Appendix A

Discussions with Test Valley Borough Council

Ben Chadwick

From: Alborough, Ray [RAlborough@testvalley.gov.uk]
Sent: 24 May 2010 08:56
To: Carl Peers
Subject: RE: Shepherd's Spring TA Update

Carl,
It seems my memory is failing me. I thought only the two improvements for pedestrians/cyclists were included in the East Anton agreement.
Neither have been implemented. The agreement and drawings are on the Borough Council website as advised previously.

Ray. Alborough.
Senior Transportation Engineer
Test Valley Borough Council
HPSN 991(8724)
Tel no. 01264 368000
mailto: ralborough@testvalley.gov.uk

-----Original Message-----
From: Carl Peers [mailto:Carl.Peers@jmp.co.uk]
Sent: 20 May 2010 15:26
To: Alborough, Ray
Subject: RE: Shepherd's Spring TA Update

Ray,

I have checked the MVA Transport Assessment. It lists the following improvements to the A343/Smannell Road roundabout:

-enhancements to the A343 Newbury Road/Smannell Road roundabout junction including an at-grade pedestrian crossing on the A343 Newbury Road north arm; -a pedestrian controlled crossing on Smannell Road to the east of Shepherd Spring schools; -improvement measures at the Newbury Road/Smannell Road roundabout, which include increasing the flare lengths on approaches.

Based on your email it seems that the carriageway improvements (i.e. increased flare lengths) have not been carried forward. In terms of the improvements that are proposed (i.e. footway/cycle network extension), are you able to provide a copy of the S106 agreement and accompanying drawings?

Many thanks,
Carl.

-----Original Message-----
From: Carl Peers
Sent: 19 May 2010 16:57
To: Alborough, Ray

Subject: RE: Shepherd's Spring TA Update

Ray,

I just need to check the MVA Transport Assessment tomorrow in terms of what they said about the improvement proposal at the A343/Smannel Road roundabout. I may email you again in this regard. Otherwise, that should be it for now.

Many thanks,
Carl.

_____
From: Alborough, Ray [RAlborough@testvalley.gov.uk]
Sent: 19 May 2010 16:55
To: Carl Peers
Subject: RE: Shepherd's Spring TA Update

Carl,
It does now. I take it you no longer need to speak to me.
Ray. Alborough.
Senior Transportation Engineer
Test Valley Borough Council
HPSN 991(8724)
Tel no. 01264 368000
mailto: ralborough@testvalley.gov.uk

-----Original Message-----
From: Carl Peers [mailto:Carl.Peers@jmp.co.uk]
Sent: 19 May 2010 16:42
To: Alborough, Ray
Cc: Wilson, David
Subject: RE: Shepherd's Spring TA Update

Ray,

Thanks for getting back to me.

With regards to my ambiguous sentence, the development proposals in 2008 were for around 75 residential units (mix of flats and houses). Although the revised number of units has reduced to about 50, they are almost all houses (with only two flats currently proposed). I hope this makes better sense.

Regards,
Carl.

_____
From: Alborough, Ray [RAlborough@testvalley.gov.uk]
Sent: 19 May 2010 16:28
To: Carl Peers; Wilson, David
Subject: RE: Shepherd's Spring TA Update

Mr. Peers,

I am afraid I do not understand the first sentence of your third paragraph. Please explain. In answer to your questions the following use the same numbering system :- 1. Yes as at the present time approximately 150 units on the East Anton development have been occupied.
2. An improvement of the A343/Smannell roundabout carriageway is not required of the East Anton development. Some extensions to the footway/cycleway network are proposed. Arrangements for these can be found in the Section 106 Agreement for the MDA, planning application number TVN. 09258.
3. Yes.
4. I believe an outline Travel Plan will be preferable.
Ray. Alborough.
Senior Transportation Engineer
Test Valley Borough Council
HPSN 991(8724)
Tel no. 01264 368000
mailto: ralborough@testvalley.gov.uk

-----Original Message-----
From: Carl Peers [mailto:Carl.Peers@jmp.co.uk]
Sent: 19 May 2010 12:25
To: Wilson, David
Cc: Alborough, Ray
Subject: Shepherd's Spring TA Update

David.

Steve Jenkins at Hampshire CC provided your details as I've been unable to reach Ray over the past couple of days.

JMP has been asked to provide an estimate for updating a Transport Assessment that was previously prepared by MVA in 2008 for residential development on disposed playing fields at Shepherd's Spring School, Andover. I would therefore like to agree the scope with you in advance.

The revised proposals are for about 50 houses, which is a reduction in overall unit numbers but an increased number of houses. The intention is to submit an outline planning application later this year. I have a few key questions:

1) Traffic data from 2001 for the A343/Smannel Road roundabout was used in the previous TA - will you require new data to be collected as part of the update?
2) Has the proposed improvement to the A343/Smannel Road roundabout associated with the East Anton MDA been implemented yet? If not, can you please provide details on the proposed scheme and programme?
3) Junction capacity assessments were previously undertaken for the site access and the above roundabout, which did not raise any significant issues - will you require these to be updated?
4) The previous TA included measures for inclusion in a future Travel Plan, but no Travel Plan itself - will you require a similar level of detail or an outline Travel Plan at this stage?

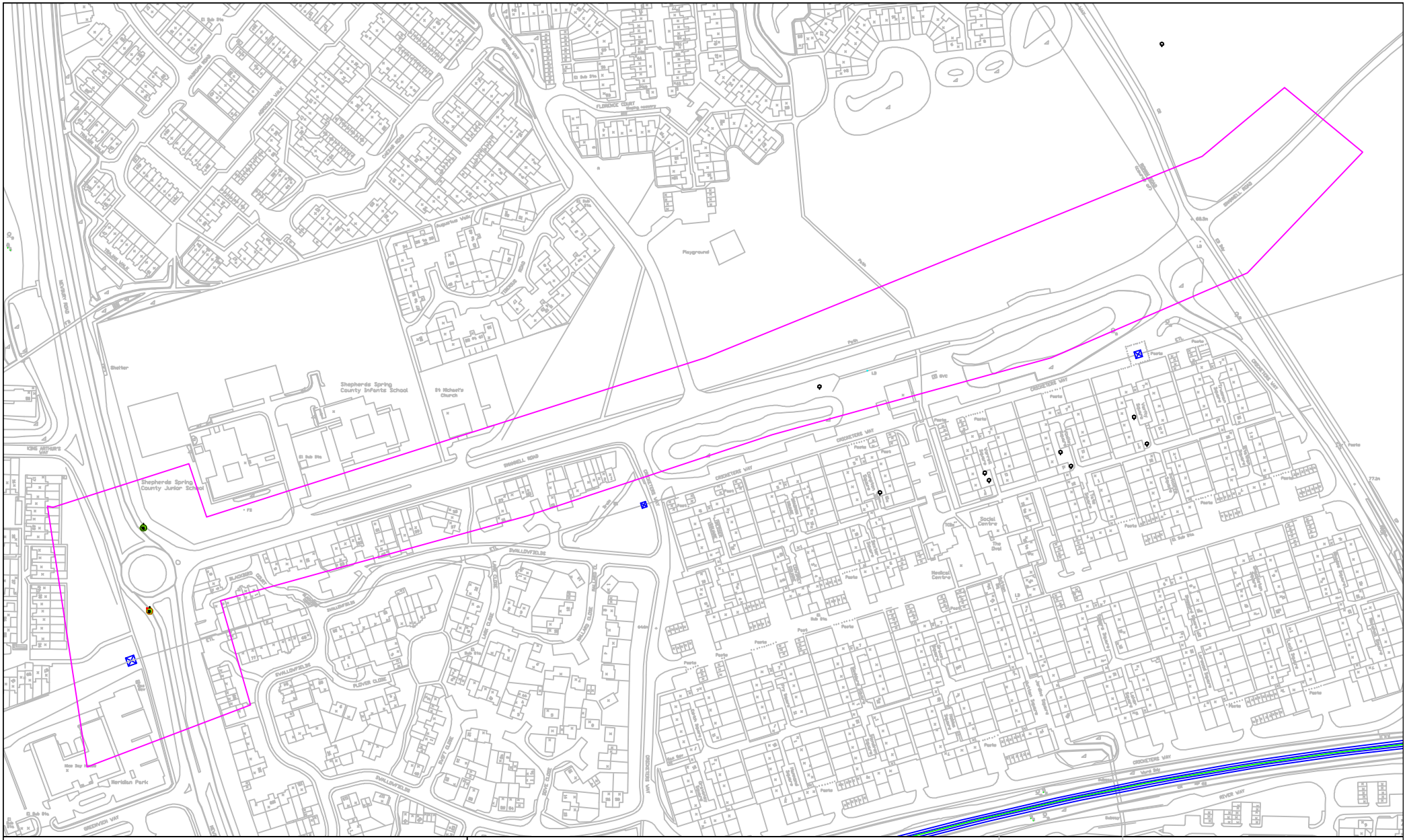
I look forward to hearing from you.

Regards,
Carl.

Carl Peers
JMP Consultants Ltd
07813 324 258

Appendix B

Accident Statistics



Hampshire County Council

STUART JARVIS BSc DipTP FCIHT MRTPI, DIRECTOR OF ENVIRONMENT,
THE CASTLE, WINCHESTER.

Certificate No. FS 21945

Personal Injury Accidents
Smannell Road Area
01–06–07 to 31–05–10

100143452 SLIGHT 436576/147041 10/04/2010 03:45

LOCATION A343 NEWBURY ROAD AT JUNCTION WITH SMANNELL ROAD, ANDOVER, HAMPSHIRE

DESCRIPTION VEH 1 (CAR) TRAVELLING S ALONG A343 NEWBURY ROAD CLIPPED NEARSIDE KERB CAUSING DRIVER TO LOSE CONTROL OF VEH, SENDING IT OVER RAB COLLIDING WITH LAMPOST.

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Car	Male	41	1	Driver/Rider	SLIGHT	1	Male	41

070342917 SLIGHT 436580/146988 24/07/2007 18:10

LOCATION A343 NEWBURY ROAD AT JUNCTION WITH SMANNELL ROAD, ANDOVER, HAMPSHIRE

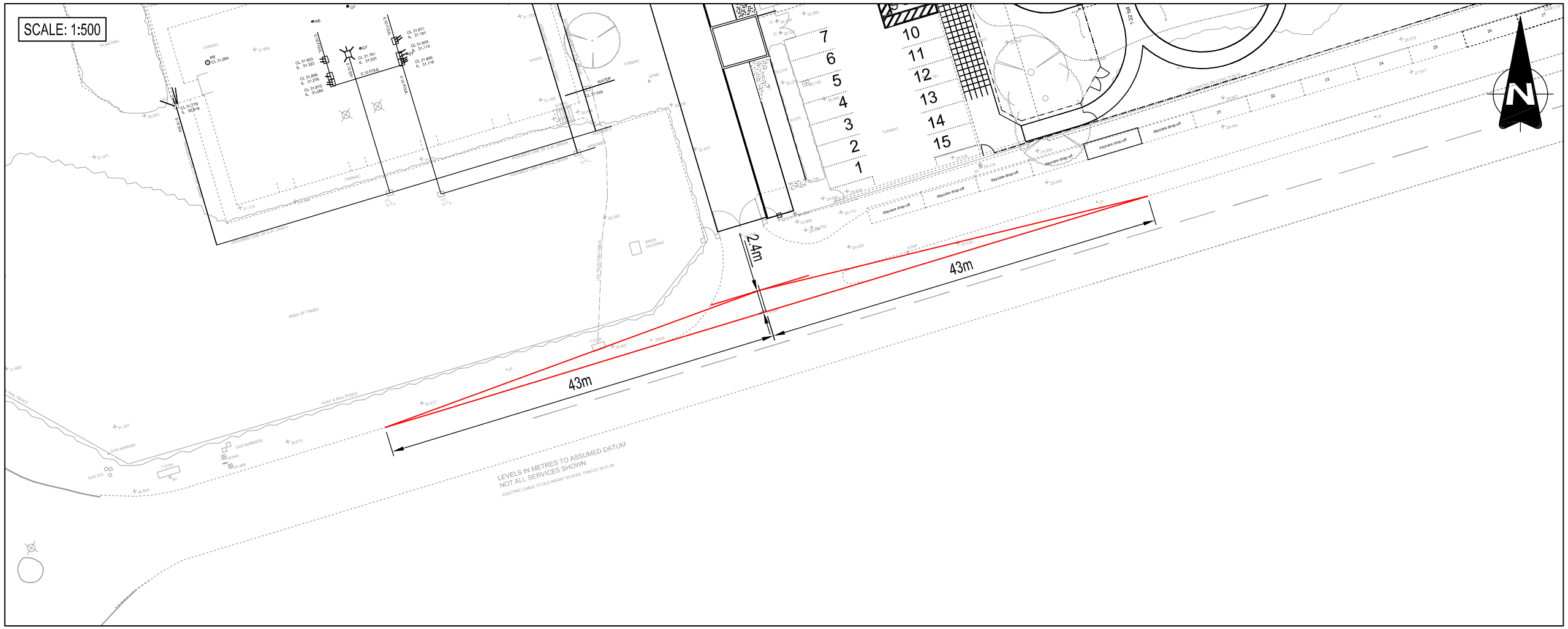
DESCRIPTION PEDESTRIAN PUSHING A PEDAL CYCLE CROSSED A343 NEWBURY ROAD JUST PRIOR TO RBT WITH SMANNELL ROAD BUT DID NOT LOOK PROPERLY BEFORE CROSSING AND ENTERED ROAD IN FRONT OF VEH 1 (VAN) TRAVELLING NORTH ON A343 NEWBURY ROAD.

VEHICLES		DRIVER		CASUALTIES			VEH	SEX	AGE
1	Car	Male	42	1	Pedestrian	SLIGHT	1	Female	25

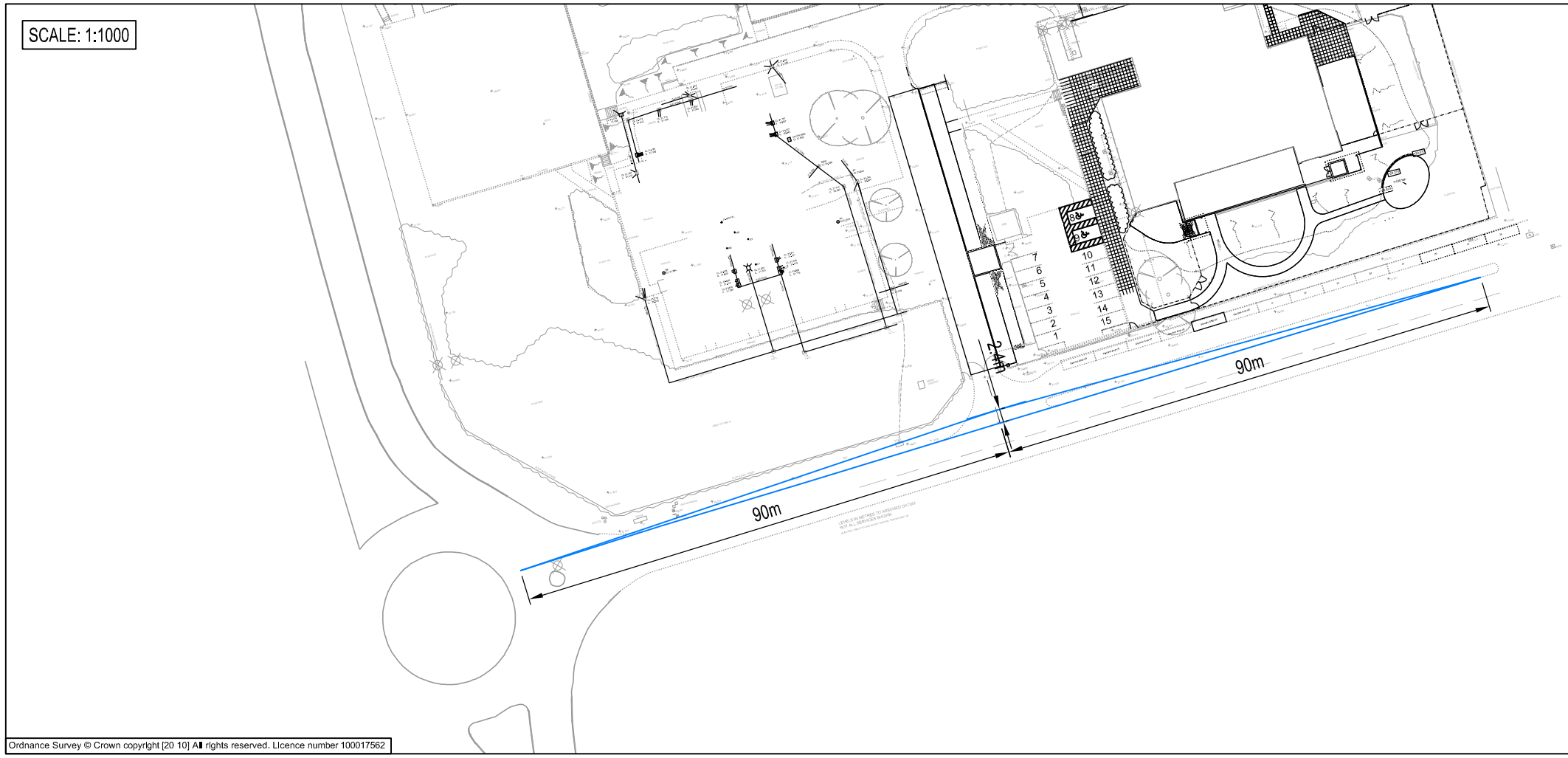
Appendix C

Visibility Splays

SCALE: 1:500



SCALE: 1:1000



File location: P:\STH\2009\STH2 Development Planning\STH2550 Shepherd's Spring TA\50 Drawings\51 CAD\STH2550-VS-001.dwg

Notes:

1. Do not scale from this drawing. If in doubt refer to the project manager for clarification.

Key

- Existing Features
- Proposed Features
- 2.4m x 43m Visibility Based on DfTs Manual for Streets Guidance (section 7.7)
- 2.4m x 90m Visibility Based on DMRB (TD 42/95 - section 7)

Rev.	Date	Revision details	Drawn	Checked	Approved

JMP
8th Floor
3 Harbour Exchange Square
London
E14 9GE

T 020 7536 8040
F 020 7005 0462
E london@jmp.co.uk
W www.jmp.co.uk

Client

Hampshire County Council

Project

Shepherd's Spring TA
Andover, Hampshire

Title

Proposed Site Access
Junction Visibility Splays
2.4m x 43m
2.4m x 90m

Drawn	Checked	Approved
BPC	SM	
Original drg. size	**Date**	**Scale**
A3	02.08.10	As Shown
Drawing Status	**Drawing Number**	**Rev.**
Information	STH2550-VS-001	-

Appendix D

Swept Path Analysis

File location: P:\STH2009\STH2 Development Planning\STH2550 Shepherd's Spring TA\50 Drawings\51 CAD\STH2550-TR-001 - 003.dwg

Notes:

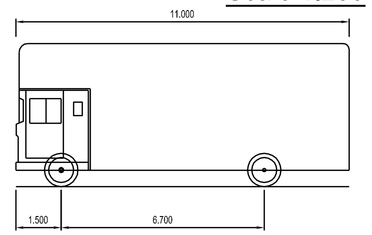
1. Do not scale from this drawing. If in doubt refer to the project manager for clarification.

Key

Existing Features

Proposed Features

Scale 1:250



Pantechnicon	
Overall Length	11.000m
Overall Width	2.500m
Overall Body Height	4.730m
Min Body Ground Clearance	0.541m
Track Width	2.500m
Lock to Lock Time	6.00 sec
Kerb to Kerb Turning Radius	12.200m

Rev.	Date	Revision details	Drawn	Checked	Approved

JMP
8th Floor
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E london@jmp.co.uk
W www.jmp.co.uk

Client
Hampshire County Council

Project
Shepherd's Spring TA
Andover, Hampshire

Title
Proposed Site Access
Swept Path Analysis
Pantechnicon: 2.5m x 11.0m

Drawn	Checked	Approved
BPC	SM	
Original drg. size: A3	Date: 13.10.10	Scale: 1:500

Drawing Status	Drawing Number	Rev.
Information	STH2550-TR-002	-

File location: P:\STH2009\STH2 Development Planning\STH2550 Shepherd's Spring TA\50 Drawings\51 CAD\STH2550-TR-001 - 003.dwg

Notes:

1. Do not scale from this drawing. If in doubt refer to the project manager for clarification.

Key

Existing Features

Proposed Features

Scale 1:250

9.860

1.795 3.900 1.400

Large Refuse Vehicle (3 axle)

Overall Length	9.860m
Overall Width	2.450m
Overall Body Height	3.814m
Min Body Ground Clearance	0.366m
Track Width	2.450m
Lock to Lock Time	4.00 sec
Kerb to Kerb Turning Radius	9.500m

Rev.	Date	Revision details	Drawn	Checked	Approved

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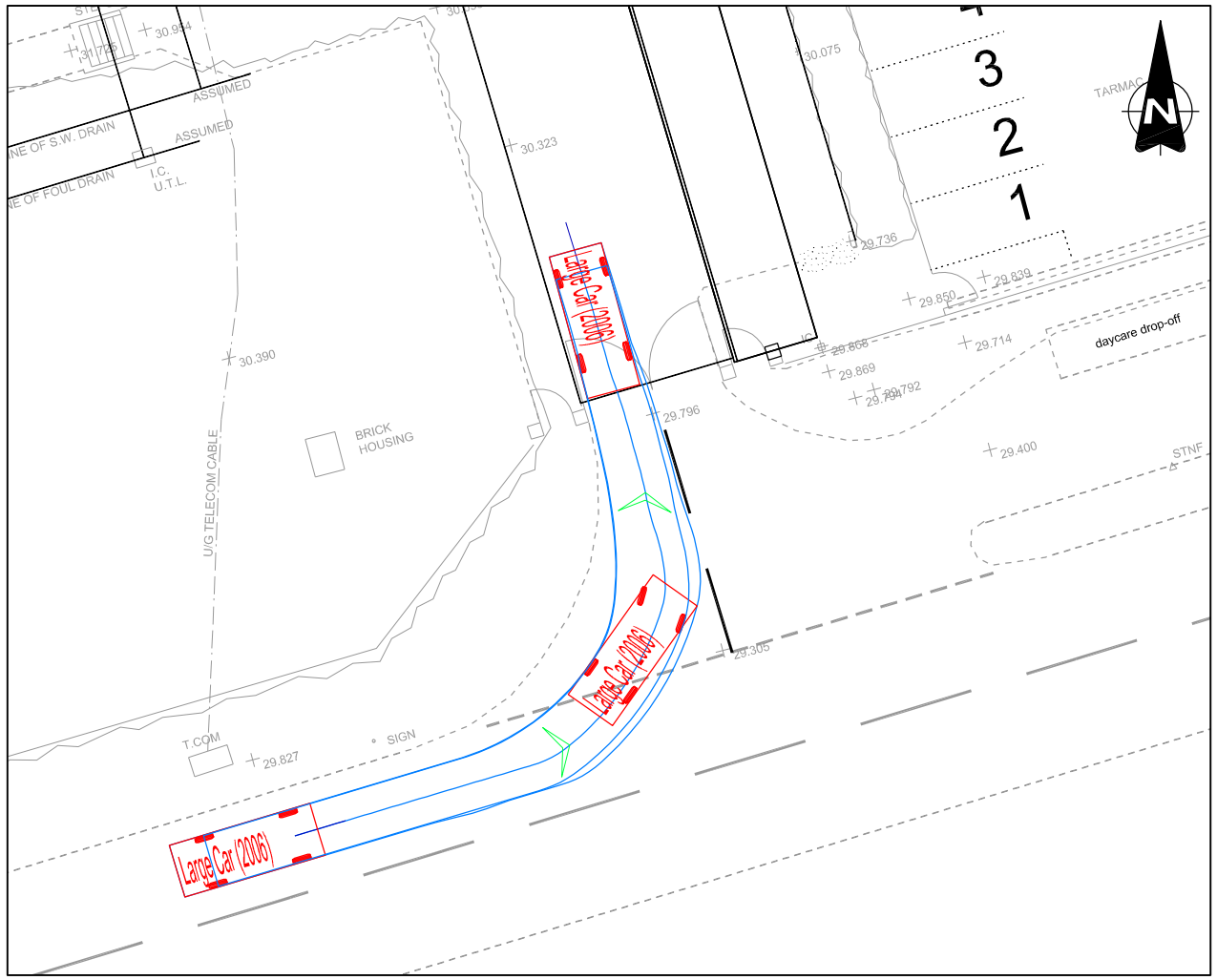
E london@jmp.co.uk
W www.jmp.co.uk

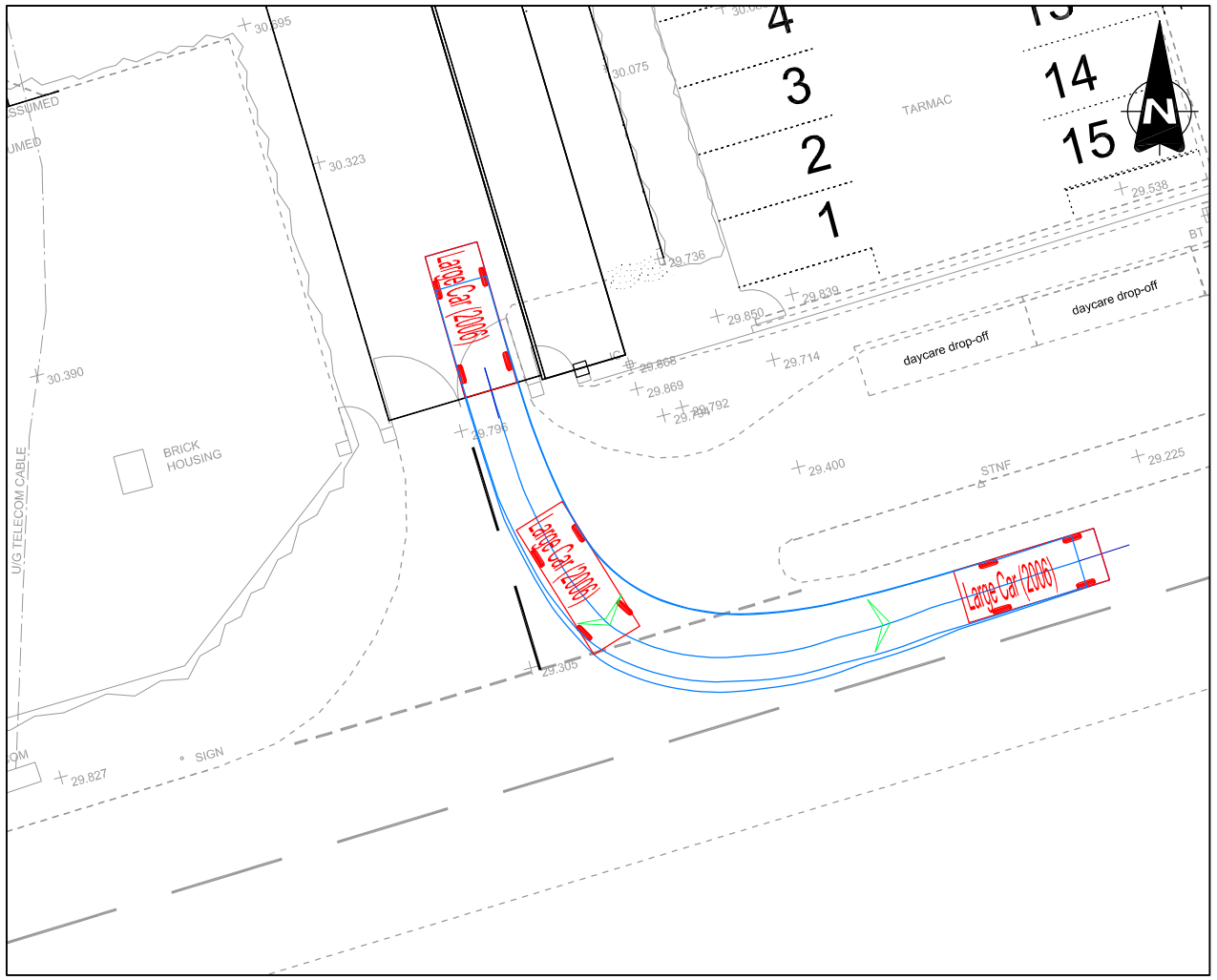
Client
Hampshire County Council

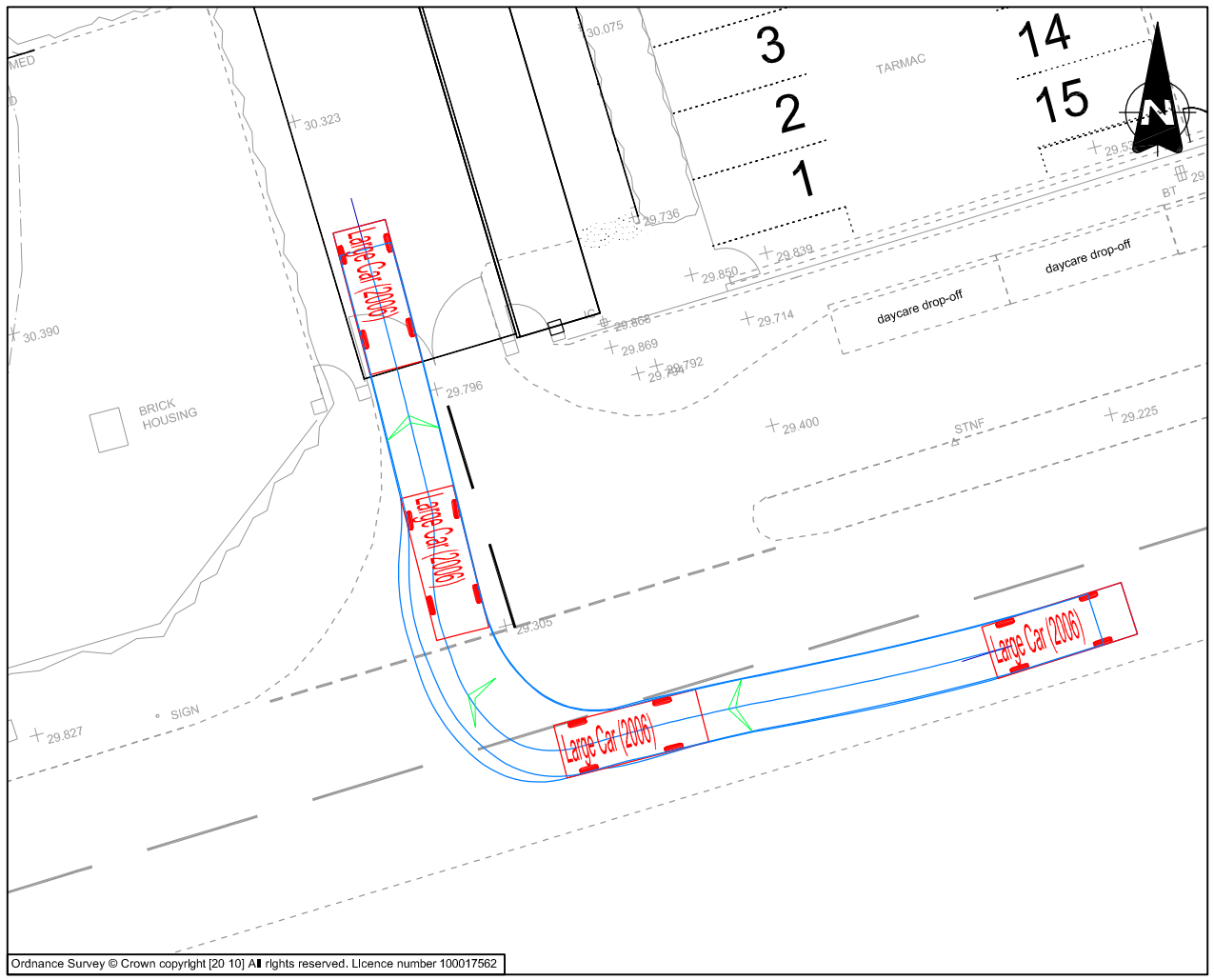
Project
Shepherd's Spring TA
Andover, Hampshire

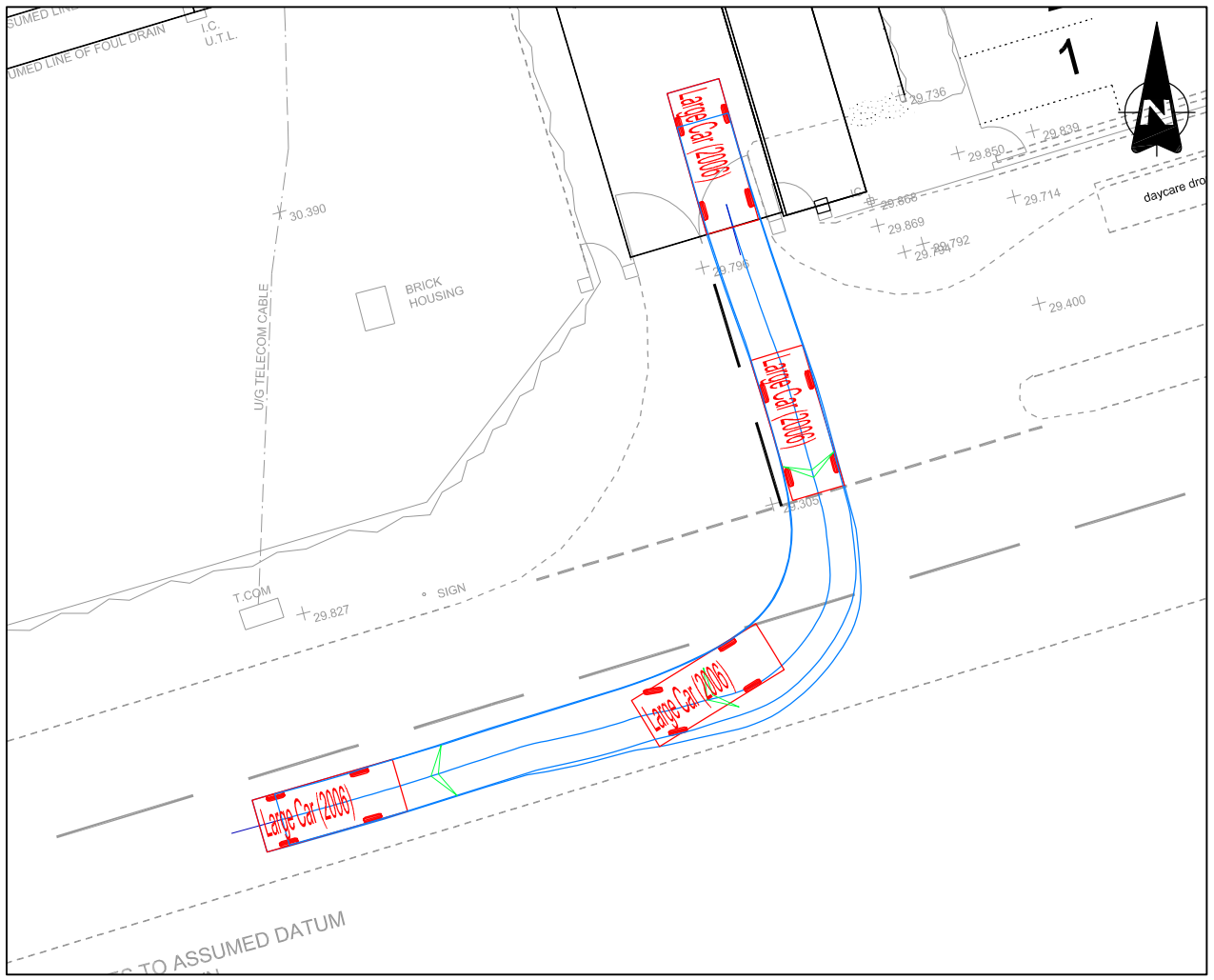
Title
Proposed Site Access
Swept Path Analysis
Large Refuse Vehicle (3-axle): 2.45m x 9.86m

Drawn	Checked	Approved
BPC	SM	
Original drg. size	**Date**	**Scale**
A3	13.10.10	1:500
Drawing Status	**Drawing Number**	**Rev.**
Information	STH2550-TR-001	-









File location: P:\STH\2009\STH2 Development Planning\STH2550 Shepherd's Spring TA\50 Drawings\51 CAD\STH2550-TR-001 - 003.dwg

Notes:

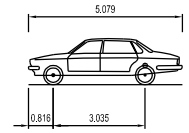
1. Do not scale from this drawing. If in doubt refer to the project manager for clarification.

Key

Existing Features

Proposed Features

Scale 1:250



Large Car (2006)

Overall Length	5.079m
Overall Width	1.872m
Overall Body Height	1.525m
Min Body Ground Clearance	0.310m
Max Track Width	1.831m
Lock to Lock Time	4.00 sec
Kerb to Kerb Turning Radius	5.900m

Rev.	Date	Revision details	Drawn	Checked	Approved

JMP
8th Floor
3 Harbour Exchange Square
London
E14 9GE

T 020 7536 8040
F 020 7005 0462
E london@jmp.co.uk
W www.jmp.co.uk

Client

Hampshire County Council

Project

Shepherd's Spring TA
Andover, Hampshire

Title

Proposed Site Access
Swept Path Analysis
Large Car: 1.87m x 5.08m

Drawn	Checked	Approved
BPC	SM	
Original drg. size	**Date**	**Scale**
A3	13.10.10	1:250
Drawing Status	**Drawing Number**	**Rev.**
Information	STH2550-TR-003	-

Appendix E

Traffic Survey Data

Intelligent Data Collection Limited
Smannell Road, Andover

Client	JMP Consultants
Project Number:	ID00536
Junction Number:	Site 1
Date of Survey:	14/07/2010
Junction Name:	Newbury Road / Smannell Road
Junction Type:	3 Arm Roundabout

Quality Assurance and Issue Record

Quality Assurance

Revision	Rev A			
Date				
Prepared by	Sarah Allen			
Signature				
Checked by	Sarah Allen			
Signature				
Authorised by	Paul O'Neill			
Signature				
Project number	ID00536			
File Ref	ID00536 Smannell Road Andover 3 arm Rbt			

Issue Sheet

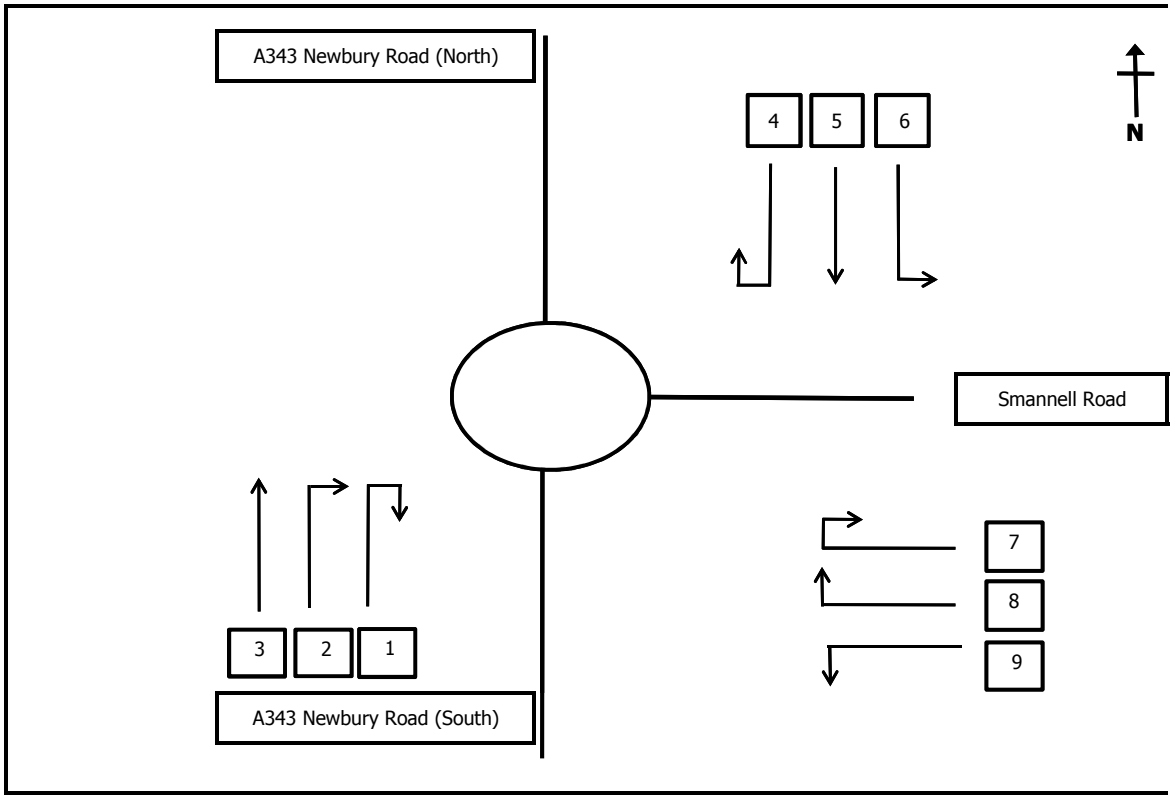
Issued to	Date			
	27/07/2010			
Meg Wlosek	Email			

Contents Page

Intelligent Data Collection Limited

Client JMP Consultants
Project Number: ID00536
Junction Number: Site 1
Date of Survey: 14/07/2010
Junction Name: Newbury Road / Smannell Road
Junction Type: 3 Arm Roundabout

Junction Layout



Drawn By: Sarah Allen

Date Drawn: 16/07/2010

Site Observations

Weather Conditions:

AM Peak:	PM Peak:
Dry	Dry

Additional Notes (Factors which may impact on survey results such as accidents, roadworks, special events)**:**

AM Data Set

Intelligent Data Collection Limited

Client JMP Consultants
Date 14/07/2010
Project Number ID00536
Junction Name Newbury Road / Smannell Road

Input by Sarah Allen
Checked by Sarah Allen

	Movement 1								Movement 2								Movement 3							
Time	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total
08:00	4	2	1	0	0	0	0	7	42	8	3	0	0	0	0	53	66	4	1	0	7	2	0	80
08:15	3	0	0	0	0	0	0	3	55	5	2	1	1	0	1	65	48	14	1	0	3	1	0	67
08:30	5	4	0	0	1	0	0	10	38	16	2	0	0	1	0	57	69	7	1	0	3	0	0	80
08:45	9	3	0	0	0	0	0	12	52	5	1	0	1	1	0	60	75	6	2	1	1	0	0	85

	Movement 4								Movement 5								Movement 6							
Time	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total
08:00	1	1	0	0	0	0	0	2	116	15	0	0	1	4	1	137	4	2	0	0	0	0	0	6
08:15	5	1	0	0	0	0	0	6	150	14	1	0	0	2	0	167	11	0	0	0	0	0	1	12
08:30	2	0	0	0	0	0	0	2	137	12	0	0	2	0	0	151	16	0	0	0	1	0	0	17
08:45	4	0	0	0	0	0	0	4	143	7	1	0	2	1	0	154	21	1	1	0	0	0	0	23

	Movement 7								Movement 8								Movement 9							
Time	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total
08:00	0	0	0	0	0	0	0	0	13	3	0	0	0	0	0	16	80	9	0	0	1	0	0	90
08:15	0	0	1	0	0	0	0	1	17	1	0	0	1	0	0	19	90	7	2	0	3	0	0	102
08:30	0	0	0	0	0	0	0	0	18	3	0	0	2	0	0	23	86	5	2	0	2	1	0	96
08:45	1	0	0	0	0	0	0	1	11	2	0	1	0	0	0	14	64	6	1	1	2	0	0	74

Intelligent Data Collection Limited

Client JMP Consultants
Date 14/07/2010
Project Number ID00536
Junction Name Newbury Road / Smannell Road

	Movements 1, 2 and 3								Movements 1, 5 and 9							
Time	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total
08:00	112	14	5	0	7	2	0	140	200	26	1	0	2	4	1	234
08:15	106	19	3	1	4	1	1	135	243	21	3	0	3	2	0	272
08:30	112	27	3	0	4	1	0	147	228	21	2	0	5	1	0	257
08:45	136	14	3	1	2	1	0	157	216	16	2	1	4	1	0	240

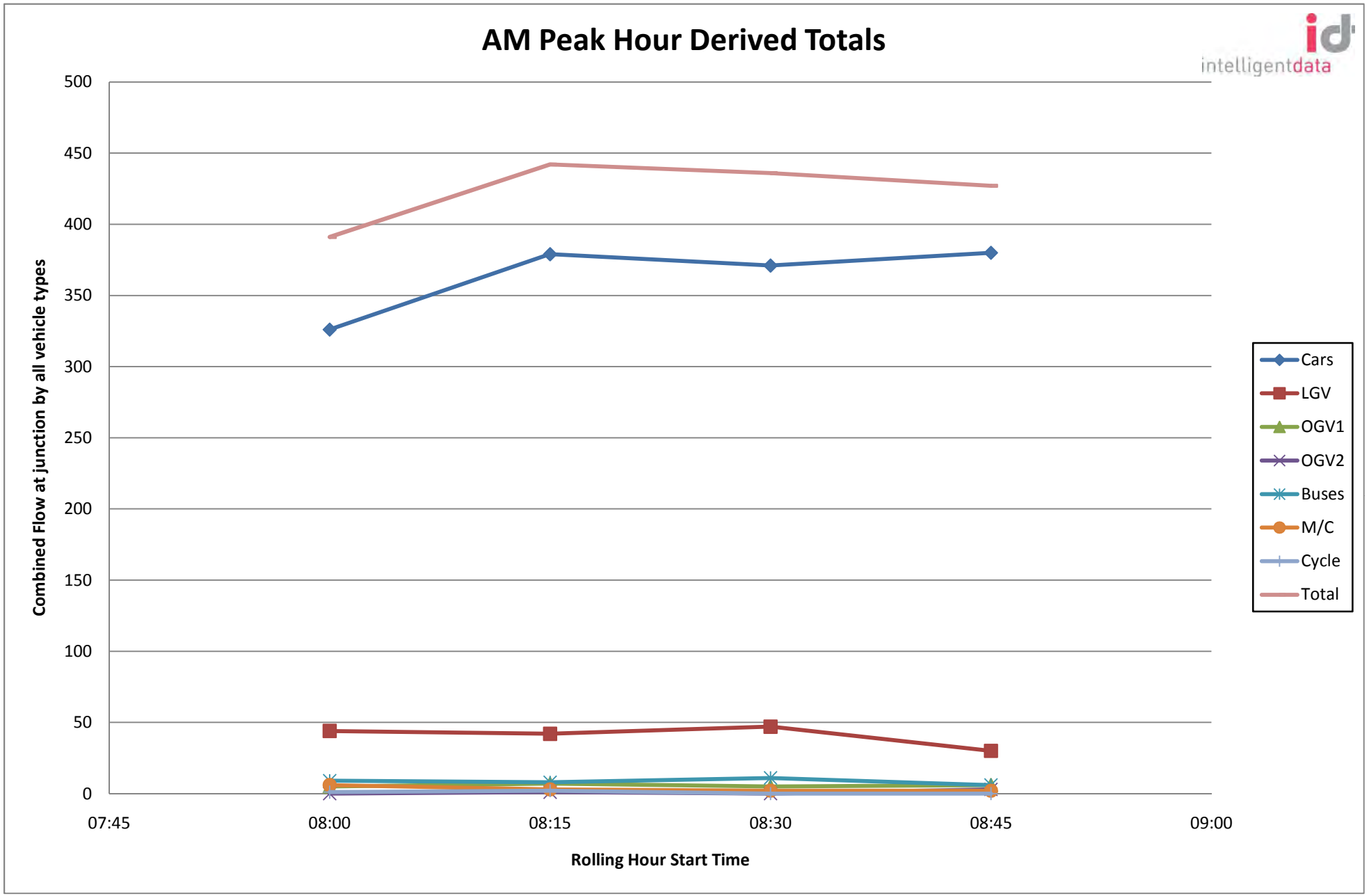
	Movements 4, 5 and 6								Movements 3, 4 and 8							
Time	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total
08:00	121	18	0	0	1	4	1	145	80	8	1	0	7	2	0	98
08:15	166	15	1	0	0	2	1	185	70	16	1	0	4	1	0	92
08:30	155	12	0	0	3	0	0	170	89	10	1	0	5	0	0	105
08:45	168	8	2	0	2	1	0	181	90	8	2	2	1	0	0	103

	Movements 7, 8 and 9								Movements 2, 6 and 7							
Time	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total
08:00	93	12	0	0	1	0	0	106	46	10	3	0	0	0	0	59
08:15	107	8	3	0	4	0	0	122	66	5	3	1	1	0	2	78
08:30	104	8	2	0	4	1	0	119	54	16	2	0	1	1	0	74
08:45	76	8	1	2	2	0	0	89	74	6	2	0	1	1	0	84

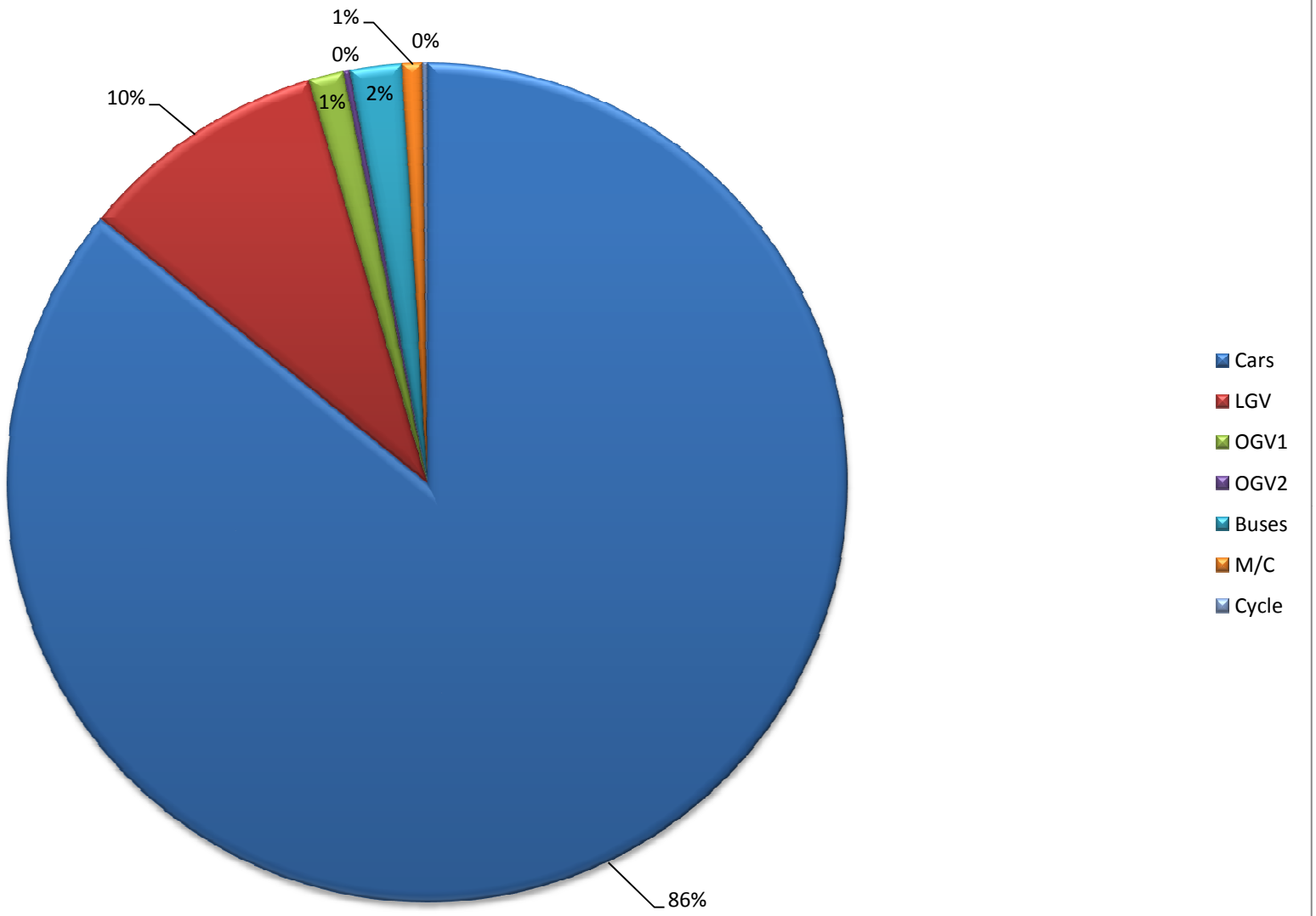
Intelligent Data Collection Limited

Client JMP Consultants
Date 14/07/2010
Project Number ID00536
Junction Name Newbury Road / Smannell Road

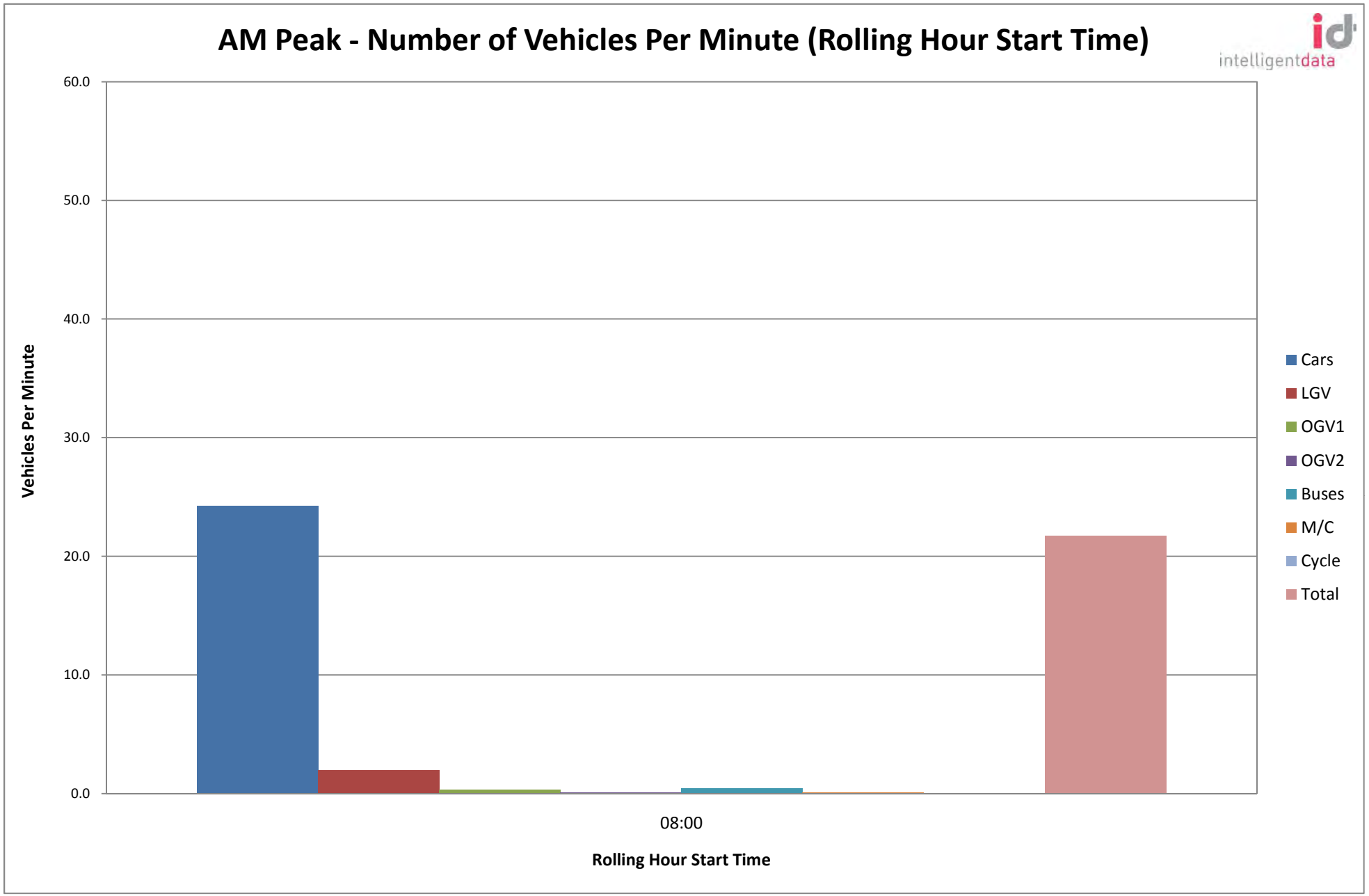
	Total Flow at Junction							
Time	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**
08:00	326	44	5	0	9	6	1	391
08:15	379	42	7	1	8	3	2	442
08:30	371	47	5	0	11	2	0	436
08:45	380	30	6	3	6	2	0	427


AM Peak Hour Derived Totals
intelligentdata
Combined Flow at junction by all vehicle types
500
450
400
350
300
250
200
150
100
50
0
07:45
08:00
08:15
08:30
08:45
09:00
Rolling Hour Start Time
Cars
LGV
OGV1
OGV2
Buses
M/C
Cycle
Total

Proportional Split by Vehicle Type - AM



AM Peak - Number of Vehicles Per Minute (Rolling Hour Start Time)



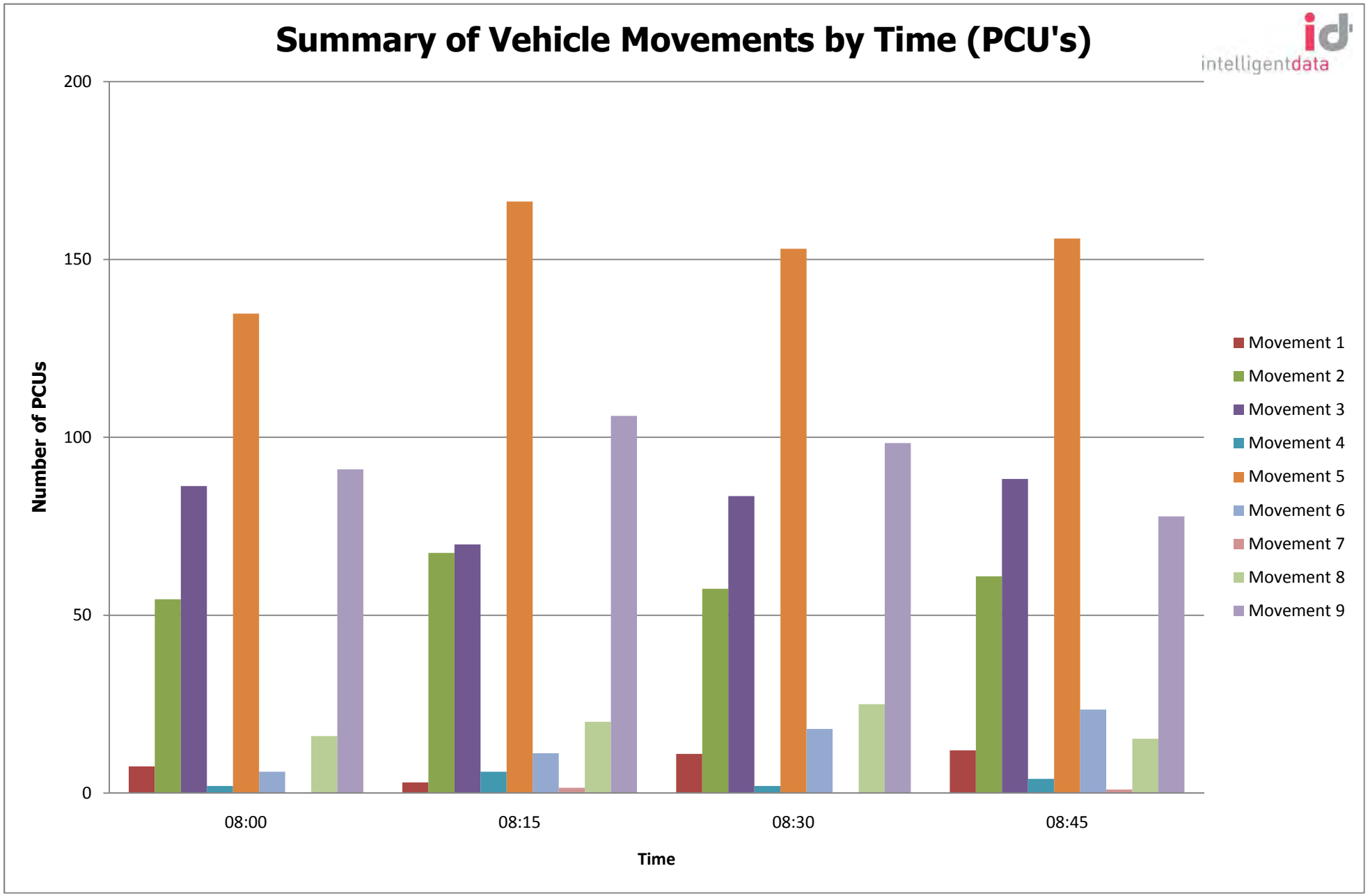
Intelligent Data Collection Limited

Client JMP Consultants
Date 14/07/2010
Project Number ID00536
Junction Name Newbury Road / Smannell Road

Completed by Sarah Allen
Checked by Sarah Allen

PCU Summary - AM Peak

	Movements								
Time	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
08:00	8	55	86	2	135	6	0	16	91
08:15	3	68	70	6	166	11	2	20	106
08:30	11	57	84	2	153	18	0	25	98
08:45	12	61	88	4	156	24	1	15	78


Summary of Vehicle Movements by Time (PCU's)
intelligentdata
200
150
100
50
0
Number of PCUs
08:00
08:15
08:30
08:45
Time
Movement 1
Movement 2
Movement 3
Movement 4
Movement 5
Movement 6
Movement 7
Movement 8
Movement 9

PM Peak Data Set

Intelligent Data Collection Limited

Client JMP Consultants
Date 14/07/2010
Project Number ID00536
Junction Name Newbury Road / Smannell Road

Input by Sarah Allen
Checked by Sarah Allen

	Movement 1								Movement 2								Movement 3							
Time	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total
17:00	66	1	0	1	0	1	0	69	97	7	0	0	0	1	0	105	186	14	0	1	1	2	0	204
17:15	34	0	1	0	0	1	0	36	114	10	0	1	0	0	0	125	142	17	0	0	3	2	1	165
17:30	25	1	0	0	0	0	0	26	85	8	0	0	0	1	0	94	137	8	0	0	1	0	0	146
17:45	14	0	0	0	0	0	0	14	90	4	0	0	0	1	0	95	129	9	0	0	3	1	2	144

	Movement 4								Movement 5								Movement 6							
Time	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total
17:00	3	0	0	0	0	0	0	3	75	13	0	0	0	0	0	88	12	2	0	0	0	1	0	15
17:15	3	0	0	0	0	0	0	3	88	6	0	0	0	1	0	95	15	2	0	0	0	0	0	17
17:30	4	0	0	0	0	0	0	4	84	9	0	0	0	3	0	96	14	0	0	0	0	0	0	14
17:45	5	0	0	0	0	0	0	5	84	3	0	0	0	1	0	88	11	2	0	0	0	0	0	13

	Movement 7								Movement 8								Movement 9							
Time	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total
17:00	0	0	0	0	0	0	0	0	12	1	0	0	0	1	0	14	62	10	0	0	1	0	0	73
17:15	0	0	0	0	0	0	0	0	5	1	0	0	0	0	0	6	63	8	1	1	3	0	0	76
17:30	1	0	0	0	0	0	0	1	19	2	0	0	0	0	0	21	61	4	1	0	1	0	0	67
17:45	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	6	54	7	0	0	2	0	0	63

Intelligent Data Collection Limited

Client JMP Consultants
Date 14/07/2010
Project Number ID00536
Junction Name Newbury Road / Smannell Road

	Movements 1, 2 and 3								Movements 1, 5 and 9							
Time	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total
17:00	349	22	0	2	1	4	0	378	203	24	0	1	1	1	0	230
17:15	290	27	1	1	3	3	1	326	185	14	2	1	3	2	0	207
17:30	247	17	0	0	1	1	0	266	170	14	1	0	1	3	0	189
17:45	233	13	0	0	3	2	2	253	152	10	0	0	2	1	0	165

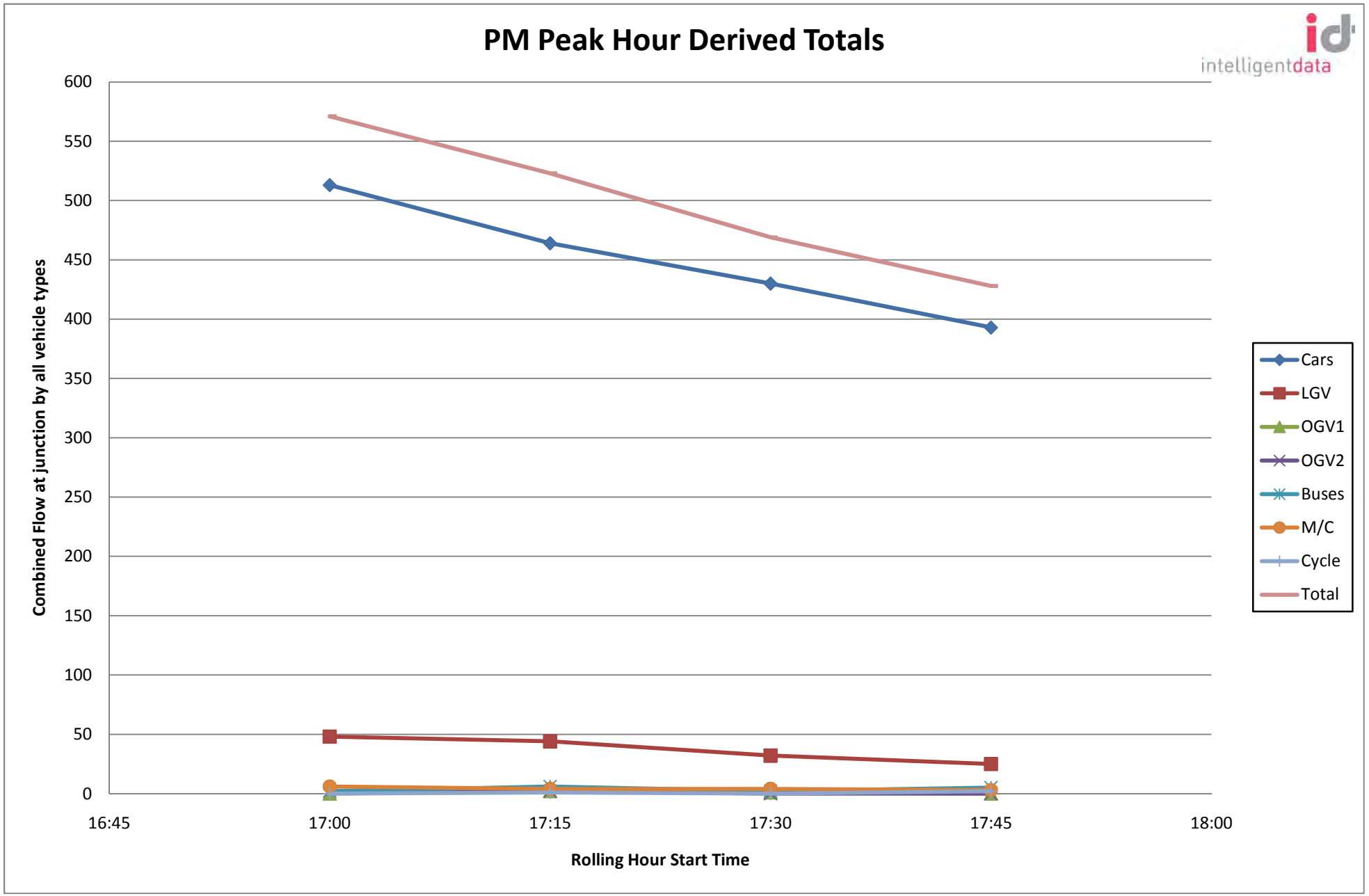
	Movements 4, 5 and 6								Movements 3, 4 and 8							
Time	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total
17:00	90	15	0	0	0	1	0	106	201	15	0	1	1	3	0	221
17:15	106	8	0	0	0	1	0	115	150	18	0	0	3	2	1	174
17:30	102	9	0	0	0	3	0	114	160	10	0	0	1	0	0	171
17:45	100	5	0	0	0	1	0	106	140	9	0	0	3	1	2	155

	Movements 7, 8 and 9								Movements 2, 6 and 7							
Time	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total
17:00	74	11	0	0	1	1	0	87	109	9	0	0	0	2	0	120
17:15	68	9	1	1	3	0	0	82	129	12	0	1	0	0	0	142
17:30	81	6	1	0	1	0	0	89	100	8	0	0	0	1	0	109
17:45	60	7	0	0	2	0	0	69	101	6	0	0	0	1	0	108

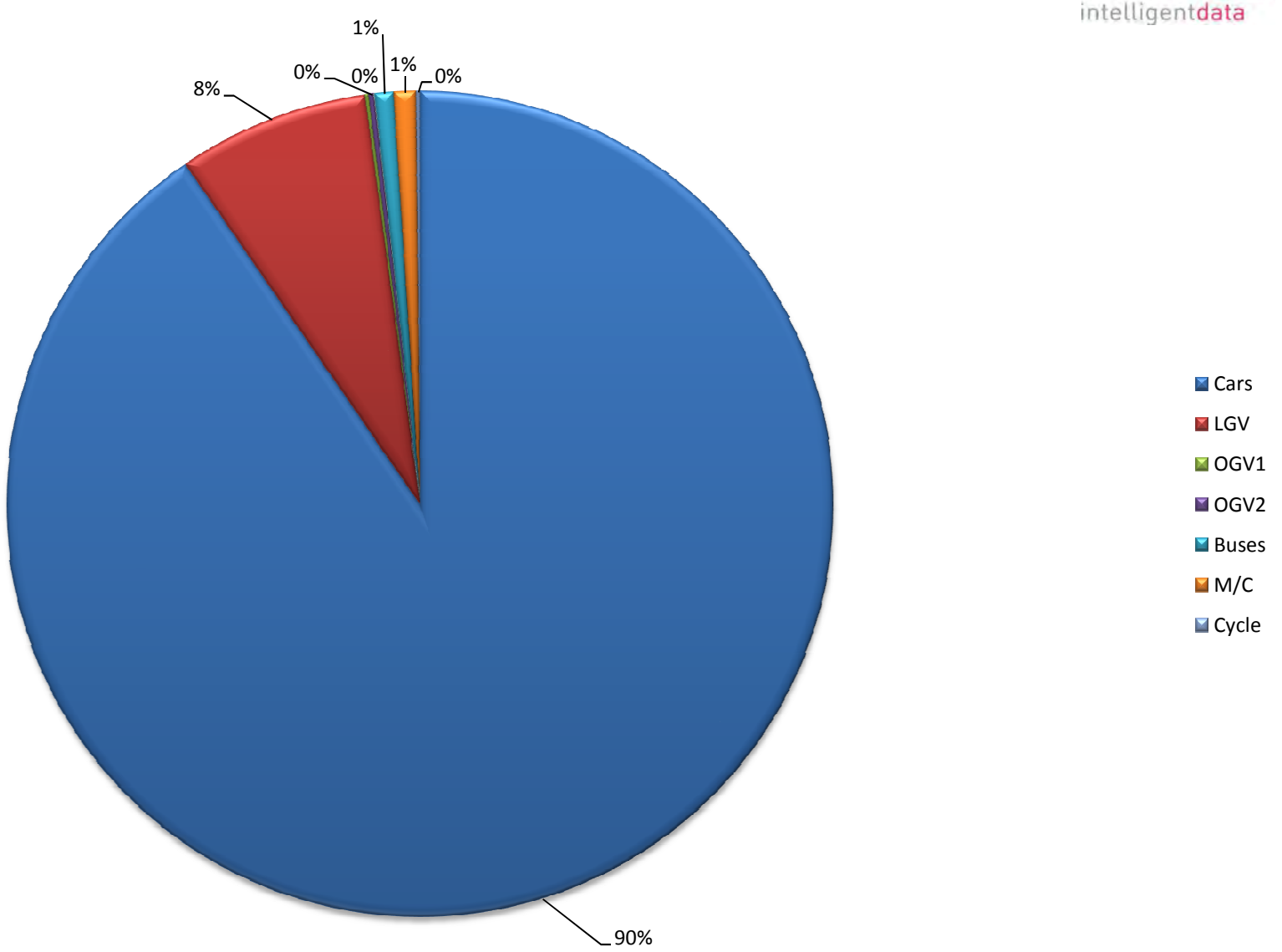
Intelligent Data Collection Limited

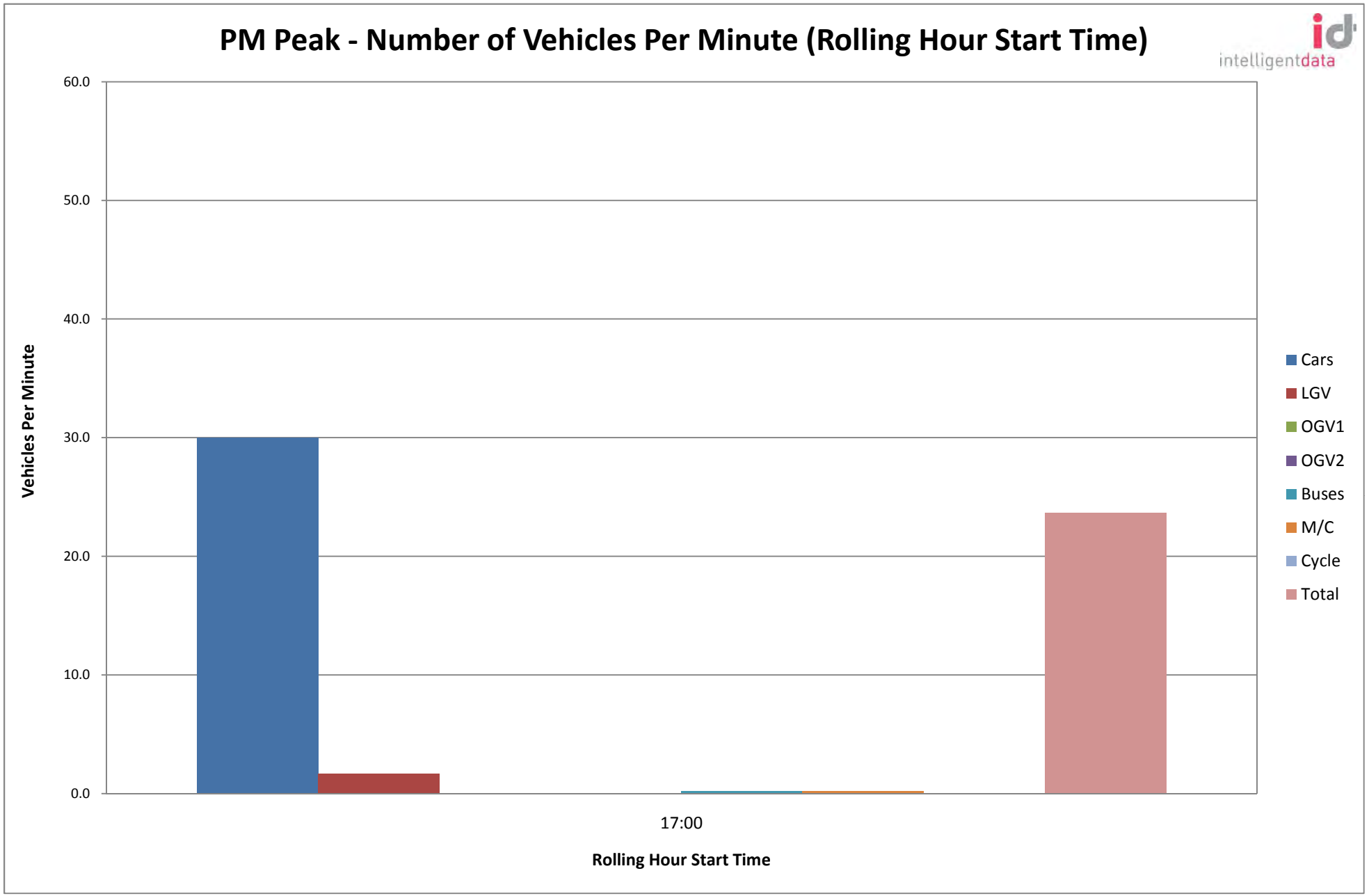
Client JMP Consultants
Date 14/07/2010
Project Number ID00536
Junction Name Newbury Road / Smannell Road

	Total Flow at Junction							
Time	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**
17:00	513	48	0	2	2	6	0	571
17:15	464	44	2	2	6	4	1	523
17:30	430	32	1	0	2	4	0	469
17:45	393	25	0	0	5	3	2	428


PM Peak Hour Derived Totals
intelligentdata
Combined Flow at junction by all vehicle types
600
550
500
450
400
350
300
250
200
150
100
50
0
16:45
17:00
17:15
17:30
17:45
18:00
Rolling Hour Start Time
Cars
LGV
OGV1
OGV2
Buses
M/C
Cycle
Total

Proportional Split by Vehicle Type - PM




PM Peak - Number of Vehicles Per Minute (Rolling Hour Start Time)
intelligentdata
60.0
50.0
40.0
30.0
20.0
10.0
0.0
Vehicles Per Minute
Cars
LGV
OGV1
OGV2
Buses
M/C
Cycle
Total
17:00
Rolling Hour Start Time

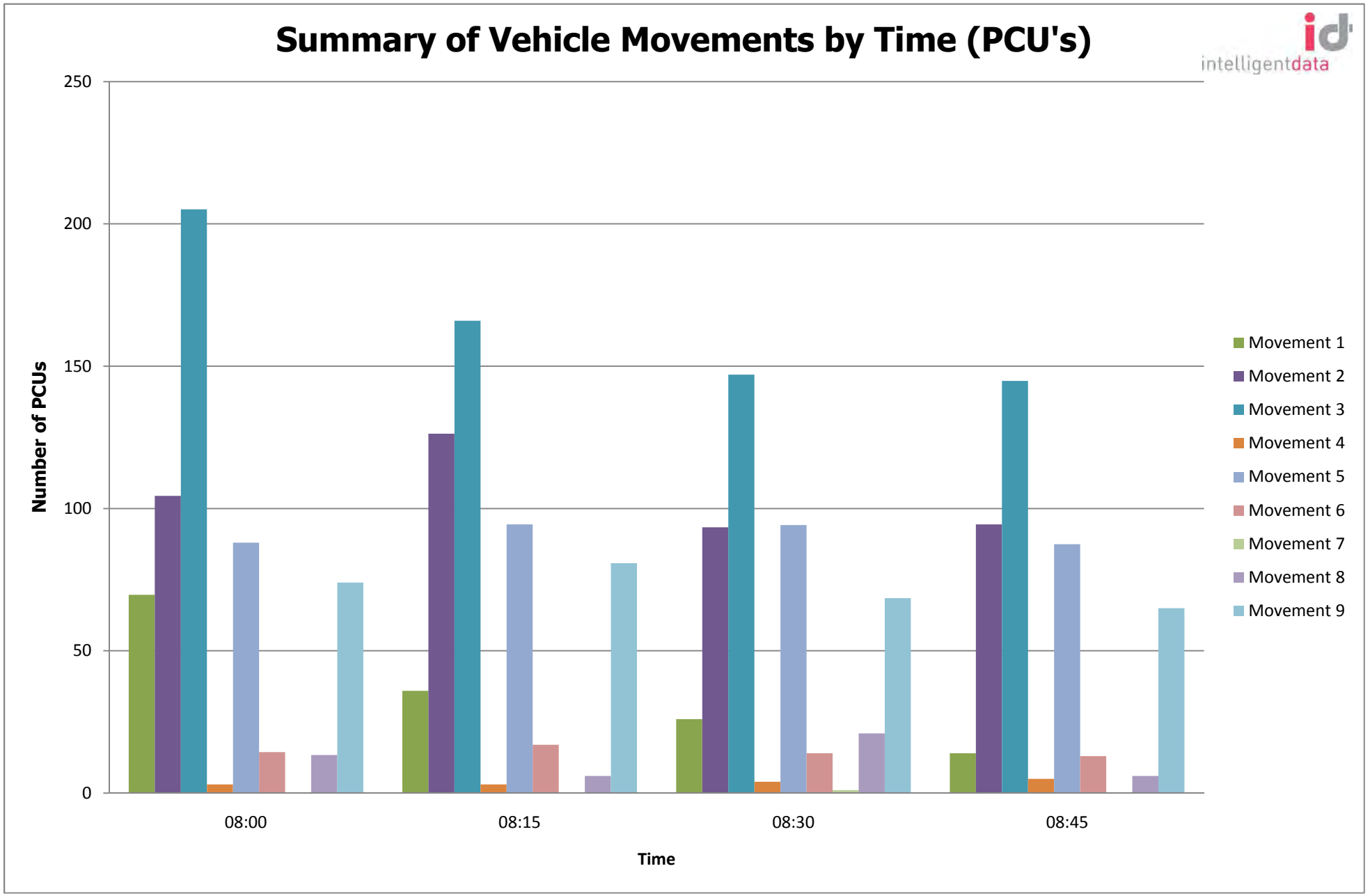
Intelligent Data Collection Limited

Client JMP Consultants
Date 14/07/2010
Project Number ID00536
Junction Name Newbury Road / Smannell Road

Completed by Sarah Allen
Checked by Sarah Allen

PCU Summary - PM Peak

	Movements								
Time	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
08:00	70	104	205	3	88	14	0	13	74
08:15	36	126	166	3	94	17	0	6	81
08:30	26	93	147	4	94	14	1	21	69
08:45	14	94	145	5	87	13	0	6	65


Summary of Vehicle Movements by Time (PCU's)
intelligentdata
Number of PCUs
250
200
150
100
50
0
08:00
08:15
08:30
08:45
Time
Movement 1
Movement 2
Movement 3
Movement 4
Movement 5
Movement 6
Movement 7
Movement 8
Movement 9

Intelligent Data Collection Limited
Smannell Road, Andover

Client	JMP Consultants
Project Number:	ID00536
Date of Survey:	14/07/2010
Junction Name:	Newbury Road / Smannell Road
Survey Type:	Queue Survey

Quality Assurance and Issue Record

Quality Assurance

Revision	Rev A			
Date				
Prepared by	Sarah Allen			
Signature				
Checked by	Sarah Allen			
Signature				
Authorised by	Paul O'Neill			
Signature				
Project number	14/07/2010			
File Ref	ID00536 Smannell Road Andover Queue Count			

Issue Sheet

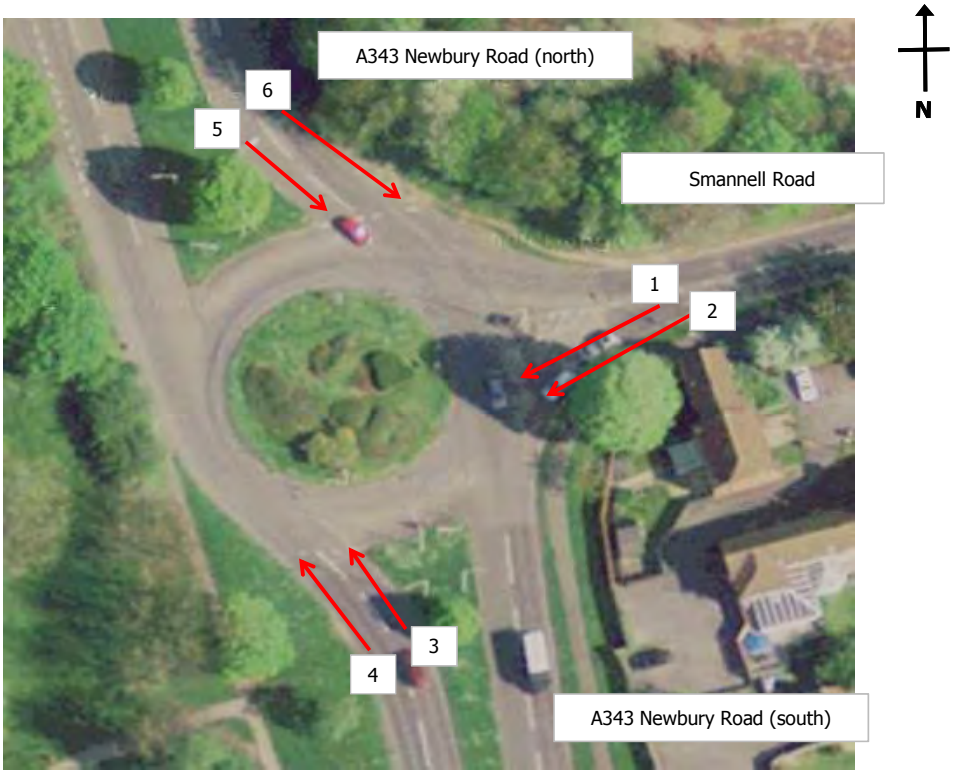
	Date			
Issued to	27/07/2010			
Meg Wlosek	Rev A - Email			

Contents Page

Intelligent Data Collection Limited

Client JMP Consultants
Project Number: ID00536
Date of Survey: 14/07/2010
Junction Name: 40373
Survey Type: Newbury Road / Smannell Road

Junction Layout



Site Observations

Factors which may impact on survey results such as accidents, roadworks, special events:

Intelligent Data Collection Limited

Client JMP Consultants
Project Number: ID00536
Date of Survey: #REF!
Junction Name: 40373
Survey Type: Newbury Road / Smannell Road

AM Peak

	Number of Vehicles by Lane											
	Lane 1		Lane 2		Lane 3		Lane 4		Lane 5		Lane 6	
Time	LGVs	HGVs	LGVs	HGVs	LGVs	HGVs	LGVs	HGVs	LGVs	HGVs	LGVs	HGVs
08:00	1	0	2	0	0	0	0	0	1	0	1	1
08:05	0	0	4	0	1R	0	1R	0	0	0	4	0
08:10	0	0	4	0	0	0	1R	0	0	0	2	0
08:15	0	0	2	0	0	0	0	0	0	0	0	0
08:20	0	0	6	1	0	0	0	0	0	0	0	0
08:25	0	0	6R	0	0	0	0	0	1	0	1	0
08:30	0	0	4	0	0	0	1	0	2R	0	1	0
08:35	0	0	3	0	0	0	1	0	0	0	2R	0
08:40	1	0	6	1	1	0	1	0	1	0	2R	0
08:45	0	0	1	0	0	0	0	0	0	0	3	0
08:50	0	0	1	0	1	0	0	0	1	0	3	0
08:55	1	0	3	0	1	0	0	0	0	0	0	0

PM Peak

	Number of Vehicles by Lane											
	Lane 1		Lane 2		Lane 3		Lane 4		Lane 5		Lane 6	
Time	LGVs	HGVs	LGVs	HGVs	LGVs	HGVs	LGVs	HGVs	LGVs	HGVs	LGVs	HGVs
17:00	0	0	1	0	0	0	0	0	0	0	1	0
17:05	1	0	2	0	3	0	1	1	1	0	4R	0
17:10	0	0	1	0	2	0	2	0	0	0	4R	0
17:15	1	0	1	0	4R	0	4R	0	0	0	4	0
17:20	0	0	1	0	7R	0	3R	1	0	0	2	0
17:25	0	0	0	0	4R	0	5R	0	0	0	2	0
17:30	0	0	7	1	2R	0	1	0	1	0	1	0
17:35	0	0	2	1	5R	0	8R	0	0	0	1	0
17:40	0	0	2R	0	1	0	3R	0	0	0	0	0
17:45	0	0	1	0	0	0	0	0	0	0	1R	0
17:50	0	0	1R	0	1	0	5R	0	0	0	2R	0
17:55	0	0	1R	0	0	0	1	0	0	0	0	0

Key:
R = Rolling Queue

Appendix F

ARCADY Output Files: Newbury Road/ Smannell Road Roundabout

```
                    _____________________ A R C A D Y  6 _____________________

                        ASSESSMENT OF ROUNDABOUT CAPACITY AND DELAY


                        Analysis Program: Release 5.0 (JANUARY 2009)

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                    Wokingham, Berks.      Web:   www.trlsoftware.co.uk
                    RG40 3GA,UK

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 Run with file:-
 "P:\STH\2009\STH2 Development Planning\STH2550 Shepherd's Spring TA\30 Technical\31 Modelling\ARCADY\
  Newbury Road, Smannell Road AM Peak.vai"
(drive-on-the-left ) at 11:35:00 on Tuesday, 3 August 2010


.FILE PROPERTIES
 ***************

   RUN TITLE: Newbury Road (A343) / Smannell Road Roundabout AM Peak 08:00-09:00
    LOCATION: Andover, Hampshire
        DATE: 30/07/10
      CLIENT: Hampshire County Council
  ENUMERATOR: bchadwick [LON0803]
  JOB NUMBER: STH2550
      STATUS: Preliminary
 DESCRIPTION:

.INPUT DATA
 **********
 ARM A - Newbury Road (A343) North
 ARM B - Smannell Road
 ARM C - Newbury Road (A343) South

.GEOMETRIC DATA
 --------------



-------------------------------------------------------------------------------------------------------------------------
---- T5
 I ARM    I   V (M)   I    E (M)   I    L (M)   I    R (M)   I     D (M) I   PHI (DEG)  I  SLOPE  I INTERCEPT
(PCU/MIN) I

-------------------------------------------------------------------------------------------------------------------------
-----
 I ARM  A I    7.30   I     7.50   I     6.10   I   110.00   I   19.70   I     16.0     I  0.851  I       41.126
I
 I ARM  B I    3.75   I     7.70   I     5.00   I    17.40   I   19.70   I     28.0     I  0.618  I       24.583
I
 I ARM  C I    7.20   I     7.20   I     0.00   I   291.00   I   19.70   I      0.0     I  0.878  I       41.801
I

-------------------------------------------------------------------------------------------------------------------------
-----

 V = approach half-width       L = effective flare length           D = inscribed circle diameter
 E = entry width               R = entry radius                     PHI = entry angle


.TRAFFIC DEMAND DATA
 -------------------

 Only sets included in the current run are shown

.SCALING FACTORS

.----------------------- T13
 IARM  I FLOW SCALE(%) I
 ----------------------
 I A   I      100      I
 I B   I      100      I
 I C   I      100      I
 ----------------------


 TIME PERIOD BEGINS(07.45)AND ENDS(09.15)
.LENGTH OF TIME PERIOD -(  90) MINUTES
.LENGTH OF TIME SEGMENT - (15) MINUTES

.DEMAND FLOW PROFILES ARE SYNTHESISED FROM THE TURNING COUNT DATA


.DEMAND SET TITLE: Newbury Road / Smannell Road AM Peak 2010 Base
 ------------------------------------------------------------------------------ T15
 I        I   NUMBER OF MINUTES FROM START WHEN    I   RATE OF FLOW (VEH/MIN) I
 I  ARM   I FLOW STARTS I TOP OF PEAK I FLOW STOPS I BEFORE I AT TOP  I AFTER I
 I        I             I            I            I        I         I       I
 I        I   TO RISE   I  IS REACHED I FALLING    I  PEAK  I OF PEAK I PEAK  I
 ------------------------------------------------------------------------------
```

ARM A	15.00	45.00	75.00	8.54	12.81	8.54
ARM B	15.00	45.00	75.00	5.65	8.48	5.65
ARM C	15.00	45.00	75.00	7.53	11.29	7.53

DEMAND SET TITLE: Newbury Road / Smannell Road AM Peak 2010 Base

T33

TURNING PROPORTIONS
TURNING COUNTS
(PERCENTAGE OF H.V.S)

TIME	FROM/TO	ARM A	ARM B	ARM C
07.45 - 09.15	ARM A	0.020	0.086	0.893
		14.0	59.0	610.0
		(0.0)	(0.0)	(0.0)
	ARM B	0.168	0.007	0.825
		76.0	3.0	373.0
		(0.0)	(0.0)	(0.0)
	ARM C	0.545	0.399	0.056
		328.0	240.0	34.0
		(0.0)	(0.0)	(0.0)

. QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

T70

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
07.45-08.00									
ARM A	8.57	38.17	0.224	- -	0.0	0.3	4.3	-	0.034
ARM B	5.67	19.49	0.291	- -	0.0	0.4	6.0	-	0.072
ARM C	7.55	40.78	0.185	- -	0.0	0.2	3.4	-	0.030
08.00-08.15									
ARM A	10.23	37.60	0.272	- -	0.3	0.4	5.5	-	0.037
ARM B	6.77	18.49	0.366	- -	0.4	0.6	8.4	-	0.085
ARM C	9.02	40.58	0.222	- -	0.2	0.3	4.2	-	0.032
08.15-08.30									
ARM A	12.53	36.80	0.341	- -	0.4	0.5	7.6	-	0.041
ARM B	8.29	17.13	0.484	- -	0.6	0.9	13.4	-	0.113
ARM C	11.05	40.31	0.274	- -	0.3	0.4	5.6	-	0.034
08.30-08.45									
ARM A	12.53	36.80	0.341	- -	0.5	0.5	7.7	-	0.041
ARM B	8.29	17.12	0.484	- -	0.9	0.9	14.0	-	0.113
ARM C	11.05	40.30	0.274	- -	0.4	0.4	5.7	-	0.034
08.45-09.00									
ARM A	10.23	37.59	0.272	- -	0.5	0.4	5.7	-	0.037
ARM B	6.77	18.48	0.366	- -	0.9	0.6	9.0	-	0.086
ARM C	9.02	40.57	0.222	- -	0.4	0.3	4.3	-	0.032
09.00-09.15									
ARM A	8.57	38.17	0.225	- -	0.4	0.3	4.4	-	0.034
ARM B	5.67	19.48	0.291	- -	0.6	0.4	6.3	-	0.073
ARM C	7.55	40.77	0.185	- -	0.3	0.2	3.4	-	0.030

.QUEUE AT ARM A

TIME SEGMENT ENDING	NO. OF VEHICLES

	IN QUEUE	
08.00	0.3	
08.15	0.4	
08.30	0.5	*
08.45	0.5	*
09.00	0.4	
09.15	0.3	

.QUEUE AT ARM B

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.00	0.4	
08.15	0.6	*
08.30	0.9	*
08.45	0.9	*
09.00	0.6	*
09.15	0.4	

.QUEUE AT ARM C

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.00	0.2
08.15	0.3
08.30	0.4
08.45	0.4
09.00	0.3
09.15	0.2

.QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

ARM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *		T75
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)	
A	940.1	626.7	35.2	0.04	35.2	0.04	
B	622.1	414.8	57.0	0.09	57.0	0.09	
C	828.6	552.4	26.6	0.03	26.6	0.03	
ALL	2390.9	1593.9	118.9	0.05	118.9	0.05	

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD.
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

```
                    _____________________ A R C A D Y  6 _____________________

                        ASSESSMENT OF ROUNDABOUT CAPACITY AND DELAY


                        Analysis Program: Release 5.0 (JANUARY 2009)

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 Run with file:-
 "P:\STH\2009\STH2 Development Planning\STH2550 Shepherd's Spring TA\30 Technical\31 Modelling\ARCADY\
  Newbury Road, Smannell Road PM Peak.vai"
(drive-on-the-left ) at 11:40:56 on Tuesday, 3 August 2010


.FILE PROPERTIES
 ***************

   RUN TITLE: Newbury Road (A343) / Smannell Road Roundabout PM Peak 17:00-18:00
    LOCATION: Andover, Hampshire
        DATE: 30/07/10
      CLIENT: Hampshire County Council
  ENUMERATOR: bchadwick [LON0803]
  JOB NUMBER: STH2550
      STATUS: Preliminary
 DESCRIPTION:

.INPUT DATA
 **********
 ARM A - Newbury Road (A343) North
 ARM B - Smannell Road
 ARM C - Newbury Road (A343) South

.GEOMETRIC DATA
 --------------



-------------------------------------------------------------------------------------------------------------------------
---- T5
 I ARM    I   V (M)   I    E (M)   I    L (M)   I    R (M)   I     D (M) I   PHI (DEG)  I  SLOPE  I INTERCEPT
(PCU/MIN) I

-------------------------------------------------------------------------------------------------------------------------
-----
 I ARM  A I    7.30   I     7.50   I     6.10   I   110.00   I   19.70   I     16.0     I  0.851  I       41.126
I
 I ARM  B I    3.75   I     7.70   I     5.00   I    17.40   I   19.70   I     28.0     I  0.618  I       24.583
I
 I ARM  C I    7.20   I     7.20   I     0.00   I   291.00   I   19.70   I      0.0     I  0.878  I       41.801
I

-------------------------------------------------------------------------------------------------------------------------
-----

 V = approach half-width       L = effective flare length           D = inscribed circle diameter
 E = entry width               R = entry radius                     PHI = entry angle


.TRAFFIC DEMAND DATA
 -------------------

 Only sets included in the current run are shown

.SCALING FACTORS

.----------------------- T13
 IARM  I FLOW SCALE(%) I
 ----------------------
 I A   I      100      I
 I B   I      100      I
 I C   I      100      I
 ----------------------


 TIME PERIOD BEGINS(16.45)AND ENDS(18.15)
.LENGTH OF TIME PERIOD -(  90) MINUTES
.LENGTH OF TIME SEGMENT - (15) MINUTES

.DEMAND FLOW PROFILES ARE SYNTHESISED FROM THE TURNING COUNT DATA


.DEMAND SET TITLE: Newbury Road / Smannell Road PM Peak 2010 Base
 ------------------------------------------------------------------------------ T15
 I        I   NUMBER OF MINUTES FROM START WHEN    I   RATE OF FLOW (VEH/MIN) I
 I  ARM   I FLOW STARTS I TOP OF PEAK I FLOW STOPS I BEFORE I AT TOP  I AFTER I
 I        I             I            I            I        I         I       I
 I        I   TO RISE   I  IS REACHED I FALLING    I  PEAK  I OF PEAK I PEAK  I
 ------------------------------------------------------------------------------
```

ARM A	15.00	45.00	75.00	5.46	8.19	5.46
ARM B	15.00	45.00	75.00	4.19	6.28	4.19
ARM C	15.00	45.00	75.00	15.35	23.03	15.35

DEMAND SET TITLE: Newbury Road / Smannell Road PM Peak 2010 Base

T33

TIME	FROM/TO	ARM A	ARM B	ARM C
16.45 - 18.15		TURNING PROPORTIONS / TURNING COUNTS (PERCENTAGE OF H.V.S)		
	ARM A	0.034	0.133	0.833
		15.0	58.0	364.0
		(0.0)	(0.0)	(0.0)
	ARM B	0.137	0.003	0.860
		46.0	1.0	288.0
		(0.0)	(0.0)	(0.0)
	ARM C	0.540	0.341	0.119
		663.0	419.0	146.0
		(0.0)	(0.0)	(0.0)

. QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

T70

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
16.45-17.00									
ARM A	5.48	35.10	0.156	- -	0.0	0.2	2.7	-	0.034
ARM B	4.20	20.52	0.205	- -	0.0	0.3	3.8	-	0.061
ARM C	15.41	41.12	0.375	- -	0.0	0.6	8.8	-	0.039
17.00-17.15									
ARM A	6.55	33.91	0.193	- -	0.2	0.2	3.5	-	0.037
ARM B	5.02	19.72	0.254	- -	0.3	0.3	5.0	-	0.068
ARM C	18.40	40.99	0.449	- -	0.6	0.8	12.0	-	0.044
17.15-17.30									
ARM A	8.02	32.30	0.248	- -	0.2	0.3	4.9	-	0.041
ARM B	6.15	18.63	0.330	- -	0.3	0.5	7.2	-	0.080
ARM C	22.53	40.80	0.552	- -	0.8	1.2	17.9	-	0.055
17.30-17.45									
ARM A	8.02	32.29	0.248	- -	0.3	0.3	4.9	-	0.041
ARM B	6.15	18.63	0.330	- -	0.5	0.5	7.3	-	0.080
ARM C	22.53	40.80	0.552	- -	1.2	1.2	18.4	-	0.055
17.45-18.00									
ARM A	6.55	33.90	0.193	- -	0.3	0.2	3.6	-	0.037
ARM B	5.02	19.72	0.255	- -	0.5	0.3	5.3	-	0.068
ARM C	18.40	40.98	0.449	- -	1.2	0.8	12.5	-	0.044
18.00-18.15									
ARM A	5.48	35.08	0.156	- -	0.2	0.2	2.8	-	0.034
ARM B	4.20	20.51	0.205	- -	0.3	0.3	3.9	-	0.061
ARM C	15.41	41.12	0.375	- -	0.8	0.6	9.2	-	0.039

.QUEUE AT ARM A

TIME SEGMENT ENDING	NO. OF VEHICLES

	IN QUEUE
17.00	0.2
17.15	0.2
17.30	0.3
17.45	0.3
18.00	0.2
18.15	0.2

.QUEUE AT ARM B

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.00	0.3
17.15	0.3
17.30	0.5
17.45	0.5
18.00	0.3
18.15	0.3

.QUEUE AT ARM C

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.00	0.6	*
17.15	0.8	*
17.30	1.2	*
17.45	1.2	*
18.00	0.8	*
18.15	0.6	*

.QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

ARM	TOTAL DEMAND	* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *		T75
	(VEH) (VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)	
A	601.5 401.0	22.6	0.04	22.6	0.04	
B	461.1 307.4	32.5	0.07	32.5	0.07	
C	1690.3 1126.8	78.8	0.05	78.8	0.05	
ALL	2752.9 1835.2	133.8	0.05	133.8	0.05	

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD.
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

Run with file:-
"P:\STH\2009\STH2 Development Planning\STH2550 Shepherd's Spring TA\30 Technical\31 Modelling\ARCADY\
Newbury Road, Smannell Road AM Peak.vai"
(drive-on-the-left) at 11:36:43 on Tuesday, 3 August 2010

.FILE PROPERTIES
****

RUN TITLE: Newbury Road (A343) / Smannell Road Roundabout AM Peak 08:00-09:00
LOCATION: Andover, Hampshire
DATE: 30/07/10
CLIENT: Hampshire County Council
ENUMERATOR: bchadwick [LON0803]
JOB NUMBER: STH2550
STATUS: Preliminary
DESCRIPTION:

.INPUT DATA
****
ARM A - Newbury Road (A343) North
ARM B - Smannell Road
ARM C - Newbury Road (A343) South

.GEOMETRIC DATA

ARM	V (M)	E (M)	L (M)	R (M)	D (M)	PHI (DEG)	SLOPE	INTERCEPT (PCU/MIN)
ARM A	7.30	7.50	6.10	110.00	19.70	16.0	0.851	41.126
ARM B	3.75	7.70	5.00	17.40	19.70	28.0	0.618	24.583
ARM C	7.20	7.20	0.00	291.00	19.70	0.0	0.878	41.801

V = approach half-width L = effective flare length D = inscribed circle diameter
E = entry width R = entry radius PHI = entry angle

.TRAFFIC DEMAND DATA

Only sets included in the current run are shown

.SCALING FACTORS

T13

IARM	FLOW SCALE(%)
A	100
B	100
C	100

TIME PERIOD BEGINS(07.45)AND ENDS(09.15)
.LENGTH OF TIME PERIOD -(90) MINUTES
.LENGTH OF TIME SEGMENT - (15) MINUTES

.DEMAND FLOW PROFILES ARE SYNTHESISED FROM THE TURNING COUNT DATA

.DEMAND SET TITLE: Newbury Road / Smannell Road AM Peak 2015 Base with MDA Dev

T15

ARM	NUMBER OF MINUTES FROM START WHEN FLOW STARTS TO RISE	TOP OF PEAK IS REACHED	FLOW STOPS FALLING	RATE OF FLOW (VEH/MIN) BEFORE PEAK	AT TOP OF PEAK	AFTER PEAK

ARM A	15.00	45.00	75.00	11.20	16.80	11.20
ARM B	15.00	45.00	75.00	11.27	16.91	11.27
ARM C	15.00	45.00	75.00	10.31	15.47	10.31

DEMAND SET TITLE: Newbury Road / Smannell Road AM Peak 2015 Base with MDA Dev

T33

TIME	FROM/TO	TURNING PROPORTIONS / TURNING COUNTS (PERCENTAGE OF H.V.S) ARM A	ARM B	ARM C
07.45 - 09.15	ARM A	0.016	0.128	0.856
		14.0	115.0	767.0
		(0.0)	(0.0)	(0.0)
	ARM B	0.227	0.003	0.769
		205.0	3.0	694.0
		(0.0)	(0.0)	(0.0)
	ARM C	0.481	0.476	0.042
		397.0	393.0	35.0
		(0.0)	(0.0)	(0.0)

. QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

T70

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
07.45-08.00									
ARM A	11.24	36.53	0.308	- -	0.0	0.4	6.5	-	0.039
ARM B	11.32	18.27	0.619	- -	0.0	1.6	22.3	-	0.140
ARM C	10.35	39.38	0.263	- -	0.0	0.4	5.3	-	0.034
08.00-08.15									
ARM A	13.42	35.63	0.377	- -	0.4	0.6	8.9	-	0.045
ARM B	13.51	17.03	0.793	- -	1.6	3.5	47.6	-	0.265
ARM C	12.36	38.91	0.318	- -	0.4	0.5	6.9	-	0.038
08.15-08.30									
ARM A	16.44	34.41	0.478	- -	0.6	0.9	13.4	-	0.056
ARM B	16.55	15.34	1.079	- -	3.5	27.6	249.9	-	1.271
ARM C	15.14	38.55	0.393	- -	0.5	0.6	9.5	-	0.043
08.30-08.45									
ARM A	16.44	34.40	0.478	- -	0.9	0.9	13.7	-	0.056
ARM B	16.55	15.33	1.080	- -	27.6	47.2	562.5	-	2.617
ARM C	15.14	38.49	0.393	- -	0.6	0.6	9.7	-	0.043
08.45-09.00									
ARM A	13.42	35.62	0.377	- -	0.9	0.6	9.3	-	0.045
ARM B	13.51	17.02	0.794	- -	47.2	5.0	358.9	-	1.568
ARM C	12.36	38.31	0.323	- -	0.6	0.5	7.3	-	0.039
09.00-09.15									
ARM A	11.24	36.52	0.308	- -	0.6	0.4	6.8	-	0.040
ARM B	11.32	18.25	0.620	- -	5.0	1.7	27.7	-	0.154
ARM C	10.35	39.31	0.263	- -	0.5	0.4	5.4	-	0.035

.QUEUE AT ARM A

TIME SEGMENT ENDING	NO. OF VEHICLES

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.00	0.4	
08.15	0.6	*
08.30	0.9	*
08.45	0.9	*
09.00	0.6	*
09.15	0.4	

.QUEUE AT ARM B

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.00	1.6	**
08.15	3.5	****
08.30	27.6	**********
08.45	47.2	**********
09.00	5.0	*****
09.15	1.7	**

.QUEUE AT ARM C

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.00	0.4	
08.15	0.5	
08.30	0.6	*
08.45	0.6	*
09.00	0.5	
09.15	0.4	

.QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

ARM	TOTAL DEMAND	* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *		T75
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
A	1233.3	822.2	58.5	0.05	58.5	0.05
B	1241.5	827.7	1268.8	1.02	1268.9	1.02
C	1135.6	757.0	44.0	0.04	44.0	0.04
ALL	3610.4	2406.9	1371.4	0.38	1371.5	0.38

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD.
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

```
                    _____ A R C A D Y  6 _____

                        ASSESSMENT OF ROUNDABOUT CAPACITY AND DELAY


                        Analysis Program: Release 5.0 (JANUARY 2009)

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                    Crowthorne House       Fax:   +44 (0) 1344 770356
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                    Wokingham, Berks.      Web:   www.trlsoftware.co.uk
                    RG40 3GA,UK

 ------------------------------------------------------------------------------
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  IN NO WAY RELIEVED OF THEIR RESPONSIBILITY FOR THE CORRECTNESS  OF THE SOLUTION
 ------------------------------------------------------------------------------

 Run with file:-
 "P:\STH\2009\STH2 Development Planning\STH2550 Shepherd's Spring TA\30 Technical\31 Modelling\ARCADY\
  Newbury Road, Smannell Road PM Peak.vai"
(drive-on-the-left ) at 11:41:35 on Tuesday, 3 August 2010


.FILE PROPERTIES
 ***************

   RUN TITLE: Newbury Road (A343) / Smannell Road Roundabout PM Peak 17:00-18:00
    LOCATION: Andover, Hampshire
        DATE: 30/07/10
      CLIENT: Hampshire County Council
  ENUMERATOR: bchadwick [LON0803]
  JOB NUMBER: STH2550
      STATUS: Preliminary
 DESCRIPTION:

.INPUT DATA
 **********
 ARM A - Newbury Road (A343) North
 ARM B - Smannell Road
 ARM C - Newbury Road (A343) South

.GEOMETRIC DATA
 --------------



-------------------------------------------------------------------------------------------------------------------------
---- T5
 I ARM    I   V (M)   I    E (M)   I    L (M)   I    R (M)   I     D (M) I   PHI (DEG)  I  SLOPE  I INTERCEPT
(PCU/MIN) I

-------------------------------------------------------------------------------------------------------------------------
-----
 I ARM  A I    7.30   I     7.50   I     6.10   I   110.00   I   19.70   I     16.0     I  0.851  I       41.126
I
 I ARM  B I    3.75   I     7.70   I     5.00   I    17.40   I   19.70   I     28.0     I  0.618  I       24.583
I
 I ARM  C I    7.20   I     7.20   I     0.00   I   291.00   I   19.70   I      0.0     I  0.878  I       41.801
I

-------------------------------------------------------------------------------------------------------------------------
-----

 V = approach half-width       L = effective flare length           D = inscribed circle diameter
 E = entry width               R = entry radius                     PHI = entry angle


.TRAFFIC DEMAND DATA
 -------------------

 Only sets included in the current run are shown

.SCALING FACTORS

.----------------------- T13
 IARM  I FLOW SCALE(%) I
 ----------------------
 I A   I      100      I
 I B   I      100      I
 I C   I      100      I
 ----------------------



 TIME PERIOD BEGINS(16.45)AND ENDS(18.15)
.LENGTH OF TIME PERIOD -(  90) MINUTES
.LENGTH OF TIME SEGMENT - (15) MINUTES

.DEMAND FLOW PROFILES ARE SYNTHESISED FROM THE TURNING COUNT DATA


.DEMAND SET TITLE: Newbury Road / Smannell Road PM Peak 2015 Base with MDA Dev
 ------------------------------------------------------------------------------ T15
 I        I   NUMBER OF MINUTES FROM START WHEN    I   RATE OF FLOW (VEH/MIN) I
 I  ARM   I FLOW STARTS I TOP OF PEAK I FLOW STOPS I BEFORE I AT TOP  I AFTER I
 I        I             I            I            I        I         I       I
 I        I   TO RISE   I  IS REACHED I FALLING    I  PEAK  I OF PEAK I PEAK  I
```

ARM A	15.00	45.00	75.00	8.19	12.28	8.19
ARM B	15.00	45.00	75.00	6.95	10.42	6.95
ARM C	15.00	45.00	75.00	20.26	30.39	20.26

DEMAND SET TITLE: Newbury Road / Smannell Road PM Peak 2015 Base with MDA Dev

T33

TIME	FROM/TO	ARM A	ARM B	ARM C
16.45 - 18.15	ARM A	0.023	0.290	0.687
		15.0	190.0	450.0
		(0.0)	(0.0)	(0.0)
	ARM B	0.192	0.002	0.806
		107.0	1.0	448.0
		(0.0)	(0.0)	(0.0)
	ARM C	0.484	0.424	0.092
		785.0	687.0	149.0
		(0.0)	(0.0)	(0.0)

TURNING PROPORTIONS
TURNING COUNTS
(PERCENTAGE OF H.V.S)

. QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

T70

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
16.45-17.00									
ARM A	8.22	32.22	0.255	- -	0.0	0.3	5.0	-	0.042
ARM B	6.98	19.84	0.352	- -	0.0	0.5	7.8	-	0.077
ARM C	20.34	40.45	0.503	- -	0.0	1.0	14.7	-	0.049
17.00-17.15									
ARM A	9.81	30.47	0.322	- -	0.3	0.5	7.0	-	0.048
ARM B	8.33	18.90	0.441	- -	0.5	0.8	11.4	-	0.094
ARM C	24.29	40.18	0.604	- -	1.0	1.5	22.1	-	0.063
17.15-17.30									
ARM A	12.02	28.10	0.428	- -	0.5	0.7	10.9	-	0.062
ARM B	10.20	17.63	0.579	- -	0.8	1.3	19.3	-	0.133
ARM C	29.75	39.82	0.747	- -	1.5	2.9	40.9	-	0.097
17.30-17.45									
ARM A	12.02	28.06	0.428	- -	0.7	0.7	11.2	-	0.062
ARM B	10.20	17.62	0.579	- -	1.3	1.4	20.3	-	0.135
ARM C	29.75	39.82	0.747	- -	2.9	2.9	43.5	-	0.099
17.45-18.00									
ARM A	9.81	30.41	0.323	- -	0.7	0.5	7.3	-	0.049
ARM B	8.33	18.88	0.441	- -	1.4	0.8	12.4	-	0.095
ARM C	24.29	40.18	0.605	- -	2.9	1.5	24.0	-	0.064
18.00-18.15									
ARM A	8.22	32.17	0.255	- -	0.5	0.3	5.2	-	0.042
ARM B	6.98	19.82	0.352	- -	0.8	0.5	8.4	-	0.078
ARM C	20.34	40.44	0.503	- -	1.5	1.0	15.6	-	0.050

.QUEUE AT ARM A

TIME SEGMENT ENDING	NO. OF VEHICLES

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.00	0.3	
17.15	0.5	
17.30	0.7	*
17.45	0.7	*
18.00	0.5	
18.15	0.3	

.QUEUE AT ARM B

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.00	0.5	*
17.15	0.8	*
17.30	1.3	*
17.45	1.4	*
18.00	0.8	*
18.15	0.5	*

.QUEUE AT ARM C

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.00	1.0	*
17.15	1.5	**
17.30	2.9	***
17.45	2.9	***
18.00	1.5	**
18.15	1.0	*

.QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

T75

ARM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
A	901.6	601.0	46.6	0.05	46.6	0.05
B	765.3	510.2	79.6	0.10	79.6	0.10
C	2231.2	1487.5	160.8	0.07	160.8	0.07
ALL	3898.0	2598.7	287.0	0.07	287.0	0.07

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD.
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

```
                    _____ A R C A D Y  6 _____

                        ASSESSMENT OF ROUNDABOUT CAPACITY AND DELAY


                        Analysis Program: Release 5.0 (JANUARY 2009)

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                    RG40 3GA,UK

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  THE USER OF THIS COMPUTER PROGRAM FOR THE SOLUTION OF AN ENGINEERING PROBLEM IS
  IN NO WAY RELIEVED OF THEIR RESPONSIBILITY FOR THE CORRECTNESS  OF THE SOLUTION
 --------------------------------------------------------------------------------

 Run with file:-
 "P:\STH\2009\STH2 Development Planning\STH2550 Shepherd's Spring TA\30 Technical\31 Modelling\ARCADY\
  Newbury Road, Smannell Road AM Peak.vai"
(drive-on-the-left ) at 11:37:00 on Tuesday, 3 August 2010


.FILE PROPERTIES
 ***************

   RUN TITLE: Newbury Road (A343) / Smannell Road Roundabout AM Peak 08:00-09:00
    LOCATION: Andover, Hampshire
        DATE: 30/07/10
      CLIENT: Hampshire County Council
  ENUMERATOR: bchadwick [LON0803]
  JOB NUMBER: STH2550
      STATUS: Preliminary
 DESCRIPTION:

.INPUT DATA
 **********
 ARM A - Newbury Road (A343) North
 ARM B - Smannell Road
 ARM C - Newbury Road (A343) South

.GEOMETRIC DATA
 --------------



-------------------------------------------------------------------------------------------------------------------------
---- T5
 I ARM    I   V (M)   I    E (M)   I    L (M)   I    R (M)   I     D (M) I   PHI (DEG)  I  SLOPE  I INTERCEPT
(PCU/MIN) I

-------------------------------------------------------------------------------------------------------------------------
-----
 I ARM  A I    7.30   I     7.50   I     6.10   I   110.00   I   19.70   I     16.0     I  0.851  I       41.126
I
 I ARM  B I    3.75   I     7.70   I     5.00   I    17.40   I   19.70   I     28.0     I  0.618  I       24.583
I
 I ARM  C I    7.20   I     7.20   I     0.00   I   291.00   I   19.70   I      0.0     I  0.878  I       41.801
I

-------------------------------------------------------------------------------------------------------------------------
-----

 V = approach half-width       L = effective flare length           D = inscribed circle diameter
 E = entry width               R = entry radius                     PHI = entry angle


.TRAFFIC DEMAND DATA
 -------------------

 Only sets included in the current run are shown

.SCALING FACTORS

.----------------------- T13
 IARM  I FLOW SCALE(%) I
 ----------------------
 I A   I      100      I
 I B   I      100      I
 I C   I      100      I
 ----------------------



 TIME PERIOD BEGINS(07.45)AND ENDS(09.15)
.LENGTH OF TIME PERIOD -(  90) MINUTES
.LENGTH OF TIME SEGMENT - (15) MINUTES

.DEMAND FLOW PROFILES ARE SYNTHESISED FROM THE TURNING COUNT DATA


.DEMAND SET TITLE: Newbury Road / Smannell Road AM Peak 2015 Base with MDA & Pro Dev
 ------------------------------------------------------------------------------ T15
 I        I   NUMBER OF MINUTES FROM START WHEN    I   RATE OF FLOW (VEH/MIN) I
 I  ARM   I FLOW STARTS I TOP OF PEAK I FLOW STOPS I BEFORE I AT TOP  I AFTER I
 I        I             I            I            I        I         I       I
```

	TO RISE	IS REACHED	FALLING	PEAK	OF PEAK	PEAK
ARM A	15.00	45.00	75.00	11.21	16.82	11.21
ARM B	15.00	45.00	75.00	11.43	17.14	11.43
ARM C	15.00	45.00	75.00	10.36	15.54	10.36

DEMAND SET TITLE: Newbury Road / Smannell Road AM Peak 2015 Base with MDA & Pro Dev

T33

TURNING PROPORTIONS
TURNING COUNTS
(PERCENTAGE OF H.V.S)

TIME	FROM/TO	ARM A	ARM B	ARM C
07.45 - 09.15	ARM A	0.016	0.129	0.855
		14.0	116.0	767.0
		(0.0)	(0.0)	(0.0)
	ARM B	0.226	0.003	0.770
		207.0	3.0	704.0
		(0.0)	(0.0)	(0.0)
	ARM C	0.479	0.479	0.042
		397.0	397.0	35.0
		(0.0)	(0.0)	(0.0)

. QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

T70

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
07.45-08.00									
ARM A	11.26	36.49	0.308	- -	0.0	0.4	6.6	-	0.040
ARM B	11.47	18.27	0.628	- -	0.0	1.6	23.0	-	0.143
ARM C	10.40	39.35	0.264	- -	0.0	0.4	5.3	-	0.034
08.00-08.15									
ARM A	13.44	35.58	0.378	- -	0.4	0.6	8.9	-	0.045
ARM B	13.69	17.03	0.804	- -	1.6	3.8	50.1	-	0.276
ARM C	12.42	38.88	0.319	- -	0.4	0.5	6.9	-	0.038
08.15-08.30									
ARM A	16.46	34.34	0.479	- -	0.6	0.9	13.4	-	0.056
ARM B	16.77	15.34	1.093	- -	3.8	30.4	271.2	-	1.368
ARM C	15.21	38.55	0.395	- -	0.5	0.6	9.6	-	0.043
08.30-08.45									
ARM A	16.46	34.34	0.479	- -	0.9	0.9	13.7	-	0.056
ARM B	16.77	15.33	1.094	- -	30.4	53.0	626.5	-	2.880
ARM C	15.21	38.49	0.395	- -	0.6	0.7	9.8	-	0.043
08.45-09.00									
ARM A	13.44	35.57	0.378	- -	0.9	0.6	9.3	-	0.045
ARM B	13.69	17.02	0.805	- -	53.0	7.5	457.1	-	1.936
ARM C	12.42	38.24	0.325	- -	0.7	0.5	7.3	-	0.039
09.00-09.15									
ARM A	11.26	36.48	0.309	- -	0.6	0.4	6.8	-	0.040
ARM B	11.47	18.25	0.628	- -	7.5	1.7	31.0	-	0.165
ARM C	10.40	39.25	0.265	- -	0.5	0.4	5.5	-	0.035

.QUEUE AT ARM A

TIME SEGMENT ENDING	NO. OF VEHICLES

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.00	0.4	
08.15	0.6	*
08.30	0.9	*
08.45	0.9	*
09.00	0.6	*
09.15	0.4	

.QUEUE AT ARM B

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.00	1.6	**
08.15	3.8	****
08.30	30.4	******************************
08.45	53.0	**
09.00	7.5	********
09.15	1.7	**

.QUEUE AT ARM C

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.00	0.4	
08.15	0.5	
08.30	0.6	*
08.45	0.7	*
09.00	0.5	
09.15	0.4	

.QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

T75

ARM	TOTAL DEMAND	* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
A	1234.7	823.1	58.8	0.05	58.8	0.05
B	1258.1	838.7	1458.9	1.16	1459.0	1.16
C	1141.1	760.7	44.4	0.04	44.4	0.04
ALL	3633.8	2422.5	1562.1	0.43	1562.2	0.43

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD.
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

```
                    _____________________ A R C A D Y  6 _____________________

                        ASSESSMENT OF ROUNDABOUT CAPACITY AND DELAY


                        Analysis Program: Release 5.0 (JANUARY 2009)

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 --------------------------------------------------------------------------------
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 --------------------------------------------------------------------------------

 Run with file:-
 "P:\STH\2009\STH2 Development Planning\STH2550 Shepherd's Spring TA\30 Technical\31 Modelling\ARCADY\
  Newbury Road, Smannell Road PM Peak.vai"
(drive-on-the-left ) at 11:41:53 on Tuesday, 3 August 2010


.FILE PROPERTIES
 ***************

   RUN TITLE: Newbury Road (A343) / Smannell Road Roundabout PM Peak 17:00-18:00
    LOCATION: Andover, Hampshire
        DATE: 30/07/10
      CLIENT: Hampshire County Council
  ENUMERATOR: bchadwick [LON0803]
  JOB NUMBER: STH2550
      STATUS: Preliminary
 DESCRIPTION:

.INPUT DATA
 **********
 ARM A - Newbury Road (A343) North
 ARM B - Smannell Road
 ARM C - Newbury Road (A343) South

.GEOMETRIC DATA
 --------------



-------------------------------------------------------------------------------------------------------------------------
---- T5
 I ARM    I   V (M)   I    E (M)   I    L (M)   I    R (M)   I     D (M) I   PHI (DEG)  I  SLOPE  I INTERCEPT
(PCU/MIN) I

-------------------------------------------------------------------------------------------------------------------------
-----
 I ARM  A I    7.30   I     7.50   I     6.10   I   110.00   I   19.70   I     16.0     I  0.851  I       41.126
I
 I ARM  B I    3.75   I     7.70   I     5.00   I    17.40   I   19.70   I     28.0     I  0.618  I       24.583
I
 I ARM  C I    7.20   I     7.20   I     0.00   I   291.00   I   19.70   I      0.0     I  0.878  I       41.801
I

-------------------------------------------------------------------------------------------------------------------------
-----

 V = approach half-width       L = effective flare length           D = inscribed circle diameter
 E = entry width               R = entry radius                     PHI = entry angle


.TRAFFIC DEMAND DATA
 -------------------

 Only sets included in the current run are shown

.SCALING FACTORS

.----------------------- T13
 IARM  I FLOW SCALE(%) I
 ----------------------
 I A   I      100      I
 I B   I      100      I
 I C   I      100      I
 ----------------------



 TIME PERIOD BEGINS(16.45)AND ENDS(18.15)
.LENGTH OF TIME PERIOD -(  90) MINUTES
.LENGTH OF TIME SEGMENT - (15) MINUTES

.DEMAND FLOW PROFILES ARE SYNTHESISED FROM THE TURNING COUNT DATA


.DEMAND SET TITLE: Newbury Road / Smannell Road PM Peak 2015 Base with MDA & Pro Dev
 ------------------------------------------------------------------------------ T15
 I        I   NUMBER OF MINUTES FROM START WHEN    I   RATE OF FLOW (VEH/MIN) I
 I  ARM   I FLOW STARTS I TOP OF PEAK I FLOW STOPS I BEFORE I AT TOP  I AFTER I
 I        I             I            I            I        I         I       I
```

I	I	TO RISE	I	IS REACHED	I	FALLING	I	PEAK	I	OF PEAK	I	PEAK	I
I ARM	A	I 15.00	I	45.00	I	75.00	I	8.20	I	12.30	I	8.20	I
I ARM	B	I 15.00	I	45.00	I	75.00	I	7.03	I	10.54	I	7.03	I
I ARM	C	I 15.00	I	45.00	I	75.00	I	20.35	I	30.53	I	20.35	I

DEMAND SET TITLE: Newbury Road / Smannell Road PM Peak 2015 Base with MDA & Pro Dev

T33

I	I	TURNING PROPORTIONS / TURNING COUNTS / (PERCENTAGE OF H.V.S)		
I TIME	I FROM/TO	I ARM A	I ARM B	I ARM C I
I 16.45 - 18.15	I	I	I	I
I	I ARM A	I 0.023	I 0.291	I 0.686 I
I	I	I 15.0	I 191.0	I 450.0 I
I	I	I (0.0)	I (0.0)	I (0.0) I
I	I	I	I	I
I	I ARM B	I 0.192	I 0.002	I 0.806 I
I	I	I 108.0	I 1.0	I 453.0 I
I	I	I (0.0)	I (0.0)	I (0.0) I
I	I	I	I	I
I	I ARM C	I 0.482	I 0.426	I 0.092 I
I	I	I 785.0	I 694.0	I 149.0 I
I	I	I (0.0)	I (0.0)	I (0.0) I
I	I	I	I	I

. QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

T70

I TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN) I
I 16.45-17.00									I
I ARM A	8.23	32.14	0.256	- -	0.0	0.3	5.1	-	0.042 I
I ARM B	7.05	19.84	0.356	- -	0.0	0.5	8.0	-	0.078 I
I ARM C	20.43	40.44	0.505	- -	0.0	1.0	14.8	-	0.050 I
I									I
I 17.00-17.15									I
I ARM A	9.83	30.38	0.324	- -	0.3	0.5	7.0	-	0.049 I
I ARM B	8.42	18.90	0.445	- -	0.5	0.8	11.6	-	0.095 I
I ARM C	24.39	40.17	0.607	- -	1.0	1.5	22.3	-	0.063 I
I									I
I 17.15-17.30									I
I ARM A	12.04	27.99	0.430	- -	0.5	0.7	11.0	-	0.063 I
I ARM B	10.31	17.63	0.585	- -	0.8	1.4	19.7	-	0.135 I
I ARM C	29.87	39.81	0.750	- -	1.5	2.9	41.6	-	0.099 I
I									I
I 17.30-17.45									I
I ARM A	12.04	27.95	0.431	- -	0.7	0.8	11.3	-	0.063 I
I ARM B	10.31	17.62	0.585	- -	1.4	1.4	20.8	-	0.137 I
I ARM C	29.87	39.80	0.751	- -	2.9	3.0	44.3	-	0.101 I
I									I
I 17.45-18.00									I
I ARM A	9.83	30.32	0.324	- -	0.8	0.5	7.4	-	0.049 I
I ARM B	8.42	18.88	0.446	- -	1.4	0.8	12.6	-	0.096 I
I ARM C	24.39	40.16	0.607	- -	3.0	1.6	24.3	-	0.064 I
I									I
I 18.00-18.15									I
I ARM A	8.23	32.10	0.256	- -	0.5	0.3	5.3	-	0.042 I
I ARM B	7.05	19.82	0.356	- -	0.8	0.6	8.6	-	0.079 I
I ARM C	20.43	40.43	0.505	- -	1.6	1.0	15.8	-	0.050 I
I									I

.QUEUE AT ARM A

TIME SEGMENT ENDING	NO. OF VEHICLES

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.00	0.3	
17.15	0.5	
17.30	0.7	*
17.45	0.8	*
18.00	0.5	
18.15	0.3	

.QUEUE AT ARM B

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.00	0.5	*
17.15	0.8	*
17.30	1.4	*
17.45	1.4	*
18.00	0.8	*
18.15	0.6	*

.QUEUE AT ARM C

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.00	1.0	*
17.15	1.5	**
17.30	2.9	***
17.45	3.0	***
18.00	1.6	**
18.15	1.0	*

.QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

ARM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *		T75
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)	
A	902.9	602.0	47.0	0.05	47.0	0.05	
B	773.6	515.7	81.3	0.11	81.3	0.11	
C	2240.8	1493.9	163.1	0.07	163.1	0.07	
ALL	3917.3	2611.5	291.4	0.07	291.4	0.07	

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD.
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD.
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

END OF JOB

Road half width 7.3m
(measured further north on site)

Flare Length = 6.1m

R110.270

7.5m

16°

R19.651

11.3m

7.4m

3.75m

7.7m

Flare Length = 5.0m

28°

R17.402

0°

DMRB Vol 6 Sec 2
Part 3 TD 16/07 Para 7.45 States
"if angle GLB exceeds 180
degrees, angle is defined as zero."

R291.389

7.2m

Flare Length = 0.0m

7.5m

FS

BLACKBIRD

COURT

SWALLOWFIELDS

ETL

Gas
Gov

File location: P:\STH\2000\STH2 Development Planning\STH2550 Shepherd's Spring TA\50 Drawings\51 CAD\STH2550-AR-001.dwg

Notes:

1. Do not scale from this drawing. If in doubt refer to the project manager for clarification.

Key

- Existing Features
- Half Width (Measured on site)
- Entry Width (Measured on site)
- Entry Radius
- Flare Length
- Entry Angle

Rev.	Date	Revision details	Drawn	Checked	Approved

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Client

Hampshire County Council

Project

Shepherd's Spring TA
Andover, Hampshire

Title

Smannell Road / Newbury Road (A343) Roundabout
ARCADY Measurements

Drawn	Checked	Approved
BPC	MW	SM
Original drg. size	**Date**	**Scale**
A3	29.07.10	1:500
Drawing Status	**Drawing Number**	**Rev.**
Information	STH2550-AR-001	-

Appendix G

PICADY Output Files: Site Access Junction

CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 5.1 ANALYSIS PROGRAM
RELEASE 4.0 (SEPT 2008)

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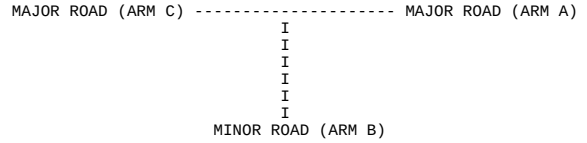
Run with file:-
"P:\STH\2009\STH2 Development Planning\STH2550 Shepherd's Spring TA\30 Technical\31 Modelling\PICADY\
Smannell Road, Proposed Site Access.vpi"
(drive-on-the-left) at 10:54:47 on Friday, 30 July 2010

.RUN INFORMATION

RUN TITLE	: Smannell Road / Proposed Site Access
LOCATION	: Andover, Hampshire
DATE	: 29/07/10
CLIENT	: Hampshire County Council
ENUMERATOR	: bchadwick [LON0803]
JOB NUMBER	: STH2550
STATUS	: Preliminary
DESCRIPTION	:

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA



ARM A IS Smannell Road West
ARM B IS Proposed Site Access
ARM C IS Smannell Road East

.STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM B
STREAM B-AC CONTAINS TRAFFIC GOING FROM ARM B TO ARM A AND TO ARM C
ETC.

.GEOMETRIC DATA

DATA ITEM	MINOR ROAD B
TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	(W) 7.40 M.
CENTRAL RESERVE WIDTH	(WCR) 0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B) 2.20 M.
- VISIBILITY	(VC-B) 87.00 M.
- BLOCKS TRAFFIC	YES
MINOR ROAD - VISIBILITY TO LEFT	(VB-C) 31.0 M.
- VISIBILITY TO RIGHT	(VB-A) 15.0 M.
- LANE 1 WIDTH	(WB-C) 3.25 M.
- LANE 2 WIDTH	(WB-A) 0.00 M.

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
649.23	0.24	0.09

Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B
507.39	0.22	0.09	0.14	0.31

Intercept For STREAM C-B	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
624.35	0.23	0.23

(NB These values do not allow for any site specific corrections)

.TRAFFIC DEMAND DATA

ARM	FLOW SCALE(%)
A	100
B	100
C	100

.Demand set: Smannell Road / Proposed Site Access AM Peak 2015 Base + Dev

TIME PERIOD BEGINS 07.45 AND ENDS 09.15

LENGTH OF TIME PERIOD - 90 MIN.
LENGTH OF TIME SEGMENT - 15 MIN.

.DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA

ARM	NUMBER OF MINUTES FROM START WHEN FLOW STARTS TO RISE	TOP OF PEAK IS REACHED	FLOW STOPS FALLING	RATE OF FLOW (VEH/MIN) BEFORE PEAK	AT TOP OF PEAK	AFTER PEAK
ARM A	15.00	45.00	75.00	6.51	9.77	6.51
ARM B	15.00	45.00	75.00	0.25	0.38	0.25
ARM C	15.00	45.00	75.00	11.46	17.19	11.46

.Demand set: Smannell Road / Proposed Site Access AM Peak 2015 Base + Dev

TURNING PROPORTIONS (PERCENTAGE OF H.V.S)

TIME	FROM/TO	ARM A	ARM B	ARM C
07.45 - 08.00	ARM A	0.000	0.010	0.990
		0.0	5.0	516.0
		(0.0)	(0.0)	(0.0)
	ARM B	0.600	0.000	0.400
		12.0	0.0	8.0
		(0.0)	(0.0)	(0.0)
	ARM C	0.997	0.003	0.000
		914.0	3.0	0.0
		(0.0)	(0.0)	(0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

. QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR DEMAND SET Smannell Road / Proposed Site Access AM Peak 2015 Base + Dev
AND FOR TIME PERIOD 1

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
07.45-08.00									
B-AC	0.25	6.52	0.039		0.00	0.04	0.6		0.16
C-AB	0.09	16.21	0.006		0.00	0.01	0.1		0.06
C-A	11.41								
A-B	0.06								
A-C	6.47								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.00-08.15									
B-AC	0.30	5.94	0.050		0.04	0.05	0.8		0.18
C-AB	0.13	17.17	0.008		0.01	0.01	0.1		0.06
C-A	13.61								
A-B	0.07								
A-C	7.73								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.15-08.30									
B-AC	0.37	5.12	0.072		0.05	0.08	1.1		0.21
C-AB	0.19	18.37	0.010		0.01	0.01	0.2		0.05
C-A	16.64								
A-B	0.09								
A-C	9.47								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)

08.30-08.45									
B-AC	0.37	5.12	0.072		0.08	0.08	1.1		0.21
C-AB	0.19	18.37	0.010		0.01	0.01	0.2		0.05
C-A	16.64								
A-B	0.09								
A-C	9.47								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
08.45-09.00									
B-AC	0.30	5.94	0.050		0.08	0.05	0.8		0.18
C-AB	0.13	17.17	0.008		0.01	0.01	0.1		0.06
C-A	13.61								
A-B	0.07								
A-C	7.73								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
09.00-09.15									
B-AC	0.25	6.52	0.039		0.05	0.04	0.6		0.16
C-AB	0.09	16.21	0.006		0.01	0.01	0.1		0.06
C-A	11.41								
A-B	0.06								
A-C	6.47								

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-AC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.00	0.0
08.15	0.1
08.30	0.1
08.45	0.1
09.00	0.1
09.15	0.0

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.00	0.0
08.15	0.0
08.30	0.0
08.45	0.0
09.00	0.0
09.15	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND	* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-AC	27.5	5.0	0.18	5.0	0.18
C-AB	12.5	0.8	0.06	0.8	0.06
C-A	1249.7	833.1			
A-B	6.9	4.6			
A-C	710.2	473.5			
ALL	2006.8	1337.9	5.8	0.00	5.8	0.00

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES
WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS
A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*******END OF RUN*******

.SLOPES AND INTERCEPT

(NB:Streams may be combined, in which case capacity will be adjusted)

Intercept For STREAM B-C	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B
649.23	0.24	0.09

Intercept For STREAM B-A	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B	Slope For Opposing STREAM C-A	Slope For Opposing STREAM C-B
507.39	0.22	0.09	0.14	0.31

Intercept For STREAM C-B	Slope For Opposing STREAM A-C	Slope For Opposing STREAM A-B

624.35	0.23	0.23	

(NB These values do not allow for any site specific corrections)

.TRAFFIC DEMAND DATA

ARM	FLOW SCALE(%)
A	100
B	100
C	100

.Demand set: Smannell Road / Proposed Site Access PM Peak 2015 Base + Dev

TIME PERIOD BEGINS 16.45 AND ENDS 18.15

LENGTH OF TIME PERIOD - 90 MIN.
LENGTH OF TIME SEGMENT - 15 MIN.

.DEMAND FLOW PROFILES ARE SYNTHESISED FROM TURNING COUNT DATA

ARM	NUMBER OF MINUTES FROM START WHEN FLOW STARTS TO RISE	NUMBER OF MINUTES FROM START WHEN TOP OF PEAK IS REACHED	NUMBER OF MINUTES FROM START WHEN FLOW STOPS FALLING	RATE OF FLOW (VEH/MIN) BEFORE PEAK	RATE OF FLOW (VEH/MIN) AT TOP OF PEAK	RATE OF FLOW (VEH/MIN) AFTER PEAK
A	15.00	45.00	75.00	11.18	16.76	11.18
B	15.00	45.00	75.00	0.15	0.23	0.15
C	15.00	45.00	75.00	7.16	10.74	7.16

.Demand set: Smannell Road / Proposed Site Access PM Peak 2015 Base + Dev

TIME	TURNING PROPORTIONS / TURNING COUNTS (PERCENTAGE OF H.V.S) FROM/TO	ARM A	ARM B	ARM C
16.45 - 17.00	ARM A	0.000	0.009	0.991
		0.0	8.0	886.0
		(0.0)	(0.0)	(0.0)
	ARM B	0.417	0.000	0.583
		5.0	0.0	7.0
		(0.0)	(0.0)	(0.0)
	ARM C	0.981	0.019	0.000
		562.0	11.0	0.0
		(0.0)	(0.0)	(0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

. QUEUE AND DELAY INFORMATION FOR EACH 15 MIN TIME SEGMENT

FOR DEMAND SET Smannell Road / Proposed Site Access PM Peak 2015 Base + Dev
AND FOR TIME PERIOD 2

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
16.45-17.00									
B-AC	0.15	6.46	0.023		0.00	0.02	0.3		0.16
C-AB	0.28	12.84	0.022		0.00	0.03	0.4		0.08
C-A	6.91								
A-B	0.10								
A-C	11.12								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.00-17.15									
B-AC	0.18	5.80	0.031		0.02	0.03	0.5		0.18
C-AB	0.38	13.35	0.029		0.03	0.04	0.6		0.08
C-A	8.20								
A-B	0.12								
A-C	13.27								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.15-17.30									
B-AC	0.22	4.84	0.046		0.03	0.05	0.7		0.22
C-AB	0.64	14.48	0.044		0.04	0.06	1.0		0.07
C-A	9.87								
A-B	0.15								
A-C	16.26								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.30-17.45									
B-AC	0.22	4.84	0.046		0.05	0.05	0.7		0.22

C-AB	0.64	14.48	0.044	0.06	0.06	1.0	0.07	
C-A	9.87							
A-B	0.15							
A-C	16.26							

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
17.45-18.00									
B-AC	0.18	5.80	0.031		0.05	0.03	0.5		0.18
C-AB	0.38	13.35	0.029		0.06	0.04	0.6		0.08
C-A	8.20								
A-B	0.12								
A-C	13.27								

TIME	DEMAND (VEH/MIN)	CAPACITY (VEH/MIN)	DEMAND/ CAPACITY (RFC)	PEDESTRIAN FLOW (PEDS/MIN)	START QUEUE (VEHS)	END QUEUE (VEHS)	DELAY (VEH.MIN/ TIME SEGMENT)	GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT)	AVERAGE DELAY PER ARRIVING VEHICLE (MIN)
18.00-18.15									
B-AC	0.15	6.46	0.023		0.03	0.02	0.4		0.16
C-AB	0.28	12.84	0.022		0.04	0.03	0.4		0.08
C-A	6.91								
A-B	0.10								
A-C	11.12								

WARNING NO MARGINAL ANALYSIS OF CAPACITIES AS MAJOR ROAD BLOCKING MAY OCCUR

QUEUE FOR STREAM B-AC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.00	0.0
17.15	0.0
17.30	0.0
17.45	0.0
18.00	0.0
18.15	0.0

QUEUE FOR STREAM C-AB

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.00	0.0
17.15	0.0
17.30	0.1
17.45	0.1
18.00	0.0
18.15	0.0

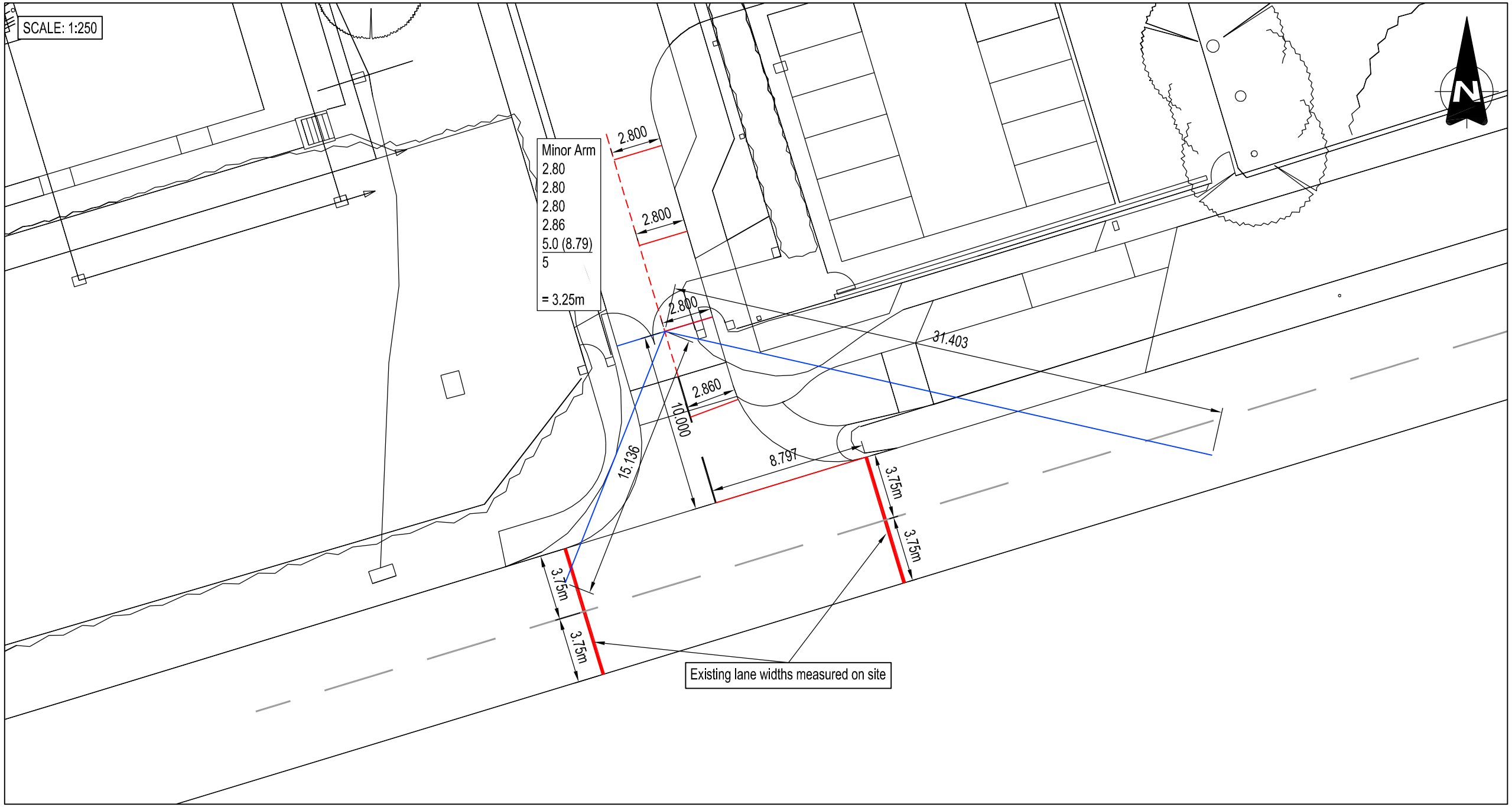
QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND (VEH)	TOTAL DEMAND (VEH/H)	* QUEUEING * DELAY * (MIN)	* QUEUEING * DELAY * (MIN/VEH)	* INCLUSIVE QUEUEING * DELAY * (MIN)	* INCLUSIVE QUEUEING * DELAY * (MIN/VEH)
B-AC	16.5	11.0	3.1	0.19	3.1	0.19
C-AB	39.2	26.1	3.9	0.10	3.9	0.10
C-A	749.5	499.7				
A-B	11.0	7.3				
A-C	1219.5	813.0				
ALL	2035.7	1357.2	6.9	0.00	6.9	0.00

* DELAY IS THAT OCCURRING ONLY WITHIN THE TIME PERIOD
* INCLUSIVE DELAY INCLUDES DELAY SUFFERED BY VEHICLES
WHICH ARE STILL QUEUEING AFTER THE END OF THE TIME PERIOD
* THESE WILL ONLY BE SIGNIFICANTLY DIFFERENT IF THERE IS
A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

*******END OF RUN*******

SCALE: 1:250



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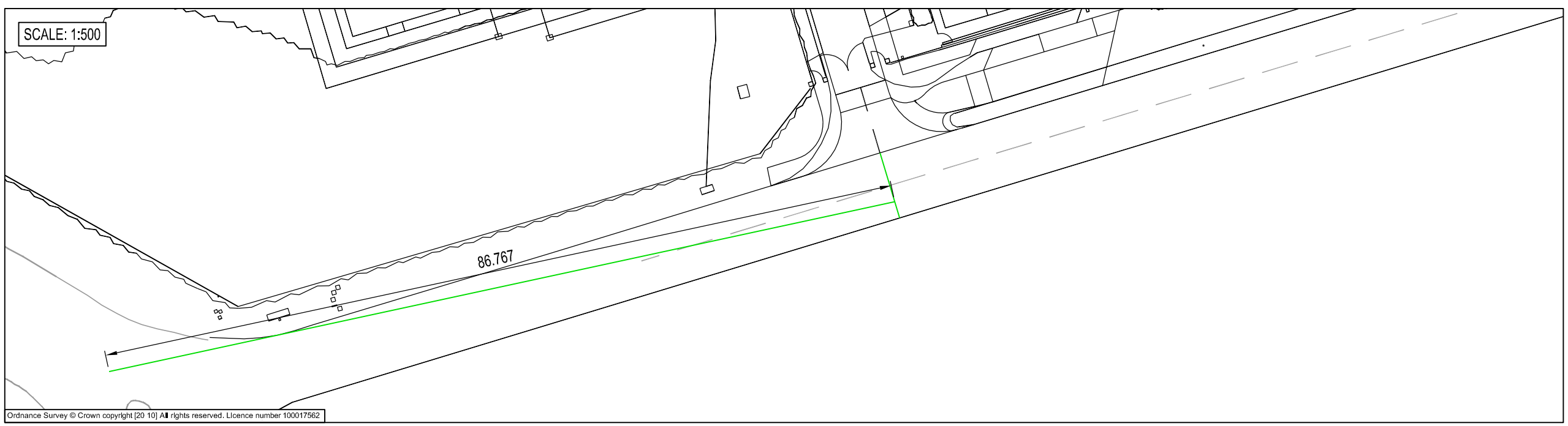

File location: P:\STH\2009\STH2 Development Planning\STH2550 Shepherd's Spring TA\50 Drawings\51 CAD\STH2550-PI-001.dwg

Notes:

1. Do not scale from this drawing. If in doubt refer to the project manager for clarification.

Key

- Existing Features
- Proposed Features
- General PICADY measurments
- 10m Visibility
- Forward Visibilty

Rev.	Date	Revision details	Drawn	Checked	Approved

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Client: Hampshire County Council

Project: Shepherd's Spring TA
Andover, Hampshire

Title: Proposed Site Access
PICADY Measurements

Drawn	Checked	Approved
BPC	MW	SM
Original drg. size	**Date**	**Scale**
A3	29.07.10	As Shown
Drawing Status	**Drawing Number**	**Rev.**
Information	STH2550-PI-001	-