

Output for Table 7

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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)

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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.

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

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

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

I ARM I FLOW SCALE(%) I

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

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.

I I I I I	I	TURNING PROPORTIONS						I
		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 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 PER ARRIVING VEHICLE (MIN)	I
I	08.00-08.30										I
I	B-AC	0.07	8.42	0.008		0.00	0.01	0.2	0.3		I
I	C-A	10.50							0.0		I
I	C-B	0.07	12.21	0.005		0.00	0.01	0.2	0.2		I
I	A-B	0.00							0.0		I
I	A-C	0.00							0.0		I

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

QUEUE FOR STREAM B-AC

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

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	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	(VEH)	(VEH/H)	I	(MIN)	(MIN/VEH)	I	(MIN)	(MIN/VEH)
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	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	A-C	I	0.0	I	0.0	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	I	(GEOMETRIC DELAY PER LIGHT VEHICLE (SEC))			I	GEOM.	I
I	I	I	I	I	I	I	I	I	DELAY	I
I	I	(VEH)	(VEH/H)	I	ARM A	ARM B	ARM C	I	VEH MIN	I
I	A	I	0.0	I	0.0	I	0.0	I	0.0	I
I		I		I	(0.0)	I	(7.9)	I	(0.0)	I
I		I		I		I		I		I
I	B	I	4.0	I	0.5	I	0.0	I	0.0	I
I		I		I	(7.8)	I	(0.0)	I	(8.4)	I
I		I		I		I		I		I
I	C	I	634.0	I	0.0	I	0.5	I	0.0	I
I		I		I	(0.0)	I	(7.2)	I	(0.0)	I
I	ALL	I	638.0	I				I		I
										1.0

. POINT TO POINT JOURNEY TIME TABLE

I	Point to point journey times	I	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	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

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

[Printed at 12:40:10 on 25/06/2010]

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

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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 - 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
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.

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

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

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

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

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

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-----
I  TIME      DEMAND  CAPACITY  DEMAND/  PEDESTRIAN  START  END  DELAY  GEOMETRIC DELAY  AVERAGE DELAY  I
I          (VEH/MIN) (VEH/MIN) CAPACITY  FLOW  QUEUE  QUEUE  (VEH.MIN/  (VEH.MIN/  PER ARRIVING  I
I          (VEH/MIN) (VEH/MIN) (RFC)  (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME SEGMENT)  VEHICLE (MIN)  I
I 18.00-18.30 I          I          I          I          I          I          I          I          I
I  B-AC      0.03      9.85      0.003      I          0.00  0.00      0.1      0.1      I
I  C-A      8.53      I          I          I          I          I          I          I
I  C-B      0.03      13.67     0.002      I          0.00  0.00      0.1      0.1      I
I  A-B      0.00      I          I          I          I          I          I          I
I  A-C      0.00      I          I          I          I          I          I          I
I          I          I          I          I          I          I          I          I
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I  TIME      DEMAND  CAPACITY  DEMAND/  PEDESTRIAN  START  END  DELAY  GEOMETRIC DELAY  AVERAGE DELAY  I
I          (VEH/MIN) (VEH/MIN) CAPACITY  FLOW  QUEUE  QUEUE  (VEH.MIN/  (VEH.MIN/  PER ARRIVING  I
I          (VEH/MIN) (VEH/MIN) (RFC)  (PEDS/MIN) (VEHS) (VEHS)  TIME SEGMENT)  TIME SEGMENT)  VEHICLE (MIN)  I
I 18.30-19.00 I          I          I          I          I          I          I          I          I
I  B-AC      0.03      9.85      0.003      I          0.00  0.00      0.1      0.1      I
I  C-A      8.53      I          I          I          I          I          I          I
I  C-B      0.03      13.67     0.002      I          0.00  0.00      0.1      0.1      I
I  A-B      0.00      I          I          I          I          I          I          I
I  A-C      0.00      I          I          I          I          I          I          I
I          I          I          I          I          I          I          I          I
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QUEUE FOR STREAM B-AC

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

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QUEUE FOR STREAM C-B

TIME SEGMENT ENDING	NO. OF 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	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
I	I	I	(VEH/H)	I	(MIN/VEH)	I	(MIN)	I
I	B-AC	I	2.0	I	2.0	I	0.2	I
I	C-A	I	512.0	I	512.0	I	0.1	I
I	C-B	I	2.0	I	2.0	I	0.07	I
I	A-B	I	0.0	I	0.0	I	0.1	I
I	A-C	I	0.0	I	0.0	I	0.07	I
I	ALL	I	516.0	I	516.0	I	0.3	I

INCLUSIVE GEOMETRIC DELAY

I	ARM	I	TOTAL DEMAND	I	GEOMETRIC DELAY BY TURN (VEH MIN)	I	TOTAL	I
I	I	I	I	I	(GEOMETRIC DELAY PER LIGHT VEHICLE (SEC))	I	GEOM.	I
I	I	I	I	I	I	I	DELAY	I
I	I	I	(VEH)	I	ARM A	I	ARM B	I
I	I	I	(VEH/H)	I	ARM C	I	ARM C	I
I	A	I	0.0	I	0.0	I	0.0	I
I	I	I	I	I	(0.0)	I	(7.9)	I
I	I	I	I	I	I	I	(0.0)	I
I	B	I	2.0	I	0.3	I	0.0	I
I	I	I	I	I	(7.8)	I	(0.0)	I
I	I	I	I	I	I	I	(8.4)	I
I	C	I	514.0	I	0.0	I	0.2	I
I	I	I	I	I	(0.0)	I	(7.2)	I
I	I	I	I	I	I	I	(0.0)	I
I	ALL	I	516.0	I	516.0	I	0.5	I

. POINT TO POINT JOURNEY TIME TABLE

I	Point to point journey times	I	I	I	I	I
I	From / To	I	I	I	I	I
I	(entry point) (exit point)	I	Arm A	I	Arm B	I
I		I	Arm C	I	Arm D	I
I	ArmA	I	0.0	I	28.9	I
I	ArmB	I	28.8	I	0.0	I
I	ArmC	I	21.0	I	32.6	I
I	ArmD	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 12:49:16 on 25/06/2010]