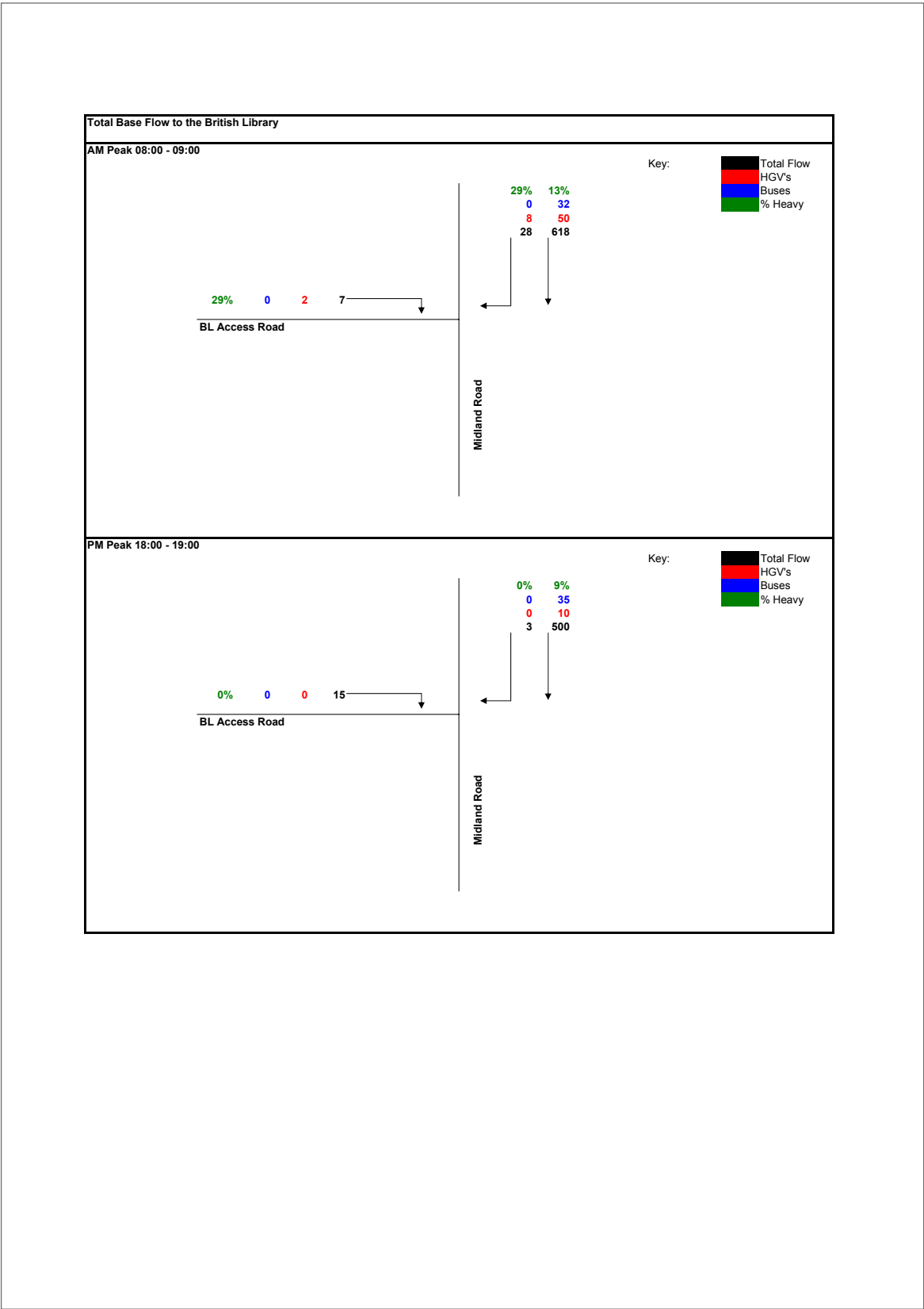
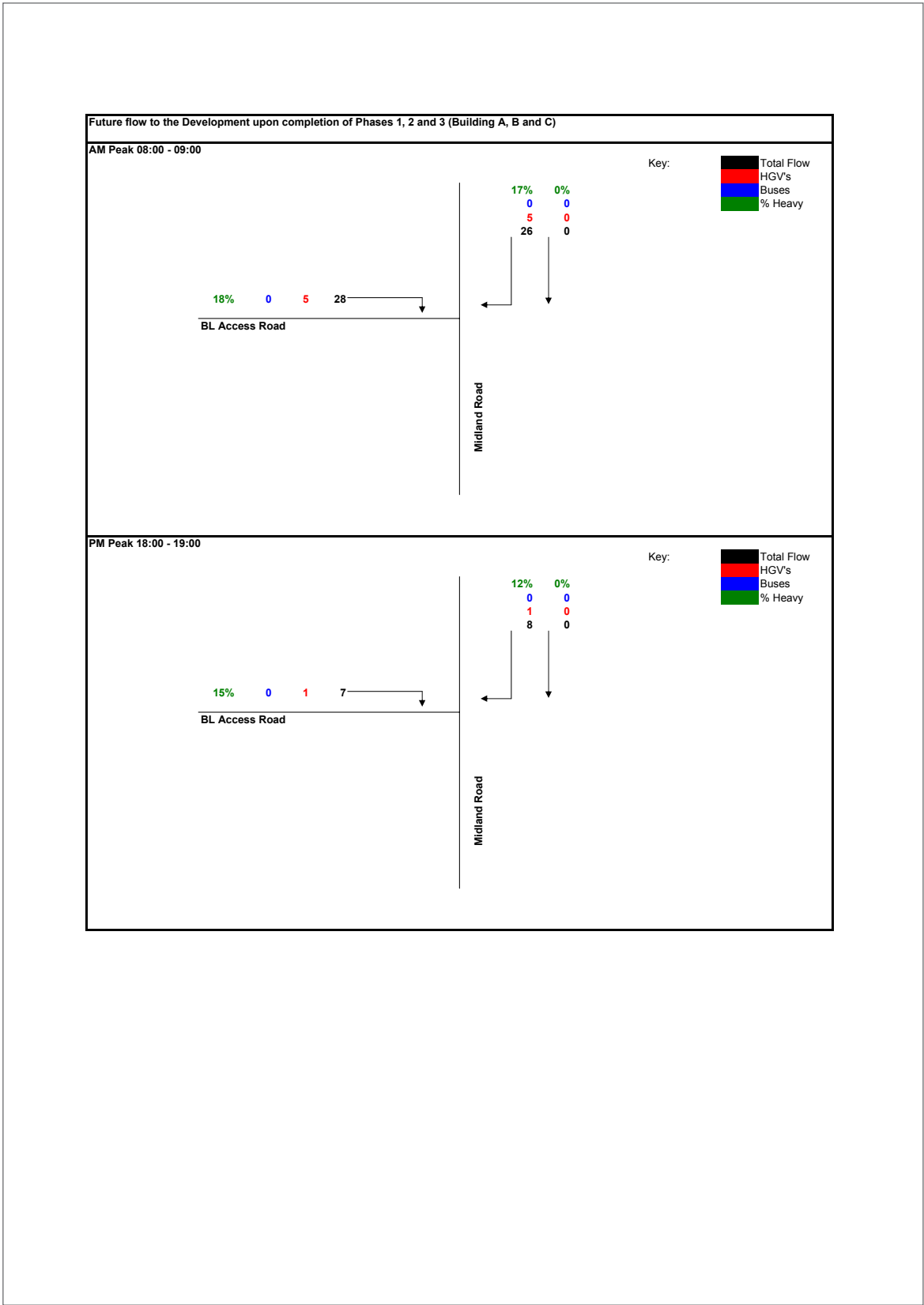
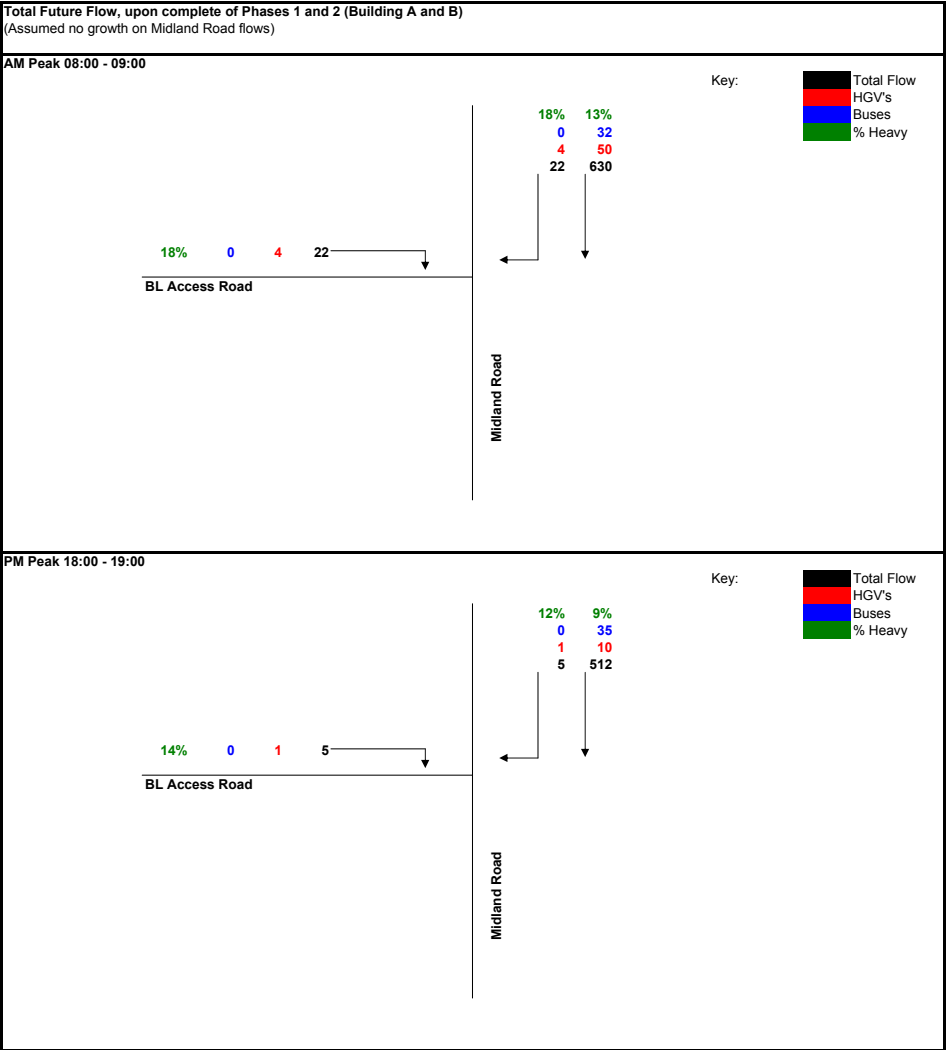
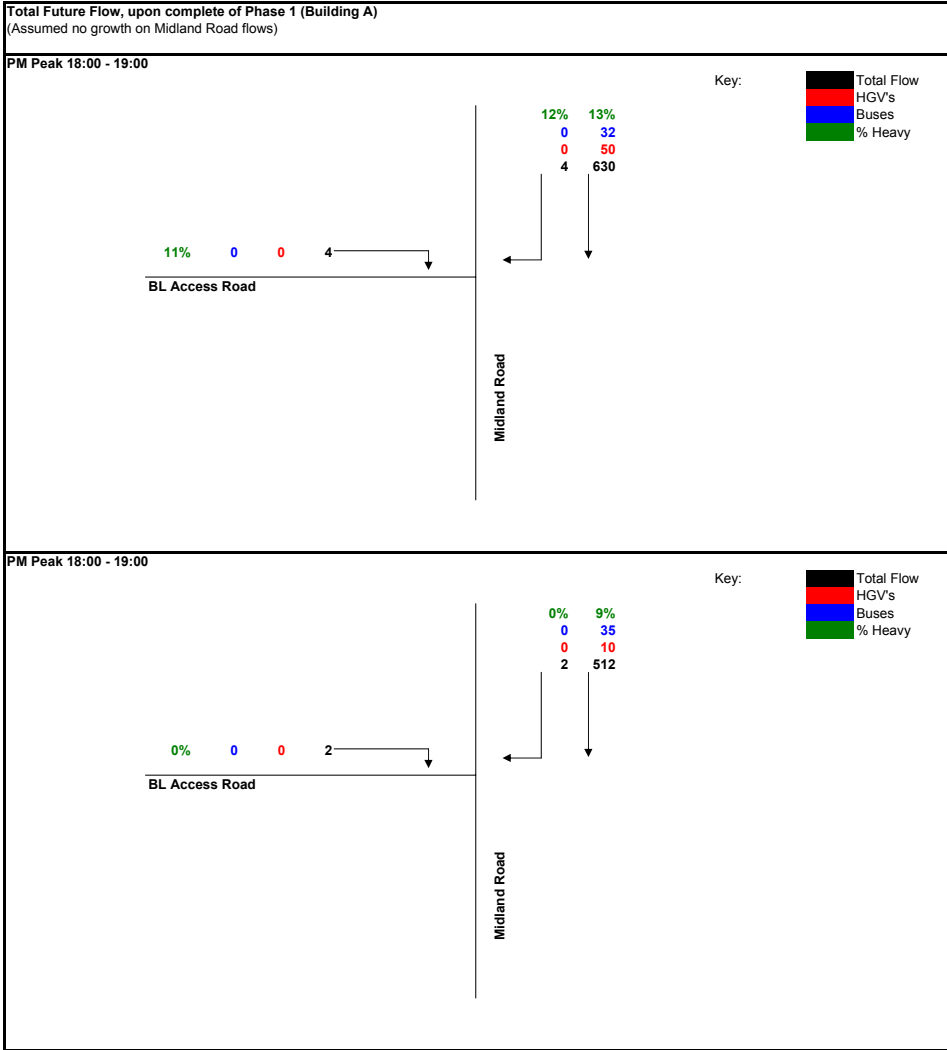


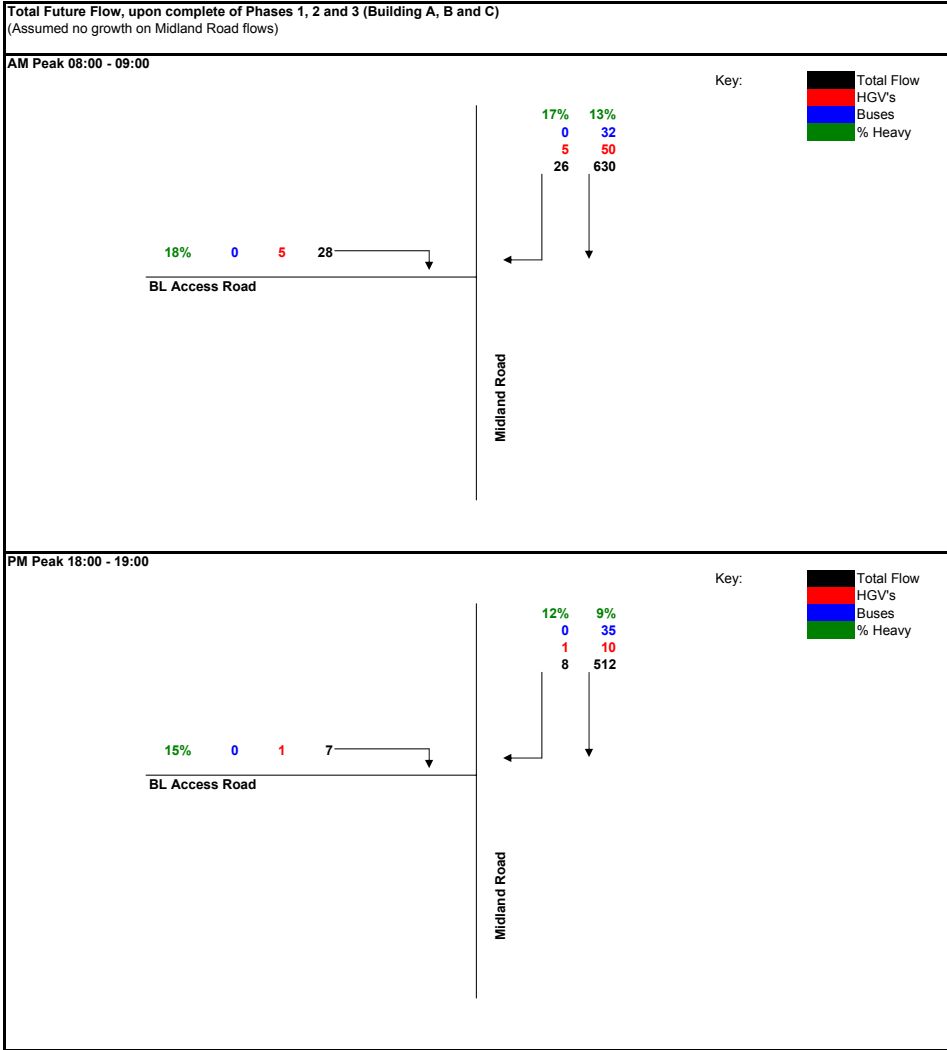
Appendix B
Transport Assessment



Appendix B
Transport Assessment



Appendix B
Transport Assessment



PICADY OUTPUT

Appendix B

Transport Assessment

Output for Table 6

```

TRL                               2.0 AE C:\Temporarytransfer\UKCMRI\BL Access Planning Application\New Folder\Base Flow\B
-----
                                TRL LIMITED

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

                                PICADY 5.0 ANALYSIS PROGRAM
                                RELEASE 3.0 (JUNE 2006)

ADAPTED FROM PICADY/3 WHICH IS CROWN COPYRIGHT
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                                TEL: CROWTHORNE (01344) 770758, FAX: 770864
                                EMAIL: SoftwareBureau@trl.co.uk
-----

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


Run with file:-
"J:\211000\211967 BL Midland Road Access\4 Internal Project Data\4-04 Arup Calculations\PICADY Model\
Base Flow AM.vpi"
(drive-on-the-left ) at 11:22:01 on Friday, 22 January 2010


RUN INFORMATION
*****
RUN TITLE: Base Flow
LOCATION: BL Acces Road
DATE: 14/01/10
CLIENT: British Library
ENUMERATOR: david.mccann [PLPPC061814]
JOB NUMBER: 211967-00
STATUS:
DESCRIPTION:

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY
*****

INPUT DATA
-----

*WARNING* SEGMENT LENGTH GREATER THAN 15 MINUTES.

                                MAJOR ROAD (ARM C) ----- MAJOR ROAD (ARM A)

                                I
                                I
                                I
                                I
                                I
                                I
                                MINOR ROAD (ARM B)

ARM A IS Midland Road (South)
ARM B IS BL Access Road
ARM C IS Midland Road (North)


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.

```

Appendix B

Transport Assessment

```
TRL          TRL VIEWER      2.0 AE C:\Temporarytransfer\UKCMRI\BL Access Planning Application\New Folder\Base Flow\B
```

GEOMETRIC DATA

I	DATA ITEM	I	MINOR ROAD B	I
I	TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	I	(W) 8.00 M.	I
I	CENTRAL RESERVE WIDTH	I	(WCR) 0.00 M.	I
I		I		I
I	MAJOR ROAD RIGHT TURN - WIDTH	I	(WC-B) 3.50 M.	I
I	- VISIBILITY	I	(VC-B) 200.0 M.	I
I	- BLOCKS TRAFFIC	I	NO	I
I		I		I
I	MINOR ROAD - VISIBILITY TO LEFT	I	(VB-C) 18.0 M.	I
I	- VISIBILITY TO RIGHT	I	(VB-A) 100.0 M.	I
I	- LANE 1 WIDTH	I	(WB-C) 4.00 M.	I
I	- LANE 2 WIDTH	I	(WB-A) 0.00 M.	I

.SLOPES AND INTERCEPT

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

	Intercept For Stream B-C	Slope For Stream A-C	Slope For Stream A-B
I	755.66	0.27	0.11

I Intercept For I 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	I
I 585.60	0.25	0.10	0.15	0.35	I

I	Intercept For Stream C-B	Slope For Opposing Stream A-C	Slope For Opposing Stream A-B	I
I	787.38	0.28	0.28	I

NB These values do not allow for any site specific corrections

GEOMETRIC DELAY DATA

I	I	ARM SPEED	I	ENTRY	EXIT	I
I	I	(KPH)	I	RADIUS	RADIUS	I
I	I	ENTRY	EXIT	I	ER (M)	EXR (M)
I	ARM A	I	48.0	48.0	I	1.5
I	ARM B	I	30.0	30.0	I	1.5
I	ARM C	I	48.0	48.0	I	

JUNCTION VISIBILITIES DO NOT CONFORM TO STANDARDS LAID DOWN IN TD42/95

WARNING SEGMENT LENGTH GREATER THAN 15 MINUTES.

TRAFFIC DEMAND DATA

TRL	TRL VIEWER	2.0 AE C:\Temporarytransfer\UKCMRI\BL Access Planning Application\New Folder\Base Flow\B
-----	------------	--

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

Demand set: Base Flow AM

TIME PERIOD BEGINS 08.00 AND ENDS 09.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 30 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

		TURNING PROPORTIONS					
		TURNING COUNTS					
		(PERCENTAGE OF H.V.S)					
TIME	FROM/TO	ARM A	ARM B	ARM C	ARM D	ARM E	ARM F
08.00 - 09.00	ARM A	0.000	0.000	0.000	0.000	0.000	0.000
		0.0	0.0	0.0	0.0	0.0	0.0
		(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)
	ARM B	1.000	0.000	0.000	0.000	0.000	0.000
		7.0	0.0	0.0	0.0	0.0	0.0
		(29.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)
	ARM C	0.957	0.043	0.000	0.000	0.000	0.000
		618.0	28.0	0.0	0.0	0.0	0.0
		(13.0)	(29.0)	(0.0)	(0.0)	(0.0)	(0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

THE PERCENTAGE OF HEAVY VEHICLES VARIES OVER TURNING MOVEMENTS

 QUEUE AND DELAY INFORMATION FOR EACH 30 MIN TIME SEGMENT

 FOR COMBINED DEMAND SETS
 AND FOR TIME PERIOD 1

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 I PER ARRIVING VEHICLE (MIN)
I	08.00-08.30									
I	B-AC	0.13	6.00	0.022		0.00	0.02	0.7	0.6	
I	C-A	10.30							0.0	
I	C-B	0.47	10.17	0.046		0.00	0.05	1.4	2.1	
I	A-B	0.00							0.0	
I	A-C	0.00							0.0	

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	08.30-09.00									
I	B-A-C	0.13	6.00	0.022		0.02	0.02	0.7	0.6	
I	C-A	10.30							0.0	
I	C-B	0.47	10.17	0.046		0.05	0.05	1.4	2.1	
I	A-B	0.00							0.0	
I	A-C	0.00							0.0	

QUEUE FOR STREAM B-AC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.30	0.0
09.00	0.0

Appendix B

Transport Assessment

TRL VIEWER 2.0 AE C:\Temporarytransfer\UKCMRI\BL Access Planning Application\New Folder\Base Flow\B

QUEUE FOR STREAM C-B

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.30	0.0
09.00	0.0

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

I	STREAM	TOTAL DEMAND		* QUEUEING * * DELAY *		* INCLUSIVE QUEUEING * * DELAY *				
		(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)			
I	B-AC	I	8.0	I	8.0	I	1.3	I	0.17	I
I	C-A	I	618.0	I	618.0	I	I	I	I	I
I	C-B	I	28.0	I	28.0	I	2.9	I	0.10	I
I	A-B	I	0.0	I	0.0	I	I	I	I	I
I	A-C	I	0.0	I	0.0	I	I	I	I	I
I	ALL	I	654.0	I	654.0	I	4.2	I	0.01	I

INCLUSIVE GEOMETRIC DELAY

I	I	I	TOTAL DEMAND		GEOMETRIC DELAY BY TURN (VEH MIN)				TOTAL
			(VEH)	(VEH/H)	ARM A	ARM B	ARM C	GEOM. DELAY	
I	A	I	0.0	0.0	0.0	0.0	0.0	0.0	
I		I			(0.0)	(8.4)	(0.0)		
I	B	I	8.0	8.0	1.1	0.0	0.0	1.1	
I		I			(7.8)	(0.0)	(8.7)		
I	C	I	646.0	646.0	0.0	4.2	0.0	4.2	
I		I			(0.0)	(8.4)	(0.0)		
I	ALL	I	654.0	654.0				5.3	

. POINT TO POINT JOURNEY TIME TABLE

IPoint to point journey times		I	I	I	I	I
From	To	I	I	I	I	I
I (entry point)	(exit point)	I Arm A	I Arm B	I Arm C	I Arm D	I
I	ArmA	I	0.0 I	31.8 I	21.6 I	0.0 I
I	ArmB	I	34.7 I	0.0 I	32.1 I	0.0 I
I	ArmC	I	22.9 I	41.5 I	0.0 I	0.0 I
I	ArmD	I	0.0 I	0.0 I	0.0 I	0.0 I

* JOURNEY TIME CALCULATION	STARTING/ENDING	ON ARM A	BEGINS/ENDS	200.0M	FROM STOP	LINE/AFTER	EXIT
* JOURNEY TIME CALCULATION	STARTING/ENDING	ON ARM B	BEGINS/ENDS	70.0M	FROM STOP	LINE/AFTER	EXIT
* JOURNEY TIME CALCULATION	STARTING/ENDING	ON ARM C	BEGINS/ENDS	200.0M	FROM STOP	LINE/AFTER	EXIT

* 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

```
===== end of file =====
```

[Printed at 12:16:54 on 25/06/2010]

TRL VIEWER 2.0 AE C:\Temporarytransfer\UKCMRI\BL Access Planning Application\New Folder\Base Flow\B

TRL LIMITE

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

PICADY 5.0 ANALYSIS PROGRAM
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```
Run with file:-
"J:\211000\211967 BL Midland Road Access\4 Internal Project Data\4-04 Arup Calculations\PICADY Model\
Base Flow PM.vpi
(drive-on-the-left ) at 11:23:32 on Friday, 22 January 2010
```

RUN INFORMATION

```

RUN TITLE: Base Flow
LOCATION: BL Acces Road
DATE: 14/01/10
CLIENT: British Library
ENUMERATOR: david.mccann [PLPPC061814]
JOB NUMBER: 211967-00
STATUS:
DESCRIPTION:

```

DESCRIPTION:

```

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY
*****

```

INPUT DATA

WARNING SEGMENT LENGTH GREATER THAN 15 MINUTES.

MAJOR ROAD (ARM C) ----- MAJOR ROAD (ARM A)

I
I
I
I
I
I
MINOR ROAD (ARM E

ARM A IS Midland Road (South)
ARM B IS BL Access Road
ARM C IS Midland Road (North)

STREAM LABELLING CONVENTION

STREAM A-B CONTAINS TRAFFIC GOING FROM ARM A TO ARM

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

ETC.

Appendix B

Transport Assessment

TRL VIEWER 2.0 AE C:\Temporarytransfer\UKCMRI\BL Access Planning Application\New Folder\Base Flow\B									
GEOMETRIC DATA									
I	DATA ITEM				I	MINOR ROAD B		I	
I	TOTAL MAJOR ROAD CARRIAGEWAY WIDTH				I	(W)	8.00 M.	I	
I	CENTRAL RESERVE WIDTH				I	(WCR)	0.00 M.	I	
I					I			I	
I	MAJOR ROAD RIGHT TURN - WIDTH				I	(WC-B)	3.50 M.	I	
I	- VISIBILITY				I	(VC-B)	200.0 M.	I	
I	- BLOCKS TRAFFIC				I		NO	I	
I					I			I	
I	MINOR ROAD - VISIBILITY TO LEFT				I	(VB-C)	18.0 M.	I	
I	- VISIBILITY TO RIGHT				I	(VB-A)	100.0 M.	I	
I	- LANE 1 WIDTH				I	(WB-C)	4.00 M.	I	
I	- LANE 2 WIDTH				I	(WB-A)	0.00 M.	I	
.SLOPES AND INTERCEPT									
(NB:Streams may be combined, in which case capacity									
will be adjusted)									
I	Intercept For Slope For Opposing		Slope For Opposing		I				
I	Stream B-C		Stream A-C		I	Stream A-B			
I	755.66		0.27		I	0.11			
I	Intercept For Slope For Opposing		Slope For Opposing		I	Slope For Opposing		Slope For Opposing	
I	Stream B-A		Stream A-C		I	Stream A-B		Stream C-A	
I	585.60		0.25		I	0.10		0.15	
I	Intercept For Slope For Opposing		Slope For Opposing		I				
I	Stream C-B		Stream A-C		I	Stream A-B			
I	787.38		0.28		I	0.28			
NB These values do not allow for any site specific corrections									
GEOMETRIC DELAY DATA									
I	I	ARM SPEED		I	ENTRY	EXIT	I		
I	I	(KPH)		I	RADIUS	RADIUS	I		
I	I	ENTRY	EXIT	I	ER (M)	EXR (M)	I		
I	ARM A	I	48.0	48.0	I	1.5		I	
I	ARM B	I	30.0	30.0	I	1.5	1.5	I	
I	ARM C	I	48.0	48.0	I			I	
JUNCTION VISIBILITIES DO NOT CONFORM TO STANDARDS LAID DOWN IN TD42/95									
WARNING SEGMENT LENGTH GREATER THAN 15 MINUTES.									
TRAFFIC DEMAND DATA									

TRL VIEWER 2.0 AE C:\Temporarytransfer\UKCMRI\BL Access Planning Application\New Folder\Base Flow\B									
I ARM I FLOW SCALE(%) I									
I	A	I	100	I					
I	B	I	100	I					
I	C	I	100	I					
Demand set: Base Flow PM									
TIME PERIOD BEGINS 18.00 AND ENDS 19.00									
LENGTH OF TIME PERIOD - 60 MINUTES.									
LENGTH OF TIME SEGMENT - 30 MINUTES.									
DEMAND FLOW PROFILES ARE INPUT DIRECTLY.									
I I									

Appendix B
Transport Assessment

TRL		TRL VIEWER		2.0 AE C:\Temporarytransfer\UKCMRI\BL Access Planning Application\New Folder\Base Flow\B									

QUEUE FOR STREAM C-B													

TIME SEGMENT		NO. OF											
ENDING		VEHICLES											
		IN QUEUE											
18.30		0.0											
19.00		0.0											
QUEUEING DELAY INFORMATION OVER WHOLE PERIOD													

I	STREAM	I	TOTAL DEMAND	I	* QUEUEING *	I	* INCLUSIVE QUEUEING *	I					
I		I		I	* DELAY *	I	* DELAY *	I					
I		I		I		I		I					
I		I	(VEH)	I	(VEH/H)	I	(MIN)	I	(MIN/VEH)				
I	B-AC	I	16.0	I	16.0	I	2.0	I	0.12				
I	C-A	I	501.0	I	501.0	I		I					
I	C-B	I	3.0	I	3.0	I	0.2	I	0.08				
I	A-B	I	0.0	I	0.0	I		I					
I	A-C	I	0.0	I	0.0	I		I					
I	ALL	I	520.0	I	520.0	I	2.2	I	0.00				

INCLUSIVE GEOMETRIC DELAY													

I	ARM	I	TOTAL DEMAND	I	GEOMETRIC DELAY BY TURN (VEH MIN)				I	TOTAL			
I		I		I	(GEOMETRIC DELAY PER LIGHT VEHICLE (SEC))				I	GEOM.			
I		I		I					I	DELAY			
I		I	(VEH)	I	(VEH/H)	I	ARM A	I	ARM B	I	ARM C	I	VEH MINI
I	A	I	0.0	I	0.0	I	0.0	I	0.0	I	0.0	I	0.0
I		I		I		I	(0.0)	I	(8.4)	I	(0.0)	I	
I		I		I		I		I		I		I	
I	B	I	16.0	I	16.0	I	2.1	I	0.0	I	0.0	I	2.1
I		I		I		I	(7.8)	I	(0.0)	I	(8.7)	I	
I		I		I		I		I		I		I	
I	C	I	504.0	I	504.0	I	0.0	I	0.4	I	0.0	I	0.4
I		I		I		I	(0.0)	I	(8.4)	I	(0.0)	I	
I	ALL	I	520.0	I	520.0	I						I	2.5

. POINT TO POINT JOURNEY TIME TABLE													

IPoint to point journey timesI I I I I I													
I From / To I I I I I I													
I (entry point) (exit point) I Arm A I Arm B I Arm C I Arm D I													

I	ArmA	I	0.0	I	31.8	I	21.6	I	0.0				
I	ArmB	I	31.2	I	0.0	I	32.1	I	0.0				
I	ArmC	I	22.5	I	36.4	I	0.0	I	0.0				
I	ArmD	I	0.0	I	0.0	I	0.0	I	0.0				

* JOURNEY TIME CALCULATION STARTING/ENDING ON ARM A BEGINS/ENDS 200.0M FROM STOP LINE/AFTER EXIT													
* JOURNEY TIME CALCULATION STARTING/ENDING ON ARM B BEGINS/ENDS 70.0M FROM STOP LINE/AFTER EXIT													
* JOURNEY TIME CALCULATION STARTING/ENDING ON ARM C BEGINS/ENDS 200.0M FROM STOP LINE/AFTER EXIT													
* 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													
===== end of file =====													
[Printed at 12:17:42 on 25/06/2010]													

Output for Table 7

```
-----
TRL          TRL VIEWER      2.0 AE C:\.. \New Layout - Future Flows\AM Peak A.txt - Page 1
-----

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

                                PICADY 5.0  ANALYSIS PROGRAM
                                RELEASE 3.0      (JUNE 2006)

                                ADAPTED FROM PICADY/3 WHICH IS CROWN COPYRIGHT
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                                TRL SOFTWARE BUREAU
                                TEL: CROWTHORNE (01344) 770758, FAX: 770864
                                EMAIL: SoftwareBureau@trl.co.uk
                                -----

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IN NO WAY  RELIEVED OF HIS RESPONSIBILITY  FOR THE CORRECTNESS  OF THE SOLUTION

Run with file:-
"J:\211000\211967  BL Midland Road Access\4 Internal Project Data\4-04 Arup Calculations\PICADY Model\
New Layout\Future Flow New Junction - AM.vpo.vpi"
(drive-on-the-left ) at 10:27:20 on Wednesday, 27 January 2010

RUN INFORMATION
*****

RUN TITLE: Future Flow AM Peak
LOCATION: BL Access Road
DATE: 14/01/10
CLIENT: British Library
ENUMERATOR: David.mccann [PLPPC061814]
JOB NUMBER: 211967-00
STATUS:
DESCRIPTION:

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY
*****

INPUT DATA
-----

*WARNING* SEGMENT LENGTH GREATER THAN 15 MINUTES.

                                MAJOR ROAD (ARM C) ----- MAJOR ROAD (ARM A)

                                I
                                I
                                I
                                I
                                I
                                I
                                MINOR ROAD (ARM B)

ARM A IS Midland Road (South)
ARM B IS BL Access Road
ARM C IS Midland Road (North)

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.
```

Appendix B

Transport Assessment

TRL TRL VIEWER 2.0 AE C:\.. \New Layout - Future Flows\AM Peak A.txt - Page 2

GEOMETRIC DATA

I	DATA ITEM	I	MINOR ROAD B	I
I	TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	I	(W) 7.50 M.	I
I	CENTRAL RESERVE WIDTH	I	(WCR) 0.00 M.	I
I	MAJOR ROAD RIGHT TURN - WIDTH	I	(WC-B) 3.50 M.	I
I	- VISIBILITY	I	(VC-B) 250.0 M.	I
I	- BLOCKS TRAFFIC	I	NO	I
I	MINOR ROAD - VISIBILITY TO LEFT	I	(VB-C) 50.0 M.	I
I	- VISIBILITY TO RIGHT	I	(VB-A) 200.0 M.	I
I	- LANE 1 WIDTH	I	(WB-C) 4.75 M.	I
I	- LANE 2 WIDTH	I	(WB-A) 0.00 M.	I

.SLOPES AND INTERCEPT

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

	I Intercept For Stream B-C	Slope For Opposing Stream A-C	Slope For Opposing Stream A-B
I	881.22	0.32	0.13

I Intercept For	Slope For Opposing	Slope For Opposing	Slope For Opposing	Slope For Opposing
I Stream B-A	Stream A-C	Stream A-B	Stream C-A	Stream C-B
I 697.15	0.30	0.12	0.19	0.43

I Intercept For	Slope For Opposing	Slope For Opposing I
I Stream C-B	Stream A-C	Stream A-B
I 820.43	0.30	0.30

NB These values do not allow for any site specific corrections

GEOMETRIC DELAY DATA

I	I	ARM SPEED	I	ENTRY	EXIT	I
I	I	(KPH)	I	RADIUS	RADIUS	I
I	I	ENTRY	EXIT	I	ER (M)	EXR (M)
I	ARM A	I	48.0	48.0	I	2.5
I	ARM B	I	30.0	30.0	I	2.0
I	ARM C	I	48.0	48.0	I	4.0

JUNCTION VISIBILITIES DO NOT CONFORM TO STANDARDS LAID DOWN IN TD42/95

WARNING SEGMENT LENGTH GREATER THAN 15 MINUTES.

TRAFFIC DEMAND DATA

TRL TRL VIEWER 2.0 AE C:\.. \New Layout - Future Flows\AM Peak A.txt - Page 3

I ARM I FLOW SCALE (%) I

I A	I	100	1
I B	I	100	1
I C	I	100	1

Demand set: Future Flow AM Peak - A

TIME PERIOD BEGINS 08.00 AND ENDS 09.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 30 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

		TURNING PROPORTIONS			
		TURNING COUNTS			
		(PERCENTAGE OF H.V.S)			
TIME	FROM/TO	ARM A	ARM B	ARM C	
08.00 - 09.00					
	ARM A	0.000	0.000	0.000	
		0.0	0.0	0.0	
		(0.0)	(0.0)	(0.0)	
	ARM B	1.000	0.000	0.000	
		4.0	0.0	0.0	
		(11.0)	(0.0)	(0.0)	
	ARM C	0.994	0.006	0.000	
		630.0	4.0	0.0	
		(13.0)	(12.0)	(0.0)	

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

THE PERCENTAGE OF HEAVY VEHICLES VARIES OVER TURNING MOVEMENTS

QUEUE AND DELAY INFORMATION FOR EACH 30 MIN TIME SEGMENT

FOR COMBINED DEMAND SETS
AND FOR TIME PERIOD

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)
08.00-08.30									
C-B	0.07	8.42	0.008		0.00	0.01	0.2	0.3	
C-A	10.50							0.0	
C-B	0.07	12.21	0.005		0.00	0.01	0.2	0.2	
A-B	0.00							0.0	
A-C	0.00							0.0	

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)
08.30-09.00									
B-A	0.07	8.42	0.008		0.01	0.01	0.2	0.3	
C-A	10.50							0.0	
C-B	0.07	12.21	0.005		0.01	0.01	0.2	0.2	
A-B	0.00							0.0	
A-C	0.00							0.0	

QUEUE FOR STREAM B-AC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.30	0.0
09.00	0.0

Appendix B
Transport Assessment

TRL VIEWER 2.0 AE C:\.. \New Layout - Future Flows\AM Peak A.txt - Page 4														
QUEUE FOR STREAM C-B														
TIME SEGMENT		NO. OF												
ENDING		VEHICLES												
		IN QUEUE												
08.30		0.0												
09.00		0.0												
QUEUEING DELAY INFORMATION OVER WHOLE PERIOD														
I	STREAM	I	TOTAL DEMAND	I	* QUEUEING *	I	* INCLUSIVE QUEUEING *	I						
I	I	I	I	I	* DELAY *	I	* DELAY *	I						
I	I	I	I	I	I	I	I	I						
I	I	I	(VEH)	I	(VEH/H)	I	(MIN)	I	(MIN/VEH)					
I	I	I	I	I	I	I	I	I	I					
I	B-AC	I	4.0	I	4.0	I	0.5	I	0.12					
I	C-A	I	630.0	I	630.0	I	I	I	I					
I	C-B	I	4.0	I	4.0	I	0.3	I	0.08					
I	A-B	I	0.0	I	0.0	I	I	I	I					
I	A-C	I	0.0	I	0.0	I	I	I	I					
I	ALL	I	638.0	I	638.0	I	0.8	I	0.00					
INCLUSIVE GEOMETRIC DELAY														
I	ARM	I	TOTAL DEMAND	I	GEOMETRIC DELAY BY TURN (VEH MIN)				I	TOTAL				
I	I	I	I	I	(GEOMETRIC DELAY PER LIGHT VEHICLE (SEC))				I	GEOM.				
I	I	I	I	I	I				I	DELAY				
I	I	I	(VEH)	I	(VEH/H)	I	ARM A	I	ARM B	I	ARM C	I	VEH MINI	
I	A	I	0.0	I	0.0	I	0.0	I	0.0	I	0.0	I	0.0	
I	I	I	I	I	(	0.0)	I	(	7.9)	I	(	0.0)	I	
I	I	I	I	I	I	I	I	I	I	I	I	I	I	
I	B	I	4.0	I	4.0	I	0.5	I	0.0	I	0.0	I	0.5	
I	I	I	I	I	(	7.8)	I	(	0.0)	I	(	8.4)	I	
I	I	I	I	I	I	I	I	I	I	I	I	I	I	
I	C	I	634.0	I	634.0	I	0.0	I	0.5	I	0.0	I	0.5	
I	I	I	I	I	(	0.0)	I	(	7.2)	I	(	0.0)	I	
I	ALL	I	638.0	I	638.0	I							I	1.0
. POINT TO POINT JOURNEY TIME TABLE														
IPoint to point journey timesI I I I I I														
I From / To I I I I I I														
I (entry point) (exit point) I Arm A I Arm B I Arm C I Arm D I														
I	ArmA	I	0.0	I	28.9	I	20.1	I	0.0	I				
I	ArmB	I	30.3	I	0.0	I	29.4	I	0.0	I				
I	ArmC	I	21.3	I	34.7	I	0.0	I	0.0	I				
I	ArmD	I	0.0	I	0.0	I	0.0	I	0.0	I				
* JOURNEY TIME CALCULATION STARTING/ENDING ON ARM A BEGINS/ENDS 200.0M FROM STOP LINE/AFTER EXIT														
* JOURNEY TIME CALCULATION STARTING/ENDING ON ARM B BEGINS/ENDS 50.0M FROM STOP LINE/AFTER EXIT														
* JOURNEY TIME CALCULATION STARTING/ENDING ON ARM C BEGINS/ENDS 200.0M FROM STOP LINE/AFTER EXIT														
* 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														
===== end of file =====														
===== end of file =====														
[Printed at 12:40:10 on 25/06/2010]														

TRL TRL VIEWER 2.0 AE C:\.. \New Layout - Future Flows\PM Peak A.txt - Page 1									
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New Layout\Future Flow New Junction - PM.vpi"									
(drive-on-the-left) at 10:32:12 on Wednesday, 27 January 2010									
RUN INFORMATION									

RUN TITLE: Future Flow AM Peak									
LOCATION: BL Access Road									
DATE: 14/01/10									
CLIENT: British Library									
ENUMERATOR: david.mccann [PLPPC061814]									
JOB NUMBER: 211967-00									
STATUS:									
DESCRIPTION:									
.MAJOR/MINOR JUNCTION CAPACITY AND DELAY									

INPUT DATA									

WARNING SEGMENT LENGTH GREATER THAN 15 MINUTES.									
MAJOR ROAD (ARM C) ----- MAJOR ROAD (ARM A)									
I									
I									
I									
I									
I									
MINOR ROAD (ARM B)									
ARM A IS Midland Road (South)									
ARM B IS BL Access Road									
ARM C IS Midland Road (North)									
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.									

Appendix B

Transport Assessment

TRL VIEWER 2.0 AE C:\.. \New Layout - Future Flows\PM Peak A.txt - Page 2

GEOMETRIC DATA

I	DATA ITEM	I	MINOR ROAD B	I
I	TOTAL MAJOR ROAD CARRIAGEWAY WIDTH	I	(W) 7.50 M.	I
I	CENTRAL RESERVE WIDTH	I	(WCR) 0.00 M.	I
I	MAJOR ROAD RIGHT TURN - WIDTH	I	(WC-B) 3.50 M.	I
I	- VISIBILITY	I	(VC-B) 250.0 M.	I
I	- BLOCKS TRAFFIC	I	NO	I
I	MINOR ROAD - VISIBILITY TO LEFT	I	(VB-C) 50.0 M.	I
I	- VISIBILITY TO RIGHT	I	(VB-A) 200.0 M.	I
I	- LANE 1 WIDTH	I	(WB-C) 4.75 M.	I
I	- LANE 2 WIDTH	I	(WB-A) 0.00 M.	I

.SLOPES AND INTERCEPT

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

I	Intercept For Stream B-C	Slope For Stream A-C	Slope For Opposing Stream A-B	I
I	881.22	0.32	0.13	I

I	Intercept For I Stream B-A	Slope For Stream A-C	Opposing Stream A-B	Slope For Stream A-B	Opposing Stream C-A	Slope For Stream C-B	Opposing Stream B-C
I	697.15	0.30	0.12	0.19	0.43	0.19	0.19

I	Intercept For Stream C-B	Slope For Opposing Stream A-C	Slope For Opposing Stream A-B	I
I	820.43	0.30	0.30	I

NB These values do not allow for any site specific corrections

GEOMETRIC DELAY DATA

I	I	ARM SPEED	I	ENTRY	EXIT	I
I	I	(KPH)	I	RADIUS	RADIUS	I
I	I	ENTRY EXIT	I	ER (M)	EXR (M)	I
I	ARM A	I 48.0 48.0	I	2.5		I
I	ARM B	I 30.0 30.0	I	2.0	4.0	I
I	ARM C	I 48.0 48.0	I			I

JUNCTION VISIBILITIES DO NOT CONFORM TO STANDARDS LAID DOWN IN TD42/95

WARNING SEGMENT LENGTH GREATER THAN 15 MINUTES.

TRAFFIC DEMAND DATA

TRL TRL VIEWER 2.0 AE C:\.. \New Layout - Future Flows\PM Peak A.txt - Page 3

I ARM I FLOW SCALE (%)

I A	I	100
I B	I	100
I C	I	100

Demand set: Future Flow PM Peak - A

TIME PERIOD BEGINS 18.00 AND ENDS 19.00

LENGTH OF TIME PERIOD - 60 MINUTES.
LENGTH OF TIME SEGMENT - 30 MINUTES.

DEMAND FLOW PROFILES ARE INPUT DIRECTLY.

TIME	TURNING PROPORTIONS TURNING COUNTS (PERCENTAGE OF H.V.S)			
	FROM/TO	ARM A	ARM B	ARM C
18.00 - 19.00	ARM A	0.000	0.000	0.000
		0.0	0.0	0.0
		(0.0)	(0.0)	(0.0)
	ARM B	1.000	0.000	0.000
		2.0	0.0	0.0
		(0.0)	(0.0)	(0.0)
	ARM C	0.996	0.004	0.000
		512.0	2.0	0.0
		(9.0)	(0.0)	(0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

THE PERCENTAGE OF HEAVY VEHICLES VARIES OVER TURNING MOVEMENTS

QUEUE AND DELAY INFORMATION FOR EACH 30 MIN TIME SEGMENT

FOR DEMAND SET Future Flow PM Peak - A
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)
18.00-18.30									
B-AC	0.03	9.85	0.003		0.00	0.00	0.1	0.1	
C-A	8.53							0.0	
C-B	0.03	13.67	0.002		0.00	0.00	0.1	0.1	
A-B	0.00							0.0	
A-C	0.00							0.0	

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)
18.30-19.00									
B-A	0.03	9.85	0.003		0.00	0.00	0.1	0.1	
C-A	8.53							0.0	
C-B	0.03	13.67	0.002		0.00	0.00	0.1	0.1	
A-B	0.00							0.0	
A-C	0.00							0.0	

QUEUE FOR STREAM B-AC

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
18.30	0.0
19.00	0.0