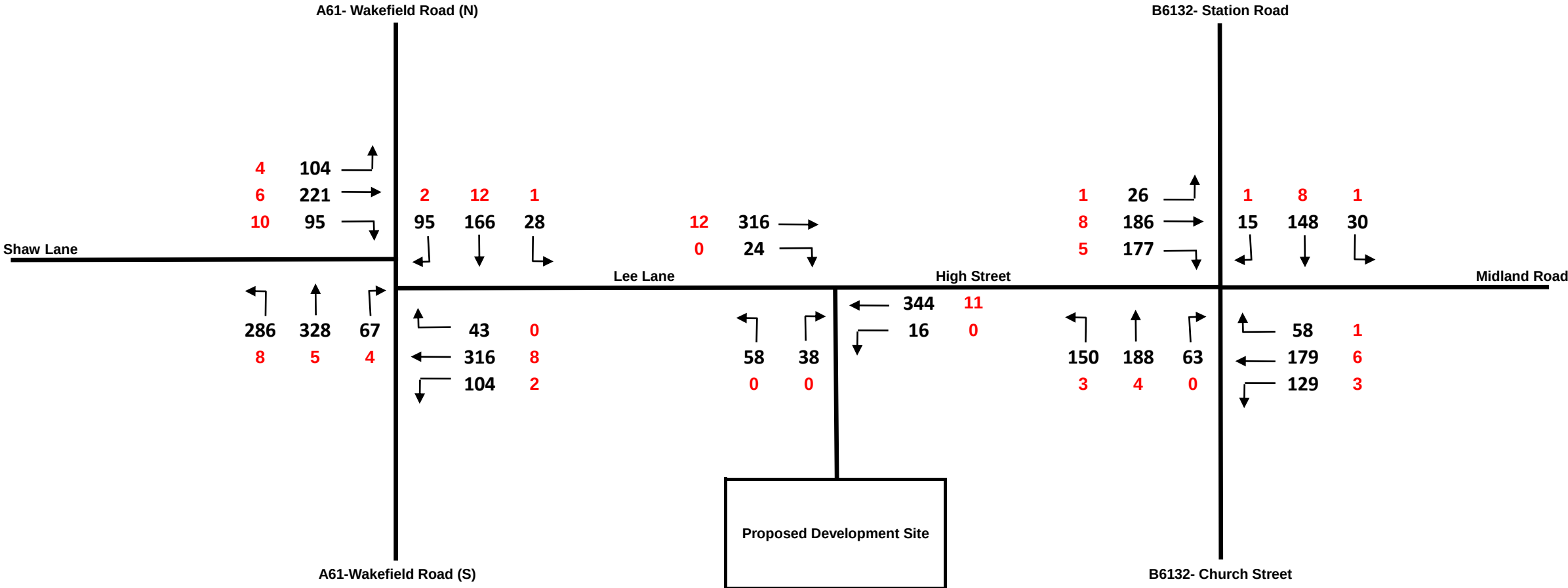
Lee Road - Royston

PM TRIP GENERATION

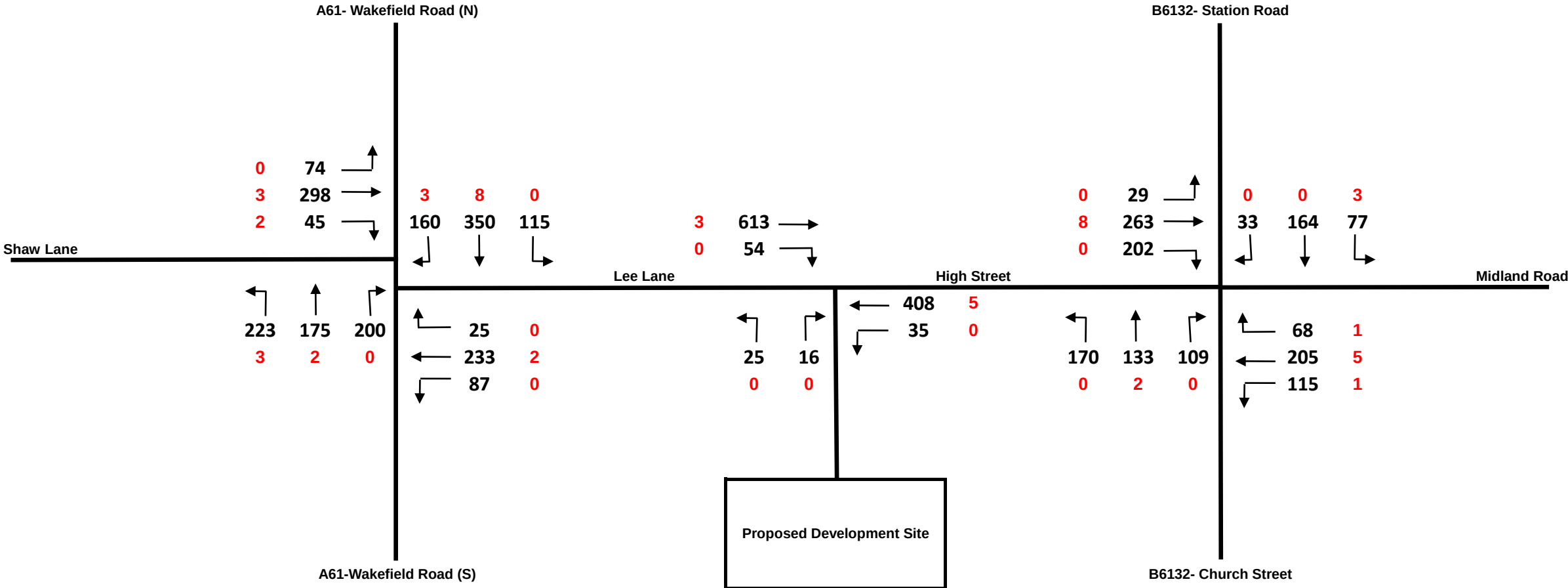
Figure:

16

Total Vehicles	0
HGV	0



Total Vehicles	0
HGV	0



Appendices



Appendix A Site Masterplan



Notes:

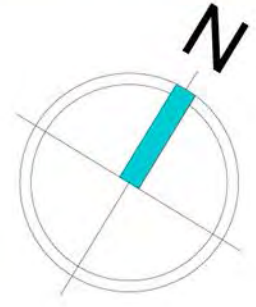
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All Dimensions are to be verified on site before any work commences. If any discrepancies, errors or omissions are noted, these are to be reported to STEN architecture immediately.

If any other drawings are reference within this layout, please refer to the specific detailed drawing for design, materials and specific working practices.

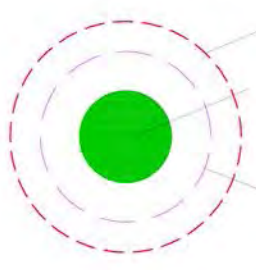


Reference	Code	Storeys	Total
Shoemaker	SH-2B	2	12
Turner	TU-2B	2	58
Hawthorne	HA-2B	2	13
Chesnut	CH-2B	2	16
Addingham	AD-3B	2	21
Buckden	BU-3B	2.5	10
Middleham	MI-3B	2	21
Hambleton	HA-3B	2	16
Acacia	AC-4B	2	30
Goldsmith	GO-4B	2	19
Sandringham	SA-4B	2	9
Sub-Total			225
A3-2B	A2	2	16
A3-3B	A3	2	9
Sub-Total			25
Grand-Total			250



PLANNING LAYOUT KEY

- 1.8m MASONRY WALL
- 1.8m TIMBER FENCE
- 0.9m ESTATE RAILING
- 0.45m KNEE RAIL
- 1.9m PALADIN
- HERRINGBONE BLOCK PAVING
- REMOVED TREE
- RETAINED TREE
- ROOT PROTECTION
- AFFORDABLE



Scaled @ 1:500

0 10m 20m 50m

D	Layout update to current phasing plan, road position serving plots 207-212 amended from previous.	TS	18.12.18
C	Plot 233 switched to a shoemaker, substation introduced.	TS	29.11.18
B	Updated to clients comments.	TS	27.11.18
A	Updated to clients comments.	TS	20.11.18
REV:	DESCRIPTION	BY:	DATE



SITE: Lee Lane Royston			
TITLE: Planning Layout			
SCALE AT AS	DATE: 05.11.18	DRAWN: BMS	CHECKED: --
PROJECT NO: 1867	DRAWING NO: 1867.01	REVISION: D	

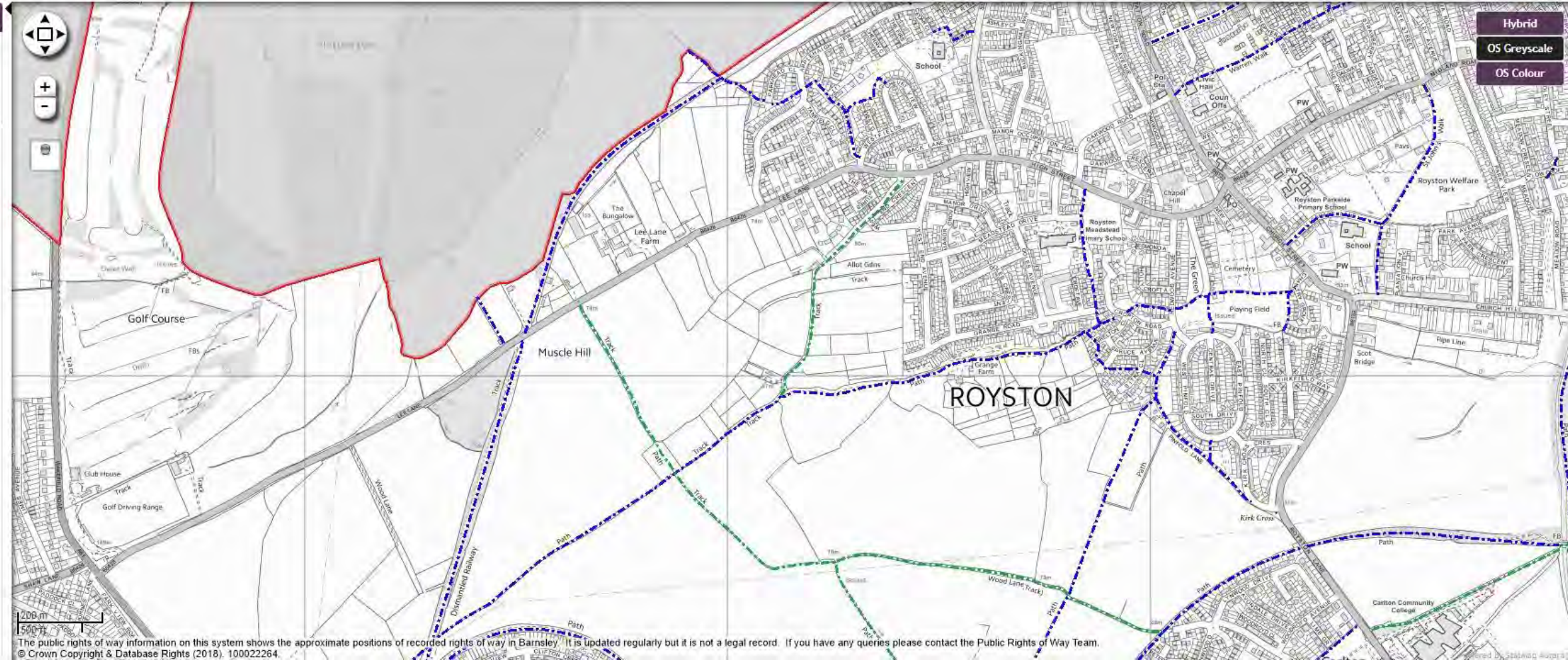
Appendix B Public Rights of Way Information



Location:

Legend

- ☒ Public Rights of Way
-  Bridleway
-  Footpath
-  Restricted byway



Appendix C Accident Data



WEST YORKSHIRE POLICE



Selected map area

SCALE	1 : 10210
DATE	02/11/2018
DRWG No.	
DRN BY	

Accidents between dates 01/01/2013 and 31/12/2017 (60) months

Selection:

Notes:

Selected using Build Query : Local_auth = 'Barnsley'

Nasser Jamili - Optima Highways

Police Ref.	Acc Class	Date	Time	Grid References	Casualties			Causation Factors/ Prob	Ped			Light	Weather	Road Surface	Vehicle Types
					Ftl	Ser	Sl		L	M	D				
B-00848-13	Slight	29/10/2013	1200	433516 410529	0	0	3	405V2A 406V1B 402V2B 402V1B	0	0	0	Light	Raining without high winds	Wet/Damp	9 9
B-00029-14	Slight	11/01/2014	1530	435095 411404	0	0	1	308V2B 406V2B	0	0	0	Light	Fine without high winds	Dry	9 9
B-00273-14	Slight	26/03/2014	0835	434696 411199	0	0	2	406V1A 405V1B 605V1B	0	0	0	Light	Fine without high winds	Wet/Damp	9 9
B-00343-14	Slight	10/04/2014	1859	433534 410547	0	0	2	401V1B	0	0	0	Light	Fine without high winds	Dry	9 9
B-00645-14	Slight	14/07/2014	1200	433771 410672	0	0	5	306V1A 307V1A	0	0	0	Light	Fine without high winds	Dry	9 9 9 9
B-00849-14	Slight	16/09/2014	1836	435085 411398	0	0	1	405V1B	0	0	0	Light	Fine without high winds	Dry	9 1
B-01107-14	Slight	17/11/2014	1745	433474 410553	0	0	2	405V2B	0	0	0	Dark	Fog or mist	Dry	9 9
B-01297-14	Serious	24/12/2014	2105	433732 410652	0	1	1	806C2A 805C2A 809C2A	9	9	9	Dark	Fine without high winds	Dry	3
B-00137-15	Slight	11/02/2015	1748	433512 410533	0	0	1	302V2B 405V2B 405V1B 402V2B	0	0	0	Dark	Fine without high winds	Wet/Damp	9 9
B-01054-15	Slight	16/11/2015	0001	435621 411517	0	0	2	405V1B 406V1B	0	0	0	Dark	Fine without high winds	Dry	9 9
B-01215-15	Slight	24/12/2015	1530	433514 410532	0	0	1	405V2A 403V2A	0	0	0	Light	Fine without high winds	Dry	9 9
1659110	Slight	11/04/2016	0920	434748 411233	0	0	1		0	0	0	Light	Other	Dry	9 9
16127553	Slight	06/11/2016	1900	433704 410638	0	0	1	501V2B	0	0	0	Dark	Fine without high winds	Dry	9 9
16130923	Serious	13/11/2016	1300	433518 410531	0	1	0	302V2A 406V2A 406V1A 405V2A 505V1A	0	0	0	Light	Unknown	Dry	9 19
17193122	Serious	13/06/2017	0631	435317 411493	0	1	0	602V1A	0	0	0	Light	Fine without high winds	Dry	9 9 9
Column Totals															
Slight :															
Serious :															
Fatal :															
					0	3	23					Light :		Dry :	
												Dark :		Wet :	
												10		12	
												5		3	

Total number of accidents listed: 15

Accidents between dates **01/01/2013 and 31/12/2017** (60) months

Selection: **Notes:**
 Selected using Build Query : Local_auth = 'Barnsley' Nasser Jamili - Optima Highways

Police Ref.	Date	Cas.	Sev.	P2W	Cycs	Peds	Ch	OAPs	Vis.	Manv.	Road Cond.	Time	Location
B-00848-13	29/10/2013	3	Slight	0	0	0	0	0	Light	No turn	Wet/Damp	1200	LEE LN BARNSELY AT J/W WAKEFIELD RD
B-00029-14	11/01/2014	1	Slight	0	0	0	0	0	Light	No turn	Dry	1530	LEE LANE ROYSTON J/W APPLEHAIGH VIEW
B-00273-14	26/03/2014	2	Slight	0	0	0	0	0	Light	No turn	Wet/Damp	0835	LEE LANE ROYSTON 435 MTS APPLEHAIGH VIEW
B-00343-14	10/04/2014	2	Slight	0	0	0	0	0	Light	Left	Dry	1859	LEE LANE BARNSELY 20 MTS WAKEFIELD ROAD
B-00645-14	14/07/2014	5	Slight	0	0	0	2	0	Light	No turn	Dry	1200	LEE LANE ROYSTON 280 MTS WAKEFIELD ROAD
B-00849-14	16/09/2014	1	Slight	0	1	0	0	0	Light	Right	Dry	1836	LEE LANE ROYSTON J/W APPLEHAIGH VIEW
B-01107-14	17/11/2014	2	Slight	0	0	0	0	0	Dark	No turn	Dry	1745	SHAW LANE MAPPLEWELL J/W WAKEFIELD ROAD
B-01297-14	24/12/2014	2	Serious	1	0	1	0	0	Dark	No turn	Dry	2105	LEE LANE STAINCROSS 240 MTS WAKEFIELD ROAD
B-00137-15	11/02/2015	1	Slight	0	0	0	0	1	Dark	Right	Wet/Damp	1748	WAKEFIELD ROAD STAINCROSS J/W LEE LANE
B-01054-15	16/11/2015	2	Slight	0	0	0	0	0	Dark	No turn	Dry	0001	HIGH STREET ROYSTON J/W SUMMER LANE
B-01215-15	24/12/2015	1	Slight	0	0	0	0	0	Light	Right	Dry	1530	WAKEFIELD ROAD BARNSELY JW LEE LANE
1659110	11/04/2016	1	Slight	0	0	0	0	0	Light	Left	Dry	0920	LEE LANE (B6428) BARNSELY J/W PRIVATE ENTRANCE
16127553	06/11/2016	1	Slight	0	0	0	0	0	Dark	No turn	Dry	1900	LEE LANE (B6428) BARNSELY
16130923	13/11/2016	1	Serious	0	0	0	0	1	Light	Left	Dry	1300	WAKEFIELD ROAD (A61) BARNSELY AT OR WITHIN 20 MTS OF LEE L
17193122	13/06/2017	1	Serious	0	0	0	0	0	Light	Left	Dry	0631	HIGH STREET (B6428) BARNSELY AT OR NR JN WITH WESTFIELDS
Column Totals		26		1	1	1	2	2					
No. of Accidents				1	1	1	1	2					

Total number of accidents listed: 15

Accidents between dates 01/01/2013 and 31/12/2017 (60) months

Selection:

Selected using Build Query : Local_auth = 'Barnsley'

Notes:

Nasser Jamili - Optima Highways

Accidents involving:

	Fatal	Serious	Slight	Total
Motor vehicles only excluding 2-wheels	0	2	11	13
2-wheeled motor vehicles	0	1	0	1
Pedal cycles	0	0	1	1
Horses & other	0	0	0	0
Total	0	3	12	15

Casualties:

	Fatal	Serious	Slight	Total
Vehicle driver	0	2	12	14
Passenger	0	0	9	9
Motorcycle rider	0	1	0	1
Cyclist	0	0	1	1
Pedestrian	0	0	1	1
Other	0	0	0	0
Total	0	3	23	26

Details of Personal Injury Accidents for Period - 01/01/2013 to 31/12/2017 (60) months

Selection:

Selected using Build Query : Local_auth = 'Barnsley'

Notes:

Nasser Jamili - Optima Highways

Police Ref.	Vehicles						Casualties		
	Day	Location Description	Veh No / Type / Manv / Dir / Class						Sex / Age / Sev
	Date								
	Time								
	D/L								
	R.S.C								
	Weather								
	Speed								
	Account of Accident								
	Causation Factor:								

B-00848-13	Tuesday	LEE LN BARNSELY AT J/W WAKEFIELD RD	Veh 1	Car	Starting	SE to NW RSP	M	17	Slight
	29/10/2013		Veh 1	Car	Starting	SE to NW Dri	M	42	Slight
R1: B 6428	1200hrs		Veh 1	Car	Starting	SE to NW RSP	M	22	Slight
R2: U	Daylight:street lights present		Veh 2	Car	Starting	NE to SW			
E 433,516	Wet/Damp								
N 410,529	Raining without high winds								
	60 mph								

Causation Factor:

1st: Failed to look properly
2nd: Failed to judge other persons path or speed
3rd: Junction restart
4th: Junction restart

Participant:

Vehicle 2
Vehicle 1
Vehicle 2
Vehicle 1

Confidence:

Very Likely
Possible
Possible
Possible

V2 WAITING AT JCT ONCOMING VEH HAS FLASHED AND BELEIVING DRIVER WAS GIVING WAY V2 EMERGED FROM JCT INOT PATI VF V1 AND COLL OCC.

B-00029-14	Saturday	LEE LANE ROYSTON J/W APPLEHAIGH VIEW	Veh 1	Car	Parked	0 to 0 Dri	M	39	Slight
	11/01/2014		Veh 2	Car	Going ahead	W to E			
R1: B 6428	1530hrs								
R2: U	Daylight:street lights present								
E 435,095	Dry								
N 411,404	Fine without high winds								
	30 mph								

Causation Factor:

1st: Following too close
2nd: Failed to judge other persons path or speed

Participant:

Vehicle 2
Vehicle 2

Confidence:

Possible
Possible

DRIVER OF V1 STOPPED AND GOT OUT TO CHECK VEH WHEN V2 COLL WITH REAR AND LEFT THE SCENE.

B-00273-14	Wednesday	LEE LANE ROYSTON 435 MTS APPLEHAIGH VIEW	Veh 1	Car	Going ahead	NE to SW			
	26/03/2014		Veh 2	Car	Stopping	NE to SW FSP	M	47	Slight
R1: B 6106	0835hrs		Veh 2	Car	Stopping	NE to SW Dri	F	37	Slight
	Daylight:street lights present								
E 434,696	Wet/Damp								
N 411,199	Fine without high winds								
	60 mph								

Causation Factor:

1st: Failed to judge other persons path or speed
2nd: Failed to look properly
3rd: Inexperienced or learner driver/rider

Participant:

Vehicle 1
Vehicle 1
Vehicle 1

Confidence:

Very Likely
Possible

V2 SLOWING DOWN INTENDING TO TURN RGT, V1 FOLLOWING FAILED TO REACT IN TIME AND COLL WITH REAR OF V2.

Details of Personal Injury Accidents for Period - 01/01/2013 to 31/12/2017 (60) months

Selection:

Selected using Build Query : Local_auth = 'Barnsley'

Notes:

Nasser Jamili - Optima Highways

Police Ref.	Vehicles		Casualties	
	Day	Location Description	Veh No / Type / Manv / Dir / Class	Sex / Age / Sev
	Date			
	Time			
	D/L			
	R.S.C			
	Weather			
	Speed			
	Account of Accident			
	Causation Factor:			

B-00343-14 Thursday LEE LANE BARNSELY 20 MTS Veh 1 Car Turning left NW^{to} NE Dri F 26 Slight
10/04/2014 WAKEFIELD ROAD Veh 2 Car Wait go ahead held up NE ^{to} SW Dri F 29 Slight
R1: B 6106 1859hrs
R2: A 61 Daylight:street lights present
E 433,534 Dry
N 410,547 Fine without high winds
60 mph

Causation Factor:

Participant:

Confidence:

1st: Junction overshoot

Vehicle 1

Possible

V2 STATIONARY IN TF ON ROYSTON LN WAITING TO JOIN WAKEFIELD RD, V1 ON WAKEFIELD RD TURNING INTO ROYSTON LN COLLIDED WITH F/O/S OF V2 CAUSING V1 TO TURN ONTO SIDE.

B-00645-14 Monday LEE LANE ROYSTON 280 MTS Veh 1 Car Going ahead SW ^{to} NE
14/07/2014 WAKEFIELD ROAD Veh 2 Car Wait go ahead held up SW ^{to} NE Dri F 26 Slight
R1: B 6428 1200hrs Veh 3 Car Wait go ahead held up SW ^{to} NE Dri M 30 Slight
Daylight:street lights present Veh 3 Car Wait go ahead held up SW ^{to} NE FSP F 33 Slight
E 433,771 Dry Veh 3 Car Wait go ahead held up SW ^{to} NE RSP F 3 Slight
N 410,672 Fine without high winds Veh 3 Car Wait go ahead held up SW ^{to} NE RSP M 1 Slight
60 mph Veh 4 Car Wait go ahead held up SW ^{to} NE

Causation Factor:

Participant:

Confidence:

1st: Exceeding speed limit

Vehicle 1

Very Likely

2nd: Travelling too fast for conditions

Vehicle 1

Very Likely

TRAFFIC STATIONARY TO ALLOW TRACTOR TO TURN, V1 FAILED TO REACT IN TIME AND COLL WITH REAR OF V2 PUSHING IT INTO V3 PUSHING IT INTO V4.

B-00849-14 Tuesday LEE LANE ROYSTON J/W Veh 1 Car Turning right N ^{to} W
16/09/2014 APPLEHAIGH VIEW Veh 2 Pedal cycle Going ahead E ^{to} W Dri M 45 Slight
R1: B 6428 1836hrs
R2: U Daylight:street lights present
E 435,085 Dry
N 411,398 Fine without high winds
30 mph

Causation Factor:

Participant:

Confidence:

1st: Failed to look properly

Vehicle 1

Possible

V1 PULLED OUT OF JUNCTION TURNING RIGHT AND COLL WITH V2 ON MAIN C/W

Details of Personal Injury Accidents for Period - 01/01/2013 to 31/12/2017 (60) months

Selection:

Selected using Build Query : Local_auth = 'Barnsley'

Notes:

Nasser Jamili - Optima Highways

Police Ref. Road No. 2nd Road No. Grid Ref.	Day	Location Description	Vehicles					Casualties			
	Date		Veh No	Type	Manv	Dir	Class	Sex	Age	Sev	
	Time										
	D/L										
	R.S.C										
	Weather										
	Speed										
	Account of Accident										
Causation Factor:											

B-01107-14 Monday SHAW LANE MAPPLEWELL J/W WAKEFIELD ROAD Veh 1 Car Wait go ahead held up W to E FSP F 21 Slight
 17/11/2014 Veh 1 Car Wait go ahead held up W to E Dri F 21 Slight
R1: B 6428 1745hrs Veh 2 Car Going ahead W to E
R2: A 61 Darkness: street lighting
E 433,474 Dry
N 410,553 Fog or mist
 40 mph

Causation Factor:

1st: Failed to look properly

Participant:

Vehicle 2

Confidence:

Possible

V1 STATIONARY AT JCT, V2 FOLLOWING FAILED TO REACT IN TIME AND COLL WITH REAR OF V1.

B-01297-14 Wednesday LEE LANE STAINCROSS 240 MTS WAKEFIELD ROAD Veh 1 M/C < 125 cc Going ahead W to E Ped M 22 Slight
 24/12/2014 Veh 1 M/C < 125 cc Going ahead W to E Dri M 22 Serious
R1: B 6428 2105hrs
 Darkness: no street lighting
E 433,732 Dry
N 410,652 Fine without high winds
 60 mph

Causation Factor:

1st: Impaired by alcohol

Participant:

Casualty 2

Confidence:

Very Likely

2nd: Dangerous action in carriageway

Casualty 2

Very Likely

3rd: Pedestrian wearing dark clothing at night

Casualty 2

DRIVER CONFRONTED BY DRUNK PED BUT NO TIME TO BRAKE AND COLL OCC.

B-00137-15 Wednesday WAKEFIELD ROAD STAINCROSS J/W LEE LANE Veh 1 Car Going ahead NW to SE Dri M 70 Slight
 11/02/2015 Veh 2 Car Turning right NE to NW
R1: A 61 1748hrs
R2: U Darkness: street lights present
E 433,512 Wet/Damp
N 410,533 Fine without high winds
 40 mph

Causation Factor:

1st: Disobeyed Give Way or Stop sign or markings

Participant:

Vehicle 2

Confidence:

Possible

2nd: Failed to look properly

Vehicle 2

Possible

3rd: Failed to look properly

Vehicle 1

Possible

4th: Junction restart

Vehicle 2

Possible

V1 TR ALONG CARR WHEN V2 EMERGED FROM JCT INTO PATH OF V1 AND COLL OCC.

Details of Personal Injury Accidents for Period - 01/01/2013 to 31/12/2017 (60) months

Selection:

Selected using Build Query : Local_auth = 'Barnsley'

Notes:

Nasser Jamili - Optima Highways

Police Ref.	Day	Location Description	Vehicles					Casualties			
	Date		Veh No	Type	Manv	Dir	Class	Sex	Age	Sev	
Road No.	Time										
2nd Road No.	D/L										
Grid Ref.	R.S.C										
	Weather										
	Speed										
	Account of Accident										
Causation Factor:											

B-01054-15 Monday HIGH STREET ROYSTON J/W Veh 1 Car O/take m/veh o/side W to E Dri M 35 Slight
16/11/2015 SUMMER LANE Veh 2 Car Starting W to E Dri F 35 Slight
R1: B 6428 0001hrs
R2: C 589 Darkness: street lights present
E 435,621 Dry
N 411,517 Fine without high winds
30 mph

Causation Factor:

1st: Failed to look properly
2nd: Failed to judge other persons path or speed

Participant:

Vehicle 1
Vehicle 1

Confidence:

Possible
Possible

V1 TV HIGH ST BEGINS TO OVTK VEH2 WHICH IS WAITING TO OVTK PARKED VEH. COLL OCCURS.

B-01215-15 Thursday WAKEFIELD ROAD BARNSELY JW Veh 1 Car Turning right SE to NE RSP M 27 Slight
24/12/2015 LEE LANE Veh 2 Car Turning right NE to NW
R1: A 61 1530hrs
R2: B 6428 Daylight:street lights present
E 433,514 Dry
N 410,532 Fine without high winds
40 mph

Causation Factor:

1st: Failed to look properly
2nd: Poor turn or manoeuvre

Participant:

Vehicle 2
Vehicle 2

Confidence:

Very Likely
Very Likely

VEH 1 INDICATING TO TURN RIGHT ONTO LEES LANE. VEH 2 PULLS OUT OF LEES LANE AND COLLIDED WITH VEH 1.

1659110 Monday LEE LANE (B6428) BARNSELY J/W Veh 1 Car Going ahead SW to NE FSP F Slight
11/04/2016 PRIVATE ENTRANCE Veh 2 Car Turning left NW to NE
R1: B 6428 0920hrs
R2: U Daylight:street lights present
E 434,748 Dry
N 411,233 Other
60 mph

V1 TRAVELLING ALONG LEE LANE TOWARDS ROYSTON, V2 PULLED OUT OF DRIVE WAY ONTO LEE LANE IN THE DIRECTION OF ROYSTON COLLIDING WITH V1

Details of Personal Injury Accidents for Period - 01/01/2013 to 31/12/2017 (60) months

Selection:

Selected using Build Query : Local_auth = 'Barnsley'

Notes:

Nasser Jamili - Optima Highways

Police Ref.	Day	Location Description	Vehicles				Casualties		
	Date		Veh No	Type	Manv	Dir	Class	Sex	Age / Sev
Road No.	Time								
2nd Road No.	D/L								
Grid Ref.	R.S.C								
	Weather								
	Speed								
	Account of Accident								
Causation Factor:									

16127553 Sunday LEE LANE (B6428) BARNSELEY Veh 1 Car Going ahead NE to SW Dri F 27 Slight
06/11/2016 Veh 2 Car Going ahead NE to SW
R1: B 6428 1900hrs
Darkness: no street lighting
E 433,704 Dry
N 410,638 Fine without high winds
60 mph

Causation Factor:

1st: Impaired by alcohol

Participant:

Vehicle 2

Confidence:

Possible

V2 COLL WITH REAR OF V1 CAUSING V1 TO CROSS ROAD AND END UP IN THE BUSHES. V2 FTS

16130923 Sunday WAKEFIELD ROAD (A61) BARNSELEY Veh 1 Car Going ahead NW to SE Dri M 91 Serious
13/11/2016 AT OR WITHIN 20 MTS OF LEE LANE Veh 2 Goods < 3.5t Turning left NE to SE
R1: A 61 1300hrs
(B6428)
R2: B 6428 Daylight:street lights present
E 433,518 Dry
N 410,531 Unknown
40 mph

Causation Factor:

1st: Disobeyed Give Way or Stop sign or markings

2nd: Failed to judge other persons path or speed

3rd: Failed to judge other persons path or speed

4th: Failed to look properly

5th: Illness or disability, mental or physical

Participant:

Vehicle 2

Vehicle 2

Vehicle 1

Vehicle 2

Vehicle 1

Confidence:

Very Likely

Very Likely

Very Likely

Very Likely

Very Likely

V1 TRAVELLED FROM DIRECTION OF SHAW LANE TURNING RIGHT INTO WAKEFIELD ROAD. V2 TRAVELLED FROM LEE LANE TURNING LEFT INTO WAKEFIELD ROAD AND A COLL OCCURRED.

17193122 Tuesday HIGH STREET (B6428) BARNSELEY AT Veh 1 Car Turning left N to E
13/06/2017 OR NR JN WITH WESTFIELDS Veh 2 Car Going ahead W to E Dri F 52 Serious
0631hrs Veh 3 Car Parked 0 to 0
R1: B 6428 Daylight:street lights present
R2: U
E 435,317 Dry
N 411,493 Fine without high winds
30 mph

Causation Factor:

1st: Careless/Reckless/In a hurry

Participant:

Vehicle 1

Confidence:

Very Likely

VEHICLE 1 HAS BEEN DRIVING OUT OF WESTFIELDS TURNING LEFT ONTO HIGH STREET, ROYSTON. VEHICLE 2 WAS TRAVELLING ON HIGH STREET TOWARDS ROYSTON, WHEN VEHICLE 1 HAS PULLED OUT COLLIDING WITH THE REAR NEAR SIDE OF VEHICLE 2. VEHICLE 2 HAS THEN SPUN AND COLLIDED WITH THE FRONT OFFSIDE OF VEHICLE 3 WHICH WAS PARKED ON THE PAVEMENT OUTSIDE 2 RAILWAY COURT. THIS CAUSED VEHICLE 3 TO SPIN AND COLLIDE WITH THE WALL OF RAILWAY COURT.

Accidents between dates 01/01/2013 and 31/12/2017 (60) months

Selection:

Notes:

Selected using Build Query : Local_auth = 'Barnsley'

Nasser Jamili - Optima Highways

B-00848-13 29/10/2013 Tuesday Time: 1200 Vehicles 2 Casualties 3 Slight
Easting: 433,516 Northing: 410,529
Raining without high winds Road Surface: Wet/Damp Daylight
Road Type: Single carriageway Speed Limit: 60

Location: LEE LN BARNSELY AT J/W WAKEFIELD RD

Description: V2 WAITING AT JCT ONCOMING VEH HAS FLASHED AND BELEIVING DRIVER WAS
GIVING WAY V2 EMERGED FROM JCT INOT PATH VF V1 AND COLL OCC.

Vehicle Reference: 1 Car Moving off
First point of impact: Offside
Vehicle direction: SE to NW Journey: Journey as part of work
Age of Driver : 42 Breath test: Not requested

Contributory Factors : 405 406 402 402

Casualty Reference: 1 Age: 42 Male Driver/rider Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Casualty Reference: 2 Age: 22 Male Passenger Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Casualty Reference: 3 Age: 17 Male Passenger Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Vehicle Reference: 2 Car Moving off
First point of impact: Front
Vehicle direction: NE to SW Journey: Other
Age of Driver : 72 Breath test: Not requested

Contributory Factors : 405 406 402 402

Accidents between dates 01/01/2013 and 31/12/2017 (60) months

Selection:

Notes:

Selected using Build Query : Local_auth = 'Barnsley'

Nasser Jamili - Optima Highways

B-00029-14 11/01/2014 Saturday Time: 1530 Vehicles 2 Casualties 1 Slight
Easting: 435,095 Northing: 411,404
Fine without high winds Road Surface: Dry Daylight
Road Type: Single carriageway Speed Limit: 30

Location: LEE LANE ROYSTON J/W APPLEHAIGH VIEW

Description: DRIVER OF V1 STOPPED AND GOT OUT TO CHECK VEH WHEN V2 COLL WITH REAR AND LEFT THE SCENE.

Vehicle Reference: 1 Car Parked

First point of impact: Back

Vehicle direction: Parked to Parked

Journey: Other

Age of Driver : 39

Breath test: Not requested

Contributory Factors : 308 406

Casualty Reference: 1 Age: 39 Male Driver/rider Severity: Slight

Ped Dir: Ped Movement :

Ped Location:

Vehicle Reference: 2 Car Going ahead

First point of impact: Front

Vehicle direction: W to E

Journey: Other

Age of Driver :

Breath test: Driver not contacted

Contributory Factors : 308 406

Accidents between dates 01/01/2013 and 31/12/2017 (60) months

Selection:

Notes:

Selected using Build Query : Local_auth = 'Barnsley'

Nasser Jamili - Optima Highways

B-00273-14 26/03/2014 Wednesda Time: 0835 Vehicles 2 Casualties 2 Slight
Easting: 434,696 Northing: 411,199
Fine without high winds Road Surface: Wet/Damp Daylight
Road Type: Single carriageway Speed Limit: 60

Location: LEE LANE ROYSTON 435 MTS APPLEHAIGH VIEW

Description: V2 SLOWING DOWN INTENDING TO TURN RGT, V1 FOLLOWING FAILED TO REACT IN TIME AND COLL WITH REAR OF V2.

Vehicle Reference: 1 Car Going ahead
First point of impact: Front
Vehicle direction: NE to SW Journey: Commuting to/from work
Age of Driver : 18 Breath test: Negative

Contributory Factors : 406 405 605

Vehicle Reference: 2 Car Slowing or Stopping
First point of impact: Back
Vehicle direction: NE to SW Journey: Pupil riding to/from school
Age of Driver : 37 Breath test: Negative

Contributory Factors : 406 405 605

Casualty Reference: 1 Age: 37 Female Driver/rider Severity: Slight

Ped Dir: Ped Movement :

Ped Location:

Casualty Reference: 2 Age: 47 Male Passenger Severity: Slight

Ped Dir: Ped Movement :

Ped Location:

Accidents between dates 01/01/2013 and 31/12/2017 (60) months

Selection:

Notes:

Selected using Build Query : Local_auth = 'Barnsley'

Nasser Jamili - Optima Highways

B-00343-14 10/04/2014 Thursday Time: 1859 Vehicles 2 Casualties 2 Slight
Easting: 433,534 Northing: 410,547
Fine without high winds Road Surface: Dry Daylight
Road Type: Single carriageway Speed Limit: 60

Location: LEE LANE BARNSELY 20 MTS WAKEFIELD ROAD

Description: V2 STATIONARY IN TF ON ROYSTON LN WAITING TO JOIN WAKEFIELD RD, V1
ON WAKEFIELD RD TURNING INTO ROYSTON LN COLLIDED WITH F/O/S OF V2
CAUSING V1 TO TURN ONTO SIDE.

Vehicle Reference: 1 Car

Turning left

First point of impact: Front

Vehicle direction: NW to NE

Journey: Other

Age of Driver : 26

Breath test: Negative

Contributory Factors : 401

Casualty Reference: 1 Age: 26 Female Driver/rider Severity: Slight

Ped Dir: Ped Movement :

Ped Location:

Vehicle Reference: 2 Car

Waiting to go ahead but held up

First point of impact: Offside

Vehicle direction: NE to SW

Journey: Other

Age of Driver : 29

Breath test: Not requested

Contributory Factors : 401

Casualty Reference: 2 Age: 29 Female Driver/rider Severity: Slight

Ped Dir: Ped Movement :

Ped Location:

Accidents between dates 01/01/2013 and 31/12/2017 (60) months

Selection:

Notes:

Selected using Build Query : Local_auth = 'Barnsley'

Nasser Jamili - Optima Highways

B-00645-14 14/07/2014 Monday Time: 1200 Vehicles 4 Casualties 5 Slight
Easting: 433,771 Northing: 410,672
Fine without high winds Road Surface: Dry Daylight
Road Type: Single carriageway Speed Limit: 60

Location: LEE LANE ROYSTON 280 MTS WAKEFIELD ROAD

Description: TRAFFIC STATIONARY TO ALLOW TRACTOR TO TURN, V1 FAILED TO REACT IN TIME AND COLL WITH REAR OF V2 PUSHING IT INTO V3 PUSHING IT INTO V4.

Vehicle Reference: 1 Car Going ahead
First point of impact: Front
Vehicle direction: SW to NE Journey: Other
Age of Driver : 25 Breath test: Positive
Contributory Factors : 306 307

Vehicle Reference: 2 Car Waiting to go ahead but held up
First point of impact: Back
Vehicle direction: SW to NE Journey: Other
Age of Driver : 26 Breath test: Not requested
Contributory Factors : 306 307

Casualty Reference: 1 Age: 26 Female Driver/rider Severity: Slight

Ped Dir: Ped Movement :

Ped Location:

Accidents between dates 01/01/2013 and 31/12/2017 (60) months

Selection:

Notes:

Selected using Build Query : Local_auth = 'Barnsley'

Nasser Jamili - Optima Highways

Vehicle Reference: 3 Car Waiting to go ahead but held up
First point of impact: Back
Vehicle direction: SW to NE Journey: Other
Age of Driver : 30 Breath test: Not requested

Contributory Factors : 306 307

Casualty Reference: 2 Age: 30 Male Driver/rider Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Casualty Reference: 3 Age: 33 Female Passenger Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Casualty Reference: 4 Age: 3 Female Passenger Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Casualty Reference: 5 Age: 1 Male Passenger Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Vehicle Reference: 4 Car Waiting to go ahead but held up
First point of impact: Back
Vehicle direction: SW to NE Journey: Other
Age of Driver : 46 Breath test: Not requested
Contributory Factors : 306 307

Accidents between dates 01/01/2013 and 31/12/2017 (60) months

Selection:

Notes:

Selected using Build Query : Local_auth = 'Barnsley'

Nasser Jamili - Optima Highways

B-00849-14 16/09/2014 Tuesday Time: 1836 Vehicles 2 Casualties 1 Slight
Easting: 435,085 Northing: 411,398
Fine without high winds Road Surface: Dry Daylight
Road Type: Single carriageway Speed Limit: 30

Location: LEE LANE ROYSTON J/W APPLEHAIGH VIEW

Description: V1 PULLED OUT OF JUNCTION TURNING RIGHT AND COLL WITH V2 ON MAIN C/W

Vehicle Reference: 1 Car

Turning right

First point of impact: Front

Vehicle direction: N to W

Journey: Commuting to/from work

Age of Driver : 44

Breath test: Not requested

Contributory Factors : 405

Vehicle Reference: 2 Pedal cycle

Going ahead

First point of impact: Front

Vehicle direction: E to W

Journey: Other

Age of Driver : 45

Breath test: Not requested

Contributory Factors : 405

Casualty Reference: 1 Age: 45 Male Driver/rider Severity: Slight

Ped Dir: Ped Movement :

Ped Location:

Accidents between dates 01/01/2013 and 31/12/2017 (60) months

Selection:

Notes:

Selected using Build Query : Local_auth = 'Barnsley'

Nasser Jamili - Optima Highways

B-01107-14 17/11/2014 Monday Time: 1745 Vehicles 2 Casualties 2 Slight
Easting: 433,474 Northing: 410,553
Fog or mist Road Surface: Dry Darkness: street lighting unknown
Road Type: Single carriageway Speed Limit: 40

Location: SHAW LANE MAPPLEWELL J/W WAKEFIELD ROAD

Description: V1 STATIONARY AT JCT, V2 FOLLOWING FAILED TO REACT IN TIME AND COLL WITH REAR OF V1.

Vehicle Reference: 1 Car Waiting to go ahead but held up
First point of impact: Back
Vehicle direction: W to E Journey: Other
Age of Driver : 21 Breath test: Driver not contacted
Contributory Factors : 405

Casualty Reference: 1 Age: 21 Female Driver/rider Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Casualty Reference: 2 Age: 21 Female Passenger Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Vehicle Reference: 2 Car Going ahead
First point of impact: Front
Vehicle direction: W to E Journey: Other
Age of Driver : 80 Breath test: Driver not contacted
Contributory Factors : 405

Accidents between dates 01/01/2013 and 31/12/2017 (60) months

Selection:

Notes:

Selected using Build Query : Local_auth = 'Barnsley'

Nasser Jamili - Optima Highways

B-01297-14 24/12/2014 Wednesda Time: 2105 Vehicles 1 Casualties 2 Serious

Easting: 433,732 Northing: 410,652

Fine without high winds Road Surface: Dry Darkness: no street lighting

Road Type: Single carriageway Speed Limit: 60

Location: LEE LANE STAINCROSS 240 MTS WAKEFIELD ROAD

Description: DRIVER CONFRONTED BY DRUNK PED BUT NO TIME TO BRAKE AND COLL OCC.

Vehicle Reference: 1 Motorcycle over 50cc and up Going ahead

First point of impact: Front

Vehicle direction: W to E

Journey: Journey as part of work

Age of Driver : 22

Breath test: Negative

Contributory Factors : 806 805 809

Casualty Reference: 1 Age: 22 Male Driver/rider Severity: Serious

Ped Dir: Ped Movement :

Ped Location:

Casualty Reference: 2 Age: 22 Male Pedestrian Severity: Slight

Ped Dir: 9 Ped Movement : Movement U/K

Ped Location: In carr not crossing

Accidents between dates 01/01/2013 and 31/12/2017 (60) months

Selection:

Notes:

Selected using Build Query : Local_auth = 'Barnsley'

Nasser Jamili - Optima Highways

B-00137-15 11/02/2015 Wednesda Time: 1748 Vehicles 2 Casualties 1 Slight

Easting: 433,512 Northing: 410,533

Fine without high winds Road Surface: Wet/Damp Darkness: street lights present and lit

Road Type: Single carriageway Speed Limit: 40

Location: WAKEFIELD ROAD STAINCROSS J/W LEE LANE

Description: V1 TR ALONG CARR WHEN V2 EMERGED FROM JCT INTO PATH OF V1 AND COLL OCC.

Vehicle Reference: 1 Car

Going ahead

First point of impact: Front

Vehicle direction: NW to SE

Journey: Other

Age of Driver : 70

Breath test: Not requested

Contributory Factors : 302 405 405 402

Casualty Reference: 1 Age: 70 Male Driver/rider Severity: Slight

Ped Dir: Ped Movement :

Ped Location:

Vehicle Reference: 2 Car

Turning right

First point of impact: Offside

Vehicle direction: NE to NW

Journey: Other

Age of Driver : 45

Breath test: Negative

Contributory Factors : 302 405 405 402

Accidents between dates 01/01/2013 and 31/12/2017 (60) months

Selection:

Notes:

Selected using Build Query : Local_auth = 'Barnsley'

Nasser Jamili - Optima Highways

B-01054-15 16/11/2015 Monday Time: 0001 Vehicles 2 Casualties 2 Slight
Easting: 435,621 Northing: 411,517
Fine without high winds Road Surface: Dry Darkness: street lights present and lit
Road Type: Single carriageway Speed Limit: 30

Location: HIGH STREET ROYSTON J/W SUMMER LANE

Description: V1 TV HIGH ST BEGINS TO OVTK VEH2 WHICH IS WAITING TO OVTK PARKED
VEH. COLL OCCURS.

Vehicle Reference: 1 Car Overtaking moving vehicle on its offside
First point of impact: Nearside
Vehicle direction: W to E Journey: Commuting to/from work
Age of Driver : 35 Breath test: Not requested

Contributory Factors : 405 406

Casualty Reference: 1 Age: 35 Male Driver/rider Severity: Slight

Ped Dir: Ped Movement :

Ped Location:

Vehicle Reference: 2 Car Moving off
First point of impact: Offside
Vehicle direction: W to E Journey: Other
Age of Driver : 35 Breath test: Not requested

Contributory Factors : 405 406

Casualty Reference: 2 Age: 35 Female Driver/rider Severity: Slight

Ped Dir: Ped Movement :

Ped Location:

Accidents between dates 01/01/2013 and 31/12/2017 (60) months

Selection:

Notes:

Selected using Build Query : Local_auth = 'Barnsley'

Nasser Jamili - Optima Highways

B-01215-15 24/12/2015 Thursday Time: 1530 Vehicles 2 Casualties 1 Slight
Easting: 433,514 Northing: 410,532
Fine without high winds Road Surface: Dry Daylight
Road Type: Single carriageway Speed Limit: 40

Location: WAKEFIELD ROAD BARNSELY JW LEE LANE

Description: VEH 1 INDICATING TO TURN RIGHT ONTO LEES LANE. VEH 2 PULLS OUT OF LEES LANE AND COLLIDED WITH VEH 1.

Vehicle Reference: 1 Car Turning right
First point of impact: Front
Vehicle direction: SE to NE Journey: Other
Age of Driver : 59 Breath test: Driver not contacted
Contributory Factors : 405 403

Casualty Reference: 1 Age: 27 Male Passenger Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Vehicle Reference: 2 Car Turning right
First point of impact: Front
Vehicle direction: NE to NW Journey: Other
Age of Driver : Breath test: Driver not contacted
Contributory Factors : 405 403

Accidents between dates 01/01/2013 and 31/12/2017 (60) months

Selection:

Notes:

Selected using Build Query : Local_auth = 'Barnsley'

Nasser Jamili - Optima Highways

1659110 11/04/2016 Monday Time: 0920 Vehicles 2 Casualties 1 Slight
Easting: 434,748 Northing: 411,233
Other Road Surface: Dry Daylight
Road Type: Single carriageway Speed Limit: 60

Location: LEE LANE (B6428) BARNSELY J/W PRIVATE ENTRANCE

Description: V1 TRAVELLING ALONG LEE LANE TOWARDS ROYSTON, V2 PULLED OUT OF DRIVE WAY ONTO LEE LANE IN THE DIRECTION OF ROYSTON COLLIDING WITH V1

Vehicle Reference: 1 Car

Going ahead

First point of impact: Front

Vehicle direction: SW to NE

Journey: Commuting to/from work

Age of Driver : 47

Breath test: Driver not contacted

Contributory Factors :

Casualty Reference: 1 Age: Female Passenger Severity: Slight

Ped Dir: Ped Movement :

Ped Location:

Vehicle Reference: 2 Car

Turning left

First point of impact: Offside

Vehicle direction: NW to NE

Journey: Not known

Age of Driver :

Breath test: Driver not contacted

Contributory Factors :

Accidents between dates 01/01/2013 and 31/12/2017 (60) months

Selection:

Notes:

Selected using Build Query : Local_auth = 'Barnsley'

Nasser Jamili - Optima Highways

16127553 06/11/2016 Sunday Time: 1900 Vehicles 2 Casualties 1 Slight

Easting: 433,704 Northing: 410,638

Fine without high winds Road Surface: Dry Darkness: no street lighting

Road Type: Single carriageway Speed Limit: 60

Location: LEE LANE (B6428) BARNSELY

Description: V2 COLL WITH REAR OF V1 CAUSING V1 TO CROSS ROAD AND END UP IN THE BUSHES. V2 FTS

Vehicle Reference: 1 Car

Going ahead

First point of impact: Back

Vehicle direction: NE to SW

Journey: Other

Age of Driver : 27

Breath test: Not requested

Contributory Factors : 501

Casualty Reference: 1 Age: 27 Female Driver/rider Severity: Slight

Ped Dir: Ped Movement :

Ped Location:

Vehicle Reference: 2 Car

Going ahead

First point of impact: Front

Vehicle direction: NE to SW

Journey: Not known

Age of Driver :

Breath test: Driver not contacted

Contributory Factors : 501

Accidents between dates 01/01/2013 and 31/12/2017 (60) months

Selection:

Notes:

Selected using Build Query : Local_auth = 'Barnsley'

Nasser Jamili - Optima Highways

16130923 13/11/2016 Sunday Time: 1300 Vehicles 2 Casualties 1 Serious
Easting: 433,518 Northing: 410,531
Unknown Road Surface: Dry Daylight
Road Type: Single carriageway Speed Limit: 40

Location: WAKEFIELD ROAD (A61) BARNSELY AT OR WITHIN 20 MTS OF LEE LANE (B6428)
Description: V1 TRAVELLED FROM DIRECTION OF SHAW LANE TURNING RIGHT INTO
WAKEFIELD ROAD. V2 TRAVELLED FROM LEE LANE TURNING LEFT INTO
WAKEFIELD ROAD AND A COLL OCCURRED.

Vehicle Reference: 1 Car Going ahead
First point of impact: Front
Vehicle direction: NW to SE Journey: Other
Age of Driver : 91 Breath test: Not requested

Contributory Factors : 302 406 406 405 505

Casualty Reference: 1 Age: 91 Male Driver/rider Severity: Serious

Ped Dir: Ped Movement :

Ped Location:

Vehicle Reference: 2 Van or Goods <= 3.5 tonnes Turning left
First point of impact: Offside
Vehicle direction: NE to SE Journey: Journey as part of work
Age of Driver : 21 Breath test: Not requested

Contributory Factors : 302 406 406 405 505

Accidents between dates 01/01/2013 and 31/12/2017 (60) months

Selection:

Notes:

Selected using Build Query : Local_auth = 'Barnsley'

Nasser Jamili - Optima Highways

17193122 13/06/2017 Tuesday Time: 0631 Vehicles 3 Casualties 1 Serious
 Easting: 435,317 Northing: 411,493
 Fine without high winds Road Surface: Dry Daylight
 Road Type: Single carriageway Speed Limit: 30

Location: HIGH STREET (B6428) BARNSELY AT OR NR JN WITH WESTFIELDS
 Description: VEHICLE 1 HAS BEEN DRIVING OUT OF WESTFIELDS TURNING LEFT ONTO HIGH STREET, ROYSTON. VEHICLE 2 WAS TRAVELLING ON HIGH STREET TOWARDS ROYSTON, WHEN VEHICLE 1 HAS PULLED OUT COLLIDING WITH THE REAR NEAR SIDE OF VEHICLE 2. VEHICLE 2 HAS THEN SPUN AND COLLIDED WITH THE FRONT OFFSIDE OF VEHICLE 3 WHICH WAS PARKED ON THE PAVEMENT OUTSIDE 2 RAILWAY COURT. THIS CAUSED VEHICLE 3 TO SPIN AND COLLIDE WITH THE WALL OF RAILWAY COURT.

Vehicle Reference: 1 Car Turning left
 First point of impact: Front
 Vehicle direction: N to E Journey: Journey as part of work
 Age of Driver : 66 Breath test: Not requested

Contributory Factors : 602

Vehicle Reference: 2 Car Going ahead
 First point of impact: Back
 Vehicle direction: W to E Journey: Journey as part of work
 Age of Driver : 52 Breath test: Not requested

Contributory Factors : 602

Casualty Reference: 1 Age: 52 Female Driver/rider Severity: Serious

Ped Dir: Ped Movement :

Ped Location:

Vehicle Reference: 3 Car Parked
 First point of impact: Back
 Vehicle direction: Parked to Parked Journey: Other
 Age of Driver : 53 Breath test: Not requested

Contributory Factors : 602

Appendix D Access Junction Design



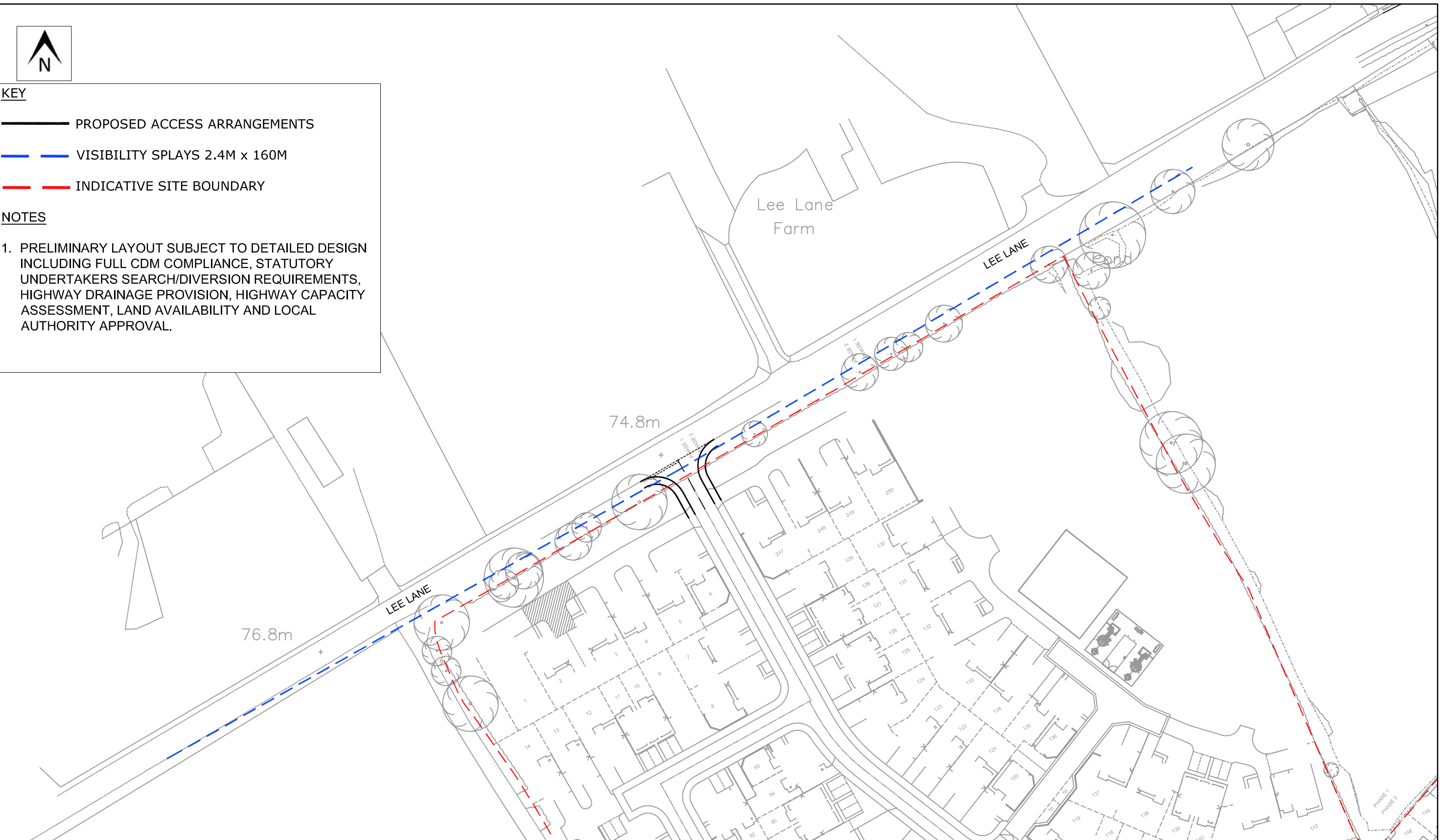


KEY

- PROPOSED ACCESS ARRANGEMENTS
- VISIBILITY SPLAYS 2.4M x 160M
- INDICATIVE SITE BOUNDARY

NOTES

1. PRELIMINARY LAYOUT SUBJECT TO DETAILED DESIGN INCLUDING FULL CDM COMPLIANCE, STATUTORY UNDERTAKERS SEARCH/DIVERSION REQUIREMENTS, HIGHWAY DRAINAGE PROVISION, HIGHWAY CAPACITY ASSESSMENT, LAND AVAILABILITY AND LOCAL AUTHORITY APPROVAL.

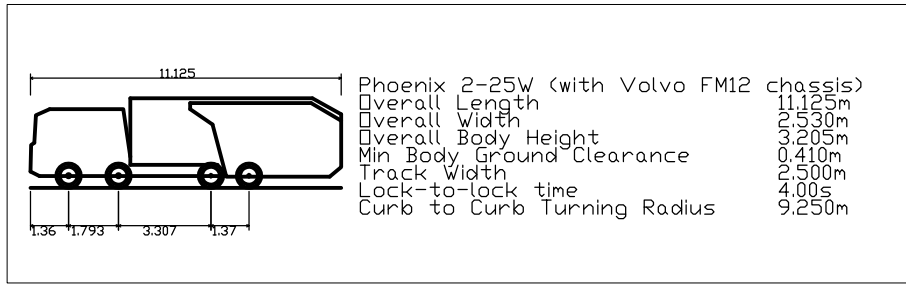
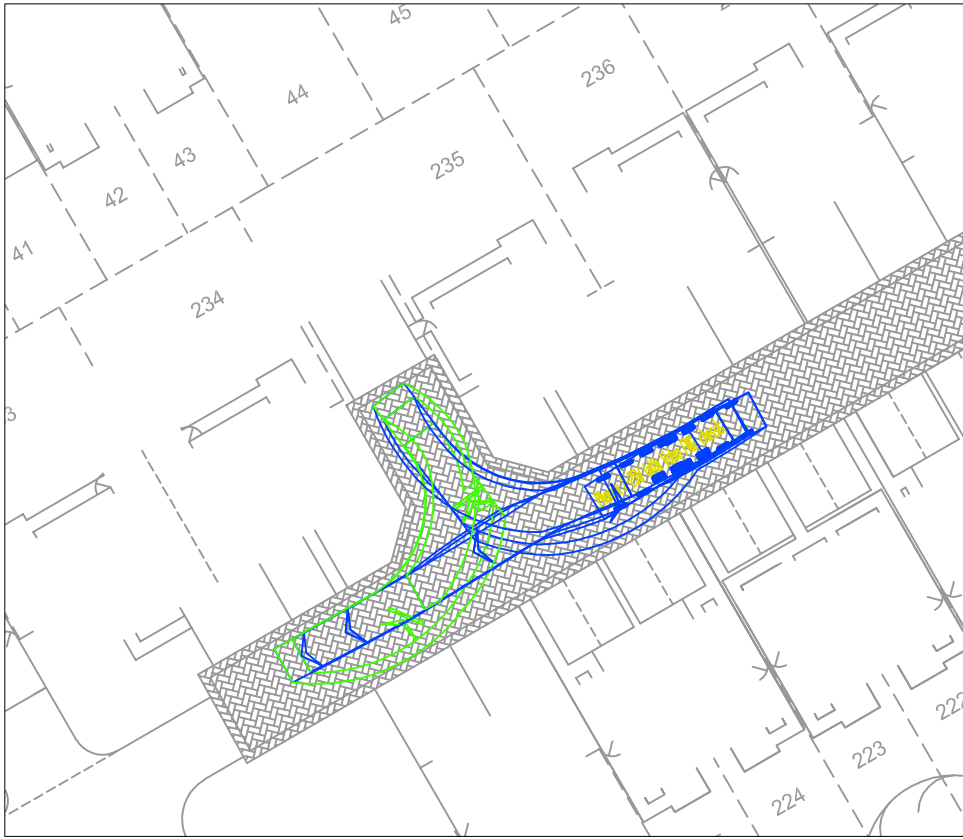
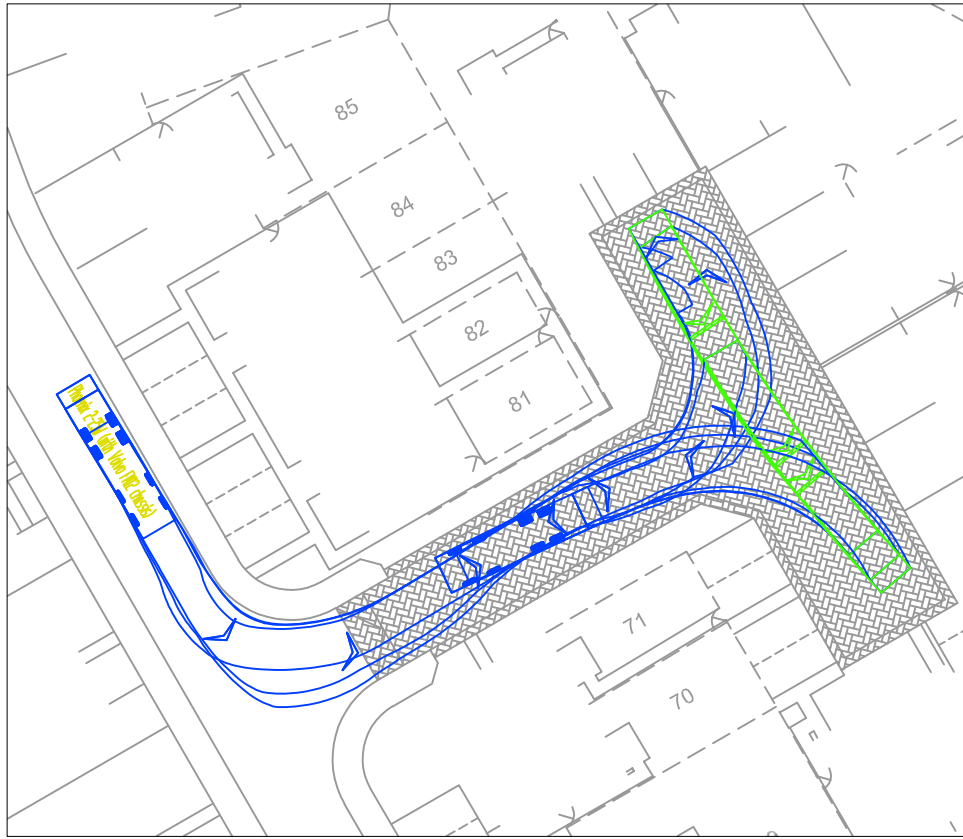
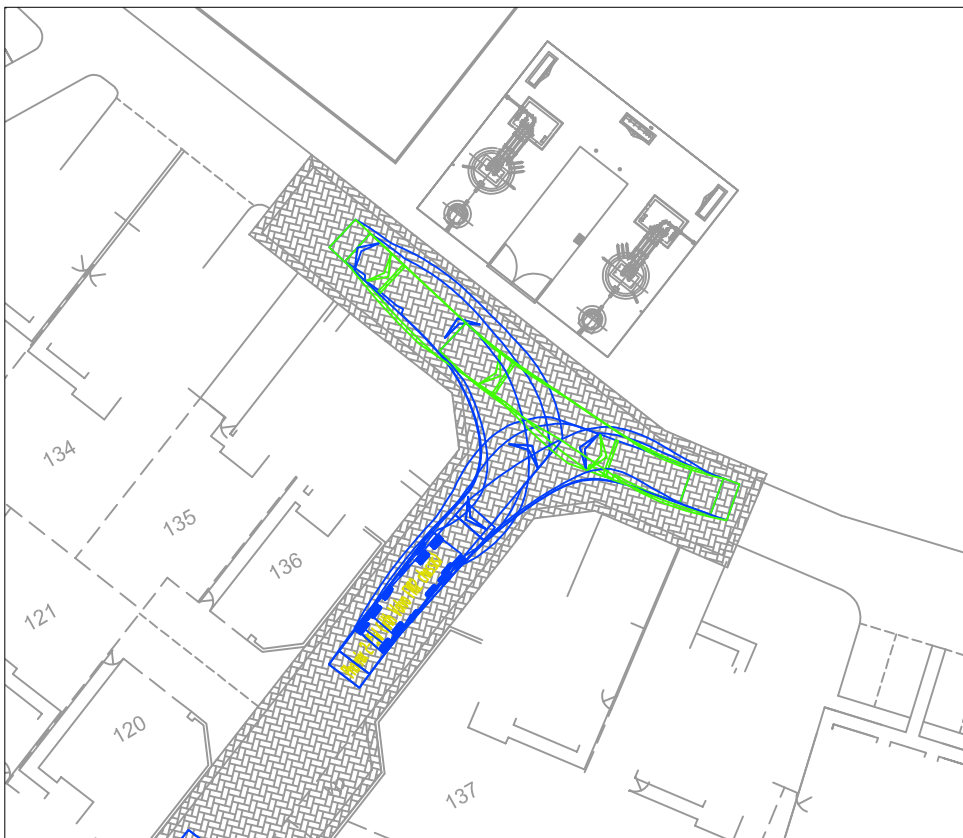
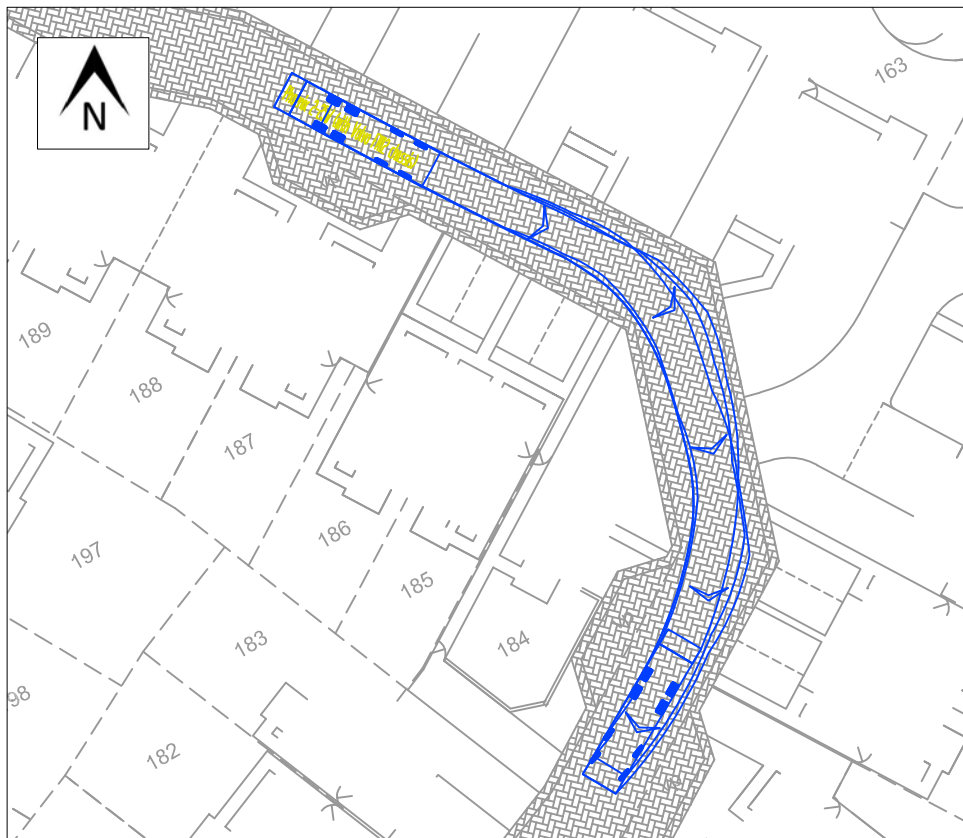


						PROJECT	CLIENT		
						LEE LANE, ROYSTON	BELLWAY HOMES LTD		
-	07/01/19	NJ	INITIAL ISSUE	TP	TP	DRAWING TITLE	CHECKED	APPROVED	DRG No.
REV	DATE	BY	DESCRIPTION	CHK	APP	PROPOSED ACCESS ARRANGEMENT	TP	TP	18085/GA/01
STATUS							DRAWN BY:	SCALE @ A3	DATE
PRELIMINARY							NJ	1:1000	07/01/19
								REV.	-


OPTIMA
Intelligent Highway Solutions
Suite 1, 3rd Floor, Goodbard House, Infirmary Street
Leeds LS1 2JP
optimahighways.com T 0113 245 1679

Appendix E Vehicle Tracking





						PROJECT	CLIENT			 OPTIMA Intelligent Highway Solutions Suite 1, 3rd Floor, Goodbard House, Infirmary Street Leeds LS1 2JP optimahighways.com T 0113 245 1679
						LEE LANE, ROYSTON	BELLWAY HOMES LTD			
-	07/01/19	NJ	INITIAL ISSUE	TP	TP	DRAWING TITLE	CHECKED	APPROVED	DRG No.	
REV	DATE	BY	DESCRIPTION	CHK	APP	SWEPT PATH ANALYSIS	TP	TP	18085/ATR/01	
STATUS										
PRELIMINARY							DRAWN BY:	SCALE @ A3	DATE	REV.
							NJ	1:500	07/01/19	-

Appendix F TRICS Data



Calculation Reference: AUDIT-750701-181123-1133

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

02	SOUTH EAST	
	ES EAST SUSSEX	1 days
	KC KENT	1 days
	WS WEST SUSSEX	2 days
06	WEST MIDLANDS	
	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:	151 to 288 (units:)
Range Selected by User:	150 to 350 (units:)

Public Transport Provision:

Selection by:	Include all surveys
---------------	---------------------

Date Range:	01/01/10 to 19/04/18
-------------	----------------------

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	1 days
Wednesday	2 days
Thursday	2 days

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

Selected survey types:

Manual count	5 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 undertaken using machines.

Selected Locations:

Edge of Town	5
--------------	---

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

Selected Location Sub Categories:

Residential Zone	5
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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	5 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®.

Secondary Filtering selection (Cont.):

Population within 1 mile:

5,001 to 10,000	1 days
10,001 to 15,000	4 days

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

Population within 5 miles:

50,001 to 75,000	1 days
75,001 to 100,000	2 days
125,001 to 250,000	2 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	5 days
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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	2 days
No	3 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	5 days
-----------------	--------

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

LIST OF SITES relevant to selection parameters

1	ES-03-A-03 SHEPHAM LANE POLEGATE	MIXED HOUSES & FLATS	EAST SUSSEX
	Edge of Town Residential Zone Total Number of dwellings:	212	
	Survey date: MONDAY	11/07/16	Survey Type: MANUAL
2	KC-03-A-07 RECVLVER ROAD HERNE BAY	MIXED HOUSES	KENT
	Edge of Town Residential Zone Total Number of dwellings:	288	
	Survey date: WEDNESDAY	27/09/17	Survey Type: MANUAL
3	ST-03-A-07 BEACONSIDE STAFFORD MARSTON GATE	DETACHED & SEMI-DETACHED	STAFFORDSHIRE
	Edge of Town Residential Zone Total Number of dwellings:	248	
	Survey date: WEDNESDAY	22/11/17	Survey Type: MANUAL
4	WS-03-A-04 HILLS FARM LANE HORSHAM BROADBRIDGE HEATH	MIXED HOUSES	WEST SUSSEX
	Edge of Town Residential Zone Total Number of dwellings:	151	
	Survey date: THURSDAY	11/12/14	Survey Type: MANUAL
5	WS-03-A-08 ROUNDSTONE LANE ANGMERING	MIXED HOUSES	WEST SUSSEX
	Edge of Town Residential Zone Total Number of dwellings:	180	
	Survey date: THURSDAY	19/04/18	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.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
VEHICLES

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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	5	216	0.108	5	216	0.302	5	216	0.410
08:00 - 09:00	5	216	0.158	5	216	0.382	5	216	0.540
09:00 - 10:00	5	216	0.151	5	216	0.170	5	216	0.321
10:00 - 11:00	5	216	0.134	5	216	0.157	5	216	0.291
11:00 - 12:00	5	216	0.146	5	216	0.179	5	216	0.325
12:00 - 13:00	5	216	0.165	5	216	0.152	5	216	0.317
13:00 - 14:00	5	216	0.180	5	216	0.158	5	216	0.338
14:00 - 15:00	5	216	0.196	5	216	0.195	5	216	0.391
15:00 - 16:00	5	216	0.276	5	216	0.187	5	216	0.463
16:00 - 17:00	5	216	0.274	5	216	0.181	5	216	0.455
17:00 - 18:00	5	216	0.359	5	216	0.162	5	216	0.521
18:00 - 19:00	5	216	0.285	5	216	0.200	5	216	0.485
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.432			2.425			4.857

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.

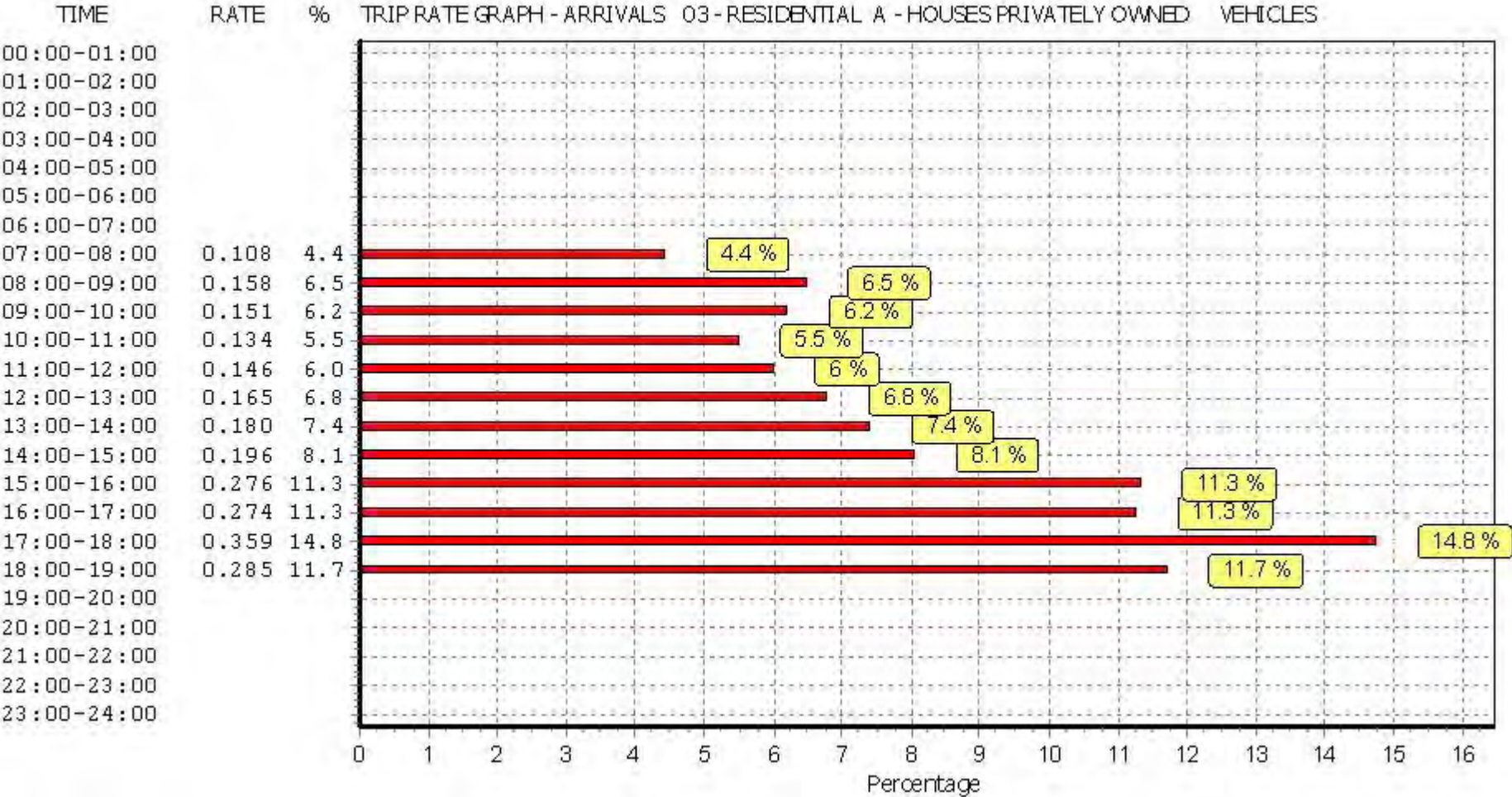
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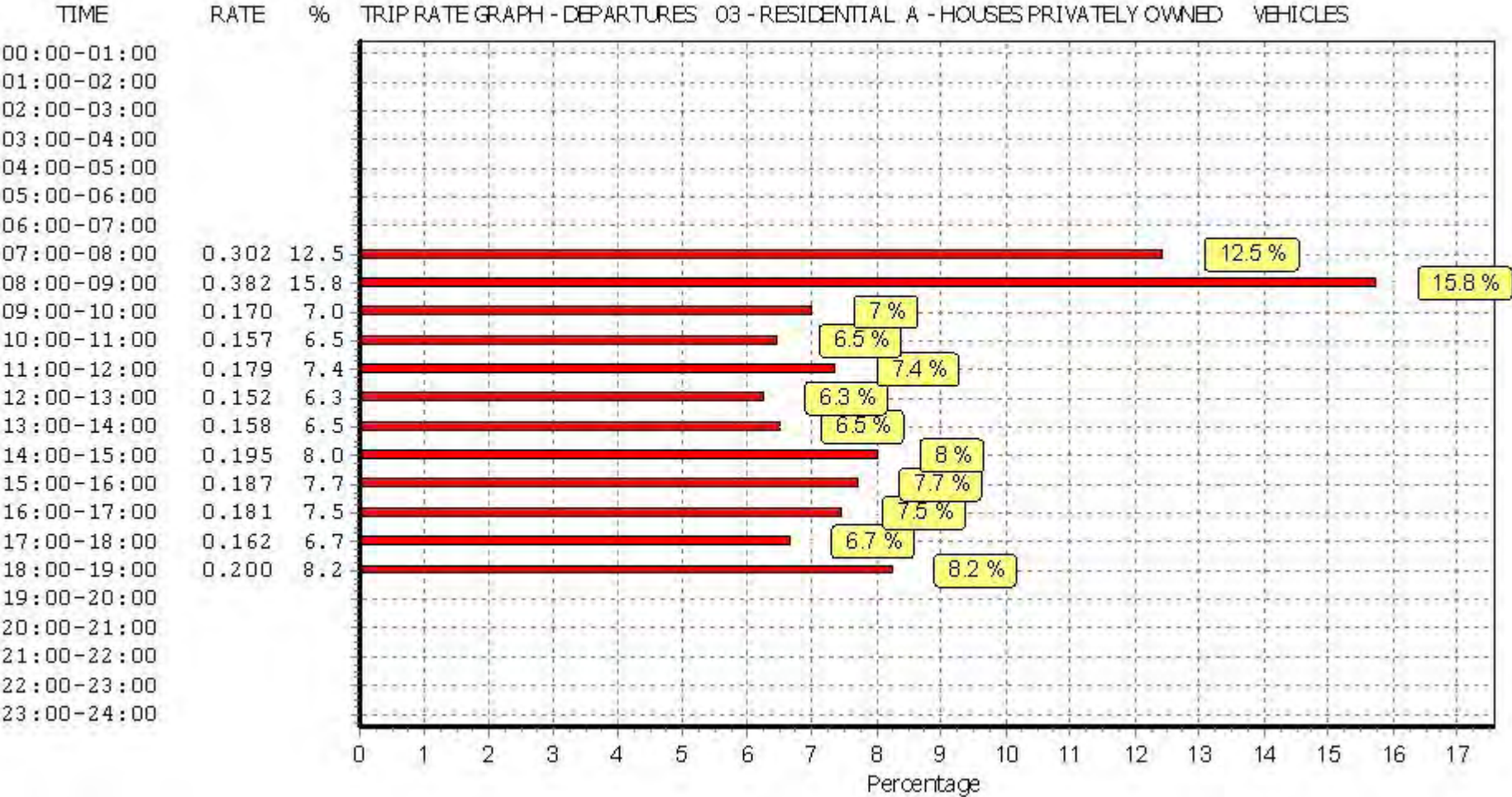
Parameter summary

Trip rate parameter range selected:	151 - 288 (units:)
Survey date date range:	01/01/10 - 19/04/18
Number of weekdays (Monday-Friday):	5
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

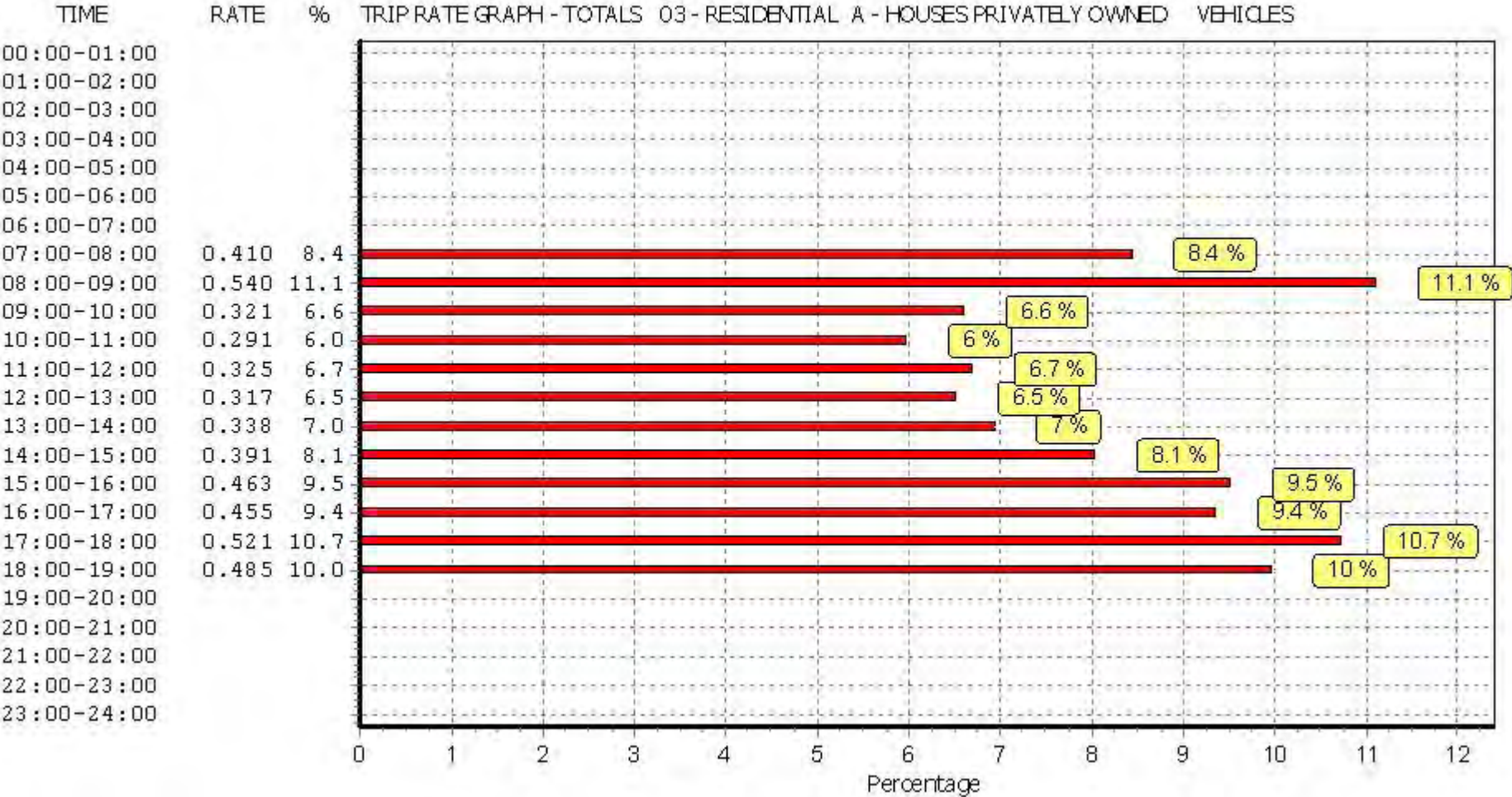
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected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



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

TAXIS

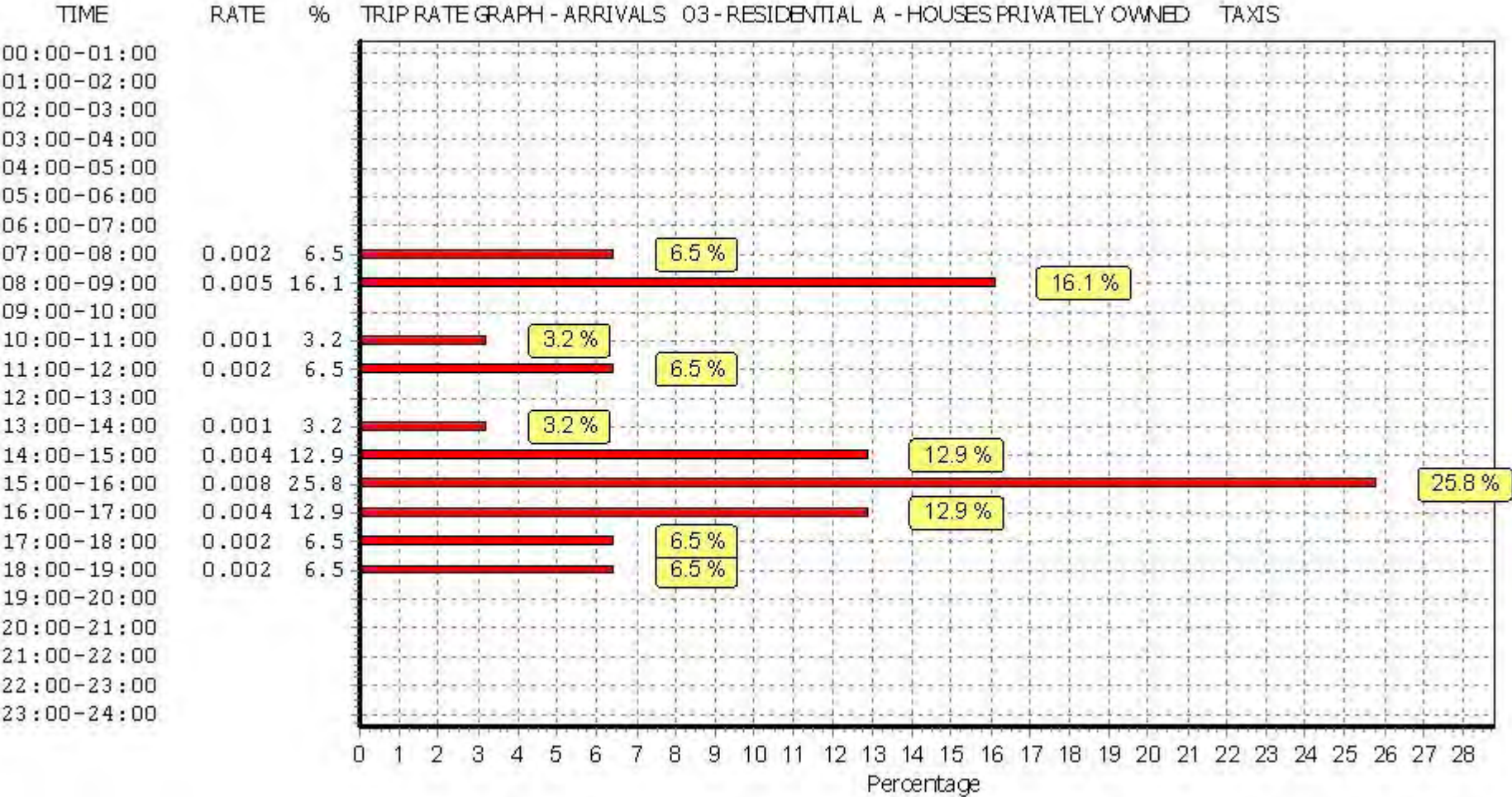
Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

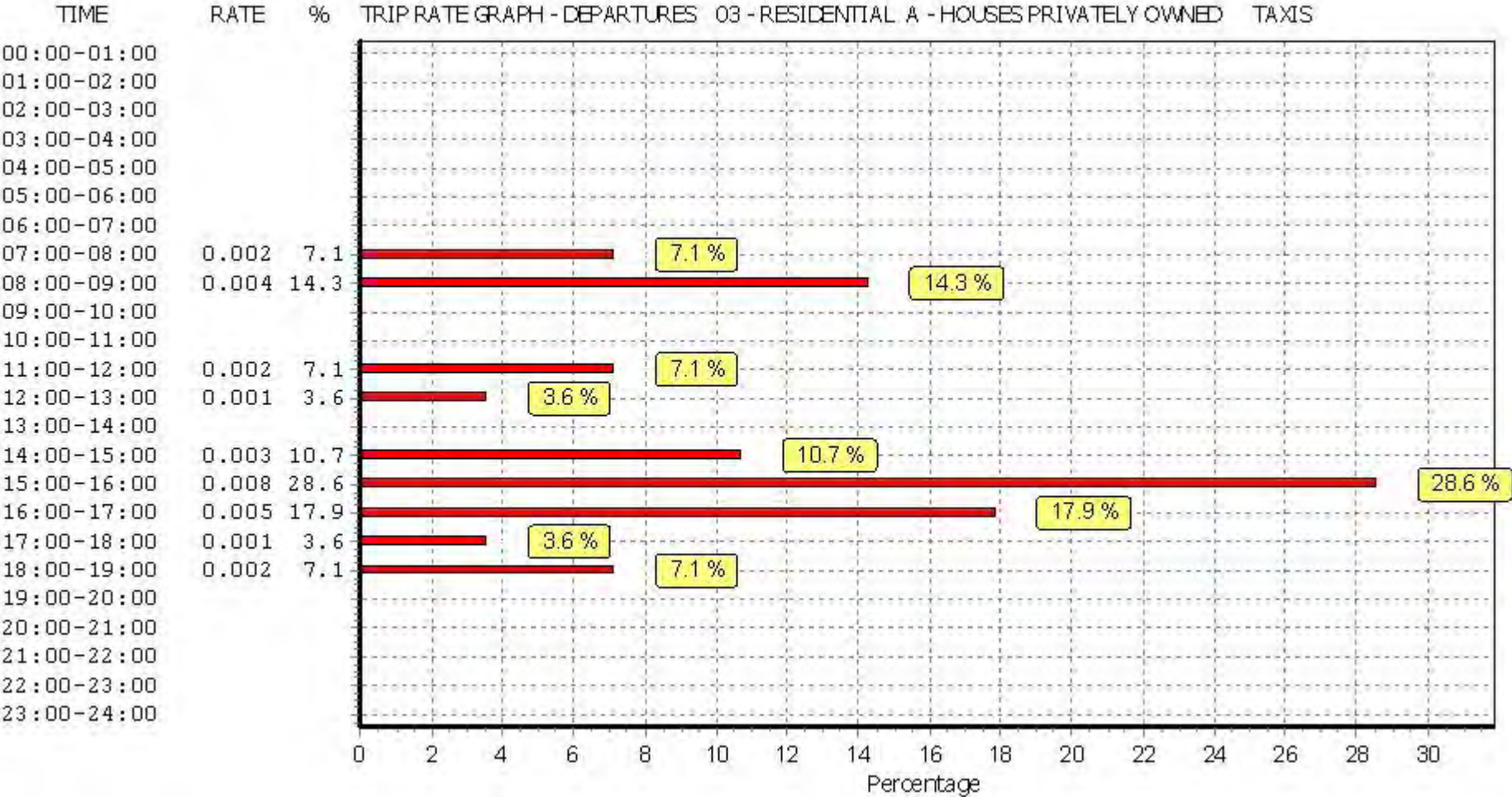
Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	5	216	0.002	5	216	0.002	5	216	0.004
08:00 - 09:00	5	216	0.005	5	216	0.004	5	216	0.009
09:00 - 10:00	5	216	0.000	5	216	0.000	5	216	0.000
10:00 - 11:00	5	216	0.001	5	216	0.000	5	216	0.001
11:00 - 12:00	5	216	0.002	5	216	0.002	5	216	0.004
12:00 - 13:00	5	216	0.000	5	216	0.001	5	216	0.001
13:00 - 14:00	5	216	0.001	5	216	0.000	5	216	0.001
14:00 - 15:00	5	216	0.004	5	216	0.003	5	216	0.007
15:00 - 16:00	5	216	0.008	5	216	0.008	5	216	0.016
16:00 - 17:00	5	216	0.004	5	216	0.005	5	216	0.009
17:00 - 18:00	5	216	0.002	5	216	0.001	5	216	0.003
18:00 - 19:00	5	216	0.002	5	216	0.002	5	216	0.004
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.031			0.028			0.059

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.

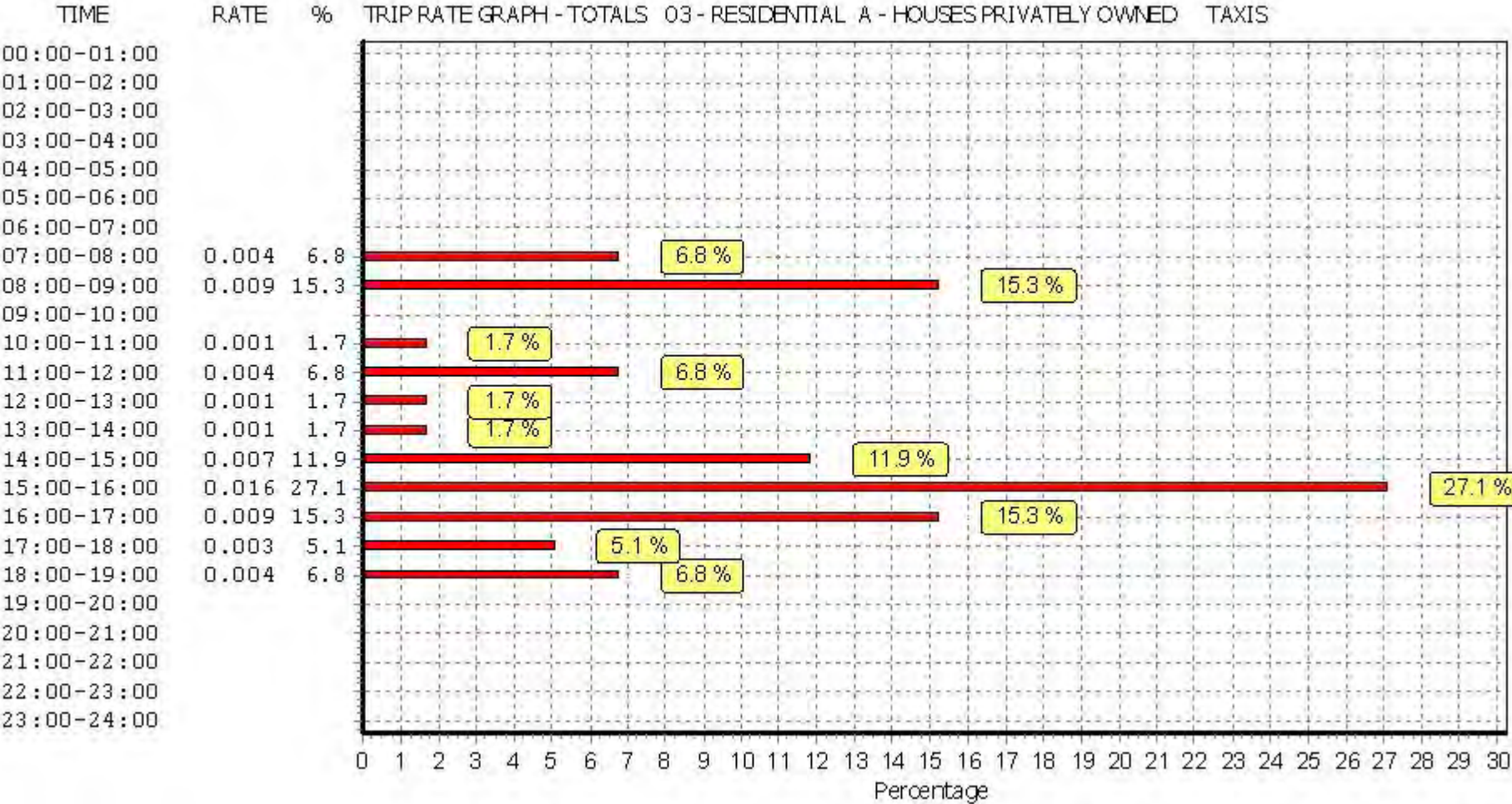
To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected 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.



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

OGVS

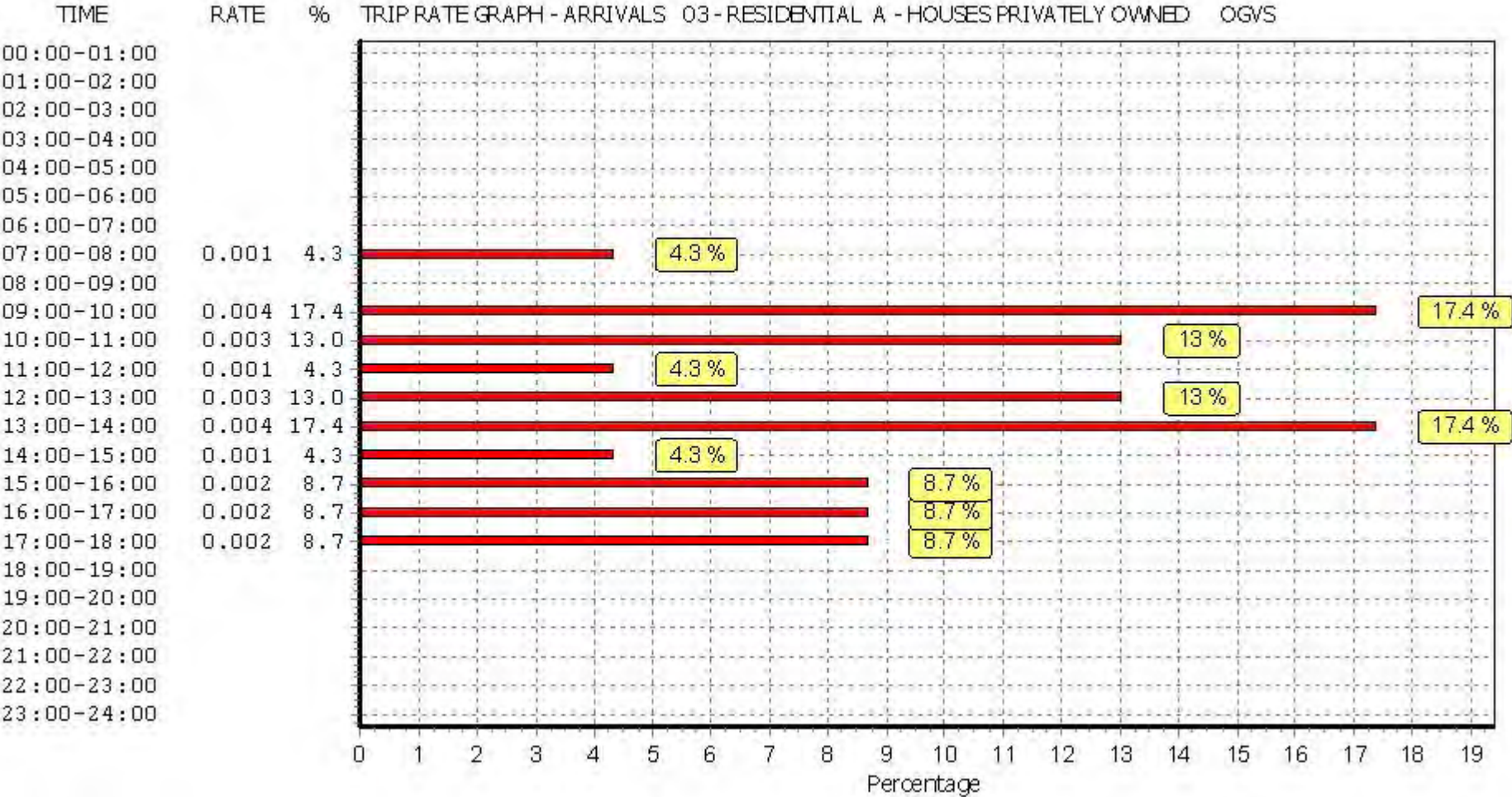
Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

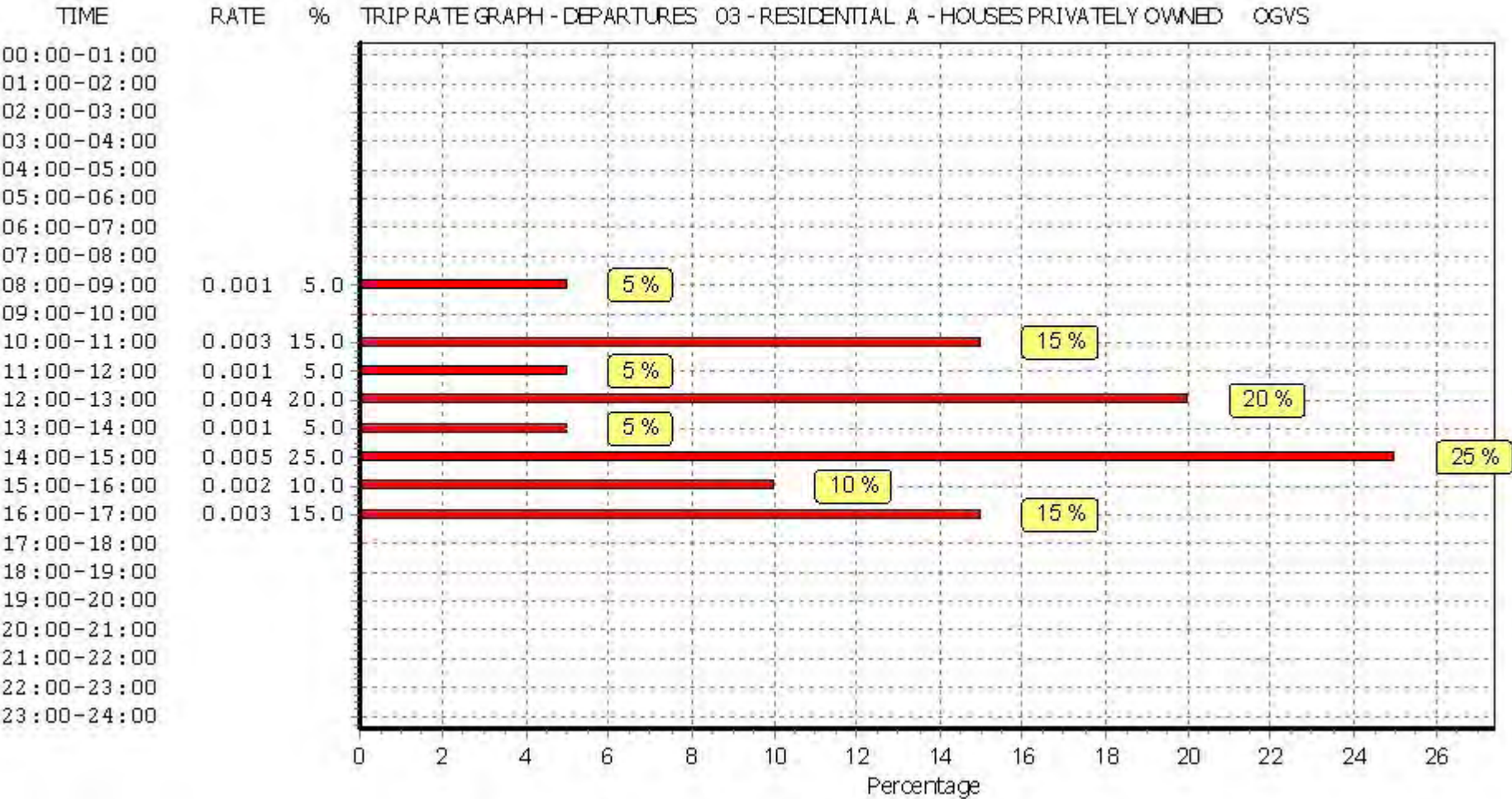
Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	5	216	0.001	5	216	0.000	5	216	0.001
08:00 - 09:00	5	216	0.000	5	216	0.001	5	216	0.001
09:00 - 10:00	5	216	0.004	5	216	0.000	5	216	0.004
10:00 - 11:00	5	216	0.003	5	216	0.003	5	216	0.006
11:00 - 12:00	5	216	0.001	5	216	0.001	5	216	0.002
12:00 - 13:00	5	216	0.003	5	216	0.004	5	216	0.007
13:00 - 14:00	5	216	0.004	5	216	0.001	5	216	0.005
14:00 - 15:00	5	216	0.001	5	216	0.005	5	216	0.006
15:00 - 16:00	5	216	0.002	5	216	0.002	5	216	0.004
16:00 - 17:00	5	216	0.002	5	216	0.003	5	216	0.005
17:00 - 18:00	5	216	0.002	5	216	0.000	5	216	0.002
18:00 - 19:00	5	216	0.000	5	216	0.000	5	216	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:	0.023			0.020			0.043		

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.

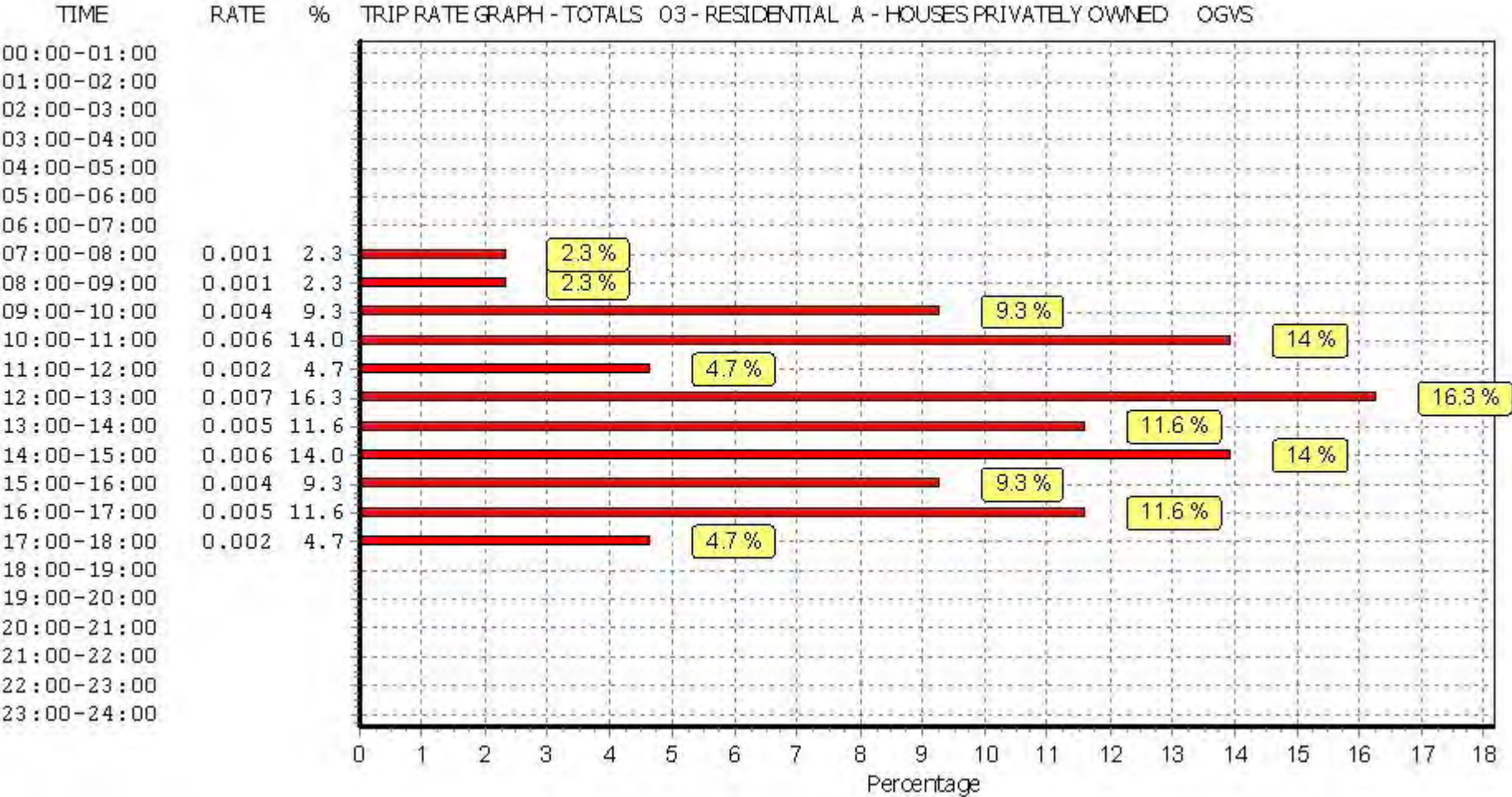
To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected 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.



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.



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TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

CYCLISTS

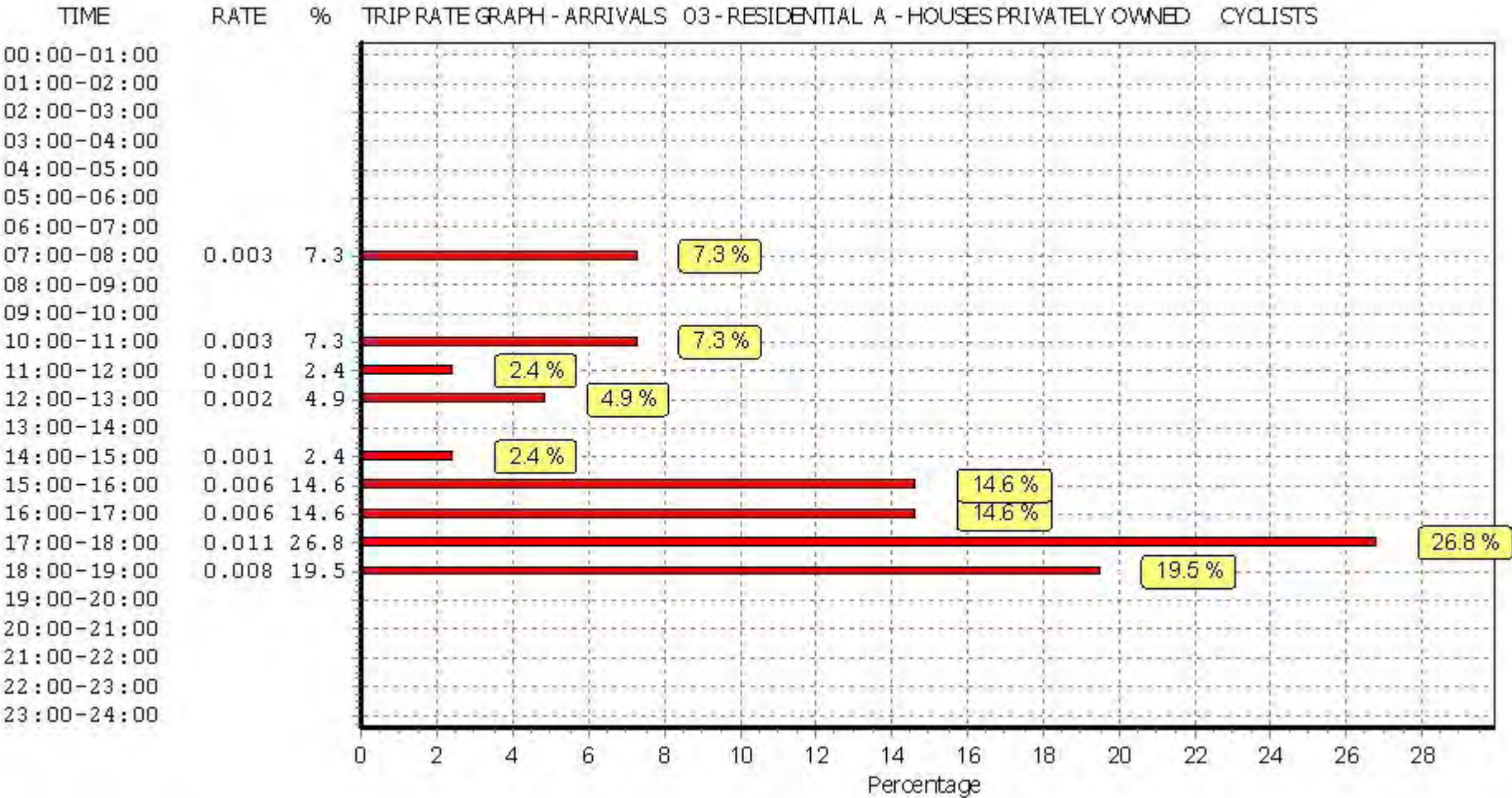
Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

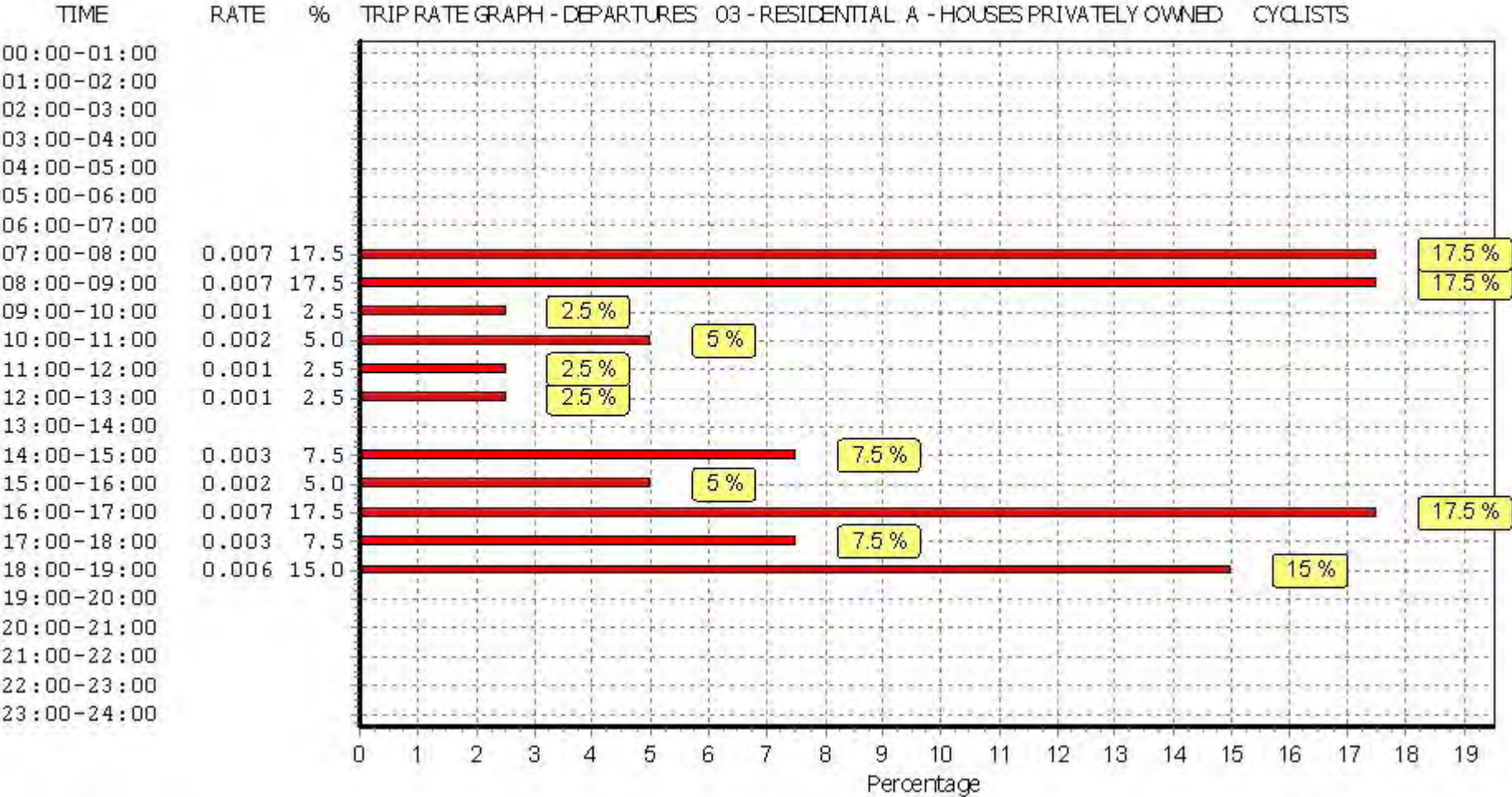
Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	5	216	0.003	5	216	0.007	5	216	0.010
08:00 - 09:00	5	216	0.000	5	216	0.007	5	216	0.007
09:00 - 10:00	5	216	0.000	5	216	0.001	5	216	0.001
10:00 - 11:00	5	216	0.003	5	216	0.002	5	216	0.005
11:00 - 12:00	5	216	0.001	5	216	0.001	5	216	0.002
12:00 - 13:00	5	216	0.002	5	216	0.001	5	216	0.003
13:00 - 14:00	5	216	0.000	5	216	0.000	5	216	0.000
14:00 - 15:00	5	216	0.001	5	216	0.003	5	216	0.004
15:00 - 16:00	5	216	0.006	5	216	0.002	5	216	0.008
16:00 - 17:00	5	216	0.006	5	216	0.007	5	216	0.013
17:00 - 18:00	5	216	0.011	5	216	0.003	5	216	0.014
18:00 - 19:00	5	216	0.008	5	216	0.006	5	216	0.014
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.041			0.040			0.081

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.

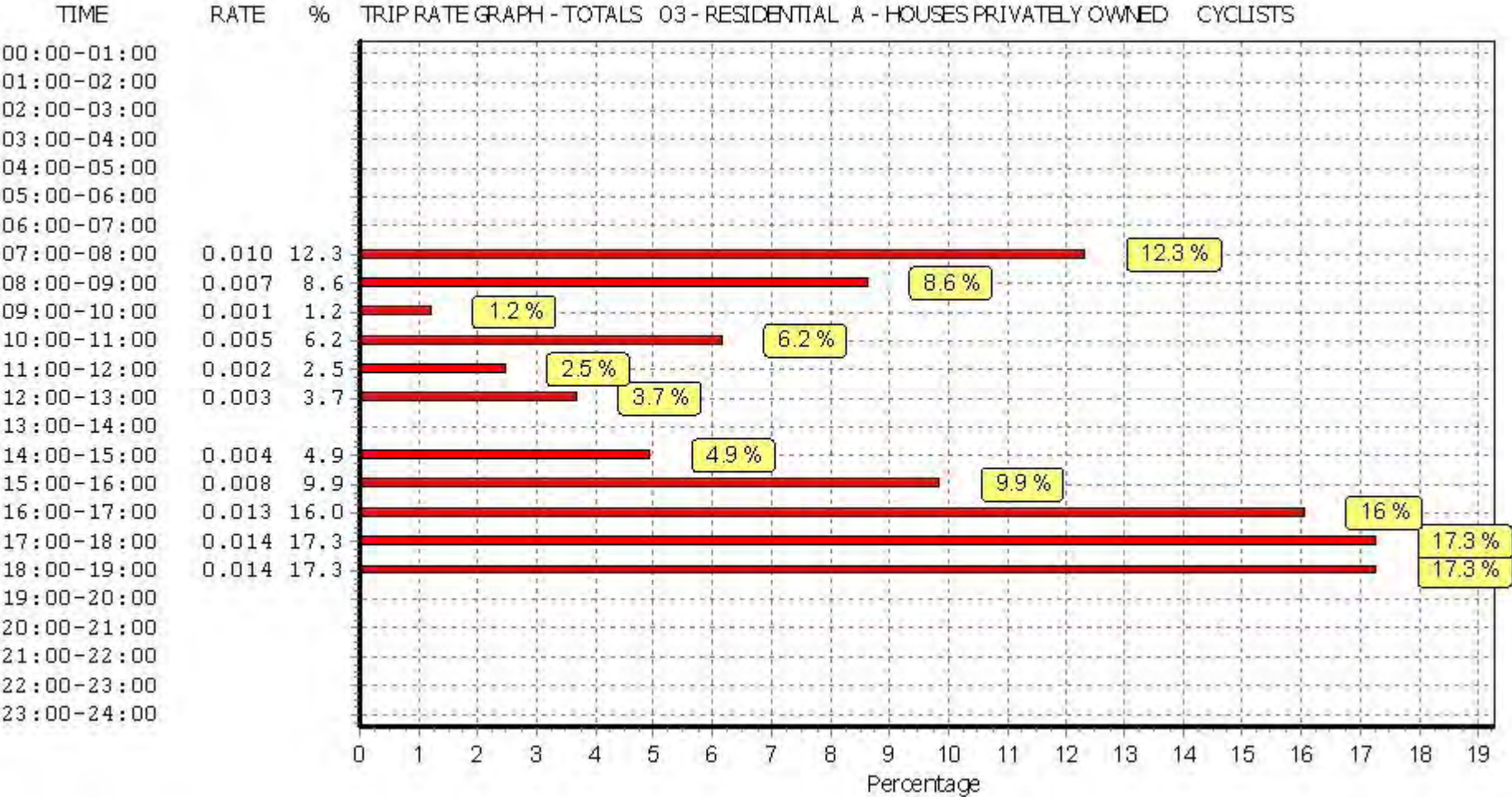
To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected 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.



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.



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TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

CARS

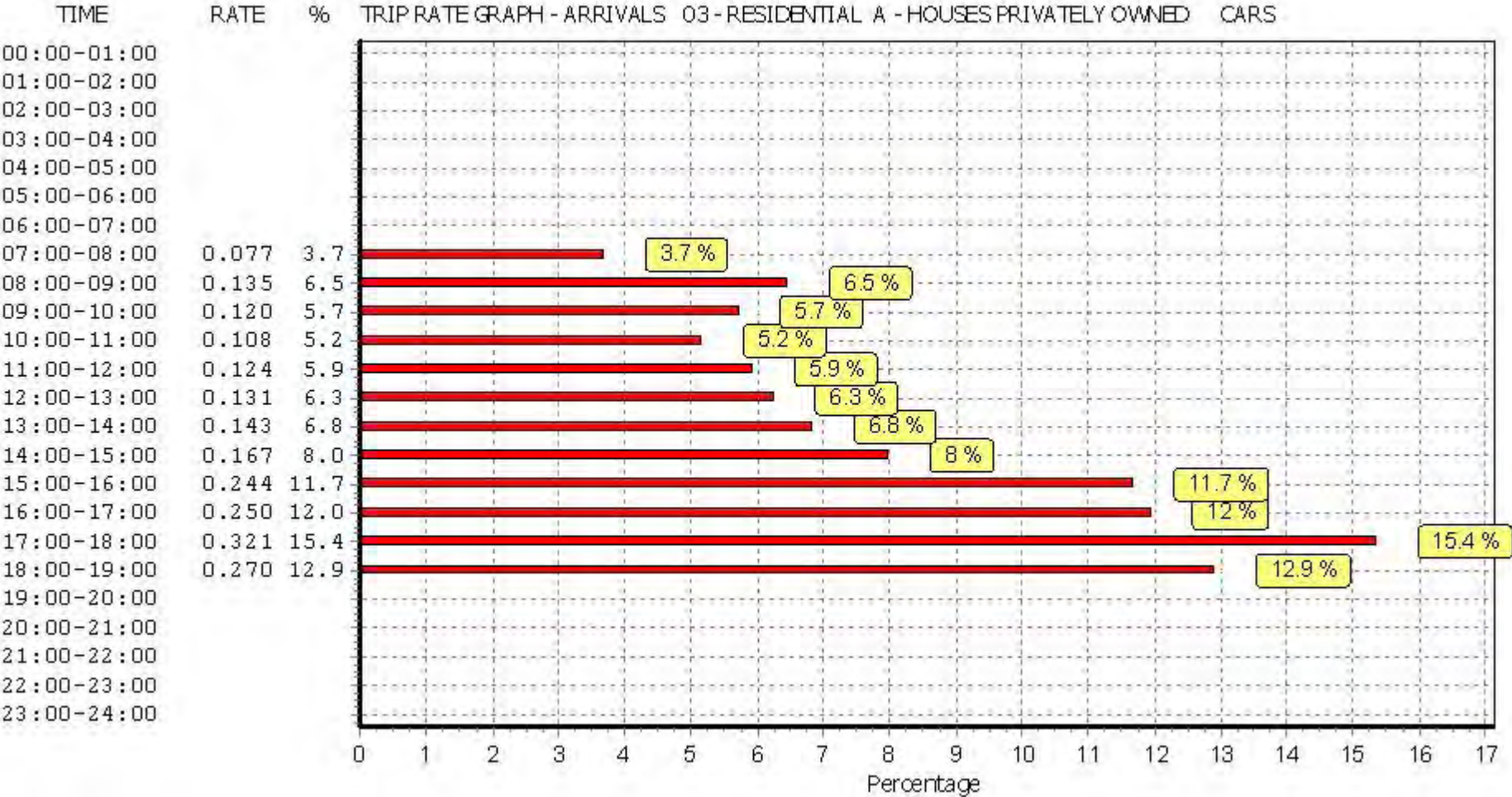
Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

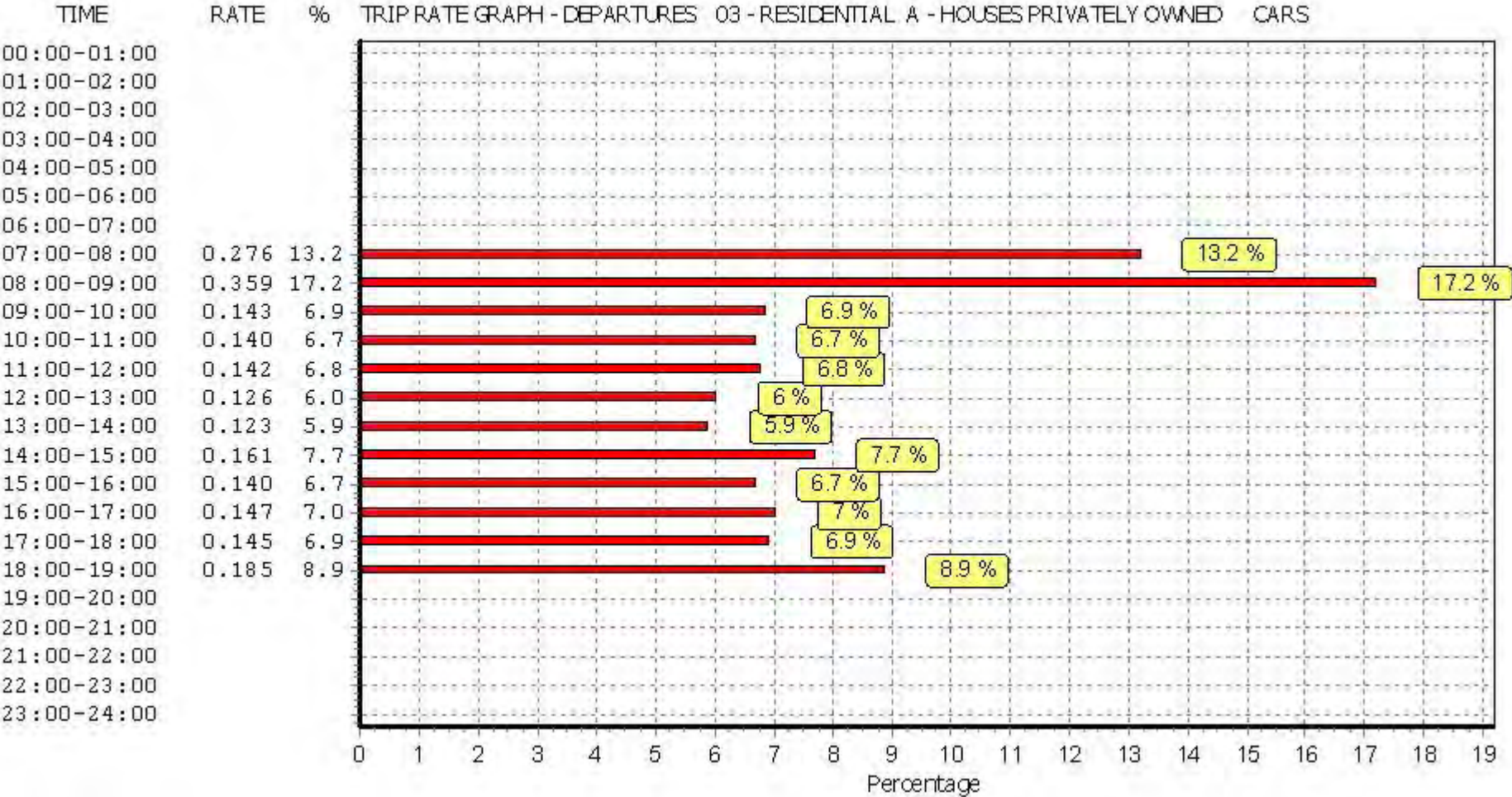
Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	5	216	0.077	5	216	0.276	5	216	0.353
08:00 - 09:00	5	216	0.135	5	216	0.359	5	216	0.494
09:00 - 10:00	5	216	0.120	5	216	0.143	5	216	0.263
10:00 - 11:00	5	216	0.108	5	216	0.140	5	216	0.248
11:00 - 12:00	5	216	0.124	5	216	0.142	5	216	0.266
12:00 - 13:00	5	216	0.131	5	216	0.126	5	216	0.257
13:00 - 14:00	5	216	0.143	5	216	0.123	5	216	0.266
14:00 - 15:00	5	216	0.167	5	216	0.161	5	216	0.328
15:00 - 16:00	5	216	0.244	5	216	0.140	5	216	0.384
16:00 - 17:00	5	216	0.250	5	216	0.147	5	216	0.397
17:00 - 18:00	5	216	0.321	5	216	0.145	5	216	0.466
18:00 - 19:00	5	216	0.270	5	216	0.185	5	216	0.455
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.090			2.087			4.177

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.

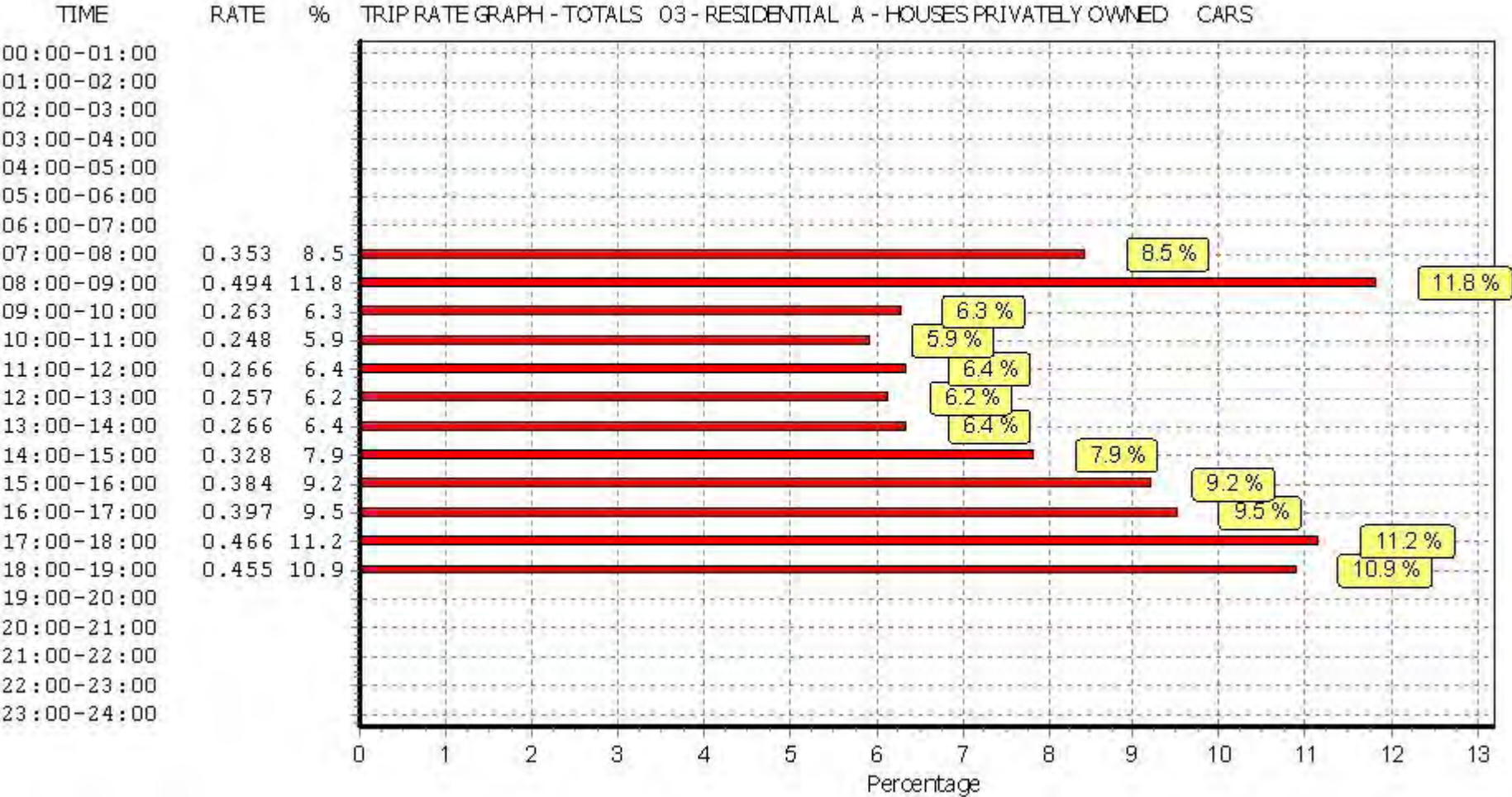
To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected 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.



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

LGVS

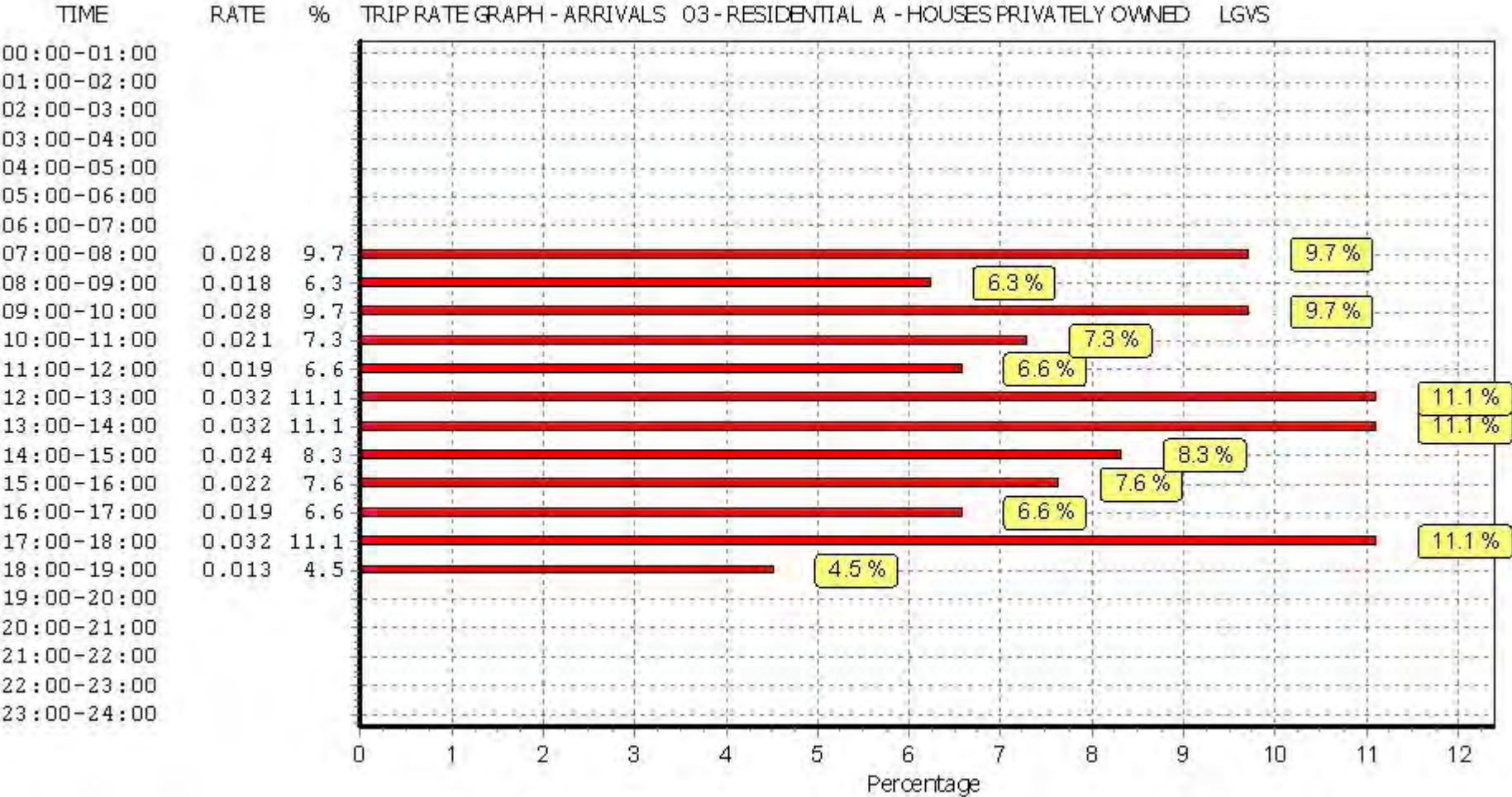
Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

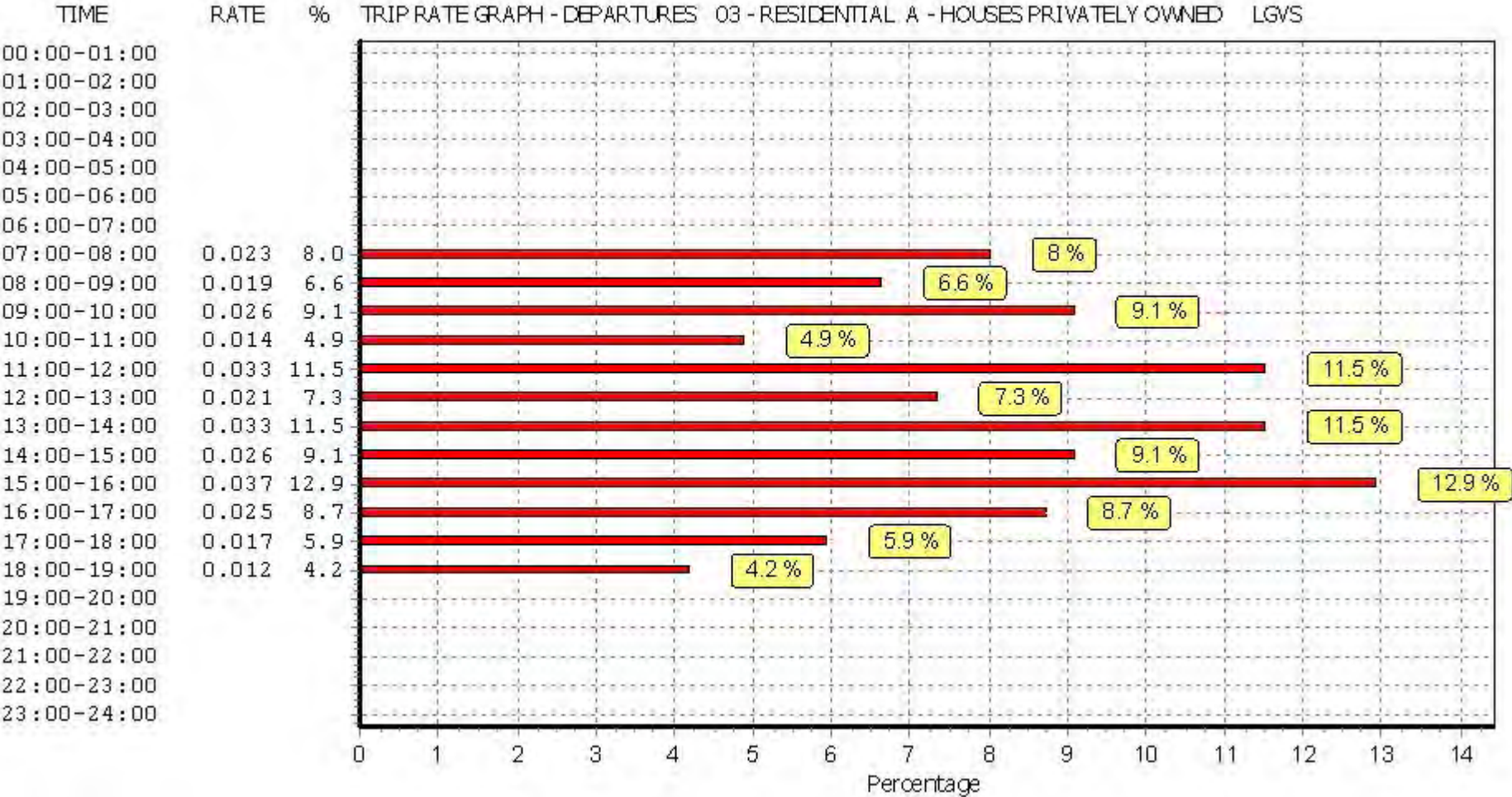
Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	5	216	0.028	5	216	0.023	5	216	0.051
08:00 - 09:00	5	216	0.018	5	216	0.019	5	216	0.037
09:00 - 10:00	5	216	0.028	5	216	0.026	5	216	0.054
10:00 - 11:00	5	216	0.021	5	216	0.014	5	216	0.035
11:00 - 12:00	5	216	0.019	5	216	0.033	5	216	0.052
12:00 - 13:00	5	216	0.032	5	216	0.021	5	216	0.053
13:00 - 14:00	5	216	0.032	5	216	0.033	5	216	0.065
14:00 - 15:00	5	216	0.024	5	216	0.026	5	216	0.050
15:00 - 16:00	5	216	0.022	5	216	0.037	5	216	0.059
16:00 - 17:00	5	216	0.019	5	216	0.025	5	216	0.044
17:00 - 18:00	5	216	0.032	5	216	0.017	5	216	0.049
18:00 - 19:00	5	216	0.013	5	216	0.012	5	216	0.025
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.288			0.286			0.574

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.

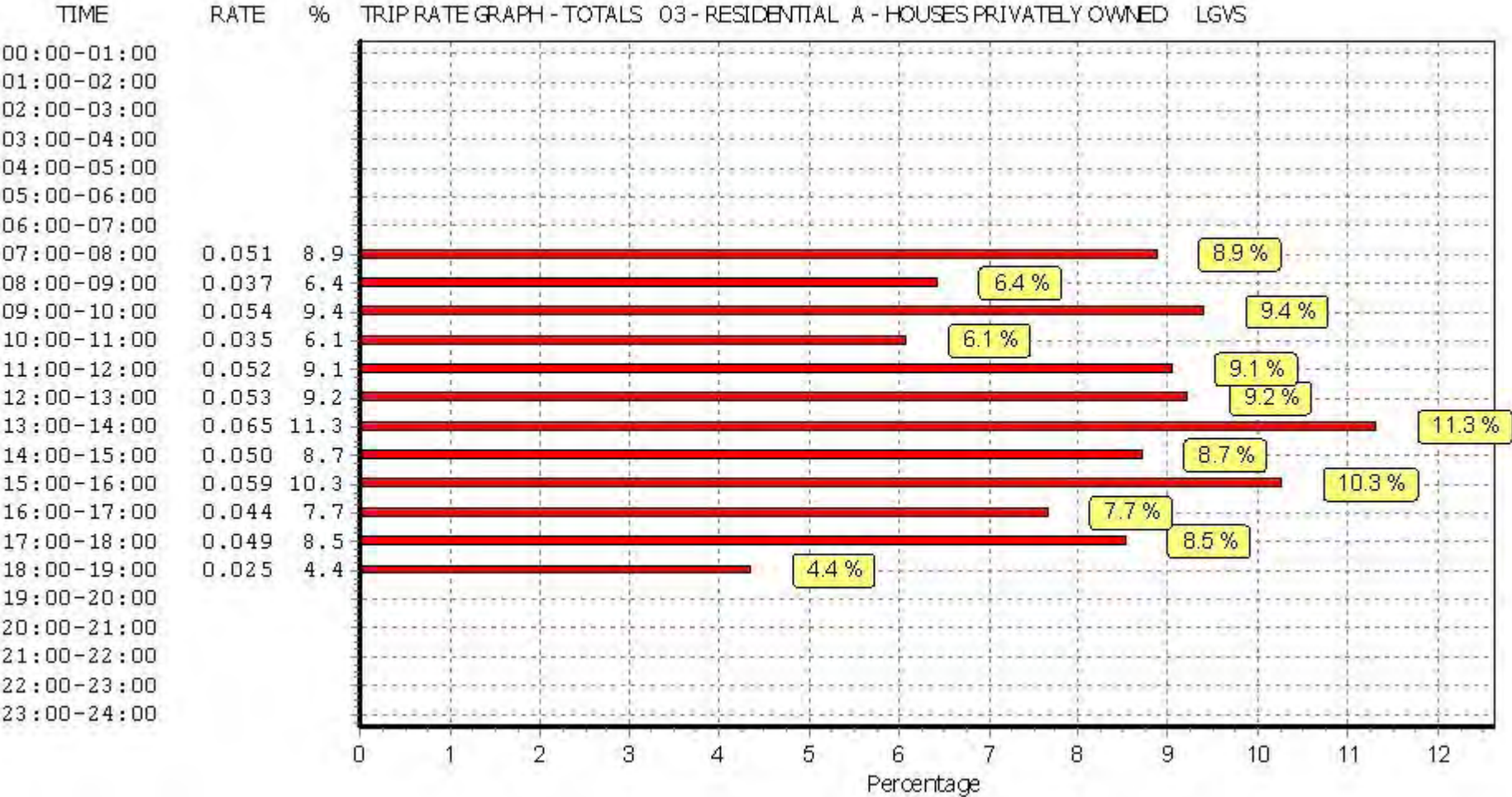
To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected 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.



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MOTOR CYCLES

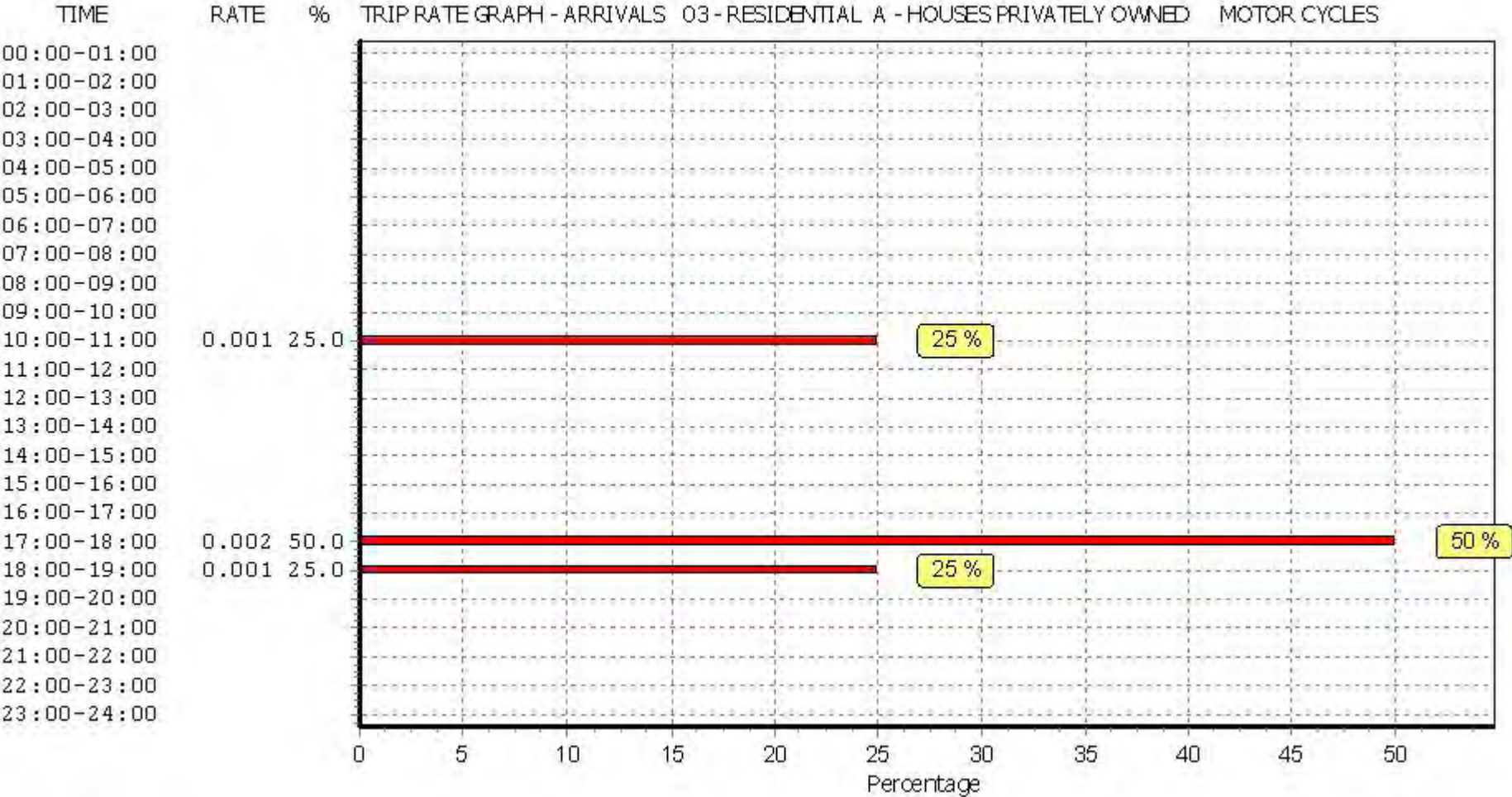
Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

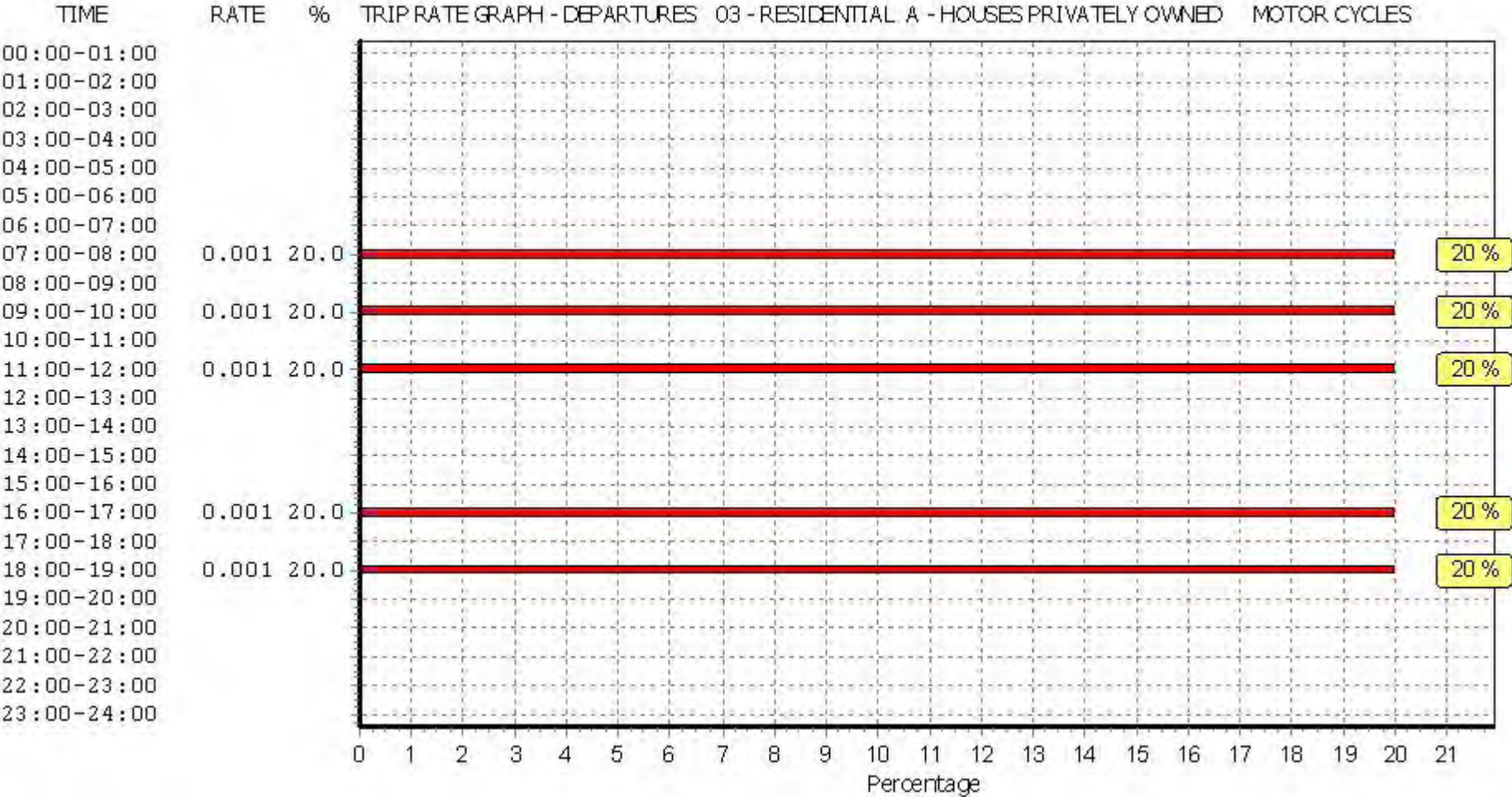
Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	5	216	0.000	5	216	0.001	5	216	0.001
08:00 - 09:00	5	216	0.000	5	216	0.000	5	216	0.000
09:00 - 10:00	5	216	0.000	5	216	0.001	5	216	0.001
10:00 - 11:00	5	216	0.001	5	216	0.000	5	216	0.001
11:00 - 12:00	5	216	0.000	5	216	0.001	5	216	0.001
12:00 - 13:00	5	216	0.000	5	216	0.000	5	216	0.000
13:00 - 14:00	5	216	0.000	5	216	0.000	5	216	0.000
14:00 - 15:00	5	216	0.000	5	216	0.000	5	216	0.000
15:00 - 16:00	5	216	0.000	5	216	0.000	5	216	0.000
16:00 - 17:00	5	216	0.000	5	216	0.001	5	216	0.001
17:00 - 18:00	5	216	0.002	5	216	0.000	5	216	0.002
18:00 - 19:00	5	216	0.001	5	216	0.001	5	216	0.002
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.004			0.005			0.009

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.

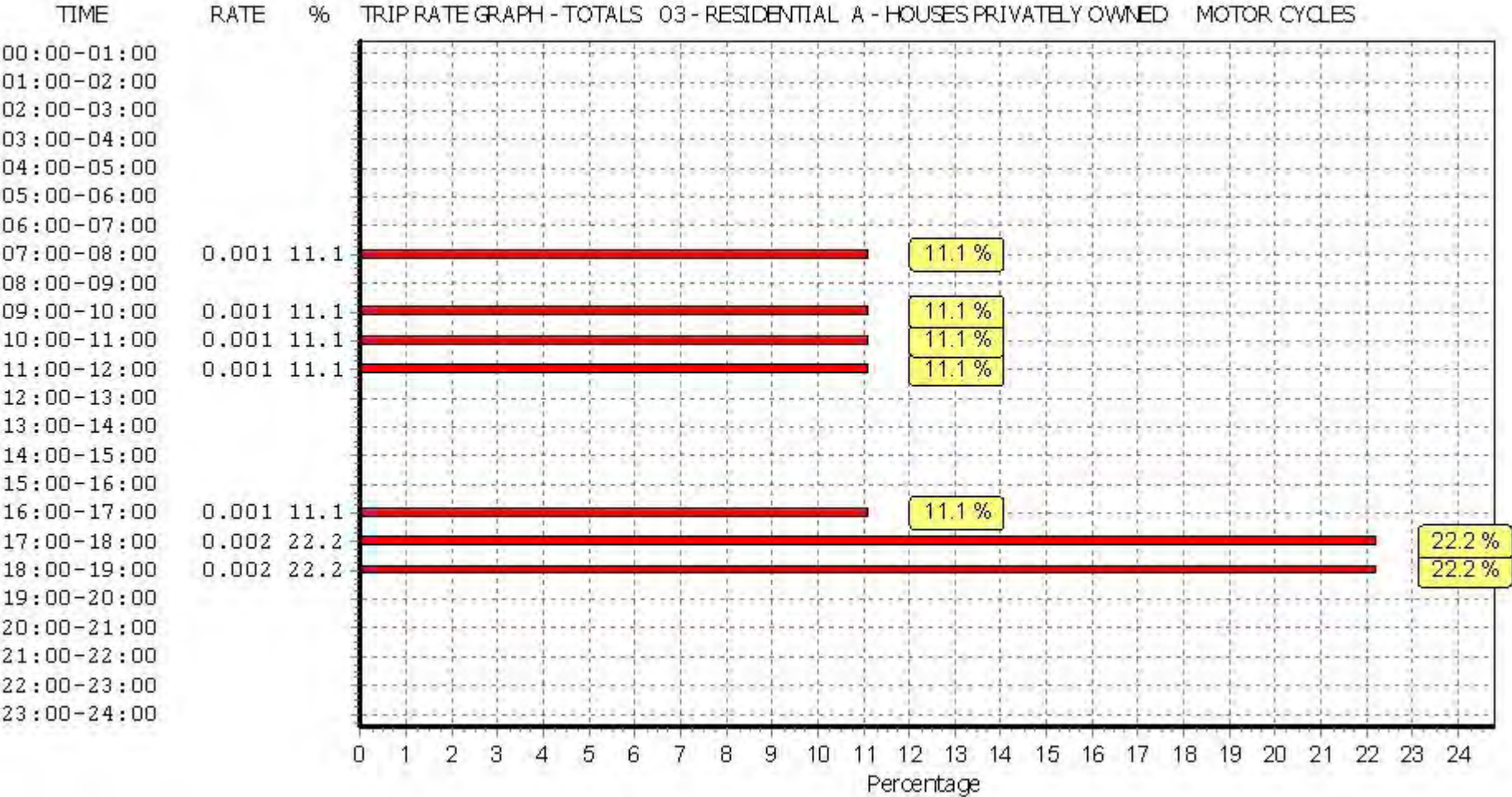
To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected 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.



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.



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This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

Appendix G Trip Distribution



place of work : 2011 super output area - middle layer	E02001509 : Barnsley 001	Percentage	Wakefield (North)	Wakefield (South)	Shaw Lane	Summer Lane	Church Street	B6428 Midland Road	Station Road	Local	Total
Amber Valley 003	1	0.06%			0.06%						0.06%
Amber Valley 004	1	0.06%			0.06%						0.06%
Amber Valley 016	1	0.06%			0.06%						0.06%
Barnsley 001	81	4.58%							2.29%	2.29%	4.58%
Barnsley 002	100	5.65%		1.69%			1.69%	2.26%			5.65%
Barnsley 003	8	0.45%					0.45%				0.45%
Barnsley 004	41	2.32%		0.93%	1.39%						2.32%
Barnsley 005	22	1.24%			1.24%						1.24%
Barnsley 006	20	1.13%					0.79%	0.34%			1.13%
Barnsley 007	59	3.33%		1.67%			1.67%				3.33%
Barnsley 008	10	0.56%		0.06%			0.28%	0.23%			0.56%
Barnsley 009	12	0.68%		0.20%			0.47%				0.68%
Barnsley 010	37	2.09%		2.09%							2.09%
Barnsley 011	21	1.19%		0.24%			0.95%				1.19%
Barnsley 012	78	4.41%			4.41%						4.41%
Barnsley 013	160	9.04%		9.04%							9.04%
Barnsley 014	12	0.68%					0.68%				0.68%
Barnsley 015	94	5.31%		3.19%			2.12%				5.31%
Barnsley 016	8	0.45%			0.45%						0.45%
Barnsley 017	19	1.07%		1.07%							1.07%
Barnsley 018	7	0.40%		0.28%			0.12%				0.40%
Barnsley 019	14	0.79%		0.16%	0.63%						0.79%
Barnsley 020	5	0.28%		0.20%			0.08%				0.28%
Barnsley 021	9	0.51%		0.36%			0.15%				0.51%
Barnsley 022	7	0.40%					0.40%				0.40%
Barnsley 023	14	0.79%		0.47%			0.32%				0.79%
Barnsley 024	8	0.45%			0.45%						0.45%
Barnsley 025	3	0.17%					0.17%				0.17%
Barnsley 026	11	0.62%		0.50%			0.12%				0.62%
Barnsley 027	10	0.56%			0.56%						0.56%
Barnsley 028	13	0.73%		0.59%	0.15%						0.73%
Barnsley 030	4	0.23%		0.18%	0.05%						0.23%
Bassetlaw 009	3	0.17%			0.17%						0.17%
Birmingham 050	2	0.11%			0.11%						0.11%
Bradford 001	1	0.06%		0.03%	0.03%						0.06%
Bradford 018	1	0.06%			0.06%						0.06%
Bradford 026	1	0.06%		0.03%	0.03%						0.06%
Bradford 038	1	0.06%		0.03%	0.03%						0.06%
Bradford 039	3	0.17%			0.08%	0.08%					0.17%
Bradford 040	1	0.06%		0.03%	0.03%						0.06%
Bradford 044	2	0.11%		0.06%	0.06%						0.11%
Bradford 046	1	0.06%		0.03%	0.03%						0.06%
Bradford 053	2	0.11%		0.06%	0.06%						0.11%
Bradford 057	6	0.34%		0.17%	0.17%						0.34%
Bradford 059	1	0.06%		0.03%	0.03%						0.06%
Bradford 060	2	0.11%		0.06%	0.06%						0.11%
Calderdale 008	3	0.17%			0.17%						0.17%
Calderdale 015	2	0.11%			0.11%						0.11%
Calderdale 016	2	0.11%			0.11%						0.11%
Calderdale 019	2	0.11%			0.11%						0.11%
Calderdale 025	1	0.06%			0.06%						0.06%
Chesterfield 003	1	0.06%			0.06%						0.06%
Chesterfield 010	1	0.06%			0.06%						0.06%
Chesterfield 012	1	0.06%			0.06%						0.06%
Cotswold 005	2	0.11%			0.11%						0.11%
Coventry 024	1	0.06%					0.06%				0.06%
Crawley 004	1	0.06%					0.06%				0.06%
Doncaster 002	1	0.06%					0.06%				0.06%
Doncaster 005	2	0.11%					0.11%				0.11%
Doncaster 006	1	0.06%					0.06%				0.06%
Doncaster 007	1	0.06%		0.01%			0.05%				0.06%
Doncaster 008	2	0.11%					0.11%				0.11%
Doncaster 009	1	0.06%		0.01%			0.05%				0.06%
Doncaster 011	1	0.06%		0.01%			0.05%				0.06%
Doncaster 012	1	0.06%		0.01%			0.05%				0.06%
Doncaster 013	1	0.06%		0.01%			0.05%				0.06%
Doncaster 015	3	0.17%		0.03%			0.14%				0.17%
Doncaster 019	2	0.11%		0.02%			0.09%				0.11%
Doncaster 020	1	0.06%		0.01%			0.05%				0.06%
Doncaster 021	1	0.06%		0.01%			0.05%				0.06%
Doncaster 022	2	0.11%		0.02%			0.09%				0.11%
Doncaster 023	2	0.11%		0.06%			0.06%				0.11%
Doncaster 025	1	0.06%		0.03%			0.03%				0.06%
Doncaster 027	1	0.06%		0.03%			0.03%				0.06%
Doncaster 028	4	0.23%					0.23%				0.23%
Doncaster 031	1	0.06%		0.01%	0.01%		0.04%				0.06%
Doncaster 032	1	0.06%		0.01%	0.01%		0.04%				0.06%
Doncaster 034	1	0.06%		0.01%	0.01%		0.04%				0.06%
Gateshead 005	1	0.06%			0.06%						0.06%
Gateshead 007	1	0.06%			0.06%						0.06%
Harrogate 007	1	0.06%			0.01%	0.04%	0.01%				0.06%
Harrogate 012	1	0.06%			0.01%	0.04%	0.01%				0.06%
Harrogate 016	1	0.06%			0.01%	0.04%	0.01%				0.06%
Kirklees 001	1	0.06%			0.06%						0.06%
Kirklees 002	2	0.11%			0.11%						0.11%
Kirklees 005	2	0.11%			0.11%						0.11%
Kirklees 007	4	0.23%	0.11%		0.11%						0.23%
Kirklees 013	3	0.17%	0.08%		0.08%						0.17%
Kirklees 014	2	0.11%	0.06%		0.06%						0.11%
Kirklees 015	1	0.06%	0.03%		0.03%						0.06%
Kirklees 016	2	0.11%	0.06%		0.06%						0.11%
Kirklees 017	6	0.34%	0.17%		0.17%						0.34%
Kirklees 019	1	0.06%	0.03%		0.03%						0.06%
Kirklees 021	1	0.06%	0.03%		0.03%						0.06%
Kirklees 022	1	0.06%	0.03%		0.03%						0.06%
Kirklees 023	1	0.06%	0.03%		0.03%						0.06%
Kirklees 024	5	0.28%	0.14%		0.14%						0.28%
Kirklees 025	2	0.11%	0.06%		0.06%						0.11%
Kirklees 026	1	0.06%	0.03%		0.03%						0.06%
Kirklees 029	3	0.17%			0.17%						0.17%
Kirklees 033	1	0.06%			0.06%						0.06%
Kirklees 034	1	0.06%			0.06%						0.06%
Kirklees 042	1	0.06%			0.06%						0.06%
Kirklees 043	1	0.06%			0.06%						0.06%
Kirklees 044	1	0.06%			0.06%						0.06%
Kirklees 046	3	0.17%			0.17%						0.17%
Kirklees 051	2	0.11%			0.11%						0.11%
Kirklees 053	1	0.06%			0.06%						0.06%
Kirklees 054	1	0.06%			0.06%						0.06%
Kirklees 057	5	0.28%		0.07%	0.21%						0.28%

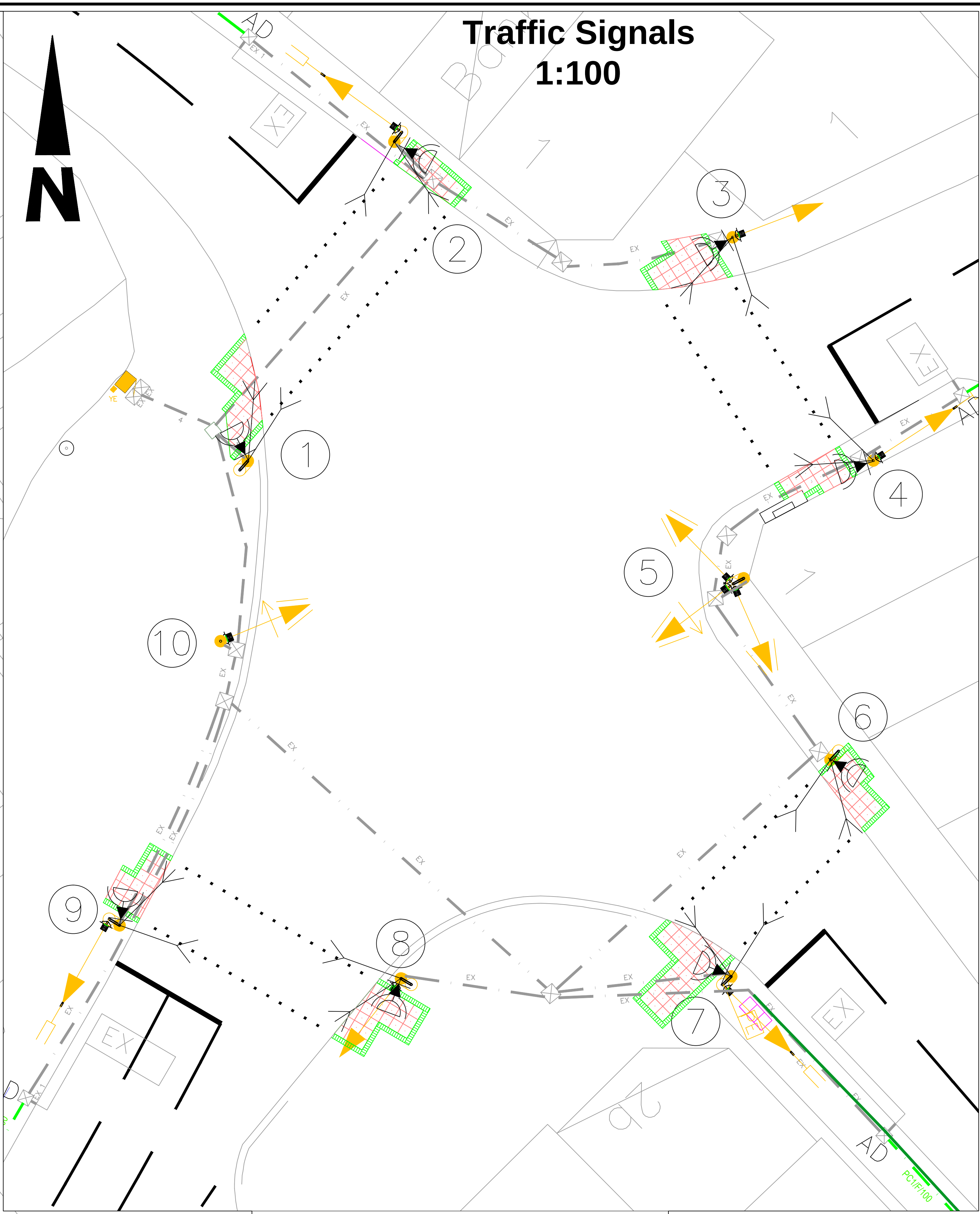
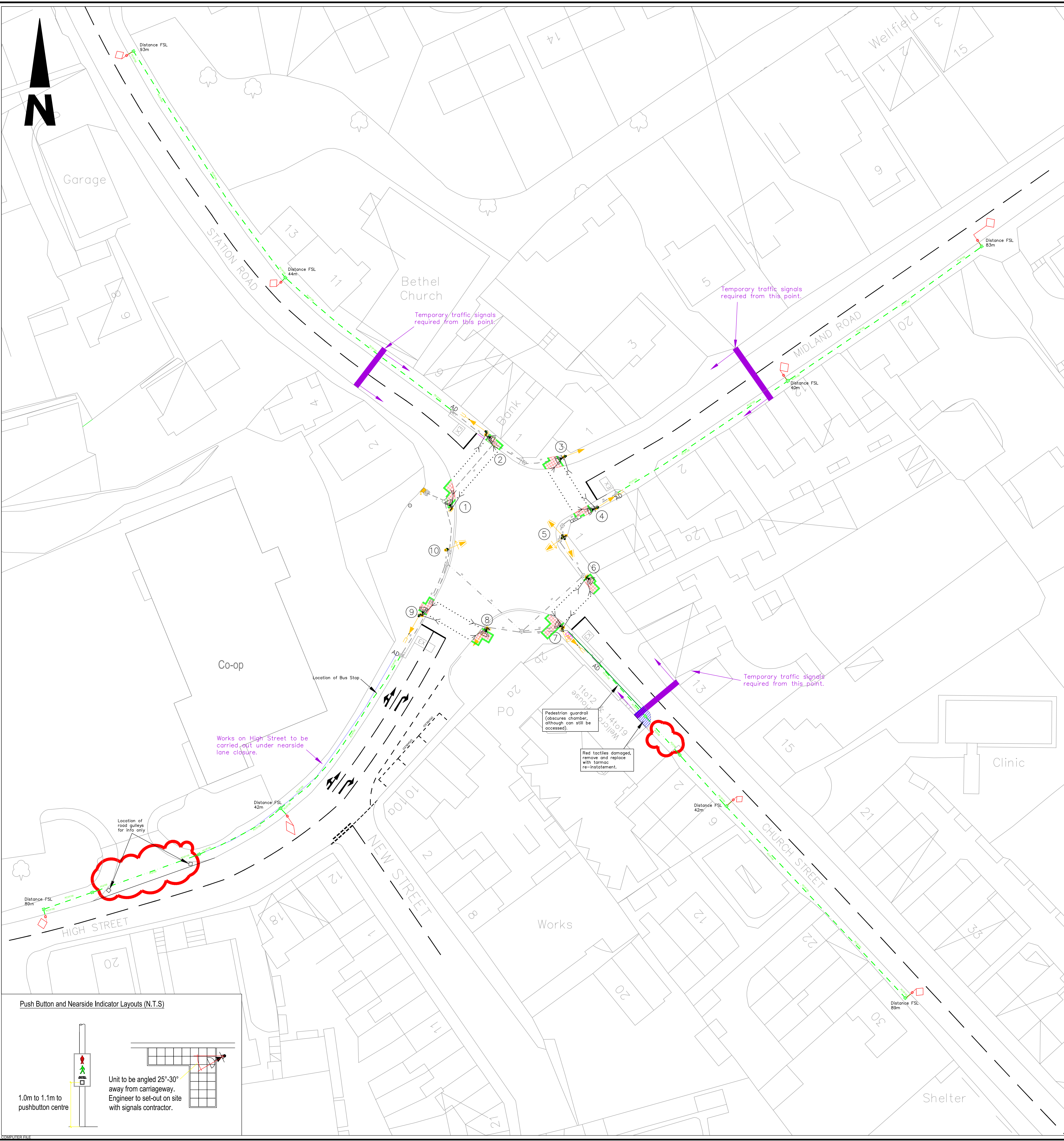
Kirklees 058
Leeds 001
Leeds 002
Leeds 007
Leeds 009
Leeds 016
Leeds 019
Leeds 023
Leeds 027
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Leeds 106
Leeds 111
Leeds 112
North East Derbyshire 014
North Lincolnshire 005
North Lincolnshire 006
North Warwickshire 003
North Warwickshire 004
North Warwickshire 006
Oldham 011
Oldham 024
Rochdale 001
Rochdale 010
Rochdale 018
Rochdale 020
Rotherham 001
Rotherham 002
Rotherham 003
Rotherham 006
Rotherham 008
Rotherham 009
Rotherham 010
Rotherham 011
Rotherham 014
Rotherham 016
Rotherham 017
Rotherham 018
Rotherham 023
Rotherham 025
Rotherham 027
Rotherham 028
Rushcliffe 003
Rushcliffe 014
Ryedale 003
Ryedale 007
Selby 004
Selby 008
Selby 009
Selby 010
Sheffield 001
Sheffield 003
Sheffield 004
Sheffield 005
Sheffield 013
Sheffield 014
Sheffield 017
Sheffield 018
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Sheffield 026
Sheffield 030
Sheffield 032
Sheffield 042
Sheffield 051
Sheffield 061
Sheffield 073
Sheffield 074
Sheffield 075
Shropshire 034
South Cambridgeshire 011
South Gloucestershire 009
Wakefield 001
Wakefield 002
Wakefield 004

2	0.11%			0.11%						0.11%
1	0.06%			0.06%						0.06%
1	0.06%			0.06%						0.06%
2	0.11%			0.11%						0.11%
1	0.06%			0.06%						0.06%
1	0.06%			0.06%						0.06%
2	0.11%			0.11%						0.11%
1	0.06%			0.06%						0.06%
1	0.06%			0.06%						0.06%
1	0.06%			0.06%						0.06%
2	0.11%			0.06%	0.06%					0.11%
2	0.11%			0.02%	0.09%					0.11%
1	0.06%			0.01%	0.05%					0.06%
2	0.11%			0.02%	0.09%					0.11%
1	0.06%			0.03%	0.03%					0.06%
1	0.06%			0.03%	0.03%					0.06%
1	0.06%			0.03%	0.03%					0.06%
5	0.28%			0.14%	0.14%					0.28%
1	0.06%			0.03%	0.03%					0.06%
3	0.17%			0.08%	0.08%					0.17%
3	0.17%			0.08%	0.08%					0.17%
5	0.28%			0.14%	0.14%					0.28%
1	0.06%			0.03%	0.03%					0.06%
1	0.06%			0.03%	0.03%					0.06%
2	0.11%			0.06%	0.06%					0.11%
2	0.11%			0.06%	0.06%					0.11%
3	0.17%			0.08%	0.08%					0.17%
4	0.23%			0.11%	0.11%					0.23%
2	0.11%			0.06%	0.06%					0.11%
3	0.17%			0.08%	0.08%					0.17%
1	0.06%			0.03%	0.03%					0.06%
1	0.06%			0.03%	0.03%					0.06%
4	0.23%			0.11%	0.11%					0.23%
1	0.06%			0.03%	0.03%					0.06%
3	0.17%			0.08%	0.08%					0.17%
2	0.11%			0.06%	0.06%					0.11%
1	0.06%			0.03%	0.03%					0.06%
1	0.06%			0.03%	0.03%					0.06%
2	0.11%			0.06%	0.06%					0.11%
2	0.11%			0.06%	0.06%					0.11%
6	0.34%			0.17%	0.17%					0.34%
1	0.06%			0.03%	0.03%					0.06%
1	0.06%			0.03%	0.03%					0.06%
2	0.11%			0.06%	0.06%					0.11%
2	0.11%			0.06%	0.06%					0.11%
2	0.11%			0.06%	0.06%					0.11%
1	0.06%			0.03%	0.03%					0.06%
2	0.11%			0.06%	0.06%					0.11%
2	0.11%			0.06%	0.06%					0.11%
2	0.11%			0.06%	0.06%					0.11%
13	0.73%		0.15%	0.29%	0.29%					0.73%
27	1.53%		0.31%	0.61%	0.61%					1.53%
2	0.11%		0.03%	0.06%		0.03%				0.11%
1	0.06%					0.06%				0.06%
1	0.06%					0.06%				0.06%
1	0.06%			0.06%						0.06%
1	0.06%			0.06%						0.06%
1	0.06%			0.06%						0.06%
1	0.06%			0.06%						0.06%
1	0.06%			0.06%						0.06%
1	0.06%			0.06%						0.06%
14	0.79%		0.40%			0.40%				0.79%
28	1.58%		0.79%			0.79%				1.58%
5	0.28%		0.14%			0.14%				0.28%
1	0.06%			0.01%		0.05%				0.06%
3	0.17%			0.03%		0.14%				0.17%
2	0.11%		0.03%	0.06%		0.03%				0.11%
1	0.06%		0.01%			0.05%				0.06%
1	0.06%		0.01%	0.03%		0.01%				0.06%
1	0.06%		0.03%			0.02%				0.06%
4	0.23%			0.11%		0.11%				0.23%
3	0.17%			0.08%		0.08%				0.17%
1	0.06%		0.01%	0.03%		0.02%				0.06%
2	0.11%		0.02%	0.06%		0.03%				0.11%
1	0.06%		0.01%	0.03%		0.02%				0.06%
1	0.06%		0.01%	0.03%		0.02%				0.06%
2	0.11%		0.02%	0.06%		0.03%				0.11%
2	0.11%			0.06%		0.06%				0.11%
1	0.06%			0.03%		0.03%				0.06%
2	0.11%			0.02%			0.09%			0.11%
1	0.06%		0.01%				0.05%			0.06%
5	0.28%						0.28%			0.28%
2	0.11%						0.11%			0.11%
1	0.06%						0.06%			0.06%
7	0.40%						0.40%			0.40%
4	0.23%			0.23%						0.23%
2	0.11%			0.11%						0.11%
10	0.56%			0.56%						0.56%
1	0.06%			0.06%						0.06%
1	0.06%			0.06%						0.06%
3	0.17%			0.17%						0.17%
1	0.06%			0.06%						0.06%
18	1.02%			0.76%		0.25%				1.02%
1	0.06%			0.04%		0.01%				0.06%
9	0.51%			0.38%		0.13%				0.51%
1	0.06%			0.04%		0.01%				0.06%
1	0.06%			0.04%		0.01%				0.06%
2	0.11%			0.08%		0.03%				0.11%
5	0.28%			0.21%		0.07%				0.28%
1	0.06%			0.04%		0.01%				0.06%
1	0.06%			0.04%		0.01%				0.06%
1	0.06%			0.04%		0.01%				0.06%
10	0.56%			0.56%						0.56%
2	0.11%			0.11%						0.11%
4	0.23%			0.23%						0.23%
8	0.45%			0.45%						0.45%
1	0.06%					0.06%				0.06%
1	0.06%					0.06%				0.06%
1	0.06%				0.03%		0.03%			0.06%
9	0.51%				0.25%		0.25%			0.51%
8	0.45%				0.45%					0.45%

Wakefield 005	9	0.51%				0.31%		0.20%			0.51%
Wakefield 006	9	0.51%			0.13%	0.38%					0.51%
Wakefield 007	2	0.11%			0.03%	0.08%					0.11%
Wakefield 008	5	0.28%			0.07%	0.21%					0.28%
Wakefield 009	5	0.28%			0.04%	0.24%					0.28%
Wakefield 010	2	0.11%						0.11%			0.11%
Wakefield 011	3	0.17%						0.17%			0.17%
Wakefield 012	2	0.11%						0.11%			0.11%
Wakefield 013	18	1.02%				0.76%		0.25%			1.02%
Wakefield 014	21	1.19%			0.47%	0.71%					1.19%
Wakefield 015	6	0.34%				0.08%		0.25%			0.34%
Wakefield 016	4	0.23%				0.19%		0.03%			0.23%
Wakefield 017	61	3.45%	1.72%			1.72%					3.45%
Wakefield 018	1	0.06%						0.06%			0.06%
Wakefield 019	37	2.09%	1.05%			1.05%					2.09%
Wakefield 020	1	0.06%	0.03%			0.03%					0.06%
Wakefield 021	7	0.40%	0.16%		0.24%						0.40%
Wakefield 022	7	0.40%	0.28%		0.12%						0.40%
Wakefield 023	1	0.06%						0.06%			0.06%
Wakefield 024	5	0.28%				0.07%		0.21%			0.28%
Wakefield 025	5	0.28%	0.17%		0.11%						0.28%
Wakefield 026	6	0.34%	0.34%								0.34%
Wakefield 027	2	0.11%				0.03%		0.08%			0.11%
Wakefield 028	19	1.07%	0.86%		0.11%	0.11%					1.07%
Wakefield 029	4	0.23%			0.23%						0.23%
Wakefield 030	34	1.92%	0.77%			1.15%					1.92%
Wakefield 031	7	0.40%	0.24%		0.16%						0.40%
Wakefield 032	2	0.11%				0.11%					0.11%
Wakefield 033	15	0.85%				0.85%					0.85%
Wakefield 034	1	0.06%						0.06%			0.06%
Wakefield 035	7	0.40%	0.12%		0.28%						0.40%
Wakefield 036	14	0.79%	0.47%		0.32%						0.79%
Wakefield 037	5	0.28%	0.20%		0.08%						0.28%
Wakefield 038	22	1.24%	0.75%			0.50%					1.24%
Wakefield 039	2	0.11%						0.11%			0.11%
Wakefield 040	7	0.40%						0.40%			0.40%
Wakefield 042	5	0.28%						0.28%			0.28%
Wakefield 043	11	0.62%					0.62%				0.62%
Wakefield 044	13	0.73%					0.59%	0.15%			0.73%
Wakefield 045	2	0.11%					0.09%	0.02%			0.11%
Westminster 020	2	0.11%			0.11%						0.11%
Westminster 021	1	0.06%			0.06%						0.06%
Wokingham 006	1	0.06%			0.06%						0.06%
Wokingham 010	1	0.06%			0.06%						0.06%
York 011	2	0.11%			0.03%	0.08%					0.11%
York 019	1	0.06%			0.01%	0.04%					0.06%
York 020	1	0.06%			0.01%	0.04%					0.06%
York 021	1	0.06%			0.01%	0.04%					0.06%
York 022	1	0.06%			0.01%	0.04%					0.06%
		1,770	100%	8%	26%	26%	13%	16%	7%	2%	100%

Appendix H Signal Data





TRAFFIC SIGNALS KEY (NOT TO SCALE)

DUCTING & CHAMBERS

- Existing polyethylene 100mm ducts
- New 1 No. Polyethylene 100mm duct (PC1/F)
- New 2 No. Polyethylene 100mm duct (PC2)
- Existing access chamber to remain
- New access chamber 450mmx450mm (AC/1/450)
- NAL carriageway loop box
- MOVA Detector Loop
- Existing Presence Detector Loop
- Above ground pedestrian detector (on-crossing)
- Above ground pedestrian detector (Kerb-side)
- ELV LED, Combined nearside R/G indicator with push button facility (including tactile indicator), incl. all fixings, for use on Puffin Crossing
- Adapt existing chamber to accept new 100mm Signal duct.

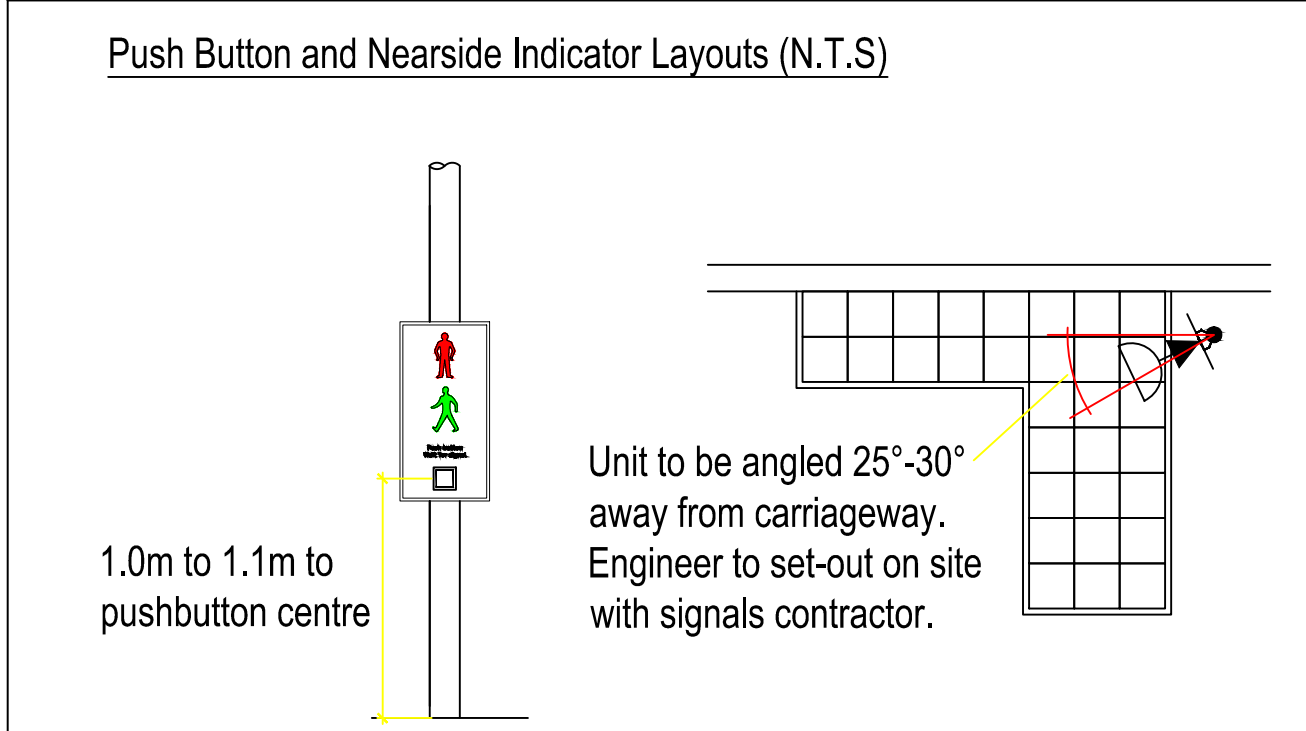
Existing Traffic Signals

Area which indicates possible out of hours working due to tight footways and carriageway or disruption to businesses. To be confirmed with BMBC Engineer and Streetworks.

Tarmac re-installment of footway. Excavate to a depth of 60mm and remove spoil off site, and resurface with 6mm wearing course (20mm thick) and 20mm basecourse (40mm thick).

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- Notes**
- All works to be carried out in accordance with the BMBC Standard Details (Traffic Signal Schemes) and Specifications.
 - Detectors to be set up on site with signal engineer.
 - Existing far side red /green man aspects to be removed to store, including standard pedestrian push button units.
 - Any equipment which can be reused for spares should be taken to Traffic Groups store by a Siemens Field Engineer.
 - All LED ELV equipment to be fully monitored by signal controller.
 - Where required, cables to be upgraded to accept nearside facilities.
 - Traffic Signal Controller configuration to be upgraded to accept new nearside pedestrian facilities, including updating RMS configuration.
 - This drawing is to be read in conjunction with all other issued contract drawings.
 - Scheme contact: Adam Davis (01226) 787635



Rev.	By	Amendments	Date

BARNLSLEY
Metropolitan Borough Council

Project: **The Wells, Royston J0087**

Drawing title: **Traffic Signal Proposed MOVA Upgrade**

Scale	Drawn	Checked	Date
1:250 (unless stated)	AD		12/08/14

Drawing No.	Revision	File
TR/TS/3707/01		3707

M Gladstone, Executive Director
Development, Environment & Culture
Westgate Plaza One, Westgate
S70 2DR
Tel. (01226) 773555 Fax. (01226) 772110

Works Order : 460966136
EM Number : 41104
Engineer : Stuart Mulliner
Intersection : High Street / Midlands Road / The Wells - Royston Barnsley

Administration

General Specifications

Customer Name	Barnsley M.B.C.	Customer Order No.	
Intersection/ General Description	High Street / Midlands Road / The Wells - Royston Barnsley	Controller/ Serial Number	
		S.T.S. /EM Number	41104 Issue 3
Controller	☒ New ☐ Modification	Equipment Installation by	Siemens
Area Specifications/ Customer Drawings	TR/TS/3707/01	Slot Cutting by	
Specification Section		Civil Works by	
Contract/Tender Ref:		Customer's Engineer	Luke Athey
Quotation No.		Telephone Number	01226 772014
Works Order No.	460966136		

Signal Company Use Only

Signal Engineer	Stuart Mulliner	(IF PROM Label as >) PROM Number	16777	PROM Variant	104
		Configuration Check Value	91 10 23 48		

Controller Options

Hardware	ST900 ELV	Firmware Type and Issue	PB801 ISS 13	Other Options	
----------	-----------	-------------------------	--------------	---------------	--

ST950/ST900/ST750 Series Cabinet Options

Cabinet/Rack	Cabinet	Kit Type Options	☒ UK-Std ☐ Non-UK ☐		
Cabinet/Rack Variant	Grey	Cuckoo Options	None	Gemini Unit Fitted	☒

Mains Supply	230	Volts	50	Hz				
Peak Lamp Current	3	Amps	Dimming Voltage	27.5	Answer Issue	2	Date Created	26/03/10
Average Lamp Power	750	Watts	Low Inrush Transformer	☐	Edit Issue	7		
Total Average Power	1025	Watts						
Power feed fuse rating: requires 30 Amp minimum for controller, 15 Amp minimum for pelican/lightly loaded controller								

Works Order : 460966136
EM Number : 41104
Engineer : Stuart Mulliner
Intersection : High Street / Midlands Road / The Wells - Royston Barnsley

Phases, Stages and Streams

Phases, Stages and Streams

Add/Delete/Insert Streams:

☒	Streams	Current Number of Streams	1
☐	Stages	Current Number of stages (inc. ALL-RED stages)	6

☐	Phases	Current Total Number of Phases	10
☐		☒ Number of Real Phases	9
☐		☐ Number of Dummy Phases	1

☐	Switched Signs	Number of Switched Signs	0
-----------------------	----------------	--------------------------	---

Action

Add At	Delete At
--------	-----------

Facilities/Modes Enabled and Mode Priority Levels

Facilities

UTC

☒ Serial/Internal UTMC OTU

☐ Free-standing OTU

☐ Integral TC12 OTU

☒ Serial MOVA

☒ Master Time Clock

☐ Holiday Clock

☒ FT To Current MAX

☐ Linked Fixed Time

☒ Lamp Monitoring

☒ RED Lamp Monitoring

☒ Pelican/Puffin/Toucan

☐ Standalone Manual

☐ Extend All Red

☐ Speed Measurement

☐ Ripple Change

☐ London IMU

☐ Non-UK

☐ Fail to Part Time

☐ Fail To Hardware Flashing

☐ Download To Level 3

9

Starting Intergreen

Mode Priority

	1	2	3	4	5	6	7	8	9	10	11	12	13
☐ Part Time	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☐ Emergency Vehides	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☐ Hurry Call	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☐ Priority Vehide	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☒ Manual Control	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☐ Manual Step On	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☒ Selected FT or VA or CLF	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☒ UTC	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☐ CLF (Non-Base Time)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☒ CLF (Base Time)	☐	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
☒ Vehide Actuated	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☒	☐
☒ Fixed Time	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☒

Configuration Complexity

☐ Low

☐ Medium

☐ High

☒ Maximum

standardPB801.8df

Default PROM data file

Correspondence Monitoring to inc.

☒ Reds

☒ Ambers

☐ Switched Signs

☐ Ignore Reds and Ambers during

Flash Rate (ms)

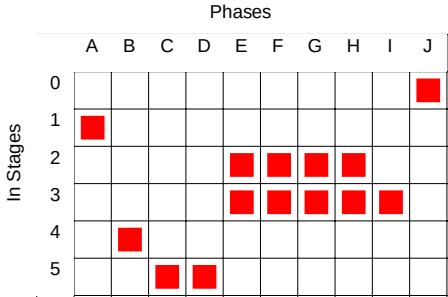
400

Off

400

On

Phases in Stages



Stages in Streams

Stages in Streams

Phase or Stage to revert to in absence of demands/extensions

Startup Stage

Switch Off Stage

Standalone Pedestrian

0

1

2

3

4

5

6

7

0

1

Note: For a Stand-Alone Stream, the reversion must be to All Red stage or Traffic stage/phase to meet the relevant standard or specification.

In Stream

Stages

0

1

2

3

4

5

0

Phase Type and Conditions

Phase Type and Conditions

Phases A to P

Manual Output Allocation

Phase	Title	Type	App. Type	Term. Type	Assoc. Phase	No. of Drive Outputs		
						"R"	"A"	"G"
A	High Street	0 - UK Traffic	0	0 - E		1	1	1
B	Midland Road	0 - UK Traffic	0	0 - E		1	1	1
C	Station Road	0 - UK Traffic	0	0 - E		1	1	1
D	Church Street	0 - UK Traffic	0	0 - E		1	1	1
E	Pedestrians across High Street	3 - UK Near Side Pedestrian	0	0 - E		1	1	2
F	Pedestrians across Station Road	3 - UK Near Side Pedestrian	0	0 - E		1	1	2
G	Pedestrians across Midland Road	3 - UK Near Side Pedestrian	0	0 - E		1	1	2
H	Pedestrians across Church Street	3 - UK Near Side Pedestrian	0	0 - E		1	1	2
I	Audible Driver	2 - UK GreenArrow	0	0 - E		0	0	1
J	Dummy for All Red	2 - UK GreenArrow	0	0 - E				

1) App Types: 0 = Always Appears, 1 = Appears if dem'd prior to interstage, 2 = If dem'd, 3 = If dem'd before end of window time
2) Term Types: 0 = Term's at end of stage, 1 = Term's when Assoc phase gains R.O.W, 2 = Term's when Assoc phase loses R.O.W.
3) The HW Fail Flash fields are for information only on all but ST900ELV Controllers. For other controllers, physical switches or links (etc.) select which aspects flash and these need to be set up manually.

Works Order : 460966136
EM Number : 41104
Engineer : Stuart Mulliner
Intersection : High Street / Midlands Road / The Wells - Royston Barnsley

Opposing and Conflicting Phases

Select Stream(s) To Configure

☒ All
 ☐ 0
 ☐ 1
 ☐ 2
 ☐ 3
 ☐ 4
 ☐ 5
 ☐ 6
 ☐ 7

Initialise

☒ Amber Conflict Monitoring[illegible]

From Phase

Works Order : 460966136
EM Number : 41104
Engineer : Stuart Mulliner
Intersection : High Street / Midlands Road / The Wells - Royston Barnsley

Phase Minimums, Maximums, Extensions, Ped Leaving Periods

[illegible]

Last Modified 18/01/2016, Issue 3.2.7

Form Ref: 2.2

Last Modified 18/01/2016, Issue 3.2.7

Form Ref: 2.3.1

Phase Intergreen Times

Select Stream(s) To Configure

☐ All ☐ 0 ☐ ☐ ☐ ☐ ☐ ☐ ☐

Note: On a Stand Alone Pelican/Toucan/Puffin Stream the Intergreens between Pedestrian and Traffic Phases are controlled by the timings (PBT, PIT, CMX, CDY, CRD and PAR), therefore 0 should be entered for the appropriate intergreen times in grid below.

		To Phase									
		A	B	C	D	E	F	G	H	I	J
From Phase	A		7	6	6	8	8	8	8	8	3
	B	6		7	7	8	8	8	8	8	3
	C	7	7			8	8	8	8	8	3
	D	7	7			8	8	8	8	8	3
	E	0	0	0	0						0
	F	0	0	0	0						0
	G	0	0	0	0						0
	H	0	0	0	0						0
	I	0	0	0	0						0
	J					2	2	2	2	2	

Intergreen Handset Limits

HIGH

30

Copy Intergreen Values

		To Phase									
		A	B	C	D	E	F	G	H	I	J
From Phase	A		6	5	5	7	7	7	7	7	3
	B	5		6	6	7	7	7	7	7	3
	C	6	6			7	7	7	7	7	3
	D	6	6			7	7	7	7	7	3
	E										
	F										
	G										
	H										
	I										
	J					1	1	1	1	1	

Phase Timing Handset Ranges

Phase Timing Handset Ranges

Initialise Min Green Limits

Phase	Min. Green		Phase	Min. Green		Max. Green
	Min.	Max.		Min.	Max.	
A	7	20	Q			Min. 0 Max. 255
B	7	20	R			
C	7	20	S			Vehicle Extension Min. 0.0 Max. 10.0
D	7	20	T			Phase Delay Min. 0 Max. 3
E	5	20	U			Starting I/G Min. 7 Max. 15
F	6	20	V			Min Pedestrian Clearance (PBT) Min. 1 Max. 5
G	5	20	W			Traffic Phase Leaving Min. 3.0 Max. 3.0
H	5	20	X			Traffic Phase Red/Amber Min. 2 Max. 2
I	0	0	Y			
J	3	20	Z			
K			A2			
L			B2			
M			C2			
N			D2			
O			E2			
P			F2			

VA Demand and Extend Definitions

VA Demand and Extend Definitions

Demands

For Unlatched demands precede the name with a #.
Conditioning MUST be used to specify unlatched demands.

Phase				
A	AX2	AX3	ASL4	
B	BX6	BSL7		
C	CX9	CSL10		
D	DX12	DSL13		
E	PEDE8	PEDE9		
F	PEDF1	PEDF2		
G	PEDG3	PEDG4		
H	PEDH6	PEDH7		
I				
J				

Extensions

☒ Phases A to P ☐

AX2	AX3	ASL4	
BX6	BSL7		
CX9	CSL10		
DX12	DSL13		

Phase Internal/Revertive Demands

Phase Internal/Revertive Demands

Start-up Vehide Responsive Demands

A☒

B☒

C☒

D☒

E☒

F☒

G☒

H☒

I☐

J☐

☐

☐

☐

☐

☐

☐

Demands Inserted When Leaving Manual and Fixed Time Modes

A☒

B☒

C☒

D☒

E☐

F☐

G☐

H☐

I☐

J☐

☐

☐

☐

☐

☐

☐

Unlatched Demands that Start Max Timers

A☒

B☒

C☒

D☒

E☒

F☒

G☒

H☒

I☒

J☒

☐

☐

☐

☐

☐

☐

Revertive Phase Demands

A

B

C

D

E

F

G

H

I

J

K

L

M

N

O

P

A

B

C

D

Q

R

S

T

U

V

W

X

Y

Z

A2

B2

C2

D2

E2

F2

Phase - On Crossing and Kerbside Detector Definitions

On Crossing and Kerbside Input Definitions

Phases A to P

Phase

A

B

C

D

E

F

G

H

I

J

On Crossing

ONXE8

ONXF1

ONXG3

ONXH6

ONXE9

ONXF2

ONXG4

ONXH7

Kerbside

KSDE8

KSDF1

KSDG3

KSDH6

KSDE9

KSDF2

KSDG4

KSDH7

Stream - Pelican/Puffin/Toucan Times

Stream - Pelican/Puffin/Toucan Times

Pedestrian Enable VA Mode (PEV)

Streams

01234567

Pedestrian All Red Times (Vehicle to Pedestrian)

Streams

01234567

(PAR n 0) VA Gap Change

(PAR n 1) VA Max Change

(PAR n 2) FVP Change

(PAR n 3) UTC Change

(PAR n 4) Local Link Change

Handset Range Limits

Min

Max

0

0

Pelican Intergreen times

(PIT n 0) Veh Red/Ped Flash Green

(PIT n 1) Veh Flash Amber/Ped Flash Green

(PIT n 2) Veh Flash Amber/Ped Red

(PIT n 3) Veh Flash Amber/Ped Red Quiescent

0

0

0

0

0

0

0

0

Phase - Pelican, Puffin and Toucan Times

Phase - Pelican, Puffin and Toucan Times

Phases A to P

Phase	PDD Ped Demand Delay	PDX Ped Demand Hold	CMX Clearance Maximum	CDY 0 Clearance Delay Gap Change	CDY 1 Clearance Delay Max Change	CRD Clearance Minimum Red
A	0	0.0	0	0	0	0
B	0	0.0	0	0	0	0
C	0	0.0	0	0	0	0
D	0	0.0	0	0	0	0
E	1	1.0	8	0	0	0
F	1	1.0	10	0	0	0
G	1	1.0	8	0	0	0
H	1	1.0	7	0	0	0
I	0	0.0	0	0	0	0
J	0	0.0	0	0	0	0

Pedestrian Handset Range Limits

MIN

MAX

Demand Delay PDD

0

3

Demand Hold PDX

0.0

5.0

Clearance Maximum CMX

0

15

Clearance Delays
CDY 0 and CDY1

0

3

Clearance Minimum Red CRD

0

0

IO and Link - Pelican/Puffin/Toucan Times

IO and Link - Pelican/Puffin/Toucan Times

Streams

Computer Control

PV

Window Time

UIE

0

1

2

3

4

5

6

7

Local Link

PV1

Link Delay Time

LKD

Link Window Time

LKW

Link Override Time

LKO

Kerbside Mat Test

Output

Pelican, Puffin, Toucan Pushbutton/Kerbside Associations

Pelican, Puffin, Toucan Pushbutton/Kerbside Associations

	Phase	Demand	KBS
0	E	PED	E8
1	E	PED	E9
2	F	PED	F1
3	F	PED	F2
4	G	PED	G3
5	G	PED	G4
6	H	PED	H6
7	H	PED	H7
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			
31			
32			
33			
34			
35			
36			
37			
38			
39			
40			
41			
42			
43			
44			
45			
46			
47			
48			
49			
50			
51			
52			
53			
54			
55			
56			
57			
58			
59			
60			
61			
62			
63			

Note: Any association pushed off the screen will have any previous association blanked.

Stages - Prohibited, Alternative, Ignored Moves

Stages - Prohibited, Alternative, Ignored Moves

Sets
☒ 1
☐ 2
☐ 3
☐ 4

Modes	Restrictions Apply To:	No Restrictions
Urban Traffic Control	☒	☐
Cableless Linking	☒	☐
Vehicle Actuated	☒	☐
	☐	☐
Fixed Time	☒	☐
	☐	☐

Modes	Restrictions Apply To:	No Restrictions
Manual	☒	☐
	☐	☐
	☐	☐
	☐	☐

From Stage

To Stage

	0	1	2	3	4	5
0				2		
1				2		
2						
3			X			
4				2		
5				2		

Stage Internal Demands/Pedestrian Window Times

Stage Internal Demands/Pedestrian Window Times

Start-up Vehicle Responsive Demands

0	☐	1	☐	2	☐	3	☐	4	☐	5	☐	☐	☐	☐	☐	☐	☐	☐	☐
	☐		☐		☐		☐		☐		☐		☐		☐		☐		☐

Demands Inserted When Leaving Manual and Fixed Time Modes

0	☐	1	☐	2	☐	3	☐	4	☐	5	☐	☐	☐	☐	☐	☐	☐	☐	☐
	☐		☐		☐		☐		☐		☐		☐		☐		☐		☐

Unlatched Demands that Start Maximum Timers

0	☒	1	☒	2	☒	3	☒	4	☒	5	☒	☐	☐	☐	☐	☐	☐	☐	☐
	☐		☐		☐		☐		☐		☐		☐		☐		☐		☐

Window Times

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

Exceptional Stages

☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Fixed Time

Fixed Time

Stage Moves & Times (Not Fixed Time to Current Max)

Current Stage	0	1	2	3	4	5	6	7
Next Stage								
Time								
Current Stage	8	9	10	11	12	13	14	15
Next Stage								
Time								
Current Stage	16	17	18	19	20	21	22	23
Next Stage								
Time								
Current Stage	24	25	26	27	28	29	30	31
Next Stage								
Time								

Phases Demanded and Extended under Fixed Time to Current Max.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Demand	☒	☒	☒	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Extend	☒	☒	☒	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	Q	R	S	T	U	V	W	X	Y	Z	A2	B2	C2	D2	E2	F2
Demand	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Extend	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

CLF - Base Time

CLF - Base Time

Controller Base Date

XXXXXX

Controller Base Time

02:00:00

Plan Offset

	Minutes	Seconds		Minutes	Seconds
Plan 0	0	0	Plan 8	0	0
Plan 1	0	0	Plan 9	0	0
Plan 2	0	0	Plan 10	0	0
Plan 3	0	0	Plan 11	0	0
Plan 4	0	0	Plan 12	0	0
Plan 5	0	0	Plan 13	0	0
Plan 6	0	0	Plan 14	0	0
Plan 7	0	0	Plan 15	0	0

Handset Range Limits

	Minutes	Seconds
Min	0	0
Max	4	59

UTC General Data

UTC General Data

Type of UTC

☒ 106☐ 316

Integral OTUAddress

2

Number of Control Words

2

Number of Reply Words

☐ Controller to respond to TC bit.

☐ Introduction of UTC to be disabled by Priority and LRTM

Non UTC RTC synchronisation input name

RTC Synchronisation Times

Clock Synchronise Time (UTC TS input)

Day

Saturday

Time

00:00:00

Clock Confirm Time (UTC RT output)

Day

Saturday

Time

00:00:00

Last Modified 18/01/2016, Issue 3.2.7

Form Ref: 4.3.1

Works Order : 460966136
EM Number : 41104
Engineer : Stuart Mulliner
Intersection : High Street / Midlands Road / The Wells - Royston Barnsley

UTC Control and Reply Data Format

UTC Control and Reply Data Format

Control Words

Bit 1Bit 2Bit 3Bit 4Bit 5Bit 6Bit 7Bit 8

Word 1

F1

F2

F3

F4

F5

Word 2

Word 3

Word 4

Reply Words

Word 1

G1

G2

G3

G4

G5

Word 2

Word 3

Word 4

Word 5

Word 6

Word 7

Word 8

Word 9

Word 10

Word 11

Word 12

Word 13

Word 14

Last Modified 18/01/2016, Issue 3.2.7

Form Ref: 4.3.2

UTC Stage and Mode Data Definitions

UTC Stage and Mode Data Definitions

Stage	Force Bit	Green Confirm Bit	Demand Confirm Bit	Stage	Force Bit	Green Confirm Bit	Demand Confirm Bit
0	F5	G5		16			
1	F1	G1		17			
2	*ROUGH2			18			
3	*ROUGH3			19			
4	F3	G3		20			
5	F4	G4		21			
6				22			
7				23			
8				24			
9				25			
10				26			
11				27			
12				28			
13				29			
14				30			
15				31			

Mode Data Definitions

Manual Mode Operative:

☐ G1/G2

☐ RR

☐

Manual Mode Selected:

☐ G1/G2

☐ RR

☐

No Lamp Power, or Lamps Off due to RLM or Part Time:

☐ G1/G2

☐

☐

Detector Fault:

☐

☐

☐ DF

Normal NOT selected on the Manual Panel:

☐ G1/G2

☐ RR

☐

RR Button Selected:

☐ G1/G2

☐ RR

☐

If UTC Reply Confirms are required for a Controller Fault (CF) OR for separate MC and RR replies, Conditioning must be used.

UTC and MOVA Detectors

UTC and MOVA Detectors

Detector Mapping

☒ Combined

Set Selection

☐

☐

☐

☐

☐

1	AIN1	2	AX2	3	AX3	4	ASL4	5	BIN5	6	BX6	7	BSL7	8	CIN8
9	CX9	10	CSL10	11	DIN11	12	DX12	13	DSL13	14		15		16	
17		18		19		20		21		22		23		24	
25		26		27		28		29		30		31		32	
33		34		35		36		37		38		39		40	
41		42		43		44		45		46		47		48	
49		50		51		52		53		54		55		56	
57		58		59		60		61		62		63		64	

Note - only 32 detectors available on MOVA 4.0

Works Order : 460966136
EM Number : 41104
Engineer : Stuart Mulliner
Intersection : High Street / Midlands Road / The Wells - Royston Barnsley

MTC - Time Switch Parameters

—MTC - Time Switch Parameters

	Type	Event
0	Alternate Max	MAXSETB
1	Alternate Max	MAXSETC
2	Alternate Max	MAXSETD
3	Alternate Max	MAXSETE
4	Alternate Max	MAXSETF
5	Alternate Max	MAXSETG
6	Alternate Max	MAXSETH
7	Alternate DFM	ALTDPRMB
8	Alternate DFM	ALTDPRMC
9	Alternate DFM	ALTDPRMD
10	Conditioning	MTCF0
11	No Action	
12	No Action	
13	No Action	
14	No Action	
15	No Action	

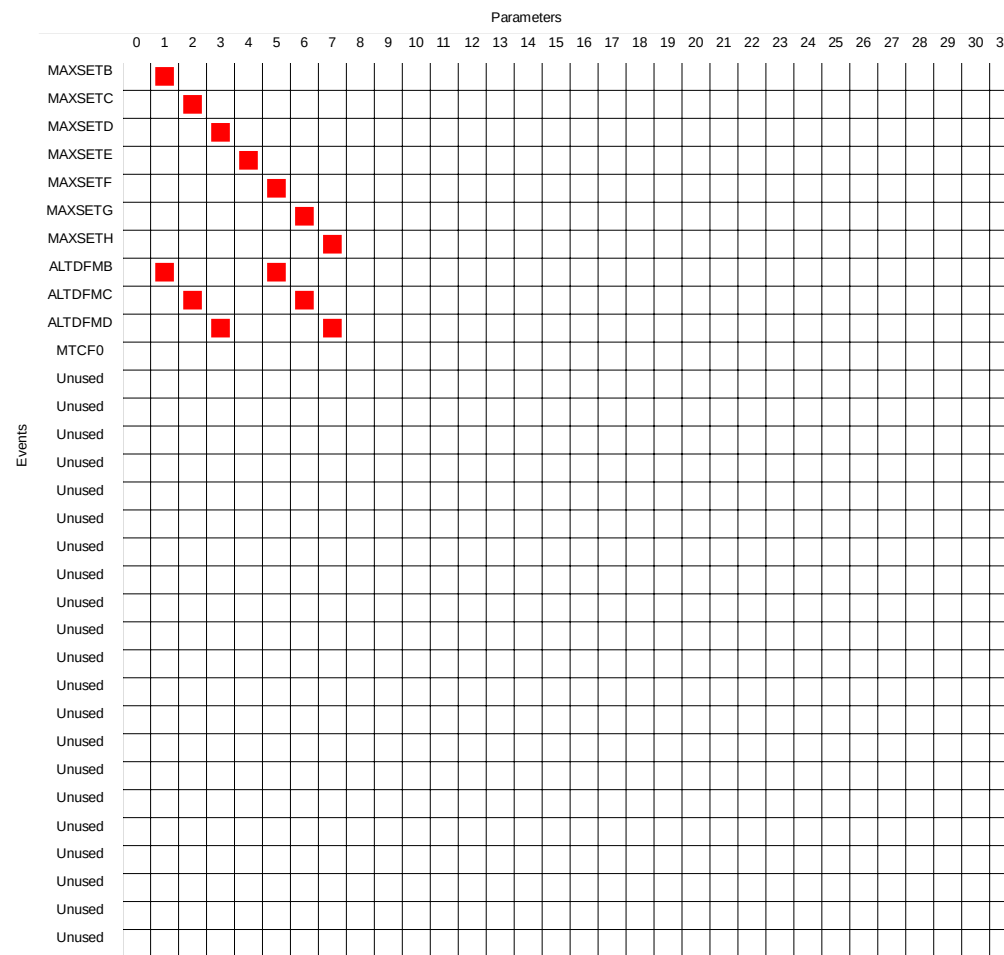
	Type	Event
16	No Action	
17	No Action	
18	No Action	
19	No Action	
20	No Action	
21	No Action	
22	No Action	
23	No Action	
24	No Action	
25	No Action	
26	No Action	
27	No Action	
28	No Action	
29	No Action	
30	No Action	
31	No Action	

Last Modified 18/01/2016, Issue 3.2.7

Form Ref: 4.4.1

Works Order : 460966136
EM Number : 41104
Engineer : Stuart Mulliner
Intersection : High Street / Midlands Road / The Wells - Royston Barnsley

MTC - Time Switch Parameters Array



Last Modified 18/01/2016, Issue 3.2.7

Form Ref: 4.4.2

MTC - Day Type

MTC - Day Type

No.	Mon	Tue	Wed	Thu	Fri	Sat	Sun
0	☐	☐	☐	☐	☐	☒	☐
1	☐	☐	☐	☐	☐	☐	☒
2	☒	☐	☐	☐	☐	☐	☐
3	☐	☒	☐	☐	☐	☐	☐
4	☐	☐	☒	☐	☐	☐	☐
5	☐	☐	☐	☒	☐	☐	☐
6	☐	☐	☐	☐	☒	☐	☐
7	☒	☒	☒	☒	☒	☒	☒
8	☒	☒	☒	☒	☒	☒	☐
9	☒	☒	☒	☒	☒	☐	☐
10	☐	☐	☐	☐	☐	☐	☐
11	☐	☐	☐	☐	☐	☐	☐
12	☐	☐	☐	☐	☐	☐	☐
13	☐	☐	☐	☐	☐	☐	☐
14	☐	☐	☐	☐	☐	☐	☐
15	☐	☐	☐	☐	☐	☐	☐

MTC - Timetable

MTC - Timetable

View Timetable Settings

☒ 0 - 15☐ 16 - 31☐ 32 - 47☐ 48 - 63

No.	Day Type	Time	Description	Function Code	Plan/Parameter
0	9	07:00:00	Maxset A and DFM set A	2	0
1	9	09:30:00	Maxset B and DFM set B	2	1
2	9	12:00:00	Maxset C and DFM set C	2	2
3	9	15:00:00	Maxset D and DFM set D	2	3
4	9	16:00:00	Maxset A and DFM set A	1	0
5	9	18:30:00	Maxset B and DFM set B	2	1
6	9	18:15:00	Maxset D and DFM set D	2	3
7	0	18:00:00	Maxset A and DFM set A	2	0
8	0	09:30:00	Maxset B and DFM set B	2	1
9	0	16:00:00	Maxset C and DFM set C	2	2
10	0	18:00:00	Maxset D and DFM set D	2	3
11	1	09:00:00	Maxset B and DFM set B	2	1
12	1	16:30:00	Maxset D and DFM set D	2	3
13	0			0	0
14	0			0	0
15	0			0	0

Function Codes:
0 = Isolate From CLF
1 = Introduce a CLF Plan
2 = Introduce a Parameter (Combination of event switches)
3 = Selects an Individual event switch to be set
4 = Selects an Individual event switch to be cleared.

MTC - Timetable

MTC - Timetable

View Timetable Settings

☐ 0 - 15

☐ 16 - 31

☐ 32 - 47

☒ 48 - 63

No.	Day Type	Time	Description	Function Code	Plan/Parameter
48	0			0	0
49	0			0	0
50	0			0	0
51	0			0	0
52	0			0	0
53	0			0	0
54	0			0	0
55	0			0	0
56	0			0	0
57	0			0	0
58	0			0	0
59	0			0	0
60	0			0	0
61	0			0	0
62	7	08:00:00	Enable Audibles	4	10
63	7	23:00:00	Disable Audibles	3	10

Function Codes:

0 = Isolate From CLF

1 = Introduce a CLF Plan

2 = Introduce a Parameter (Combination of event switches)

3 = Selects an Individual event switch to be set

4 = Selects an Individual event switch to be cleared.

LMU - General

LMU - General

Lamp Monitoring - LMU Voltage

☐

☒ 48

☐

Red Lamp Monitoring

Max Red Bulb Wattage

First Red Lamp Fault Speed

2

☒ RLF2 Cancels RLM additional Intergreens

RLM Additional Intergreen Handset Limits

☒ RLF2 Only Cleared by RFL = 1

Minimum

2

Maximum

10

☐ RLF1 Only Cleared by RFL = 1

Streams with Phase BlackOut on RLF2

☐ 0

☐

☐

☐

☐

☐

☐

☐

Integral LMU Onboard Sensors

Integral LMU Onboard Sensors

No. of LSLS cards fitted
1

HPU Connection
1

Sensor Configuration For LSLS 1 (Cabinet 1)

Phase	Aspect	Sensor #	Sensor Type	Phase	Aspect	Sensor #	Sensor Type
A	Red	1	As Seq.	F	Red	7	R,G
A	Amber	1	As Seq.	F	Amber	8	Wait
A	Green	1	As Seq.	F	Green	7	R,G
B	Red	2	As Seq.	F	Green	N/A	
B	Amber	2	As Seq.	G	Red	9	R,G
B	Green	2	As Seq.	G	Amber	10	Wait
C	Red	3	As Seq.	G	Green	9	R,G
C	Amber	3	As Seq.	G	Green	N/A	
C	Green	3	As Seq.	H	Red	11	R,G
D	Red	4	As Seq.	H	Amber	12	Wait
D	Amber	4	As Seq.	H	Green	11	R,G
D	Green	4	As Seq.	H	Green	N/A	
E	Red	5	R,G	N/A	N/A		
E	Amber	6	Wait	N/A	N/A		
E	Green	5	R,G	N/A	N/A		
E	Green	N/A		I	Green	N/A	

Note : A(*) character next to a sensor number indicates that the sensor would also be available on the External sensors screen. Please be sure you wish to use these sensors here, as they will then become unavailable for Regulatory Signs.

Integral LMU External Sensors for Regulatory Signs

Integral LMU External Sensors for Regulatory Signs

External Sensors (1)

Sensor	Sensor Type
48	Regulatory Sign
47	Regulatory Sign
46	Regulatory Sign
45	Regulatory Sign

External Sensors (2)

Sensor	Sensor Type
--------	-------------

External Sensors (3)

Sensor	Sensor Type
--------	-------------

External Sensors (4)

Sensor	Sensor Type
--------	-------------

External Sensors (5)

Sensor	Sensor Type
--------	-------------

External Sensors (6)

Sensor	Sensor Type
--------	-------------

Note: Sensors which have been used as Onboard sensors will not be available here.

LMU Sensor Load Types

LMU Sensor Load Types

Screen Select

1 of 1

Sensor	Phase	Sensor Type	LED R+W	Load Type	LLF Profile
1	A	As Seq.		1: Siemens Helios ELV	
2	B	As Seq.		1: Siemens Helios ELV	
3	C	As Seq.		1: Siemens Helios ELV	
4	D	As Seq.		1: Siemens Helios ELV	
5	E	R,G		3: Siemens LED Near Side Indicator	
6	E	Wait		2: Siemens LED Demand Indicator	
7	F	R,G		3: Siemens LED Near Side Indicator	
8	F	Wait		2: Siemens LED Demand Indicator	
9	G	R,G		3: Siemens LED Near Side Indicator	
10	G	Wait		2: Siemens LED Demand Indicator	
11	H	R,G		3: Siemens LED Near Side Indicator	
12	H	Wait		2: Siemens LED Demand Indicator	
45	N/A	Regulatory Sign		4: Siemens ELV Regulatory Sign	
46	N/A	Regulatory Sign		4: Siemens ELV Regulatory Sign	
47	N/A	Regulatory Sign		4: Siemens ELV Regulatory Sign	
48	N/A	Regulatory Sign		4: Siemens ELV Regulatory Sign	

RLM Additional Intergreens

Phases Delayed

Phases with RLF1

	A	B	C	D	E	F	G	H	I	J
A					3	3	3	3	3	
B					3	3	3	3	3	
C					3	3	3	3	3	
D					3	3	3	3	3	
E										
F										
G										
H										
I										
J										

RLM Phase Inhibits

Phases with RLF2

Phases Inhibited/Blacked-Out										
	A	B	C	D	E	F	G	H	I	J
A										
B										
C										
D										
E										
F										
G										
H										
I										
J										

Manual Panel

Manual Panel

Stage Buttons and LEDs

Button No.	Title	Called Stage for Stream							
		0	1	2	3	4	5	6	7
0	All Red	0							
1	High Street	1							
2	Pedestrians	3							
3	Midland Road	4							
4	Church Street	5							
5									
6									
7									

General LEDs

	AUX 1	AUX 2	AUX 3	AUX 4 (Hurry Call)	AUX 5 (Higher Priority)
Conditioned	☒	☒	☒	☐	☒

General Buttons

	None	SW1	SW2	SW3
Momentary		☐	☐	☐
Dim Override	☒	☐	☐	☐
RR	☒	☐	☐	☐

Manual Signals On

☐ Immediate Signals On

☒ As Start-Up

Manual Mode Enable

☒ Always

☐ When Handset Plugged in (Note 1)

☐ When 'MND' Command Entered

NOTE:
For this to operate Special
Conditioning is required.

Mode Select Switches Disabled

☐ VA

☐ Fixed Time

☐ CLF

Works Order : 460966136
EM Number : 41104
Engineer : Stuart Mulliner
Intersection : High Street / Midlands Road / The Wells - Royston Barnsley

Special Conditioning

```
; T800/900 SPECIAL FACILITIES
;
; -----

DOORSW: :=MNCNT                ; DOOR CLOSED DISABLES MANUAL CONTROL
          *=MSCONT
          *=ESPTX0              ; DOOR SWITCH ALSO SENT ALONG SERIAL LINK

MAXSETB+MAXSETF=ESPTX1          ; MAXSET INFORMATION ALSO SENT ALONG SERIAL LINK
MAXSETC+MAXSETG=ESPTX2
MAXSETD+MAXSETH=ESPTX3

TRUE=ESPTX4                      ; FLAG TO DETECT SERIAL LINK DISCONNECTION

(NOT FFH22).(LMUINHE+LMUINHf+LMUINHg+LMUINHh):::=+UCST1
                                *=+UCST2
                                *=+UCST4
                                *=+UCST5

                                ; DEMAND ALL STAGES IF DOUBLE RED FAIL JUST CLEARED
                                ; BUT PEDESTRIAN PHASE(S) STILL INHIBITED

;
;
; ADDITIONAL MOVA FUNCTIONS
; -----

VRDMNDE=MOVADET27                ; PEDESTRIAN DEMAND CONFIRMS
VRDMNDF=MOVADET28
VRDMNDG=MOVADET29
VRDMNDH=MOVADET30
VRDMNDE+VRDMNDF+VRDMNDG+VRDMNDH=MOVADET31

;
; CONTROL READY BIT
; -----

; Manual to be TOP Priority, Higher Priority LED and AUX1 LED to be enabled in conditioning
; Manual Panel Switch 1 and LED 1 used to disable MOVA, reallocate if Sw1/LED1 used for other purposes
; PIR92 - Lamps off Delay Timer      Set at 1.0   Limits 1.0 - 5.0
; PIR93 - MoVa Override Timer        Set at 10.0  Limits 5.0 - 31.8
; PIR94 - CRB Delay Timer            Set at 255   Limits 180 - 255
; PIR95 - CRB Pulse Timer            Set at 2.0   Limits 1.0 - 31.8

IFT SCRT0+CNDTER94 THN            ; START CRB PULSE TIMER IF CRB DELAY TIMER
RUN <95>                          ; JUST TIMED OFF OR IF CONTROLLER HAS JUST
END                               ; DROPPED OFF MOVA CONTROL

IFT (MODE0 EQL <6>)+(PRVMOD0 EQL <6>) THN ; THIS BLOCK OF CONDITIONING WILL PULSE CRB BIT FOR
TRUE=SCRT0                        ; PIR95 SECONDS EVERY PIR94 SECONDS IF MOVA IS NOT
                                ; IN CONTROL ON THIS OR LAST CYCLE
                                ; IT WILL ALSO DROP CRB IF LAMPS ARE OFF OR NORMAL
CNDTMA92.(NOT(SSMAN+SSVA+SSFIX+SSCLF+MAUXSW1))=MOVACRB ; NOT SELECTED OR SW1 PRESSED
ELS
FALSE=SCRT0
CNDTMA92.(NOT(SSMAN+SSVA+SSFIX+SSCLF+MAUXSW1+CNDTMA95))=MOVACRB
END

IFT (NOT MOVACRB)+CNDTER95 THN    ; RESET CRB DELAY TIMER IF CRB NOT PRESENT
RUN <94>                          ; OR IF CRB PULSE TIMER HAS JUST FINISHED
```

Works Order : 460966136
EM Number : 41104
Engineer : Stuart Mulliner
Intersection : High Street / Midlands Road / The Wells - Royston Barnsley

Special Conditioning

```
END

NOT CNDTMA93=DISUTC0              ; MOVA OVERRIDE TIMER WILL DISABLE MOVA IF IT HAS
IFT MOVACRB THN                  ; NOT RELEASED CONTROL AFTER LOSING CRB
RUN <93>
END

IFT PRSLMPRA+PRSLMPAA+PRSLMPGA THN ; LAMPS SUPPLY DELAY TIMER
RUN <92>
END

IFT (NOT MOVACRB).SCRT0 THN      ; IF MOVA IS IN CONTROL BUT CRB IS NOT PRESENT
INC 2SCRTCH31                    ; FLASH THE HIGHER PRIORITY L.E.D. ON THE
2SCRT248=MIL17                  ; MANUAL PANEL OTHERWISE THE LED IS FULLY
ELS                               ; LIT DURING MOVA MODE
(MODE0 EQL <6>)=MIL17
END

MAUXSW1=MIL22                    ; AUX1 LED CONFIRMS MOVA DISABLED BY SW1

;
; TIMESWITCHED AUDIBLES
; -----
; Ensure ALL moves to second stage are via the first stage in ALL modes
; Ensure move from second stage to first stage is prevented in ALL modes
; Green confirm reply needs to be conditioned and the "F" bit should force both stages except in MOVA,
; (See below)
; Marked block **below** should ONLY be used in MOVA
; See CAUTION note regarding Flexible Lamp Sequencing

FALSE:=.LCPHI                    ; PREVENT ANY DEMANDS FOR THE AUDIBLE EXCEPT
          *=.UCPHI                ; FOR THE ONE PRODUCED IN THE FOLLOWING BLOCK

(NOT(PHASEE.PHASEF.PHASEG.PHASEH)).PHASEI=1AUXCMDI4 ; DELETE AUDIBLE DRIVER PHASE UNLESS ALL
; PEDESTRIAN PHASES ARE AT GREEN
; CAUTION: - ENSURE FLEXIBLE LAMP SEQUENCING IS
; *****   ENABLED FOR GREEN ARROW PHASES

IFT (NXTSTG0 EQL <2>) THN        ; IF CONTROLLER IS GOING TO STAGE 2 THE AUDIBLE
SCRT1+(NOT(PHASEE.PHASEF.PHASEG.PHASEH))=PRVPHI ; DRIVER PHASE IS PREVENTED UNLESS ALL PEDESTRIAN
ELS                               ; PHASES ARE AT GREEN AND TIMESWITCH FLAG IS NOT SET
SCRT1.(NOT PHASEI)=PRVPHI        ; AT ALL OTHER TIMES THE AUDIBLE DRIVER PHASE IS
END                               ; PREVENTED WHEN TIMESWITCH FLAG IS SET

PHASEE.PHASEF.PHASEG.PHASEH=.SCRT1 ; TIMESWITCH FLAG SET WHEN SWITCH 10 IS SET
MTCF0.(NOT(MODE0 EQL <4>))=+SCRT1 ; N.B. THE FLAG CANNOT BE RESET IF
; THE PEDESTRIAN PHASES ARE AT GREEN
; WHEN TIMESWITCH CHANGES

(PHASEE.PHASEF.PHASEG.PHASEH).(NOT(PRVPHI+PHASEI)):::=====+FTCONT
                                *=+CLCONT
                                *=+HYCONT
                                *=+UTCONT
                                *=+MNCNT
                                *=+MSCONT
                                *=+BUSCONT
                                *=+SSCONT
                                *=+EVCONT
```

Special Conditioning

```

                                *:=+UCPHI
                                ; THE ABOVE BLOCK OF CONDITIONING WILL FORCE AN
                                ; IMMEDIATE 2-3 CHANGE TO ALLOW AUDIBLE DRIVER PHASE
                                ; TO APPEAR PROVIDING ALL PEDESTRIAN PHASES ARE AT
                                ; GREEN AND THE AUDIBLE DRIVER PHASE IS NOT
                                ; PREVENTED

IFT (STAGE0+STAGE1+STAGE4+STAGES5) THN      ; TIMESWITCH ENABLES AUDIBLE MODULE BUT IT CANNOT
NOT MTCF0=AUDIO                               ; CHANGE STATE UNLESS ALL PEDESTRIANS ARE AT RED
END                                             ; (For ELV controllers only)

CNDTMA10=.AUDIO                               ; AUDIBLE CUT OFF TIMER EXPIRING WILL STOP AUDIBLES

IFT (NOT PHASEI) THN                          ; IF AUDIBLE PHASE IS NOT AT GREEN RESET AUDIBLE
RUN <10>                                       ; CUT OFF TIMER
END

(NXTSTG0 EQL <2>)+(NXTSTG0 EQL <3>)=.SCRT2    ; GREEN CONFIRM IS EITHER STAGE PLUS INTERSTAGE
STAGE2+STAGE3=+SCRT2                        ; BETWEEN THEM
(NOT SCRT2)=G2

((F1+F2+F3+F4).UTCONT)+(F2.STAGE3)=ROUGH3    ; FORCE STAGE 3 IF THE ABOVE MOVE IS REQUIRED OR
F2.(NOT ROUGH3)=ROUGH2                      ; F2 FORCES STAGE 3 DURING STAGE 3
                                             ; F2 FORCES STAGE 2 UNLESS IT IS FORCING STAGE 3

FALSE=UTCONT                                ; PREVENT DROPPING OFF UTC IF MOVA IS IN USE

; DELAYED REVERSION
; -----
; Add phase _stage demands as required to suit configuration and ensure no reversion specified
; on the revertive stage/phase page of the IC4 file.
; Remove movadetxx and duplicate from first block if not required.

NOT(CNDTMA0+SCRT10):=+UCPHJ                  ; REVERSION DELAY EXPIRED DEMANDS DUMMY
      *=MOVADET32                            ; PHASE IN ALL RED STAGE

FALSE=.SCRT10                                ; FLAG TO ALLOW TIMER TO BE SET TO ZERO

IFT (VRDMNDA+VRDMNDB+VRDMNDC+VRDMNDD+VRDMNDE+VRDMNDF+VRDMNDG+VRDMNDH) THN
RUN <0>
TRUE=+SCRT10
END

IFT (VRDMND1+VRDMND2+VRDMND3+VRDMND4+VRDMND5) THN ; ANY DEMAND OR EXTENSION OR INTERGREEN WILL
RUN <0>                                       ; RESET THE DELAYED REVERSION TIMER
TRUE=+SCRT10
END

IFT (EX0A+EXTAA+EX0B+EXTAB+EX0C+EXTAC+EX0D+EXTAD) THN
RUN <0>
TRUE=+SCRT10
END

IFT (NOT(STAGE1+STAGE2+STAGE3+STAGE4+STAGES5)) THN
```

Special Conditioning

```

RUN <0>
TRUE=+SCRT10
END
```

Special Conditioning Timers

Special Conditioning Timers

Timers

0-31

No	Value	Min	Max	200ms	Description	No	Value	Min	Max	200ms	Description
0	10	0	255	☐	Reversion Delay Timer	16		0	255	☐	
1		0	255	☐		17		0	255	☐	
2		0	255	☐		18		0	255	☐	
3		0	255	☐		19		0	255	☐	
4		0	255	☐		20		0	255	☐	
5		0	255	☐		21		0	255	☐	
6		0	255	☐		22		0	255	☐	
7		0	255	☐		23		0	255	☐	
8		0	255	☐		24		0	255	☐	
9		0	255	☐		25		0	255	☐	
10	5	5	20	☐	Audible Cutoff Timer	26		0	255	☐	
11		0	255	☐		27		0	255	☐	
12		0	255	☐		28		0	255	☐	
13		0	255	☐		29		0	255	☐	
14		0	255	☐		30		0	255	☐	
15		0	255	☐		31		0	255	☐	

Special Conditioning Timers

Special Conditioning Timers

Timers

64-95

No	Value	Min	Max	200ms	Description	No	Value	Min	Max	200ms	Description
64		0	255	☐		80		0	255	☐	
65		0	255	☐		81		0	255	☐	
66		0	255	☐		82		0	255	☐	
67		0	255	☐		83		0	255	☐	
68		0	255	☐		84		0	255	☐	
69		0	255	☐		85		0	255	☐	
70		0	255	☐		86		0	255	☐	
71		0	255	☐		87		0	255	☐	
72		0	255	☐		88		0	255	☐	
73		0	255	☐		89		0	255	☐	
74		0	255	☐		90		0	255	☐	
75		0	255	☐		91		0	255	☐	
76		0	255	☐		92	1.0	1.0	5.0	☒	Lamps off delay
77		0	255	☐		93	10.0	5.0	30.0	☒	MOVA Override
78		0	255	☐		94	180	120	255	☐	CRB Delay
79		0	255	☐		95	2.0	1.0	30.0	☒	CRB Pulse

Works Order : 460966136
EM Number : 41104
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Special Instructions

The existing controller will be modified to become a 5 stage / 8 phase T900ELV controller incorporating manual, V.A, fixed time to current maximums, C.L.F, red & general lamp monitoring, timeswitched audibles, red & general lamp monitoring, delayed reversion to all red and Siemens semi-integral OMU/MOVA. The CLF is for possible future use.

When all phases in stage 2 have reached green and immediate change to stage 3 will occur, (timeswitch permitting), to bring phase I to green. This phase will provide the audible drive voltage. The audibles can also be switched off by the AUDIO output after (PIR10) seconds of phase I green. Once switched off they cannot restart in that cycle. F2/G2 will apply to both stages and interstage.

In the absence of demands and extensions the controller will revert to all red. The reversion is delayed by PIR0 timer. This timer is reset by any demand, extension or intergreen.

ADDITIONAL MOVA OUTPUTS

Pedestrian phase E demand = MOVA 27
Pedestrian phase F demand = MOVA 28
Pedestrian phase G demand = MOVA 29
Pedestrian phase H demand = MOVA 30
Any pedestrian demand = MOVA 31

Reversion request = MOVA 32

TIMESWITCHED AUDIBLES

Connect Phase I green and signal retur to LSLS I/P and RET on audio module

Connect EN+ and COM to AUDIO output on I/O card

Works Order : 460966136
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Special Instructions

SIEMENS ST900 INTERNAL DETECTOR BACKPLANE POWER AND SERIAL COMMUNICATION CONNECTION

(BACKPLANE 1)				(BACKPLANE 2)			
SERIAL CONNECTION				SERIAL CONNECTION			
RJ45 COMM'S CABLE				RJ45 COMM'S CABLE			
PHS PCB		BACKPLANE		BACKPLANE			
PL2/4---	(RJ45)----	IN	OUT	-----	(RJ45)-----	IN	OUT
				etc			
POWER CONNECTION				POWER CONNECTION			
POWER		BACKPLANE		BACKPLANE			
+24V DC		IN+ OUT+		IN+ OUT+			
TBE 1-6---	(RED)---	SK7	SK6	-----	(RED)-----	SK7	SK6
				etc			
0V		IN- OUT-		IN- OUT-			
TBE 7-12--	(BLK)---	SK7	SK6	-----	(BLK)-----	SK7	SK6
				etc			
POWER CONNECTION				POWER CONNECTION			
AGD SUPPLY KIT							
667/1/27006/008							
POWER		BACKPLANE		BACKPLANE			
TX TERM		IN+ OUT+		IN+ OUT+			
24V-----	(RED)---	SK7	SK6	-----	(RED)-----	SK7	SK6
				etc			
TX TERM		IN- OUT-		IN- OUT-			
0V-----	(BLK)---	SK7	SK6	-----	(BLK)-----	SK7	SK6
				etc			

- NOTE 1 If more than one backplane power Linking between B/Planes to be made using the Black 24/0.2 PVC wire 998/4/200075/605
- NOTE 2 PHS RJ45 connections. It is recomended that the Detector Backplanes are cabled on one daisy-chain from the PHS and the IO cards are cabled on a separate daisy-chain from the PHS (ie do not mix IO cards and Backplanes on the same daisy-chain)
- NOTE 3 Card addressing (1 to 15) is shared between IO cards and Backplane Controllers.(ie if an IO card is set to address 1, then no Backplane Controller may use address 1)
- NOTE 4 Address 0 must not be used on an IO card or on Backplane Controller

Special Instructions

SIEMENS ST900 INTERNAL DETECTOR BACKPLANE INSTRUCTIONS SHEET

DETECTOR BACKPLANE ADDRESS: 001
POSITION OF LOOP TERMINATION BOARD: 2LT1

LOOP DESIGNATION				
DET CARD "A"		DET CARD "A"		
No.	LOOP ID	TERMINATIONS	PANEL	
1	AIN1	1	2LT1/A1L & A1R	UPPER
2	AX2	2	2LT1/A2L & A2R	UPPER
3	AX3	3	2LT1/A3L & A3R	UPPER
4	ASL4	4	2LT1/A4L & A4R	UPPER
DET CARD "B"		DET CARD "B"		
No.	LOOP ID	TERMINATIONS	PANEL	
1	BIN5	1	2LT1/B1L & B1R	UPPER
2	BX6	2	2LT1/B2L & B2R	UPPER
3	BSL7	3	2LT1/B3L & B3R	UPPER
4	Not In Use	4	2LT1/B4L & B4R	UPPER
DET CARD "C"		DET CARD "C"		
No.	LOOP ID	TERMINATIONS	PANEL	
1	CIN8	1	2LT1/C1L & C1R	UPPER
2	CX9	2	2LT1/C2L & C2R	UPPER
3	CSL10	3	2LT1/C3L & C3R	UPPER
4	Not In Use	4	2LT1/C4L & C4R	UPPER
DET CARD "D"		DET CARD "D"		
No.	LOOP ID	TERMINATIONS	PANEL	
1	DIN11	1	2LT1/D1L & D1R	UPPER
2	DX12	2	2LT1/D2L & D2R	UPPER
3	DSL13	3	2LT1/D3L & D3R	UPPER
4	Not In Use	4	2LT1/D4L & D4R	UPPER

N.B. L=L.H. TERMINAL R=R.H. TERMINAL

Special Instructions

T900 SERIAL I/O BOARD - INPUT PORTS

			INPUT NAME		INPUT NAME	
0	0	0	Phase E push buttons pole 8		Phase G push buttons pole 4	12 12 12
1	1	1	Phase E kerbside pole 8		Phase G kerbside pole 4	13 13 13
2	2	2	Phase E on crossing pole 8		Phase G on crossing pole 8	14 14 14
3	3	3				15 15 15
4	4	4	Phase E push buttons pole 9			16 16 16
5	5	5	Phase E kerbside pole 9			17 17 17
6	6	6	Phase E on crossing pole 9			18 18 18
7	7	7				19 19 19
8	8	8	Phase G push buttons pole 3			20 20 20
9	9	9	Phase G kerbside pole 3			21 21 21
10	10	10	Phase G on crossing pole 3			22 22 22
11	11	11				23 23 23

SERIAL I/O BOARD No:-001

0	Volts - INPUT COMMON	0	Volts - INPUT COMMON
0	Volts - INPUT COMMON	0	Volts - INPUT COMMON
0	Volts - INPUT COMMON	0	Volts - INPUT COMMON
0	Volts - INPUT COMMON	0	Volts - INPUT COMMON
0	Volts - INPUT COMMON	0	Volts - INPUT COMMON
0	Volts - INPUT COMMON	0	Volts - INPUT COMMON
0	Volts - INPUT COMMON	0	Volts - INPUT COMMON
0	Volts - INPUT COMMON	0	Volts - INPUT COMMON

BOARD ADDRESS 002

SPECIAL NOTE:-
***** Unless otherwise indicated ALL above ground detectors (MVD, kerbside & on crossing, etc) MUST be wired as open circuit for vehicle/pedestrian presence.

Special Instructions

T900 SERIAL I/O BOARD - OUTPUT PORTS

***** ***** SERIAL I/O BOARD No:-001 ***** *****												
N/C	C	N/O	OUTPUT NAME				OUTPUT NAME			N/O	C	N/C
---	---	---	-----				-----			---	---	---
	X	X	Connect to EN+ & COM on AUDIO module				O/P 8				X	

	X						O/P 8				X	

	X		O/P 1				O/P 9				X	

	X		O/P 1				O/P 9				X	

	X		O/P 2				O/P 10				X	

	X		O/P 2				O/P 10				X	

	X		O/P 3				O/P 11				X	

	X		O/P 3				O/P 11				X	

***** ***** FOR OUTPUT NAMES USE ONLY THE TERMINALS MARKED - "X" ***** *****												
N/C	C	N/O	OUTPUT NAME				OUTPUT NAME			N/O	C	N/C
---	---	---	-----				-----			---	---	---
	X		O/P 4				O/P 12				X	

	X		O/P 4				O/P 12				X	

	X		O/P 5				O/P 13				X	

	X		O/P 5				O/P 13				X	

	X		O/P 6				O/P 14				X	

	X		O/P 6				O/P 14				X	

	X		O/P 7				O/P 15				X	

	X		O/P 7				O/P 15				X	

***** ***** BOARD ADDRESS 002 ***** *****												

Special Instructions

T900 SERIAL I/O BOARD - INPUT PORTS

			INPUT NAME			INPUT NAME					
0	0	0	Phase F push buttons pole 1			Phase H push buttons pole 7			12	12	12
1	1	1	Phase F kerbside pole 1			Phase H kerbside pole 7			13	13	13
2	2	2	Phase F on crossing pole 1			Phase H on crossing pole 7			14	14	14
3	3	3							15	15	15
4	4	4	Phase F push buttons pole 2						16	16	16
5	5	5	Phase F kerbside pole 2						17	17	17
6	6	6	Phase F on crossing pole 2						18	18	18
7	7	7							19	19	19
8	8	8	Phase H push buttons pole 6						20	20	20
9	9	9	Phase H kerbside pole 6						21	21	21
10	10	10	Phase H on crossing pole 6						22	22	22
11	11	11							23	23	23

***** SERIAL I/O BOARD No:-002 *****											

-	-	-	0 Volts - INPUT COMMON			0 Volts - INPUT COMMON			-	-	-
-	-	-	0 Volts - INPUT COMMON			0 Volts - INPUT COMMON			-	-	-
-	-	-	0 Volts - INPUT COMMON			0 Volts - INPUT COMMON			-	-	-
-	-	-	0 Volts - INPUT COMMON			0 Volts - INPUT COMMON			-	-	-
-	-	-	0 Volts - INPUT COMMON			0 Volts - INPUT COMMON			-	-	-
-	-	-	0 Volts - INPUT COMMON			0 Volts - INPUT COMMON			-	-	-
-	-	-	0 Volts - INPUT COMMON			0 Volts - INPUT COMMON			-	-	-
-	-	-	0 Volts - INPUT COMMON			0 Volts - INPUT COMMON			-	-	-

***** BOARD ADDRESS 003 *****											

SPECIAL NOTE:-
***** Unless otherwise indicated ALL above ground detectors (MVD, kerbside & on crossing, etc) MUST be wired as open circuit for vehicle/pedestrian presence.

Special Instructions

T900 SERIAL I/O BOARD - OUTPUT PORTS

***** SERIAL I/O BOARD No:-002 *****											
N/C	C	N/O	OUTPUT NAME			OUTPUT NAME			N/O	C	N/C
---	---	---	O/P 0			O/P 8			---	---	---
		X	O/P 0			O/P 8					X

		X	O/P 1			O/P 9					X

		X	O/P 1			O/P 9					X

		X	O/P 2			O/P 10					X

		X	O/P 2			O/P 10					X

		X	O/P 3			O/P 11					X

		X	O/P 3			O/P 11					X

***** FOR OUTPUT NAMES USE ONLY THE TERMINALS MARKED - "X" *****											
N/C	C	N/O	OUTPUT NAME			OUTPUT NAME			N/O	C	N/C
---	---	---	O/P 4			O/P 12			---	---	---
		X	O/P 4			O/P 12					X

		X	O/P 5			O/P 13					X

		X	O/P 5			O/P 13					X

		X	O/P 6			O/P 14					X

		X	O/P 6			O/P 14					X

		X	O/P 7			O/P 15					X

		X	O/P 7			O/P 15					X

***** BOARD ADDRESS 003 *****											

N.B. THE 24/0 BOARD HAS NO OUTPUT RELAYS FITTED. THE 24/4 BOARD ONLY HAS OUTPUT RELAYS 0-3 FITTED

Special Instructions

41104							
Card Type	Rack Posn	Addr.	Port	Type	Line	Term	Posn
Intelligent Backplane 16/0	Rack	01	0	I	000 - 007	2	LT1
Intelligent Backplane 16/0	Rack	01	1	I	008 - 015	2	LT1
Serial IO 24/4	1 I/01	02	2	I	016 - 023	1	I/01
Serial IO 24/4	1 I/01	02	3	I	024 - 031	1	I/01
Serial IO 24/4	1 I/01	02	4	I	032 - 039	1	I/01
Serial IO 24/4	1 I/01	02	5	O	040 - 043	1	I/01
Serial IO 24/4	1 I/02	03	6	I	048 - 055	1	I/02
Serial IO 24/4	1 I/02	03	7	I	056 - 063	1	I/02
Serial IO 24/4	1 I/02	03	8	I	064 - 071	1	I/02
Serial IO 24/4	1 I/02	03	9	O	072 - 075	1	I/02
CPU	A						

Special Instructions

ST900 ELV CONTROLLER ITEMS LIST SHEET 1 (*I*L*)

ITEM	DRAWING NUMBER	DESCRIPTION	QTY	TOT	REMARKS
1					
2	667/1/32900/020	ST900 ELV Cabinet UK 20A 1 LSLS - Grey	1		
3	667/1/32900/040	ST900 ELV Cabinet UK 40A 1 LSLS - Grey			
4	667/1/32900/021	ST900 ELV Cabinet UK 20A 1 LSLS - Black			
5	667/1/32900/041	ST900 ELV Cabinet UK 40A 1 LSLS - Black			
6	667/1/32900/520	ST900ELV 20A SGL LSLS LOW INRUSH - Grey			
7	667/1/32900/521	ST900ELV 20A SGL LSLS LOW INRUSH - Black			
8					
9	667/1/32943/001	ELV Lamp switch (LSLS) kit			
10	667/1/32960/001	ELV Lamp switch (LSLS) backplane kit			
11	667/1/32995/002	ST900 I/O card kit (4 outputs)	2		
12	667/1/32995/001	ST900 I/O card kit (16 outputs)			
13					
14					
15					
16	667/1/27004/000	Integral TC12 OTU kit			
17	667/1/27005/000	SDE Facility kit			
18	667/1/32910/000	ST900 Intelligent detector backplane kit	1		
19	667/1/33002/000	ELV detector 6U rack expansion kit			
20	667/1/33074/000	ST900 ELV 24 V detector supply Kit (6A)			
21	667/1/20690/001	19" Detector Rack			
22					
23	667/1/32980/040	ELV 20A to 40A upgrade kit			
24					
25					
26	667/1/33070/000	ELV Regulatory Sign expansion kit			
27	667/1/32955/000	ELV Audible supply kit			
28	667/1/27117/000	ST900 300mA RCD kit			
29					
30	667/1/32900/001	Expansion cabinet kit - Black			
31	667/1/32900/000	Expansion cabinet kit - Grey			
32	667/1/33072/000	Cabinet mounted cut-out connection kit			
33	667/1/33007/000	LSLS Expansion cabinet kit			
34					
35					
36	667/1/27056/001	Manual Panel Full kit			
37	667/1/27110/000	Manual Panel RS232 kit			
38					
39					
40	667/1/16777/104	Configuration Eprom (Issue 4. 0)	1		

Note 1:
Please refer to special instruction pages for additional information on items marked with an '*'.

Special Instructions

ST900 ELV CONTROLLER ITEMS LIST SHEET 2 (*I*L*)

ITEM	DRAWING NUMBER	DESCRIPTION	QTY	TOT	REMARKS
41					
42	667/1/32900/920	ST900 ELV cuckoo Kit - T200			
43	667/1/32900/921	ST900 ELV cuckoo Kit - T400			
44	667/1/32900/922	ST900 ELV cuckoo Kit - T800			
45	667/1/32900/923	ST900 ELV cuckoo Kit - Microsense			
46	667/1/32900/925	ST900 ELV cuckoo Kit - Peek			
47					
48					
49					
50					
51					
52	667/1/33073/000	ST900 Isolator locking kit			
53	667/2/20234/000	Screw Lock Key			
54					
55					
56	667/1/27104/000	ST800 / ST900 DFM Lens Kit			
57	667/1/21150/002	ST800 / ST900 Gas Plinth			
58	667/2/27096/000	ST800 / ST900 Mounting Stool			
59					
60					
61					
62	667/1/26271/000	Telephone Kit (Lightning protection)			
63	667/1/27118/000	Surge Arrester (Lightning protection)			
64					
65					
66					
67	667/1/32900/120	ST900 ELV Cabinet Export 20A 1 LSLS - Grey			
68	667/1/32900/140	ST900 ELV Cabinet Export 40A 1 LSLS - Grey			
69					
70					
71					
72					
73	667/1/32900/900	ST900 ELV export rack Kit			
74	667/1/32945/000	ST900 ELV additional LSLS rack wiring kit			
75					
76	667/1/27007/000	IRM Facility			
77					
78					
79					
80	667/1/45200/001	SLD4 Standard 4 Channel loop detector	4		

Inputs and Outputs

Inputs and Outputs

☐ Enable Signal Required Check boxes

☐ Manual Allocation

Port Number & Type

Port:

☐ Inputs

☐ Outputs

☒ Inputs & Outputs

Card Type & Address

Intelligent Backplane 16/0

Card Address: 1

	DET No	Bit No	Type I or O	Name	Req'd	BP	Inv	U/D	Misc	DFM	DFM Group	Ext time	Phs	UTC	SDE	Pri	HC	CC	IG	UD	LRT	Term Block	Terminal No
☐	0	0	I	AIN1	☒	☒	☐	☐	☐	Y	0	0.0	☒	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	A1
☐	1	1	I	AX2	☒	☒	☐	☐	☐	Y	0	4.2	☒	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	A2
☐	2	2	I	AX3	☒	☒	☐	☐	☐	Y	0	3.6	☒	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	A3
☐	3	3	I	ASL4	☒	☒	☐	☐	☐	Y	0	1.0	☒	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	A4
☐	4	4	I	BIN5	☒	☒	☐	☐	☐	Y	0	0.0	☒	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	B1
☐	5	5	I	BX6	☒	☒	☐	☐	☐	Y	0	4.0	☒	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	B2
☐	6	6	I	BSL7	☒	☒	☐	☐	☐	Y	0	1.0	☒	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	B3
☐	7	7	I		☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	B4

AddDeleteMoveClear Used ByMove to/from backplane

Manual Map Optimisation

Inputs and Outputs

Inputs and Outputs

☐ Enable Signal Required Check boxes

☐ Manual Allocation

Port Number & Type

Port:

☐ Inputs

☐ Outputs

☒ Inputs & Outputs

Card Type & Address

Intelligent Backplane 16/0

Card Address: 1

	DET No	Bit No	Type I or O	Name	Req'd	BP	Inv	U/D	Misc	DFM	DFM Group	Ext time	Phs	UTC	SDE	Pri	HC	CC	IG	UD	LRT	Term Block	Terminal No
☐	8	0	I	CIN8	☒	☒	☐	☐	☐	Y	0	0.0	☒	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	C1
☐	9	1	I	CX9	☒	☒	☐	☐	☐	Y	0	4.4	☒	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	C2
☐	10	2	I	CSL10	☒	☒	☐	☐	☐	Y	0	1.0	☒	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	C3
☐	11	3	I		☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	C4
☐	12	4	I	DIN11	☒	☒	☐	☐	☐	Y	0	0.0	☒	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	D1
☐	13	5	I	DX12	☒	☒	☐	☐	☐	Y	0	4.2	☒	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	D2
☐	14	6	I	DSL13	☒	☒	☐	☐	☐	Y	0	1.0	☒	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	D3
☐	15	7	I		☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	D4

AddDeleteMoveClear Used ByMove to/from backplane

Manual Map Optimisation

Inputs and Outputs

Inputs and Outputs

☐ Enable Signal Required Check boxes

☐ Manual Allocation

Port Number & Type

Port:

Card Type & Address

Serial IO 24/4
Card Address: 2

☐ Inputs ☐ Outputs

☒ Inputs & Outputs

	DET No	Bit No	Type I or O	Name	Req'd	BP	Inv	U/D	Misc	DFM	DFM Group	Ext time	Phs	UTC	SDE	Pri	HC	CC	IG	UD	LRT	Term Block	Line No
☐	16	0	I	PEDE8	☒	☐	☐	☐	☐	Y	1	2.0	☒	☐	☐	☐	☐	☐	☐	☐	☐	11/01	I-0
☐	17	1	I	KSDE8	☒	☐	☒	☐	☐	Y	4	2.0	☒	☐	☐	☐	☐	☐	☐	☐	☐	11/01	I-1
☐	18	2	I	ONXE8	☒	☐	☒	☐	☐	Y	3	0.6	☒	☐	☐	☐	☐	☐	☐	☐	☐	11/01	I-2
☐	19	3	I		☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	11/01	I-3
☐	20	4	I	PEDE9	☒	☐	☐	☐	☐	Y	1	2.0	☒	☐	☐	☐	☐	☐	☐	☐	☐	11/01	I-4
☐	21	5	I	KSDE9	☒	☐	☒	☐	☐	Y	4	2.0	☒	☐	☐	☐	☐	☐	☐	☐	☐	11/01	I-5
☐	22	6	I	ONXE9	☒	☐	☒	☐	☐	Y	3	0.6	☒	☐	☐	☐	☐	☐	☐	☐	☐	11/01	I-6
☐	23	7	I		☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	11/01	I-7

AddDeleteMoveClear Used ByMove to/from backplane

Manual Map Optimisation

Inputs and Outputs

Inputs and Outputs

☐ Enable Signal Required Check boxes

☐ Manual Allocation

Port Number & Type

Port:

Card Type & Address

Serial IO 24/4
Card Address: 2

☐ Inputs ☐ Outputs

☒ Inputs & Outputs

	DET No	Bit No	Type I or O	Name	Req'd	BP	Inv	U/D	Misc	DFM	DFM Group	Ext time	Phs	UTC	SDE	Pri	HC	CC	IG	UD	LRT	Term Block	Line No
☐	24	0	I	PEDG3	☒	☐	☐	☐	☐	Y	1	2.0	☒	☐	☐	☐	☐	☐	☐	☐	☐	11/01	I-8
☐	25	1	I	KSDG3	☒	☐	☒	☐	☐	Y	4	2.0	☒	☐	☐	☐	☐	☐	☐	☐	☐	11/01	I-9
☐	26	2	I	ONXG3	☒	☐	☒	☐	☐	Y	3	0.6	☒	☐	☐	☐	☐	☐	☐	☐	☐	11/01	I-10
☐	27	3	I		☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	11/01	I-11
☐	28	4	I	PEDG4	☒	☐	☐	☐	☐	Y	1	2.0	☒	☐	☐	☐	☐	☐	☐	☐	☐	11/01	I-12
☐	29	5	I	KSDG4	☒	☐	☒	☐	☐	Y	4	2.0	☒	☐	☐	☐	☐	☐	☐	☐	☐	11/01	I-13
☐	30	6	I	ONXG4	☒	☐	☒	☐	☐	Y	3	0.6	☒	☐	☐	☐	☐	☐	☐	☐	☐	11/01	I-14
☐	31	7	I		☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	11/01	I-15

AddDeleteMoveClear Used ByMove to/from backplane

Manual Map Optimisation

Works Order : 460966136
EM Number : 41104
Engineer : Stuart Mulliner
Intersection : High Street / Midlands Road / The Wells - Royston Barnsley

Inputs and Outputs

Inputs and Outputs

☐ Enable Signal Required
Check boxes
 ☐ Manual Allocation

Port Number & Type

Port:

☐ Inputs
 ☒ Outputs & Inputs

Card Type & Address

Serial IO 24/4
 Card Address: 2

	DET No	Bit No	Type I or O	Name	Req'd	BP	Inv	U/D	Misc	DFM	DFM Group	Ext time	Phs	UTC	SDE	Pri	HC	CC	IG	UD	LRT	Term Block	Line No
☐	40	0	O	AUDIO	☒	☐	☐	☐	☐	N		0.0	☐	☐	☐	☐	☐	☐	☐	☐	☐	11/O1	O-0
☐	41	1	O		☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	11/O1	O-1
☐	42	2	O		☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	11/O1	O-2
☐	43	3	O		☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	11/O1	O-3
☐	44	4	O		☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	11/O1	O-4
☐	45	5	O		☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	11/O1	O-5
☐	46	6	O		☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	11/O1	O-6
☐	47	7	O		☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	11/O1	O-7

Add

Delete

Move

Clear Used By

Move to/from backplane

Manual Map Optimisation

Works Order : 460966136
EM Number : 41104
Engineer : Stuart Mulliner
Intersection : High Street / Midlands Road / The Wells - Royston Barnsley

Inputs and Outputs

☐ Enable Signal Required
Check boxes
 ☐ Manual Allocation

Port Number & Type
 Port:

☐ Inputs
 ☐ Outputs
☒ Inputs & Outputs

Card Type & Address
 Serial IO 24/4
 Card Address: 3

	DET No	Bit No	Type I or O	Name	Req'd	BP	Inv	U/D	Misc	DFM	DFM Group	Ext time	Phs	UTC	SDE	Pri	HC	CC	IG	UD	LRT	Term Block	Line No
☐	48	0	I	PEDF1	☒	☐	☐	☐	☐	Y	1	2.0	☒	☐	☐	☐	☐	☐	☐	☐	☐	11/02	I-0
☐	49	1	I	KSDF1	☒	☐	☒	☐	☐	Y	4	2.0	☒	☐	☐	☐	☐	☐	☐	☐	☐	11/02	I-1
☐	50	2	I	ONXF1	☒	☐	☒	☐	☐	Y	3	0.6	☒	☐	☐	☐	☐	☐	☐	☐	☐	11/02	I-2
☐	51	3	I		☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	11/02	I-3
☐	52	4	I	PEDF2	☒	☐	☐	☐	☐	Y	1	2.0	☒	☐	☐	☐	☐	☐	☐	☐	☐	11/02	I-4
☐	53	5	I	KSDF2	☒	☐	☒	☐	☐	Y	4	2.0	☒	☐	☐	☐	☐	☐	☐	☐	☐	11/02	I-5
☐	54	6	I	ONXF2	☒	☐	☒	☐	☐	Y	3	0.6	☒	☐	☐	☐	☐	☐	☐	☐	☐	11/02	I-6
☐	55	7	I		☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	11/02	I-7

Add

Delete

Move

Clear Used By

Move to/from backplane

Manual Map Optimisation

Inputs and Outputs

Inputs and Outputs

☐ Enable Signal Required
Check boxes

☐ Manual Allocation

Port Number & Type

Port:

☐ Inputs ☐ Outputs
☒ Inputs & Outputs

Card Type & Address

Serial IO 24/4
Card Address: 3

	DET No	Bit No	Type I or O	Name	Req'd	BP	Inv	U/D	Misc	DFM	DFM Group	Ext time	Phs	UTC	SDE	Pri	HC	CC	IG	UD	LRT	Term Block	Line No
☐	56	0	I	PEDH6	☒	☐	☐	☐	☐	Y	1	2.0	☒	☐	☐	☐	☐	☐	☐	☐	☐	11/02	I-8
☐	57	1	I	KSDH6	☒	☐	☒	☐	☐	Y	4	2.0	☒	☐	☐	☐	☐	☐	☐	☐	☐	11/02	I-9
☐	58	2	I	ONXH6	☒	☐	☒	☐	☐	Y	3	0.6	☒	☐	☐	☐	☐	☐	☐	☐	☐	11/02	I-10
☐	59	3	I		☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	11/02	I-11
☐	60	4	I	PEDH7	☒	☐	☐	☐	☐	Y	1	2.0	☒	☐	☐	☐	☐	☐	☐	☐	☐	11/02	I-12
☐	61	5	I	KSDH7	☒	☐	☒	☐	☐	Y	4	2.0	☒	☐	☐	☐	☐	☐	☐	☐	☐	11/02	I-13
☐	62	6	I	ONXH7	☒	☐	☒	☐	☐	Y	3	0.6	☒	☐	☐	☐	☐	☐	☐	☐	☐	11/02	I-14
☐	63	7	I		☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	11/02	I-15

AddDeleteMoveClear Used ByMove to/from backplane

Manual Map Optimisation

Aspect Drives (ELV Controllers)

Aspect Drives (ELV Controllers)

☐ Card Reversed

HPU Connection

Aspect Drive Configuration for LSLS 1 of 1 cards (Cabinet 1)

Output	Phase	Aspect	Use	Output	Phase	Aspect	Use
32	A	Red	Phase	16	F	Red	Phase
31	A	Amber	Phase	15	F	Amber	Phase
30	A	Green	Phase	14	F	Green	Phase
29	B	Red	Phase	13	F	Green	Phase
28	B	Amber	Phase	12	G	Red	Phase
27	B	Green	Phase	11	G	Amber	Phase
26	C	Red	Phase	10	G	Green	Phase
25	C	Amber	Phase	9	G	Green	Phase
24	C	Green	Phase	8	H	Red	Phase
23	D	Red	Phase	7	H	Amber	Phase
22	D	Amber	Phase	6	H	Green	Phase
21	D	Green	Phase	5	H	Green	Phase
20	E	Red	Phase	4	N/A	N/A	N/A
19	E	Amber	Phase	3	N/A	N/A	N/A
18	E	Green	Phase	2	N/A	N/A	N/A
17	E	Green	Phase	1	I	Green	Phase

I/O - DFM Group Timings

I/O - DFM Group Timings

Input Group	State	SETA	SETB	SETC	SETD
Group 0	Active (Mins)	60	60	60	60
	InActive (Hrs)	18	18	18	18
Group 1	Active (Mins)	10	10	10	10
	InActive (Hrs)	72	72	72	72
Group 2	Active (Mins)	90	90	90	90
	InActive (Hrs)	48	48	48	48
Group 3	Active (Mins)	60	60	60	60
	InActive (Hrs)	18	18	18	18
Group 4	Active (Mins)	90	90	90	90
	InActive (Hrs)	48	48	48	48
Group 5	Active (Mins)	60	60	60	60
	InActive (Hrs)	18	18	18	18
Group 6	Active (Mins)				
	InActive (Hrs)				
Group 7	Active (Mins)				
	InActive (Hrs)				

Note - 255 or blank disables DFM monitoring of that state (active or inactive) during that timeset (Ato D)

Handset Limiting Values

State	Min	Max
Active (Mins)	0	254
InActive (Hrs)	0	254

Index

1	General Junction Data	
1.1	Administration	
1.2	Phases, Stages and Streams	
1.3	Facilities/Modes Enabled and Mode Priority Levels	
1.4	Phases in Stages	
1.5	Stages in Streams	
2	Phases	
2.1	Phase Type and Conditions	
2.2	Opposing and Conflicting Phases	
2.3	Timings	
2.3.1	Phase Minimums, Maximums, Extensions, Ped Leaving Periods	
2.3.2	Phase Intergreen Times	
2.3.3	Intergreen Handset Limits	
2.3.4	Phase Timing Handset Ranges	
2.4	VA Demand and Extend Definitions	
2.5	Phase Internal/Revertive Demands	
2.6	Pelicans, Puffins and Toucans	
2.6.1	Phase - On Crossing and Kerbside Detector Definitions	
2.6.2	Stream - Pelican/Puffin/Toucan Times	
2.6.3	Phase - Pelican, Puffin and Toucan Times	
2.6.4	IO and Link - Pelican/Puffin/Toucan Times	
2.6.5	Pelican, Puffin, Toucan Pushbutton/Kerbside Associations	
3	Stage Movements	
3.1	Stages - Prohibited, Alternative, Ignored Moves	
3.2	Stage Internal Demands/Pedestrian Window Times	
3.3	Phase Delays (No configuration data to print)	
4	Modes and Facilities - Detailed	
4.1	Fixed Time	
4.2	Cableless Linking	
4.2.1	CLF - Plan(s) (No configuration data to print)	
4.2.2	CLF - Base Time	
4.2.3	CLF - Demand Dependent Moves (No configuration data to print)	
4.3	UTC and MOVA	
4.3.1	UTC General Data	
4.3.2	UTC Control and Reply Data Format	
4.3.3	UTC Data Definitions	
4.3.3.1	UTC Phase Demand and Extend Definitions (No configuration data to print)	
4.3.3.2	UTC Stage and Mode Data Definitions	
4.3.3.3	UTC Demand Dependent Forces (No configuration data to print)	
4.3.4	UTC and MOVA Detectors	
4.4	Master Time Clock	
4.4.1	MTC - Time Switch Parameters	
4.4.2	MTC - Time Switch Parameters Array	
4.4.3	MTC - Day Type	
4.4.4	MTC - Timetable	
4.5	Integral Lamp Monitoring	
4.5.1	LMU - General	
4.5.2	Integral LMU Onboard Sensors	
4.5.3	Integral LMU External Sensors for Regulatory Signs	
4.5.4	LMU Sensor Load Types	
4.5.5	RLM Additional Intergreens	
4.5.6	RLM Phase Inhibits	
4.6	Manual	
4.6.1	Manual Panel	
4.6.2	Manual Mode - Optional Phases Appearance (No configuration data to print)	
5	Conditioning Data	
5.1	Special Conditioning	
5.2	Special Conditioning Timers	
5.3	Fault Log Flags (No configuration data to print)	
6	Special Instructions	
7	I/O	
7.1	Call Cancel (No configuration data to print)	
7.2	Inputs and Outputs	
7.3	Aspect Drives (ELV Controllers)	
7.4	I/O - DFM Group Timings	

Appendix I Modelling Outputs



Junctions 9				
PICADY 9 - Priority Intersection Module				
Version: 9.5.0.6896 © Copyright TRL Limited, 2018				
For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk				
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution				

Filename: Site Access- Lee Lane.j9

Path: O:\Lee Lane, Royston\ANALYSIS\CAPACITY\Priority Junctions\Site Access

Report generation date: 07/12/2018 10:42:11

«2023, AM DESIGN

- »Junction Network
- »Arms
- »Traffic Demand
- »Origin-Destination Data
- »Vehicle Mix
- »Results

Summary of junction performance

	AM DESIGN				PM DESIGN			
	Q (PCU)	Delay (s)	RFC	LOS	Q (PCU)	Delay (s)	RFC	LOS
	2023							
Stream B-AC	0.2	8.35	0.20	A	0.1	8.38	0.10	A
Stream C-AB	0.1	4.92	0.06	A	0.5	4.45	0.18	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 Av. delay per arriving vehicle.

File summary

File Description

Title	
Location	
Site number	
Date	07/12/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	OPTIMA\Optima
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Av. delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Calculate Q Percentiles	Calculate residual capacity	RFC Threshold	Av. Delay threshold (s)	Q threshold (PCU)
		0.85	36.00	20.00

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2023	AM DESIGN	ONE HOUR	07:30	09:00	15

2023, AM DESIGN

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.22	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Lee Lane (NE)		Major
B	Site Access		Minor
C	Lee Lane (SW)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Lee Lane (SW)	7.50			150.0	✓	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

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Site Access	One lane	4.50	63	47

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	600	0.102	0.258	0.162	0.369
1	B-C	752	0.108	0.272	-	-
1	C-B	661	0.239	0.239	-	-

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

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Lee Lane (NE)		✓	371	100.000
B - Site Access		✓	96	100.000
C - Lee Lane (SW)		✓	352	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Lee Lane (NE)	B - Site Access	C - Lee Lane (SW)
From	A - Lee Lane (NE)	0	16	355
	B - Site Access	38	0	58
	C - Lee Lane (SW)	328	24	0

Vehicle Mix

HV %s

	To			
		A - Lee Lane (NE)	B - Site Access	C - Lee Lane (SW)
From	A - Lee Lane (NE)	0	0	0
	B - Site Access	0	0	0
	C - Lee Lane (SW)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
B-AC	0.20	8.35	0.2	A
C-AB	0.06	4.92	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	72	584	0.124	72	0.1	7.017	A
C-AB	27	759	0.035	27	0.0	4.911	A
C-A	238			238			
A-B	12			12			
A-C	267			267			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	86	564	0.153	86	0.2	7.525	A
C-AB	35	781	0.045	35	0.1	4.825	A
C-A	282			282			
A-B	14			14			
A-C	319			319			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	106	537	0.197	105	0.2	8.340	A
C-AB	48	811	0.059	48	0.1	4.716	A
C-A	340			340			
A-B	18			18			
A-C	391			391			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	106	537	0.197	106	0.2	8.350	A
C-AB	48	811	0.059	48	0.1	4.717	A
C-A	340			340			
A-B	18			18			
A-C	391			391			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	86	564	0.153	87	0.2	7.536	A
C-AB	35	781	0.045	35	0.1	4.827	A
C-A	282			282			
A-B	14			14			
A-C	319			319			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	72	584	0.124	72	0.1	7.039	A
C-AB	27	759	0.035	27	0.0	4.916	A
C-A	238			238			
A-B	12			12			
A-C	267			267			

Junctions 9
PICADY 9 - Priority Intersection Module
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Filename: Site Access- Lee Lane.j9

Path: O:\Lee Lane, Royston\ANALYSIS\CAPACITY\Priority Junctions\Site Access

Report generation date: 07/12/2018 10:44:03

«2023, PM DESIGN

- »Junction Network
- »Arms
- »Traffic Demand
- »Origin-Destination Data
- »Vehicle Mix
- »Results

Summary of junction performance

	AM DESIGN				PM DESIGN			
	Q (PCU)	Delay (s)	RFC	LOS	Q (PCU)	Delay (s)	RFC	LOS
	2023							
Stream B-AC	0.2	8.35	0.20	A	0.1	8.38	0.10	A
Stream C-AB	0.1	4.92	0.06	A	0.5	4.45	0.18	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 Av. delay per arriving vehicle.

File summary

File Description

Title	
Location	
Site number	
Date	07/12/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	OPTIMA\Optima
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Av. delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Calculate Q Percentiles	Calculate residual capacity	RFC Threshold	Av. Delay threshold (s)	Q threshold (PCU)
		0.85	36.00	20.00

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2023	PM DESIGN	ONE HOUR	16:15	17:45	15

2023, PM DESIGN

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.83	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Lee Lane (NE)		Major
B	Site Access		Minor
C	Lee Lane (SW)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Lee Lane (SW)	7.50			150.0	✓	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

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Site Access	One lane	4.50	63	47

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	600	0.102	0.258	0.162	0.369
1	B-C	752	0.108	0.272	-	-
1	C-B	661	0.239	0.239	-	-

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

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Lee Lane (NE)		✓	448	100.000
B - Site Access		✓	41	100.000
C - Lee Lane (SW)		✓	670	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Lee Lane (NE)	B - Site Access	C - Lee Lane (SW)
From	A - Lee Lane (NE)	0	35	413
	B - Site Access	16	0	25
	C - Lee Lane (SW)	616	54	0

Vehicle Mix

HV %s

	To			
		A - Lee Lane (NE)	B - Site Access	C - Lee Lane (SW)
From	A - Lee Lane (NE)	0	0	0
	B - Site Access	0	0	0
	C - Lee Lane (SW)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
B-AC	0.10	8.38	0.1	A
C-AB	0.18	4.45	0.5	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	31	545	0.057	31	0.1	6.989	A
C-AB	84	894	0.094	84	0.2	4.440	A
C-A	420			420			
A-B	26			26			
A-C	311			311			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	37	516	0.071	37	0.1	7.504	A
C-AB	118	945	0.125	117	0.3	4.356	A
C-A	484			484			
A-B	31			31			
A-C	371			371			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	45	475	0.095	45	0.1	8.371	A
C-AB	180	1017	0.177	179	0.5	4.304	A
C-A	558			558			
A-B	39			39			
A-C	455			455			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	45	475	0.095	45	0.1	8.377	A
C-AB	180	1017	0.177	180	0.5	4.312	A
C-A	558			558			
A-B	39			39			
A-C	455			455			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	37	516	0.071	37	0.1	7.510	A
C-AB	118	945	0.125	119	0.3	4.368	A
C-A	484			484			
A-B	31			31			
A-C	371			371			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	31	545	0.057	31	0.1	7.001	A
C-AB	85	895	0.095	85	0.2	4.453	A
C-A	419			419			
A-B	26			26			
A-C	311			311			

Junctions 9
PICADY 9 - Priority Intersection Module
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Filename: Shaw Lane-Lee Lane Junction Rev C.j9

Path: O:\Lee Lane, Royston\ANALYSIS\CAPACITY\Priority Junctions\Staggered Junction\181206-Staggered Junction

Report generation date: 06/12/2018 15:12:54

»2018, AM Count
 »2018, PM Count
 »2023, AM Base
 »2023, PM Base
 »2023, AM Design
 »2023, PM Design

Summary of junction performance

	AM Count				PM Count				AM Base				PM Base				AM Design				PM Design			
	Q (PCU)	Delay (s)	RFC	LOS	Q (PCU)	Delay (s)	RFC	LOS	Q (PCU)	Delay (s)	RFC	LOS	Q (PCU)	Delay (s)	RFC	LOS	Q (PCU)	Delay (s)	RFC	LOS	Q (PCU)	Delay (s)	RFC	LOS
2018																								
Stream B-C	0.6	29.32	0.41	D	0.3	15.56	0.25	C																
Stream B-AD	5.4	61.36	0.87	F	2.9	43.95	0.76	E																
Stream A-D	0.3	10.38	0.22	B	0.5	9.88	0.31	A																
Stream D-A	5.9	200.03	0.99	F	5.0	242.31	1.02	F																
Stream D-BC	12.0	135.07	1.00	F	13.6	149.64	1.01	F																
Stream C-B	0.1	6.49	0.10	A	0.5	10.07	0.34	B																
2023																								
Stream B-C									5.3	218.45	1.00	F	1.3	58.83	0.60	F	10.0	329.17	1.12	F	5.7	217.47	0.99	F
Stream B-AD									13.7	134.97	1.01	F	5.9	85.38	0.90	F	29.6	252.11	1.14	F	12.1	153.01	1.02	F
Stream A-D									0.3	11.48	0.25	B	0.5	10.73	0.35	B	0.4	12.11	0.26	B	0.5	10.96	0.35	B
Stream D-A									10.4	335.95	1.13	F	8.1	392.02	1.16	F	12.3	398.53	1.18	F	10.3	501.00	1.25	F
Stream D-BC									27.2	267.64	1.14	F	29.7	289.31	1.15	F	34.5	331.31	1.20	F	43.2	412.26	1.25	F
Stream C-B									0.1	6.80	0.11	A	0.6	11.39	0.38	B	0.2	7.05	0.13	A	0.8	13.17	0.45	B

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 Av. delay per arriving vehicle.

File summary

File Description

Title	
Location	
Site number	
Date	08/11/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	OPTIMA/Optima
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Av. delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Calculate Q Percentiles	Calculate residual capacity	RFC Threshold	Av. Delay threshold (s)	Q threshold (PCU)
		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)
D1	2018	AM Count	ONE HOUR	07:30	09:00	15
D2	2018	PM Count	ONE HOUR	16:15	17:45	15
D3	2023	AM Base	ONE HOUR	07:30	09:00	15
D4	2023	PM Base	ONE HOUR	16:15	17:45	15
D5	2023	AM Design	ONE HOUR	07:30	09:00	15
D6	2023	PM Design	ONE HOUR	16:15	17:45	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2018, AM Count

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Shaw Lane-Lee Lane	Right-Left Stagger	Two-way		48.72	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Wakefield Rd N		Major
B	Lee Lane		Minor
C	Wakefield Rd SE		Major
D	Shaw Lane		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
A - Wakefield Rd N	7.10		✓	3.00	130.0		-
C - Wakefield Rd SE	7.10		✓	3.00	250.0		-

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

Minor Arm Geometry

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)	Visibility to left (m)	Visibility to right (m)
B - Lee Lane	One lane plus flare	10.00	7.80	6.30	4.80	4.20	✓	3.00	101	80
D - Shaw Lane	One lane plus flare	10.00	7.20	4.60	3.50	3.50	✓	1.00	55	38

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-B	Slope for D-C
1	A-D	706	-	-	-	0.260	0.260	0.260	-	0.260	-	-
1	B-AD	645	0.112	0.283	-	-	-	0.178	0.404	0.178	0.112	0.283
1	B-C	641	0.094	0.237	-	-	-	-	-	-	0.094	0.237
1	C-B	781	0.288	0.288	-	-	-	-	-	-	0.288	0.288
1	D-A	634	-	-	-	0.234	0.093	0.234	-	0.093	-	-
1	D-BC	590	0.163	0.163	0.370	0.259	0.102	0.259	-	0.102	-	-

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)
D1	2018	AM Count	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Wakefield Rd N		✓	279	100.000
B - Lee Lane		✓	385	100.000
C - Wakefield Rd SE		✓	637	100.000
D - Shaw Lane		✓	398	100.000

Origin-Destination Data

Demand (PCU/hr)

	To

		A - Wakefield Rd N	B - Lee Lane	C - Wakefield Rd SE	D - Shaw Lane
From	A - Wakefield Rd N	0	24	165	90
	B - Lee Lane	33	0	75	277
	C - Wakefield Rd SE	308	57	0	272
	D - Shaw Lane	100	201	97	0

Vehicle Mix

HV %s

		To			
		A - Wakefield Rd N	B - Lee Lane	C - Wakefield Rd SE	D - Shaw Lane
From	A - Wakefield Rd N	0	0	0	0
	B - Lee Lane	0	0	0	0
	C - Wakefield Rd SE	0	0	0	0
	D - Shaw Lane	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
B-C	0.41	29.32	0.6	D
B-AD	0.87	61.36	5.4	F
A-B				
A-C				
A-D	0.22	10.38	0.3	B
D-A	0.99	200.03	5.9	F
D-BC	1.00	135.07	12.0	F
C-D				
C-A				
C-B	0.10	6.49	0.1	A

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	56	496	0.114	56	0.1	8.165	A
B-AD	233	476	0.491	230	0.9	14.432	B
A-B	18			18			
A-C	124			124			
A-D	68	531	0.128	67	0.1	7.747	A
D-A	75	409	0.184	74	0.2	10.717	B
D-BC	224	428	0.524	220	1.1	16.973	C
C-D	205			205			
C-A	232			232			
C-B	43	676	0.064	43	0.1	5.684	A

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	67	436	0.155	67	0.2	9.763	A
B-AD	279	442	0.631	276	1.6	21.353	C
A-B	22			22			
A-C	148			148			
A-D	81	496	0.163	81	0.2	8.655	A
D-A	90	312	0.288	89	0.4	16.096	C
D-BC	268	392	0.684	264	2.0	27.443	D
C-D	245			245			
C-A	277			277			
C-B	51	654	0.078	51	0.1	5.972	A

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	83	251	0.328	81	0.5	21.026	C
B-AD	341	395	0.863	330	4.6	47.901	E
A-B	26			26			
A-C	182			182			
A-D	99	449	0.221	99	0.3	10.268	B
D-A	110	111	0.992	93	4.7	142.408	F
D-BC	328	334	0.982	303	8.2	82.775	F
C-D	299			299			
C-A	339			339			
C-B	63	624	0.101	63	0.1	6.408	A

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	83	204	0.405	82	0.6	29.324	D
B-AD	341	391	0.873	338	5.4	61.360	F
A-B	26			26			

A-C	182			182			
A-D	99	446	0.222	99	0.3	10.380	B
D-A	110	117	0.939	105	5.9	200.026	F
D-BC	328	328	1.000	313	12.0	135.071	F
C-D	299			299			
C-A	339			339			
C-B	63	617	0.102	63	0.1	6.490	A

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	67	405	0.166	69	0.2	10.762	B
B-AD	279	435	0.641	293	1.9	27.429	D
A-B	22			22			
A-C	148			148			
A-D	81	492	0.165	81	0.2	8.774	A
D-A	90	233	0.386	111	0.7	34.186	D
D-BC	268	378	0.708	305	2.8	61.897	F
C-D	245			245			
C-A	277			277			
C-B	51	641	0.080	51	0.1	6.102	A

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	56	490	0.115	57	0.1	8.313	A
B-AD	233	474	0.493	237	1.0	15.431	C
A-B	18			18			
A-C	124			124			
A-D	68	529	0.128	68	0.1	7.807	A
D-A	75	396	0.190	77	0.2	11.335	B
D-BC	224	426	0.526	231	1.2	18.961	C
C-D	205			205			
C-A	232			232			
C-B	43	672	0.064	43	0.1	5.721	A

2018, PM Count

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Shaw Lane-Lee Lane	Right-Left Stagger	Two-way		42.56	E

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)
D2	2018	PM Count	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Wakefield Rd N		✓	582	100.000
B - Lee Lane		✓	299	100.000
C - Wakefield Rd SE		✓	538	100.000
D - Shaw Lane		✓	371	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		A - Wakefield Rd N	B - Lee Lane	C - Wakefield Rd SE	D - Shaw Lane
From	A - Wakefield Rd N	0	100	331	151
	B - Lee Lane	20	0	71	208
	C - Wakefield Rd SE	164	164	0	210
	D - Shaw Lane	69	258	44	0

Vehicle Mix

HV %s

	To				
		A - Wakefield Rd N	B - Lee Lane	C - Wakefield Rd SE	D - Shaw Lane
From	A - Wakefield Rd N	0	0	0	0
	B - Lee Lane	0	0	0	0
	C - Wakefield Rd SE	0	0	0	0
	D - Shaw Lane	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
B-C	0.25	15.56	0.3	C
B-AD	0.76	43.95	2.9	E
A-B				
A-C				
A-D	0.31	9.88	0.5	A
D-A	1.02	242.31	5.0	F
D-BC	1.01	149.64	13.6	F
C-D				
C-A				
C-B	0.34	10.07	0.5	B

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	53	496	0.108	53	0.1	8.117	A
B-AD	172	432	0.398	169	0.6	13.583	B
A-B	75			75			
A-C	249			249			
A-D	114	588	0.193	113	0.2	7.562	A
D-A	52	417	0.124	51	0.1	9.822	A
D-BC	227	413	0.551	223	1.2	18.515	C
C-D	158			158			
C-A	123			123			
C-B	123	622	0.198	122	0.2	7.191	A

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	64	450	0.142	64	0.2	9.313	A
B-AD	205	390	0.525	203	1.1	19.081	C
A-B	90			90			
A-C	298			298			
A-D	136	564	0.241	135	0.3	8.390	A
D-A	62	304	0.204	62	0.3	14.851	B
D-BC	271	379	0.716	267	2.3	30.944	D
C-D	189			189			
C-A	147			147			
C-B	147	590	0.250	147	0.3	8.127	A

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	78	331	0.236	78	0.3	14.202	B
B-AD	251	333	0.753	245	2.6	38.209	E
A-B	110			110			
A-C	364			364			
A-D	166	532	0.312	166	0.4	9.811	A
D-A	76	75	1.019	61	4.1	183.383	F
D-BC	333	331	1.005	305	9.2	91.319	F
C-D	231			231			
C-A	181			181			
C-B	181	546	0.331	180	0.5	9.815	A

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	78	309	0.253	78	0.3	15.557	C
B-AD	251	330	0.762	250	2.9	43.953	E
A-B	110			110			
A-C	364			364			
A-D	166	530	0.313	166	0.5	9.883	A
D-A	76	82	0.928	72	5.0	242.306	F
D-BC	333	328	1.014	315	13.6	149.640	F
C-D	231			231			
C-A	181			181			
C-B	181	538	0.336	181	0.5	10.065	B

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	64	435	0.147	64	0.2	9.726	A
B-AD	205	384	0.534	212	1.2	21.687	C
A-B	90			90			
A-C	298			298			
A-D	136	562	0.242	136	0.3	8.470	A
D-A	62	196	0.316	80	0.5	35.441	E
D-BC	271	372	0.730	313	3.2	76.829	F
C-D	189			189			
C-A	147			147			
C-B	147	576	0.256	148	0.3	8.429	A

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	53	492	0.109	54	0.1	8.218	A
B-AD	172	430	0.400	174	0.7	14.180	B
A-B	75			75			
A-C	249			249			
A-D	114	587	0.194	114	0.2	7.622	A
D-A	52	400	0.130	53	0.2	10.431	B
D-BC	227	412	0.552	235	1.3	21.194	C
C-D	158			158			
C-A	123			123			
C-B	123	619	0.200	124	0.3	7.281	A

2023, AM Base

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Shaw Lane-Lee Lane	Right-Left Stagger	Two-way		101.87	F

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)
D3	2023	AM Base	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Wakefield Rd N		✓	301	100.000
B - Lee Lane		✓	417	100.000
C - Wakefield Rd SE		✓	688	100.000
D - Shaw Lane		✓	430	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		A - Wakefield Rd N	B - Lee Lane	C - Wakefield Rd SE	D - Shaw Lane
	A - Wakefield Rd N	0	26	178	97
	B - Lee Lane	36	0	81	300
	C - Wakefield Rd SE	333	61	0	294
	D - Shaw Lane	108	217	105	0

Vehicle Mix

HV %s

	To				
From		A - Wakefield Rd N	B - Lee Lane	C - Wakefield Rd SE	D - Shaw Lane
	A - Wakefield Rd N	0	0	0	0
	B - Lee Lane	0	0	0	0
	C - Wakefield Rd SE	0	0	0	0
	D - Shaw Lane	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
B-C	1.00	218.45	5.3	F
B-AD	1.01	134.97	13.7	F
A-B				
A-C				
A-D	0.25	11.48	0.3	B
D-A	1.13	335.95	10.4	F
D-BC	1.14	267.64	27.2	F
C-D				
C-A				
C-B	0.11	6.80	0.1	A

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	61	476	0.128	60	0.1	8.649	A
B-AD	253	462	0.547	248	1.2	16.507	C
A-B	20			20			
A-C	134			134			
A-D	73	517	0.141	72	0.2	8.085	A
D-A	81	376	0.216	80	0.3	12.145	B
D-BC	242	414	0.586	237	1.3	19.820	C
C-D	221			221			
C-A	251			251			
C-B	46	667	0.069	46	0.1	5.789	A

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	73	389	0.187	72	0.2	11.372	B
B-AD	302	425	0.710	298	2.2	27.295	D
A-B	23			23			
A-C	160			160			
A-D	87	479	0.182	87	0.2	9.172	A
D-A	97	251	0.387	96	0.6	23.053	C
D-BC	289	372	0.778	283	3.0	37.790	E
C-D	264			264			
C-A	299			299			
C-B	55	643	0.085	55	0.1	6.115	A

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	89	89	1.001	73	4.3	160.825	F
B-AD	370	375	0.988	343	8.9	79.820	F
A-B	29			29			
A-C	196			196			
A-D	107	427	0.250	106	0.3	11.201	B
D-A	119	105	1.133	93	7.0	192.846	F
D-BC	355	317	1.118	304	15.6	136.267	F
C-D	324			324			
C-A	367			367			
C-B	67	611	0.110	67	0.1	6.616	A

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	89	96	0.932	85	5.3	218.454	F
B-AD	370	365	1.013	351	13.7	134.967	F
A-B	29			29			
A-C	196			196			
A-D	107	420	0.254	107	0.3	11.476	B
D-A	119	110	1.085	105	10.4	335.953	F
D-BC	355	311	1.139	308	27.2	267.645	F
C-D	324			324			
C-A	367			367			
C-B	67	596	0.113	67	0.1	6.801	A

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	73	259	0.281	93	0.4	24.094	C
B-AD	302	407	0.743	343	3.4	70.834	F
A-B	23			23			
A-C	160			160			
A-D	87	466	0.187	88	0.2	9.524	A
D-A	97	121	0.800	113	6.4	274.628	F
D-BC	289	348	0.831	336	15.6	232.877	F
C-D	264			264			
C-A	299			299			
C-B	55	614	0.089	55	0.1	6.446	A

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	61	454	0.134	62	0.2	9.201	A
B-AD	253	452	0.560	261	1.3	19.654	C
A-B	20			20			
A-C	134			134			
A-D	73	513	0.142	73	0.2	8.184	A
D-A	81	284	0.286	105	0.4	22.775	C
D-BC	242	402	0.603	298	1.7	50.291	F
C-D	221			221			
C-A	251			251			
C-B	46	649	0.071	46	0.1	5.970	A

2023, PM Base

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Shaw Lane-Lee Lane	Right-Left Stagger	Two-way		78.89	F

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)
D4	2023	PM Base	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Wakefield Rd N		✓	629	100.000
B - Lee Lane		✓	323	100.000
C - Wakefield Rd SE		✓	580	100.000
D - Shaw Lane		✓	399	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	A - Wakefield Rd N	B - Lee Lane	C - Wakefield Rd SE	D - Shaw Lane
From	A - Wakefield Rd N	0	108	358
	B - Lee Lane	22	0	77
	C - Wakefield Rd SE	177	177	0
	D - Shaw Lane	74	278	47

Vehicle Mix

HV %s

	To			
	A - Wakefield Rd N	B - Lee Lane	C - Wakefield Rd SE	D - Shaw Lane
From	A - Wakefield Rd N	0	0	0
	B - Lee Lane	0	0	0
	C - Wakefield Rd SE	0	0	0
	D - Shaw Lane	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
B-C	0.60	58.83	1.3	F
B-AD	0.90	85.38	5.9	F
A-B				
A-C				
A-D	0.35	10.73	0.5	B
D-A	1.16	392.02	8.1	F
D-BC	1.15	289.31	29.7	F
C-D				
C-A				
C-B	0.38	11.39	0.6	B

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	58	480	0.121	57	0.1	8.504	A
B-AD	185	415	0.446	182	0.8	15.256	C
A-B	81			81			
A-C	270			270			
A-D	123	579	0.212	122	0.3	7.861	A
D-A	56	381	0.146	55	0.2	11.026	B
D-BC	245	399	0.612	239	1.5	21.679	C
C-D	170			170			
C-A	133			133			
C-B	133	610	0.219	132	0.3	7.522	A

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	69	420	0.165	69	0.2	10.250	B
B-AD	221	370	0.597	219	1.4	23.363	C
A-B	97			97			
A-C	322			322			
A-D	147	553	0.265	146	0.4	8.839	A
D-A	67	231	0.288	66	0.4	21.641	C
D-BC	292	362	0.806	285	3.4	42.566	E
C-D	203			203			
C-A	159			159			
C-B	159	575	0.277	159	0.4	8.646	A

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	85	218	0.390	83	0.6	26.456	D
B-AD	271	308	0.878	258	4.6	60.281	F
A-B	119			119			
A-C	394			394			
A-D	179	518	0.346	179	0.5	10.583	B
D-A	81	70	1.162	61	5.6	236.708	F
D-BC	358	314	1.141	303	17.2	148.669	F
C-D	249			249			
C-A	195			195			
C-B	195	526	0.370	194	0.6	10.807	B

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	85	140	0.604	82	1.3	58.833	F
B-AD	271	301	0.900	266	5.9	85.377	F
A-B	119			119			
A-C	394			394			
A-D	179	515	0.349	179	0.5	10.728	B
D-A	81	76	1.077	71	8.1	392.022	F
D-BC	358	310	1.153	308	29.7	289.309	F
C-D	249			249			
C-A	195			195			
C-B	195	511	0.382	195	0.6	11.393	B

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	69	375	0.185	74	0.2	12.123	B
B-AD	221	355	0.623	238	1.8	34.274	D
A-B	97			97			
A-C	322			322			
A-D	147	548	0.268	147	0.4	9.004	A
D-A	67	85	0.784	77	5.4	310.935	F
D-BC	292	352	0.829	341	17.5	252.673	F
C-D	203			203			
C-A	159			159			
C-B	159	542	0.294	160	0.4	9.435	A

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	58	466	0.124	58	0.1	8.828	A
B-AD	185	405	0.457	189	0.9	16.901	C
A-B	81			81			
A-C	270			270			
A-D	123	577	0.213	123	0.3	7.944	A
D-A	56	257	0.216	76	0.3	22.101	C
D-BC	245	393	0.623	308	1.8	64.555	F
C-D	170			170			
C-A	133			133			
C-B	133	589	0.226	134	0.3	7.908	A

2023, AM Design

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Shaw Lane-Lee Lane	Right-Left Stagger	Two-way		147.33	F

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)
D5	2023	AM Design	ONE HOUR	07:30	09:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Wakefield Rd N		✓	304	100.000
B - Lee Lane		✓	473	100.000
C - Wakefield Rd SE		✓	698	100.000
D - Shaw Lane		✓	440	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		A - Wakefield Rd N	B - Lee Lane	C - Wakefield Rd SE	D - Shaw Lane
From	A - Wakefield Rd N	0	29	178	97
	B - Lee Lane	43	0	106	324
	C - Wakefield Rd SE	333	71	0	294
	D - Shaw Lane	108	227	105	0

Vehicle Mix

HV %s

	To				
		A - Wakefield Rd N	B - Lee Lane	C - Wakefield Rd SE	D - Shaw Lane
From	A - Wakefield Rd N	0	0	0	0
	B - Lee Lane	0	0	0	0
	C - Wakefield Rd SE	0	0	0	0
	D - Shaw Lane	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
B-C	1.12	329.17	10.0	F
B-AD	1.14	252.11	29.6	F
A-B				
A-C				
A-D	0.26	12.11	0.4	B
D-A	1.18	398.53	12.3	F
D-BC	1.20	331.31	34.5	F
C-D				
C-A				
C-B	0.13	7.05	0.2	A

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	80	459	0.174	79	0.2	9.448	A
B-AD	276	455	0.607	270	1.5	18.925	C
A-B	22			22			
A-C	134			134			
A-D	73	511	0.143	72	0.2	8.196	A
D-A	81	362	0.225	80	0.3	12.741	B
D-BC	250	410	0.609	244	1.5	21.007	C
C-D	221			221			
C-A	251			251			
C-B	53	664	0.080	53	0.1	5.887	A

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	95	337	0.282	95	0.4	14.787	B
B-AD	330	418	0.790	323	3.2	35.564	E
A-B	26			26			
A-C	160			160			
A-D	87	472	0.185	87	0.2	9.354	A
D-A	97	225	0.432	95	0.7	27.448	D
D-BC	298	367	0.813	290	3.5	42.952	E
C-D	264			264			
C-A	299			299			
C-B	64	640	0.100	64	0.1	6.247	A

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	117	104	1.124	91	6.7	186.006	F
B-AD	404	366	1.104	351	16.3	124.408	F
A-B	32			32			
A-C	196			196			
A-D	107	418	0.256	106	0.3	11.551	B
D-A	119	101	1.183	91	7.7	216.533	F
D-BC	366	313	1.167	304	18.9	159.900	F
C-D	324			324			
C-A	367			367			
C-B	78	606	0.129	78	0.1	6.813	A

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	117	108	1.077	104	10.0	329.173	F
B-AD	404	354	1.141	351	29.6	252.105	F
A-B	32			32			
A-C	196			196			
A-D	107	404	0.264	107	0.4	12.115	B
D-A	119	104	1.148	101	12.3	398.534	F
D-BC	366	305	1.198	303	34.5	331.311	F
C-D	324			324			
C-A	367			367			
C-B	78	588	0.133	78	0.2	7.054	A

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	95	119	0.802	110	6.3	268.786	F
B-AD	330	394	0.838	381	16.9	223.916	F
A-B	26			26			
A-C	160			160			
A-D	87	442	0.197	88	0.2	10.164	B
D-A	97	114	0.851	110	9.1	367.283	F
D-BC	298	340	0.878	330	26.5	329.825	F
C-D	264			264			
C-A	299			299			
C-B	64	602	0.106	64	0.1	6.693	A

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	80	353	0.226	104	0.3	15.844	C
B-AD	276	436	0.634	336	1.9	53.106	F
A-B	22			22			
A-C	134			134			
A-D	73	493	0.148	73	0.2	8.577	A
D-A	81	169	0.481	113	1.0	88.660	F
D-BC	250	382	0.654	347	2.3	134.971	F
C-D	221			221			
C-A	251			251			
C-B	53	634	0.084	54	0.1	6.205	A

2023, PM Design

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Shaw Lane-Lee Lane	Right-Left Stagger	Two-way		121.34	F

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)
D6	2023	PM Design	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Wakefield Rd N		✓	636	100.000
B - Lee Lane		✓	347	100.000
C - Wakefield Rd SE		✓	603	100.000
D - Shaw Lane		✓	422	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		A - Wakefield Rd N	B - Lee Lane	C - Wakefield Rd SE	D - Shaw Lane
From	A - Wakefield Rd N	0	115	358	163
	B - Lee Lane	25	0	87	235
	C - Wakefield Rd SE	177	200	0	226
	D - Shaw Lane	74	301	47	0

Vehicle Mix

HV %s

	To				
		A - Wakefield Rd N	B - Lee Lane	C - Wakefield Rd SE	D - Shaw Lane
From	A - Wakefield Rd N	0	0	0	0
	B - Lee Lane	0	0	0	0
	C - Wakefield Rd SE	0	0	0	0
	D - Shaw Lane	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS
B-C	0.99	217.47	5.7	F
B-AD	1.02	153.01	12.1	F
A-B				
A-C				
A-D	0.35	10.96	0.5	B
D-A	1.25	501.00	10.3	F
D-BC	1.25	412.26	43.2	F
C-D				
C-A				
C-B	0.45	13.17	0.8	B

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	65	472	0.139	65	0.2	8.832	A
B-AD	196	404	0.484	192	0.9	16.690	C
A-B	87			87			
A-C	270			270			
A-D	123	576	0.213	122	0.3	7.909	A
D-A	56	351	0.159	55	0.2	12.132	B
D-BC	262	397	0.659	255	1.8	24.218	C
C-D	170			170			
C-A	133			133			
C-B	151	603	0.250	149	0.3	7.908	A

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	78	397	0.197	78	0.2	11.264	B
B-AD	234	358	0.654	230	1.7	27.571	D
A-B	103			103			
A-C	322			322			
A-D	147	550	0.267	146	0.4	8.914	A
D-A	67	172	0.387	65	0.6	33.120	D
D-BC	313	359	0.871	301	4.7	53.821	F
C-D	203			203			
C-A	159			159			
C-B	180	567	0.317	179	0.5	9.285	A

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	96	97	0.992	79	4.4	152.083	F
B-AD	286	293	0.979	263	7.5	87.692	F
A-B	127			127			
A-C	394			394			
A-D	179	514	0.349	179	0.5	10.721	B
D-A	81	65	1.253	58	6.5	284.229	F
D-BC	383	312	1.229	306	24.1	195.763	F
C-D	249			249			
C-A	195			195			
C-B	220	515	0.427	219	0.7	12.106	B

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	96	100	0.954	90	5.7	217.471	F
B-AD	286	280	1.021	268	12.1	153.010	F
A-B	127			127			
A-C	394			394			
A-D	179	508	0.353	179	0.5	10.956	B
D-A	81	69	1.180	67	10.3	500.997	F
D-BC	383	308	1.245	307	43.2	401.758	F
C-D	249			249			
C-A	195			195			
C-B	220	493	0.447	220	0.8	13.166	B

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	78	277	0.283	100	0.4	22.727	C
B-AD	234	333	0.702	271	2.7	73.537	F
A-B	103			103			
A-C	322			322			
A-D	147	538	0.272	147	0.4	9.227	A
D-A	67	77	0.860	71	9.2	488.454	F
D-BC	313	349	0.896	341	36.1	412.255	F
C-D	203			203			
C-A	159			159			
C-B	180	519	0.347	181	0.5	10.683	B

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	65	444	0.148	66	0.2	9.565	A
B-AD	196	385	0.509	202	1.1	20.393	C
A-B	87			87			
A-C	270			270			
A-D	123	573	0.214	123	0.3	8.011	A
D-A	56	87	0.638	79	3.4	316.114	F
D-BC	262	384	0.683	373	8.3	224.215	F
C-D	170			170			
C-A	133			133			
C-B	151	562	0.268	151	0.4	8.788	A

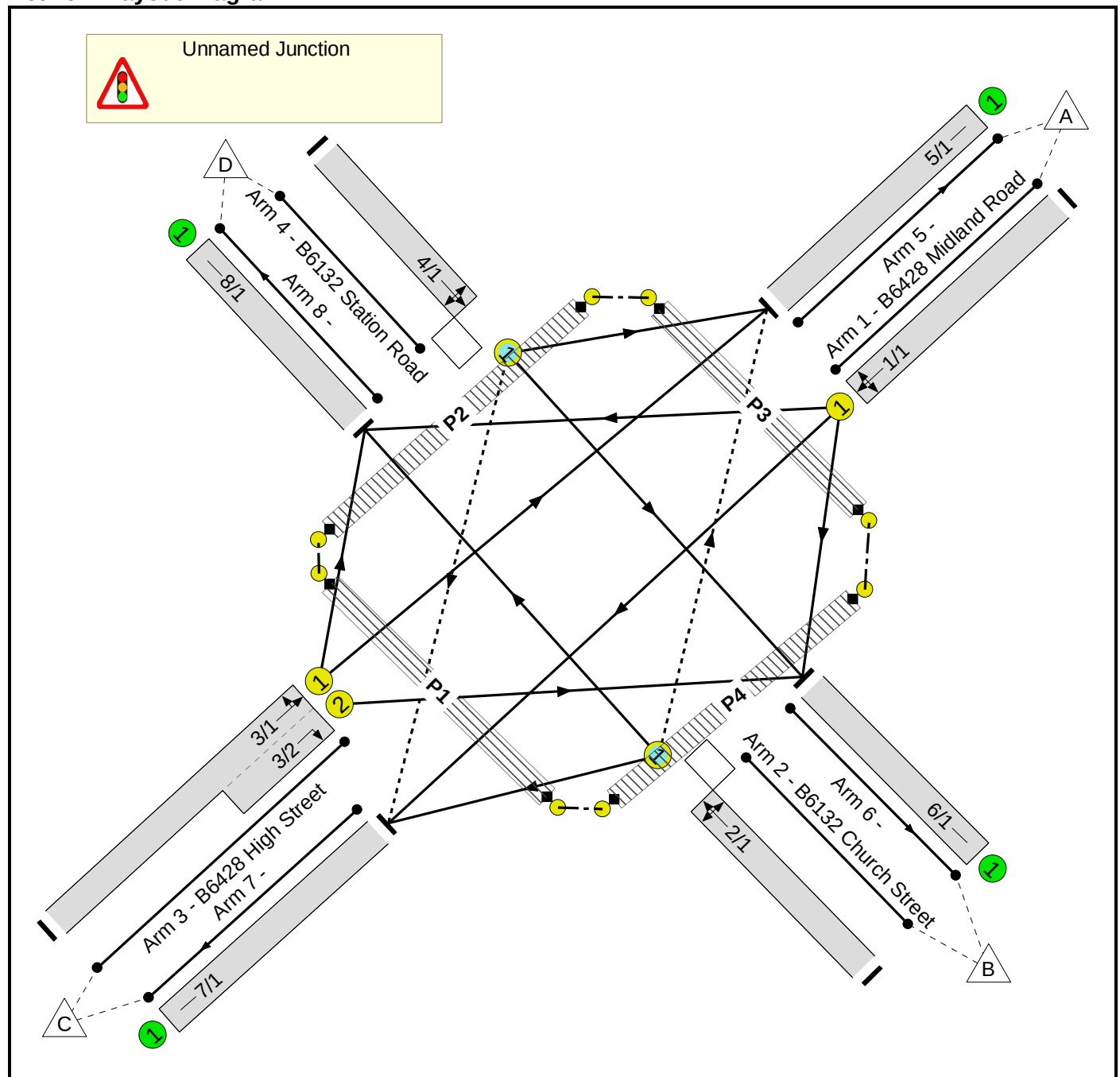
Full Input Data And Results

Full Input Data And Results

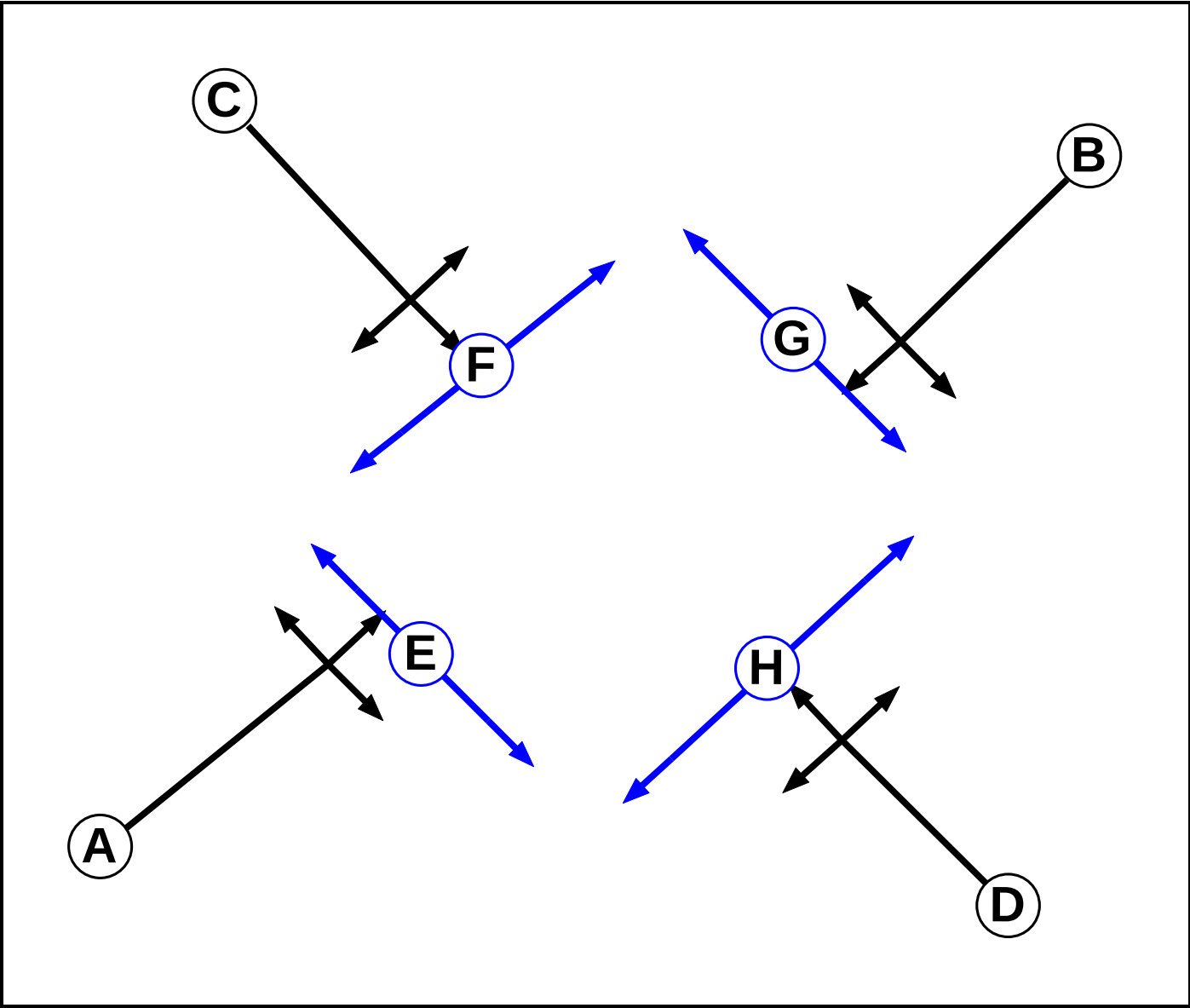
User and Project Details

Project:	
Title:	
Location:	
Additional detail:	
File name:	181108 B6132-B6428 Signalised Crossroads.lsg3x
Author:	
Company:	
Address:	

Network Layout Diagram



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	Pedestrian		5	5
F	Pedestrian		6	6
G	Pedestrian		5	5
H	Pedestrian		5	5

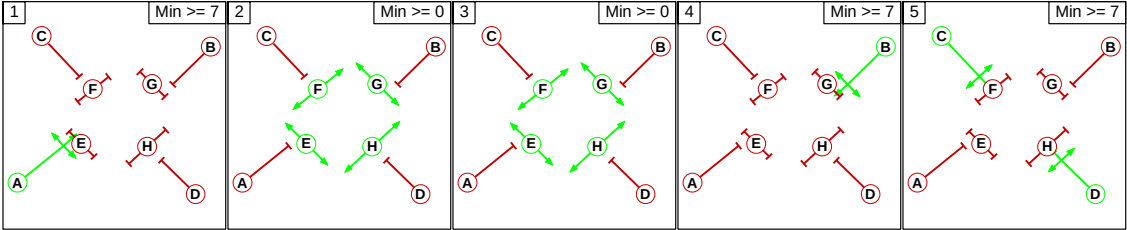
Phase Intergreens Matrix

Terminating Phase	Starting Phase								
		A	B	C	D	E	F	G	H
	A		7	6	6	8	8	8	8
	B	6		7	7	8	8	8	8
	C	7	7		-	8	8	8	8
	D	7	7	-		8	8	8	8
	E	0	0	0	0		-	-	-
	F	0	0	0	0	-		-	-
	G	0	0	0	0	-	-		-
	H	0	0	0	0	-	-	-	

Phases in Stage

Stage No.	Phases in Stage
1	A
2	E F G H
3	E F G H
4	B
5	C D

Stage Diagram



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
	1		8	8	7	6
	2	2		0	2	2
	3	2	0		2	2
	4	6	8	8		7
	5	7	8	8	7	

Full Input Data And Results

Give-Way Lane Input Data

Junction: Unnamed Junction											
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)
2/1 (B6132 Church Street)	5/1 (Right)	1439	0	4/1	1.09	All	2.00	2.00	0.50	2	2.00
4/1 (B6132 Station Road)	7/1 (Right)	1439	0	2/1	1.09	All	2.00	2.00	0.50	2	2.00

Full Input Data And Results

Lane Input Data

Junction: Unnamed Junction												
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 (B6428 Midland Road)	U	B	2	3	60.0	Geom	-	3.20	0.00	Y	Arm 6 Left	26.00
											Arm 7 Ahead	Inf
											Arm 8 Right	25.00
2/1 (B6132 Church Street)	O	D	2	3	60.0	Geom	-	3.30	0.00	Y	Arm 5 Right	26.00
											Arm 7 Left	24.00
											Arm 8 Ahead	Inf
3/1 (B6428 High Street)	U	A	2	3	60.0	Geom	-	2.50	0.00	Y	Arm 5 Ahead	Inf
											Arm 8 Left	Inf
3/2 (B6428 High Street)	U	A	2	3	6.0	Geom	-	2.50	0.00	Y	Arm 6 Right	31.00
4/1 (B6132 Station Road)	O	C	2	3	60.0	Geom	-	3.70	0.00	Y	Arm 5 Left	20.00
											Arm 6 Ahead	Inf
											Arm 7 Right	32.00
5/1	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'AM Peak Hour'	07:45	08:45	01:00	
2: 'PM Peak Hour'	16:30	17:30	01:00	
3: '2023 AM Base'	07:45	08:45	01:00	
4: '2023 PM Base'	16:30	17:30	01:00	
5: '2023 AM Design'	07:45	08:45	01:00	
6: '2023 PM Design'	16:30	17:30	01:00	

Scenario 1: 'AM Peak Hour ' (FG1: 'AM Peak Hour', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
Origin		A	B	C	D	Tot.
	A	0	122	169	55	346
	B	58	0	136	178	372
	C	173	154	0	23	350
	D	29	138	14	0	181
	Tot.	260	414	319	256	1249

Traffic Lane Flows

Lane	Scenario 1: AM Peak Hour
Junction: Unnamed Junction	
1/1	346
2/1	372
3/1 (with short)	350(In) 196(Out)
3/2 (short)	154
4/1	181
5/1	260
6/1	414
7/1	319
8/1	256

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (B6428 Midland Road)	3.20	0.00	Y	Arm 6 Left	26.00	35.3 %	1879	1879
				Arm 7 Ahead	Inf	48.8 %		
				Arm 8 Right	25.00	15.9 %		
2/1 (B6132 Church Street)	3.30	0.00	Y	Arm 5 Right	26.00	15.6 %	1885	1885
				Arm 7 Left	24.00	36.6 %		
				Arm 8 Ahead	Inf	47.8 %		
3/1 (B6428 High Street)	2.50	0.00	Y	Arm 5 Ahead	Inf	88.3 %	1865	1865
				Arm 8 Left	Inf	11.7 %		
3/2 (B6428 High Street)	2.50	0.00	Y	Arm 6 Right	31.00	100.0 %	1779	1779
4/1 (B6132 Station Road)	3.70	0.00	Y	Arm 5 Left	20.00	16.0 %	1954	1954
				Arm 6 Ahead	Inf	76.2 %		
				Arm 7 Right	32.00	7.7 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Scenario 2: 'PM Peak Hour ' (FG2: 'PM Peak Hour', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
Origin		A	B	C	D	Tot.
	A	0	108	189	64	361
	B	101	0	144	125	370
	C	248	181	0	26	455
	D	74	152	29	0	255
	Tot.	423	441	362	215	1441

Traffic Lane Flows

Lane	Scenario 2: PM Peak Hour
Junction: Unnamed Junction	
1/1	361
2/1	370
3/1 (with short)	455(In) 274(Out)
3/2 (short)	181
4/1	255
5/1	423
6/1	441
7/1	362
8/1	215

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (B6428 Midland Road)	3.20	0.00	Y	Arm 6 Left	26.00	29.9 %	1882	1882
				Arm 7 Ahead	Inf	52.4 %		
				Arm 8 Right	25.00	17.7 %		
2/1 (B6132 Church Street)	3.30	0.00	Y	Arm 5 Right	26.00	27.3 %	1870	1870
				Arm 7 Left	24.00	38.9 %		
				Arm 8 Ahead	Inf	33.8 %		
3/1 (B6428 High Street)	2.50	0.00	Y	Arm 5 Ahead	Inf	90.5 %	1865	1865
				Arm 8 Left	Inf	9.5 %		
3/2 (B6428 High Street)	2.50	0.00	Y	Arm 6 Right	31.00	100.0 %	1779	1779
4/1 (B6132 Station Road)	3.70	0.00	Y	Arm 5 Left	20.00	29.0 %	1933	1933
				Arm 6 Ahead	Inf	59.6 %		
				Arm 7 Right	32.00	11.4 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 3: 'AM 2023 Base' (FG3: '2023 AM Base', Plan 1: 'Network Control Plan 1')
Traffic Flows, Desired
Desired Flow :

	Destination					
Origin		A	B	C	D	Tot.
	A	0	132	182	59	373
	B	63	0	147	192	402
	C	187	166	0	25	378
	D	31	156	15	0	202
	Tot.	281	454	344	276	1355

Traffic Lane Flows

Lane	Scenario 3: AM 2023 Base
Junction: Unnamed Junction	
1/1	373
2/1	402
3/1 (with short)	378(In) 212(Out)
3/2 (short)	166
4/1	202
5/1	281
6/1	454
7/1	344
8/1	276

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (B6428 Midland Road)	3.20	0.00	Y	Arm 6 Left	26.00	35.4 %	1879	1879
				Arm 7 Ahead	Inf	48.8 %		
				Arm 8 Right	25.00	15.8 %		
2/1 (B6132 Church Street)	3.30	0.00	Y	Arm 5 Right	26.00	15.7 %	1885	1885
				Arm 7 Left	24.00	36.6 %		
				Arm 8 Ahead	Inf	47.8 %		
3/1 (B6428 High Street)	2.50	0.00	Y	Arm 5 Ahead	Inf	88.2 %	1865	1865
				Arm 8 Left	Inf	11.8 %		
3/2 (B6428 High Street)	2.50	0.00	Y	Arm 6 Right	31.00	100.0 %	1779	1779
4/1 (B6132 Station Road)	3.70	0.00	Y	Arm 5 Left	20.00	15.3 %	1956	1956
				Arm 6 Ahead	Inf	77.2 %		
				Arm 7 Right	32.00	7.4 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Scenario 4: 'PM 2023 Base' (FG4: '2023 PM Base', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
Origin		A	B	C	D	Tot.
	A	0	116	204	69	389
	B	109	0	155	135	399
	C	268	195	0	28	491
	D	80	164	31	0	275
	Tot.	457	475	390	232	1554

Traffic Lane Flows

Lane	Scenario 4: PM 2023 Base
Junction: Unnamed Junction	
1/1	389
2/1	399
3/1 (with short)	491(In) 296(Out)
3/2 (short)	195
4/1	275
5/1	457
6/1	475
7/1	390
8/1	232

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (B6428 Midland Road)	3.20	0.00	Y	Arm 6 Left	26.00	29.8 %	1883	1883
				Arm 7 Ahead	Inf	52.4 %		
				Arm 8 Right	25.00	17.7 %		
2/1 (B6132 Church Street)	3.30	0.00	Y	Arm 5 Right	26.00	27.3 %	1870	1870
				Arm 7 Left	24.00	38.8 %		
				Arm 8 Ahead	Inf	33.8 %		
3/1 (B6428 High Street)	2.50	0.00	Y	Arm 5 Ahead	Inf	90.5 %	1865	1865
				Arm 8 Left	Inf	9.5 %		
3/2 (B6428 High Street)	2.50	0.00	Y	Arm 6 Right	31.00	100.0 %	1779	1779
4/1 (B6132 Station Road)	3.70	0.00	Y	Arm 5 Left	20.00	29.1 %	1933	1933
				Arm 6 Ahead	Inf	59.6 %		
				Arm 7 Right	32.00	11.3 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Scenario 5: 'AM 2023 Design' (FG5: '2023 AM Design', Plan 1: 'Network Control Plan 1')
Traffic Flows, Desired
Desired Flow :

	Destination					
Origin		A	B	C	D	Tot.
	A	0	132	185	59	376
	B	63	0	153	192	408
	C	194	182	0	27	403
	D	31	156	16	0	203
	Tot.	288	470	354	278	1390

Traffic Lane Flows

Lane	Scenario 5: AM 2023 Design
Junction: Unnamed Junction	
1/1	376
2/1	408
3/1 (with short)	403(In) 221(Out)
3/2 (short)	182
4/1	203
5/1	288
6/1	470
7/1	354
8/1	278

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (B6428 Midland Road)	3.20	0.00	Y	Arm 6 Left	26.00	35.1 %	1879	1879
				Arm 7 Ahead	Inf	49.2 %		
				Arm 8 Right	25.00	15.7 %		
2/1 (B6132 Church Street)	3.30	0.00	Y	Arm 5 Right	26.00	15.4 %	1884	1884
				Arm 7 Left	24.00	37.5 %		
				Arm 8 Ahead	Inf	47.1 %		
3/1 (B6428 High Street)	2.50	0.00	Y	Arm 5 Ahead	Inf	87.8 %	1865	1865
				Arm 8 Left	Inf	12.2 %		
3/2 (B6428 High Street)	2.50	0.00	Y	Arm 6 Right	31.00	100.0 %	1779	1779
4/1 (B6132 Station Road)	3.70	0.00	Y	Arm 5 Left	20.00	15.3 %	1955	1955
				Arm 6 Ahead	Inf	76.8 %		
				Arm 7 Right	32.00	7.9 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Scenario 6: 'PM 2023 Design' (FG6: '2023 PM Design', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
Origin		A	B	C	D	Tot.
	A	0	116	210	69	395
	B	109	0	170	135	414
	C	271	202	0	29	502
	D	80	164	33	0	277
	Tot.	460	482	413	233	1588

Traffic Lane Flows

Lane	Scenario 6: PM 2023 Design
Junction: Unnamed Junction	
1/1	395
2/1	414
3/1 (with short)	502(In) 300(Out)
3/2 (short)	202
4/1	277
5/1	460
6/1	482
7/1	413
8/1	233

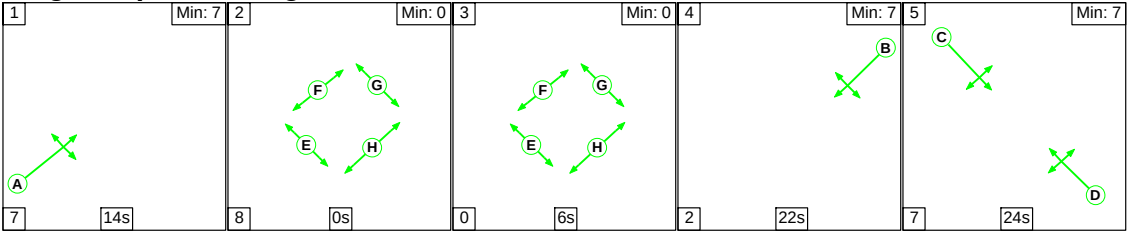
Lane Saturation Flows

Junction: Unnamed Junction								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (B6428 Midland Road)	3.20	0.00	Y	Arm 6 Left	26.00	29.4 %	1883	1883
				Arm 7 Ahead	Inf	53.2 %		
				Arm 8 Right	25.00	17.5 %		
2/1 (B6132 Church Street)	3.30	0.00	Y	Arm 5 Right	26.00	26.3 %	1869	1869
				Arm 7 Left	24.00	41.1 %		
				Arm 8 Ahead	Inf	32.6 %		
3/1 (B6428 High Street)	2.50	0.00	Y	Arm 5 Ahead	Inf	90.3 %	1865	1865
				Arm 8 Left	Inf	9.7 %		
3/2 (B6428 High Street)	2.50	0.00	Y	Arm 6 Right	31.00	100.0 %	1779	1779
4/1 (B6132 Station Road)	3.70	0.00	Y	Arm 5 Left	20.00	28.9 %	1932	1932
				Arm 6 Ahead	Inf	59.2 %		
				Arm 7 Right	32.00	11.9 %		
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 1: 'AM Peak Hour ' (FG1: 'AM Peak Hour', Plan 1: 'Network Control Plan 1')

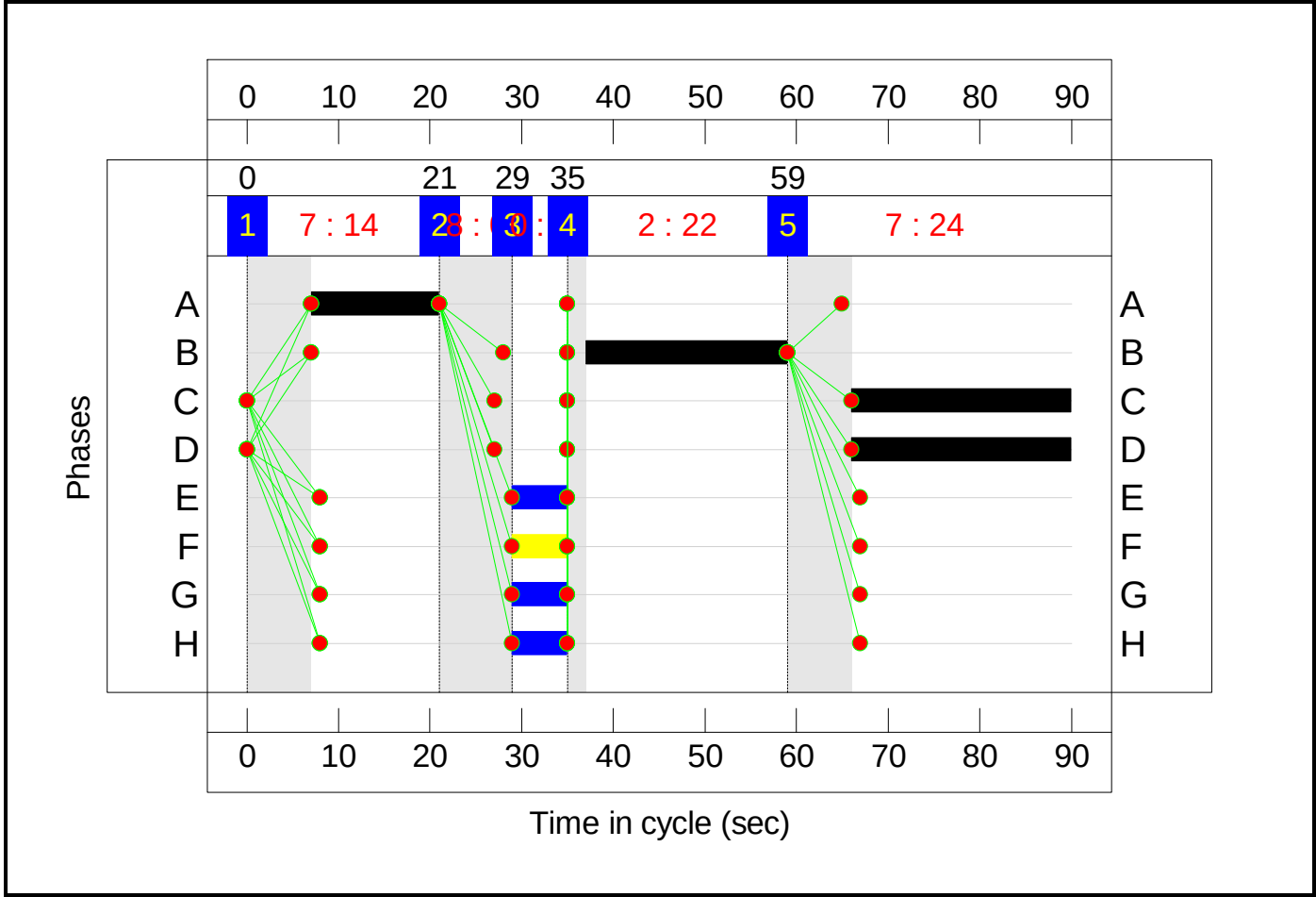
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	14	0	6	22	24
Change Point	0	21	29	35	59

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

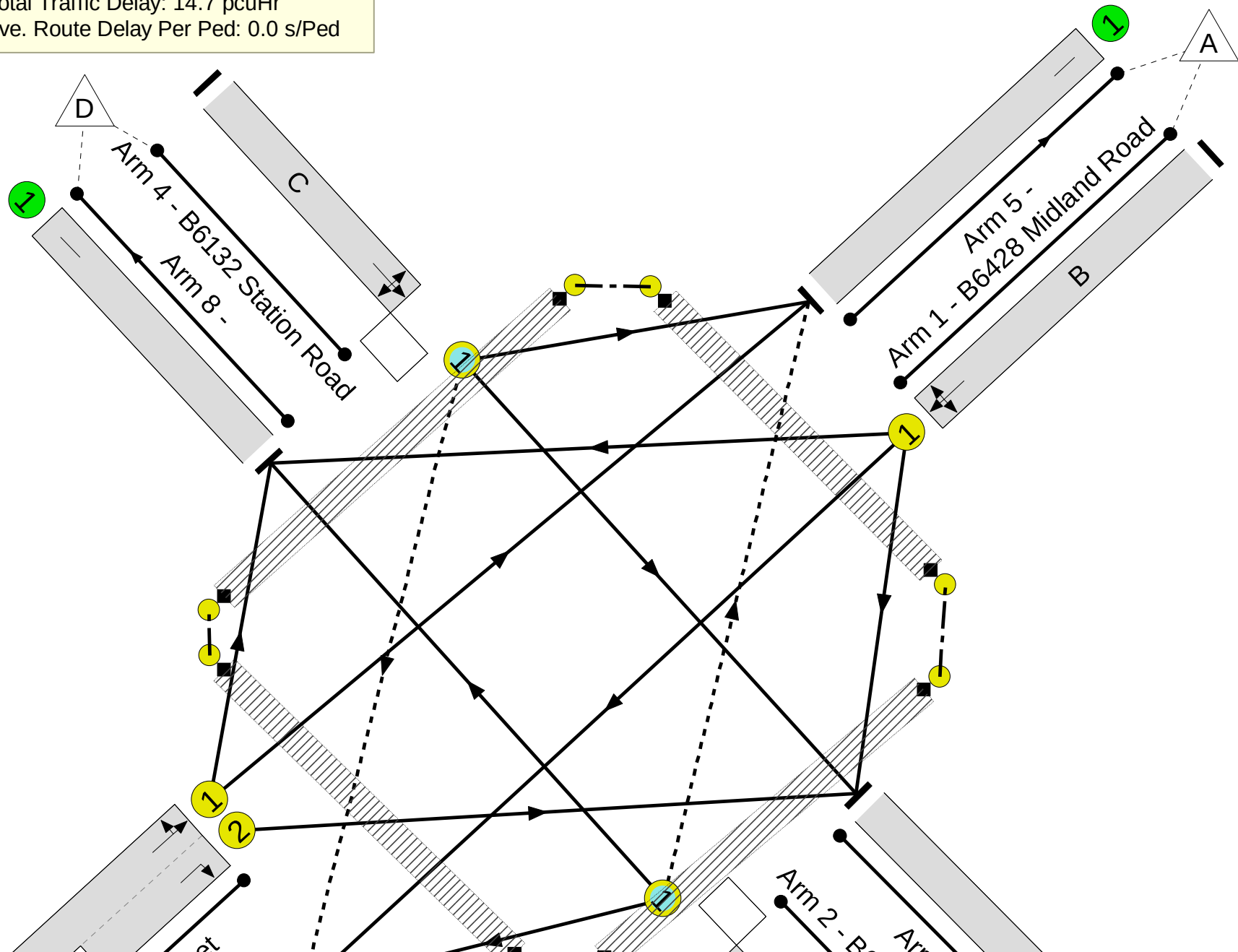


Unnamed Junction

PRC: 24.9 %

Total Traffic Delay: 14.7 pcuHr

Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	72.1%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	72.1%
1/1	B6428 Midland Road Left Ahead Right	U	N/A	N/A	B		1	22	-	346	1879	480	72.1%
2/1	B6132 Church Street Right Left Ahead	O	N/A	N/A	D		1	24	-	372	1885	524	71.0%
3/1+3/2	B6428 High Street Ahead Right Left	U	N/A	N/A	A		1	14	-	350	1865:1779	274+215	71.5 : 71.5%
4/1	B6132 Station Road Left Ahead Right	O	N/A	N/A	C		1	24	-	181	1954	543	33.3%
5/1		U	N/A	N/A	-		-	-	-	260	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	414	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	319	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	256	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	E		1	6	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	6	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	G		1	6	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	H		1	6	-	0	-	0	0.0%

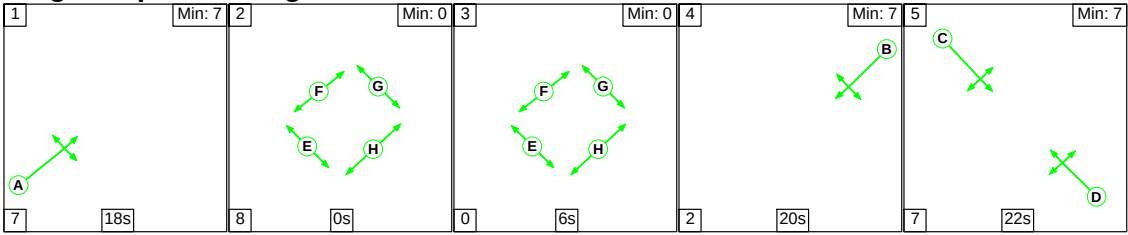
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	72	0	0	10.6	4.0	0.1	14.7	-	-	-	-
Unnamed Junction	-	-	72	0	0	10.6	4.0	0.1	14.7	-	-	-	-
1/1	346	346	-	-	-	2.9	1.3	-	4.2	43.7	7.9	1.3	9.1
2/1	372	372	58	0	0	3.0	1.2	0.0	4.3	41.2	8.3	1.2	9.5
3/1+3/2	350	350	-	-	-	3.4	1.2	-	4.6	47.3	4.5	1.2	5.8
4/1	181	181	14	0	0	1.3	0.2	0.0	1.6	31.7	3.6	0.2	3.8
5/1	260	260	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	414	414	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	319	319	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	256	256	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
C1 PRC for Signalled Lanes (%): 24.9 Total Delay for Signalled Lanes (pcuHr): 14.65 Cycle Time (s): 90 PRC Over All Lanes (%): 24.9 Total Delay Over All Lanes(pcuHr): 14.65													

Full Input Data And Results

Scenario 2: 'PM Peak Hour ' (FG2: 'PM Peak Hour', Plan 1: 'Network Control Plan 1')

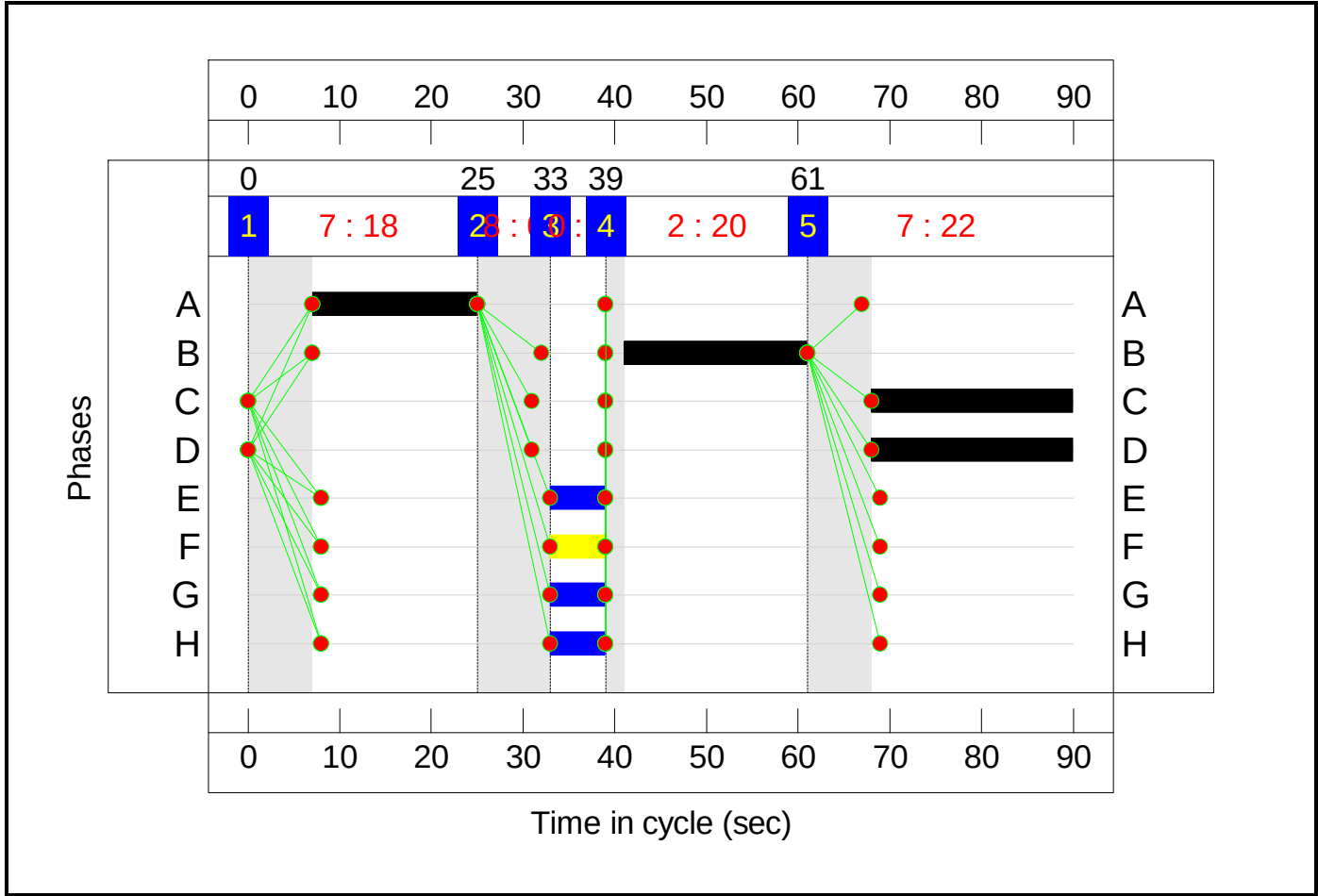
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	18	0	6	20	22
Change Point	0	25	33	39	61

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

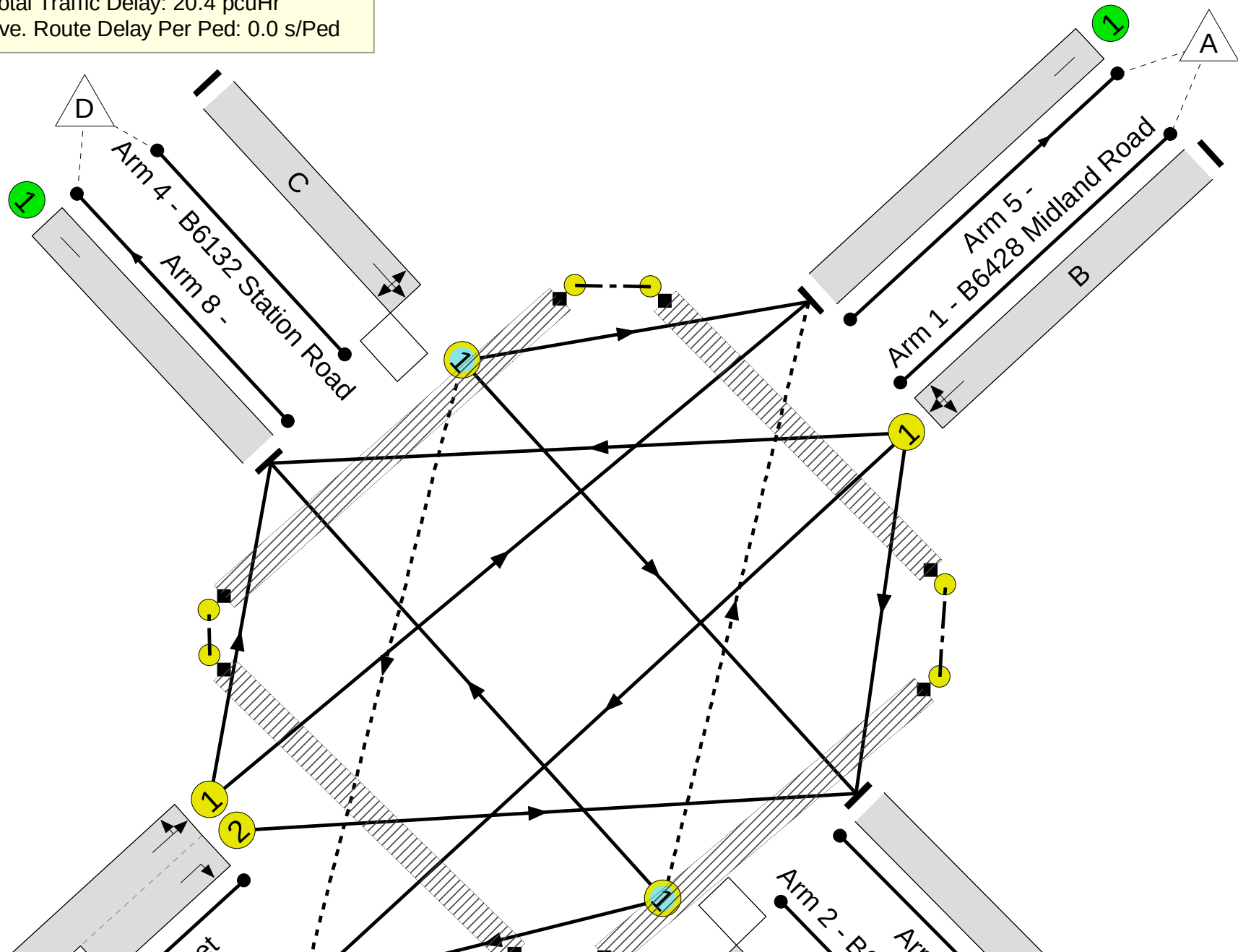


Unnamed Junction

PRC: 7.0 %

Total Traffic Delay: 20.4 pcuHr

Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

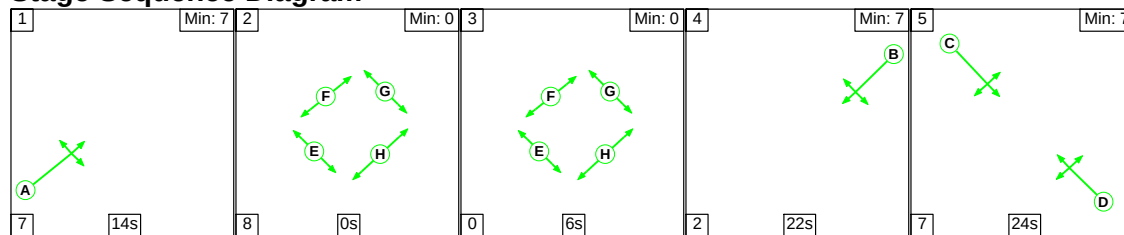
Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	84.1%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	84.1%
1/1	B6428 Midland Road Left Ahead Right	U	N/A	N/A	B		1	20	-	361	1882	439	82.2%
2/1	B6132 Church Street Right Left Ahead	O	N/A	N/A	D		1	22	-	370	1870	448	82.7%
3/1+3/2	B6428 High Street Ahead Right Left	U	N/A	N/A	A		1	18	-	455	1865:1779	326+215	84.1 : 84.1%
4/1	B6132 Station Road Left Ahead Right	O	N/A	N/A	C		1	22	-	255	1933	486	52.4%
5/1		U	N/A	N/A	-		-	-	-	423	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	441	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	362	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	215	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	E		1	6	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	6	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	G		1	6	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	H		1	6	-	0	-	0	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	130	0	0	12.6	7.5	0.2	20.4	-	-	-	-
Unnamed Junction	-	-	130	0	0	12.6	7.5	0.2	20.4	-	-	-	-
1/1	361	361	-	-	-	3.3	2.2	-	5.5	54.5	8.5	2.2	10.7
2/1	370	370	101	0	0	3.2	2.3	0.1	5.6	54.6	8.7	2.3	11.0
3/1+3/2	455	455	-	-	-	4.1	2.5	-	6.6	52.1	6.8	2.5	9.3
4/1	255	255	29	0	0	2.0	0.5	0.1	2.7	38.0	5.5	0.5	6.0
5/1	423	423	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	441	441	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	362	362	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	215	215	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
C1 PRC for Signalled Lanes (%): 7.0 Total Delay for Signalled Lanes (pcuHr): 20.36 Cycle Time (s): 90 PRC Over All Lanes (%): 7.0 Total Delay Over All Lanes(pcuHr): 20.36													

Stage Sequence Diagram



Stage	1	2	3	4	5
Duration	14	0	6	22	24
Change Point	0	21	29	35	59

Timing diagram for a 90-degree cycle showing phases A through H. The diagram includes a timeline from 0 to 90 seconds. Key events are marked at 0, 21, 29, 35, and 59 seconds. Phases A, B, C, D, E, F, G, and H are shown as horizontal bars. Green lines connect the start and end points of the bars. A legend at the bottom identifies the colors: Blue for 1, Red for 2, Yellow for 3, and Green for 4.

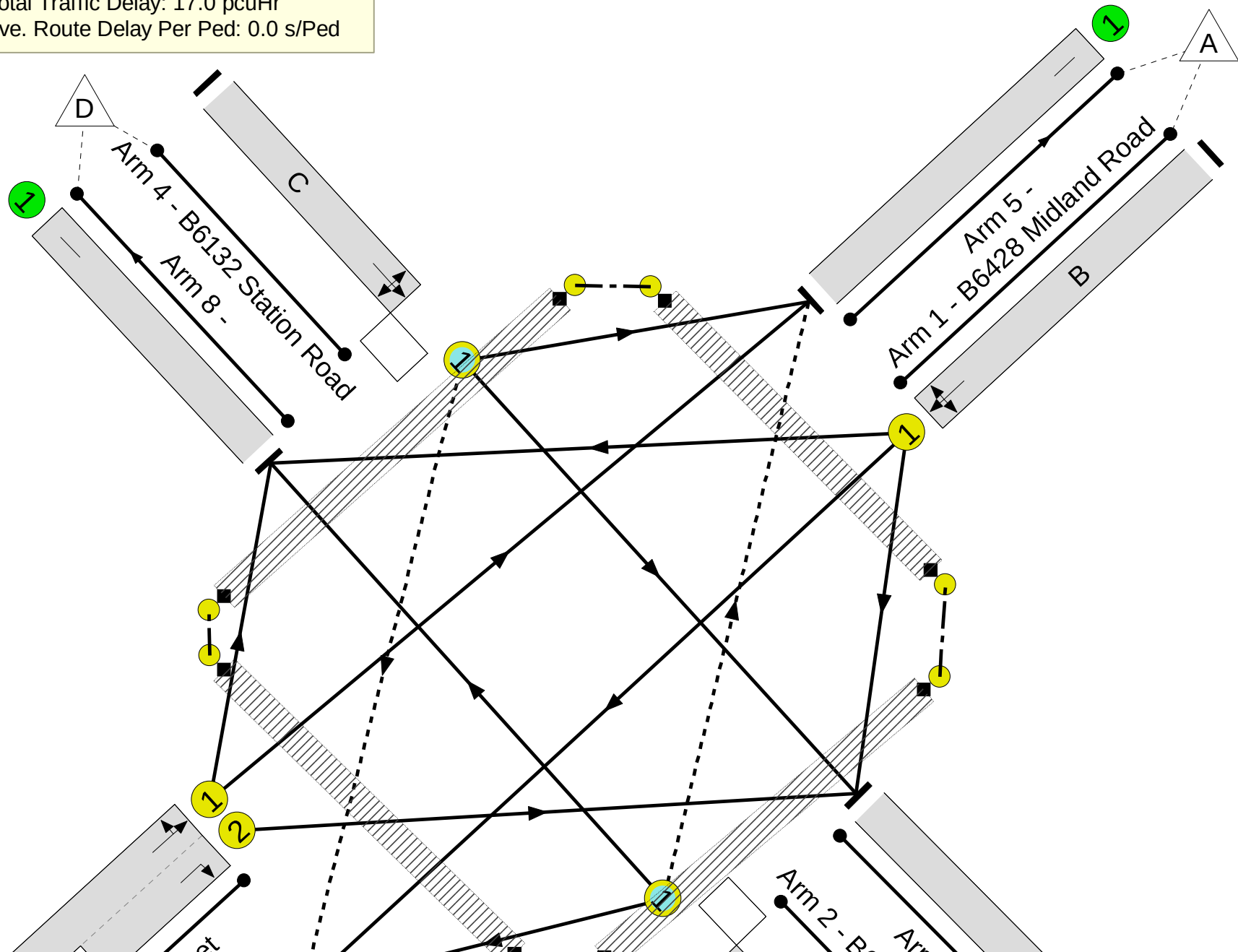
Full Input Data And Results

Network Layout Diagram



Unnamed Junction

PRC: 15.9 %
Total Traffic Delay: 17.0 pcuHr
Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	77.7%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	77.7%
1/1	B6428 Midland Road Left Ahead Right	U	N/A	N/A	B		1	22	-	373	1879	480	77.7%
2/1	B6132 Church Street Right Left Ahead	O	N/A	N/A	D		1	24	-	402	1885	524	76.8%
3/1+3/2	B6428 High Street Ahead Right Left	U	N/A	N/A	A		1	14	-	378	1865:1779	274+215	77.3 : 77.3%
4/1	B6132 Station Road Left Ahead Right	O	N/A	N/A	C		1	24	-	202	1956	543	37.2%
5/1		U	N/A	N/A	-		-	-	-	281	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	454	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	344	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	276	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	E		1	6	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	6	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	G		1	6	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	H		1	6	-	0	-	0	0.0%

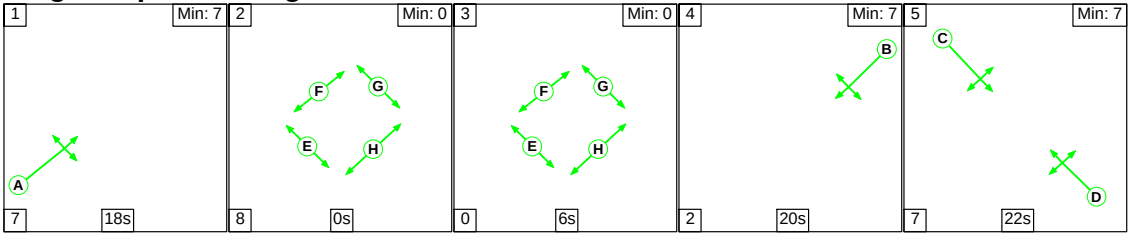
Full Input Data And Results

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Full Input Data And Results

Scenario 4: 'PM 2023 Base' (FG4: '2023 PM Base', Plan 1: 'Network Control Plan 1')

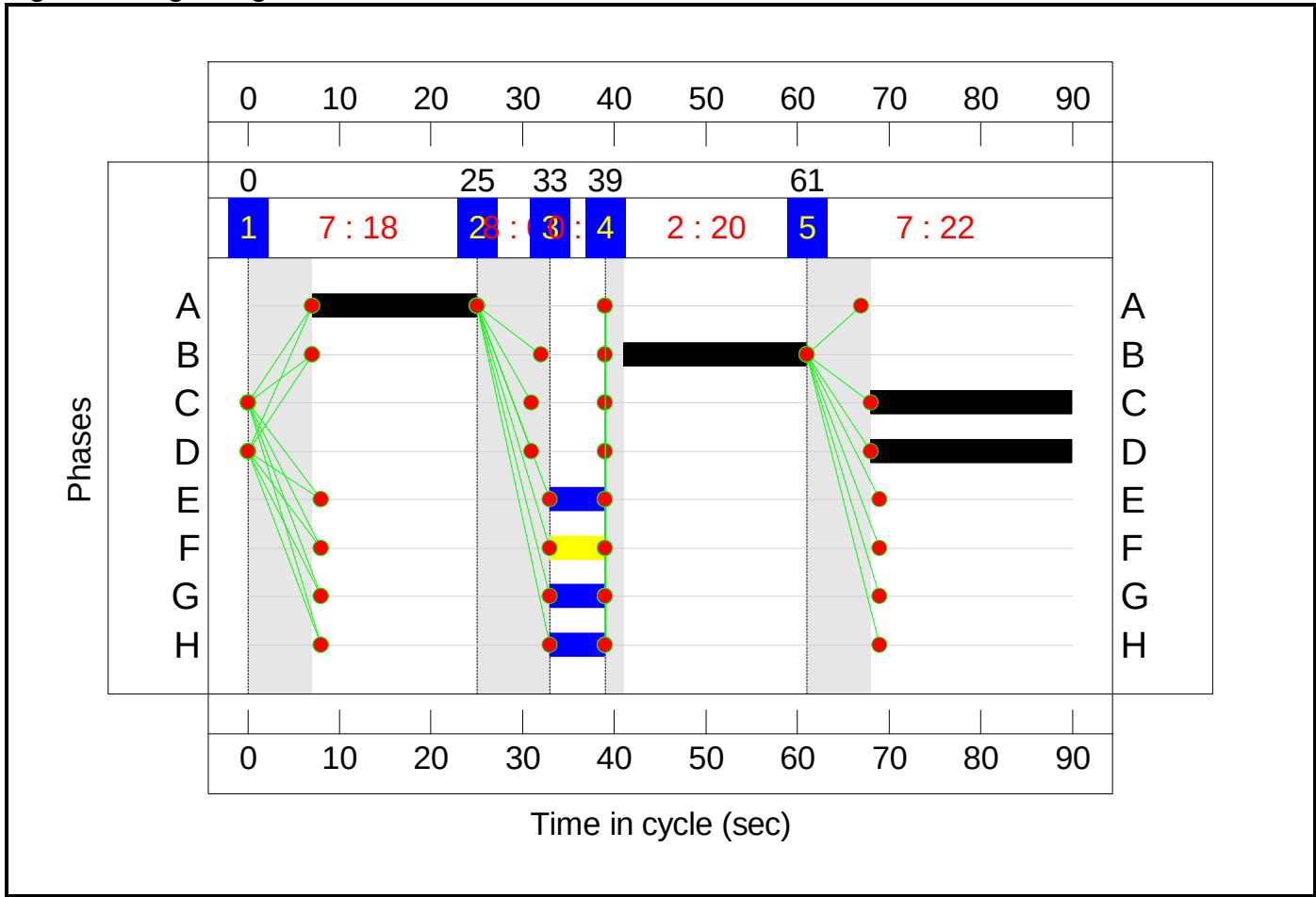
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	18	0	6	20	22
Change Point	0	25	33	39	61

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

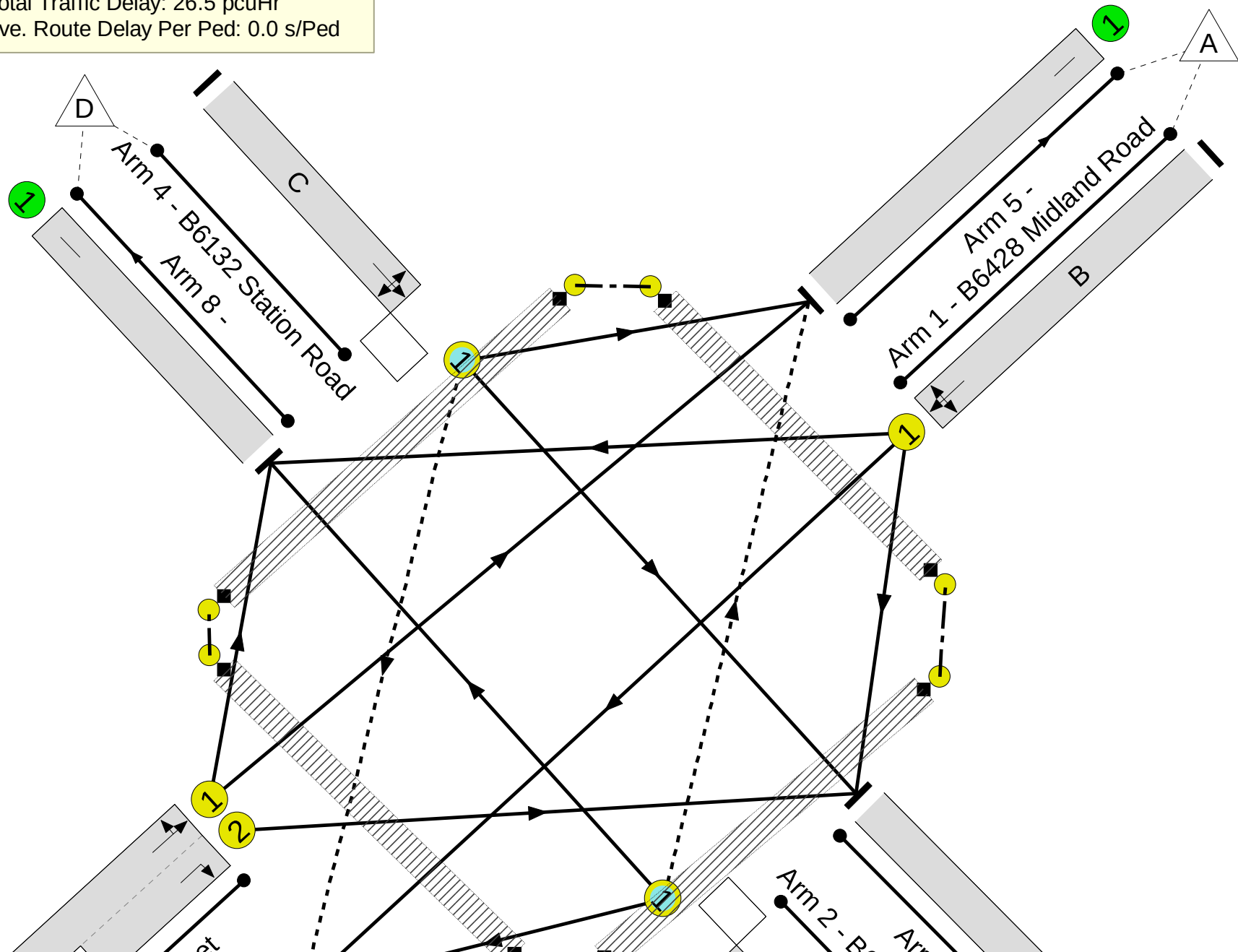


Unnamed Junction

PRC: -0.9 %

Total Traffic Delay: 26.5 pcuHr

Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	90.9%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	90.9%
1/1	B6428 Midland Road Left Ahead Right	U	N/A	N/A	B		1	20	-	389	1883	439	88.5%
2/1	B6132 Church Street Right Left Ahead	O	N/A	N/A	D		1	22	-	399	1870	439	90.8%
3/1+3/2	B6428 High Street Ahead Right Left	U	N/A	N/A	A		1	18	-	491	1865:1779	326+215	90.9 : 90.9%
4/1	B6132 Station Road Left Ahead Right	O	N/A	N/A	C		1	22	-	275	1933	494	55.7%
5/1		U	N/A	N/A	-		-	-	-	457	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	475	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	390	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	232	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	E		1	6	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	6	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	G		1	6	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	H		1	6	-	0	-	0	0.0%

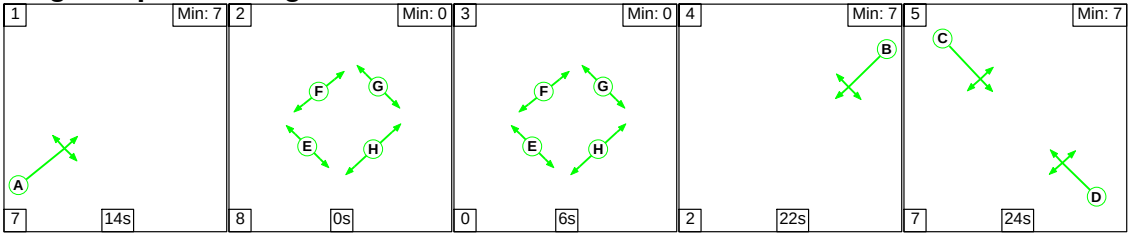
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	129	0	11	13.9	12.4	0.3	26.5	-	-	-	-
Unnamed Junction	-	-	129	0	11	13.9	12.4	0.3	26.5	-	-	-	-
1/1	389	389	-	-	-	3.6	3.4	-	7.0	64.8	9.3	3.4	12.7
2/1	399	399	109	0	0	3.6	4.1	0.2	7.8	70.7	9.6	4.1	13.7
3/1+3/2	491	491	-	-	-	4.5	4.2	-	8.7	64.0	7.8	4.2	12.0
4/1	275	275	20	0	11	2.2	0.6	0.1	3.0	38.9	6.0	0.6	6.6
5/1	457	457	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	475	475	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	390	390	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	232	232	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
C1 PRC for Signalled Lanes (%): -0.9 Total Delay for Signalled Lanes (pcuHr): 26.53 Cycle Time (s): 90 PRC Over All Lanes (%): -0.9 Total Delay Over All Lanes(pcuHr): 26.53													

Full Input Data And Results

Scenario 5: 'AM 2023 Design' (FG5: '2023 AM Design', Plan 1: 'Network Control Plan 1')

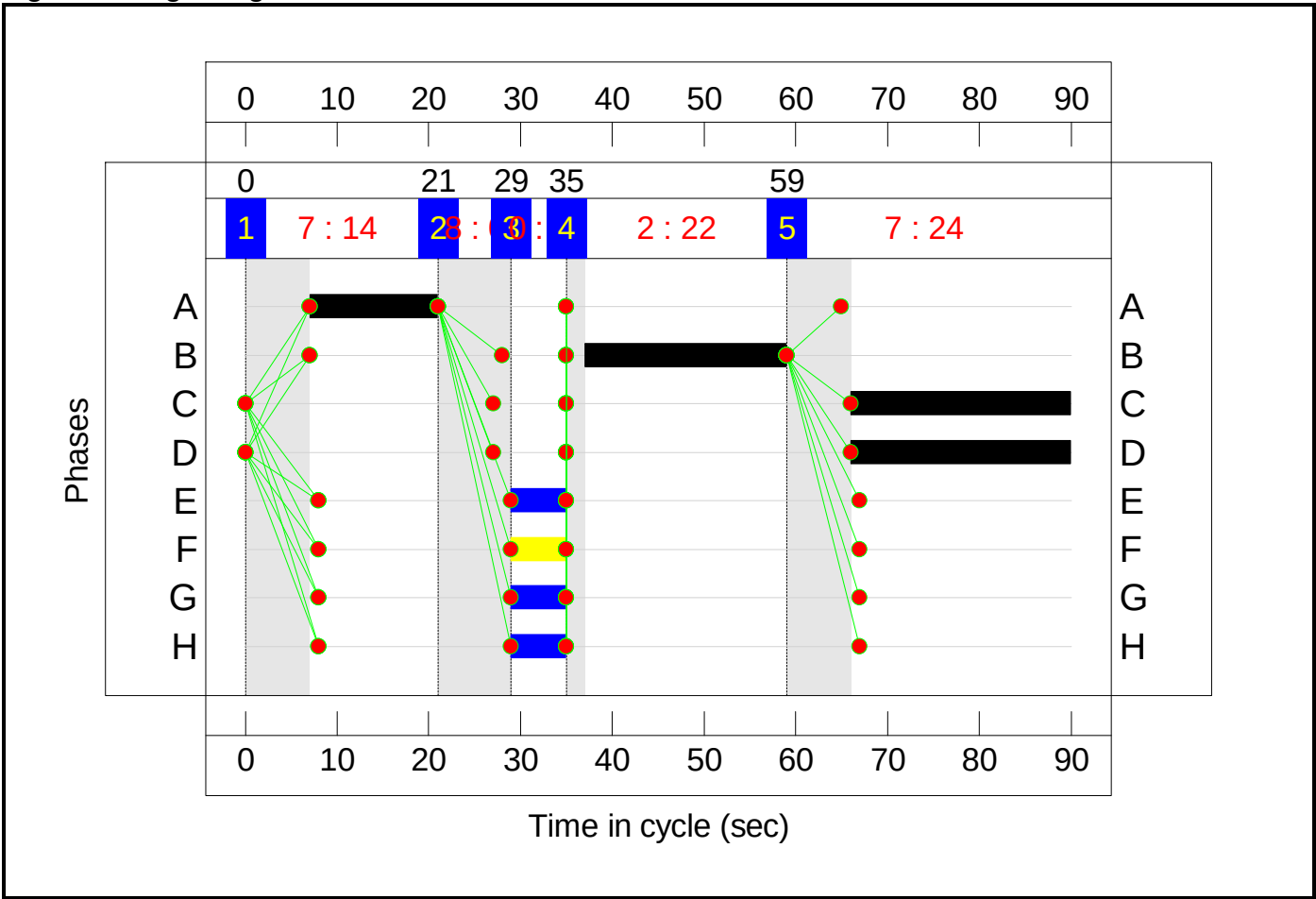
Stage Sequence Diagram



Stage Timings

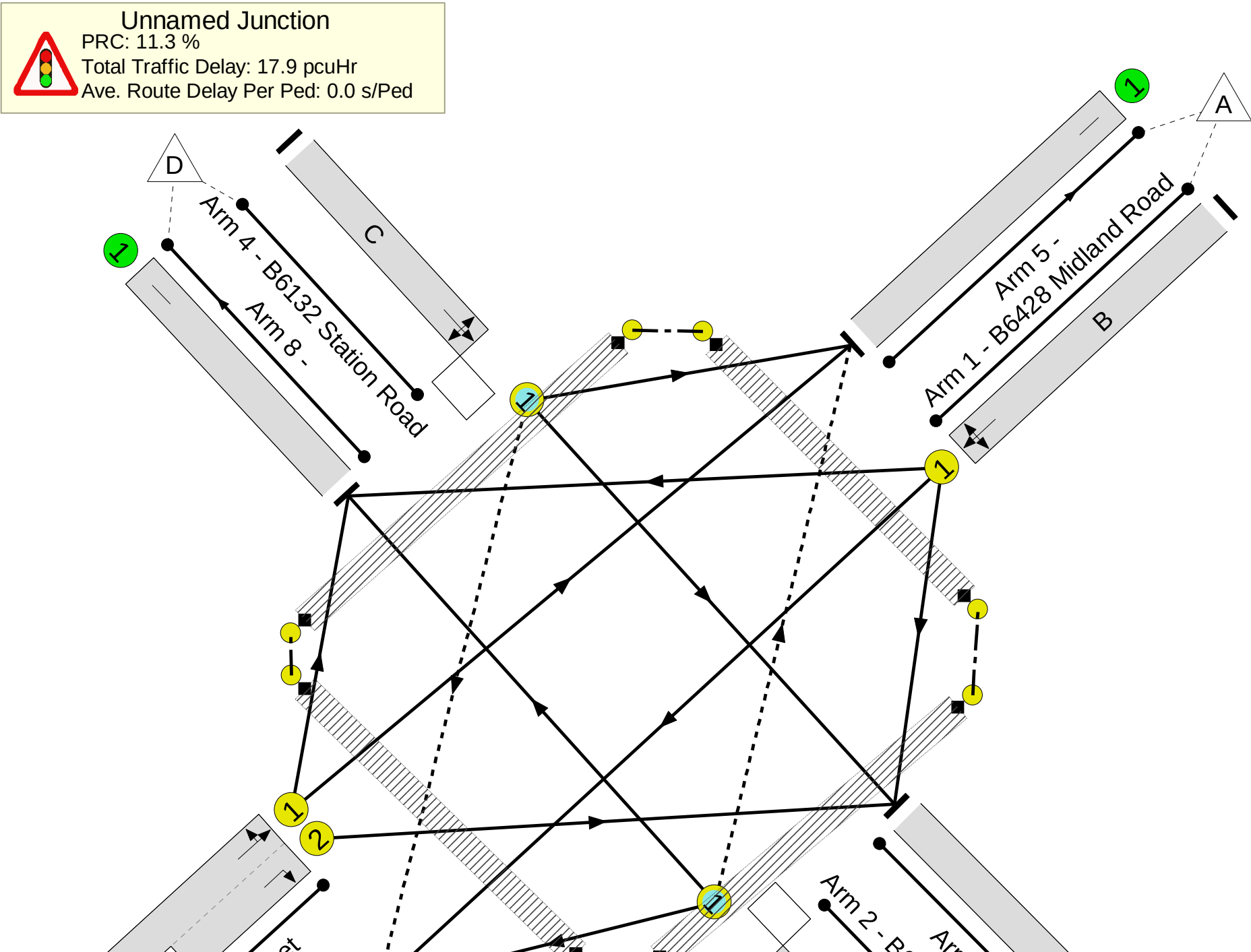
Stage	1	2	3	4	5
Duration	14	0	6	22	24
Change Point	0	21	29	35	59

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	80.8%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	80.8%
1/1	B6428 Midland Road Left Ahead Right	U	N/A	N/A	B		1	22	-	376	1879	480	78.3%
2/1	B6132 Church Street Right Left Ahead	O	N/A	N/A	D		1	24	-	408	1884	523	78.0%
3/1+3/2	B6428 High Street Ahead Right Left	U	N/A	N/A	A		1	14	-	403	1865:1779	273+225	80.8 : 80.8%
4/1	B6132 Station Road Left Ahead Right	O	N/A	N/A	C		1	24	-	203	1955	543	37.4%
5/1		U	N/A	N/A	-		-	-	-	288	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	470	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	354	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	278	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	E		1	6	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	6	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	G		1	6	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	H		1	6	-	0	-	0	0.0%

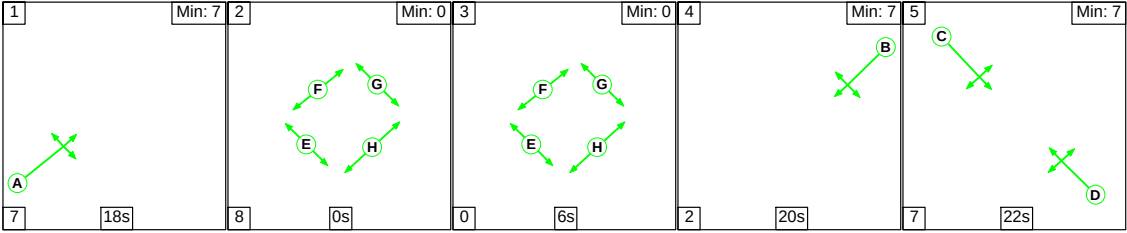
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	79	0	0	12.1	5.8	0.1	17.9	-	-	-	-
Unnamed Junction	-	-	79	0	0	12.1	5.8	0.1	17.9	-	-	-	-
1/1	376	376	-	-	-	3.3	1.7	-	5.0	47.9	8.7	1.7	10.4
2/1	408	408	63	0	0	3.4	1.7	0.0	5.1	45.4	9.3	1.7	11.0
3/1+3/2	403	403	-	-	-	3.9	2.0	-	6.0	53.3	5.2	2.0	7.2
4/1	203	203	16	0	0	1.5	0.3	0.1	1.8	32.5	4.1	0.3	4.4
5/1	288	288	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	470	470	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	354	354	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	278	278	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
C1 PRC for Signalled Lanes (%): 11.3 Total Delay for Signalled Lanes (pcuHr): 17.95 Cycle Time (s): 90 PRC Over All Lanes (%): 11.3 Total Delay Over All Lanes(pcuHr): 17.95													

Full Input Data And Results

Scenario 6: 'PM 2023 Design' (FG6: '2023 PM Design', Plan 1: 'Network Control Plan 1')

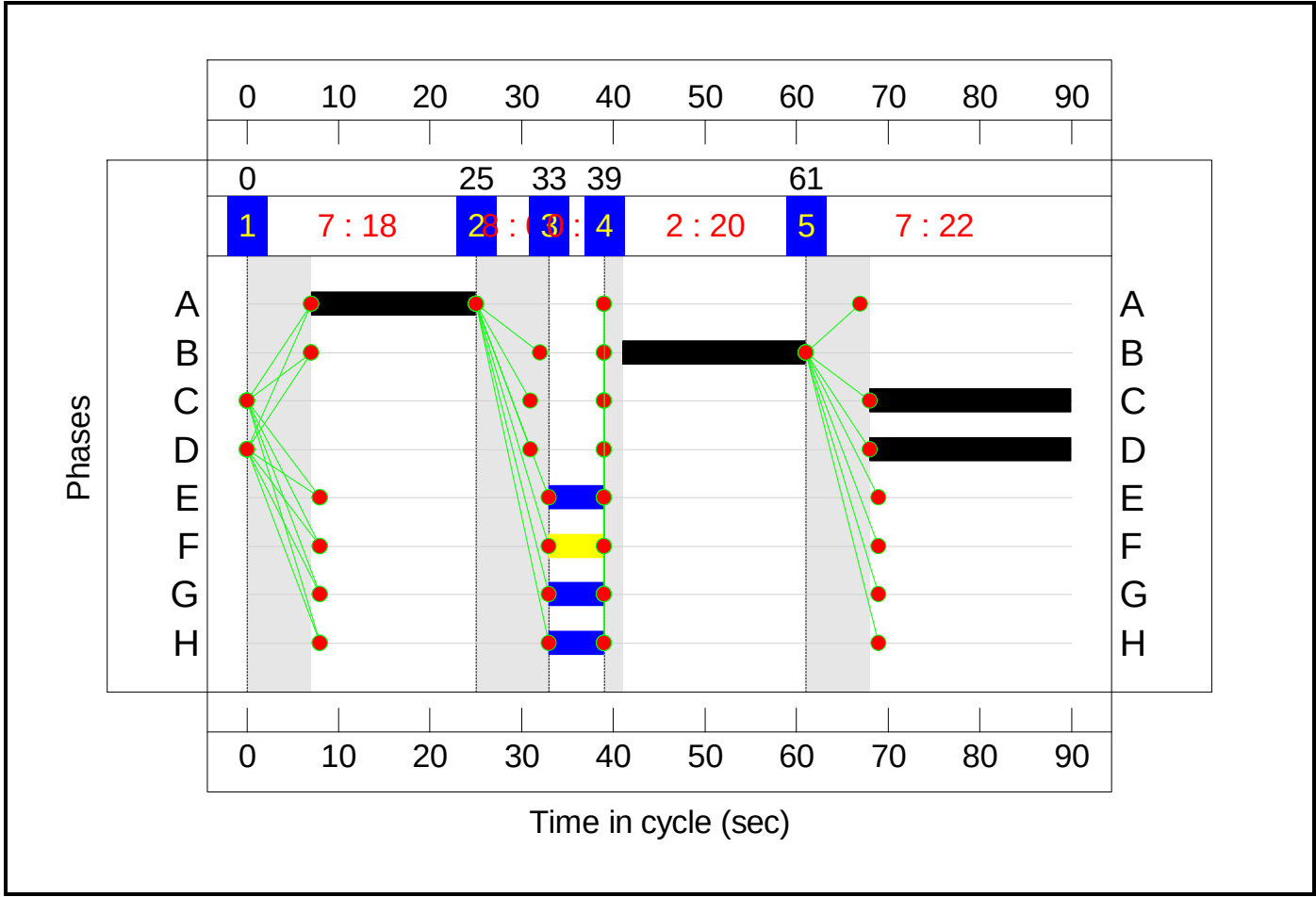
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	18	0	6	20	22
Change Point	0	25	33	39	61

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

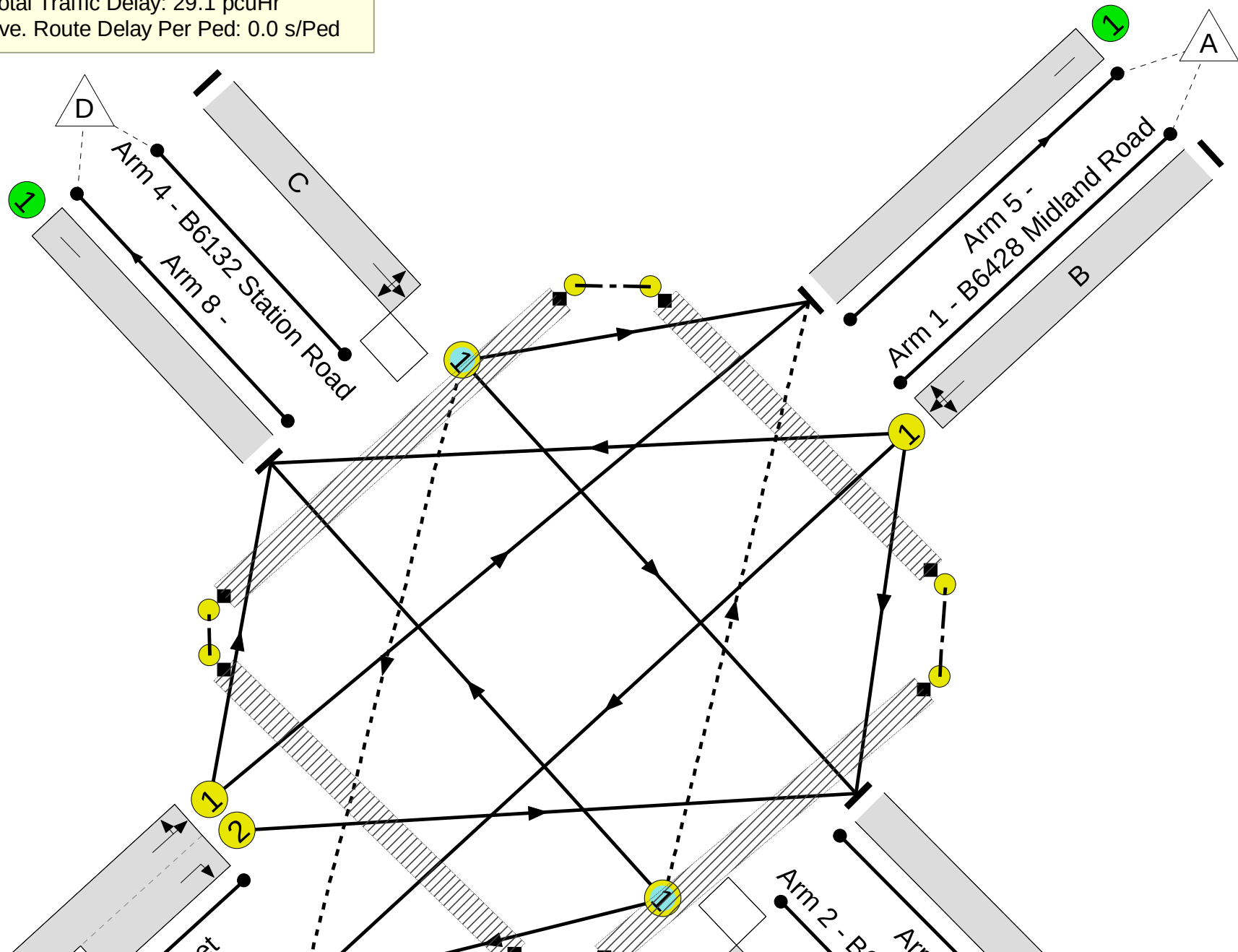


Unnamed Junction

PRC: -3.8 %

Total Traffic Delay: 29.1 pcuHr

Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	93.4%
Unnamed Junction	-	-	N/A	-	-		-	-	-	-	-	-	93.4%
1/1	B6428 Midland Road Left Ahead Right	U	N/A	N/A	B		1	20	-	395	1883	439	89.9%
2/1	B6132 Church Street Right Left Ahead	O	N/A	N/A	D		1	22	-	414	1869	443	93.4%
3/1+3/2	B6428 High Street Ahead Right Left	U	N/A	N/A	A		1	18	-	502	1865:1779	325+219	92.3 : 92.3%
4/1	B6132 Station Road Left Ahead Right	O	N/A	N/A	C		1	22	-	277	1932	494	56.1%
5/1		U	N/A	N/A	-		-	-	-	460	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	482	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	413	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	233	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	E		1	6	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	F		1	6	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	G		1	6	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	H		1	6	-	0	-	0	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	124	0	18	14.3	14.5	0.3	29.1	-	-	-	-
Unnamed Junction	-	-	124	0	18	14.3	14.5	0.3	29.1	-	-	-	-
1/1	395	395	-	-	-	3.7	3.8	-	7.5	68.1	9.5	3.8	13.3
2/1	414	414	109	0	0	3.7	5.2	0.2	9.1	79.2	10.1	5.2	15.3
3/1+3/2	502	502	-	-	-	4.6	4.9	-	9.5	67.9	8.1	4.9	13.0
4/1	277	277	15	0	18	2.2	0.6	0.1	3.0	39.2	6.0	0.6	6.6
5/1	460	460	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	482	482	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	413	413	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	233	233	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-
C1 PRC for Signalled Lanes (%): -3.8 Total Delay for Signalled Lanes (pcuHr): 29.06 Cycle Time (s): 90 PRC Over All Lanes (%): -3.8 Total Delay Over All Lanes(pcuHr): 29.06													