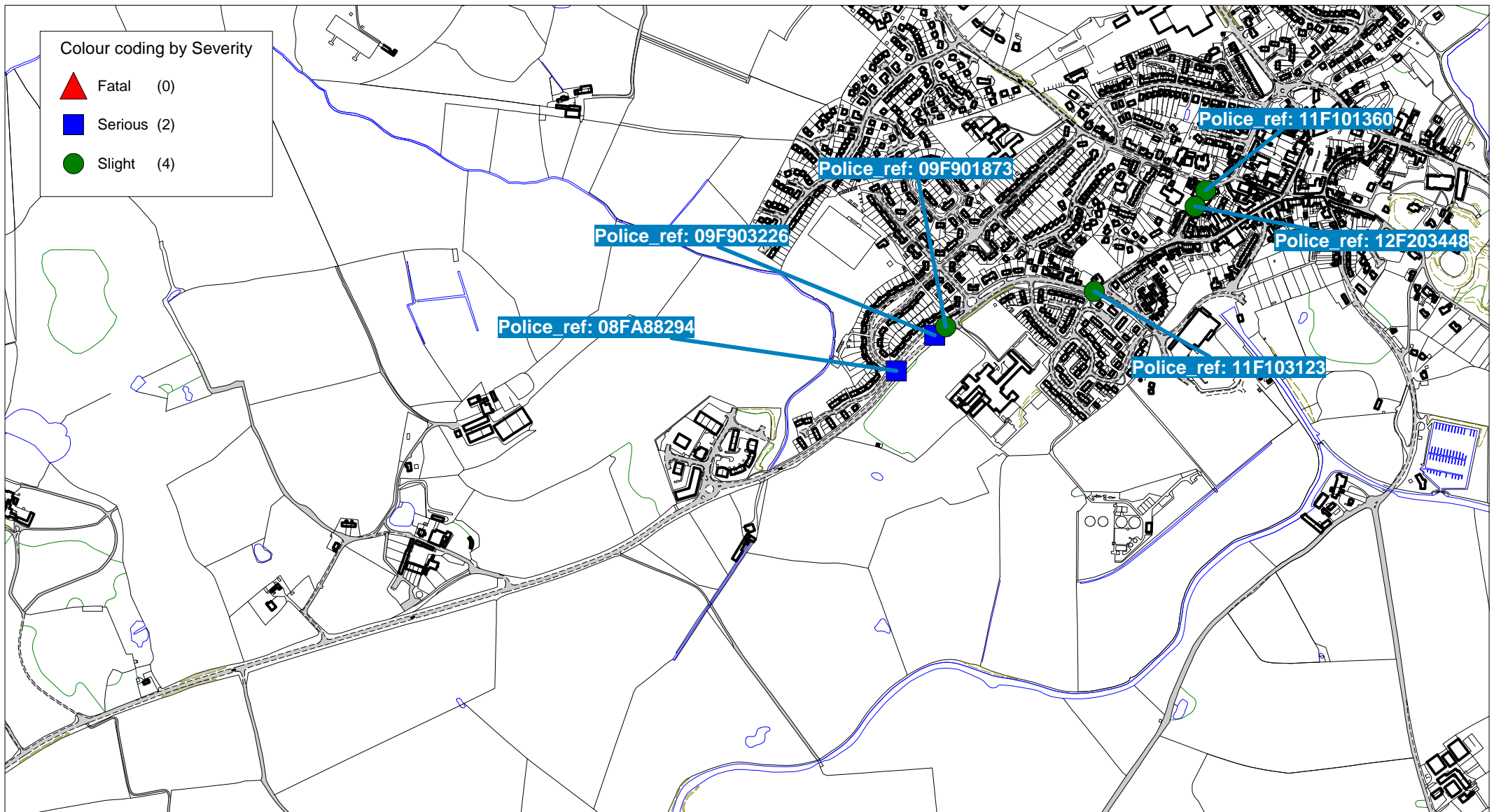


APPENDIX A



A495 Ellesmere
 Accidents between dates 01/04/2008 and 13/04/2013

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 Shropshire Council
 Licence No. 100001980 2013

SCALE	1 : 10000
DATE	29/04/2013
DRAWING No.	01
DRAWN BY	JP



A495 Ellesmere
 Accidents between dates 01/04/2008 and 13/04/2013

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SCALE	1 : 3000
DATE	29/04/2013
DRAWING No.	02
DRAWN BY	JP

Accidents between dates 01/04/2008 and 13/04/2013 (60) months

Selection:

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -Consultants ("TPA - A495 Ellesmere")

Notes:

A495 Ellesmere

Selected Polygon:TPA - A495 Ellesmere

08FA88294 30/04/2008 Time 1640 Vehicles 1 Casualties 1 Serious
 E:339257 N: 334470 First Road: A 495 Road Type Single carriageway
 Speed limit: 30 Junction Detail: T & Stag Jct Give way or controlled
 Crossing: Control None Facilities: Pelican, puffin, toucan etc. Road surface Dry
 Daylight:street lights present Fine without high winds
 Special Conditions at Site None Carriageway Hazards: None
 Place accident reported: At scene DfT Special Projects:

Causation

Factor:	Participant:	Confidence:
1st: Failed to look properly	Casualty 1	Possible
2nd: Failed to judge vehicles path or speed	Casualty 1	Possible
3rd: Wrong use of pedestrian crossing facility	Casualty 1	Possible
4th: Disability or illness, mental or physical	Casualty 1	Possible
5th: Careless/Reckless/In a hurry	Casualty 1	Possible
6th: Crossed road masked by stationary veh	Casualty 1	Possible

PED STARTS TO CROSS OVER MAIN RD ON CROSSING FAILING TO GIVE WAY TO APP V1 RESULTING IN COLL

Occurred on A495 OSWESTRY RD J/W BEECH DR ELLESMERE

Vehicle Reference 1 Bus or coach Going ahead other
 Vehicle movement from NE to SW No tow / articulation
 On main carriageway No skidding, jack-knifing or overturning
 Location at impact Mid Junction - on roundabout or r First impact Nearside Hit vehicle: 0
 Hit object in road None Off road: None
 Did not leave carr Age of Driver 67 Male
 Not hit and run Breath test Negative

Casualty Reference: 1 Vehicle: 1 Age: 12 Female Pedestrian Severity: Serious
 School pupil to/from school Seatbelt
 On Ped Crossing NW bound
 Driver's nearside masked

Accidents between dates 01/04/2008 and 13/04/2013 (60) months

Selection:

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -Consultants ("TPA - A495 Ellesmere")

Notes:

A495 Ellesmere

09F901873 06/04/2009 Time 1640 Vehicles 2 Casualties 1 Slight

E:339350 N: 334553 First Road: A 495 Road Type Single carriageway

Speed limit: 30 Junction Detail: Not within 20m of junction

Crossing: Control None Facilities: None within 50m Road surface Dry

Daylight:street lights present Fine without high winds

Special Conditions at Site None Carriageway Hazards: None

Place accident reported: At scene DfT Special Projects:

Causation

Factor:	Participant:	Confidence:
1st: Illness or disability, mental or physical	Vehicle 1	Very Likely
2nd:		
3rd:		
4th:		
5th:		
6th:		

V1 COLLIDED WITH A STATIONARY SINGLE DECKER BUS

Occurred on A495 OSWESTRY RD,ELLESMERE,NR ENT TO LAKELAND SCHOOL,

Vehicle Reference 1 Car Going ahead other
 Vehicle movement from SW to NE No tow / articulation
 On main carriageway No skidding, jack-knifing or overturning
 Location at impact Not at, or within 20M of Jct First impact Front Hit vehicle: 2
 Hit object in road Parked Vehicle Off road: None
 Did not leave carr Age of Driver 77 Female
 Not hit and run Breath test Negative

Casualty Reference: 1 Vehicle: 1 Age: 77 Female Driver/rider Severity: Slight
 Not a pupil Seatbelt

Vehicle Reference 2 Bus or coach Parked
 Vehicle movement from Park to Parked No tow / articulation
 On main carriageway No skidding, jack-knifing or overturning
 Location at impact Not at, or within 20M of Jct First impact Front Hit vehicle: 1
 Hit object in road None Off road: None
 Did not leave carr Age of Driver 36 Male
 Not hit and run Breath test Negative

Accidents between dates 01/04/2008 and 13/04/2013 (60) months

Selection:

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -Consultants ("TPA - A495 Ellesmere")

Notes:

A495 Ellesmere

09F903226 14/06/2009 Time 1115 Vehicles 3 Casualties 1 Serious

E:339329 N: 334537 First Road: A 495 Road Type Single carriageway

Speed limit: 30 Junction Detail: Not within 20m of junction

Crossing: Control None Facilities: None within 50m Road surface Dry

Daylight:street lights present Fine without high winds

Special Conditions at Site None Carriageway Hazards: None

Place accident reported: At scene DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:	Poor turn or manoeuvre	Vehicle 1	Possible
2nd:	Failed to signal/Misleading signal	Vehicle 1	Possible
3rd:			
4th:			
5th:			
6th:			

V1 TRAVELLING INTO ELLESMERE FROM OSWESTRY DIRECTION. IT SLOWED DOWN FOR SOME REASON, V2 WAS TRAVELLING BEHIND, BUT COULD NOT STOP IN TIME AND HIT THE REAR OF V1. RIDER THEN ROLLED OFF AND INTO THE PATH OF V3 TRAVELLING IN THE OPPOSITE DIRECTION.

Occurred on A495 OSWESTRY RD, ELLESMERE,O/S NO.110,

Vehicle Reference 1 Car Going ahead but held up
 Vehicle movement from SW to NE No tow / articulation
 On main carriageway No skidding, jack-knifing or overturning
 Location at impact Not at, or within 20M of Jct First impact Back Hit vehicle: 2
 Hit object in road None Off road: None
 Did not leave carr Age of Driver 35 Male
 Not hit and run Breath test Negative

Vehicle Reference 2 Motorcycle over 500cc Going ahead other
 Vehicle movement from SW to NE No tow / articulation
 On main carriageway Skidded
 Location at impact Not at, or within 20M of Jct First impact Front Hit vehicle: 1
 Hit object in road None Off road: None
 Did not leave carr Age of Driver 73 Male
 Not hit and run Breath test Negative

Casualty Reference: 1 Vehicle: 2 Age: 73 Male Driver/rider Severity: Serious
 Not a pupil Seatbelt

Vehicle Reference 3 Car Going ahead other
 Vehicle movement from NE to SW No tow / articulation
 On main carriageway Skidded
 Location at impact Not at, or within 20M of Jct First impact Did not impact Hit vehicle:
 Hit object in road None Off road: None
 Did not leave carr Age of Driver 45 Male
 Not hit and run Breath test Not requested

Accidents between dates 01/04/2008 and 13/04/2013 (60) months

Selection:

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -Consultants ("TPA - A495 Ellesmere")

Notes:

A495 Ellesmere

11F101360 01/04/2011 Time 1025 Vehicles 1 Casualties 1 Slight
 E:339840 N: 334810 First Road: A 495 Road Type Single carriageway
 Speed limit: 30 Junction Detail: T & Stag Jct Give way or controlled Unclassified
 Crossing: Control None Facilities: None within 50m Road surface Wet/Damp
 Daylight:street lights present Fine without high winds
 Special Conditions at Site None Carriageway Hazards: None
 Place accident reported: At scene DfT Special Projects:

Causation

	Factor:	Participant:	Confidence:
1st:	Failed to judge other persons path or speed	Vehicle 1	Possible
2nd:	Sudden braking	Vehicle 1	Very Likely
3rd:	Stationary or parked vehicle	Vehicle 1	
4th:			
5th:			
6th:			

V001 TRAVELLING UP VICTORIA STREET, FROM SCOTLAND STREET. THERE WAS A LINE OF SLOWED TRAFFIC AHEAD. V001 BRAKED HARD AND WOBBLLED, SKIDDED AND FELL TO ITS OFFSIDE.

Occurred on A495,VICTORIA ST, ELLESMERE,J/W TRIMPLEY STREET,

Vehicle Reference 1 Motor Cycle over 125 cc and up to 500cc Going ahead other
 Vehicle movement from SW to E No tow / articulation
 On main carriageway Skidded
 Location at impact Jct Approach First impact Offside Hit vehicle:
 Hit object in road None Off road: None
 Did not leave carr Age of Driver 24 Male
 Not hit and run Breath test Negative

Casualty Reference: 1 Vehicle: 1 Age: 24 Male Driver/rider Severity: Slight
 Not a pupil Seatbelt

Accidents between dates 01/04/2008 and 13/04/2013 (60) months

Selection:

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -Consultants ("TPA - A495 Ellesmere")

Notes:

A495 Ellesmere

11F103123 22/07/2011 Time 1245 Vehicles 2 Casualties 1 Slight
 E:339630 N: 334620 First Road: A 495 Road Type Single carriageway
 Speed limit: 30 Junction Detail: T & Stag Jct Automatic traffic signal Unclassified
 Crossing: Control None Facilities: Ped. phase at traffic signal junction Road surface Dry
 Daylight:street lights present Fine without high winds
 Special Conditions at Site None Carriageway Hazards: None
 Place accident reported: Elsewhere DfT Special Projects:

Causation

Factor:	Participant:	Confidence:
1st: Junction restart	Vehicle 1	Possible
2nd: Sudden braking	Vehicle 1	Very Likely
3rd: Passing too close to cyclist, horse rider or pedestrian	Vehicle 2	
4th:		
5th:		
6th:		

V001 WAS TRAVELLING ALONG THE A495 ELLESMERE, THROUGH A SET OF TRAFFIC LIGHTS WHICH WERE ON GREEN. A VEHICLE IN FRONT OF V001 BRAKED SUDDENLY SO V001 BRAKED TO A STOP. V002 WHICH WAS TRAVELLING BEHIND V001 BRAKED BUT COLLIDED WITH THE REAR OF V001.

Occurred on OSWESTRY ROAD ELLESMERE,J/W CANAL WAY ELLESMERE,

Vehicle Reference 1 Car Stopping
 Vehicle movement from NW to E No tow / articulation
 On main carriageway No skidding, jack-knifing or overturning
 Location at impact Cleared junction or waiting/parke First impact Back Hit vehicle: 2
 Hit object in road None Off road: None
 Did not leave carr Age of Driver 45 Female
 Not hit and run Breath test Driver not contacted

Casualty Reference: 1 Vehicle: 1 Age: 45 Female Driver/rider Severity: Slight
 Not a pupil Seatbelt

Vehicle Reference 2 Car Going ahead other
 Vehicle movement from NW to E No tow / articulation
 On main carriageway No skidding, jack-knifing or overturning
 Location at impact Cleared junction or waiting/parke First impact Front Hit vehicle: 1
 Hit object in road None Off road: None
 Did not leave carr Age of Driver 18 Male
 Not hit and run Breath test Driver not contacted

Accidents between dates 01/04/2008 and 13/04/2013 (60) months

Selection:

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -Consultants ("TPA - A495 Ellesmere")

Notes:

A495 Ellesmere

12F203448 28/08/2012 Time 1715 Vehicles 2 Casualties 1 Slight
 E:339820 N: 334780 First Road: A 495 Road Type Single carriageway
 Speed limit: 30 Junction Detail: Other Give way or controlled Unclassified
 Crossing: Control None Facilities: None within 50m Road surface Dry
 Daylight:street lights present Fine without high winds
 Special Conditions at Site None Carriageway Hazards: None
 Place accident reported: Elsewhere DfT Special Projects:

Causation

Factor:	Participant:	Confidence:
1st: Poor turn or manoeuvre	Vehicle 1	Very Likely
2nd: Failed to look properly	Vehicle 1	Very Likely
3rd:		
4th:		
5th:		
6th:		

V2 TRAV VICTORIA ST. V1 PULLED OUT OF LIBRARY CAR PARK IN FRONT OF V2 CAUSING IT TO HIT BRAKES. RIDER WENT OVER HANDLEBARS. V1 FAILED TO STOP.

Occurred on VICTORIA STREET,ELLESMERE,,40 M SW JW TRIMPLEY STREET,

Vehicle Reference 1 Car Turning left
 Vehicle movement from E to SW No tow / articulation
 On main carriageway No skidding, jack-knifing or overturning
 Location at impact Entering main road First impact Did not impact Hit vehicle:
 Hit object in road None Off road: None
 Did not leave carr Age of Driver Not traced
 Non-stop, not hit Breath test Driver not contacted

Vehicle Reference 2 Motorcycle 50cc and under Going ahead other
 Vehicle movement from NE to SW No tow / articulation
 On main carriageway No skidding, jack-knifing or overturning
 Location at impact Jct Approach First impact Front Hit vehicle:
 Hit object in road None Off road: None
 Did not leave carr Age of Driver 18 Female
 Not hit and run Breath test Driver not contacted

Casualty Reference: 1 Vehicle: 2 Age: 18 Female Driver/rider Severity: Slight
 Not a pupil Seatbelt

Accidents between dates 01/04/2008 and 13/04/2013 (60) months

Selection:

Selected using Pre-defined Query : ; Refined using Accidents within selected Polygons -Consultants ("TPA - A495 Ellesmere")

Notes:

A495 Ellesmere

Accidents involving:

	Fatal	Serious	Slight	Total
Motor vehicles only (excluding 2-wheels)	0	1	2	3
2-wheeled motor vehicles	0	1	2	3
Pedal cycles	0	0	0	0
Horses & other	0	0	0	0
Total	0	2	4	6

Casualties:

	Fatal	Serious	Slight	Total
Vehicle driver	0	0	2	2
Passenger	0	0	0	0
Motorcycle rider	0	1	2	3
Cyclist	0	0	0	0
Pedestrian	0	1	0	1
Other	0	0	0	0
Total	0	2	4	6

Kataria, Neha

From: Jenny Perry [jenny.perry@shropshire.gov.uk]
Sent: 28 May 2014 16:33
To: Kataria, Neha
Cc: Chequer, James
Subject: RE: Accident Data - Ellesmere
Attachments: 2014-05-28 A495 Ellesmere accident plan 01.pdf

Dear Neha

I have carried out the accident search of the area in Ellesmere and there are no accidents, please see plan attached.

If you require any further information please contact me.

Regards
Jenny

Jenny Perry
Administration Officer
Highways Information Team
Shropshire Council
Shirehall
Abbey Foregate
Shrewsbury
Shropshire
SY2 6ND

Web: www.shropshire.gov.uk

From: Kataria, Neha
Sent: 27 May 2014 15:38
To: Jenny Perry
Cc: Chequer, James
Subject: RE: Accident Data - Ellesmere

Hi Jenny,

I am happy to confirm the order for PIA data for the charges specified by you.

Please find our Purchase order number TPA/BRI/POP000199 to be used on invoice.

Regards
Neha

From: Jenny Perry
Sent: 27 May 2014 10:21
To: Kataria, Neha
Subject: RE: Accident Data - Ellesmere

Dear Neha

To clarify this is a standard charge for carrying out an accident search regardless of the results of the search.

Regards
Jenny

Jenny Perry
Administration Officer
Highways Information Team
Shropshire Council
Shirehall
Abbey Foregate
Shrewsbury
Shropshire
SY2 6ND

Web: www.shropshire.gov.uk

From: Kataria, Neha
Sent: 27 May 2014 08:34
To: Jenny Perry
Subject: RE: Accident Data - Ellesmere

Hi Jenny,

Just to confirm, will the charges be applicable, even if there is no new accident data for the period May 2013 till date.

Regards
Neha

From: Jenny Perry
Sent: 23 May 2014 10:24
To: Kataria, Neha
Subject: RE: Accident Data - Ellesmere

Dear Neha

Thank you for your enquiry regarding accident data. The charge for carrying out a search is £110+VAT and will be invoiced. If you wish to proceed with the search please confirm by email.

Regards
Jenny

Jenny Perry
Administration Officer
Highways Information Team
Shropshire Council
Shirehall
Abbey Foregate
Shrewsbury
Shropshire
SY2 6ND

Web: www.shropshire.gov.uk

From: Kataria, Neha
Sent: 22 May 2014 11:11
To: Jenny Perry
Subject: FW: Accident Data - Ellesmere
Importance: High

Dear Jenny,

We had received accident data for A495 Ellesmere for period 2008 to April'2013. Could you please let us know if there is accident data for the period May 2013 till date.

Thanks and Regards
Neha

From: Jenny Perry [mailto:c
Sent: 29 April 2013 15:36
To: Nicholls, Jodie
Cc: Wintgens, Charlotte
Subject: RE: Accident Data - Ellesmere
Importance: High

Dear Jodie

Please find attached the accident data for A495 Ellesmere as per your request below.

If you require any further information please let me know.

Regards
Jenny

Jenny Perry
Administration Officer
Asset Management and Projects and Sustainable Transport Team
Shropshire Council
Shirehall
Abbey Foregate
Shrewsbury
Shropshire
SY2 6ND

Web: www.shropshire.gov.uk

From: Nicholls, Jodie
Sent: 29 April 2013 13:32
To: Jenny Perry
Subject: RE: Accident Data - Ellesmere

Thank you Jenny

Kind regards


Jodie Nicholls
Technician
Transport Planning Associates

0117 925 9400

21 Berkeley Square
Clifton
Bristol
BS8 1HP

www.tpa.uk.com

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From: Jenny Perry
Sent: 29 April 2013 13:30
To: Nicholls, Jodie
Cc: Wintgens, Charlotte
Subject: RE: Accident Data - Ellesmere

Dear Jodie

Thank you for your request and I will sent the data to you by the end of the day.

Regards
Jenny

Jenny Perry
Administration Officer
Asset Management and Projects and Sustainable Transport Team
Shropshire Council
Shirehall
Abbey Foregate
Shrewsbury
Shropshire
SY2 6ND

Web: www.shropshire.gov.uk

From: Nicholls, Jodie
Sent: 29 April 2013 12:59
To: Jenny Perry
Cc: Baber, David; Wintgens, Charlotte
Subject: Accident Data - Ellesmere

Dear Jenny,

Accident Data- Ellesmere

Further to our recent conversation, I would be grateful if you could provide us with Personal Injury Accident (PIA) records for an area in the vicinity of Scotland Street (A495), Ellesmere (as shown within the black lines on the attached plan).

The information should cover the most recent five year period, if possible, and should also include the following:

- Personal injury accidents;
- Location and grid reference;
- Weather conditions and lighting;
- Severity; and
- Descriptions and details.

It would also be appreciated if a map showing the locations of the accidents could also be provided.

I understand the cost for the data will be £100+VAT and as discussed earlier, I would be extremely grateful if you could provide the data today.

I trust the information provided is acceptable but please don't hesitate to contact either myself or my colleague Charlotte Wintgens in the interim period.

Kind regards

Jodie Nicholls

Technician


Transport Planning Associates

0117 925 9400

21 Berkeley Square
Clifton
Bristol
BS8 1HP

www.tpa.uk.com

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APPENDIX B

Ellesmere ATC, A495

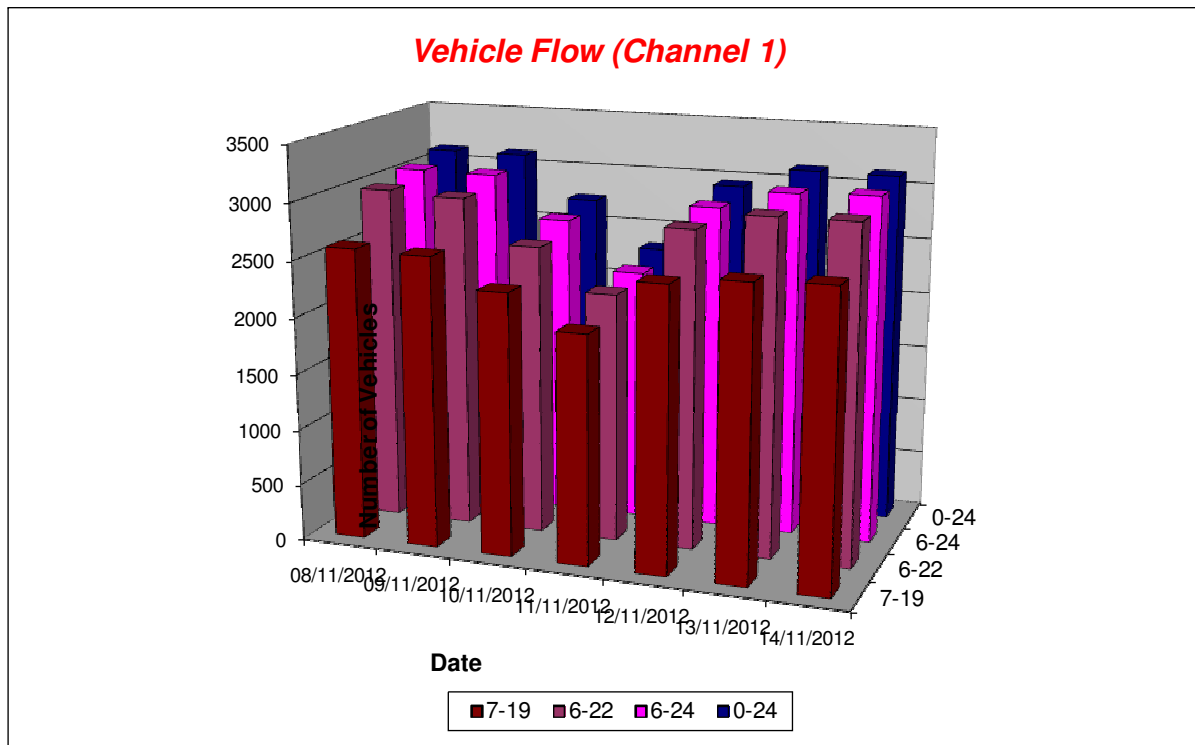
Produced by PCC Traffic Information Consultancy Ltd.

Channel 1 - Westbound

Vehicle Flow

Week 1

Hr Ending	08/11/2012 Thursday	09/11/2012 Friday	10/11/2012 Saturday	11/11/2012 Sunday	12/11/2012 Monday	13/11/2012 Tuesday	14/11/2012 Wednesday	5 Day Ave	7 Day Ave
1	12	13	22	32	10	10	10	11	16
2	5	9	10	10	4	4	5	5	7
3	0	2	3	8	1	0	2	1	2
4	2	5	1	5	4	2	3	3	3
5	8	9	5	6	5	10	4	7	7
6	46	38	20	11	45	54	30	43	35
7	119	114	32	24	124	126	112	119	93
8	186	178	96	50	179	187	203	187	154
9	282	287	187	73	301	318	267	291	245
10	236	232	201	150	202	228	254	230	215
11	205	207	252	164	136	187	221	191	196
12	182	176	233	212	204	189	171	184	195
13	180	180	213	203	185	183	191	184	191
14	178	191	202	202	206	184	190	190	193
15	229	211	210	209	200	229	203	214	213
16	229	243	212	230	236	218	237	233	229
17	266	262	206	226	257	268	256	262	249
18	247	245	160	191	240	238	248	244	224
19	178	172	156	125	165	153	169	167	160
20	137	134	86	77	99	128	131	126	113
21	85	71	80	39	54	88	71	74	70
22	45	52	48	35	38	54	61	50	48
23	43	46	61	25	40	48	46	45	44
24	25	45	42	17	18	26	43	31	31
7-19	2598	2584	2328	2035	2511	2582	2610	2577	2464
6-22	2984	2955	2574	2210	2826	2978	2985	2946	2787
6-24	3052	3046	2677	2252	2884	3052	3074	3022	2862
0-24	3125	3122	2738	2324	2953	3132	3128	3092	2932



Ellesmere ATC, A495

Produced by PCC Traffic Information Consultancy Ltd.

Channel 1 - Westbound

Average Speed

Week 1

Hr Ending	08/11/2012 Thursday	09/11/2012 Friday	10/11/2012 Saturday	11/11/2012 Sunday	12/11/2012 Monday	13/11/2012 Tuesday	14/11/2012 Wednesday
1	40.1	39.4	39.7	37.9	40.0	40.5	39.4
2	36.5	37.4	38.4	39.0	29.9	33.6	29.9
3	-	40.2	38.0	36.8	33.0	-	40.2
4	43.0	38.0	38.0	32.5	39.9	35.5	32.2
5	38.6	33.2	36.5	40.9	34.9	37.5	19.8
6	45.0	41.2	37.8	36.0	43.0	43.0	40.6
7	45.8	43.0	38.8	38.0	41.6	45.2	43.2
8	42.3	41.2	42.6	43.9	41.5	41.4	41.1
9	40.3	38.7	42.1	39.7	40.2	41.2	38.3
10	39.9	37.2	40.2	40.2	40.6	40.0	36.9
11	40.8	31.0	40.3	42.8	39.1	40.5	31.1
12	40.6	29.8	40.2	41.4	39.6	41.1	30.6
13	39.4	30.6	40.8	40.6	39.3	39.2	31.4
14	39.5	36.5	41.8	42.2	40.0	39.1	36.6
15	40.3	39.8	40.7	40.6	39.5	39.7	39.8
16	40.7	40.0	39.9	39.5	40.2	39.7	39.7
17	40.6	39.9	39.9	39.9	41.3	40.9	39.8
18	39.7	40.6	40.4	40.5	40.1	39.8	40.7
19	41.1	40.5	41.2	40.7	42.1	41.1	41.2
20	41.9	41.5	41.0	41.4	41.0	41.5	41.5
21	42.5	41.8	40.2	38.4	40.5	41.6	42.0
22	39.9	39.5	39.2	38.7	39.9	42.2	39.7
23	40.6	40.4	37.5	38.6	39.4	41.9	39.6
24	40.1	39.6	38.4	40.2	38.7	37.9	40.2
10-12	40.7	30.5	40.2	42.0	39.4	40.8	30.9
14-16	40.5	39.9	40.3	40.1	39.9	39.7	39.7
0-24	40.8	38.1	40.5	40.6	40.4	40.7	38.0

7 Day Ave 39.9

85th Percentile

Hr Ending	08/11/2012 Thursday	09/11/2012 Friday	10/11/2012 Saturday	11/11/2012 Sunday	12/11/2012 Monday	13/11/2012 Tuesday	14/11/2012 Wednesday
1	53.7	66.1	58.9	48.6	53.2	53.1	58.8
2	48.5	53.6	49.0	48.7	38.9	48.7	48.3
3	-	75.8	43.4	43.9	-	-	75.7
4	48.6	48.3	-	48.8	48.5	38.9	38.5
5	53.3	48.8	48.2	53.0	53.4	48.5	33.3
6	65.8	58.8	53.2	48.5	58.1	58.1	53.3
7	58.8	53.6	53.6	48.9	53.8	53.8	53.0
8	48.0	49.0	53.4	58.4	53.5	53.4	48.5
9	48.8	48.9	53.4	53.7	53.8	48.5	48.2
10	48.8	48.2	48.7	53.5	53.6	48.5	43.9
11	48.7	43.7	48.3	53.5	48.8	48.2	43.6
12	48.0	44.0	48.6	53.5	48.0	53.3	43.8
13	48.4	43.2	48.2	48.4	48.2	48.1	43.9
14	48.9	48.5	48.2	53.4	48.1	48.6	48.3
15	48.8	48.1	48.6	48.3	48.1	48.2	48.5
16	48.4	49.0	48.1	48.1	48.3	48.9	48.1
17	49.0	48.7	48.5	48.2	48.1	48.1	48.6
18	48.9	48.0	48.9	49.0	48.0	48.4	48.4
19	48.1	48.6	53.3	48.1	53.5	53.3	49.0
20	53.9	53.1	53.8	53.4	53.7	53.9	53.1
21	53.4	53.1	48.4	53.4	53.5	53.8	53.9
22	53.5	48.8	53.3	48.5	53.8	58.3	48.6
23	58.8	53.3	48.9	48.2	53.1	53.7	48.3
24	58.1	53.0	48.6	48.5	53.2	65.8	53.1
10-12	48.6	43.3	48.6	53.3	48.7	48.1	43.5
14-16	48.5	48.4	48.4	48.6	48.5	48.0	48.2
0-24	48.3	48.3	48.1	48.5	48.4	48.3	49.0

7 Day Ave 48.4

Ellesmere ATC, A495

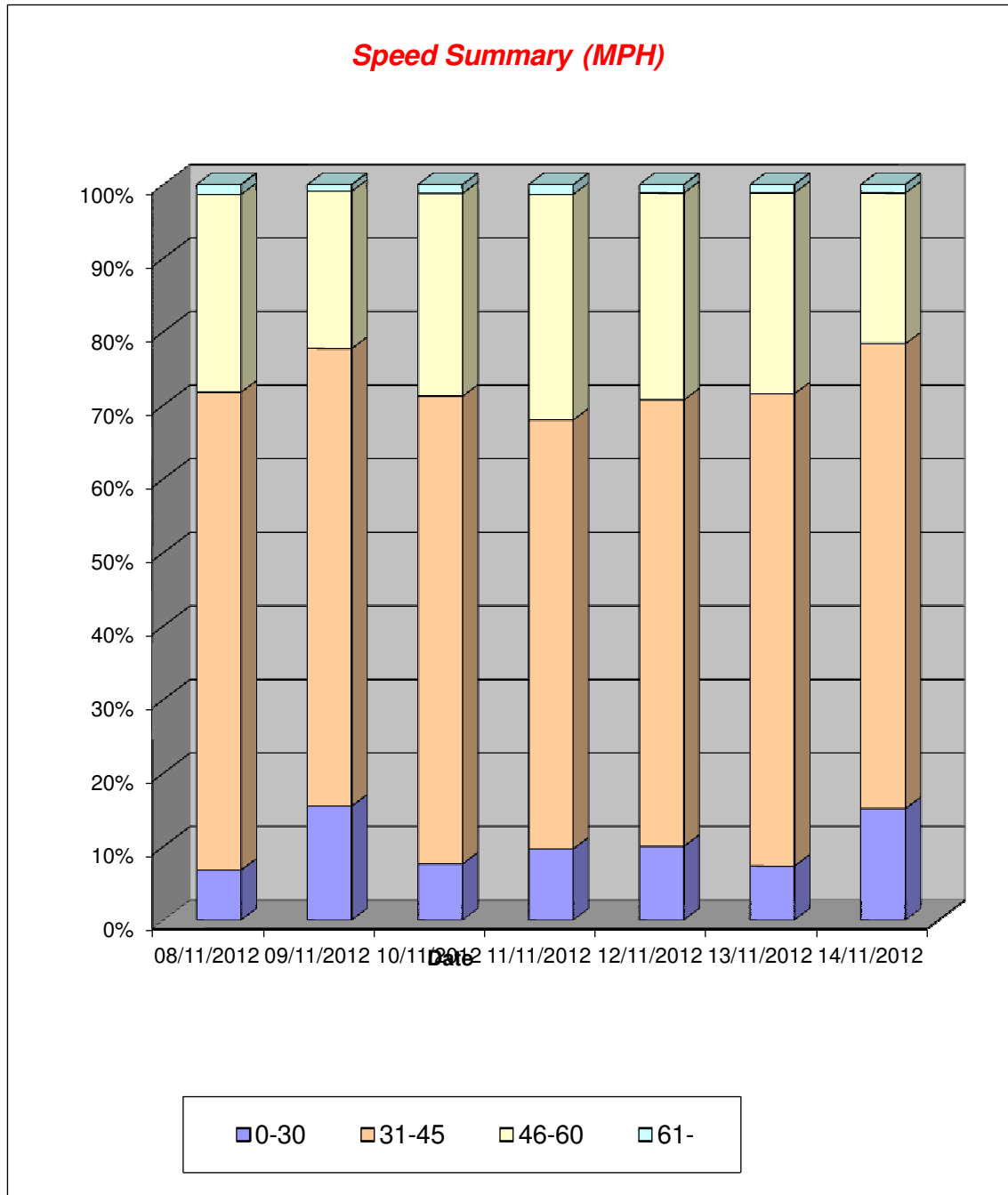
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Channel 1 - Westbound

Speed Summary

Week 1

Speed (MPH)	08/11/2012 Thursday	09/11/2012 Friday	10/11/2012 Saturday	11/11/2012 Sunday	12/11/2012 Monday	13/11/2012 Tuesday	14/11/2012 Wednesday
0-30	212	484	209	225	296	230	474
31-45	2030	1942	1741	1355	1792	2011	1977
46-60	841	668	755	713	831	856	641
61-	42	28	33	31	34	35	36
TOTAL	3125	3122	2738	2324	2953	3132	3128



Ellesmere ATC, A495

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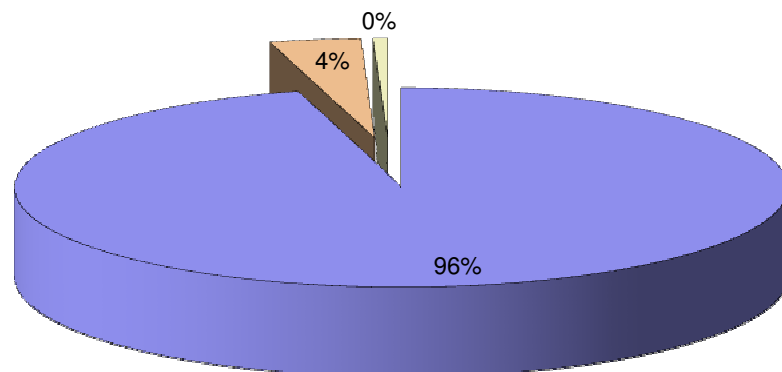
Channel 1 - Westbound

Vehicle Class

Week 1

Day/ Time	Classes	Car / LGV / Caravan - 1	OGV1 / Bus - 2,3,5,6,7,12	OGV2 - 4,8,9,10,11,13	TOTAL - 1-13
08/11/2012					
7-19		2445	131	22	2598
6-22		2817	144	23	2984
6-24		2880	149	23	3052
0-24		2946	155	24	3125
09/11/2012					
7-19		2439	120	25	2584
6-22		2792	136	27	2955
6-24		2883	136	27	3046
0-24		2956	139	27	3122
10/11/2012					
7-19		2261	64	3	2328
6-22		2500	71	3	2574
6-24		2602	72	3	2677
0-24		2659	76	3	2738
11/11/2012					
7-19		2012	19	4	2035
6-22		2184	22	4	2210
6-24		2226	22	4	2252
0-24		2296	24	4	2324
12/11/2012					
7-19		2380	108	23	2511
6-22		2684	118	24	2826
6-24		2741	119	24	2884
0-24		2806	122	25	2953
13/11/2012					
7-19		2456	115	11	2582
6-22		2842	124	12	2978
6-24		2914	126	12	3052
0-24		2989	130	13	3132
14/11/2012					
7-19		2484	112	14	2610
6-22		2845	122	18	2985
6-24		2934	122	18	3074
0-24		2985	125	18	3128
Average					
7-19		2354	96	15	2464
6-22		2666	105	16	2787
6-24		2740	107	16	2862
0-24		2805	110	16	2932

Total Vehicle Class Distribution



Ellesmere ATC, A495

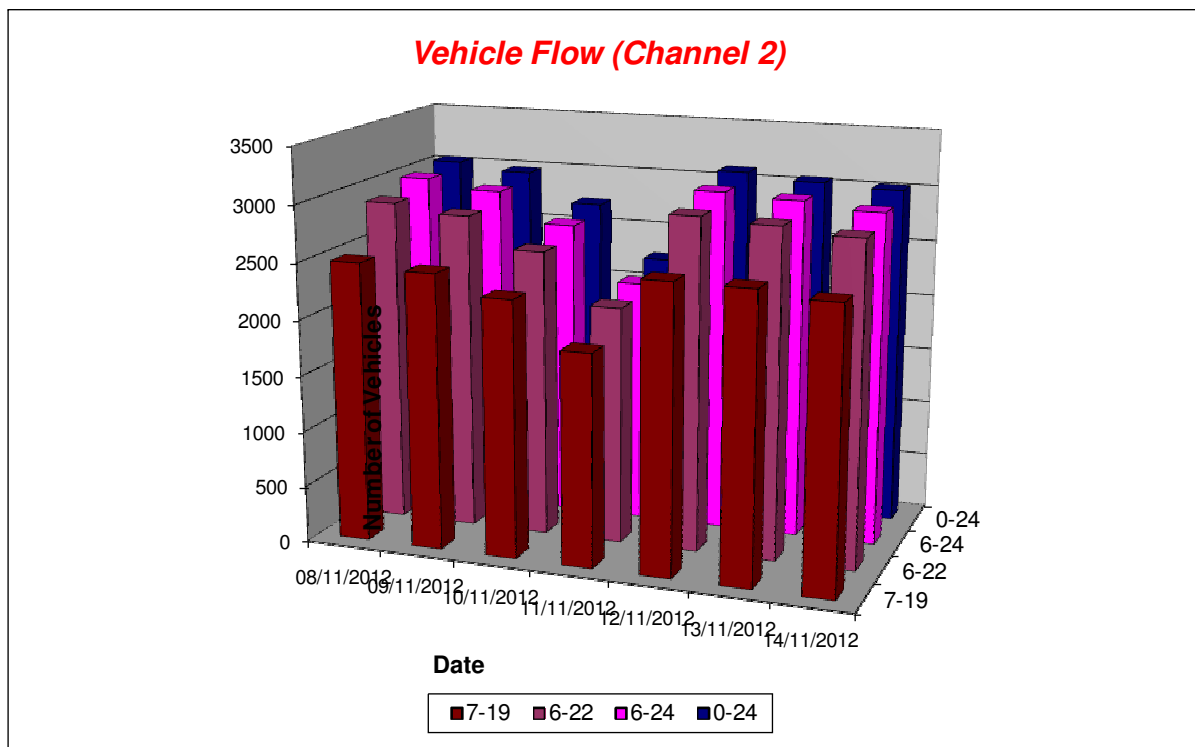
Produced by PCC Traffic Information Consultancy Ltd.

Channel 2 - Eastbound

Vehicle Flow

Week 1

Hr Ending	08/11/2012 Thursday	09/11/2012 Friday	10/11/2012 Saturday	11/11/2012 Sunday	12/11/2012 Monday	13/11/2012 Tuesday	14/11/2012 Wednesday	5 Day Ave	7 Day Ave
1	10	19	26	35	16	5	21	14	19
2	5	10	15	22	8	5	15	9	11
3	3	7	4	5	4	4	10	6	5
4	4	5	6	5	2	3	5	4	4
5	7	4	5	6	9	3	3	5	5
6	18	15	12	4	21	21	16	18	15
7	69	72	25	14	80	66	78	73	58
8	203	193	66	43	174	200	186	191	152
9	296	290	107	59	320	299	307	302	240
10	192	193	162	136	183	180	206	191	179
11	173	163	174	178	182	163	167	170	171
12	189	178	200	175	191	201	162	184	185
13	194	176	258	235	200	200	181	190	206
14	186	207	237	235	168	198	198	191	204
15	207	210	231	188	226	214	210	213	212
16	243	223	223	192	217	242	225	230	224
17	256	252	251	179	280	279	268	267	252
18	200	204	233	166	245	209	217	215	211
19	154	165	144	103	163	159	163	161	150
20	141	135	99	80	134	134	132	135	122
21	115	94	81	79	110	110	102	106	99
22	69	63	60	48	81	65	65	69	64
23	59	44	45	41	50	54	38	49	47
24	44	54	55	19	36	34	46	43	41
7-19	2493	2454	2286	1889	2549	2544	2490	2506	2386
6-22	2887	2818	2551	2110	2954	2919	2867	2889	2729
6-24	2990	2916	2651	2170	3040	3007	2951	2981	2818
0-24	3037	2976	2719	2247	3100	3048	3021	3036	2878



Ellesmere ATC, A495

Produced by PCC Traffic Information Consultancy Ltd.

Channel 2 - Eastbound

Average Speed

Week 1

Hr Ending	08/11/2012 Thursday	09/11/2012 Friday	10/11/2012 Saturday	11/11/2012 Sunday	12/11/2012 Monday	13/11/2012 Tuesday	14/11/2012 Wednesday
1	44.0	45.6	45.4	41.1	45.5	41.0	46.3
2	46.0	46.0	44.7	43.8	44.9	47.0	44.3
3	41.3	43.0	43.0	43.0	36.8	41.8	45.0
4	38.6	43.0	40.9	40.0	48.0	38.8	39.0
5	48.0	46.8	43.0	50.1	42.4	43.0	46.3
6	47.6	43.5	47.2	40.5	48.8	45.4	43.8
7	44.3	43.9	45.9	50.9	45.1	45.7	44.8
8	43.4	40.6	45.8	46.6	42.9	43.4	40.9
9	42.0	40.4	44.4	43.0	41.0	41.6	40.8
10	41.5	38.9	42.8	43.3	37.8	41.4	38.2
11	39.6	35.4	42.1	42.4	38.9	39.8	35.1
12	42.2	34.3	42.7	43.5	39.8	42.1	35.6
13	40.1	34.7	41.9	43.0	38.7	39.3	34.7
14	40.0	39.4	42.2	43.0	41.9	39.7	39.7
15	40.6	42.0	42.1	42.4	41.9	40.3	42.3
16	41.8	41.1	42.0	44.1	41.6	42.6	40.8
17	40.8	41.0	41.4	42.1	41.0	40.9	40.7
18	39.4	40.5	41.7	41.3	40.4	40.0	40.8
19	40.8	42.0	43.8	42.6	42.2	40.8	41.9
20	43.0	42.0	43.4	45.8	43.0	42.7	42.5
21	42.3	43.2	44.0	45.4	44.7	41.4	43.5
22	45.6	43.1	43.1	42.9	44.3	47.1	44.1
23	43.3	44.9	41.1	45.3	46.0	45.2	45.7
24	46.6	45.2	41.4	43.9	47.0	44.5	45.3
10-12	41.0	34.8	42.4	43.0	39.3	41.1	35.4
14-16	41.3	41.5	42.1	43.2	41.8	41.5	41.5
0-24	41.6	40.1	42.5	43.2	41.4	41.5	40.3

7 Day Ave 41.5

85th Percentile

Hr Ending	08/11/2012 Thursday	09/11/2012 Friday	10/11/2012 Saturday	11/11/2012 Sunday	12/11/2012 Monday	13/11/2012 Tuesday	14/11/2012 Wednesday
1	48.1	53.9	58.2	48.9	48.7	43.1	53.0
2	58.0	53.4	48.0	53.1	53.5	58.3	53.7
3	48.3	53.3	48.7	53.6	43.2	48.6	53.8
4	48.5	48.3	53.5	43.3	53.2	48.8	48.3
5	58.9	58.2	48.6	65.6	48.3	48.5	53.7
6	53.5	48.5	53.2	43.2	58.8	53.2	53.4
7	53.4	53.2	53.5	65.6	53.1	58.9	53.8
8	53.8	48.6	53.7	53.4	48.5	48.4	48.7
9	48.8	48.4	53.8	54.0	48.8	48.3	48.4
10	48.7	48.9	48.4	53.5	48.8	48.8	48.1
11	48.7	43.5	53.9	48.5	48.3	48.2	43.4
12	49.0	43.2	48.7	54.0	49.0	48.4	43.3
13	48.3	43.7	48.1	48.2	48.8	48.2	43.7
14	48.5	48.7	48.6	48.4	48.7	48.9	48.3
15	48.4	48.6	48.7	48.4	48.9	48.6	48.8
16	48.7	48.8	48.0	53.3	48.9	48.4	48.2
17	48.2	48.2	48.4	48.5	48.4	48.4	48.6
18	48.4	48.8	48.4	48.1	48.1	48.9	49.0
19	48.5	48.2	48.3	48.5	49.0	48.6	48.2
20	53.8	49.0	49.0	54.0	53.8	48.9	48.9
21	48.5	48.1	48.8	53.6	53.7	48.5	53.1
22	53.4	48.1	48.7	48.9	53.4	58.3	49.0
23	53.5	53.8	48.4	53.7	53.0	53.9	53.6
24	53.2	53.4	48.7	53.4	58.2	53.3	48.6
10-12	48.6	43.5	48.3	48.7	48.2	48.3	43.9
14-16	48.5	48.1	48.4	53.1	48.5	48.2	48.6
0-24	48.7	48.1	48.4	53.8	48.4	48.3	48.2

7 Day Ave 49.1

Ellesmere ATC, A495

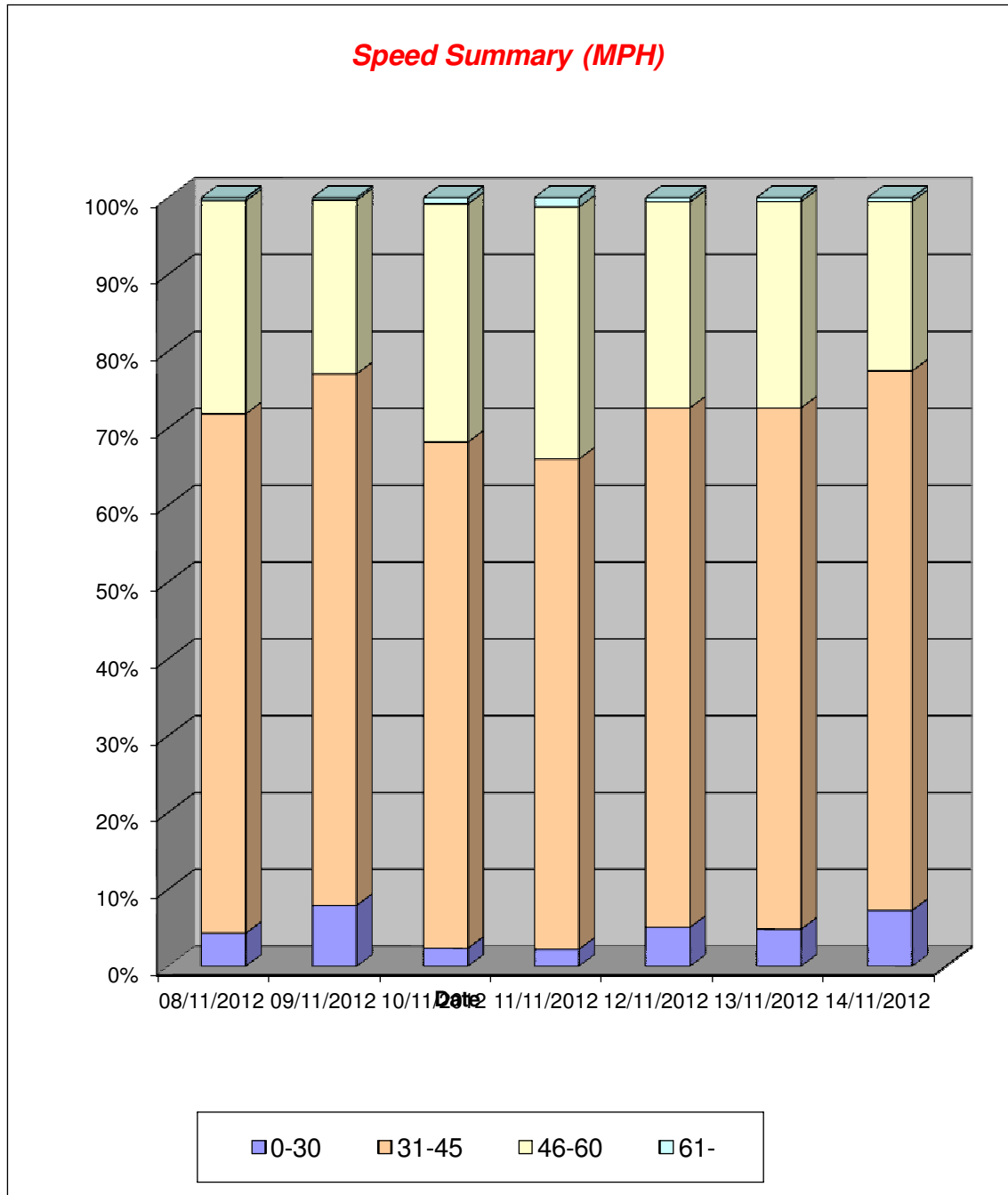
Produced by PCC Traffic Information Consultancy Ltd.

Channel 2 - Eastbound

Speed Summary

Week 1

Speed (MPH)	08/11/2012 Thursday	09/11/2012 Friday	10/11/2012 Saturday	11/11/2012 Sunday	12/11/2012 Monday	13/11/2012 Tuesday	14/11/2012 Wednesday
0-30	131	236	64	50	157	147	220
31-45	2052	2058	1790	1433	2095	2067	2120
46-60	842	673	843	737	831	819	666
61-	12	9	22	27	17	15	15
TOTAL	3037	2976	2719	2247	3100	3048	3021



Ellesmere ATC, A495

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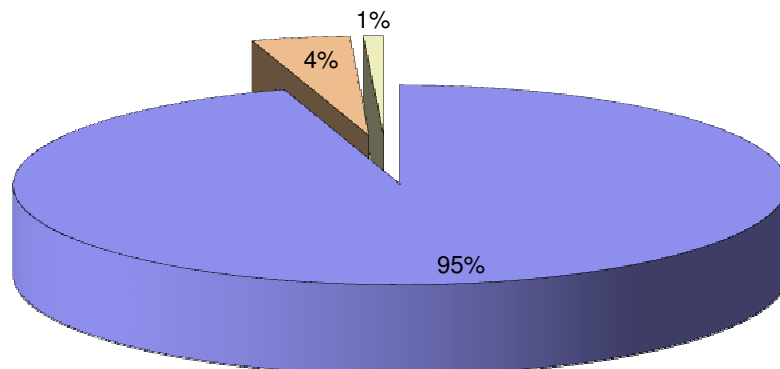
Channel 2 - Eastbound

Vehicle Class

Week 1

Day/ Time	Classes	Car / LGV / Caravan - 1	OGV1 / Bus - 2,3,5,6,7,12	OGV2 - 4,8,9,10,11,13	TOTAL - 1-13
08/11/2012					
7-19		2330	133	30	2493
6-22		2712	144	31	2887
6-24		2813	146	31	2990
0-24		2855	150	32	3037
09/11/2012					
7-19		2303	124	27	2454
6-22		2654	136	28	2818
6-24		2748	139	29	2916
0-24		2804	141	31	2976
10/11/2012					
7-19		2218	64	4	2286
6-22		2476	71	4	2551
6-24		2576	71	4	2651
0-24		2639	75	5	2719
11/11/2012					
7-19		1853	29	7	1889
6-22		2073	30	7	2110
6-24		2133	30	7	2170
0-24		2204	33	10	2247
12/11/2012					
7-19		2404	123	22	2549
6-22		2794	134	26	2954
6-24		2879	135	26	3040
0-24		2931	137	32	3100
13/11/2012					
7-19		2396	126	22	2544
6-22		2762	134	23	2919
6-24		2848	136	23	3007
0-24		2884	139	25	3048
14/11/2012					
7-19		2340	131	19	2490
6-22		2707	139	21	2867
6-24		2788	141	22	2951
0-24		2853	142	26	3021
Average					
7-19		2263	104	19	2386
6-22		2597	113	20	2729
6-24		2684	114	20	2818
0-24		2739	117	23	2878

Total Vehicle Class Distribution





Ellesmere - Manual Traffic Survey, Thursday 8th November 2012

Junction: (1) A495 Scotland Street / Canal Way

Approach: A495 Scotland Street (West)

TIME	Ahead to A495 Scotland Street (East)								Right to Canal Way							
	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
0700 - 0715	1	0	19	6	0	1	5	32	0	0	1	1	0	0	0	2
0715 - 0730	0	1	28	9	0	1	2	41	0	0	3	2	0	0	0	5
0730 - 0745	0	0	39	11	1	1	2	54	0	0	2	1	0	0	0	3
0745 - 0800	0	1	36	13	1	3	3	57	0	0	3	2	0	0	0	5
Hourly Total	1	2	122	39	2	6	12	184	0	0	9	6	0	0	0	15
0800 - 0815	0	0	39	10	5	2	0	56	0	0	5	1	1	0	0	7
0815 - 0830	1	1	40	5	3	2	1	53	0	0	3	1	0	0	0	4
0830 - 0845	0	0	49	6	5	1	1	62	0	0	6	1	0	0	0	7
0845 - 0900	1	0	82	9	3	0	3	98	0	0	12	1	0	0	0	13
Hourly Total	2	1	210	30	16	5	5	269	0	0	26	4	1	0	0	31
0900 - 0915	0	0	61	10	0	2	0	73	0	0	17	4	0	0	0	21
0915 - 0930	0	0	46	11	2	0	2	61	0	0	6	0	0	0	0	6
0930 - 0945	0	1	36	11	0	2	0	50	0	0	7	0	0	0	0	7
0945 - 1000	1	0	39	9	4	0	0	53	0	0	3	3	1	0	1	8
Hourly Total	1	1	182	41	6	4	2	237	0	0	33	7	1	0	1	42
1000 - 1015	0	0	17	3	1	3	0	24	0	0	4	2	0	0	0	6
1015 - 1030	0	0	29	6	2	3	3	43	0	0	9	2	0	0	0	11
1030 - 1045	0	0	39	11	4	3	1	58	0	0	10	1	1	0	0	12
1045 - 1100	0	0	37	12	5	3	0	57	0	0	8	0	0	0	0	8
Hourly Total	0	0	122	32	12	12	4	182	0	0	31	5	1	0	0	37
1100 - 1115	0	0	27	8	0	2	0	37	0	0	7	0	0	0	0	7
1115 - 1130	0	0	28	7	3	3	2	43	0	0	11	0	0	0	0	11
1130 - 1145	0	1	33	7	1	3	0	45	0	0	4	2	0	0	0	6
1145 - 1200	1	0	28	7	3	1	0	40	0	0	13	0	0	0	0	13
Hourly Total	1	1	116	29	7	9	2	165	0	0	35	2	0	0	0	37
1200 - 1215	0	0	36	9	1	1	0	47	0	0	10	0	0	0	0	10
1215 - 1230	1	0	44	8	3	1	1	58	0	0	9	0	0	0	0	9
1230 - 1245	1	0	49	9	3	2	0	64	0	1	9	0	0	0	0	10
1245 - 1300	0	0	45	9	2	1	0	57	0	0	12	0	0	0	0	12
Hourly Total	2	0	174	35	9	5	1	226	0	1	40	0	0	0	0	41
1300 - 1315	0	0	50	9	2	1	0	62	0	0	9	0	0	0	0	9
1315 - 1330	0	2	35	5	3	2	2	49	0	0	13	2	0	0	0	15
1330 - 1345	0	0	31	2	2	2	0	37	0	0	16	1	0	1	0	18
1345 - 1400	0	0	28	4	1	2	1	36	0	0	11	0	0	0	0	11
Hourly Total	0	2	144	20	8	7	3	184	0	0	49	3	0	1	0	53
1400 - 1415	0	0	37	15	1	1	0	54	0	0	4	3	0	0	0	7
1415 - 1430	0	2	34	11	6	2	1	56	0	0	13	0	0	0	0	13
1430 - 1445	0	0	50	8	2	1	3	64	0	0	10	2	0	0	0	12
1445 - 1500	0	0	48	5	1	3	1	58	0	0	15	2	0	0	0	17
Hourly Total	0	2	169	39	10	7	5	232	0	0	42	7	0	0	0	49
1500 - 1515	0	0	34	9	2	2	1	48	0	0	5	1	0	0	0	6
1515 - 1530	0	0	44	11	4	0	0	59	0	0	10	0	0	0	0	10
1530 - 1545	0	0	62	8	2	1	0	73	0	0	18	0	0	0	0	18
1545 - 1600	0	0	71	7	3	1	5	87	0	0	15	0	0	0	0	15
Hourly Total	0	0	211	35	11	4	6	267	0	0	48	1	0	0	0	49
1600 - 1615	0	0	48	7	1	0	0	56	0	0	14	1	0	0	0	15
1615 - 1630	1	0	58	6	1	1	0	67	0	0	16	2	0	0	0	18
1630 - 1645	0	0	60	5	0	1	1	67	0	0	9	0	0	0	0	9
1645 - 1700	0	0	50	4	1	0	4	59	0	0	14	1	0	0	0	15
Hourly Total	1	0	216	22	3	2	5	249	0	0	53	4	0	0	0	57
1700 - 1715	0	0	50	6	1	0	6	63	0	0	11	0	0	0	0	11
1715 - 1730	0	0	35	9	0	1	2	47	0	0	14	0	0	0	0	14
1730 - 1745	0	0	49	3	1	0	0	53	1	0	5	1	0	0	0	7
1745 - 1800	0	1	43	7	0	0	0	51	0	0	10	0	0	0	0	10
Hourly Total	0	1	177	25	2	1	8	214	1	0	40	1	0	0	0	42
1800 - 1815	0	2	49	3	0	0	1	55	0	0	7	0	0	0	0	7
1815 - 1830	0	0	32	3	1	0	1	37	0	0	7	0	0	0	0	7
1830 - 1845	0	0	30	4	0	0	1	35	0	0	4	1	0	0	0	5
1845 - 1900	0	0	41	1	0	0	0	42	0	0	3	1	0	0	0	4
Hourly Total	0	2	152	11	1	0	3	169	0	0	21	2	0	0	0	23
TOTAL	8	12	1995	358	87	62	56	2578	1	1	427	42	3	1	1	476



Ellesmere - Manual Traffic Survey, Saturday 10th November 2012

Junction: (1) A495 Scotland Street / Canal Way

Approach: A495 Scotland Street (East)

TIME	Left to Canal Way								Ahead to A495 Scotland Street (West)							
	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
1000 - 1015	0	0	28	1	0	0	0	29	0	0	45	6	1	0	0	52
1015 - 1030	0	0	18	2	0	0	0	20	0	0	41	9	0	0	0	50
1030 - 1045	0	0	23	1	0	0	0	24	0	0	41	5	1	0	1	48
1045 - 1100	0	0	28	1	0	0	0	29	0	0	38	8	3	0	0	49
Hourly Total	0	0	97	5	0	0	0	102	0	0	165	28	5	0	1	199
1100 - 1115	0	0	25	1	0	0	0	26	0	0	39	2	2	0	0	43
1115 - 1130	0	0	30	1	0	0	0	31	0	0	54	5	1	0	0	60
1130 - 1145	0	0	26	1	0	0	0	27	0	0	40	5	4	0	1	50
1145 - 1200	0	0	24	1	0	0	0	25	0	0	41	2	0	1	0	44
Hourly Total	0	0	105	4	0	0	0	109	0	0	174	14	7	1	1	197
1200 - 1215	0	0	37	0	0	0	0	37	0	0	42	0	0	2	0	44
1215 - 1230	0	0	34	0	0	0	0	34	0	0	40	6	0	0	0	46
1230 - 1245	0	0	24	2	0	0	0	26	1	1	28	3	1	0	1	35
1245 - 1300	0	0	29	1	0	0	0	30	0	0	30	3	2	0	0	35
Hourly Total	0	0	124	3	0	0	0	127	1	1	140	12	3	2	1	160
1300 - 1315	0	1	24	1	0	0	0	26	3	0	25	4	0	3	0	35
1315 - 1330	0	0	26	0	0	0	0	26	0	0	38	7	0	0	0	45
1330 - 1345	0	0	21	0	0	0	0	21	0	0	37	9	0	0	1	47
1345 - 1400	0	0	30	1	0	0	0	31	0	1	28	1	1	0	0	31
Hourly Total	0	1	101	2	0	0	0	104	3	1	128	21	1	3	1	158
1400 - 1415	0	0	24	0	0	0	0	24	0	1	32	2	0	0	0	35
1415 - 1430	0	0	27	0	0	0	0	27	0	1	20	2	1	0	0	24
1430 - 1445	0	0	29	0	0	0	0	29	0	0	44	3	0	0	1	48
1445 - 1500	0	0	28	0	0	0	0	28	1	0	30	2	0	1	0	34
Hourly Total	0	0	108	0	0	0	0	108	1	2	126	9	1	1	1	141
1500 - 1515	0	0	29	2	0	0	0	31	0	1	34	3	0	0	0	38
1515 - 1530	0	0	23	2	0	0	0	25	0	0	35	4	1	1	0	41
1530 - 1545	0	0	26	0	0	0	0	26	0	1	33	1	1	0	1	37
1545 - 1600	0	0	27	2	0	0	0	29	0	0	28	7	0	0	1	36
Hourly Total	0	0	105	6	0	0	0	111	0	2	130	15	2	1	2	152
1600 - 1615	0	0	40	2	0	0	0	42	0	1	45	2	0	0	0	48
1615 - 1630	0	0	25	0	0	0	0	25	0	1	31	5	0	0	0	37
1630 - 1645	0	0	21	1	0	1	0	23	0	0	29	0	0	0	2	31
1645 - 1700	0	0	31	0	0	0	0	31	0	0	43	1	0	0	0	44
Hourly Total	0	0	117	3	0	1	0	121	0	2	148	8	0	0	2	160
1700 - 1715	0	0	27	1	0	0	0	28	0	0	24	0	0	0	0	24
1715 - 1730	0	0	27	1	0	0	0	28	0	0	30	5	0	0	0	35
1730 - 1745	0	0	15	0	0	0	0	15	0	0	19	3	0	0	0	22
1745 - 1800	0	0	25	1	0	0	0	26	0	0	25	1	0	0	0	26
Hourly Total	0	0	94	3	0	0	0	97	0	0	98	9	0	0	0	107
TOTAL	0	1	851	26	0	1	0	879	5	8	1109	116	19	8	9	1274



Ellesmere - Manual Traffic Survey, Sunday 11th November 2012

Junction: (1) A495 Scotland Street / Canal Way

Approach: A495 Scotland Street (East)

TIME	Left to Canal Way								Ahead to A495 Scotland Street (West)							
	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
1000 - 1015	0	0	12	0	0	0	0	12	0	0	22	3	1	0	0	26
1015 - 1030	0	1	23	0	0	0	0	24	1	0	41	1	0	0	0	43
1030 - 1045	0	0	16	2	0	0	0	18	0	0	33	2	0	0	0	35
1045 - 1100	0	0	21	1	0	0	0	22	0	0	32	2	0	0	1	35
Hourly Total	0	1	72	3	0	0	0	76	1	0	128	8	1	0	1	139
1100 - 1115	0	0	21	1	0	0	0	22	0	0	37	2	1	0	1	41
1115 - 1130	0	0	25	2	0	0	0	27	0	0	26	1	0	0	0	27
1130 - 1145	0	0	17	0	0	0	0	17	0	0	31	2	0	0	0	33
1145 - 1200	0	0	23	0	0	0	0	23	0	0	33	1	0	0	0	34
Hourly Total	0	0	86	3	0	0	0	89	0	0	127	6	1	0	1	135
1200 - 1215	0	0	22	2	1	0	0	25	0	1	38	1	0	0	0	40
1215 - 1230	0	0	31	0	0	0	0	31	0	0	43	4	0	2	0	49
1230 - 1245	0	0	25	2	0	0	0	27	0	0	43	3	0	0	0	46
1245 - 1300	0	0	26	1	0	0	0	27	1	0	37	3	0	0	1	42
Hourly Total	0	0	104	5	1	0	0	110	1	1	161	11	0	2	1	177
1300 - 1315	0	0	25	3	0	0	0	28	0	0	31	3	0	0	0	34
1315 - 1330	0	0	28	0	0	0	0	28	0	0	22	0	1	0	0	23
1330 - 1345	0	0	15	0	0	0	0	15	0	2	32	5	0	0	0	39
1345 - 1400	0	0	18	0	0	0	0	18	0	4	30	2	0	0	1	37
Hourly Total	0	0	86	3	0	0	0	89	0	6	115	10	1	0	1	133
1400 - 1415	0	0	25	2	0	0	0	27	0	0	38	3	0	0	0	41
1415 - 1430	0	1	28	1	0	0	0	30	0	1	46	3	0	0	0	50
1430 - 1445	0	0	24	2	0	0	0	26	2	0	41	4	1	0	0	48
1445 - 1500	0	0	26	0	0	0	0	26	0	1	28	2	1	0	0	32
Hourly Total	0	1	103	5	0	0	0	109	2	2	153	12	2	0	0	171
1500 - 1515	0	0	19	1	0	0	0	20	0	4	28	3	0	0	0	35
1515 - 1530	0	0	32	2	0	0	0	34	0	0	19	3	0	0	0	22
1530 - 1545	0	0	26	2	0	0	0	28	0	0	31	2	0	0	0	33
1545 - 1600	0	1	9	1	0	0	0	11	0	1	35	2	0	0	0	38
Hourly Total	0	1	86	6	0	0	0	93	0	5	113	10	0	0	0	128
1600 - 1615	0	0	6	0	0	0	0	6	0	0	32	2	1	0	0	35
1615 - 1630	0	0	3	0	0	0	0	3	0	0	31	2	0	0	0	33
1630 - 1645	0	0	4	1	0	0	0	5	0	1	29	2	1	0	0	33
1645 - 1700	0	0	1	0	0	0	0	1	0	0	20	1	0	0	0	21
Hourly Total	0	0	14	1	0	0	0	15	0	1	112	7	2	0	0	122
1700 - 1715	0	0	1	1	0	0	0	2	0	0	29	1	0	1	0	31
1715 - 1730	0	0	1	0	0	0	0	1	0	0	32	1	0	0	1	34
1730 - 1745	0	0	1	0	0	0	0	1	0	0	25	1	0	0	0	26
1745 - 1800	0	0	1	0	0	0	0	1	0	0	19	2	0	0	0	21
Hourly Total	0	0	4	1	0	0	0	5	0	0	105	5	0	1	1	112
TOTAL	0	3	555	27	1	0	0	586	4	15	1014	69	7	3	5	1117



Ellesmere - Manual Traffic Survey, Thursday 8th November 2012

Junction: (2) Ellesmere Business Park / A495

Approach: Ellesmere Business Park

TIME	Left to A495 Scotland Street (East)								Right to A495 (West)							
	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	P/CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
0700 - 0715	0	0	0	1	0	0	2	3	0	0	0	0	0	0	0	0
0715 - 0730	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0730 - 0745	0	0	0	0	0	0	3	3	0	0	0	1	0	0	1	2
0745 - 0800	0	0	1	0	0	0	1	2	0	0	0	0	0	0	1	1
Hourly Total	0	0	1	1	0	0	6	8	0	0	0	1	0	0	2	3
0800 - 0815	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0
0815 - 0830	0	0	2	0	0	0	0	2	0	0	2	0	0	0	0	2
0830 - 0845	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0
0845 - 0900	0	0	3	2	0	0	1	6	0	0	0	1	1	0	0	2
Hourly Total	0	0	7	4	0	0	1	12	0	0	2	1	1	0	0	4
0900 - 0915	0	0	4	0	0	0	1	5	0	0	2	0	0	0	0	2
0915 - 0930	0	0	0	1	0	0	0	1	0	0	0	0	0	1	0	1
0930 - 0945	0	0	1	2	0	0	0	3	0	0	2	1	0	0	0	3
0945 - 1000	0	0	5	3	1	0	0	9	0	0	0	1	0	0	0	1
Hourly Total	0	0	10	6	1	0	1	18	0	0	4	2	0	1	0	7

Session Total	0	0	18	11	1	0	8	38	0	0	6	4	1	1	2	14
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1600 - 1615	0	0	7	0	0	0	0	7	0	0	1	0	0	0	0	1
1615 - 1630	1	0	1	1	0	0	0	3	0	0	1	0	0	0	0	1
1630 - 1645	0	0	4	0	0	0	0	4	0	0	4	0	0	0	0	4
1645 - 1700	0	0	5	1	0	0	4	10	0	0	0	0	0	0	0	0
Hourly Total	1	0	17	2	0	0	4	24	0	0	6	0	0	0	0	6
1700 - 1715	0	0	13	2	1	0	2	18	0	0	3	0	0	0	0	3
1715 - 1730	0	0	3	3	0	0	0	6	0	0	3	0	0	0	0	3
1730 - 1745	0	0	7	1	0	0	0	8	0	0	3	0	0	0	0	3
1745 - 1800	0	0	5	0	0	0	0	5	0	0	2	0	0	0	0	2
Hourly Total	0	0	28	6	1	0	2	37	0	0	11	0	0	0	0	11
1800 - 1815	0	1	6	0	0	0	0	7	0	0	3	0	0	0	0	3
1815 - 1830	0	0	5	0	0	0	0	5	0	0	0	0	0	0	0	0
1830 - 1845	0	0	1	1	0	0	0	2	0	0	0	0	0	0	0	0
1845 - 1900	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	1	12	1	0	0	0	14	0	0	3	0	0	0	0	3

Session Total	1	1	57	9	1	0	6	75	0	0	20	0	0	0	0	20
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Ellesmere Traffic Survey - Saturday 16th March 2013

Junction: Victoria Street/Scotland Street

Approach: Victoria Street

	Left Turn to Scotland Street (East)			Right Turn to Scotland Street (West)		
TIME	Lights	HGV	TOTAL	Lights	HGV	TOTAL
1100 - 1115	16	1	17	64	0	64
1115 - 1130	11	0	11	64	0	64
1130 - 1145	15	0	15	73	0	73
1145 - 1200	18	0	18	64	0	64
Hourly Total	60	1	61	265	0	265
1200 - 1215	19	1	20	78	0	78
1215 - 1230	16	0	16	65	0	65
1230 - 1245	19	0	19	70	0	70
1245 - 1300	12	0	12	64	0	64
Hourly Total	66	1	67	277	0	277
	Lights	HGV	TOTAL	Lights	HGV	TOTAL
TOTAL	126	2	128	542	0	542

Ellesmere Traffic Survey - Tuesday 19th March 2013

Junction: Victoria Street/Scotland Street

Approach: Victoria Street

TIME	Left Turn to Scotland Street (East)			Right Turn to Scotland Street (West)		
	Lights	HGV	TOTAL	Lights	HGV	TOTAL
0730 - 0745	3	0	3	43	2	45
0745 - 0800	4	0	4	49	2	51
Hourly Total	7	0	7	92	4	96
0800 - 0815	8	0	8	54	2	56
0815 - 0830	6	0	6	85	3	88
0830 - 0845	7	0	7	88	3	91
0845 - 0900	15	0	15	79	2	81
Hourly Total	36	0	36	306	10	316
0900 - 0915	6	0	6	66	2	68
0915 - 0930	5	0	5	58	1	59
Hourly Total	11	0	11	124	3	127
	Lights	HGV	TOTAL	Lights	HGV	TOTAL
TOTAL	54	0	54	522	17	539

TIME	Left Turn to Scotland Street (East)			Right Turn to Scotland Street (West)		
	Lights	HGV	TOTAL	Lights	HGV	TOTAL
1500 - 1515	9	0	9	63	1	64
1515 - 1530	8	1	9	55	2	57
1530 - 1545	7	0	7	52	1	53
1545 - 1600	9	0	9	54	0	54
Hourly Total	33	1	34	224	4	228
1600 - 1615	9	0	9	55	2	57
1615 - 1630	11	1	12	57	2	59
1630 - 1645	8	0	8	61	1	62
1645 - 1700	9	0	9	71	2	73
Hourly Total	37	1	38	244	7	251
1700 - 1715	15	0	15	89	2	91
1715 - 1730	13	0	13	78	1	79
1730 - 1745	13	1	14	75	2	77
1745 - 1800	14	0	14	82	1	83
Hourly Total	55	1	56	324	6	330
1800 - 1815	11	0	11	77	1	78
1815 - 1830	8	1	9	65	1	66
Hourly Total	19	1	20	142	2	144
	Lights	HGV	TOTAL	Lights	HGV	TOTAL
TOTAL	144	4	148	934	19	953

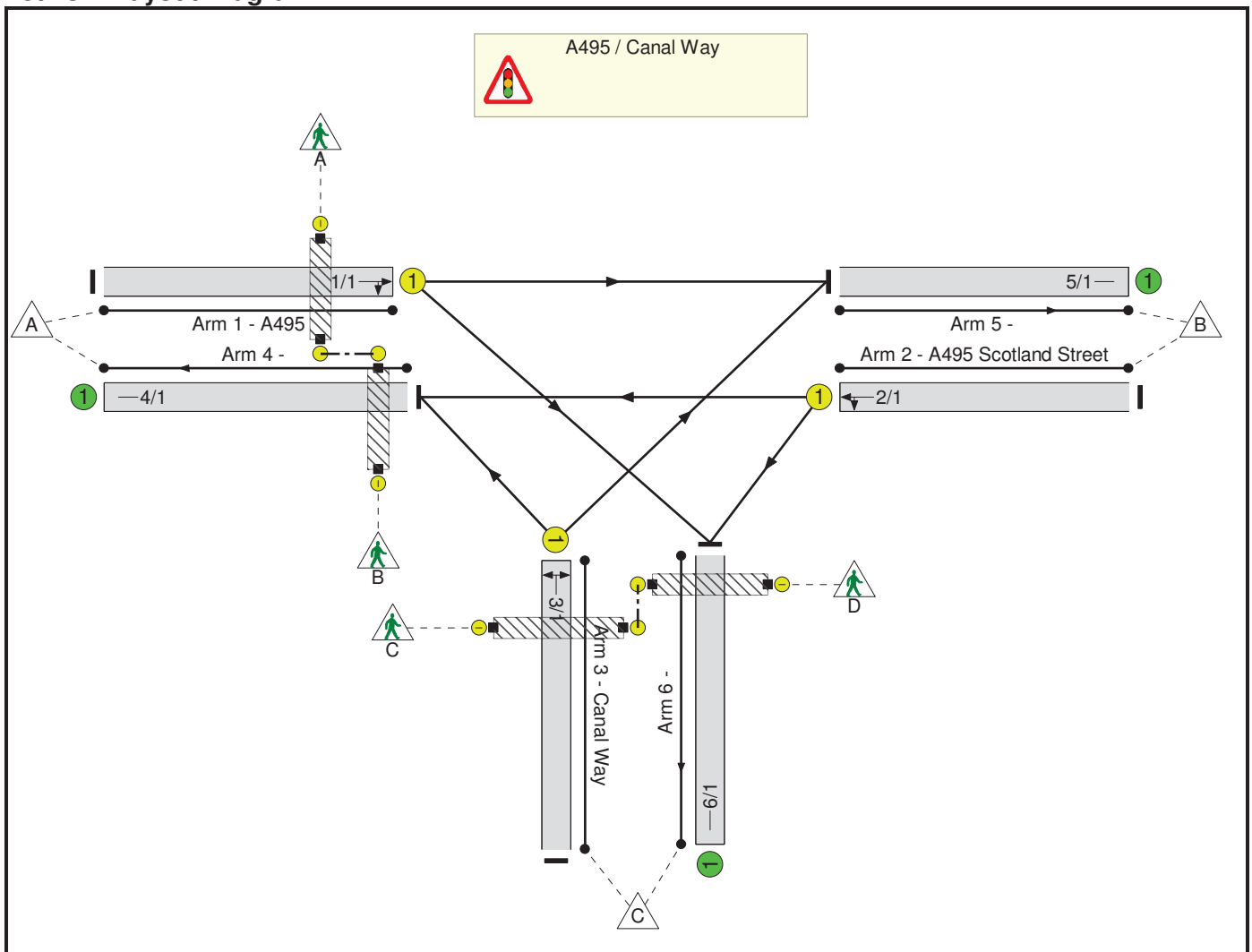
APPENDIX C

Full Input Data And Results
Full Input Data And Results

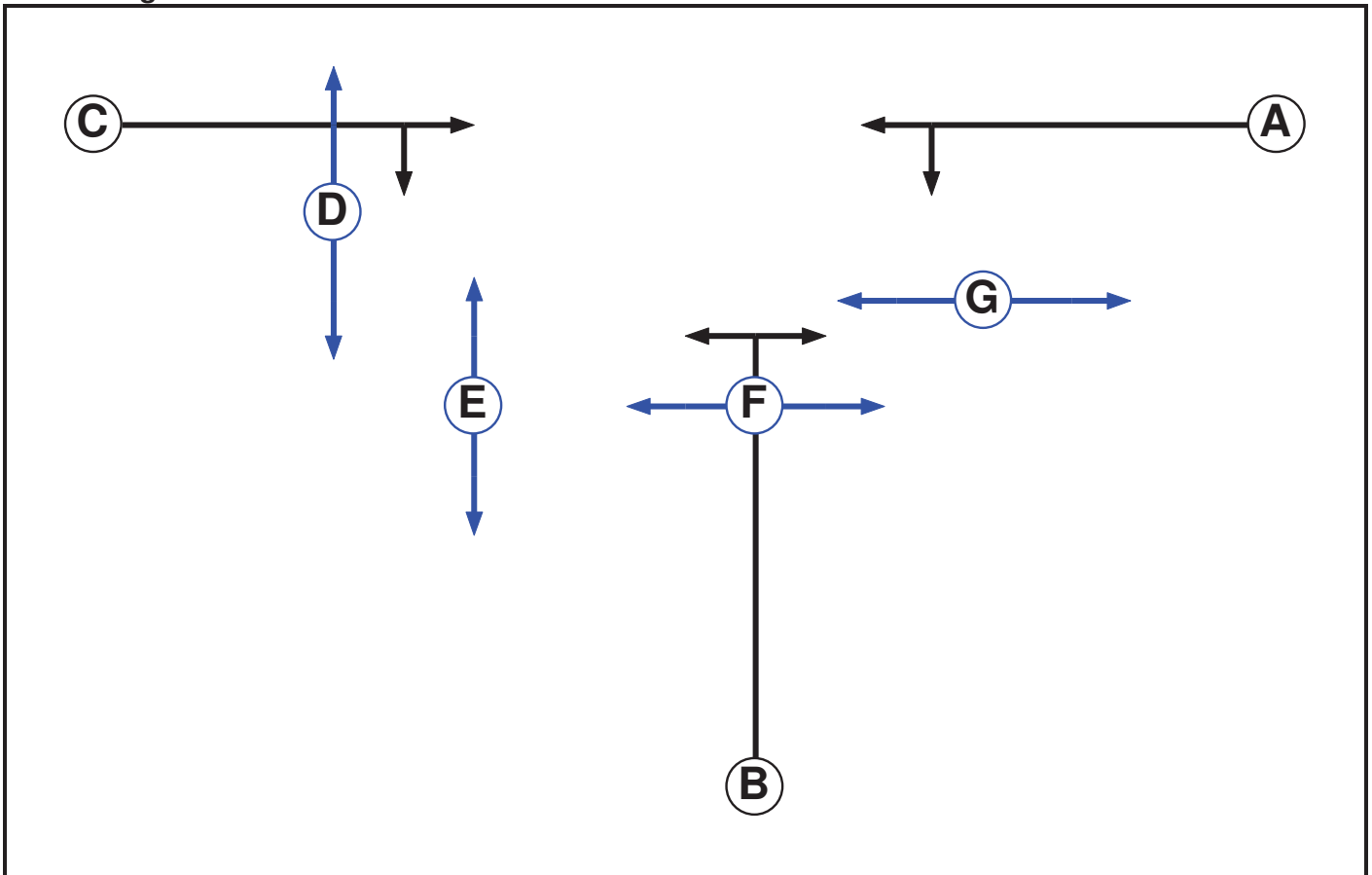
User and Project Details

Project:	
Title:	
Location:	
File name:	A495-Canal Way 170513 - CW.lsg3x
Author:	
Company:	
Address:	
Notes:	

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	5
C	Traffic		7	7
D	Pedestrian		6	6
E	Pedestrian		6	6
F	Pedestrian		6	6
G	Pedestrian		7	7

Full Input Data And Results

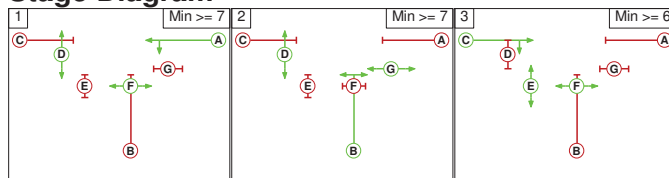
Phase Intergrens Matrix

		Starting Phase						
		A	B	C	D	E	F	G
Terminating Phase	A		5	5	-	9	-	7
	B	5		5	-	9	5	-
	C	7	5		5	-	-	9
	D	-	-	5		-	-	-
	E	6	6	-	-		-	-
	F	-	6	-	-	-		-
	G	7	-	7	-	-	-	

Phases in Stage

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

Stage Diagram



Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
1	2	A	Losing	1	1
2	1	B	Losing	2	2
2	3	B	Losing	2	2
2	3	E	Gaining absolute	5	5
2	3	F	Gaining absolute	9	9
3	2	C	Losing	1	1

Prohibited Stage Change

		To Stage		
		1	2	3
From Stage	1		8	9
	2	7		11
	3	7	10	

Full Input Data And Results

Give-Way Lane Input Data

Junction: A495 / Canal Way

There are no Opposed Lanes in this Junction

Full Input Data And Results

Lane Input Data

Junction: A495 / Canal Way												
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 (A495)	U	C	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 5 Ahead	26.00
											Arm 6 Right	80.00
2/1 (A495 Scotland Street)	U	A	2	3	60.0	Geom	-	2.35	0.00	Y	Arm 4 Ahead	42.00
											Arm 6 Left	9.50
3/1 (Canal Way)	U	B	2	3	60.0	Geom	-	3.20	0.00	Y	Arm 4 Left	82.00
											Arm 5 Right	12.50
4/1	U		2	3	60.0	Inf	-	-	-	-	-	-
5/1	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'AM 2018 Base + 1-4'	08:00	09:00	01:00	
2: 'PM 2018 B+1-4'	16:00	17:00	01:00	
3: 'Sat 2018 B+ 1-4'	12:00	13:00	01:00	
4: 'Sun 2018 B+ 1-4'	12:00	13:00	01:00	
5: '2018 AM Base'	08:00	09:00	01:00	
6: '2018 PM Base'	16:00	17:00	01:00	
7: '2018 Sat Base'	12:00	13:00	01:00	
8: '2018 Sun Base'	12:00	13:00	01:00	
9: 'AM 2018 Base + 1'	08:00	09:00	01:00	
10: 'PM 2018 B+1'	16:00	17:00	01:00	
11: 'Sat 2018 B+ 1'	12:00	13:00	01:00	
12: 'Sun 2018 B+ 1'	12:00	13:00	01:00	

Full Input Data And Results

Scenario 1: 'AM B+1-4' (FG1: 'AM 2018 Base + 1-4', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
	A	B	C	Tot.	
Origin	A	0	352	70	422
	B	399	0	131	530
	C	111	160	0	271
	Tot.	510	512	201	1223

Traffic Lane Flows

Lane	Scenario 1: AM B+1-4
Junction: A495 / Canal Way	
1/1	422
2/1	530
3/1	271
4/1	510
5/1	512
6/1	201

Lane Saturation Flows

Junction: A495 / Canal Way								
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 (A495)	3.50	0.00	Y	Arm 5 Ahead	26.00	83.4 %	1869	1869
				Arm 6 Right	80.00	16.6 %		
2/1 (A495 Scotland Street)	2.35	0.00	Y	Arm 4 Ahead	42.00	75.3 %	1736	1736
				Arm 6 Left	9.50	24.7 %		
3/1 (Canal Way)	3.20	0.00	Y	Arm 4 Left	82.00	41.0 %	1794	1794
				Arm 5 Right	12.50	59.0 %		
4/1				Infinite Saturation Flow			Inf	Inf
5/1				Infinite Saturation Flow			Inf	Inf
6/1				Infinite Saturation Flow			Inf	Inf

Full Input Data And Results

Scenario 2: 'PM B+1-4' (FG2: 'PM 2018 B+1-4', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	315	123	438
	B	355	0	270	625
	C	93	272	0	365
	Tot.	448	587	393	1428

Traffic Lane Flows

Lane	Scenario 2: PM B+1-4
Junction: A495 / Canal Way	
1/1	438
2/1	625
3/1	365
4/1	448
5/1	587
6/1	393

Lane Saturation Flows

Junction: A495 / Canal Way								
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 (A495)	3.50	0.00	Y	Arm 5 Ahead	26.00	71.9 %	1877	1877
				Arm 6 Right	80.00	28.1 %		
2/1 (A495 Scotland Street)	2.35	0.00	Y	Arm 4 Ahead	42.00	56.8 %	1700	1700
				Arm 6 Left	9.50	43.2 %		
3/1 (Canal Way)	3.20	0.00	Y	Arm 4 Left	82.00	25.5 %	1769	1769
				Arm 5 Right	12.50	74.5 %		
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 3: 'Sat B+ 1-4' (FG3: 'Sat 2018 B+ 1-4', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	277	98	375
	B	256	0	255	511
	C	95	259	0	354
	Tot.	351	536	353	1240

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 3: Sat B+ 1-4
Junction: A495 / Canal Way	
1/1	375
2/1	511
3/1	354
4/1	351
5/1	536
6/1	353

Lane Saturation Flows

Junction: A495 / Canal Way								
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 (A495)	3.50	0.00	Y	Arm 5 Ahead	26.00	73.9 %	1876	1876
				Arm 6 Right	80.00	26.1 %		
2/1 (A495 Scotland Street)	2.35	0.00	Y	Arm 4 Ahead	42.00	50.1 %	1687	1687
				Arm 6 Left	9.50	49.9 %		
3/1 (Canal Way)	3.20	0.00	Y	Arm 4 Left	82.00	26.8 %	1771	1771
				Arm 5 Right	12.50	73.2 %		
4/1				Infinite Saturation Flow			Inf	Inf
5/1				Infinite Saturation Flow			Inf	Inf
6/1				Infinite Saturation Flow			Inf	Inf

Scenario 4: 'Sun B+1-4' (FG4: 'Sun 2018 B+ 1-4', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
	A	B	C	Tot.	
Origin	A	0	266	89	355
	B	277	0	239	516
	C	103	208	0	311
	Tot.	380	474	328	1182

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: Sun B+1-4
Junction: A495 / Canal Way	
1/1	355
2/1	516
3/1	311
4/1	380
5/1	474
6/1	328

Lane Saturation Flows

Junction: A495 / Canal Way								
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 (A495)	3.50	0.00	Y	Arm 5 Ahead	26.00	74.9 %	1875	1875
				Arm 6 Right	80.00	25.1 %		
2/1 (A495 Scotland Street)	2.35	0.00	Y	Arm 4 Ahead	42.00	53.7 %	1694	1694
				Arm 6 Left	9.50	46.3 %		
3/1 (Canal Way)	3.20	0.00	Y	Arm 4 Left	82.00	33.1 %	1781	1781
				Arm 5 Right	12.50	66.9 %		
4/1				Infinite Saturation Flow			Inf	Inf
5/1				Infinite Saturation Flow			Inf	Inf
6/1				Infinite Saturation Flow			Inf	Inf

Scenario 5: '2018 AM Base' (FG5: '2018 AM Base', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
	A	B	C	Tot.	
Origin	A	0	292	62	354
	B	346	0	115	461
	C	97	140	0	237
	Tot.	443	432	177	1052

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 5: 2018 AM Base
Junction: A495 / Canal Way	
1/1	354
2/1	461
3/1	237
4/1	443
5/1	432
6/1	177

Lane Saturation Flows

Junction: A495 / Canal Way								
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 (A495)	3.50	0.00	Y	Arm 5 Ahead	26.00	82.5 %	1870	1870
				Arm 6 Right	80.00	17.5 %		
2/1 (A495 Scotland Street)	2.35	0.00	Y	Arm 4 Ahead	42.00	75.1 %	1735	1735
				Arm 6 Left	9.50	24.9 %		
3/1 (Canal Way)	3.20	0.00	Y	Arm 4 Left	82.00	40.9 %	1794	1794
				Arm 5 Right	12.50	59.1 %		
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 6: '2018 PM Base' (FG6: '2018 PM Base', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
	A	B	C	Tot.	
Origin	A	0	258	112	370
	B	277	0	246	523
	C	85	248	0	333
	Tot.	362	506	358	1226

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 6: 2018 PM Base
Junction: A495 / Canal Way	
1/1	370
2/1	523
3/1	333
4/1	362
5/1	506
6/1	358

Lane Saturation Flows

Junction: A495 / Canal Way								
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 (A495)	3.50	0.00	Y	Arm 5 Ahead	26.00	69.7 %	1879	1879
				Arm 6 Right	80.00	30.3 %		
2/1 (A495 Scotland Street)	2.35	0.00	Y	Arm 4 Ahead	42.00	53.0 %	1692	1692
				Arm 6 Left	9.50	47.0 %		
3/1 (Canal Way)	3.20	0.00	Y	Arm 4 Left	82.00	25.5 %	1769	1769
				Arm 5 Right	12.50	74.5 %		
4/1				Infinite Saturation Flow			Inf	Inf
5/1				Infinite Saturation Flow			Inf	Inf
6/1				Infinite Saturation Flow			Inf	Inf

Scenario 7: '2018 Sat Base' (FG7: '2018 Sat Base', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
	A	B	C	Tot.	
Origin	A	0	163	79	242
	B	164	0	206	370
	C	76	209	0	285
	Tot.	240	372	285	897

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 7: 2018 Sat Base
Junction: A495 / Canal Way	
1/1	242
2/1	370
3/1	285
4/1	240
5/1	372
6/1	285

Lane Saturation Flows

Junction: A495 / Canal Way								
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 (A495)	3.50	0.00	Y	Arm 5 Ahead	26.00	67.4 %	1880	1880
				Arm 6 Right	80.00	32.6 %		
2/1 (A495 Scotland Street)	2.35	0.00	Y	Arm 4 Ahead	42.00	44.3 %	1676	1676
				Arm 6 Left	9.50	55.7 %		
3/1 (Canal Way)	3.20	0.00	Y	Arm 4 Left	82.00	26.7 %	1771	1771
				Arm 5 Right	12.50	73.3 %		
4/1				Infinite Saturation Flow			Inf	Inf
5/1				Infinite Saturation Flow			Inf	Inf
6/1				Infinite Saturation Flow			Inf	Inf

Scenario 8: '2018 Sun base' (FG8: '2018 Sun Base', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
	A	B	C	Tot.	
Origin	A	0	165	70	235
	B	187	0	190	377
	C	80	162	0	242
	Tot.	267	327	260	854

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 8: 2018 Sun base
Junction: A495 / Canal Way	
1/1	235
2/1	377
3/1	242
4/1	267
5/1	327
6/1	260

Lane Saturation Flows

Junction: A495 / Canal Way								
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 (A495)	3.50	0.00	Y	Arm 5 Ahead	26.00	70.2 %	1878	1878
				Arm 6 Right	80.00	29.8 %		
2/1 (A495 Scotland Street)	2.35	0.00	Y	Arm 4 Ahead	42.00	49.6 %	1686	1686
				Arm 6 Left	9.50	50.4 %		
3/1 (Canal Way)	3.20	0.00	Y	Arm 4 Left	82.00	33.1 %	1781	1781
				Arm 5 Right	12.50	66.9 %		
4/1				Infinite Saturation Flow			Inf	Inf
5/1				Infinite Saturation Flow			Inf	Inf
6/1				Infinite Saturation Flow			Inf	Inf

Scenario 9: '2018 AM B+1' (FG9: 'AM 2018 Base + 1', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
		A	B	C	Tot.
Origin	A	0	292	70	362
	B	346	0	131	477
	C	111	160	0	271
	Tot.	457	452	201	1110

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 9: 2018 AM B+1
Junction: A495 / Canal Way	
1/1	362
2/1	477
3/1	271
4/1	457
5/1	452
6/1	201

Lane Saturation Flows

Junction: A495 / Canal Way								
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 (A495)	3.50	0.00	Y	Arm 5 Ahead	26.00	80.7 %	1871	1871
				Arm 6 Right	80.00	19.3 %		
2/1 (A495 Scotland Street)	2.35	0.00	Y	Arm 4 Ahead	42.00	72.5 %	1730	1730
				Arm 6 Left	9.50	27.5 %		
3/1 (Canal Way)	3.20	0.00	Y	Arm 4 Left	82.00	41.0 %	1794	1794
				Arm 5 Right	12.50	59.0 %		
4/1				Infinite Saturation Flow			Inf	Inf
5/1				Infinite Saturation Flow			Inf	Inf
6/1				Infinite Saturation Flow			Inf	Inf

Scenario 10: '2018 PM B+1' (FG10: 'PM 2018 B+1', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
	A	B	C	Tot.	
Origin	A	0	258	123	381
	B	277	0	270	547
	C	93	272	0	365
	Tot.	370	530	393	1293

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 10: 2018 PM B+1
Junction: A495 / Canal Way	
1/1	381
2/1	547
3/1	365
4/1	370
5/1	530
6/1	393

Lane Saturation Flows

Junction: A495 / Canal Way								
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 (A495)	3.50	0.00	Y	Arm 5 Ahead	26.00	67.7 %	1880	1880
				Arm 6 Right	80.00	32.3 %		
2/1 (A495 Scotland Street)	2.35	0.00	Y	Arm 4 Ahead	42.00	50.6 %	1688	1688
				Arm 6 Left	9.50	49.4 %		
3/1 (Canal Way)	3.20	0.00	Y	Arm 4 Left	82.00	25.5 %	1769	1769
				Arm 5 Right	12.50	74.5 %		
4/1				Infinite Saturation Flow			Inf	Inf
5/1				Infinite Saturation Flow			Inf	Inf
6/1				Infinite Saturation Flow			Inf	Inf

Scenario 11: '2018 Sat B+ 1' (FG11: 'Sat 2018 B+ 1', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
	A	B	C	Tot.	
Origin	A	0	183	98	281
	B	164	0	255	419
	C	95	259	0	354
	Tot.	259	442	353	1054

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 11: 2018 Sat B+ 1
Junction: A495 / Canal Way	
1/1	281
2/1	419
3/1	354
4/1	259
5/1	442
6/1	353

Lane Saturation Flows

Junction: A495 / Canal Way								
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 (A495)	3.50	0.00	Y	Arm 5 Ahead	26.00	65.1 %	1882	1882
				Arm 6 Right	80.00	34.9 %		
2/1 (A495 Scotland Street)	2.35	0.00	Y	Arm 4 Ahead	42.00	39.1 %	1667	1667
				Arm 6 Left	9.50	60.9 %		
3/1 (Canal Way)	3.20	0.00	Y	Arm 4 Left	82.00	26.8 %	1771	1771
				Arm 5 Right	12.50	73.2 %		
4/1				Infinite Saturation Flow			Inf	Inf
5/1				Infinite Saturation Flow			Inf	Inf
6/1				Infinite Saturation Flow			Inf	Inf

Scenario 12: '2018 Sun B+1' (FG12: 'Sun 2018 B+ 1', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
	A	B	C	Tot.	
Origin	A	0	165	89	254
	B	178	0	239	417
	C	103	208	0	311
	Tot.	281	373	328	982

Full Input Data And Results

Traffic Lane Flows

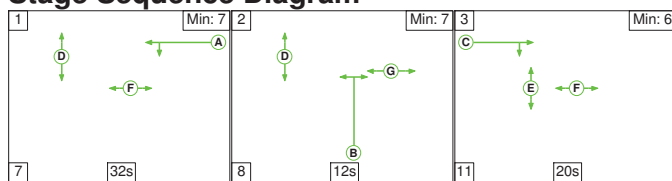
Lane	Scenario 12: 2018 Sun B+1
Junction: A495 / Canal Way	
1/1	254
2/1	417
3/1	311
4/1	281
5/1	373
6/1	328

Lane Saturation Flows

Junction: A495 / Canal Way								
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 (A495)	3.50	0.00	Y	Arm 5 Ahead	26.00	65.0 %	1882	1882
				Arm 6 Right	80.00	35.0 %		
2/1 (A495 Scotland Street)	2.35	0.00	Y	Arm 4 Ahead	42.00	42.7 %	1673	1673
				Arm 6 Left	9.50	57.3 %		
3/1 (Canal Way)	3.20	0.00	Y	Arm 4 Left	82.00	33.1 %	1781	1781
				Arm 5 Right	12.50	66.9 %		
4/1				Infinite Saturation Flow			Inf	Inf
5/1				Infinite Saturation Flow			Inf	Inf
6/1				Infinite Saturation Flow			Inf	Inf

Scenario 1: 'AM B+1-4' (FG1: 'AM 2018 Base + 1-4', Plan 1: 'Network Control Plan 1')

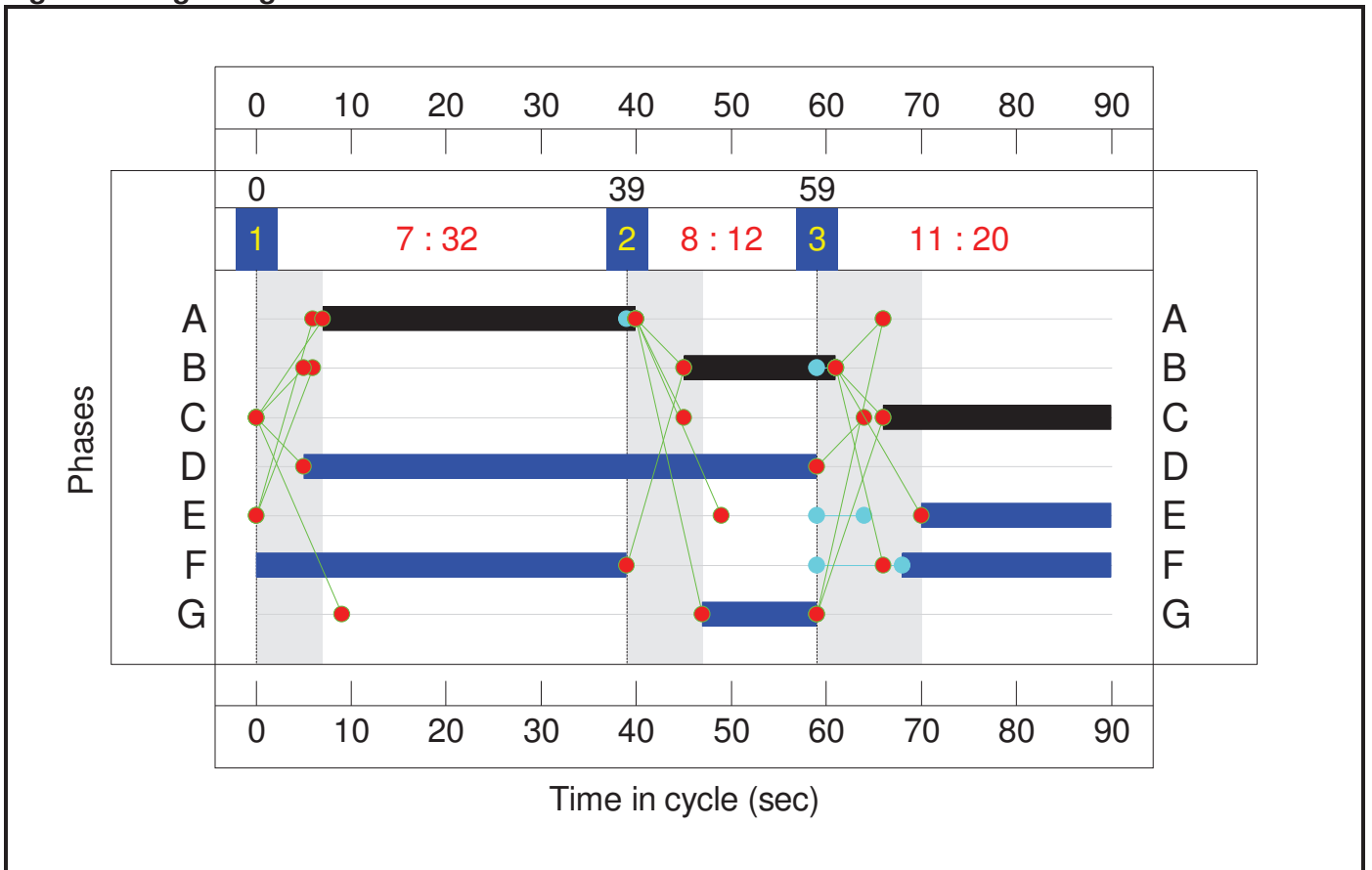
Stage Sequence Diagram



Stage Timings

Stage	1	2	3
Duration	32	12	20
Change Point	0	39	59

Signal Timings 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	-	-		-	-	-	-	-	-	81.3%
A495 / Canal Way	-	-	N/A	-	-		-	-	-	-	-	-	81.3%
1/1	A495 Ahead Right	U	N/A	N/A	C		1	24	-	422	1869	519	81.3%
2/1	A495 Scotland Street Ahead Left	U	N/A	N/A	A		1	33	-	530	1736	656	80.8%
3/1	Canal Way Left Right	U	N/A	N/A	B		1	16	-	271	1794	339	80.0%
4/1		U	N/A	N/A	-		-	-	-	510	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	512	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	201	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	D		1	54	-	0	-	43200	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	E		1	20	-	0	-	16000	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	F		1	61	-	0	-	48800	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	G		1	12	-	0	-	9600	0.0%

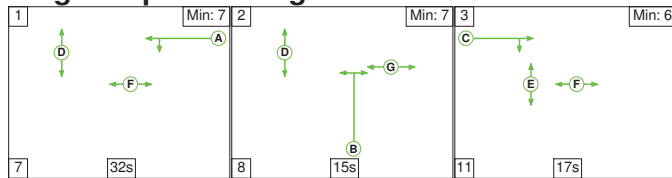
Full Input Data And Results

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	-	-	0	0	0	9.9	6.0	0.0	15.9	-	-	-	-
A495 / Canal Way	-	-	0	0	0	9.9	6.0	0.0	15.9	-	-	-	-
1/1	422	422	-	-	-	3.6	2.1	-	5.6	48.1	9.7	2.1	11.8
2/1	530	530	-	-	-	3.7	2.0	-	5.7	38.9	11.8	2.0	13.8
3/1	271	271	-	-	-	2.6	1.9	-	4.5	60.0	6.4	1.9	8.3
4/1	510	510	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	512	512	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	201	201	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
Ped Link: P2	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
Ped Link: P3	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
Ped Link: P4	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
C1			PRC for Signalled Lanes (%):		10.7	Total Delay for Signalled Lanes (pcuHr):		15.89	Cycle Time (s):		90		
			PRC Over All Lanes (%):		10.7	Total Delay Over All Lanes(pcuHr):		15.89					

Full Input Data And Results

Scenario 2: 'PM B+1-4' (FG2: 'PM 2018 B+1-4', Plan 1: 'Network Control Plan 1')

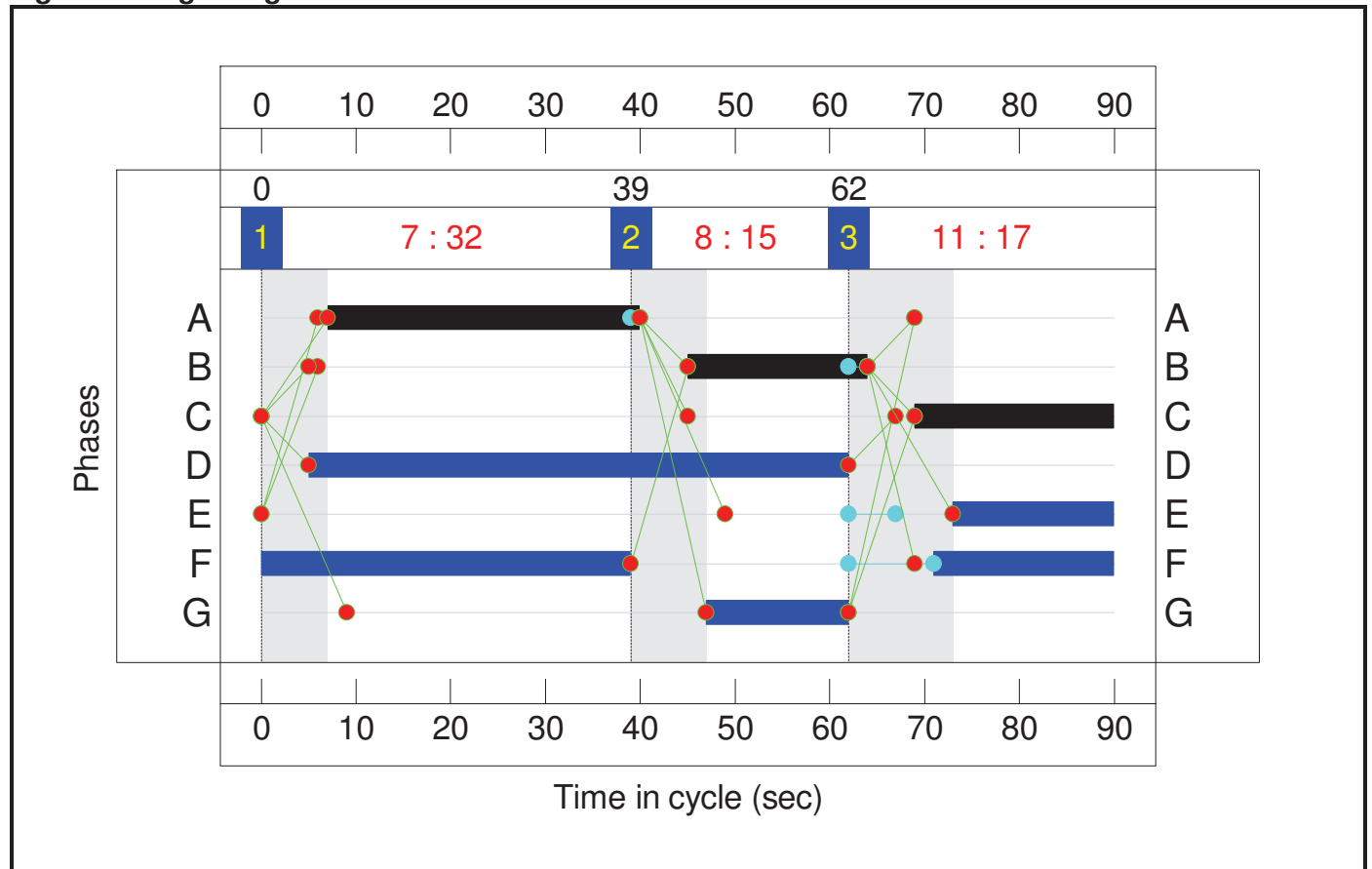
Stage Sequence Diagram



Stage Timings

Stage	1	2	3
Duration	32	15	17
Change Point	0	39	62

Signal Timings 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	-	-		-	-	-	-	-	-	97.3%
A495 / Canal Way	-	-	N/A	-	-		-	-	-	-	-	-	97.3%
1/1	A495 Ahead Right	U	N/A	N/A	C		1	21	-	438	1877	459	95.5%
2/1	A495 Scotland Street Ahead Left	U	N/A	N/A	A		1	33	-	625	1700	642	97.3%
3/1	Canal Way Left Right	U	N/A	N/A	B		1	19	-	365	1769	393	92.8%
4/1		U	N/A	N/A	-		-	-	-	448	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	587	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	393	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	D		1	57	-	0	-	45600	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	E		1	17	-	0	-	13600	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	F		1	58	-	0	-	46400	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	G		1	15	-	0	-	12000	0.0%

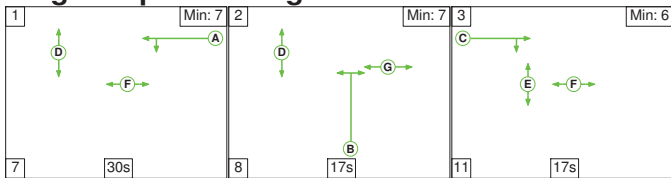
Full Input Data And Results

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	-	-	0	0	0	12.3	20.2	0.0	32.6	-	-	-	-
A495 / Canal Way	-	-	0	0	0	12.3	20.2	0.0	32.6	-	-	-	-
1/1	438	438	-	-	-	4.1	6.5	-	10.6	86.8	10.7	6.5	17.2
2/1	625	625	-	-	-	4.8	8.9	-	13.7	78.9	15.3	8.9	24.2
3/1	365	365	-	-	-	3.5	4.8	-	8.3	82.0	8.9	4.8	13.8
4/1	448	448	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	587	587	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	393	393	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
Ped Link: P2	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
Ped Link: P3	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
Ped Link: P4	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
C1			PRC for Signalled Lanes (%):		-8.1	Total Delay for Signalled Lanes (pcuHr):		32.57	Cycle Time (s):		90		
			PRC Over All Lanes (%):		-8.1	Total Delay Over All Lanes(pcuHr):		32.57					

Full Input Data And Results

Scenario 3: 'Sat B+ 1-4' (FG3: 'Sat 2018 B+ 1-4', Plan 1: 'Network Control Plan 1')

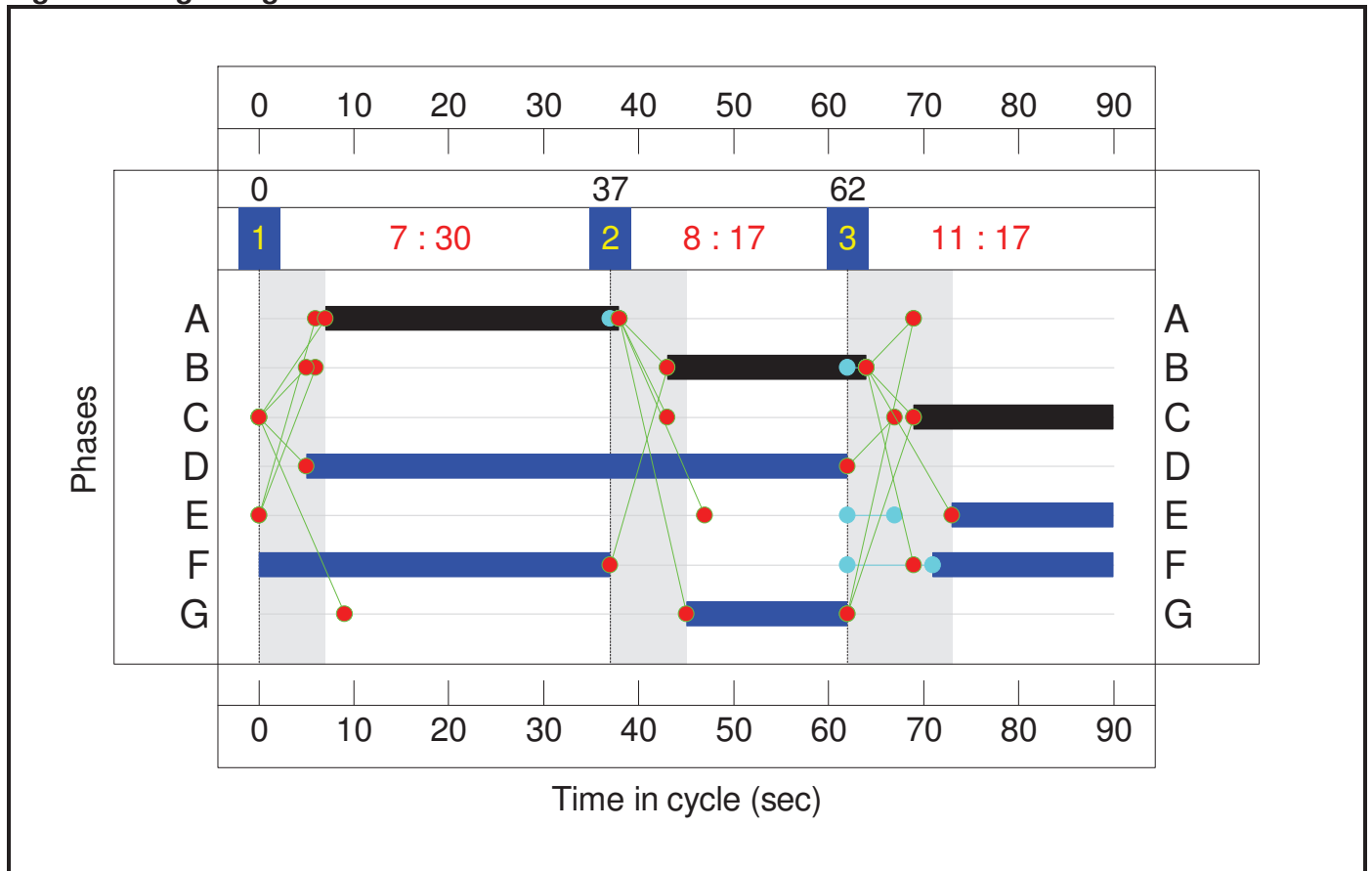
Stage Sequence Diagram



Stage Timings

Stage	1	2	3
Duration	30	17	17
Change Point	0	37	62

Signal Timings 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	-	-		-	-	-	-	-	-	85.2%
A495 / Canal Way	-	-	N/A	-	-		-	-	-	-	-	-	85.2%
1/1	A495 Ahead Right	U	N/A	N/A	C		1	21	-	375	1876	459	81.8%
2/1	A495 Scotland Street Ahead Left	U	N/A	N/A	A		1	31	-	511	1687	600	85.2%
3/1	Canal Way Left Right	U	N/A	N/A	B		1	21	-	354	1771	433	81.8%
4/1		U	N/A	N/A	-		-	-	-	351	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	536	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	353	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	D		1	57	-	0	-	45600	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	E		1	17	-	0	-	13600	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	F		1	56	-	0	-	44800	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	G		1	17	-	0	-	13600	0.0%

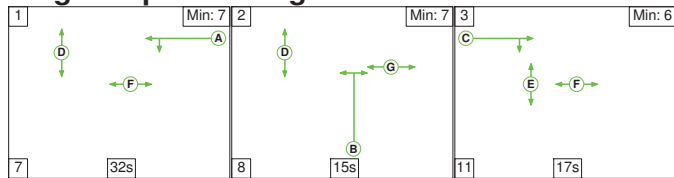
Full Input Data And Results

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	-	-	0	0	0	10.3	7.0	0.0	17.3	-	-	-	-
A495 / Canal Way	-	-	0	0	0	10.3	7.0	0.0	17.3	-	-	-	-
1/1	375	375	-	-	-	3.3	2.1	-	5.5	52.6	8.8	2.1	10.9
2/1	511	511	-	-	-	3.8	2.7	-	6.5	45.9	11.8	2.7	14.5
3/1	354	354	-	-	-	3.2	2.1	-	5.3	53.7	8.3	2.1	10.4
4/1	351	351	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	536	536	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	353	353	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
Ped Link: P2	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
Ped Link: P3	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
Ped Link: P4	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
C1			PRC for Signalled Lanes (%):		5.6	Total Delay for Signalled Lanes (pcuHr):		17.28	Cycle Time (s):		90		
			PRC Over All Lanes (%):		5.6	Total Delay Over All Lanes(pcuHr):		17.28					

Full Input Data And Results

Scenario 4: 'Sun B+1-4' (FG4: 'Sun 2018 B+ 1-4', Plan 1: 'Network Control Plan 1')

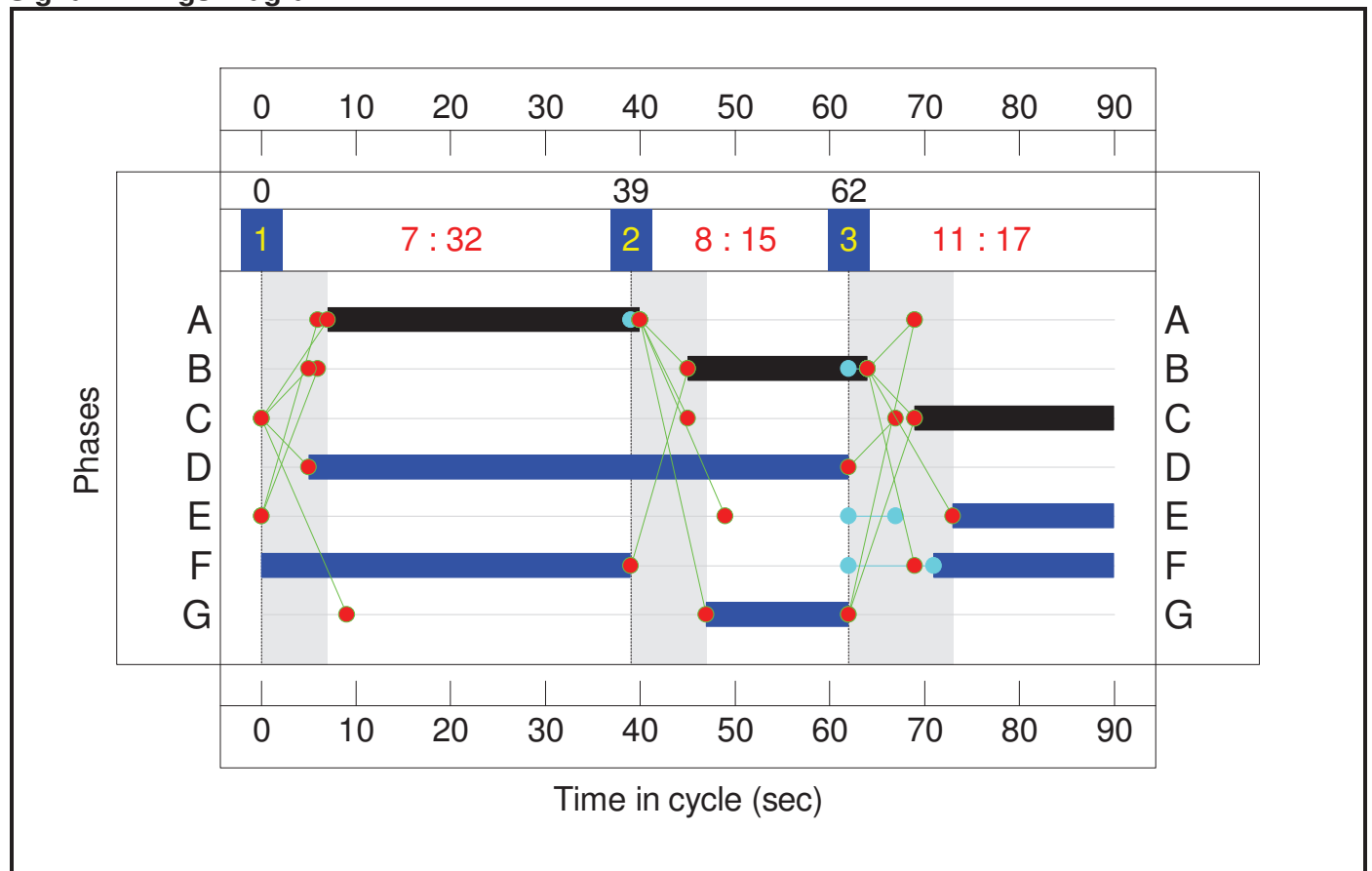
Stage Sequence Diagram



Stage Timings

Stage	1	2	3
Duration	32	15	17
Change Point	0	39	62

Signal Timings 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	-	-		-	-	-	-	-	-	80.6%
A495 / Canal Way	-	-	N/A	-	-		-	-	-	-	-	-	80.6%
1/1	A495 Ahead Right	U	N/A	N/A	C		1	21	-	355	1875	458	77.5%
2/1	A495 Scotland Street Ahead Left	U	N/A	N/A	A		1	33	-	516	1694	640	80.6%
3/1	Canal Way Left Right	U	N/A	N/A	B		1	19	-	311	1781	396	78.6%
4/1		U	N/A	N/A	-		-	-	-	380	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	474	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	328	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	D		1	57	-	0	-	45600	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	E		1	17	-	0	-	13600	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	F		1	58	-	0	-	46400	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	G		1	15	-	0	-	12000	0.0%

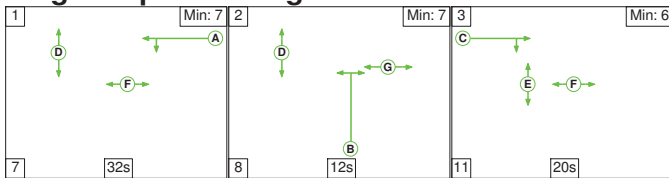
Full Input Data And Results

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	-	-	0	0	0	9.6	5.4	0.0	15.0	-	-	-	-
A495 / Canal Way	-	-	0	0	0	9.6	5.4	0.0	15.0	-	-	-	-
1/1	355	355	-	-	-	3.1	1.7	-	4.8	48.6	8.2	1.7	9.8
2/1	516	516	-	-	-	3.6	2.0	-	5.6	39.1	11.5	2.0	13.5
3/1	311	311	-	-	-	2.8	1.8	-	4.6	53.4	7.3	1.8	9.0
4/1	380	380	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	474	474	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	328	328	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
Ped Link: P2	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
Ped Link: P3	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
Ped Link: P4	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
C1			PRC for Signalled Lanes (%):		11.6	Total Delay for Signalled Lanes (pcuHr):		15.01	Cycle Time (s):		90		
			PRC Over All Lanes (%):		11.6	Total Delay Over All Lanes(pcuHr):		15.01					

Full Input Data And Results

Scenario 5: '2018 AM Base' (FG5: '2018 AM Base', Plan 1: 'Network Control Plan 1')

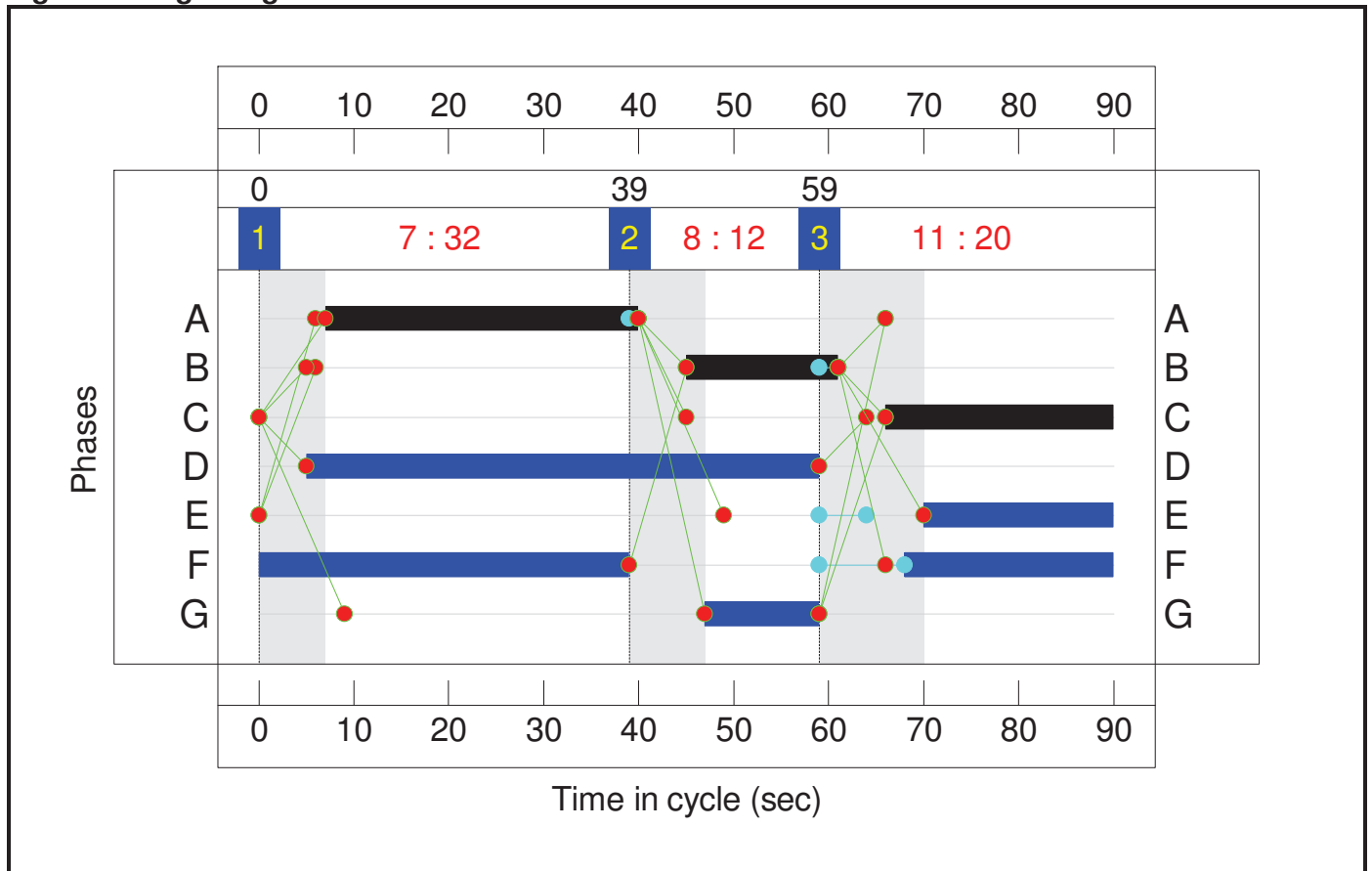
Stage Sequence Diagram



Stage Timings

Stage	1	2	3
Duration	32	12	20
Change Point	0	39	59

Signal Timings 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	-	-		-	-	-	-	-	-	70.3%
A495 / Canal Way	-	-	N/A	-	-		-	-	-	-	-	-	70.3%
1/1	A495 Ahead Right	U	N/A	N/A	C		1	24	-	354	1870	519	68.1%
2/1	A495 Scotland Street Ahead Left	U	N/A	N/A	A		1	33	-	461	1735	655	70.3%
3/1	Canal Way Left Right	U	N/A	N/A	B		1	16	-	237	1794	339	69.9%
4/1		U	N/A	N/A	-		-	-	-	443	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	432	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	177	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	D		1	54	-	0	-	43200	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	E		1	20	-	0	-	16000	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	F		1	61	-	0	-	48800	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	G		1	12	-	0	-	9600	0.0%

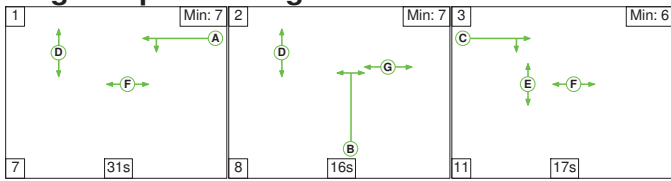
Full Input Data And Results

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	-	-	0	0	0	8.1	3.4	0.0	11.5	-	-	-	-
A495 / Canal Way	-	-	0	0	0	8.1	3.4	0.0	11.5	-	-	-	-
1/1	354	354	-	-	-	2.8	1.1	-	3.9	39.7	7.9	1.1	8.9
2/1	461	461	-	-	-	3.0	1.2	-	4.2	32.9	9.7	1.2	10.9
3/1	237	237	-	-	-	2.2	1.1	-	3.4	51.4	5.5	1.1	6.7
4/1	443	443	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	432	432	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	177	177	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
Ped Link: P2	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
Ped Link: P3	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
Ped Link: P4	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
C1			PRC for Signalled Lanes (%):		28.0	Total Delay for Signalled Lanes (pcuHr):		11.50	Cycle Time (s):		90		
			PRC Over All Lanes (%):		28.0	Total Delay Over All Lanes(pcuHr):		11.50					

Full Input Data And Results

Scenario 6: '2018 PM Base' (FG6: '2018 PM Base', Plan 1: 'Network Control Plan 1')

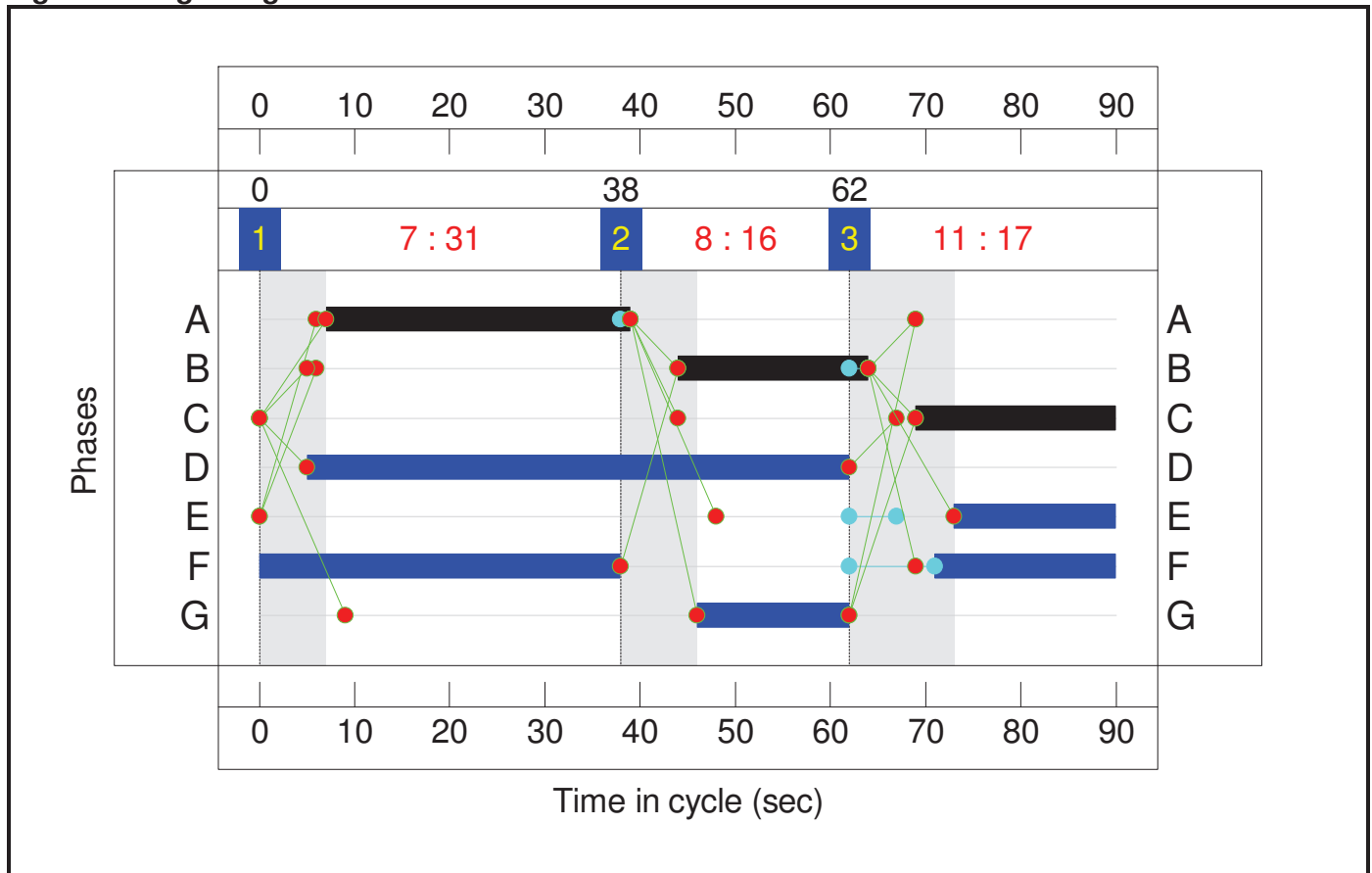
Stage Sequence Diagram



Stage Timings

Stage	1	2	3
Duration	31	16	17
Change Point	0	38	62

Signal Timings 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	-	-		-	-	-	-	-	-	84.3%
A495 / Canal Way	-	-	N/A	-	-		-	-	-	-	-	-	84.3%
1/1	A495 Ahead Right	U	N/A	N/A	C		1	21	-	370	1879	459	80.6%
2/1	A495 Scotland Street Ahead Left	U	N/A	N/A	A		1	32	-	523	1692	620	84.3%
3/1	Canal Way Left Right	U	N/A	N/A	B		1	20	-	333	1769	413	80.7%
4/1		U	N/A	N/A	-		-	-	-	362	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	506	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	358	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	D		1	57	-	0	-	45600	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	E		1	17	-	0	-	13600	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	F		1	57	-	0	-	45600	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	G		1	16	-	0	-	12800	0.0%

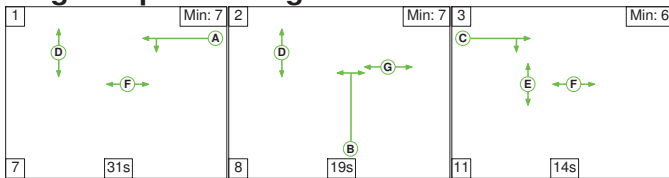
Full Input Data And Results

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	-	-	0	0	0	10.1	6.5	0.0	16.6	-	-	-	-
A495 / Canal Way	-	-	0	0	0	10.1	6.5	0.0	16.6	-	-	-	-
1/1	370	370	-	-	-	3.3	2.0	-	5.3	51.3	8.6	2.0	10.6
2/1	523	523	-	-	-	3.8	2.6	-	6.3	43.7	11.9	2.6	14.5
3/1	333	333	-	-	-	3.0	2.0	-	5.0	54.1	7.9	2.0	9.9
4/1	362	362	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	506	506	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	358	358	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
Ped Link: P2	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
Ped Link: P3	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
Ped Link: P4	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
C1			PRC for Signalled Lanes (%):		6.8	Total Delay for Signalled Lanes (pcuHr):		16.62	Cycle Time (s):		90		
			PRC Over All Lanes (%):		6.8	Total Delay Over All Lanes(pcuHr):		16.62					

Full Input Data And Results

Scenario 7: '2018 Sat Base' (FG7: '2018 Sat Base', Plan 1: 'Network Control Plan 1')

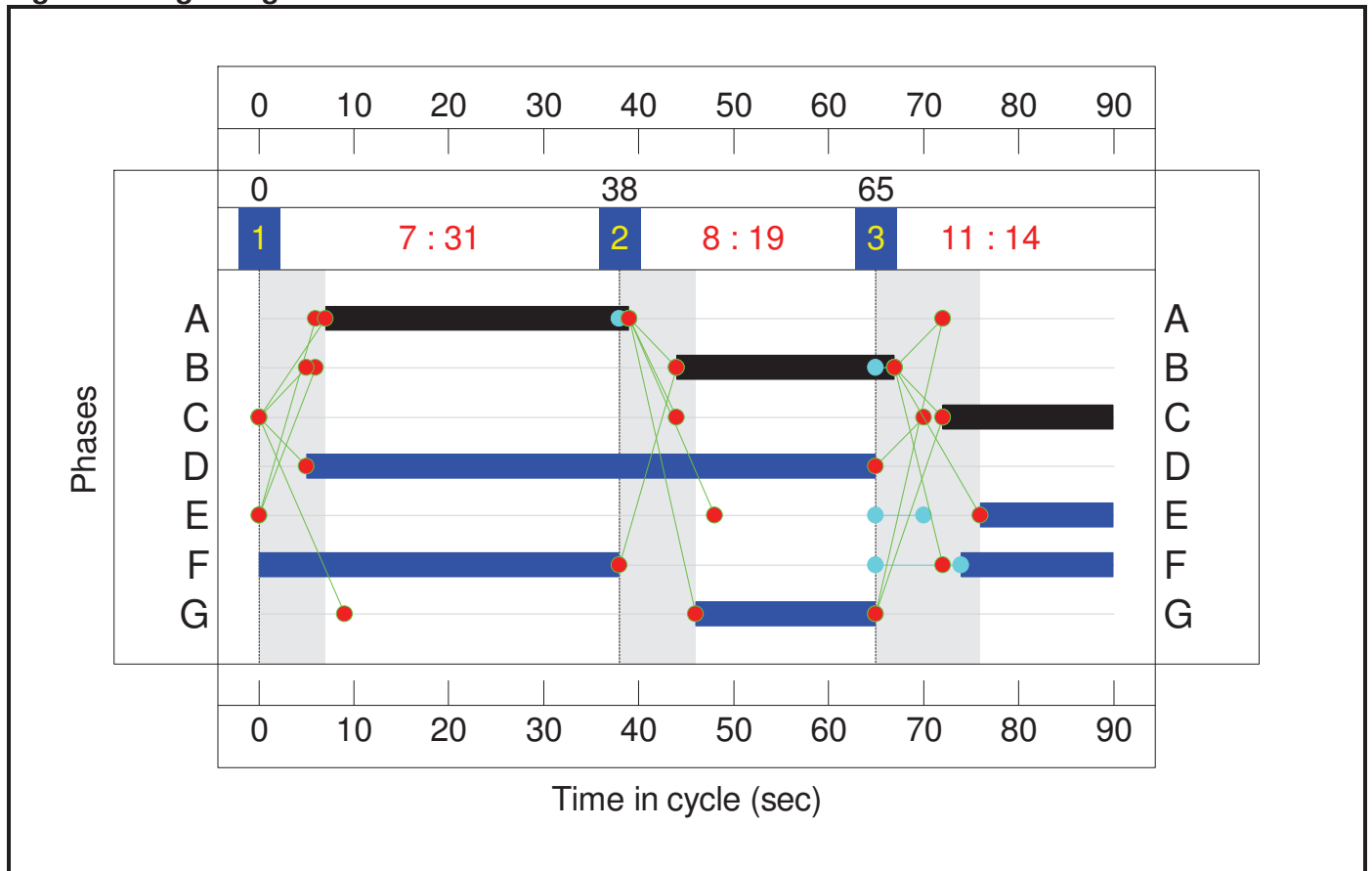
Stage Sequence Diagram



Stage Timings

Stage	1	2	3
Duration	31	19	14
Change Point	0	38	65

Signal Timings 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	-	-		-	-	-	-	-	-	61.0%
A495 / Canal Way	-	-	N/A	-	-		-	-	-	-	-	-	61.0%
1/1	A495 Ahead Right	U	N/A	N/A	C		1	18	-	242	1880	397	61.0%
2/1	A495 Scotland Street Ahead Left	U	N/A	N/A	A		1	32	-	370	1676	615	60.2%
3/1	Canal Way Left Right	U	N/A	N/A	B		1	23	-	285	1771	472	60.3%
4/1		U	N/A	N/A	-		-	-	-	240	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	372	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	285	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	D		1	60	-	0	-	48000	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	E		1	14	-	0	-	11200	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	F		1	54	-	0	-	43200	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	G		1	19	-	0	-	15200	0.0%

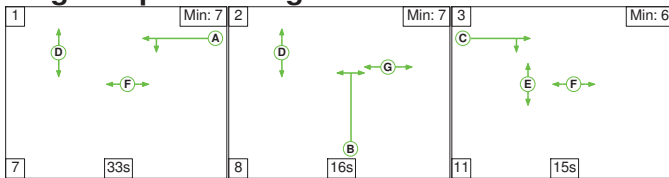
Full Input Data And Results

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	-	-	0	0	0	6.8	2.3	0.0	9.1	-	-	-	-
A495 / Canal Way	-	-	0	0	0	6.8	2.3	0.0	9.1	-	-	-	-
1/1	242	242	-	-	-	2.2	0.8	-	2.9	43.7	5.4	0.8	6.2
2/1	370	370	-	-	-	2.4	0.8	-	3.1	30.5	7.5	0.8	8.3
3/1	285	285	-	-	-	2.3	0.8	-	3.0	38.4	6.2	0.8	6.9
4/1	240	240	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	372	372	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	285	285	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
Ped Link: P2	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
Ped Link: P3	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
Ped Link: P4	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
C1			PRC for Signalled Lanes (%):		47.6	Total Delay for Signalled Lanes (pcuHr):			9.11	Cycle Time (s): 90			
			PRC Over All Lanes (%):		47.6	Total Delay Over All Lanes(pcuHr):			9.11				

Full Input Data And Results

Scenario 8: '2018 Sun base' (FG8: '2018 Sun Base', Plan 1: 'Network Control Plan 1')

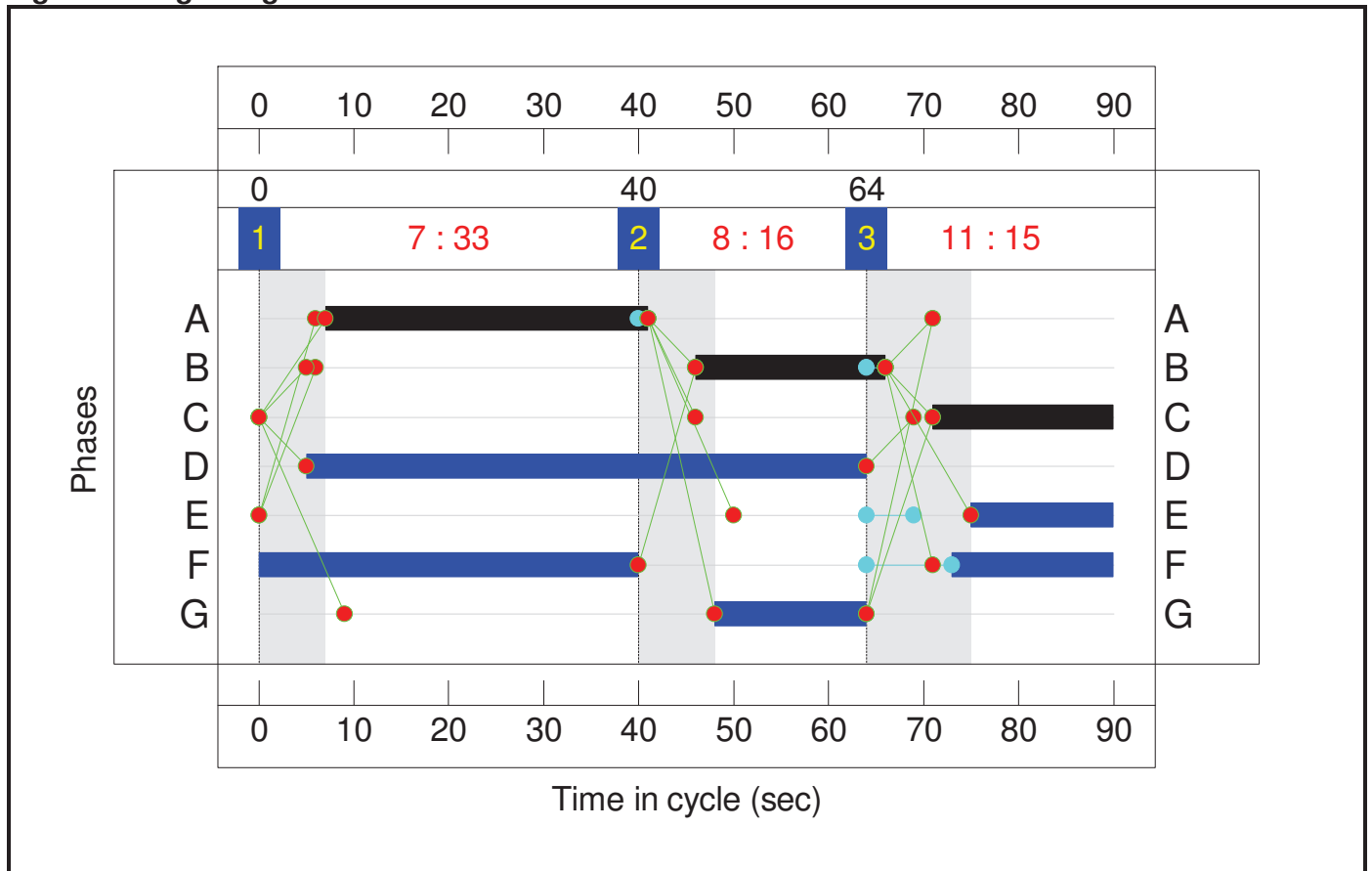
Stage Sequence Diagram



Stage Timings

Stage	1	2	3
Duration	33	16	15
Change Point	0	40	64

Signal Timings 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	-	-		-	-	-	-	-	-	58.2%
A495 / Canal Way	-	-	N/A	-	-		-	-	-	-	-	-	58.2%
1/1	A495 Ahead Right	U	N/A	N/A	C		1	19	-	235	1878	417	56.3%
2/1	A495 Scotland Street Ahead Left	U	N/A	N/A	A		1	34	-	377	1686	656	57.5%
3/1	Canal Way Left Right	U	N/A	N/A	B		1	20	-	242	1781	416	58.2%
4/1		U	N/A	N/A	-		-	-	-	267	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	327	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	260	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	D		1	59	-	0	-	47200	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	E		1	15	-	0	-	12000	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	F		1	57	-	0	-	45600	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	G		1	16	-	0	-	12800	0.0%

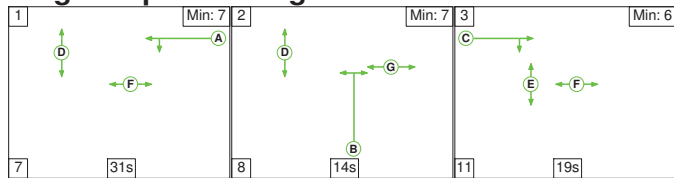
Full Input Data And Results

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	-	-	0	0	0	6.4	2.0	0.0	8.4	-	-	-	-
A495 / Canal Way	-	-	0	0	0	6.4	2.0	0.0	8.4	-	-	-	-
1/1	235	235	-	-	-	2.0	0.6	-	2.7	40.9	5.2	0.6	5.9
2/1	377	377	-	-	-	2.3	0.7	-	2.9	28.1	7.3	0.7	8.0
3/1	242	242	-	-	-	2.1	0.7	-	2.7	40.9	5.3	0.7	6.0
4/1	267	267	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	327	327	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	260	260	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
Ped Link: P2	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
Ped Link: P3	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
Ped Link: P4	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
C1			PRC for Signalled Lanes (%):		54.5	Total Delay for Signalled Lanes (pcuHr):		8.36	Cycle Time (s):		90		
			PRC Over All Lanes (%):		54.5	Total Delay Over All Lanes(pcuHr):		8.36					

Full Input Data And Results

Scenario 9: '2018 AM B+1' (FG9: 'AM 2018 Base + 1', Plan 1: 'Network Control Plan 1')

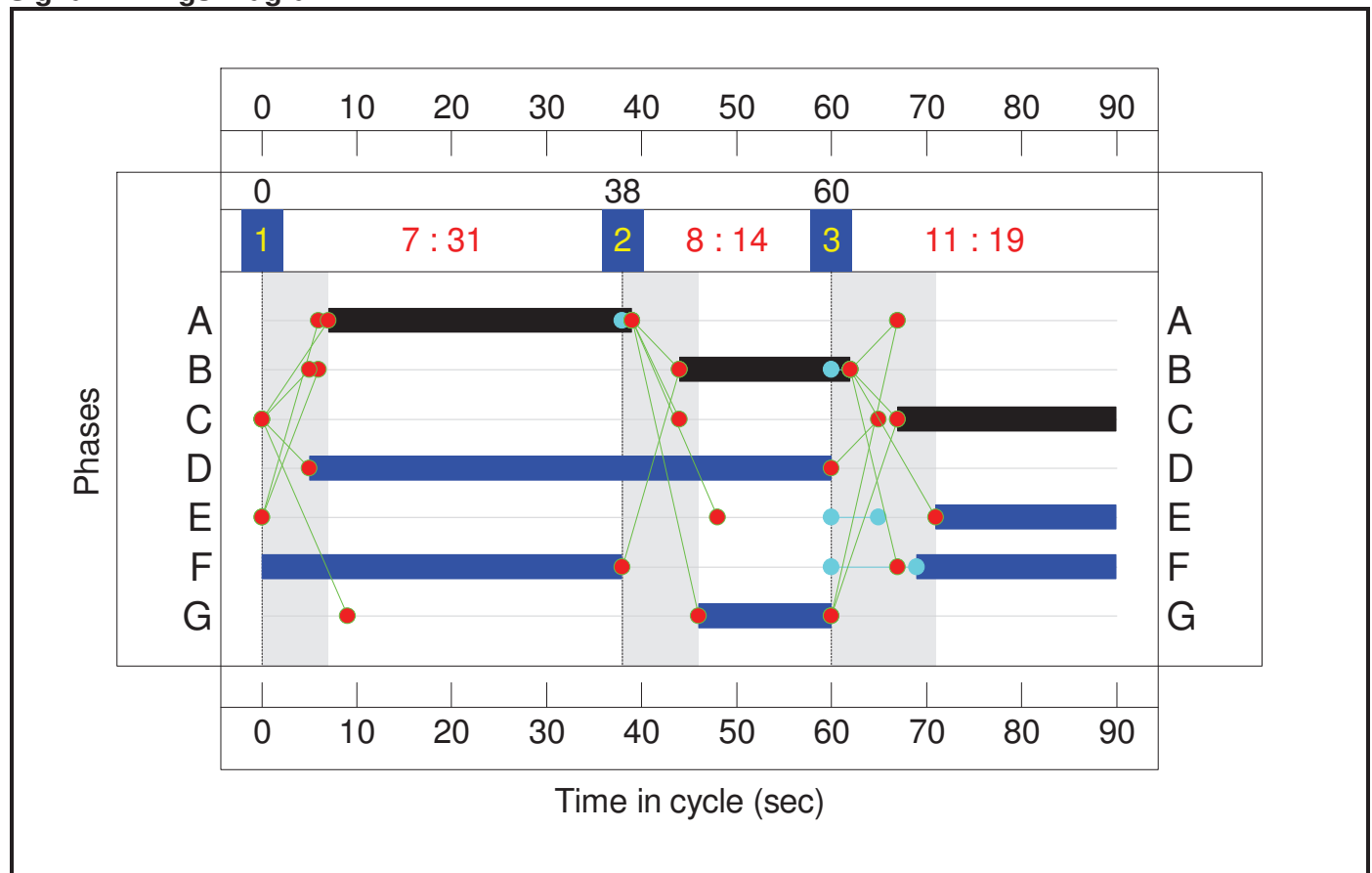
Stage Sequence Diagram



Stage Timings

Stage	1	2	3
Duration	31	14	19
Change Point	0	38	60

Signal Timings 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	-	-		-	-	-	-	-	-	75.2%
A495 / Canal Way	-	-	N/A	-	-		-	-	-	-	-	-	75.2%
1/1	A495 Ahead Right	U	N/A	N/A	C		1	23	-	362	1871	499	72.6%
2/1	A495 Scotland Street Ahead Left	U	N/A	N/A	A		1	32	-	477	1730	634	75.2%
3/1	Canal Way Left Right	U	N/A	N/A	B		1	18	-	271	1794	379	71.6%
4/1		U	N/A	N/A	-		-	-	-	457	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	452	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	201	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	D		1	55	-	0	-	44000	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	E		1	19	-	0	-	15200	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	F		1	59	-	0	-	47200	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	G		1	14	-	0	-	11200	0.0%

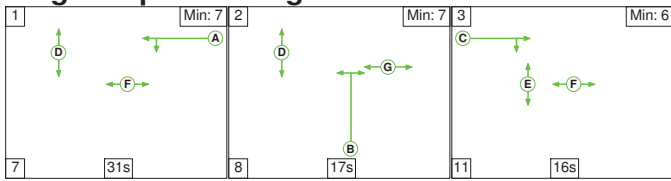
Full Input Data And Results

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	-	-	0	0	0	8.8	4.0	0.0	12.8	-	-	-	-
A495 / Canal Way	-	-	0	0	0	8.8	4.0	0.0	12.8	-	-	-	-
1/1	362	362	-	-	-	3.0	1.3	-	4.3	42.9	8.1	1.3	9.4
2/1	477	477	-	-	-	3.3	1.5	-	4.8	36.2	10.3	1.5	11.8
3/1	271	271	-	-	-	2.5	1.2	-	3.7	49.3	6.2	1.2	7.5
4/1	457	457	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	452	452	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	201	201	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
Ped Link: P2	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
Ped Link: P3	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
Ped Link: P4	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
C1			PRC for Signalled Lanes (%):		19.7	Total Delay for Signalled Lanes (pcuHr):		12.82	Cycle Time (s):		90		
			PRC Over All Lanes (%):		19.7	Total Delay Over All Lanes(pcuHr):		12.82					

Full Input Data And Results

Scenario 10: '2018 PM B+1' (FG10: 'PM 2018 B+1', Plan 1: 'Network Control Plan 1')

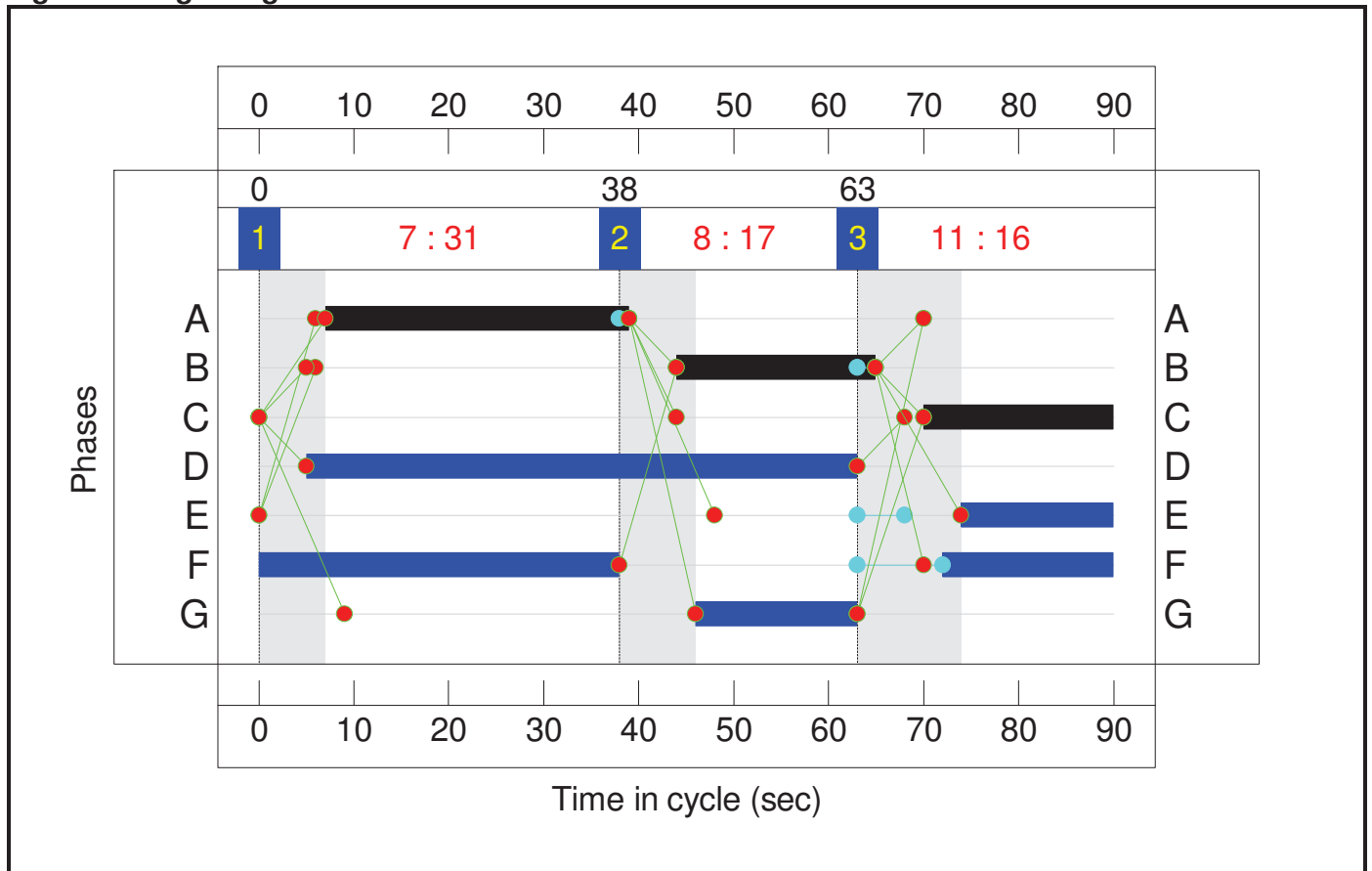
Stage Sequence Diagram



Stage Timings

Stage	1	2	3
Duration	31	17	16
Change Point	0	38	63

Signal Timings 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	-	-		-	-	-	-	-	-	88.4%
A495 / Canal Way	-	-	N/A	-	-		-	-	-	-	-	-	88.4%
1/1	A495 Ahead Right	U	N/A	N/A	C		1	20	-	381	1880	439	86.9%
2/1	A495 Scotland Street Ahead Left	U	N/A	N/A	A		1	32	-	547	1688	619	88.4%
3/1	Canal Way Left Right	U	N/A	N/A	B		1	21	-	365	1769	432	84.4%
4/1		U	N/A	N/A	-		-	-	-	370	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	530	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	393	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	D		1	58	-	0	-	46400	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	E		1	16	-	0	-	12800	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	F		1	56	-	0	-	44800	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	G		1	17	-	0	-	13600	0.0%

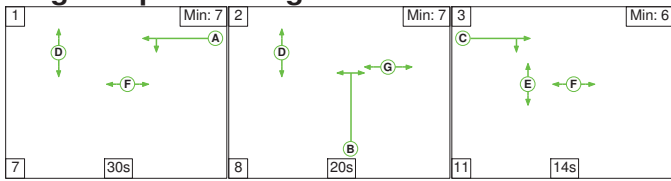
Full Input Data And Results

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	-	-	0	0	0	10.9	9.0	0.0	19.8	-	-	-	-
A495 / Canal Way	-	-	0	0	0	10.9	9.0	0.0	19.8	-	-	-	-
1/1	381	381	-	-	-	3.5	3.0	-	6.5	61.5	9.1	3.0	12.1
2/1	547	547	-	-	-	4.1	3.5	-	7.5	49.5	12.8	3.5	16.2
3/1	365	365	-	-	-	3.3	2.5	-	5.8	57.2	8.6	2.5	11.1
4/1	370	370	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	530	530	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	393	393	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
Ped Link: P2	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
Ped Link: P3	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
Ped Link: P4	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
C1			PRC for Signalled Lanes (%):		1.8	Total Delay for Signalled Lanes (pcuHr):		19.83	Cycle Time (s):		90		
			PRC Over All Lanes (%):		1.8	Total Delay Over All Lanes(pcuHr):		19.83					

Full Input Data And Results

Scenario 11: '2018 Sat B+ 1' (FG11: 'Sat 2018 B+ 1', Plan 1: 'Network Control Plan 1')

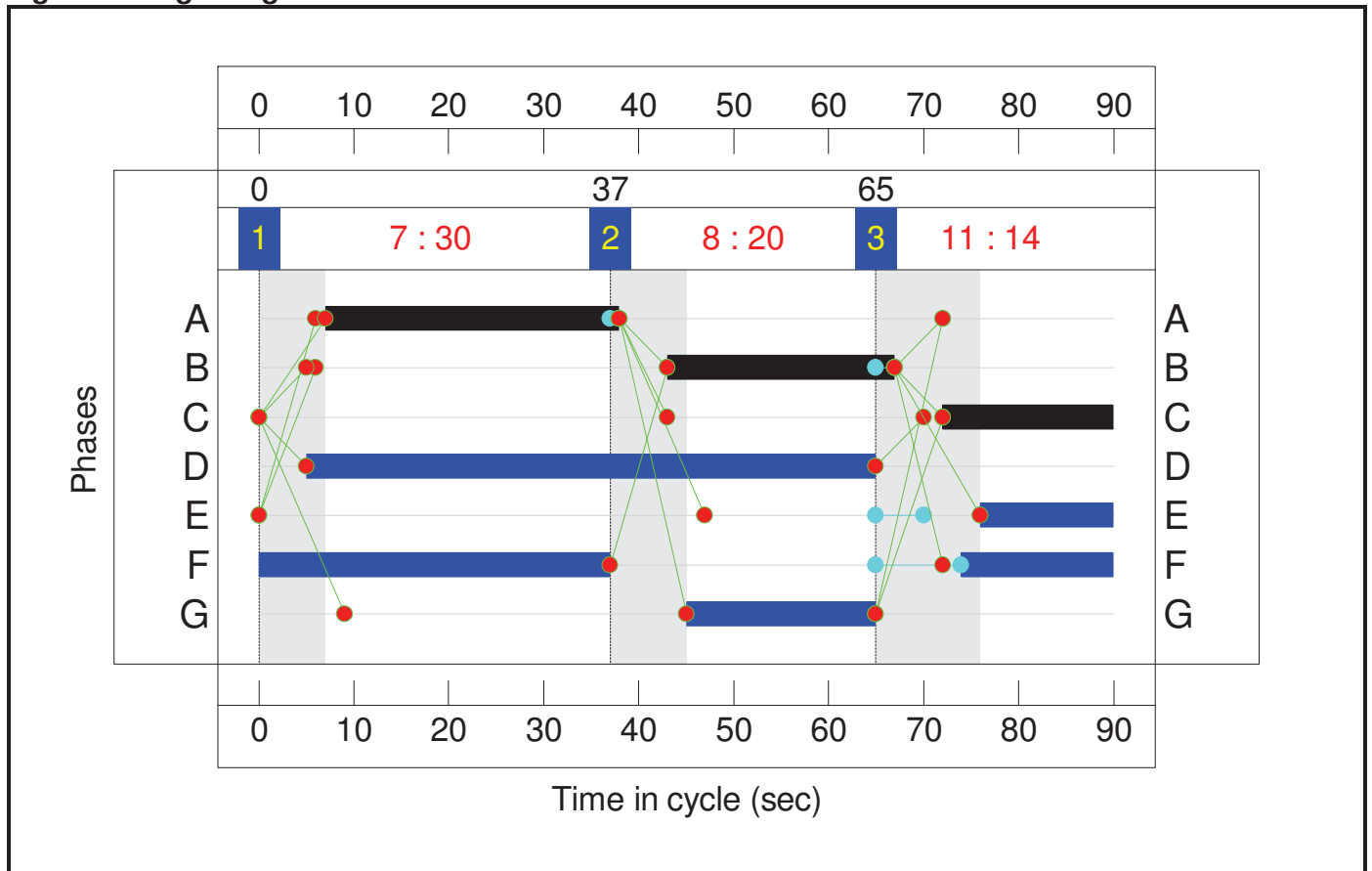
Stage Sequence Diagram



Stage Timings

Stage	1	2	3
Duration	30	20	14
Change Point	0	37	65

Signal Timings 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	-	-		-	-	-	-	-	-	72.0%
A495 / Canal Way	-	-	N/A	-	-		-	-	-	-	-	-	72.0%
1/1	A495 Ahead Right	U	N/A	N/A	C		1	18	-	281	1882	397	70.7%
2/1	A495 Scotland Street Ahead Left	U	N/A	N/A	A		1	31	-	419	1667	593	70.7%
3/1	Canal Way Left Right	U	N/A	N/A	B		1	24	-	354	1771	492	72.0%
4/1		U	N/A	N/A	-		-	-	-	259	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	442	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	353	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	D		1	60	-	0	-	48000	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	E		1	14	-	0	-	11200	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	F		1	53	-	0	-	42400	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	G		1	20	-	0	-	16000	0.0%

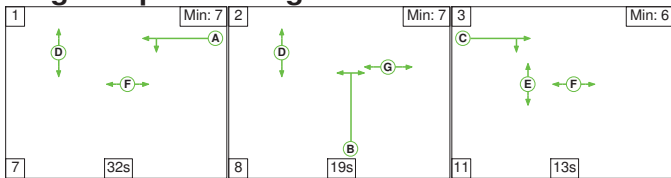
Full Input Data And Results

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	-	-	0	0	0	8.4	3.6	0.0	12.0	-	-	-	-
A495 / Canal Way	-	-	0	0	0	8.4	3.6	0.0	12.0	-	-	-	-
1/1	281	281	-	-	-	2.6	1.2	-	3.8	48.1	6.5	1.2	7.7
2/1	419	419	-	-	-	2.9	1.2	-	4.1	35.2	9.0	1.2	10.2
3/1	354	354	-	-	-	2.9	1.3	-	4.1	42.2	8.0	1.3	9.2
4/1	259	259	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	442	442	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	353	353	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
Ped Link: P2	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
Ped Link: P3	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
Ped Link: P4	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
C1			PRC for Signalled Lanes (%):		25.1	Total Delay for Signalled Lanes (pcuHr):		12.00	Cycle Time (s):		90		
			PRC Over All Lanes (%):		25.1	Total Delay Over All Lanes(pcuHr):		12.00					

Full Input Data And Results

Scenario 12: '2018 Sun B+1' (FG12: 'Sun 2018 B+ 1', Plan 1: 'Network Control Plan 1')

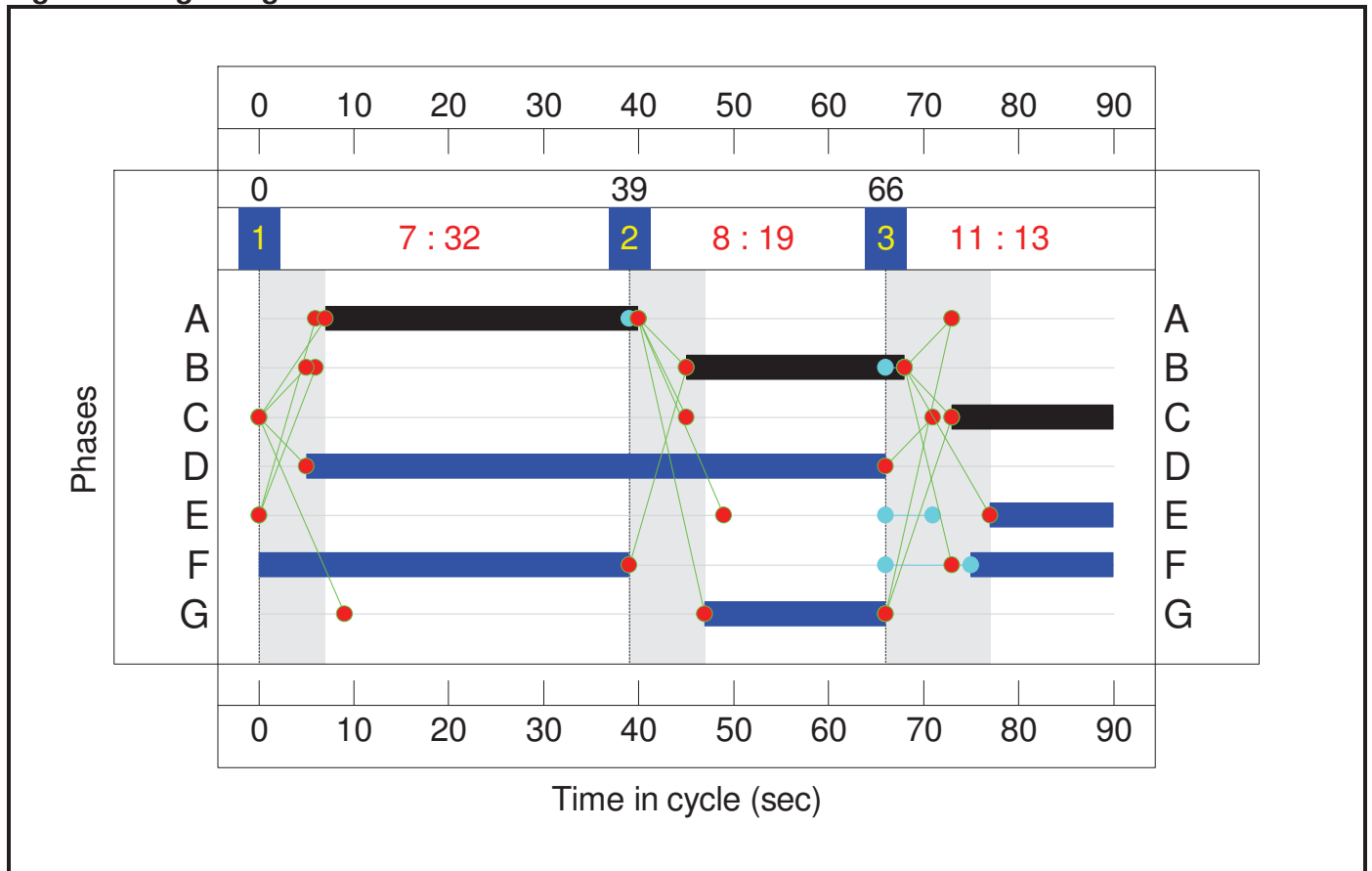
Stage Sequence Diagram



Stage Timings

Stage	1	2	3
Duration	32	19	13
Change Point	0	39	66

Signal Timings 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	-	-		-	-	-	-	-	-	67.5%
A495 / Canal Way	-	-	N/A	-	-		-	-	-	-	-	-	67.5%
1/1	A495 Ahead Right	U	N/A	N/A	C		1	17	-	254	1882	376	67.5%
2/1	A495 Scotland Street Ahead Left	U	N/A	N/A	A		1	33	-	417	1673	632	66.0%
3/1	Canal Way Left Right	U	N/A	N/A	B		1	23	-	311	1781	475	65.5%
4/1		U	N/A	N/A	-		-	-	-	281	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	373	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	328	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	D		1	61	-	0	-	48800	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	E		1	13	-	0	-	10400	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	F		1	54	-	0	-	43200	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	G		1	19	-	0	-	15200	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	-	-	0	0	0	7.6	2.9	0.0	10.5	-	-	-	-
A495 / Canal Way	-	-	0	0	0	7.6	2.9	0.0	10.5	-	-	-	-
1/1	254	254	-	-	-	2.3	1.0	-	3.4	47.8	5.9	1.0	6.9
2/1	417	417	-	-	-	2.7	1.0	-	3.6	31.5	8.6	1.0	9.5
3/1	311	311	-	-	-	2.5	0.9	-	3.5	40.2	6.8	0.9	7.8
4/1	281	281	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	373	373	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	328	328	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
Ped Link: P2	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
Ped Link: P3	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
Ped Link: P4	0	0	-	-	-	-	-	-	0.0	0.0	-	-	0.0
C1			PRC for Signalled Lanes (%):		33.4	Total Delay for Signalled Lanes (pcuHr):		10.49	Cycle Time (s):		90		
			PRC Over All Lanes (%):		33.4	Total Delay Over All Lanes(pcuHr):		10.49					

Main results: (17:00-17:15)

Arm	Demand (PCU/hr)	Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)
Ellesmere Business Park	26.97	6.74	26.99	23.39	285.20	0.00	1459.34	557.65	0.018	0.03	0.02
A495 (E)	293.07	73.27	293.34	306.79	5.40	0.00	1584.35	1518.43	0.185	0.31	0.24
A495 (W)	288.57	72.14	288.80	278.94	19.80	0.00	1765.73	1707.42	0.163	0.26	0.20

Main results: (17:15-17:30)

Arm	Demand (PCU/hr)	Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)
Ellesmere Business Park	22.59	5.65	22.60	19.59	238.81	0.00	1489.23	557.65	0.015	0.02	0.02
A495 (E)	245.43	61.36	245.62	256.89	4.52	0.00	1584.89	1518.43	0.155	0.24	0.19
A495 (W)	241.67	60.42	241.82	233.56	16.58	0.00	1768.00	1707.42	0.137	0.20	0.17

Queueing Delay Results

Queueing Delay results: (16:00-16:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Ellesmere Business Park	0.26	0.02	0.046	A	A
A495 (E)	2.84	0.19	0.047	A	A
A495 (W)	2.43	0.16	0.041	A	A

Queueing Delay results: (16:15-16:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Ellesmere Business Park	0.31	0.02	0.047	A	A
A495 (E)	3.54	0.24	0.049	A	A
A495 (W)	3.01	0.20	0.042	A	A

Queueing Delay results: (16:30-16:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Ellesmere Business Park	0.40	0.03	0.049	A	A
A495 (E)	4.56	0.30	0.052	A	A
A495 (W)	3.85	0.26	0.044	A	A

Queueing Delay results: (16:45-17:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Ellesmere Business Park	0.40	0.03	0.049	A	A
A495 (E)	4.62	0.31	0.052	A	A
A495 (W)	3.90	0.26	0.044	A	A

Queueing Delay results: (17:00-17:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Ellesmere Business Park	0.32	0.02	0.047	A	A
A495 (E)	3.65	0.24	0.049	A	A

A495 (W)	3.09	0.21	0.042	A	A
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Queueing Delay results: (17:15-17:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Ellesmere Business Park	0.26	0.02	0.046	A	A
A495 (E)	2.95	0.20	0.047	A	A
A495 (W)	2.50	0.17	0.041	A	A

Overview: Standard Roundabout Geometry

Standard Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only	Final Slope	Final Intercept (PCU/hr)
Ellesmere Business Park	4.12	6.20	9.70	12.06	34.84	17.00		0.644	1643.077
A495 (E)	3.29	6.76	16.80	43.02	34.84	45.00		0.621	1587.699
A495 (W)	3.49	7.15	10.70	177.68	34.84	7.50		0.705	1779.687

Overview: Time Segment Results

Time Segment Results

Time Segment	Arm	Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Pedestrian Demand (Ped/hr)	Start Queue (PCU)	End Queue (PCU)	Queueing Total Delay (PCU-min)	Geometric Total Delay (PCU-min)	Average Delay Per Arriving Vehicle (min)
1	Ellesmere Business Park	22.59	1489.74	0.015	0.00	0.00	0.02	0.26	(0.02)	0.046
1	A495 (E)	245.43	1584.90	0.155	0.00	0.00	0.19	2.84	(0.02)	0.047
1	A495 (W)	241.67	1768.04	0.137	0.00	0.00	0.16	2.43	(0.02)	0.041
2	Ellesmere Business Park	26.97	1459.58	0.018	0.00	0.02	0.02	0.31	(0.02)	0.047
2	A495 (E)	293.07	1584.35	0.185	0.00	0.19	0.24	3.54	(0.02)	0.049
2	A495 (W)	288.57	1765.75	0.163	0.00	0.16	0.20	3.01	(0.02)	0.042
3	Ellesmere Business Park	33.03	1418.37	0.023	0.00	0.02	0.03	0.40	(0.02)	0.049
3	A495 (E)	358.93	1583.60	0.227	0.00	0.24	0.31	4.56	(0.02)	0.052
3	A495 (W)	353.43	1762.62	0.201	0.00	0.20	0.26	3.85	(0.02)	0.044
4	Ellesmere Business Park	33.03	1418.22	0.023	0.00	0.03	0.03	0.40	(0.02)	0.049
4	A495 (E)	358.93	1583.60	0.227	0.00	0.31	0.31	4.62	(0.02)	0.052
4	A495 (W)	353.43	1762.60	0.201	0.00	0.26	0.26	3.90	(0.02)	0.044
5	Ellesmere Business Park	26.97	1459.34	0.018	0.00	0.03	0.02	0.32	(0.02)	0.047
5	A495 (E)	293.07	1584.35	0.185	0.00	0.31	0.24	3.65	(0.02)	0.049
5	A495 (W)	288.57	1765.73	0.163	0.00	0.26	0.20	3.09	(0.02)	0.042
6	Ellesmere Business Park	22.59	1489.23	0.015	0.00	0.02	0.02	0.26	(0.02)	0.046
6	A495 (E)	245.43	1584.89	0.155	0.00	0.24	0.19	2.95	(0.02)	0.047
6	A495 (W)	241.67	1768.00	0.137	0.00	0.20	0.17	2.50	(0.02)	0.041

A1 - (Default Analysis Set) - D8 - 2018 Base + Phase 1, Saturday

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Description	Include In Report	Use Specific Demand Set	Demand Set	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)		Yes		(D1)		100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Locked	Run Automatically	Use Relationship	Relationship	Start Time (HH:mm)	Finish Time (HH:mm)	Time Period Length (min)	Time Segment Length (min)	Traffic Profile Type
2018 Base + Phase 1, Saturday	2018 Base + Phase 1	Saturday			Yes			12:00	13:30	90	15	ONE HOUR

Roundabout Network

Roundabout Type(s)

ID	Name	Arm Order	Roundabout Type	Grade Separated	Large Roundabout	Do Geometric Delay
1	(untitled)	1,2,3	Standard			

Roundabout Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	((Mini-roundabouts only))	

Arms

Arms

ID	Name	Description
1	Ellesmere Business Park	
2	A495 (E)	
3	A495 (W)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
Ellesmere Business Park	0.00	99999.00		0.00
A495 (E)	0.00	99999.00		0.00
A495 (W)	0.00	99999.00		0.00

Standard Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	F - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
Ellesmere Business Park	4.12	6.20	9.70	12.06	34.84	17.00	

A495 (E)	3.29	6.76	16.80	43.02	34.84	45.00	
A495 (W)	3.49	7.15	10.70	177.68	34.84	7.50	

Pedestrian Crossings

Arm	Crossing Type
Ellesmere Business Park	None
A495 (E)	None
A495 (W)	None

Arm Slope/ Intercept and Capacity

Slope and Intercept used in model

Arm	Enter Directly	Slope	Intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
Ellesmere Business Park		((calculated))	((calculated))	0.644	1643.077
A495 (E)		((calculated))	((calculated))	0.621	1587.699
A495 (W)		((calculated))	((calculated))	0.705	1779.687

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		Yes	Yes	HV Percentages	2.00				Yes	Yes

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)	PHF
Ellesmere Business Park	ONE HOUR	Yes	0.00	100.000	N/A
A495 (E)	ONE HOUR	Yes	257.00	100.000	N/A
A495 (W)	ONE HOUR	Yes	276.00	100.000	N/A

Direct/Resultant Flows

Direct Flows Data

Time Segment	Arm	Direct Demand Entry Flow (PCU/hr)	DirectDemandEntryFlowInPCU (PCU/hr)	Direct Demand Exit Flow (PCU/hr)	Direct Demand Pedestrian Flow (Ped/hr)
1	Ellesmere Business Park	0.00	0.00	N/A	N/A
1	A495 (E)	193.48	193.48	N/A	N/A
1	A495 (W)	207.79	207.79	N/A	N/A
2	Ellesmere Business Park	0.00	0.00	N/A	N/A
2	A495 (E)	231.04	231.04	N/A	N/A
2	A495 (W)	248.12	248.12	N/A	N/A
3	Ellesmere Business Park	0.00	0.00	N/A	N/A
3	A495 (E)	282.96	282.96	N/A	N/A
3	A495 (W)	303.88	303.88	N/A	N/A

4	Ellesmere Business Park	0.00	0.00	N/A	N/A
4	A495 (E)	282.96	282.96	N/A	N/A
4	A495 (W)	303.88	303.88	N/A	N/A
5	Ellesmere Business Park	0.00	0.00	N/A	N/A
5	A495 (E)	231.04	231.04	N/A	N/A
5	A495 (W)	248.12	248.12	N/A	N/A
6	Ellesmere Business Park	0.00	0.00	N/A	N/A
6	A495 (E)	193.48	193.48	N/A	N/A
6	A495 (W)	207.79	207.79	N/A	N/A

Turning Proportions

Turning Counts or Proportions (PCU/hr) - (untitled) (for whole period)

		To		
		1	2	3
From	1	0.000	0.000	0.000
	2	0.000	0.000	257.000
	3	0.000	276.000	0.000

Turning Proportions (PCU) - (untitled) (for whole period)

		To		
		1	2	3
From	1	0.33	0.33	0.33
	2	0.00	0.00	1.00
	3	0.00	1.00	0.00

Vehicle Mix

Average PCU Per Vehicle - (untitled) (for whole period)

		To		
		1	2	3
From	1	1.000	1.167	1.000
	2	1.250	1.000	1.045
	3	1.333	1.036	1.000

Heavy Vehicle Percentages - (untitled) (for whole period)

		To		
		1	2	3
From	1	0.000	16.670	0.000
	2	25.000	0.000	4.490
	3	33.330	3.610	0.000

Results

Results Summary

Arm	Max RFC	Max Delay (min)	Max Queue (PCU)	Max LOS	Total Demand (PCU/hr)	Total Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (min)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Queueing Total Delay (PCU-min)	Inclusive Queueing Average Delay (min)	Slope	Intercept (PCU/hr)
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Ellesmere Business Park	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	166666666.65	0.644	1643.077
A495 (E)	0.18	0.05	0.23	A	235.83	353.74	16.42	0.05	0.18	16.42	0.05	0.621	1587.699
A495 (W)	0.17	0.04	0.21	A	253.26	379.89	15.49	0.04	0.17	15.49	0.04	0.705	1779.687

Main Results

Main results: (12:00-12:15)

Arm	Demand (PCU/hr)	Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)
Ellesmere Business Park	0.00	0.00	0.00	0.00	207.24	0.00	1509.56	585.16	0.000	0.00	0.00
A495 (E)	193.48	48.37	192.91	207.24	0.00	0.00	1587.70	1345.41	0.122	0.00	0.14
A495 (W)	207.79	51.95	207.24	192.91	0.00	0.00	1779.69	1642.12	0.117	0.00	0.14

Main results: (12:15-12:30)

Arm	Demand (PCU/hr)	Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)
Ellesmere Business Park	0.00	0.00	0.00	0.00	248.00	0.00	1483.31	585.16	0.000	0.00	0.00
A495 (E)	231.04	57.76	230.91	248.00	0.00	0.00	1587.70	1345.41	0.146	0.14	0.18
A495 (W)	248.12	62.03	248.00	230.91	0.00	0.00	1779.69	1642.12	0.139	0.14	0.17

Main results: (12:30-12:45)

Arm	Demand (PCU/hr)	Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)
Ellesmere Business Park	0.00	0.00	0.00	0.00	303.70	0.00	1447.42	585.17	0.000	0.00	0.00
A495 (E)	282.96	70.74	282.77	303.70	0.00	0.00	1587.70	1345.40	0.178	0.18	0.23
A495 (W)	303.88	75.97	303.70	282.77	0.00	0.00	1779.69	1642.12	0.171	0.17	0.21

Main results: (12:45-13:00)

Arm	Demand (PCU/hr)	Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)
Ellesmere Business Park	0.00	0.00	0.00	0.00	303.88	0.00	1447.31	585.17	0.000	0.00	0.00
A495 (E)	282.96	70.74	282.96	303.88	0.00	0.00	1587.70	1345.40	0.178	0.23	0.23
A495 (W)	303.88	75.97	303.88	282.96	0.00	0.00	1779.69	1642.12	0.171	0.21	0.21

Main results: (13:00-13:15)

Arm	Demand (PCU/hr)	Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)
Ellesmere Business Park	0.00	0.00	0.00	0.00	248.30	0.00	1483.11	585.16	0.000	0.00	0.00
A495 (E)	231.04	57.76	231.23	248.30	0.00	0.00	1587.70	1345.41	0.146	0.23	0.18
A495 (W)	248.12	62.03	248.30	231.23	0.00	0.00	1779.69	1642.12	0.139	0.21	0.17

Main results: (13:15-13:30)

Arm	Demand (PCU/hr)	Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)
Ellesmere Business Park	0.00	0.00	0.00	0.00	248.30	0.00	1483.11	585.16	0.000	0.00	0.00
A495 (E)	231.04	57.76	231.23	248.30	0.00	0.00	1587.70	1345.41	0.146	0.23	0.18
A495 (W)	248.12	62.03	248.30	231.23	0.00	0.00	1779.69	1642.12	0.139	0.21	0.17

	(PCU)	(PCU)	(PCU)	(PCU)	(PCU)	(PCU/m)	(PCU/m)	(PCU)	(PCU)	(PCU)	(PCU)
Ellesmere Business Park	0.00	0.00	0.00	0.00	207.91	0.00	1509.13	585.16	0.000	0.00	0.00
A495 (E)	193.48	48.37	193.62	207.91	0.00	0.00	1587.70	1345.41	0.122	0.18	0.15
A495 (W)	207.79	51.95	207.91	193.62	0.00	0.00	1779.69	1642.12	0.117	0.17	0.14

Queueing Delay Results

Queueing Delay results: (12:00-12:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Ellesmere Business Park	0.00	0.00	0.000	A	A
A495 (E)	2.13	0.14	0.045	A	A
A495 (W)	2.02	0.13	0.040	A	A

Queueing Delay results: (12:15-12:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Ellesmere Business Park	0.00	0.00	0.000	A	A
A495 (E)	2.63	0.18	0.046	A	A
A495 (W)	2.49	0.17	0.041	A	A

Queueing Delay results: (12:30-12:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Ellesmere Business Park	0.00	0.00	0.000	A	A
A495 (E)	3.35	0.22	0.048	A	A
A495 (W)	3.15	0.21	0.042	A	A

Queueing Delay results: (12:45-13:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Ellesmere Business Park	0.00	0.00	0.000	A	A
A495 (E)	3.39	0.23	0.048	A	A
A495 (W)	3.19	0.21	0.042	A	A

Queueing Delay results: (13:00-13:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Ellesmere Business Park	0.00	0.00	0.000	A	A
A495 (E)	2.71	0.18	0.046	A	A
A495 (W)	2.55	0.17	0.041	A	A

Queueing Delay results: (13:15-13:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Ellesmere Business Park	0.00	0.00	0.000	A	A
A495 (E)	2.21	0.15	0.045	A	A
A495 (W)	2.08	0.14	0.040	A	A

Overview: Standard Roundabout Geometry

Standard Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only	Final Slope	Final Intercept (PCU/hr)
Ellesmere Business Park	4.12	6.20	9.70	12.06	34.84	17.00		0.644	1643.077
A495 (E)	3.29	6.76	16.80	43.02	34.84	45.00		0.621	1587.699
A495 (W)	3.49	7.15	10.70	177.68	34.84	7.50		0.705	1779.687

Overview: Time Segment Results

Time Segment Results

Time Segment	Arm	Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Pedestrian Demand (Ped/hr)	Start Queue (PCU)	End Queue (PCU)	Queueing Total Delay (PCU-min)	Geometric Total Delay (PCU-min)	Average Delay Per Arriving Vehicle (min)
1	Ellesmere Business Park	0.00	1509.56	0.000	0.00	0.00	0.00	0.00	(0.02)	0.000
1	A495 (E)	193.48	1587.70	0.122	0.00	0.00	0.14	2.13	(0.02)	0.045
1	A495 (W)	207.79	1779.69	0.117	0.00	0.00	0.14	2.02	(0.02)	0.040
2	Ellesmere Business Park	0.00	1483.31	0.000	0.00	0.00	0.00	0.00	(0.02)	0.000
2	A495 (E)	231.04	1587.70	0.146	0.00	0.14	0.18	2.63	(0.02)	0.046
2	A495 (W)	248.12	1779.69	0.139	0.00	0.14	0.17	2.49	(0.02)	0.041
3	Ellesmere Business Park	0.00	1447.42	0.000	0.00	0.00	0.00	0.00	(0.02)	0.000
3	A495 (E)	282.96	1587.70	0.178	0.00	0.18	0.23	3.35	(0.02)	0.048
3	A495 (W)	303.88	1779.69	0.171	0.00	0.17	0.21	3.15	(0.02)	0.042
4	Ellesmere Business Park	0.00	1447.31	0.000	0.00	0.00	0.00	0.00	(0.02)	0.000
4	A495 (E)	282.96	1587.70	0.178	0.00	0.23	0.23	3.39	(0.02)	0.048
4	A495 (W)	303.88	1779.69	0.171	0.00	0.21	0.21	3.19	(0.02)	0.042
5	Ellesmere Business Park	0.00	1483.11	0.000	0.00	0.00	0.00	0.00	(0.02)	0.000
5	A495 (E)	231.04	1587.70	0.146	0.00	0.23	0.18	2.71	(0.02)	0.046
5	A495 (W)	248.12	1779.69	0.139	0.00	0.21	0.17	2.55	(0.02)	0.041
6	Ellesmere Business Park	0.00	1509.13	0.000	0.00	0.00	0.00	0.00	(0.02)	0.000
6	A495 (E)	193.48	1587.70	0.122	0.00	0.18	0.15	2.21	(0.02)	0.045
6	A495 (W)	207.79	1779.69	0.117	0.00	0.17	0.14	2.08	(0.02)	0.040

A1 - (Default Analysis Set) - D9 - 2018 Base + Phase 1, Sunday

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Description	Include In Report	Use Specific Demand Set	Demand Set	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)		Yes		(D1)		100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Locked	Run Automatically	Use Relationship	Relationship	Start Time (HH:mm)	Finish Time (HH:mm)	Time Period Length (min)	Time Segment Length (min)	Traffic Profile Type
2018 Base + Phase 1, Sunday	2018 Base + Phase 1	Sunday			Yes			12:00	13:30	90	15	ONE HOUR

Roundabout Network

Roundabout Type(s)

ID	Name	Arm Order	Roundabout Type	Grade Separated	Large Roundabout	Do Geometric Delay
1	(untitled)	1,2,3	Standard			

Roundabout Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	((Mini-roundabouts only))	

Arms

Arms

ID	Name	Description
1	Ellesmere Business Park	
2	A495 (E)	
3	A495 (W)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
Ellesmere Business Park	0.00	99999.00		0.00
A495 (E)	0.00	99999.00		0.00
A495 (W)	0.00	99999.00		0.00

Standard Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
Ellesmere Business Park	4.12	6.20	9.70	12.06	34.84	17.00	
A495 (E)	3.29	6.76	16.80	43.02	34.84	45.00	
A495 (W)	3.49	7.15	10.70	177.68	34.84	7.50	

Pedestrian Crossings

Arm	Crossing Type
Ellesmere Business Park	None
A495 (E)	None
A495 (W)	None

Arm Slope/ Intercept and Capacity

Slope and Intercept used in model

Arm	Enter Directly	Slope	Intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
Ellesmere Business Park		((calculated))	((calculated))	0.644	1643.077
A495 (E)		((calculated))	((calculated))	0.621	1587.699
A495 (W)		((calculated))	((calculated))	0.705	1779.687

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		Yes	Yes	HV Percentages	2.00				Yes	Yes

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)	PHF
Ellesmere Business Park	ONE HOUR	Yes	0.00	100.000	N/A
A495 (E)	ONE HOUR	Yes	281.00	100.000	N/A
A495 (W)	ONE HOUR	Yes	259.00	100.000	N/A

Direct/Resultant Flows

Direct Flows Data

Time Segment	Arm	Direct Demand Entry Flow (PCU/hr)	DirectDemandEntryFlowInPCU (PCU/hr)	Direct Demand Exit Flow (PCU/hr)	Direct Demand Pedestrian Flow (Ped/hr)
1	Ellesmere Business Park	0.00	0.00	N/A	N/A
1	A495 (E)	211.55	211.55	N/A	N/A
1	A495 (W)	194.99	194.99	N/A	N/A
2	Ellesmere Business Park	0.00	0.00	N/A	N/A
2	A495 (E)	252.61	252.61	N/A	N/A
2	A495 (W)	232.84	232.84	N/A	N/A
3	Ellesmere Business Park	0.00	0.00	N/A	N/A
3	A495 (E)	309.39	309.39	N/A	N/A
3	A495 (W)	285.16	285.16	N/A	N/A
4	Ellesmere Business Park	0.00	0.00	N/A	N/A
4	A495 (E)	309.39	309.39	N/A	N/A
4	A495 (W)	285.16	285.16	N/A	N/A
5	Ellesmere Business Park	0.00	0.00	N/A	N/A
5	A495 (E)	252.61	252.61	N/A	N/A
5	A495 (W)	232.84	232.84	N/A	N/A
6	Ellesmere Business Park	0.00	0.00	N/A	N/A
6	A495 (E)	211.55	211.55	N/A	N/A

From	To	1	2	3
6	A495 (W)	194.99	194.99	N/A

Turning Proportions

Turning Counts or Proportions (PCU/hr) - (untitled) (for whole period)

From	To		
	1	2	3
1	0.000	0.000	0.000
2	0.000	0.000	281.000
3	0.000	259.000	0.000

Turning Proportions (PCU) - (untitled) (for whole period)

From	To		
	1	2	3
1	0.33	0.33	0.33
2	0.00	0.00	1.00
3	0.00	1.00	0.00

Vehicle Mix

Average PCU Per Vehicle - (untitled) (for whole period)

From	To		
	1	2	3
1	1.000	1.167	1.000
2	1.250	1.000	1.045
3	1.333	1.036	1.000

Heavy Vehicle Percentages - (untitled) (for whole period)

From	To		
	1	2	3
1	0.000	16.670	0.000
2	25.000	0.000	4.490
3	33.330	3.610	0.000

Results

Results Summary

Arm	Max RFC	Max Delay (min)	Max Queue (PCU)	Max LOS	Total Demand (PCU/hr)	Total Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (min)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Queueing Total Delay (PCU-min)	Inclusive Queueing Average Delay (min)	Slope	Intercept (PCU/hr)
Ellesmere Business Park	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	166666666.65	0.644	1643.077
A495 (E)	0.19	0.05	0.25	A	257.85	386.78	18.26	0.05	0.20	18.26	0.05	0.621	1587.699
A495 (W)	0.16	0.04	0.20	A	237.66	356.49	14.38	0.04	0.16	14.38	0.04	0.705	1779.687

Main Results

Main results: (12:00-12:15)

Arm	Demand (PCU/hr)	Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand	Capacity (PCU/hr)	Saturation Capacity	RFC	Start Queue (PCU)	End Queue (PCU)
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						(Ped/hr)		(PCU/hr)		(PCU)	(PCU)
Ellesmere Business Park	0.00	0.00	0.00	0.00	194.48	0.00	1517.79	585.16	0.000	0.00	0.00
A495 (E)	211.55	52.89	210.91	194.48	0.00	0.00	1587.70	1345.41	0.133	0.00	0.16
A495 (W)	194.99	48.75	194.48	210.91	0.00	0.00	1779.69	1642.12	0.110	0.00	0.13

Main results: (12:15-12:30)

Arm	Demand (PCU/hr)	Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)
Ellesmere Business Park	0.00	0.00	0.00	0.00	232.72	0.00	1493.15	585.16	0.000	0.00	0.00
A495 (E)	252.61	63.15	252.47	232.72	0.00	0.00	1587.70	1345.41	0.159	0.16	0.20
A495 (W)	232.84	58.21	232.72	252.47	0.00	0.00	1779.69	1642.12	0.131	0.13	0.16

Main results: (12:30-12:45)

Arm	Demand (PCU/hr)	Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)
Ellesmere Business Park	0.00	0.00	0.00	0.00	285.00	0.00	1459.47	585.16	0.000	0.00	0.00
A495 (E)	309.39	77.35	309.17	285.00	0.00	0.00	1587.70	1345.41	0.195	0.20	0.25
A495 (W)	285.16	71.29	285.00	309.17	0.00	0.00	1779.69	1642.12	0.160	0.16	0.20

Main results: (12:45-13:00)

Arm	Demand (PCU/hr)	Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)
Ellesmere Business Park	0.00	0.00	0.00	0.00	285.16	0.00	1459.36	585.16	0.000	0.00	0.00
A495 (E)	309.39	77.35	309.38	285.16	0.00	0.00	1587.70	1345.41	0.195	0.25	0.25
A495 (W)	285.16	71.29	285.16	309.38	0.00	0.00	1779.69	1642.12	0.160	0.20	0.20

Main results: (13:00-13:15)

Arm	Demand (PCU/hr)	Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)
Ellesmere Business Park	0.00	0.00	0.00	0.00	233.00	0.00	1492.97	585.16	0.000	0.00	0.00
A495 (E)	252.61	63.15	252.83	233.00	0.00	0.00	1587.70	1345.41	0.159	0.25	0.20
A495 (W)	232.84	58.21	233.00	252.83	0.00	0.00	1779.69	1642.12	0.131	0.20	0.16

Main results: (13:15-13:30)

Arm	Demand (PCU/hr)	Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)
Ellesmere Business Park	0.00	0.00	0.00	0.00	195.10	0.00	1517.38	585.16	0.000	0.00	0.00
A495 (E)	211.55	52.89	211.70	195.10	0.00	0.00	1587.70	1345.41	0.133	0.20	0.16
A495 (W)	194.99	48.75	195.10	211.70	0.00	0.00	1779.69	1642.12	0.110	0.16	0.13

Queueing Delay Results
Queueing Delay results: (12:00-12:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
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Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Ellesmere Business Park	0.00	0.00	0.000	A	A
A495 (E)	2.36	0.16	0.046	A	A
A495 (W)	1.88	0.13	0.039	A	A

Queueing Delay results: (12:15-12:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Ellesmere Business Park	0.00	0.00	0.000	A	A
A495 (E)	2.92	0.19	0.047	A	A
A495 (W)	2.31	0.15	0.040	A	A

Queueing Delay results: (12:30-12:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Ellesmere Business Park	0.00	0.00	0.000	A	A
A495 (E)	3.73	0.25	0.049	A	A
A495 (W)	2.92	0.19	0.042	A	A

Queueing Delay results: (12:45-13:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Ellesmere Business Park	0.00	0.00	0.000	A	A
A495 (E)	3.78	0.25	0.049	A	A
A495 (W)	2.96	0.20	0.042	A	A

Queueing Delay results: (13:00-13:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Ellesmere Business Park	0.00	0.00	0.000	A	A
A495 (E)	3.01	0.20	0.047	A	A
A495 (W)	2.37	0.16	0.040	A	A

Queueing Delay results: (13:15-13:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Ellesmere Business Park	0.00	0.00	0.000	A	A
A495 (E)	2.45	0.16	0.046	A	A
A495 (W)	1.94	0.13	0.039	A	A

Overview: Standard Roundabout Geometry

Standard Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only	Final Slope	Final Intercept (PCU/hr)
Ellesmere Business Park	4.12	6.20	9.70	12.06	34.84	17.00		0.644	1643.077
A495 (E)	3.29	6.76	16.80	43.02	34.84	45.00		0.621	1587.699
A495 (W)	3.49	7.15	10.70	177.68	34.84	7.50		0.705	1779.687

Overview: Time Segment Results

OVERVIEW. TIME SEGMENT RESULTS

Time Segment Results

Time Segment	Arm	Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Pedestrian Demand (Ped/hr)	Start Queue (PCU)	End Queue (PCU)	Queueing Total Delay (PCU-min)	Geometric Total Delay (PCU-min)	Average Delay Per Arriving Vehicle (min)
1	Ellesmere Business Park	0.00	1517.79	0.000	0.00	0.00	0.00	0.00	(0.02)	0.000
1	A495 (E)	211.55	1587.70	0.133	0.00	0.00	0.16	2.36	(0.02)	0.046
1	A495 (W)	194.99	1779.69	0.110	0.00	0.00	0.13	1.88	(0.02)	0.039
2	Ellesmere Business Park	0.00	1493.15	0.000	0.00	0.00	0.00	0.00	(0.02)	0.000
2	A495 (E)	252.61	1587.70	0.159	0.00	0.16	0.20	2.92	(0.02)	0.047
2	A495 (W)	232.84	1779.69	0.131	0.00	0.13	0.16	2.31	(0.02)	0.040
3	Ellesmere Business Park	0.00	1459.47	0.000	0.00	0.00	0.00	0.00	(0.02)	0.000
3	A495 (E)	309.39	1587.70	0.195	0.00	0.20	0.25	3.73	(0.02)	0.049
3	A495 (W)	285.16	1779.69	0.160	0.00	0.16	0.20	2.92	(0.02)	0.042
4	Ellesmere Business Park	0.00	1459.36	0.000	0.00	0.00	0.00	0.00	(0.02)	0.000
4	A495 (E)	309.39	1587.70	0.195	0.00	0.25	0.25	3.78	(0.02)	0.049
4	A495 (W)	285.16	1779.69	0.160	0.00	0.20	0.20	2.96	(0.02)	0.042
5	Ellesmere Business Park	0.00	1492.97	0.000	0.00	0.00	0.00	0.00	(0.02)	0.000
5	A495 (E)	252.61	1587.70	0.159	0.00	0.25	0.20	3.01	(0.02)	0.047
5	A495 (W)	232.84	1779.69	0.131	0.00	0.20	0.16	2.37	(0.02)	0.040
6	Ellesmere Business Park	0.00	1517.38	0.000	0.00	0.00	0.00	0.00	(0.02)	0.000
6	A495 (E)	211.55	1587.70	0.133	0.00	0.20	0.16	2.45	(0.02)	0.046
6	A495 (W)	194.99	1779.69	0.110	0.00	0.16	0.13	1.94	(0.02)	0.039

A1 - (Default Analysis Set) - D10 - 2018 Base + Phase 1-4, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Description	Include In Report	Use Specific Demand Set	Demand Set	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)		Yes		(D1)		100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Locked	Run Automatically	Use Relationship	Relationship	Start Time (HH:mm)	Finish Time (HH:mm)	Time Period Length (min)	Time Segment Length (min)	Traffic Profile Type
2018 Base +	2018 Base +	AM			Yes			08:00	09:30	90	15	ONE

Phase 1-4, AM	Date + Phase 1-4	Arm		TES		00.00	09.00	00	10	HOUR
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Roundabout Network

Roundabout Type(s)

ID	Name	Arm Order	Roundabout Type	Grade Separated	Large Roundabout	Do Geometric Delay
1	(untitled)	1,2,3	Standard			

Roundabout Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	((Mini-roundabouts only))	

Arms

Arms

ID	Name	Description
1	Ellesmere Business Park	
2	A495 (E)	
3	A495 (W)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
Ellesmere Business Park	0.00	99999.00		0.00
A495 (E)	0.00	99999.00		0.00
A495 (W)	0.00	99999.00		0.00

Standard Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	F - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
Ellesmere Business Park	4.12	6.20	9.70	12.06	34.84	17.00	
A495 (E)	3.29	6.76	16.80	43.02	34.84	45.00	
A495 (W)	3.49	7.15	10.70	177.68	34.84	7.50	

Pedestrian Crossings

Arm	Crossing Type
Ellesmere Business Park	None
A495 (E)	None
A495 (W)	None

Arm Slope/ Intercept and Capacity

Slope and Intercept used in model

Arm	Enter Directly	Slope	Intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
Ellesmere Business Park		((calculated))	((calculated))	0.644	1643.077
A495 (E)		((calculated))	((calculated))	0.621	1587.699
A495 (W)		((calculated))	((calculated))	0.705	1779.687

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		Yes	Yes	HV Percentages	2.00				Yes	Yes

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)	PHF
Ellesmere Business Park	ONE HOUR	Yes	16.00	100.000	N/A
A495 (E)	ONE HOUR	Yes	468.00	100.000	N/A
A495 (W)	ONE HOUR	Yes	398.00	100.000	N/A

Direct/Resultant Flows

Direct Flows Data

Time Segment	Arm	Direct Demand Entry Flow (PCU/hr)	DirectDemandEntryFlowInPCU (PCU/hr)	Direct Demand Exit Flow (PCU/hr)	Direct Demand Pedestrian Flow (Ped/hr)
1	Ellesmere Business Park	12.05	12.05	N/A	N/A
1	A495 (E)	352.33	352.33	N/A	N/A
1	A495 (W)	299.64	299.64	N/A	N/A
2	Ellesmere Business Park	14.38	14.38	N/A	N/A
2	A495 (E)	420.72	420.72	N/A	N/A
2	A495 (W)	357.79	357.79	N/A	N/A
3	Ellesmere Business Park	17.62	17.62	N/A	N/A
3	A495 (E)	515.28	515.28	N/A	N/A
3	A495 (W)	438.21	438.21	N/A	N/A
4	Ellesmere Business Park	17.62	17.62	N/A	N/A
4	A495 (E)	515.28	515.28	N/A	N/A
4	A495 (W)	438.21	438.21	N/A	N/A
5	Ellesmere Business Park	14.38	14.38	N/A	N/A
5	A495 (E)	420.72	420.72	N/A	N/A
5	A495 (W)	357.79	357.79	N/A	N/A
6	Ellesmere Business Park	12.05	12.05	N/A	N/A
6	A495 (E)	352.33	352.33	N/A	N/A
6	A495 (W)	299.64	299.64	N/A	N/A

Turning Proportions

Turning Counts or Proportions (PCU/hr) - (untitled) (for whole period)

		To		
		1	2	3
From	1	0.000	12.000	4.000
	2	39.000	5.000	424.000

	3	11.000	387.000	0.000
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Turning Proportions (PCU) - (untitled) (for whole period)

		To		
		1	2	3
From	1	0.00	0.75	0.25
	2	0.08	0.01	0.91
	3	0.03	0.97	0.00

Vehicle Mix

Average PCU Per Vehicle - (untitled) (for whole period)

		To		
		1	2	3
From	1	1.000	1.167	1.000
	2	1.250	1.000	1.045
	3	1.333	1.036	1.000

Heavy Vehicle Percentages - (untitled) (for whole period)

		To		
		1	2	3
From	1	0.000	16.670	0.000
	2	25.000	0.000	4.490
	3	33.330	3.610	0.000

Results

Results Summary

Arm	Max RFC	Max Delay (min)	Max Queue (PCU)	Max LOS	Total Demand (PCU/hr)	Total Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (min)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Queueing Total Delay (PCU-min)	Inclusive Queueing Average Delay (min)	Slope	Intercept (PCU/hr)
Ellesmere Business Park	0.01	0.05	0.01	A	14.68	22.02	1.06	0.05	0.01	1.06	0.05	0.644	1643.077
A495 (E)	0.33	0.06	0.51	A	429.44	644.17	35.64	0.06	0.40	35.64	0.06	0.621	1587.699
A495 (W)	0.25	0.05	0.35	A	365.21	547.82	24.83	0.05	0.28	24.83	0.05	0.705	1779.687

Main Results

Main results: (08:00-08:15)

Arm	Demand (PCU/hr)	Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)
Ellesmere Business Park	12.05	3.01	12.01	37.52	294.27	0.00	1453.49	580.12	0.008	0.00	0.01
A495 (E)	352.33	88.08	351.13	303.28	3.00	0.00	1585.83	1497.62	0.222	0.00	0.30
A495 (W)	299.64	74.91	298.78	321.12	33.01	0.00	1756.40	1680.38	0.171	0.00	0.21

Main results: (08:15-08:30)

Arm	Demand (PCU/hr)	Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)
Ellesmere											

Business Park	14.38	3.60	14.38	44.92	352.19	0.00	1416.18	580.12	0.010	0.01	0.01
A495 (E)	420.72	105.18	420.40	362.97	3.59	0.00	1585.47	1497.62	0.265	0.30	0.38
A495 (W)	357.79	89.45	357.58	384.47	39.53	0.00	1751.81	1680.38	0.204	0.21	0.27

Main results: (08:30-08:45)

Arm	Demand (PCU/hr)	Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)
Ellesmere Business Park	17.62	4.40	17.60	55.00	431.28	0.00	1365.23	580.12	0.013	0.01	0.01
A495 (E)	515.28	128.82	514.77	444.48	4.40	0.00	1584.97	1497.62	0.325	0.38	0.51
A495 (W)	438.21	109.55	437.88	470.78	48.40	0.00	1745.55	1680.38	0.251	0.27	0.35

Main results: (08:45-09:00)

Arm	Demand (PCU/hr)	Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)
Ellesmere Business Park	17.62	4.40	17.62	55.05	431.60	0.00	1365.03	580.12	0.013	0.01	0.01
A495 (E)	515.28	128.82	515.27	444.81	4.40	0.00	1584.96	1497.62	0.325	0.51	0.51
A495 (W)	438.21	109.55	438.20	471.23	48.44	0.00	1745.52	1680.38	0.251	0.35	0.35

Main results: (09:00-09:15)

Arm	Demand (PCU/hr)	Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)
Ellesmere Business Park	14.38	3.60	14.40	45.00	352.72	0.00	1415.84	580.12	0.010	0.01	0.01
A495 (E)	420.72	105.18	421.22	363.51	3.60	0.00	1585.46	1497.62	0.265	0.51	0.38
A495 (W)	357.79	89.45	358.11	385.22	39.60	0.00	1751.76	1680.38	0.204	0.35	0.27

Main results: (09:15-09:30)

Arm	Demand (PCU/hr)	Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)
Ellesmere Business Park	12.05	3.01	12.05	37.68	295.33	0.00	1452.81	580.12	0.008	0.01	0.01
A495 (E)	352.33	88.08	352.66	304.37	3.01	0.00	1585.83	1497.62	0.222	0.38	0.30
A495 (W)	299.64	74.91	299.85	322.51	33.16	0.00	1756.30	1680.38	0.171	0.27	0.22

Queueing Delay Results

Queueing Delay results: (08:00-08:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Ellesmere Business Park	0.14	0.01	0.047	A	A
A495 (E)	4.43	0.30	0.051	A	A
A495 (W)	3.15	0.21	0.043	A	A

Queueing Delay results: (08:15-08:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Ellesmere Business Park	0.17	0.01	0.048	A	A
A495 (E)	5.63	0.38	0.055	A	A

A495 (W)	3.95	0.26	0.045	A	A
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Queueing Delay results: (08:30-08:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Ellesmere Business Park	0.22	0.01	0.050	A	A
A495 (E)	7.48	0.50	0.059	A	A
A495 (W)	5.15	0.34	0.048	A	A

Queueing Delay results: (08:45-09:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Ellesmere Business Park	0.22	0.01	0.050	A	A
A495 (E)	7.62	0.51	0.059	A	A
A495 (W)	5.23	0.35	0.048	A	A

Queueing Delay results: (09:00-09:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Ellesmere Business Park	0.17	0.01	0.048	A	A
A495 (E)	5.86	0.39	0.055	A	A
A495 (W)	4.08	0.27	0.045	A	A

Queueing Delay results: (09:15-09:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Ellesmere Business Park	0.14	0.01	0.047	A	A
A495 (E)	4.62	0.31	0.052	A	A
A495 (W)	3.26	0.22	0.043	A	A

Overview: Standard Roundabout Geometry

Standard Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only	Final Slope	Final Intercept (PCU/hr)
Ellesmere Business Park	4.12	6.20	9.70	12.06	34.84	17.00		0.644	1643.077
A495 (E)	3.29	6.76	16.80	43.02	34.84	45.00		0.621	1587.699
A495 (W)	3.49	7.15	10.70	177.68	34.84	7.50		0.705	1779.687

Overview: Time Segment Results

Time Segment Results

Time Segment	Arm	Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Pedestrian Demand (Ped/hr)	Start Queue (PCU)	End Queue (PCU)	Queueing Total Delay (PCU-min)	Geometric Total Delay (PCU-min)	Average Delay Per Arriving Vehicle (min)
1	Ellesmere Business Park	12.05	1453.49	0.008	0.00	0.00	0.01	0.14	(0.02)	0.047
1	A495 (E)	352.33	1585.83	0.222	0.00	0.00	0.30	4.43	(0.02)	0.051
1	A495 (W)	299.64	1756.40	0.171	0.00	0.00	0.21	3.15	(0.02)	0.043

2	Ellesmere Business Park	14.38	1416.18	0.010	0.00	0.01	0.01	0.17	(0.02)	0.048
2	A495 (E)	420.72	1585.47	0.265	0.00	0.30	0.38	5.63	(0.02)	0.055
2	A495 (W)	357.79	1751.81	0.204	0.00	0.21	0.27	3.95	(0.02)	0.045
3	Ellesmere Business Park	17.62	1365.23	0.013	0.00	0.01	0.01	0.22	(0.02)	0.050
3	A495 (E)	515.28	1584.97	0.325	0.00	0.38	0.51	7.48	(0.02)	0.059
3	A495 (W)	438.21	1745.55	0.251	0.00	0.27	0.35	5.15	(0.02)	0.048
4	Ellesmere Business Park	17.62	1365.03	0.013	0.00	0.01	0.01	0.22	(0.02)	0.050
4	A495 (E)	515.28	1584.96	0.325	0.00	0.51	0.51	7.62	(0.02)	0.059
4	A495 (W)	438.21	1745.52	0.251	0.00	0.35	0.35	5.23	(0.02)	0.048
5	Ellesmere Business Park	14.38	1415.84	0.010	0.00	0.01	0.01	0.17	(0.02)	0.048
5	A495 (E)	420.72	1585.46	0.265	0.00	0.51	0.38	5.86	(0.02)	0.055
5	A495 (W)	357.79	1751.76	0.204	0.00	0.35	0.27	4.08	(0.02)	0.045
6	Ellesmere Business Park	12.05	1452.81	0.008	0.00	0.01	0.01	0.14	(0.02)	0.047
6	A495 (E)	352.33	1585.83	0.222	0.00	0.38	0.30	4.62	(0.02)	0.052
6	A495 (W)	299.64	1756.30	0.171	0.00	0.27	0.22	3.26	(0.02)	0.043

A1 - (Default Analysis Set) - D11 - 2018 Base + Phase 1-4, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Description	Include In Report	Use Specific Demand Set	Demand Set	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)		Yes		(D1)		100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Locked	Run Automatically	Use Relationship	Relationship	Start Time (HH:mm)	Finish Time (HH:mm)	Time Period Length (min)	Time Segment Length (min)	Traffic Profile Type
2018 Base + Phase 1-4, PM	2018 Base + Phase 1-4	PM			Yes			16:00	17:30	90	15	ONE HOUR

Roundabout Network

Roundabout Type(s)

ID	Name	Arm Order	Roundabout Type	Grade Separated	Large Roundabout	Do Geometric Delay
1	(untitled)	1,2,3	Standard			

Roundabout Network Options

Roundabout Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	((Mini-roundabouts only))	

Arms

Arms

ID	Name	Description
1	Ellesmere Business Park	
2	A495 (E)	
3	A495 (W)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
Ellesmere Business Park	0.00	99999.00		0.00
A495 (E)	0.00	99999.00		0.00
A495 (W)	0.00	99999.00		0.00

Standard Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	Γ - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
Ellesmere Business Park	4.12	6.20	9.70	12.06	34.84	17.00	
A495 (E)	3.29	6.76	16.80	43.02	34.84	45.00	
A495 (W)	3.49	7.15	10.70	177.68	34.84	7.50	

Pedestrian Crossings

Arm	Crossing Type
Ellesmere Business Park	None
A495 (E)	None
A495 (W)	None

Arm Slope/ Intercept and Capacity

Slope and Intercept used in model

Arm	Enter Directly	Slope	Intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
Ellesmere Business Park		((calculated))	((calculated))	0.644	1643.077
A495 (E)		((calculated))	((calculated))	0.621	1587.699
A495 (W)		((calculated))	((calculated))	0.705	1779.687

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		Yes	Yes	HV Percentages	2.00				Yes	Yes

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)	PHF
Ellesmere Business Park	ONE HOUR	Yes	30.00	100.000	N/A
A495 (E)	ONE HOUR	Yes	404.00	100.000	N/A
A495 (W)	ONE HOUR	Yes	378.00	100.000	N/A

Direct/Resultant Flows

Direct Flows Data

Time Segment	Arm	Direct Demand Entry Flow (PCU/hr)	DirectDemandEntryFlowInPCU (PCU/hr)	Direct Demand Exit Flow (PCU/hr)	Direct Demand Pedestrian Flow (Ped/hr)
1	Ellesmere Business Park	22.59	22.59	N/A	N/A
1	A495 (E)	304.15	304.15	N/A	N/A
1	A495 (W)	284.58	284.58	N/A	N/A
2	Ellesmere Business Park	26.97	26.97	N/A	N/A
2	A495 (E)	363.19	363.19	N/A	N/A
2	A495 (W)	339.81	339.81	N/A	N/A
3	Ellesmere Business Park	33.03	33.03	N/A	N/A
3	A495 (E)	444.81	444.81	N/A	N/A
3	A495 (W)	416.19	416.19	N/A	N/A
4	Ellesmere Business Park	33.03	33.03	N/A	N/A
4	A495 (E)	444.81	444.81	N/A	N/A
4	A495 (W)	416.19	416.19	N/A	N/A
5	Ellesmere Business Park	26.97	26.97	N/A	N/A
5	A495 (E)	363.19	363.19	N/A	N/A
5	A495 (W)	339.81	339.81	N/A	N/A
6	Ellesmere Business Park	22.59	22.59	N/A	N/A
6	A495 (E)	304.15	304.15	N/A	N/A
6	A495 (W)	284.58	284.58	N/A	N/A

Turning Proportions

Turning Counts or Proportions (PCU/hr) - (untitled) (for whole period)

		To		
		1	2	3
From	1	0.000	24.000	6.000
	2	20.000	2.000	382.000
	3	6.000	372.000	0.000

Turning Proportions (PCU) - (untitled) (for whole period)

		To		
		1	2	3
From	1	0.00	0.80	0.20
	2	0.05	0.00	0.95
	3	0.02	0.98	0.00

Vehicle Mix

VEHICLE MIX

Average PCU Per Vehicle - (untitled) (for whole period)

		To		
		1	2	3
From	1	1.000	1.167	1.000
	2	1.250	1.000	1.045
	3	1.333	1.036	1.000

Heavy Vehicle Percentages - (untitled) (for whole period)

		To		
		1	2	3
From	1	0.000	16.670	0.000
	2	25.000	0.000	4.490
	3	33.330	3.610	0.000

Results

Results Summary

Arm	Max RFC	Max Delay (min)	Max Queue (PCU)	Max LOS	Total Demand (PCU/hr)	Total Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (min)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Queueing Total Delay (PCU-min)	Inclusive Queueing Average Delay (min)	Slope	Intercept (PCU/hr)
Ellesmere Business Park	0.02	0.05	0.03	A	27.53	41.29	2.01	0.05	0.02	2.01	0.05	0.644	1643.077
A495 (E)	0.28	0.06	0.41	A	370.72	556.08	29.09	0.05	0.32	29.09	0.05	0.621	1587.699
A495 (W)	0.24	0.05	0.32	A	346.86	520.29	22.96	0.04	0.26	22.96	0.04	0.705	1779.687

Main Results

Main results: (16:00-16:15)

Arm	Demand (PCU/hr)	Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)
Ellesmere Business Park	22.59	5.65	22.51	19.51	280.78	0.00	1462.19	546.89	0.015	0.00	0.02
A495 (E)	304.15	76.04	303.16	298.79	4.50	0.00	1584.90	1519.77	0.192	0.00	0.25
A495 (W)	284.58	71.14	283.78	291.15	16.51	0.00	1768.04	1721.32	0.161	0.00	0.20

Main results: (16:15-16:30)

Arm	Demand (PCU/hr)	Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)
Ellesmere Business Park	26.97	6.74	26.95	23.36	336.03	0.00	1426.59	546.89	0.019	0.02	0.02
A495 (E)	363.19	90.80	362.94	357.59	5.39	0.00	1584.35	1519.77	0.229	0.25	0.31
A495 (W)	339.81	84.95	339.62	348.56	19.76	0.00	1765.75	1721.32	0.192	0.20	0.25

Main results: (16:30-16:45)

Arm	Demand (PCU/hr)	Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)
Ellesmere Business Park	33.03	8.26	33.01	28.60	411.49	0.00	1377.98	546.89	0.024	0.02	0.03

A495 (E)	444.81	111.20	444.42	437.90	6.60	0.00	1583.60	1519.77	0.281	0.31	0.41
A495 (W)	416.19	104.05	415.89	426.82	24.20	0.00	1762.62	1721.32	0.236	0.25	0.32

Main results: (16:45-17:00)

Arm	Demand (PCU/hr)	Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)
Ellesmere Business Park	33.03	8.26	33.03	28.63	411.78	0.00	1377.79	546.89	0.024	0.03	0.03
A495 (E)	444.81	111.20	444.81	438.20	6.61	0.00	1583.60	1519.77	0.281	0.41	0.41
A495 (W)	416.19	104.05	416.18	427.19	24.22	0.00	1762.60	1721.32	0.236	0.32	0.32

Main results: (17:00-17:15)

Arm	Demand (PCU/hr)	Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)
Ellesmere Business Park	26.97	6.74	26.99	23.40	336.50	0.00	1426.29	546.89	0.019	0.03	0.02
A495 (E)	363.19	90.80	363.57	358.10	5.40	0.00	1584.35	1519.77	0.229	0.41	0.31
A495 (W)	339.81	84.95	340.10	349.17	19.80	0.00	1765.72	1721.32	0.192	0.32	0.25

Main results: (17:15-17:30)

Arm	Demand (PCU/hr)	Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)
Ellesmere Business Park	22.59	5.65	22.60	19.59	281.76	0.00	1461.56	546.89	0.015	0.02	0.02
A495 (E)	304.15	76.04	304.41	299.84	4.52	0.00	1584.89	1519.77	0.192	0.31	0.25
A495 (W)	284.58	71.14	284.77	292.35	16.58	0.00	1768.00	1721.32	0.161	0.25	0.20

Queueing Delay Results
Queueing Delay results: (16:00-16:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Ellesmere Business Park	0.26	0.02	0.047	A	A
A495 (E)	3.67	0.24	0.049	A	A
A495 (W)	2.94	0.20	0.042	A	A

Queueing Delay results: (16:15-16:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Ellesmere Business Park	0.32	0.02	0.048	A	A
A495 (E)	4.62	0.31	0.052	A	A
A495 (W)	3.66	0.24	0.044	A	A

Queueing Delay results: (16:30-16:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Ellesmere Business Park	0.41	0.03	0.050	A	A
A495 (E)	6.05	0.40	0.055	A	A
A495 (W)	4.74	0.32	0.046	A	A

Queueing Delay results: (16:45-17:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Ellesmere Business Park	0.42	0.03	0.050	A	A
A495 (E)	6.15	0.41	0.055	A	A
A495 (W)	4.81	0.32	0.046	A	A

Queueing Delay results: (17:00-17:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Ellesmere Business Park	0.33	0.02	0.048	A	A
A495 (E)	4.79	0.32	0.052	A	A
A495 (W)	3.78	0.25	0.044	A	A

Queueing Delay results: (17:15-17:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Ellesmere Business Park	0.27	0.02	0.047	A	A
A495 (E)	3.82	0.25	0.049	A	A
A495 (W)	3.04	0.20	0.042	A	A

Overview: Standard Roundabout Geometry

Standard Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only	Final Slope	Final Intercept (PCU/hr)
Ellesmere Business Park	4.12	6.20	9.70	12.06	34.84	17.00		0.644	1643.077
A495 (E)	3.29	6.76	16.80	43.02	34.84	45.00		0.621	1587.699
A495 (W)	3.49	7.15	10.70	177.68	34.84	7.50		0.705	1779.687

Overview: Time Segment Results

Time Segment Results

Time Segment	Arm	Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Pedestrian Demand (Ped/hr)	Start Queue (PCU)	End Queue (PCU)	Queueing Total Delay (PCU-min)	Geometric Total Delay (PCU-min)	Average Delay Per Arriving Vehicle (min)
1	Ellesmere Business Park	22.59	1462.19	0.015	0.00	0.00	0.02	0.26	(0.02)	0.047
1	A495 (E)	304.15	1584.90	0.192	0.00	0.00	0.25	3.67	(0.02)	0.049
1	A495 (W)	284.58	1768.04	0.161	0.00	0.00	0.20	2.94	(0.02)	0.042
2	Ellesmere Business Park	26.97	1426.59	0.019	0.00	0.02	0.02	0.32	(0.02)	0.048
2	A495 (E)	363.19	1584.35	0.229	0.00	0.25	0.31	4.62	(0.02)	0.052
2	A495 (W)	339.81	1765.75	0.192	0.00	0.20	0.25	3.66	(0.02)	0.044
3	Ellesmere Business Park	33.03	1377.98	0.024	0.00	0.02	0.03	0.41	(0.02)	0.050
3	A495 (E)	444.81	1583.60	0.281	0.00	0.31	0.41	6.05	(0.02)	0.055
3	A495 (W)	416.19	1762.62	0.236	0.00	0.25	0.32	4.74	(0.02)	0.046
4	Ellesmere Business	33.03	1377.79	0.024	0.00	0.03	0.03	0.42	(0.02)	0.050

	Park									
4	A495 (E)	444.81	1583.60	0.281	0.00	0.41	0.41	6.15	(0.02)	0.055
4	A495 (W)	416.19	1762.60	0.236	0.00	0.32	0.32	4.81	(0.02)	0.046
5	Ellesmere Business Park	26.97	1426.29	0.019	0.00	0.03	0.02	0.33	(0.02)	0.048
5	A495 (E)	363.19	1584.35	0.229	0.00	0.41	0.31	4.79	(0.02)	0.052
5	A495 (W)	339.81	1765.72	0.192	0.00	0.32	0.25	3.78	(0.02)	0.044
6	Ellesmere Business Park	22.59	1461.56	0.015	0.00	0.02	0.02	0.27	(0.02)	0.047
6	A495 (E)	304.15	1584.89	0.192	0.00	0.31	0.25	3.82	(0.02)	0.049
6	A495 (W)	284.58	1768.00	0.161	0.00	0.25	0.20	3.04	(0.02)	0.042

A1 - (Default Analysis Set) - D12 - 2018 Base + Phase 1-4, Saturday

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Description	Include In Report	Use Specific Demand Set	Demand Set	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)		Yes		(D1)		100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Locked	Run Automatically	Use Relationship	Relationship	Start Time (HH:mm)	Finish Time (HH:mm)	Time Period Length (min)	Time Segment Length (min)	Traffic Profile Type
2018 Base + Phase 1-4, Saturday	2018 Base + Phase 1-4	Saturday			Yes			12:00	13:30	90	15	ONE HOUR

Roundabout Network

Roundabout Type(s)

ID	Name	Arm Order	Roundabout Type	Grade Separated	Large Roundabout	Do Geometric Delay
1	(untitled)	1,2,3	Standard			

Roundabout Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	((Mini-roundabouts only))	

Arms

Arms

ID	Name	Description
1	Ellesmere Business Park	
2	A495 (E)	

3	A495 (W)	
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Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
Ellesmere Business Park	0.00	99999.00		0.00
A495 (E)	0.00	99999.00		0.00
A495 (W)	0.00	99999.00		0.00

Standard Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
Ellesmere Business Park	4.12	6.20	9.70	12.06	34.84	17.00	
A495 (E)	3.29	6.76	16.80	43.02	34.84	45.00	
A495 (W)	3.49	7.15	10.70	177.68	34.84	7.50	

Pedestrian Crossings

Arm	Crossing Type
Ellesmere Business Park	None
A495 (E)	None
A495 (W)	None

Arm Slope/ Intercept and Capacity

Slope and Intercept used in model

Arm	Enter Directly	Slope	Intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
Ellesmere Business Park		((calculated))	((calculated))	0.644	1643.077
A495 (E)		((calculated))	((calculated))	0.621	1587.699
A495 (W)		((calculated))	((calculated))	0.705	1779.687

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		Yes	Yes	HV Percentages	2.00				Yes	Yes

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)	PHF
Ellesmere Business Park	ONE HOUR	Yes	0.00	100.000	N/A
A495 (E)	ONE HOUR	Yes	349.00	100.000	N/A
A495 (W)	ONE HOUR	Yes	370.00	100.000	N/A

Direct/Resultant Flows

Direct Flows Data

Time Segment	Arm	Direct Demand Entry Flow (PCU/hr)	DirectDemandEntryFlowInPCU (PCU/hr)	Direct Demand Exit Flow (PCU/hr)	Direct Demand Pedestrian Flow (Ped/hr)
1	Ellesmere Business Park	0.00	0.00	N/A	N/A
1	A495 (E)	262.75	262.75	N/A	N/A
1	A495 (W)	278.56	278.56	N/A	N/A
2	Ellesmere Business Park	0.00	0.00	N/A	N/A
2	A495 (E)	313.74	313.74	N/A	N/A
2	A495 (W)	332.62	332.62	N/A	N/A
3	Ellesmere Business Park	0.00	0.00	N/A	N/A
3	A495 (E)	384.26	384.26	N/A	N/A
3	A495 (W)	407.38	407.38	N/A	N/A
4	Ellesmere Business Park	0.00	0.00	N/A	N/A
4	A495 (E)	384.26	384.26	N/A	N/A
4	A495 (W)	407.38	407.38	N/A	N/A
5	Ellesmere Business Park	0.00	0.00	N/A	N/A
5	A495 (E)	313.74	313.74	N/A	N/A
5	A495 (W)	332.62	332.62	N/A	N/A
6	Ellesmere Business Park	0.00	0.00	N/A	N/A
6	A495 (E)	262.75	262.75	N/A	N/A
6	A495 (W)	278.56	278.56	N/A	N/A

Turning Proportions

Turning Counts or Proportions (PCU/hr) - (untitled) (for whole period)

		To		
		1	2	3
From	1	0.000	0.000	0.000
	2	0.000	0.000	349.000
	3	0.000	370.000	0.000

Turning Proportions (PCU) - (untitled) (for whole period)

		To		
		1	2	3
From	1	0.33	0.33	0.33
	2	0.00	0.00	1.00
	3	0.00	1.00	0.00

Vehicle Mix

Average PCU Per Vehicle - (untitled) (for whole period)

		To		
		1	2	3
From	1	1.000	1.167	1.000
	2	1.250	1.000	1.045
	3	1.333	1.036	1.000

Heavy Vehicle Percentages - (untitled) (for whole period)

		To		
		1	2	3
From	1	0.000	16.670	0.000
	2	25.000	0.000	4.490
	3	33.330	3.610	0.000

Results

Results Summary

Arm	Max RFC	Max Delay (min)	Max Queue (PCU)	Max LOS	Total Demand (PCU/hr)	Total Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (min)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Queueing Total Delay (PCU-min)	Inclusive Queueing Average Delay (min)	Slope	Intercept (PCU/hr)
Ellesmere Business Park	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	166666666.65	0.644	1643.077
A495 (E)	0.24	0.05	0.33	A	320.25	480.37	23.83	0.05	0.26	23.83	0.05	0.621	1587.699
A495 (W)	0.23	0.05	0.31	A	339.52	509.28	22.05	0.04	0.24	22.05	0.04	0.705	1779.687

Main Results

Main results: (12:00-12:15)

Arm	Demand (PCU/hr)	Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)
Ellesmere Business Park	0.00	0.00	0.00	0.00	277.79	0.00	1464.11	585.16	0.000	0.00	0.00
A495 (E)	262.75	65.69	261.92	277.79	0.00	0.00	1587.70	1345.41	0.165	0.00	0.21
A495 (W)	278.56	69.64	277.79	261.92	0.00	0.00	1779.69	1642.12	0.157	0.00	0.19

Main results: (12:15-12:30)

Arm	Demand (PCU/hr)	Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)
Ellesmere Business Park	0.00	0.00	0.00	0.00	332.44	0.00	1428.91	585.17	0.000	0.00	0.00
A495 (E)	313.74	78.44	313.54	332.44	0.00	0.00	1587.70	1345.40	0.198	0.21	0.26
A495 (W)	332.62	83.16	332.44	313.54	0.00	0.00	1779.69	1642.12	0.187	0.19	0.24

Main results: (12:30-12:45)

Arm	Demand (PCU/hr)	Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)
Ellesmere Business Park	0.00	0.00	0.00	0.00	407.10	0.00	1380.81	585.17	0.000	0.00	0.00
A495 (E)	384.26	96.06	383.95	407.10	0.00	0.00	1587.70	1345.40	0.242	0.26	0.33
A495 (W)	407.38	101.84	407.10	383.95	0.00	0.00	1779.69	1642.12	0.229	0.24	0.31

Main results: (12:45-13:00)

Arm	Demand (PCU/hr)	Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)
Ellesmere Business Park	0.00	0.00	0.00	0.00	407.38	0.00	1380.63	585.17	0.000	0.00	0.00
A495 (E)	384.26	96.06	384.25	407.38	0.00	0.00	1587.70	1345.40	0.242	0.33	0.33
A495 (W)	407.38	101.84	407.38	384.25	0.00	0.00	1779.69	1642.12	0.229	0.31	0.31

0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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Main results: (13:00-13:15)

Arm	Demand (PCU/hr)	Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)
Ellesmere Business Park	0.00	0.00	0.00	0.00	332.89	0.00	1428.61	585.17	0.000	0.00	0.00
A495 (E)	313.74	78.44	314.04	332.89	0.00	0.00	1587.70	1345.40	0.198	0.33	0.26
A495 (W)	332.62	83.16	332.89	314.04	0.00	0.00	1779.69	1642.12	0.187	0.31	0.24

Main results: (13:15-13:30)

Arm	Demand (PCU/hr)	Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)
Ellesmere Business Park	0.00	0.00	0.00	0.00	278.74	0.00	1463.50	585.16	0.000	0.00	0.00
A495 (E)	262.75	65.69	262.95	278.74	0.00	0.00	1587.70	1345.41	0.165	0.26	0.21
A495 (W)	278.56	69.64	278.74	262.95	0.00	0.00	1779.69	1642.12	0.157	0.24	0.19

Queueing Delay Results
Queueing Delay results: (12:00-12:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Ellesmere Business Park	0.00	0.00	0.000	A	A
A495 (E)	3.04	0.20	0.047	A	A
A495 (W)	2.83	0.19	0.041	A	A

Queueing Delay results: (12:15-12:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Ellesmere Business Park	0.00	0.00	0.000	A	A
A495 (E)	3.80	0.25	0.049	A	A
A495 (W)	3.52	0.23	0.043	A	A

Queueing Delay results: (12:30-12:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Ellesmere Business Park	0.00	0.00	0.000	A	A
A495 (E)	4.91	0.33	0.052	A	A
A495 (W)	4.54	0.30	0.045	A	A

Queueing Delay results: (12:45-13:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Ellesmere Business Park	0.00	0.00	0.000	A	A
A495 (E)	4.99	0.33	0.052	A	A
A495 (W)	4.60	0.31	0.045	A	A

Queueing Delay results: (13:00-13:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Ellesmere Business	0.00	0.00	0.000	A	A

Park	0.00	0.00	0.000	A	A
A495 (E)	3.93	0.26	0.049	A	A
A495 (W)	3.63	0.24	0.043	A	A

Queueing Delay results: (13:15-13:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Ellesmere Business Park	0.00	0.00	0.000	A	A
A495 (E)	3.16	0.21	0.047	A	A
A495 (W)	2.92	0.19	0.041	A	A

Overview: Standard Roundabout Geometry

Standard Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only	Final Slope	Final Intercept (PCU/hr)
Ellesmere Business Park	4.12	6.20	9.70	12.06	34.84	17.00		0.644	1643.077
A495 (E)	3.29	6.76	16.80	43.02	34.84	45.00		0.621	1587.699
A495 (W)	3.49	7.15	10.70	177.68	34.84	7.50		0.705	1779.687

Overview: Time Segment Results

Time Segment Results

Time Segment	Arm	Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Pedestrian Demand (Ped/hr)	Start Queue (PCU)	End Queue (PCU)	Queueing Total Delay (PCU-min)	Geometric Total Delay (PCU-min)	Average Delay Per Arriving Vehicle (min)
1	Ellesmere Business Park	0.00	1464.11	0.000	0.00	0.00	0.00	0.00	(0.02)	0.000
1	A495 (E)	262.75	1587.70	0.165	0.00	0.00	0.21	3.04	(0.02)	0.047
1	A495 (W)	278.56	1779.69	0.157	0.00	0.00	0.19	2.83	(0.02)	0.041
2	Ellesmere Business Park	0.00	1428.91	0.000	0.00	0.00	0.00	0.00	(0.02)	0.000
2	A495 (E)	313.74	1587.70	0.198	0.00	0.21	0.26	3.80	(0.02)	0.049
2	A495 (W)	332.62	1779.69	0.187	0.00	0.19	0.24	3.52	(0.02)	0.043
3	Ellesmere Business Park	0.00	1380.81	0.000	0.00	0.00	0.00	0.00	(0.02)	0.000
3	A495 (E)	384.26	1587.70	0.242	0.00	0.26	0.33	4.91	(0.02)	0.052
3	A495 (W)	407.38	1779.69	0.229	0.00	0.24	0.31	4.54	(0.02)	0.045
4	Ellesmere Business Park	0.00	1380.63	0.000	0.00	0.00	0.00	0.00	(0.02)	0.000
4	A495 (E)	384.26	1587.70	0.242	0.00	0.33	0.33	4.99	(0.02)	0.052
4	A495 (W)	407.38	1779.69	0.229	0.00	0.31	0.31	4.60	(0.02)	0.045
5	Ellesmere Business Park	0.00	1428.61	0.000	0.00	0.00	0.00	0.00	(0.02)	0.000
5	A495 (E)	313.74	1587.70	0.198	0.00	0.33	0.26	3.93	(0.02)	0.049
5	A495 (W)	332.62	1779.69	0.187	0.00	0.31	0.24	3.63	(0.02)	0.043
6	Ellesmere Business Park	0.00	1463.50	0.000	0.00	0.00	0.00	0.00	(0.02)	0.000

6	A495 (E)	262.75	1587.70	0.165	0.00	0.26	0.21	3.16	(0.02)	0.047
6	A495 (W)	278.56	1779.69	0.157	0.00	0.24	0.19	2.92	(0.02)	0.041

A1 - (Default Analysis Set) - D13 - 2018 Base + Phase 1-4, Sunday

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Description	Include In Report	Use Specific Demand Set	Demand Set	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)		Yes		(D1)		100.000	100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Locked	Run Automatically	Use Relationship	Relationship	Start Time (HH:mm)	Finish Time (HH:mm)	Time Period Length (min)	Time Segment Length (min)	Traffic Profile Type
2018 Base + Phase 1-4, Sunday	2018 Base + Phase 1-4	Sunday			Yes			12:00	13:30	90	15	ONE HOUR

Roundabout Network

Roundabout Type(s)

ID	Name	Arm Order	Roundabout Type	Grade Separated	Large Roundabout	Do Geometric Delay
1	(untitled)	1,2,3	Standard			

Roundabout Network Options

Driving Side	Lighting	Road Surface	In London
Left	Normal/unknown	((Mini-roundabouts only))	

Arms

Arms

ID	Name	Description
1	Ellesmere Business Park	
2	A495 (E)	
3	A495 (W)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)	Assume Flat Start Profile	Initial Queue (PCU)
Ellesmere Business Park	0.00	99999.00		0.00
A495 (E)	0.00	99999.00		0.00
A495 (W)	0.00	99999.00		0.00

Standard Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
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Arm	4.12	6.20	9.70	12.06	34.84	17.00	
Ellesmere Business Park							
A495 (E)	3.29	6.76	16.80	43.02	34.84	45.00	
A495 (W)	3.49	7.15	10.70	177.68	34.84	7.50	

Pedestrian Crossings

Arm	Crossing Type
Ellesmere Business Park	None
A495 (E)	None
A495 (W)	None

Arm Slope/ Intercept and Capacity

Slope and Intercept used in model

Arm	Enter Directly	Slope	Intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
Ellesmere Business Park		((calculated))	((calculated))	0.644	1643.077
A495 (E)		((calculated))	((calculated))	0.621	1587.699
A495 (W)		((calculated))	((calculated))	0.705	1779.687

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		Yes	Yes	HV Percentages	2.00				Yes	Yes

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)	PHF
Ellesmere Business Park	ONE HOUR	Yes	0.00	100.000	N/A
A495 (E)	ONE HOUR	Yes	380.00	100.000	N/A
A495 (W)	ONE HOUR	Yes	360.00	100.000	N/A

Direct/Resultant Flows

Direct Flows Data

Time Segment	Arm	Direct Demand Entry Flow (PCU/hr)	DirectDemandEntryFlowInPCU (PCU/hr)	Direct Demand Exit Flow (PCU/hr)	Direct Demand Pedestrian Flow (Ped/hr)
1	Ellesmere Business Park	0.00	0.00	N/A	N/A
1	A495 (E)	286.08	286.08	N/A	N/A
1	A495 (W)	271.03	271.03	N/A	N/A
2	Ellesmere Business Park	0.00	0.00	N/A	N/A
2	A495 (E)	341.61	341.61	N/A	N/A
2	A495 (W)	323.63	323.63	N/A	N/A
3	Ellesmere Business Park	0.00	0.00	N/A	N/A

Arm	Max RFC	Max Delay (min)	Max Queue (PCU)	Max LOS	Total Demand (PCU/hr)	Total Arrivals (PCU)	Queueing Delay (PCU-min)	Average Queueing Delay (min)	Queueing Delay (PCU-min/min)	Queueing Total Delay (PCU-min)	Queueing Average Delay (min)	Slope	Intercept (PCU/hr)
Ellesmere Business Park	0.00	0.00	0.00	A	0.00	0.00	0.00	0.00	0.00	0.00	166666666.65	0.644	1643.077
A495 (E)	0.26	0.05	0.37	A	348.69	523.04	26.56	0.05	0.30	26.57	0.05	0.621	1587.699
A495 (W)	0.22	0.04	0.30	A	330.34	495.51	21.31	0.04	0.24	21.31	0.04	0.705	1779.687

Main Results

Main results: (12:00-12:15)

Arm	Demand (PCU/hr)	Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)
Ellesmere Business Park	0.00	0.00	0.00	0.00	270.28	0.00	1468.95	585.16	0.000	0.00	0.00
A495 (E)	286.08	71.52	285.17	270.28	0.00	0.00	1587.70	1345.41	0.180	0.00	0.23
A495 (W)	271.03	67.76	270.28	285.17	0.00	0.00	1779.69	1642.12	0.152	0.00	0.19

Main results: (12:15-12:30)

Arm	Demand (PCU/hr)	Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)
Ellesmere Business Park	0.00	0.00	0.00	0.00	323.46	0.00	1434.69	585.17	0.000	0.00	0.00
A495 (E)	341.61	85.40	341.39	323.46	0.00	0.00	1587.70	1345.40	0.215	0.23	0.29
A495 (W)	323.63	80.91	323.46	341.39	0.00	0.00	1779.69	1642.12	0.182	0.19	0.23

Main results: (12:30-12:45)

Arm	Demand (PCU/hr)	Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)
Ellesmere Business Park	0.00	0.00	0.00	0.00	396.10	0.00	1387.89	585.17	0.000	0.00	0.00
A495 (E)	418.39	104.60	418.04	396.10	0.00	0.00	1587.70	1345.40	0.264	0.29	0.37
A495 (W)	396.37	99.09	396.10	418.04	0.00	0.00	1779.69	1642.12	0.223	0.23	0.30

Main results: (12:45-13:00)

Arm	Demand (PCU/hr)	Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)
Ellesmere Business Park	0.00	0.00	0.00	0.00	396.37	0.00	1387.72	585.17	0.000	0.00	0.00
A495 (E)	418.39	104.60	418.38	396.37	0.00	0.00	1587.70	1345.40	0.264	0.37	0.37
A495 (W)	396.37	99.09	396.37	418.38	0.00	0.00	1779.69	1642.12	0.223	0.30	0.30

Main results: (13:00-13:15)

Arm	Demand (PCU/hr)	Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)
Ellesmere Business Park	0.00	0.00	0.00	0.00	323.89	0.00	1434.41	585.17	0.000	0.00	0.00
A495 (E)	341.61	85.40	341.95	323.89	0.00	0.00	1587.70	1345.40	0.215	0.37	0.29
A495 (W)	323.63	80.91	323.89	341.95	0.00	0.00	1779.69	1642.12	0.182	0.30	0.23

Main results: (13:15-13:30)

Arm	Demand (PCU/hr)	Arrivals (PCU)	Entry Flow (PCU/hr)	Exit Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	Saturation Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)
Ellesmere Business Park	0.00	0.00	0.00	0.00	271.20	0.00	1468.36	585.16	0.000	0.00	0.00
A495 (E)	286.08	71.52	286.31	271.20	0.00	0.00	1587.70	1345.41	0.180	0.29	0.23
A495 (W)	271.03	67.76	271.20	286.31	0.00	0.00	1779.69	1642.12	0.152	0.23	0.19

Queueing Delay Results

Queueing Delay results: (12:00-12:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Ellesmere Business Park	0.00	0.00	0.000	A	A
A495 (E)	3.37	0.22	0.048	A	A
A495 (W)	2.74	0.18	0.041	A	A

Queueing Delay results: (12:15-12:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Ellesmere Business Park	0.00	0.00	0.000	A	A
A495 (E)	4.23	0.28	0.050	A	A
A495 (W)	3.41	0.23	0.043	A	A

Queueing Delay results: (12:30-12:45)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Ellesmere Business Park	0.00	0.00	0.000	A	A
A495 (E)	5.50	0.37	0.054	A	A
A495 (W)	4.38	0.29	0.045	A	A

Queueing Delay results: (12:45-13:00)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Ellesmere Business Park	0.00	0.00	0.000	A	A
A495 (E)	5.59	0.37	0.054	A	A
A495 (W)	4.44	0.30	0.045	A	A

Queueing Delay results: (13:00-13:15)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Ellesmere Business Park	0.00	0.00	0.000	A	A
A495 (E)	4.38	0.29	0.050	A	A
A495 (W)	3.51	0.23	0.043	A	A

Queueing Delay results: (13:15-13:30)

Arm	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (min)	Unsignalised Level Of Service	Signalised Level Of Service
Ellesmere Business Park	0.00	0.00	0.000	A	A
A495 (E)	3.50	0.23	0.048	A	A
A495 (W)	2.83	0.19	0.041	A	A

Overview: Standard Roundabout Geometry

Standard Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only	Final Slope	Final Intercept (PCU/hr)
Ellesmere Business Park	4.12	6.20	9.70	12.06	34.84	17.00		0.644	1643.077
A495 (E)	3.29	6.76	16.80	43.02	34.84	45.00		0.621	1587.699
A495 (W)	3.49	7.15	10.70	177.68	34.84	7.50		0.705	1779.687

Overview: Time Segment Results

Time Segment Results

Time Segment	Arm	Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Pedestrian Demand (Ped/hr)	Start Queue (PCU)	End Queue (PCU)	Queueing Total Delay (PCU-min)	Geometric Total Delay (PCU-min)	Average Delay Per Arriving Vehicle (min)
1	Ellesmere Business Park	0.00	1468.95	0.000	0.00	0.00	0.00	0.00	(0.02)	0.000
1	A495 (E)	286.08	1587.70	0.180	0.00	0.00	0.23	3.37	(0.02)	0.048
1	A495 (W)	271.03	1779.69	0.152	0.00	0.00	0.19	2.74	(0.02)	0.041
2	Ellesmere Business Park	0.00	1434.69	0.000	0.00	0.00	0.00	0.00	(0.02)	0.000
2	A495 (E)	341.61	1587.70	0.215	0.00	0.23	0.29	4.23	(0.02)	0.050
2	A495 (W)	323.63	1779.69	0.182	0.00	0.19	0.23	3.41	(0.02)	0.043
3	Ellesmere Business Park	0.00	1387.89	0.000	0.00	0.00	0.00	0.00	(0.02)	0.000
3	A495 (E)	418.39	1587.70	0.264	0.00	0.29	0.37	5.50	(0.02)	0.054
3	A495 (W)	396.37	1779.69	0.223	0.00	0.23	0.30	4.38	(0.02)	0.045
4	Ellesmere Business Park	0.00	1387.72	0.000	0.00	0.00	0.00	0.00	(0.02)	0.000
4	A495 (E)	418.39	1587.70	0.264	0.00	0.37	0.37	5.59	(0.02)	0.054
4	A495 (W)	396.37	1779.69	0.223	0.00	0.30	0.30	4.44	(0.02)	0.045
5	Ellesmere Business Park	0.00	1434.41	0.000	0.00	0.00	0.00	0.00	(0.02)	0.000
5	A495 (E)	341.61	1587.70	0.215	0.00	0.37	0.29	4.38	(0.02)	0.050
5	A495 (W)	323.63	1779.69	0.182	0.00	0.30	0.23	3.51	(0.02)	0.043
6	Ellesmere Business Park	0.00	1468.36	0.000	0.00	0.00	0.00	0.00	(0.02)	0.000
6	A495 (E)	286.08	1587.70	0.180	0.00	0.29	0.23	3.50	(0.02)	0.048
6	A495 (W)	271.03	1779.69	0.152	0.00	0.23	0.19	2.83	(0.02)	0.041