Appendix M Junction Modelling: Lethlean Lane (on CD only)

TRL LIMITED

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

PICADY 4.1 ANALYSIS PROGRAM
RELEASE 3.0 (MAY 2001)

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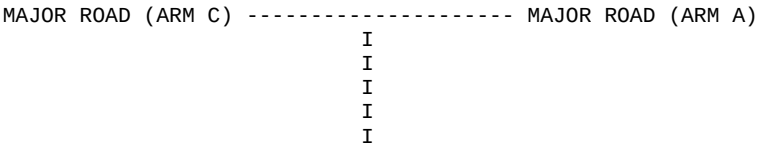
FOR SALES AND DISTRIBUTION INFORMATION,
PROGRAM ADVICE AND MAINTENANCE CONTACT:
TRL SOFTWARE BUREAU
TEL: CROWTHORNE (01344) 770758, FAX: 770864
EMAIL: SoftwareBureau@trl.co.uk

Run with file:-
"o:\022961 Hayle Harbour - OPA\F08 - Civils (name)\Transportation\Assessments\PICADY\
20071106 rs Lethlean picady June AM 2017 without dev.vpi"
(drive-on-the-left) at 12:14:15 on Tuesday, 6 November 2007

RUN TITLE
****
Lothlean Lane

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA



I
MINOR ROAD (ARM B)

ARM A IS Beatrice Terrace west
ARM B IS Lethlean Lane
ARM C IS Beatrice Terrace 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)	7.80 M.
CENTRAL RESERVE WIDTH	(WCR)	0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B)	2.20 M.
- VISIBILITY	(VC-B)	200.0 M.
- BLOCKS TRAFFIC		NO
MINOR ROAD - VISIBILITY TO LEFT	(VB-C)	20.0 M.
- VISIBILITY TO RIGHT	(VB-A)	60.0 M.
- LANE 1 WIDTH	(WB-C)	-
- LANE 2 WIDTH	(WB-A)	-
- WIDTH AT 0 M FROM JUNC.		10.00 M.
- WIDTH AT 5 M FROM JUNC.		8.50 M.
- WIDTH AT 10 M FROM JUNC.		6.00 M.
- WIDTH AT 15 M FROM JUNC.		4.20 M.
- WIDTH AT 20 M FROM JUNC.		3.50 M.
- LENGTH OF FLARED SECTION		2 VEHS

TRAFFIC DEMAND DATA

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 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	7.69	11.53	7.69
ARM B	15.00	45.00	75.00	1.04	1.56	1.04
ARM C	15.00	45.00	75.00	7.44	11.16	7.44

TURNING PROPORTIONS
TURNING COUNTS (VEH/HR)
(PERCENTAGE OF H.V.S)

TIME	FROM/TO	ARM A	ARM B	ARM C
07.45 - 09.15	ARM A	0.000	0.120	0.880
		0.0	74.0	541.0
		(0.0)	(10.0)	(10.0)
	ARM B	0.783	0.000	0.217
		65.0	0.0	18.0
		(10.0)	(0.0)	(10.0)
	ARM C	0.914	0.086	0.000
		544.0	51.0	0.0
		(10.0)	(10.0)	(0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

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)
07.45-08.00								
B-C	0.22	8.26	0.027		0.0	0.0	0.4	
B-A	0.81	5.85	0.139		0.0	0.2	2.3	
C-A	6.80							
C-B	0.64	8.56	0.074		0.0	0.1	1.2	
A-B	0.93							
A-C	6.76							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.089	0.009			0.009
B-A	0.056	0.016	0.022	0.004	0.006
C-B	0.102	0.010		0.008	

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)
08.00-08.15								
B-C	0.27	7.84	0.034		0.0	0.0	0.5	
B-A	0.97	5.25	0.185		0.2	0.2	3.2	
C-A	8.12							
C-B	0.76	8.19	0.093		0.1	0.1	1.5	
A-B	1.10							
A-C	8.08							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.084	0.010			0.008
B-A	0.050	0.019	0.022	0.004	0.005
C-B	0.098	0.012		0.008	

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)
08.15-08.30								
B-C	0.33	7.20	0.046		0.0	0.0	0.7	
B-A	1.19	4.42	0.269		0.2	0.4	5.1	
C-A	9.94							
C-B	0.93	7.68	0.121		0.1	0.1	2.0	
A-B	1.35							
A-C	9.89							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.078	0.012			0.008
B-A	0.042	0.023	0.022	0.003	0.005
C-B	0.092	0.014		0.007	

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)
08.30-08.45								
B-C	0.33	7.20	0.046		0.0	0.0	0.7	
B-A	1.19	4.42	0.269		0.4	0.4	5.4	
C-A	9.94							
C-B	0.93	7.68	0.121		0.1	0.1	2.1	
A-B	1.35							
A-C	9.89							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.078	0.012			0.008
B-A	0.042	0.023	0.022	0.003	0.005
C-B	0.092	0.014		0.007	

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)
08.45-09.00								
B-C	0.27	7.83	0.034		0.0	0.0	0.6	
B-A	0.97	5.25	0.185		0.4	0.2	3.6	
C-A	8.12							
C-B	0.76	8.19	0.093		0.1	0.1	1.6	
A-B	1.10							
A-C	8.08							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.084	0.010			0.008
B-A	0.050	0.019	0.022	0.004	0.005
C-B	0.098	0.012		0.008	

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)
09.00-09.15								
B-C	0.22	8.26	0.027		0.0	0.0	0.4	
B-A	0.81	5.85	0.139		0.2	0.2	2.5	
C-A	6.80							
C-B	0.64	8.56	0.074		0.1	0.1	1.2	
A-B	0.93							
A-C	6.76							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.089	0.009			0.009
B-A	0.056	0.016	0.022	0.004	0.006
C-B	0.102	0.010		0.008	

QUEUE FOR STREAM B-C

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

QUEUE FOR STREAM B-A

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

QUEUE FOR STREAM C-B

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

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-C	24.7	16.5	3.3	0.13	3.3	0.13
B-A	89.1	59.4	22.2	0.25	22.2	0.25
C-A	745.9	497.3				
C-B	69.9	46.6	9.5	0.14	9.5	0.14
A-B	101.5	67.6				
A-C	741.8	494.6				

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 ------------------------------------------------------------------------
 I  ALL   I 1773.0 I 1182.0 I    35.0 I    0.02   I      35.0  I    0.02   I
 ------------------------------------------------------------------------


 * 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

 ****** PICADY 4 run completed.
============================================= end of file ==============================================
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CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 4.1 ANALYSIS PROGRAM
RELEASE 3.0 (MAY 2001)

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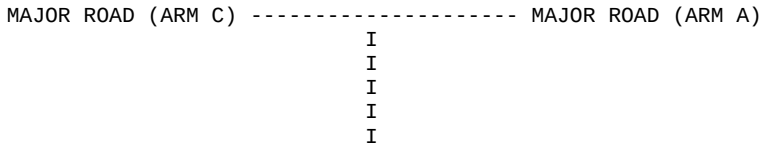
EMAIL: SoftwareBureau@trl.co.uk

Run with file:-
"o:\022961 Hayle Harbour - OPA\F08 - Civils (name)\Transportation\Assessments\PICADY\
20071106 rs Lethlean picady June AM 2017 with dev (ROBUST trips).vpi"
(drive-on-the-left) at 12:39:20 on Tuesday, 6 November 2007

RUN TITLE
****
Lothlean Lane

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA



I
MINOR ROAD (ARM B)

ARM A IS Beatrice Terrace west
ARM B IS Lethlean Lane
ARM C IS Beatrice Terrace 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)	7.80 M.
CENTRAL RESERVE WIDTH	(WCR)	0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B)	2.20 M.
- VISIBILITY	(VC-B)	200.0 M.
- BLOCKS TRAFFIC		NO
MINOR ROAD - VISIBILITY TO LEFT	(VB-C)	20.0 M.
- VISIBILITY TO RIGHT	(VB-A)	60.0 M.
- LANE 1 WIDTH	(WB-C)	-
- LANE 2 WIDTH	(WB-A)	-
- WIDTH AT 0 M FROM JUNC.		10.00 M.
- WIDTH AT 5 M FROM JUNC.		8.50 M.
- WIDTH AT 10 M FROM JUNC.		6.00 M.
- WIDTH AT 15 M FROM JUNC.		4.20 M.
- WIDTH AT 20 M FROM JUNC.		3.50 M.
- LENGTH OF FLARED SECTION		2 VEHS

TRAFFIC DEMAND DATA

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 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	8.86	13.29	8.86
ARM B	15.00	45.00	75.00	2.59	3.88	2.59
ARM C	15.00	45.00	75.00	10.06	15.09	10.06

TIME	FROM/TO	TURNING PROPORTIONS TURNING COUNTS (VEH/HR) (PERCENTAGE OF H.V.S) ARM A	ARM B	ARM C
07.45 - 09.15	ARM A	0.000	0.111	0.889
		0.0	79.0	630.0
		(0.0)	(10.0)	(10.0)
	ARM B	0.614	0.000	0.386
		127.0	0.0	80.0
		(10.0)	(0.0)	(10.0)
	ARM C	0.878	0.122	0.000
		707.0	98.0	0.0
		(10.0)	(10.0)	(0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

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)
07.45-08.00								
B-C	1.00	7.84	0.128		0.0	0.1	2.1	
B-A	1.59	5.07	0.313		0.0	0.4	6.2	
C-A	8.84							
C-B	1.23	8.27	0.148		0.0	0.2	2.5	
A-B	0.99							
A-C	7.88							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.082	0.010			0.008
B-A	0.048	0.020	0.022	0.004	0.005
C-B	0.099	0.011		0.008	

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)
08.00-08.15								
B-C	1.19	7.04	0.170		0.1	0.2	2.9	
B-A	1.90	4.30	0.441		0.4	0.8	10.5	
C-A	10.55							
C-B	1.46	7.84	0.186		0.2	0.2	3.3	
A-B	1.18							
A-C	9.40							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.075	0.011			0.008
B-A	0.041	0.024	0.022	0.003	0.005
C-B	0.094	0.014		0.007	

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)
08.15-08.30								
B-C	1.46	4.91	0.298		0.2	0.4	5.8	
B-A	2.32	3.23	0.719		0.8	2.1	26.3	
C-A	12.92							
C-B	1.79	7.26	0.247		0.2	0.3	4.7	
A-B	1.44							
A-C	11.52							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.065	0.013			0.007
B-A	0.031	0.030	0.022	0.002	0.003
C-B	0.087	0.017		0.007	

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)
08.30-08.45								
B-C	1.46	4.64	0.315		0.4	0.4	6.6	
B-A	2.32	3.22	0.720		2.1	2.3	33.3	
C-A	12.92							
C-B	1.79	7.26	0.247		0.3	0.3	4.9	
A-B	1.44							
A-C	11.52							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.064	0.013			0.006
B-A	0.031	0.030	0.022	0.002	0.003
C-B	0.087	0.017		0.007	

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)
08.45-09.00								
B-C	1.19	6.92	0.173		0.4	0.2	3.3	
B-A	1.90	4.29	0.441		2.3	0.8	14.3	
C-A	10.55							
C-B	1.46	7.84	0.186		0.3	0.2	3.6	
A-B	1.18							
A-C	9.40							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.075	0.011			0.008
B-A	0.041	0.024	0.022	0.003	0.005
C-B	0.094	0.014		0.007	

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)
09.00-09.15								
B-C	1.00	7.81	0.128		0.2	0.1	2.3	
B-A	1.59	5.06	0.314		0.8	0.5	7.5	
C-A	8.84							
C-B	1.23	8.27	0.148		0.2	0.2	2.7	
A-B	0.99							
A-C	7.88							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.082	0.010			0.008
B-A	0.048	0.020	0.022	0.004	0.005
C-B	0.099	0.011		0.008	

QUEUE FOR STREAM B-C

TIME SEGMENT ENDING	NO. OF VEHICLES

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.00	0.1	
08.15	0.2	
08.30	0.4	
08.45	0.4	
09.00	0.2	
09.15	0.1	

QUEUE FOR STREAM B-A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.00	0.4	
08.15	0.8	*
08.30	2.1	**
08.45	2.3	**
09.00	0.8	*
09.15	0.5	

QUEUE FOR STREAM C-B

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

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-C	109.7	73.1	23.1	0.21	23.1	0.21
B-A	174.1	116.1	98.0	0.56	98.0	0.56
C-A	969.4	646.3				
C-B	134.4	89.6	21.6	0.16	21.6	0.16
A-B	108.3	72.2				
A-C	863.9	575.9				

```
 ------------------------------------------------------------------------
 I  ALL   I 2359.9 I 1573.2 I   142.7 I    0.06   I     142.7  I    0.06   I
 ------------------------------------------------------------------------


 * 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

 ****** PICADY 4 run completed.
============================================= end of file ==============================================
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TRL LIMITED

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

PICADY 4.1 ANALYSIS PROGRAM
RELEASE 3.0 (MAY 2001)

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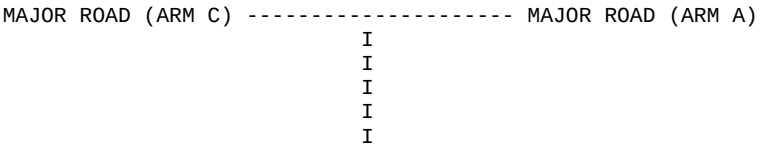
TRL SOFTWARE BUREAU
TEL: CROWTHORNE (01344) 770758, FAX: 770864
EMAIL: SoftwareBureau@trl.co.uk

Run with file:-
"o:\022961 Hayle Harbour - OPA\F08 - Civils (name)\Transportation\Assessments\PICADY\
20071106 rs Lethlean picady June AM 2017 with dev (lower rates).vpi"
(drive-on-the-left) at 12:27:33 on Tuesday, 6 November 2007

RUN TITLE
****
Lothlean Lane

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA



I
MINOR ROAD (ARM B)

ARM A IS Beatrice Terrace west
ARM B IS Lethlean Lane
ARM C IS Beatrice Terrace 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)	7.80 M.
CENTRAL RESERVE WIDTH	(WCR)	0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B)	2.20 M.
- VISIBILITY	(VC-B)	200.0 M.
- BLOCKS TRAFFIC		NO
MINOR ROAD - VISIBILITY TO LEFT	(VB-C)	20.0 M.
- VISIBILITY TO RIGHT	(VB-A)	60.0 M.
- LANE 1 WIDTH	(WB-C)	-
- LANE 2 WIDTH	(WB-A)	-
- WIDTH AT 0 M FROM JUNC.		10.00 M.
- WIDTH AT 5 M FROM JUNC.		8.50 M.
- WIDTH AT 10 M FROM JUNC.		6.00 M.
- WIDTH AT 15 M FROM JUNC.		4.20 M.
- WIDTH AT 20 M FROM JUNC.		3.50 M.
- LENGTH OF FLARED SECTION		2 VEHS

TRAFFIC DEMAND DATA

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 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	8.69	13.03	8.69
ARM B	15.00	45.00	75.00	2.42	3.64	2.42
ARM C	15.00	45.00	75.00	9.65	14.47	9.65

TIME	TURNING PROPORTIONS / TURNING COUNTS (VEH/HR) (PERCENTAGE OF H.V.S) FROM/TO	ARM A	ARM B	ARM C
07.45 - 09.15	ARM A	0.000	0.114	0.886
		0.0	79.0	616.0
		(0.0)	(10.0)	(10.0)
	ARM B	0.624	0.000	0.376
		121.0	0.0	73.0
		(10.0)	(0.0)	(10.0)
	ARM C	0.880	0.120	0.000
		679.0	93.0	0.0
		(10.0)	(10.0)	(0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

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)
07.45-08.00								
B-C	0.91	7.93	0.115		0.0	0.1	1.9	
B-A	1.51	5.20	0.291		0.0	0.4	5.6	
C-A	8.49							
C-B	1.16	8.31	0.140		0.0	0.2	2.3	
A-B	0.99							
A-C	7.70							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.083	0.010			0.008
B-A	0.049	0.020	0.022	0.004	0.005
C-B	0.099	0.011		0.008	

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)
08.00-08.15								
B-C	1.09	7.20	0.151		0.1	0.2	2.6	
B-A	1.81	4.46	0.405		0.4	0.7	9.2	
C-A	10.13							
C-B	1.39	7.90	0.176		0.2	0.2	3.1	
A-B	1.18							
A-C	9.19							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.076	0.011			0.008
B-A	0.042	0.024	0.022	0.003	0.005
C-B	0.094	0.013		0.007	

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)
08.15-08.30								
B-C	1.33	5.51	0.242		0.2	0.3	4.5	
B-A	2.21	3.42	0.647		0.7	1.6	20.8	
C-A	12.41							
C-B	1.70	7.32	0.232		0.2	0.3	4.3	
A-B	1.44							
A-C	11.26							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.067	0.013			0.007
B-A	0.033	0.029	0.022	0.002	0.004
C-B	0.088	0.016		0.007	

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)
08.30-08.45								
B-C	1.33	5.37	0.248		0.3	0.3	4.8	
B-A	2.21	3.42	0.647		1.6	1.7	25.0	
C-A	12.41							
C-B	1.70	7.32	0.232		0.3	0.3	4.5	
A-B	1.44							
A-C	11.26							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.066	0.013			0.007
B-A	0.033	0.029	0.022	0.002	0.004
C-B	0.088	0.016		0.007	

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)
08.45-09.00								
B-C	1.09	7.13	0.153		0.3	0.2	2.8	
B-A	1.81	4.45	0.406		1.7	0.7	11.8	
C-A	10.13							
C-B	1.39	7.90	0.176		0.3	0.2	3.3	
A-B	1.18							
A-C	9.19							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.076	0.011			0.008
B-A	0.042	0.024	0.022	0.003	0.005
C-B	0.094	0.013		0.007	

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)
09.00-09.15								
B-C	0.91	7.90	0.116		0.2	0.1	2.0	
B-A	1.51	5.20	0.291		0.7	0.4	6.7	
C-A	8.49							
C-B	1.16	8.31	0.140		0.2	0.2	2.5	
A-B	0.99							
A-C	7.70							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.083	0.010			0.008
B-A	0.049	0.020	0.022	0.004	0.005
C-B	0.099	0.011		0.008	

QUEUE FOR STREAM B-C

TIME SEGMENT ENDING	NO. OF VEHICLES

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.00	0.1	
08.15	0.2	
08.30	0.3	
08.45	0.3	
09.00	0.2	
09.15	0.1	

QUEUE FOR STREAM B-A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.00	0.4	
08.15	0.7	*
08.30	1.6	**
08.45	1.7	**
09.00	0.7	*
09.15	0.4	

QUEUE FOR STREAM C-B

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

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-C	100.1	66.7	18.6	0.19	18.6	0.19
B-A	165.9	110.6	79.2	0.48	79.2	0.48
C-A	931.1	620.7				
C-B	127.5	85.0	20.1	0.16	20.1	0.16
A-B	108.3	72.2				
A-C	844.7	563.1				

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 I  ALL   I 2277.6 I 1518.4 I   117.9 I    0.05   I     117.9  I    0.05   I
 ------------------------------------------------------------------------


 * 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

 ****** PICADY 4 run completed.
============================================= end of file ==============================================
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TRL LIMITED

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

PICADY 4.1 ANALYSIS PROGRAM
RELEASE 3.0 (MAY 2001)

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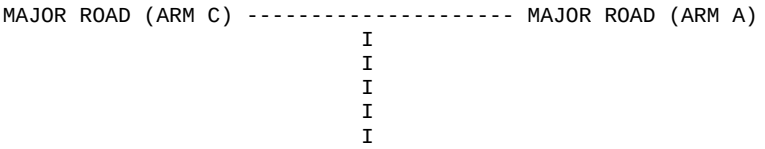
TEL: CROWTHORNE (01344) 770758, FAX: 770864
EMAIL: SoftwareBureau@trl.co.uk

Run with file:-
"o:\022961 Hayle Harbour - OPA\F08 - Civils (name)\Transportation\Assessments\PICADY\
20071106 rs Lethlean picady August PM 2017 without dev.vpi"
(drive-on-the-left) at 14:26:33 on Tuesday, 6 November 2007

RUN TITLE
****
Lothlean Lane

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA



I
MINOR ROAD (ARM B)

ARM A IS Beatrice Terrace west
ARM B IS Lethlean Lane
ARM C IS Beatrice Terrace 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)	7.80 M.
CENTRAL RESERVE WIDTH	(WCR)	0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B)	2.20 M.
- VISIBILITY	(VC-B)	200.0 M.
- BLOCKS TRAFFIC		NO
MINOR ROAD - VISIBILITY TO LEFT	(VB-C)	20.0 M.
- VISIBILITY TO RIGHT	(VB-A)	60.0 M.
- LANE 1 WIDTH	(WB-C)	-
- LANE 2 WIDTH	(WB-A)	-
- WIDTH AT 0 M FROM JUNC.		10.00 M.
- WIDTH AT 5 M FROM JUNC.		8.50 M.
- WIDTH AT 10 M FROM JUNC.		6.00 M.
- WIDTH AT 15 M FROM JUNC.		4.20 M.
- WIDTH AT 20 M FROM JUNC.		3.50 M.
- LENGTH OF FLARED SECTION		2 VEHS

TRAFFIC DEMAND DATA

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 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	10.60	15.90	10.60
ARM B	15.00	45.00	75.00	1.25	1.88	1.25
ARM C	15.00	45.00	75.00	12.01	18.02	12.01

TURNING PROPORTIONS
TURNING COUNTS (VEH/HR)
(PERCENTAGE OF H.V.S)

TIME	FROM/TO	ARM A	ARM B	ARM C
16.45 - 18.15	ARM A	0.000	0.144	0.856
		0.0	122.0	726.0
		(0.0)	(10.0)	(10.0)
	ARM B	0.750	0.000	0.250
		75.0	0.0	25.0
		(10.0)	(0.0)	(10.0)
	ARM C	0.872	0.128	0.000
		838.0	123.0	0.0
		(10.0)	(10.0)	(0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

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)
16.45-17.00								
B-C	0.31	7.55	0.041		0.0	0.0	0.6	
B-A	0.94	4.30	0.218		0.0	0.3	3.8	
C-A	10.48							
C-B	1.54	7.84	0.196		0.0	0.2	3.5	
A-B	1.52							
A-C	9.07							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.081	0.012			0.008
B-A	0.041	0.024	0.022	0.003	0.004
C-B	0.094	0.014		0.007	

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)
17.00-17.15								
B-C	0.37	6.83	0.055		0.0	0.1	0.8	
B-A	1.12	3.40	0.329		0.3	0.5	6.6	
C-A	12.51							
C-B	1.84	7.33	0.250		0.2	0.3	4.8	
A-B	1.82							
A-C	10.84							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.074	0.013			0.007
B-A	0.033	0.029	0.022	0.002	0.004
C-B	0.088	0.016		0.007	

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)
17.15-17.30								
B-C	0.46	4.88	0.094		0.1	0.1	1.5	
B-A	1.37	2.16	0.634		0.5	1.4	18.1	
C-A	15.32							
C-B	2.25	6.63	0.339		0.3	0.5	7.2	
A-B	2.23							
A-C	13.27							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.062	0.015			0.006
B-A	0.021	0.035	0.022	0.002	0.002
C-B	0.079	0.020		0.006	

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)
17.30-17.45								
B-C	0.46	4.64	0.098		0.1	0.1	1.6	
B-A	1.37	2.16	0.636		1.4	1.6	22.8	
C-A	15.32							
C-B	2.25	6.63	0.339		0.5	0.5	7.6	
A-B	2.23							
A-C	13.27							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.061	0.015			0.006
B-A	0.021	0.035	0.022	0.002	0.002
C-B	0.079	0.020		0.006	

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)
17.45-18.00								
B-C	0.37	6.76	0.055		0.1	0.1	0.9	
B-A	1.12	3.39	0.330		1.6	0.5	8.8	
C-A	12.51							
C-B	1.84	7.33	0.250		0.5	0.3	5.3	
A-B	1.82							
A-C	10.84							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.073	0.013			0.007
B-A	0.033	0.029	0.022	0.002	0.004
C-B	0.088	0.016		0.007	

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)
18.00-18.15								
B-C	0.31	7.53	0.042		0.1	0.0	0.7	
B-A	0.94	4.29	0.219		0.5	0.3	4.6	
C-A	10.48							
C-B	1.54	7.84	0.196		0.3	0.2	3.8	
A-B	1.52							
A-C	9.07							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.080	0.012			0.008
B-A	0.041	0.024	0.022	0.003	0.004
C-B	0.094	0.014		0.007	

QUEUE FOR STREAM B-C

TIME SEGMENT ENDING	NO. OF VEHICLES

	IN QUEUE	
17.00	0.0	
17.15	0.1	
17.30	0.1	
17.45	0.1	
18.00	0.1	
18.15	0.0	

QUEUE FOR STREAM B-A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.00	0.3	
17.15	0.5	
17.30	1.4	*
17.45	1.6	**
18.00	0.5	*
18.15	0.3	

QUEUE FOR STREAM C-B

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.00	0.2	
17.15	0.3	
17.30	0.5	*
17.45	0.5	*
18.00	0.3	
18.15	0.2	

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-C	34.3	22.9	6.1	0.18	6.1	0.18
B-A	102.8	68.6	64.7	0.63	64.7	0.63
C-A	1149.1	766.0				
C-B	168.7	112.4	32.1	0.19	32.1	0.19
A-B	167.3	111.5				
A-C	995.5	663.7				

```
 ------------------------------------------------------------------------
 I  ALL   I 2617.6 I 1745.1 I   102.9 I    0.04   I     102.9  I    0.04   I
 ------------------------------------------------------------------------


 * 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

 ****** PICADY 4 run completed.
============================================= end of file ==============================================
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TRL LIMITED

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

PICADY 4.1 ANALYSIS PROGRAM
RELEASE 3.0 (MAY 2001)

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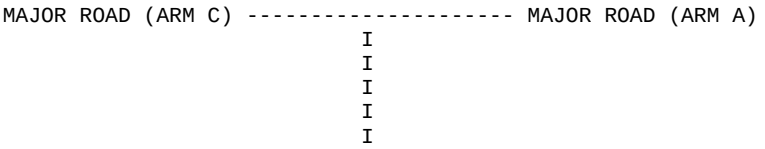
TRL SOFTWARE BUREAU
TEL: CROWTHORNE (01344) 770758, FAX: 770864
EMAIL: SoftwareBureau@trl.co.uk

Run with file:-
"o:\022961 Hayle Harbour - OPA\F08 - Civils (name)\Transportation\Assessments\PICADY\
20071106 rs Lethlean picady August PM 2017 with dev (ROBUST trips).vpi"
(drive-on-the-left) at 14:40:42 on Tuesday, 6 November 2007

RUN TITLE
****
Lothlean Lane

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA



I
MINOR ROAD (ARM B)

ARM A IS Beatrice Terrace west
ARM B IS Lethlean Lane
ARM C IS Beatrice Terrace 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)	7.80 M.
CENTRAL RESERVE WIDTH	(WCR)	0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B)	2.20 M.
- VISIBILITY	(VC-B)	200.0 M.
- BLOCKS TRAFFIC		NO
MINOR ROAD - VISIBILITY TO LEFT	(VB-C)	20.0 M.
- VISIBILITY TO RIGHT	(VB-A)	60.0 M.
- LANE 1 WIDTH	(WB-C)	-
- LANE 2 WIDTH	(WB-A)	-
- WIDTH AT 0 M FROM JUNC.		10.00 M.
- WIDTH AT 5 M FROM JUNC.		8.50 M.
- WIDTH AT 10 M FROM JUNC.		6.00 M.
- WIDTH AT 15 M FROM JUNC.		4.20 M.
- WIDTH AT 20 M FROM JUNC.		3.50 M.
- LENGTH OF FLARED SECTION		2 VEHS

TRAFFIC DEMAND DATA

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 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	11.77	17.66	11.77
ARM B	15.00	45.00	75.00	2.80	4.20	2.80
ARM C	15.00	45.00	75.00	14.64	21.96	14.64

TIME	TURNING PROPORTIONS / TURNING COUNTS (VEH/HR) (PERCENTAGE OF H.V.S) FROM/TO	ARM A	ARM B	ARM C
16.45 - 18.15	ARM A	0.000	0.135	0.865
		0.0	127.0	815.0
		(0.0)	(10.0)	(10.0)
	ARM B	0.612	0.000	0.388
		137.0	0.0	87.0
		(10.0)	(0.0)	(10.0)
	ARM C	0.855	0.145	0.000
		1001.0	170.0	0.0
		(10.0)	(10.0)	(0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

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)
16.45-17.00								
B-C	1.09	6.67	0.163		0.0	0.2	2.7	
B-A	1.71	3.52	0.487		0.0	0.9	11.7	
C-A	12.51							
C-B	2.13	7.55	0.281		0.0	0.4	5.5	
A-B	1.59							
A-C	10.19							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.072	0.012			0.007
B-A	0.034	0.028	0.022	0.003	0.004
C-B	0.090	0.015		0.007	

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)
17.00-17.15								
B-C	1.30	3.35	0.388		0.2	0.6	8.2	
B-A	2.04	2.43	0.841		0.9	3.2	36.0	
C-A	14.94							
C-B	2.54	6.99	0.363		0.4	0.6	8.0	
A-B	1.90							
A-C	12.16							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.060	0.013			0.006
B-A	0.023	0.034	0.022	0.002	0.003
C-B	0.084	0.018		0.006	

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)
17.15-17.30								
B-C	1.59	0.59	2.710		0.6	16.0	126.5	
B-A	2.50	0.98	2.563		3.2	26.3	221.3	
C-A	18.30							
C-B	3.11	6.21	0.500		0.6	1.0	13.5	
A-B	2.32							
A-C	14.90							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.052	0.015			0.005
B-A	0.009	0.042	0.022	0.001	0.001
C-B	0.074	0.022		0.006	

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)
17.30-17.45								
B-C	1.59	0.60	2.631		16.0	30.8	351.6	
B-A	2.50	0.97	2.589		26.3	49.3	566.9	
C-A	18.30							
C-B	3.11	6.21	0.500		1.0	1.0	14.6	
A-B	2.32							
A-C	14.90							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.052	0.015			0.005
B-A	0.009	0.042	0.022	0.001	0.001
C-B	0.074	0.022		0.006	

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)
17.45-18.00								
B-C	1.30	1.51	0.861		30.8	28.4	444.3	
B-A	2.04	2.40	0.852		49.3	44.7	705.4	
C-A	14.94							
C-B	2.54	6.99	0.363		1.0	0.6	9.2	
A-B	1.90							
A-C	12.16							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.058	0.013			0.006
B-A	0.023	0.034	0.022	0.002	0.003
C-B	0.084	0.018		0.006	

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)
18.00-18.15								
B-C	1.09	2.15	0.505		28.4	13.5	314.4	
B-A	1.71	3.39	0.505		44.7	20.7	490.6	
C-A	12.51							
C-B	2.13	7.55	0.281		0.6	0.4	6.2	
A-B	1.59							
A-C	10.19							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.062	0.011			0.006
B-A	0.033	0.028	0.022	0.003	0.004
C-B	0.090	0.015		0.007	

QUEUE FOR STREAM B-C

TIME SEGMENT ENDING	NO. OF VEHICLES

	IN QUEUE	
17.00	0.2	
17.15	0.6	*
17.30	16.0	**********
17.45	30.8	**********
18.00	28.4	**********
18.15	13.5	*********

QUEUE FOR STREAM B-A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.00	0.9	*
17.15	3.2	***
17.30	26.3	**********
17.45	49.3	**********
18.00	44.7	**********
18.15	20.7	**********

QUEUE FOR STREAM C-B

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.00	0.4	
17.15	0.6	*
17.30	1.0	*
17.45	1.0	*
18.00	0.6	*
18.15	0.4	

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-C	119.3	79.5	1247.7	10.46	1290.2	10.81
B-A	187.9	125.2	2031.9	10.82	2094.9	11.15
C-A	1372.6	915.1				
C-B	233.1	155.4	57.0	0.24	57.0	0.24
A-B	174.1	116.1				
A-C	1117.5	745.0				

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 I  ALL   I 3204.5 I 2136.3 I  3336.6 I    1.04   I    3442.2  I    1.07   I
 ------------------------------------------------------------------------


 * 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

 ****** PICADY 4 run completed.
============================================= end of file ==============================================
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TRL LIMITED

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

PICADY 4.1 ANALYSIS PROGRAM
RELEASE 3.0 (MAY 2001)

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TEL: CROWTHORNE (01344) 770758, FAX: 770864
EMAIL: SoftwareBureau@trl.co.uk

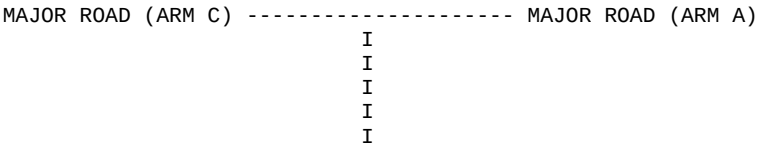
Run with file:-
"o:\022961 Hayle Harbour - OPA\F08 - Civils (name)\Transportation\Assessments\PICADY\
20071106 rs Lethlean picady August PM 2017 with dev (lower trips).vpi"
(drive-on-the-left) at 11:05:32 on Wednesday, 14 November 2007

RUN TITLE
****
Lothlean Lane

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

****

INPUT DATA



I
MINOR ROAD (ARM B)

ARM A IS Beatrice Terrace west
ARM B IS Lethlean Lane
ARM C IS Beatrice Terrace 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)	7.80 M.
CENTRAL RESERVE WIDTH	(WCR)	0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B)	2.20 M.
- VISIBILITY	(VC-B)	200.0 M.
- BLOCKS TRAFFIC		NO
MINOR ROAD - VISIBILITY TO LEFT	(VB-C)	20.0 M.
- VISIBILITY TO RIGHT	(VB-A)	60.0 M.
- LANE 1 WIDTH	(WB-C)	-
- LANE 2 WIDTH	(WB-A)	-
- WIDTH AT 0 M FROM JUNC.		10.00 M.
- WIDTH AT 5 M FROM JUNC.		8.50 M.
- WIDTH AT 10 M FROM JUNC.		6.00 M.
- WIDTH AT 15 M FROM JUNC.		4.20 M.
- WIDTH AT 20 M FROM JUNC.		3.50 M.
- LENGTH OF FLARED SECTION		2 VEHS

TRAFFIC DEMAND DATA

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 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
ARM A	15.00	45.00	75.00	13.68	20.51	13.68
ARM B	15.00	45.00	75.00	2.09	3.13	2.09
ARM C	15.00	45.00	75.00	14.27	21.41	14.27

TIME	FROM/TO	TURNING PROPORTIONS / TURNING COUNTS (VEH/HR) (PERCENTAGE OF H.V.S) ARM A	ARM B	ARM C
16.45 - 18.15	ARM A	0.000	0.162	0.838
		0.0	177.0	917.0
		(0.0)	(10.0)	(10.0)
	ARM B	0.653	0.000	0.347
		109.0	0.0	58.0
		(10.0)	(0.0)	(10.0)
	ARM C	0.844	0.156	0.000
		964.0	178.0	0.0
		(10.0)	(10.0)	(0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

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)
16.45-17.00									
	B-C	0.73	6.52	0.111		0.0	0.1	1.8	
	B-A	1.36	3.20	0.426		0.0	0.7	9.3	
	C-A	12.05							
	C-B	2.22	7.08	0.314		0.0	0.4	6.4	
	A-B	2.21							
	A-C	11.46							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.070	0.014			0.007
B-A	0.030	0.030	0.022	0.002	0.003
C-B	0.085	0.018		0.007	

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)
17.00-17.15									
	B-C	0.87	3.48	0.249		0.1	0.3	4.5	
	B-A	1.63	2.04	0.796		0.7	2.5	29.3	
	C-A	14.39							
	C-B	2.66	6.43	0.413		0.4	0.7	9.8	
	A-B	2.64							
	A-C	13.69							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.057	0.015			0.006
B-A	0.019	0.036	0.022	0.001	0.002
C-B	0.077	0.021		0.006	

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)
17.15-17.30								
B-C	1.06	0.24	4.484		0.3	12.9	100.0	
B-A	1.99	0.47	4.216		2.5	25.4	210.2	
C-A	17.62							
C-B	3.25	5.52	0.589		0.7	1.3	18.3	
A-B	3.24							
A-C	16.76							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.048	0.017			0.005
B-A	0.004	0.045	0.022	0.000	0.000
C-B	0.066	0.026		0.005	

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)
17.30-17.45								
B-C	1.06	0.24	4.462		12.9	25.2	285.9	
B-A	1.99	0.46	4.363		25.4	48.5	554.3	
C-A	17.62							
C-B	3.25	5.52	0.589		1.3	1.4	20.5	
A-B	3.24							
A-C	16.76							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.048	0.017			0.005
B-A	0.004	0.045	0.022	0.000	0.000
C-B	0.066	0.026		0.005	

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)
17.45-18.00								
B-C	0.87	1.06	0.820		25.2	23.0	361.6	
B-A	1.63	2.01	0.808		48.5	43.3	688.2	
C-A	14.39							
C-B	2.66	6.43	0.413		1.4	0.7	11.6	
A-B	2.64							
A-C	13.69							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.054	0.014			0.005
B-A	0.019	0.036	0.022	0.001	0.002
C-B	0.077	0.021		0.006	

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)
18.00-18.15								
B-C	0.73	1.66	0.437		23.0	10.0	247.6	
B-A	1.36	3.12	0.437		43.3	18.0	459.5	
C-A	12.05							
C-B	2.22	7.08	0.314		0.7	0.5	7.3	
A-B	2.21							
A-C	11.46							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.059	0.012			0.006
B-A	0.030	0.031	0.022	0.002	0.003
C-B	0.085	0.018		0.007	

QUEUE FOR STREAM B-C

TIME SEGMENT ENDING	NO. OF VEHICLES

	IN QUEUE	
17.00	0.1	
17.15	0.3	
17.30	12.9	**********
17.45	25.2	**********
18.00	23.0	**********
18.15	10.0	**********

QUEUE FOR STREAM B-A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.00	0.7	*
17.15	2.5	***
17.30	25.4	**********
17.45	48.5	**********
18.00	43.3	**********
18.15	18.0	**********

QUEUE FOR STREAM C-B

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.00	0.4	
17.15	0.7	*
17.30	1.3	*
17.45	1.4	*
18.00	0.7	*
18.15	0.5	

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-C	79.5	53.0	1001.4	12.59	1031.7	12.97
B-A	149.5	99.6	1950.7	13.05	2002.6	13.40
C-A	1321.8	881.2				
C-B	244.1	162.7	73.9	0.30	74.0	0.30
A-B	242.7	161.8				
A-C	1257.4	838.3				

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 ------------------------------------------------------------------------
 I  ALL   I 3295.0 I 2196.7 I  3026.0 I    0.92   I    3108.3  I    0.94   I
 ------------------------------------------------------------------------


 * 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

 ****** PICADY 4 run completed.
============================================= end of file ==============================================
```

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

PICADY 4.1 ANALYSIS PROGRAM
RELEASE 3.0 (MAY 2001)

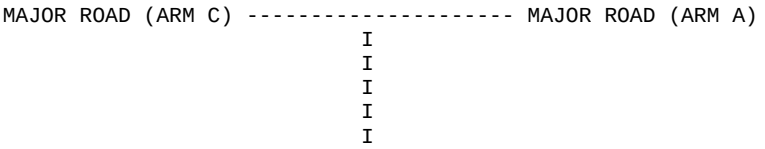
FOR SALES AND DISTRIBUTION INFORMATION,
PROGRAM ADVICE AND MAINTENANCE CONTACT:
TRL SOFTWARE BUREAU
TEL: CROWTHORNE (01344) 770758, FAX: 770864
EMAIL: SoftwareBureau@trl.co.uk

Run with file:-
"o:\022961 Hayle Harbour - OPA\F08 - Civils (name)\Transportation\Assessments\PICADY\
20071106 rs Lethlean picady August AM 2017 without dev.vpi"
(drive-on-the-left) at 14:22:31 on Tuesday, 6 November 2007

RUN TITLE
****
Lothlean Lane

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA



I
MINOR ROAD (ARM B)

ARM A IS Beatrice Terrace west
ARM B IS Lethlean Lane
ARM C IS Beatrice Terrace 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)	7.80 M.
CENTRAL RESERVE WIDTH	(WCR)	0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B)	2.20 M.
- VISIBILITY	(VC-B)	200.0 M.
- BLOCKS TRAFFIC		NO
MINOR ROAD - VISIBILITY TO LEFT	(VB-C)	20.0 M.
- VISIBILITY TO RIGHT	(VB-A)	60.0 M.
- LANE 1 WIDTH	(WB-C)	-
- LANE 2 WIDTH	(WB-A)	-
- WIDTH AT 0 M FROM JUNC.		10.00 M.
- WIDTH AT 5 M FROM JUNC.		8.50 M.
- WIDTH AT 10 M FROM JUNC.		6.00 M.
- WIDTH AT 15 M FROM JUNC.		4.20 M.
- WIDTH AT 20 M FROM JUNC.		3.50 M.
- LENGTH OF FLARED SECTION		2 VEHS

TRAFFIC DEMAND DATA

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 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	10.11	15.17	10.11
ARM B	15.00	45.00	75.00	1.40	2.10	1.40
ARM C	15.00	45.00	75.00	9.79	14.68	9.79

TIME	TURNING PROPORTIONS / TURNING COUNTS (VEH/HR) (PERCENTAGE OF H.V.S) FROM/TO	ARM A	ARM B	ARM C
07.45 - 09.15	ARM A	0.000	0.122	0.878
		0.0	99.0	710.0
		(0.0)	(10.0)	(10.0)
	ARM B	0.786	0.000	0.214
		88.0	0.0	24.0
		(10.0)	(0.0)	(10.0)
	ARM C	0.912	0.088	0.000
		714.0	69.0	0.0
		(10.0)	(10.0)	(0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

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)
07.45-08.00								
B-C	0.30	7.55	0.040		0.0	0.0	0.6	
B-A	1.10	4.88	0.225		0.0	0.3	4.0	
C-A	8.93							
C-B	0.86	7.96	0.108		0.0	0.1	1.7	
A-B	1.24							
A-C	8.88							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.081	0.011			0.008
B-A	0.047	0.021	0.022	0.003	0.005
C-B	0.095	0.013		0.007	

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)
08.00-08.15								
B-C	0.36	6.89	0.052		0.0	0.1	0.8	
B-A	1.31	4.09	0.321		0.3	0.5	6.5	
C-A	10.66							
C-B	1.03	7.48	0.138		0.1	0.2	2.3	
A-B	1.48							
A-C	10.60							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.075	0.013			0.007
B-A	0.039	0.025	0.022	0.003	0.004
C-B	0.089	0.015		0.007	

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)
08.15-08.30								
B-C	0.44	5.55	0.079		0.1	0.1	1.2	
B-A	1.61	3.00	0.537		0.5	1.1	14.0	
C-A	13.05							
C-B	1.26	6.81	0.185		0.2	0.2	3.3	
A-B	1.81							
A-C	12.98							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.065	0.015			0.006
B-A	0.029	0.031	0.022	0.002	0.003
C-B	0.081	0.019		0.006	

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)
08.30-08.45								
B-C	0.44	5.48	0.080		0.1	0.1	1.3	
B-A	1.61	3.00	0.537		1.1	1.1	16.3	
C-A	13.05							
C-B	1.26	6.81	0.185		0.2	0.2	3.4	
A-B	1.81							
A-C	12.98							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.064	0.015			0.006
B-A	0.029	0.031	0.022	0.002	0.003
C-B	0.081	0.019		0.006	

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)
08.45-09.00								
B-C	0.36	6.86	0.052		0.1	0.1	0.9	
B-A	1.31	4.09	0.322		1.1	0.5	8.0	
C-A	10.66							
C-B	1.03	7.48	0.138		0.2	0.2	2.5	
A-B	1.48							
A-C	10.60							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.074	0.013			0.007
B-A	0.039	0.025	0.022	0.003	0.004
C-B	0.089	0.015		0.007	

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)
09.00-09.15								
B-C	0.30	7.53	0.040		0.1	0.0	0.6	
B-A	1.10	4.87	0.226		0.5	0.3	4.7	
C-A	8.93							
C-B	0.86	7.96	0.108		0.2	0.1	1.9	
A-B	1.24							
A-C	8.88							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.081	0.011			0.008
B-A	0.047	0.021	0.022	0.003	0.005
C-B	0.095	0.013		0.007	

QUEUE FOR STREAM B-C

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 B-A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.00	0.3	
08.15	0.5	
08.30	1.1	*
08.45	1.1	*
09.00	0.5	
09.15	0.3	

QUEUE FOR STREAM C-B

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.00	0.1
08.15	0.2
08.30	0.2
08.45	0.2
09.00	0.2
09.15	0.1

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-C	32.9	21.9	5.4	0.16	5.4	0.16
B-A	120.7	80.4	53.5	0.44	53.5	0.44
C-A	979.0	652.7				
C-B	94.6	63.1	15.1	0.16	15.1	0.16
A-B	135.7	90.5				
A-C	973.6	649.0				

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 I  ALL   I 2336.5 I 1557.7 I    74.0 I    0.03   I      74.0  I    0.03   I
 ------------------------------------------------------------------------


 * 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

 ****** PICADY 4 run completed.
============================================= end of file ==============================================
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TRL LIMITED

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

PICADY 4.1 ANALYSIS PROGRAM
RELEASE 3.0 (MAY 2001)

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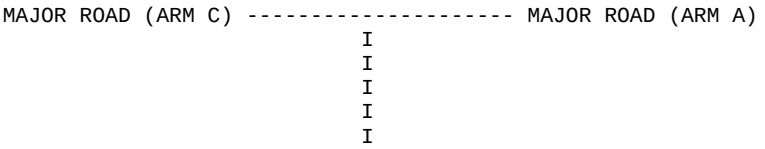
TRL SOFTWARE BUREAU
TEL: CROWTHORNE (01344) 770758, FAX: 770864
EMAIL: SoftwareBureau@trl.co.uk

Run with file:-
"o:\022961 Hayle Harbour - OPA\F08 - Civils (name)\Transportation\Assessments\PICADY\
20071106 rs Lethlean picady August AM 2017 with dev (ROBUST trips).vpi"
(drive-on-the-left) at 14:51:12 on Tuesday, 6 November 2007

RUN TITLE
****
Lothlean Lane

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA



I
MINOR ROAD (ARM B)

ARM A IS Beatrice Terrace west
ARM B IS Lethlean Lane
ARM C IS Beatrice Terrace 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)	7.80 M.
CENTRAL RESERVE WIDTH	(WCR)	0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B)	2.20 M.
- VISIBILITY	(VC-B)	200.0 M.
- BLOCKS TRAFFIC		NO
MINOR ROAD - VISIBILITY TO LEFT	(VB-C)	20.0 M.
- VISIBILITY TO RIGHT	(VB-A)	60.0 M.
- LANE 1 WIDTH	(WB-C)	-
- LANE 2 WIDTH	(WB-A)	-
- WIDTH AT 0 M FROM JUNC.		10.00 M.
- WIDTH AT 5 M FROM JUNC.		8.50 M.
- WIDTH AT 10 M FROM JUNC.		6.00 M.
- WIDTH AT 15 M FROM JUNC.		4.20 M.
- WIDTH AT 20 M FROM JUNC.		3.50 M.
- LENGTH OF FLARED SECTION		2 VEHS

TRAFFIC DEMAND DATA

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 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	11.29	16.93	11.29
ARM B	15.00	45.00	75.00	2.95	4.43	2.95
ARM C	15.00	45.00	75.00	12.41	18.62	12.41

TIME	TURNING PROPORTIONS / TURNING COUNTS (VEH/HR) (PERCENTAGE OF H.V.S) FROM/TO	ARM A	ARM B	ARM C
07.45 - 09.15	ARM A	0.000	0.115	0.885
		0.0	104.0	799.0
		(0.0)	(10.0)	(10.0)
	ARM B	0.636	0.000	0.364
		150.0	0.0	86.0
		(10.0)	(0.0)	(10.0)
	ARM C	0.883	0.117	0.000
		877.0	116.0	0.0
		(10.0)	(10.0)	(0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

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)
07.45-08.00								
B-C	1.08	6.83	0.157		0.0	0.2	2.6	
B-A	1.88	4.10	0.457		0.0	0.8	10.7	
C-A	10.96							
C-B	1.45	7.67	0.189		0.0	0.2	3.3	
A-B	1.30							
A-C	9.99							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.074	0.012			0.007
B-A	0.039	0.026	0.022	0.003	0.004
C-B	0.092	0.014		0.007	

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)
08.00-08.15								
B-C	1.28	4.79	0.268		0.2	0.4	5.1	
B-A	2.24	3.13	0.716		0.8	2.1	25.9	
C-A	13.09							
C-B	1.73	7.13	0.243		0.2	0.3	4.6	
A-B	1.55							
A-C	11.93							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.064	0.013			0.006
B-A	0.030	0.031	0.022	0.002	0.003
C-B	0.085	0.017		0.007	

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)
08.15-08.30								
B-C	1.57	1.00	1.567		0.4	10.1	82.7	
B-A	2.74	1.81	1.515		2.1	16.9	145.2	
C-A	16.03							
C-B	2.12	6.38	0.332		0.3	0.5	7.0	
A-B	1.90							
A-C	14.61							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.053	0.015			0.005
B-A	0.017	0.037	0.022	0.001	0.002
C-B	0.076	0.021		0.006	

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)
08.30-08.45								
B-C	1.57	1.05	1.502		10.1	18.1	211.8	
B-A	2.74	1.80	1.520		16.9	31.1	360.1	
C-A	16.03							
C-B	2.12	6.38	0.332		0.5	0.5	7.3	
A-B	1.90							
A-C	14.61							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.053	0.015			0.005
B-A	0.017	0.037	0.022	0.001	0.002
C-B	0.076	0.021		0.006	

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)
08.45-09.00								
B-C	1.28	1.77	0.724		18.1	12.2	227.5	
B-A	2.24	3.07	0.730		31.1	20.1	384.0	
C-A	13.09							
C-B	1.73	7.13	0.243		0.5	0.3	5.1	
A-B	1.55							
A-C	11.93							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.058	0.012			0.006
B-A	0.030	0.031	0.022	0.002	0.003
C-B	0.085	0.017		0.007	

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)
09.00-09.15								
B-C	1.08	4.65	0.231		12.2	0.3	26.8	
B-A	1.88	4.04	0.464		20.1	1.0	108.2	
C-A	10.96							
C-B	1.45	7.67	0.189		0.3	0.2	3.7	
A-B	1.30							
A-C	9.99							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.067	0.011			0.007
B-A	0.039	0.026	0.022	0.003	0.004
C-B	0.092	0.014		0.007	

QUEUE FOR STREAM B-C

TIME SEGMENT ENDING	NO. OF VEHICLES

	IN QUEUE	
08.00	0.2	
08.15	0.4	
08.30	10.1	**********
08.45	18.1	******************
09.00	12.2	**********
09.15	0.3	

QUEUE FOR STREAM B-A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.00	0.8	*
08.15	2.1	**
08.30	16.9	*****************
08.45	31.1	*******************************
09.00	20.1	********************
09.15	1.0	*

QUEUE FOR STREAM C-B

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.00	0.2
08.15	0.3
08.30	0.5
08.45	0.5
09.00	0.3
09.15	0.2

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-C	117.9	78.6	556.5	4.72	556.5	4.72
B-A	205.7	137.1	1034.2	5.03	1034.3	5.03
C-A	1202.6	801.7				
C-B	159.1	106.0	30.9	0.19	30.9	0.19
A-B	142.6	95.1				
A-C	1095.6	730.4				

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 ------------------------------------------------------------------------
 I  ALL   I 2923.4 I 1948.9 I  1621.6 I    0.55   I    1621.7  I    0.55   I
 ------------------------------------------------------------------------


 * 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

 ****** PICADY 4 run completed.
============================================= end of file ==============================================
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CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 4.1 ANALYSIS PROGRAM
RELEASE 3.0 (MAY 2001)

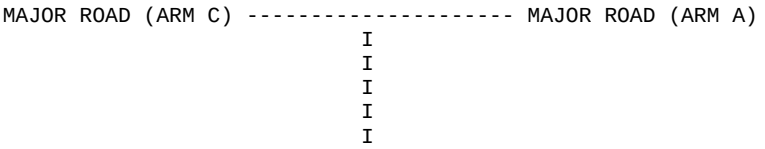
FOR SALES AND DISTRIBUTION INFORMATION,
PROGRAM ADVICE AND MAINTENANCE CONTACT:
TRL SOFTWARE BUREAU
TEL: CROWTHORNE (01344) 770758, FAX: 770864
EMAIL: SoftwareBureau@trl.co.uk

Run with file:-
"o:\022961 Hayle Harbour - OPA\F08 - Civils (name)\Transportation\Assessments\PICADY\
20071106 rs Lethlean picady August AM 2017 with dev (lower trips).vpi"
(drive-on-the-left) at 14:45:06 on Tuesday, 6 November 2007

RUN TITLE
****
Lothlean Lane

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA



I
MINOR ROAD (ARM B)

ARM A IS Beatrice Terrace west
ARM B IS Lethlean Lane
ARM C IS Beatrice Terrace 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)	7.80 M.
CENTRAL RESERVE WIDTH	(WCR)	0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B)	2.20 M.
- VISIBILITY	(VC-B)	200.0 M.
- BLOCKS TRAFFIC		NO
MINOR ROAD - VISIBILITY TO LEFT	(VB-C)	20.0 M.
- VISIBILITY TO RIGHT	(VB-A)	60.0 M.
- LANE 1 WIDTH	(WB-C)	-
- LANE 2 WIDTH	(WB-A)	-
- WIDTH AT 0 M FROM JUNC.		10.00 M.
- WIDTH AT 5 M FROM JUNC.		8.50 M.
- WIDTH AT 10 M FROM JUNC.		6.00 M.
- WIDTH AT 15 M FROM JUNC.		4.20 M.
- WIDTH AT 20 M FROM JUNC.		3.50 M.
- LENGTH OF FLARED SECTION		2 VEHS

TRAFFIC DEMAND DATA

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 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	8.69	13.03	8.69
ARM B	15.00	45.00	75.00	2.42	3.64	2.42
ARM C	15.00	45.00	75.00	9.65	14.47	9.65

TIME	TURNING PROPORTIONS / TURNING COUNTS (VEH/HR) (PERCENTAGE OF H.V.S) FROM/TO	ARM A	ARM B	ARM C
07.45 - 09.15	ARM A	0.000	0.114	0.886
		0.0	79.0	616.0
		(0.0)	(10.0)	(10.0)
	ARM B	0.624	0.000	0.376
		121.0	0.0	73.0
		(10.0)	(0.0)	(10.0)
	ARM C	0.880	0.120	0.000
		679.0	93.0	0.0
		(10.0)	(10.0)	(0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

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)
07.45-08.00								
B-C	0.91	7.93	0.115		0.0	0.1	1.9	
B-A	1.51	5.20	0.291		0.0	0.4	5.6	
C-A	8.49							
C-B	1.16	8.31	0.140		0.0	0.2	2.3	
A-B	0.99							
A-C	7.70							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.083	0.010			0.008
B-A	0.049	0.020	0.022	0.004	0.005
C-B	0.099	0.011		0.008	

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)
08.00-08.15								
B-C	1.09	7.20	0.151		0.1	0.2	2.6	
B-A	1.81	4.46	0.405		0.4	0.7	9.2	
C-A	10.13							
C-B	1.39	7.90	0.176		0.2	0.2	3.1	
A-B	1.18							
A-C	9.19							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.076	0.011			0.008
B-A	0.042	0.024	0.022	0.003	0.005
C-B	0.094	0.013		0.007	

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)
08.15-08.30								
B-C	1.33	5.51	0.242		0.2	0.3	4.5	
B-A	2.21	3.42	0.647		0.7	1.6	20.8	
C-A	12.41							
C-B	1.70	7.32	0.232		0.2	0.3	4.3	
A-B	1.44							
A-C	11.26							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.067	0.013			0.007
B-A	0.033	0.029	0.022	0.002	0.004
C-B	0.088	0.016		0.007	

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)
08.30-08.45								
B-C	1.33	5.37	0.248		0.3	0.3	4.8	
B-A	2.21	3.42	0.647		1.6	1.7	25.0	
C-A	12.41							
C-B	1.70	7.32	0.232		0.3	0.3	4.5	
A-B	1.44							
A-C	11.26							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.066	0.013			0.007
B-A	0.033	0.029	0.022	0.002	0.004
C-B	0.088	0.016		0.007	

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)
08.45-09.00								
B-C	1.09	7.13	0.153		0.3	0.2	2.8	
B-A	1.81	4.45	0.406		1.7	0.7	11.8	
C-A	10.13							
C-B	1.39	7.90	0.176		0.3	0.2	3.3	
A-B	1.18							
A-C	9.19							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.076	0.011			0.008
B-A	0.042	0.024	0.022	0.003	0.005
C-B	0.094	0.013		0.007	

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)
09.00-09.15								
B-C	0.91	7.90	0.116		0.2	0.1	2.0	
B-A	1.51	5.20	0.291		0.7	0.4	6.7	
C-A	8.49							
C-B	1.16	8.31	0.140		0.2	0.2	2.5	
A-B	0.99							
A-C	7.70							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.083	0.010			0.008
B-A	0.049	0.020	0.022	0.004	0.005
C-B	0.099	0.011		0.008	

QUEUE FOR STREAM B-C

TIME SEGMENT ENDING	NO. OF VEHICLES

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.00	0.1	
08.15	0.2	
08.30	0.3	
08.45	0.3	
09.00	0.2	
09.15	0.1	

QUEUE FOR STREAM B-A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.00	0.4	
08.15	0.7	*
08.30	1.6	**
08.45	1.7	**
09.00	0.7	*
09.15	0.4	

QUEUE FOR STREAM C-B

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

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-C	100.1	66.7	18.6	0.19	18.6	0.19
B-A	165.9	110.6	79.2	0.48	79.2	0.48
C-A	931.1	620.7				
C-B	127.5	85.0	20.1	0.16	20.1	0.16
A-B	108.3	72.2				
A-C	844.7	563.1				

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 ------------------------------------------------------------------------
 I  ALL   I 2277.6 I 1518.4 I   117.9 I    0.05   I     117.9  I    0.05   I
 ------------------------------------------------------------------------


 * 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

 ****** PICADY 4 run completed.
============================================= end of file ==============================================
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CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 4.1 ANALYSIS PROGRAM
RELEASE 3.0 (MAY 2001)

FOR SALES AND DISTRIBUTION INFORMATION,
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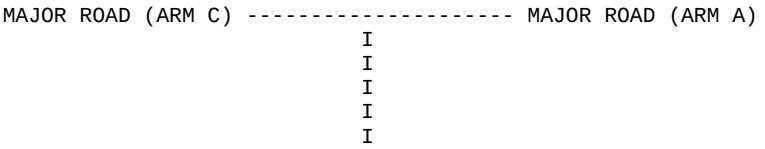
TRL SOFTWARE BUREAU
TEL: CROWTHORNE (01344) 770758, FAX: 770864
EMAIL: SoftwareBureau@trl.co.uk

Run with file:-
"o:\022961 Hayle Harbour - OPA\F08 - Civils (name)\Transportation\Assessments\PICADY\
20071106 rs Lethlean picady June PM 2011 without dev.vpi"
(drive-on-the-left) at 12:06:41 on Tuesday, 6 November 2007

RUN TITLE
****
Lothlean Lane

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA



I
MINOR ROAD (ARM B)

ARM A IS Beatrice Terrace west
ARM B IS Lethlean Lane
ARM C IS Beatrice Terrace 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)	7.80 M.
CENTRAL RESERVE WIDTH	(WCR)	0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B)	2.20 M.
- VISIBILITY	(VC-B)	200.0 M.
- BLOCKS TRAFFIC		NO
MINOR ROAD - VISIBILITY TO LEFT	(VB-C)	20.0 M.
- VISIBILITY TO RIGHT	(VB-A)	60.0 M.
- LANE 1 WIDTH	(WB-C)	-
- LANE 2 WIDTH	(WB-A)	-
- WIDTH AT 0 M FROM JUNC.		10.00 M.
- WIDTH AT 5 M FROM JUNC.		8.50 M.
- WIDTH AT 10 M FROM JUNC.		6.00 M.
- WIDTH AT 15 M FROM JUNC.		4.20 M.
- WIDTH AT 20 M FROM JUNC.		3.50 M.
- LENGTH OF FLARED SECTION		2 VEHS

TRAFFIC DEMAND DATA

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 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	7.64	11.46	7.64
ARM B	15.00	45.00	75.00	0.88	1.31	0.88
ARM C	15.00	45.00	75.00	8.65	12.97	8.65

TIME	FROM/TO	TURNING PROPORTIONS TURNING COUNTS (VEH/HR) (PERCENTAGE OF H.V.S) ARM A	ARM B	ARM C
16.45 - 18.15	ARM A	0.000	0.139	0.861
		0.0	85.0	526.0
		(0.0)	(10.0)	(10.0)
	ARM B	0.743	0.000	0.257
		52.0	0.0	18.0
		(10.0)	(0.0)	(10.0)
	ARM C	0.874	0.126	0.000
		605.0	87.0	0.0
		(10.0)	(10.0)	(0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

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)
16.45-17.00								
B-C	0.23	8.41	0.027		0.0	0.0	0.4	
B-A	0.65	5.58	0.116		0.0	0.1	1.9	
C-A	7.56							
C-B	1.09	8.57	0.127		0.0	0.1	2.1	
A-B	1.06							
A-C	6.57							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.089	0.009			0.009
B-A	0.054	0.017	0.022	0.004	0.006
C-B	0.103	0.010		0.008	

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)
17.00-17.15								
B-C	0.27	8.00	0.034		0.0	0.0	0.5	
B-A	0.78	4.93	0.157		0.1	0.2	2.6	
C-A	9.03							
C-B	1.30	8.20	0.158		0.1	0.2	2.7	
A-B	1.27							
A-C	7.85							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.085	0.010			0.008
B-A	0.047	0.021	0.022	0.004	0.005
C-B	0.098	0.012		0.008	

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)
17.15-17.30								
B-C	0.33	7.38	0.045		0.0	0.0	0.7	
B-A	0.95	4.04	0.235		0.2	0.3	4.3	
C-A	11.06							
C-B	1.59	7.70	0.207		0.2	0.3	3.7	
A-B	1.55							
A-C	9.62							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.079	0.012			0.008
B-A	0.039	0.025	0.022	0.003	0.004
C-B	0.092	0.014		0.007	

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)
17.30-17.45								
B-C	0.33	7.38	0.045		0.0	0.0	0.7	
B-A	0.95	4.04	0.235		0.3	0.3	4.5	
C-A	11.06							
C-B	1.59	7.70	0.207		0.3	0.3	3.9	
A-B	1.55							
A-C	9.62							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.079	0.012			0.008
B-A	0.039	0.025	0.022	0.003	0.004
C-B	0.092	0.014		0.007	

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)
17.45-18.00								
B-C	0.27	7.99	0.034		0.0	0.0	0.5	
B-A	0.78	4.93	0.157		0.3	0.2	3.0	
C-A	9.03							
C-B	1.30	8.20	0.158		0.3	0.2	2.9	
A-B	1.27							
A-C	7.85							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.085	0.010			0.008
B-A	0.047	0.021	0.022	0.004	0.005
C-B	0.098	0.012		0.008	

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)
18.00-18.15								
B-C	0.23	8.41	0.027		0.0	0.0	0.4	
B-A	0.65	5.58	0.117		0.2	0.1	2.1	
C-A	7.56							
C-B	1.09	8.57	0.127		0.2	0.1	2.3	
A-B	1.06							
A-C	6.57							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.089	0.009			0.009
B-A	0.054	0.017	0.022	0.004	0.006
C-B	0.103	0.010		0.008	

QUEUE FOR STREAM B-C

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 B-A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.00	0.1
17.15	0.2
17.30	0.3
17.45	0.3
18.00	0.2
18.15	0.1

QUEUE FOR STREAM C-B

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.00	0.1
17.15	0.2
17.30	0.3
17.45	0.3
18.00	0.2
18.15	0.1

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-C	24.7	16.5	3.2	0.13	3.2	0.13
B-A	71.3	47.5	18.4	0.26	18.4	0.26
C-A	829.6	553.1				
C-B	119.3	79.5	17.6	0.15	17.6	0.15
A-B	116.6	77.7				
A-C	721.3	480.8				

```
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 I  ALL   I 1882.7 I 1255.1 I    39.2 I    0.02   I      39.2  I    0.02   I
 ------------------------------------------------------------------------


 * 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

 ****** PICADY 4 run completed.
============================================= end of file ==============================================
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TRL LIMITED

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

PICADY 4.1 ANALYSIS PROGRAM
RELEASE 3.0 (MAY 2001)

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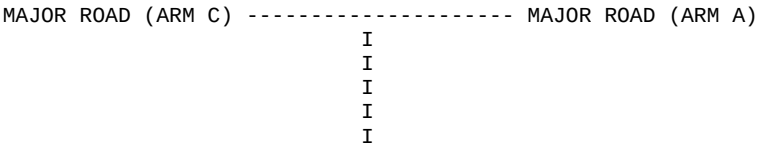
TRL SOFTWARE BUREAU
TEL: CROWTHORNE (01344) 770758, FAX: 770864
EMAIL: SoftwareBureau@trl.co.uk

Run with file:-
"o:\022961 Hayle Harbour - OPA\F08 - Civils (name)\Transportation\Assessments\PICADY\
20071106 rs Lethlean picady June PM 2011 with dev (ROBUST trips).vpi"
(drive-on-the-left) at 16:19:22 on Tuesday, 6 November 2007

RUN TITLE
****
Lothlean Lane

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA



I
MINOR ROAD (ARM B)

ARM A IS Beatrice Terrace west
ARM B IS Lethlean Lane
ARM C IS Beatrice Terrace 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)	7.80 M.
CENTRAL RESERVE WIDTH	(WCR)	0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B)	2.20 M.
- VISIBILITY	(VC-B)	200.0 M.
- BLOCKS TRAFFIC		NO
MINOR ROAD - VISIBILITY TO LEFT	(VB-C)	20.0 M.
- VISIBILITY TO RIGHT	(VB-A)	60.0 M.
- LANE 1 WIDTH	(WB-C)	-
- LANE 2 WIDTH	(WB-A)	-
- WIDTH AT 0 M FROM JUNC.		10.00 M.
- WIDTH AT 5 M FROM JUNC.		8.50 M.
- WIDTH AT 10 M FROM JUNC.		6.00 M.
- WIDTH AT 15 M FROM JUNC.		4.20 M.
- WIDTH AT 20 M FROM JUNC.		3.50 M.
- LENGTH OF FLARED SECTION		2 VEHS

TRAFFIC DEMAND DATA

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 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	11.40	17.10	11.40
ARM B	15.00	45.00	75.00	1.81	2.72	1.81
ARM C	15.00	45.00	75.00	11.32	16.99	11.32

TIME	FROM/TO	TURNING PROPORTIONS TURNING COUNTS (VEH/HR) (PERCENTAGE OF H.V.S) ARM A	ARM B	ARM C
16.45 - 18.15	ARM A	0.000	0.160	0.840
		0.0	146.0	766.0
		(0.0)	(10.0)	(10.0)
	ARM B	0.621	0.000	0.379
		90.0	0.0	55.0
		(10.0)	(0.0)	(10.0)
	ARM C	0.837	0.163	0.000
		758.0	148.0	0.0
		(10.0)	(10.0)	(0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

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)
16.45-17.00								
B-C	0.69	7.48	0.092		0.0	0.1	1.4	
B-A	1.13	4.24	0.265		0.0	0.4	4.9	
C-A	9.48							
C-B	1.85	7.64	0.242		0.0	0.3	4.5	
A-B	1.83							
A-C	9.57							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.078	0.012			0.008
B-A	0.040	0.025	0.022	0.003	0.004
C-B	0.091	0.015		0.007	

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)
17.00-17.15								
B-C	0.82	6.61	0.124		0.1	0.1	2.0	
B-A	1.34	3.30	0.407		0.4	0.7	9.0	
C-A	11.31							
C-B	2.21	7.10	0.311		0.3	0.4	6.4	
A-B	2.18							
A-C	11.43							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.070	0.014			0.007
B-A	0.031	0.030	0.022	0.002	0.003
C-B	0.085	0.017		0.007	

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)
17.15-17.30								
B-C	1.01	3.31	0.304		0.1	0.4	5.8	
B-A	1.65	2.01	0.817		0.7	2.7	30.7	
C-A	13.86							
C-B	2.71	6.34	0.426		0.4	0.7	10.2	
A-B	2.67							
A-C	14.00							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.056	0.015			0.006
B-A	0.019	0.036	0.022	0.001	0.002
C-B	0.076	0.021		0.006	

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)
17.30-17.45								
B-C	1.01	2.41	0.417		0.4	0.7	9.2	
B-A	1.65	2.01	0.820		2.7	3.3	45.5	
C-A	13.86							
C-B	2.71	6.34	0.426		0.7	0.7	10.9	
A-B	2.67							
A-C	14.00							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.055	0.015			0.006
B-A	0.019	0.036	0.022	0.001	0.002
C-B	0.076	0.021		0.006	

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)
17.45-18.00								
B-C	0.82	6.39	0.128		0.7	0.1	2.4	
B-A	1.34	3.29	0.408		3.3	0.7	14.5	
C-A	11.31							
C-B	2.21	7.10	0.311		0.7	0.5	7.2	
A-B	2.18							
A-C	11.43							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.069	0.014			0.007
B-A	0.031	0.030	0.022	0.002	0.003
C-B	0.085	0.017		0.007	

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)
18.00-18.15								
B-C	0.69	7.45	0.092		0.1	0.1	1.6	
B-A	1.13	4.23	0.266		0.7	0.4	6.0	
C-A	9.48							
C-B	1.85	7.64	0.242		0.5	0.3	5.0	
A-B	1.83							
A-C	9.57							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.078	0.012			0.008
B-A	0.040	0.025	0.022	0.003	0.004
C-B	0.091	0.015		0.007	

QUEUE FOR STREAM B-C

TIME SEGMENT ENDING	NO. OF VEHICLES

	IN QUEUE	
17.00	0.1	
17.15	0.1	
17.30	0.4	
17.45	0.7	*
18.00	0.1	
18.15	0.1	

QUEUE FOR STREAM B-A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.00	0.4	
17.15	0.7	*
17.30	2.7	***
17.45	3.3	***
18.00	0.7	*
18.15	0.4	

QUEUE FOR STREAM C-B

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.00	0.3	
17.15	0.4	
17.30	0.7	*
17.45	0.7	*
18.00	0.5	
18.15	0.3	

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-C	75.4	50.3	22.4	0.30	22.4	0.30
B-A	123.4	82.3	110.6	0.90	110.6	0.90
C-A	1039.4	692.9				
C-B	202.9	135.3	44.3	0.22	44.3	0.22
A-B	200.2	133.5				
A-C	1050.3	700.2				

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 I  ALL   I 2691.7 I 1794.5 I   177.3 I    0.07   I     177.4  I    0.07   I
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 * 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

 ****** PICADY 4 run completed.
============================================= end of file ==============================================
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TRL LIMITED

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

PICADY 4.1 ANALYSIS PROGRAM
RELEASE 3.0 (MAY 2001)

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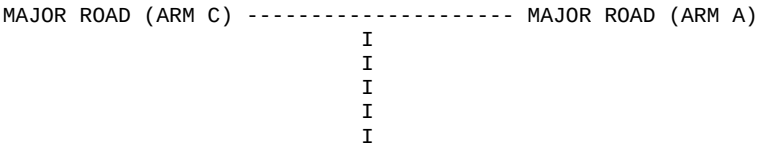
EMAIL: SoftwareBureau@trl.co.uk

Run with file:-
"o:\022961 Hayle Harbour - OPA\F08 - Civils (name)\Transportation\Assessments\PICADY\
20071106 rs Lethlean picady June PM 2011 with dev (lower trips).vpi"
(drive-on-the-left) at 16:00:55 on Tuesday, 6 November 2007

RUN TITLE
****
Lothlean Lane

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA



I
MINOR ROAD (ARM B)

ARM A IS Beatrice Terrace west
ARM B IS Lethlean Lane
ARM C IS Beatrice Terrace 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)	7.80 M.
CENTRAL RESERVE WIDTH	(WCR)	0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B)	2.20 M.
- VISIBILITY	(VC-B)	200.0 M.
- BLOCKS TRAFFIC		NO
MINOR ROAD - VISIBILITY TO LEFT	(VB-C)	20.0 M.
- VISIBILITY TO RIGHT	(VB-A)	60.0 M.
- LANE 1 WIDTH	(WB-C)	-
- LANE 2 WIDTH	(WB-A)	-
- WIDTH AT 0 M FROM JUNC.		10.00 M.
- WIDTH AT 5 M FROM JUNC.		8.50 M.
- WIDTH AT 10 M FROM JUNC.		6.00 M.
- WIDTH AT 15 M FROM JUNC.		4.20 M.
- WIDTH AT 20 M FROM JUNC.		3.50 M.
- LENGTH OF FLARED SECTION		2 VEHS

TRAFFIC DEMAND DATA

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 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	10.71	16.07	10.71
ARM B	15.00	45.00	75.00	1.71	2.57	1.71
ARM C	15.00	45.00	75.00	10.91	16.37	10.91

TIME	FROM/TO	TURNING PROPORTIONS TURNING COUNTS (VEH/HR) (PERCENTAGE OF H.V.S) ARM A	ARM B	ARM C
16.45 - 18.15	ARM A	0.000	0.163	0.837
		0.0	140.0	717.0
		(0.0)	(10.0)	(10.0)
	ARM B	0.628	0.000	0.372
		86.0	0.0	51.0
		(10.0)	(0.0)	(10.0)
	ARM C	0.837	0.163	0.000
		731.0	142.0	0.0
		(10.0)	(10.0)	(0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

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)
16.45-17.00								
B-C	0.64	7.68	0.083		0.0	0.1	1.3	
B-A	1.08	4.49	0.240		0.0	0.3	4.3	
C-A	9.14							
C-B	1.77	7.81	0.227		0.0	0.3	4.1	
A-B	1.75							
A-C	8.96							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.080	0.012			0.008
B-A	0.043	0.024	0.022	0.003	0.005
C-B	0.093	0.014		0.007	

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)
17.00-17.15								
B-C	0.76	6.93	0.110		0.1	0.1	1.8	
B-A	1.28	3.60	0.357		0.3	0.5	7.4	
C-A	10.91							
C-B	2.12	7.30	0.290		0.3	0.4	5.8	
A-B	2.09							
A-C	10.70							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.073	0.014			0.007
B-A	0.034	0.028	0.022	0.003	0.004
C-B	0.087	0.016		0.007	

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)
17.15-17.30								
B-C	0.93	4.91	0.190		0.1	0.2	3.3	
B-A	1.57	2.38	0.661		0.5	1.6	20.1	
C-A	13.36							
C-B	2.60	6.59	0.394		0.4	0.6	9.0	
A-B	2.56							
A-C	13.11							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.061	0.015			0.006
B-A	0.023	0.034	0.022	0.002	0.002
C-B	0.079	0.020		0.006	

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)
17.30-17.45								
B-C	0.93	4.66	0.200		0.2	0.2	3.6	
B-A	1.57	2.37	0.663		1.6	1.8	25.6	
C-A	13.36							
C-B	2.60	6.59	0.394		0.6	0.6	9.6	
A-B	2.56							
A-C	13.11							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.061	0.015			0.006
B-A	0.023	0.034	0.022	0.002	0.002
C-B	0.079	0.020		0.006	

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)
17.45-18.00								
B-C	0.76	6.85	0.111		0.2	0.1	2.0	
B-A	1.28	3.59	0.357		1.8	0.6	10.0	
C-A	10.91							
C-B	2.12	7.30	0.290		0.6	0.4	6.5	
A-B	2.09							
A-C	10.70							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.073	0.014			0.007
B-A	0.034	0.028	0.022	0.003	0.004
C-B	0.087	0.016		0.007	

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)
18.00-18.15								
B-C	0.64	7.66	0.083		0.1	0.1	1.4	
B-A	1.08	4.48	0.240		0.6	0.3	5.2	
C-A	9.14							
C-B	1.77	7.81	0.227		0.4	0.3	4.6	
A-B	1.75							
A-C	8.96							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.080	0.012			0.008
B-A	0.043	0.024	0.022	0.003	0.005
C-B	0.093	0.014		0.007	

QUEUE FOR STREAM B-C

TIME SEGMENT ENDING	NO. OF VEHICLES

	IN QUEUE	
17.00	0.1	
17.15	0.1	
17.30	0.2	
17.45	0.2	
18.00	0.1	
18.15	0.1	

QUEUE FOR STREAM B-A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.00	0.3	
17.15	0.5	*
17.30	1.6	**
17.45	1.8	**
18.00	0.6	*
18.15	0.3	

QUEUE FOR STREAM C-B

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.00	0.3	
17.15	0.4	
17.30	0.6	*
17.45	0.6	*
18.00	0.4	
18.15	0.3	

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-C	69.9	46.6	13.4	0.19	13.4	0.19
B-A	117.9	78.6	72.6	0.62	72.6	0.62
C-A	1002.4	668.2				
C-B	194.7	129.8	39.7	0.20	39.7	0.20
A-B	192.0	128.0				
A-C	983.2	655.4				

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 I  ALL   I 2560.1 I 1706.7 I   125.7 I    0.05   I     125.7  I    0.05   I
 ------------------------------------------------------------------------


 * 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

 ****** PICADY 4 run completed.
============================================= end of file ==============================================
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TRL LIMITED

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

PICADY 4.1 ANALYSIS PROGRAM
RELEASE 3.0 (MAY 2001)

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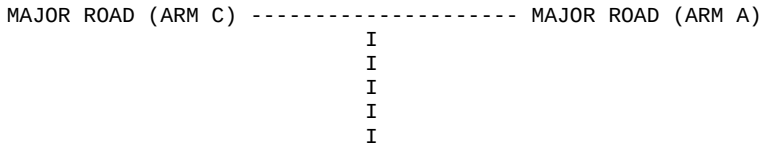
TRL SOFTWARE BUREAU
TEL: CROWTHORNE (01344) 770758, FAX: 770864
EMAIL: SoftwareBureau@trl.co.uk

Run with file:-
"o:\022961 Hayle Harbour - OPA\F08 - Civils (name)\Transportation\Assessments\PICADY\
20071106 rs Lethlean picady June AM 2011 without dev.vpi"
(drive-on-the-left) at 11:59:34 on Tuesday, 6 November 2007

RUN TITLE
****
Lothlean Lane

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA



I
MINOR ROAD (ARM B)

ARM A IS Beatrice Terrace west
ARM B IS Lethlean Lane
ARM C IS Beatrice Terrace 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)	7.80 M.
CENTRAL RESERVE WIDTH	(WCR)	0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B)	2.20 M.
- VISIBILITY	(VC-B)	200.0 M.
- BLOCKS TRAFFIC		NO
MINOR ROAD - VISIBILITY TO LEFT	(VB-C)	20.0 M.
- VISIBILITY TO RIGHT	(VB-A)	60.0 M.
- LANE 1 WIDTH	(WB-C)	-
- LANE 2 WIDTH	(WB-A)	-
- WIDTH AT 0 M FROM JUNC.		10.00 M.
- WIDTH AT 5 M FROM JUNC.		8.50 M.
- WIDTH AT 10 M FROM JUNC.		6.00 M.
- WIDTH AT 15 M FROM JUNC.		4.20 M.
- WIDTH AT 20 M FROM JUNC.		3.50 M.
- LENGTH OF FLARED SECTION		2 VEHS

TRAFFIC DEMAND DATA

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 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	7.13	10.69	7.13
ARM B	15.00	45.00	75.00	0.96	1.44	0.96
ARM C	15.00	45.00	75.00	6.90	10.35	6.90

TIME	TURNING PROPORTIONS / TURNING COUNTS (VEH/HR) (PERCENTAGE OF H.V.S) FROM/TO	ARM A	ARM B	ARM C
07.45 - 09.15	ARM A	0.000	0.119	0.881
		0.0	68.0	502.0
		(0.0)	(10.0)	(10.0)
	ARM B	0.779	0.000	0.221
		60.0	0.0	17.0
		(10.0)	(0.0)	(10.0)
	ARM C	0.915	0.085	0.000
		505.0	47.0	0.0
		(10.0)	(10.0)	(0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

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)
07.45-08.00								
B-C	0.21	8.43	0.025		0.0	0.0	0.4	
B-A	0.75	6.07	0.124		0.0	0.1	2.0	
C-A	6.31							
C-B	0.59	8.70	0.068		0.0	0.1	1.0	
A-B	0.85							
A-C	6.28							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.090	0.008			0.009
B-A	0.058	0.015	0.022	0.004	0.006
C-B	0.104	0.009		0.008	

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)
08.00-08.15								
B-C	0.25	8.04	0.032		0.0	0.0	0.5	
B-A	0.90	5.52	0.162		0.1	0.2	2.8	
C-A	7.54							
C-B	0.70	8.36	0.084		0.1	0.1	1.3	
A-B	1.01							
A-C	7.49							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.086	0.010			0.008
B-A	0.053	0.018	0.022	0.004	0.006
C-B	0.100	0.011		0.008	

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)
08.15-08.30								
B-C	0.31	7.47	0.042		0.0	0.0	0.6	
B-A	1.10	4.75	0.231		0.2	0.3	4.2	
C-A	9.23							
C-B	0.86	7.88	0.109		0.1	0.1	1.8	
A-B	1.24							
A-C	9.18							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.080	0.011			0.008
B-A	0.046	0.022	0.022	0.003	0.005
C-B	0.094	0.013		0.007	

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)
08.30-08.45								
B-C	0.31	7.47	0.042		0.0	0.0	0.6	
B-A	1.10	4.75	0.231		0.3	0.3	4.4	
C-A	9.23							
C-B	0.86	7.88	0.109		0.1	0.1	1.8	
A-B	1.24							
A-C	9.18							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.080	0.011			0.008
B-A	0.046	0.022	0.022	0.003	0.005
C-B	0.094	0.013		0.007	

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)
08.45-09.00								
B-C	0.25	8.03	0.032		0.0	0.0	0.5	
B-A	0.90	5.52	0.162		0.3	0.2	3.1	
C-A	7.54							
C-B	0.70	8.36	0.084		0.1	0.1	1.4	
A-B	1.01							
A-C	7.49							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.086	0.010			0.008
B-A	0.053	0.018	0.022	0.004	0.006
C-B	0.100	0.011		0.008	

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)
09.00-09.15								
B-C	0.21	8.42	0.025		0.0	0.0	0.4	
B-A	0.75	6.07	0.124		0.2	0.1	2.2	
C-A	6.31							
C-B	0.59	8.70	0.068		0.1	0.1	1.1	
A-B	0.85							
A-C	6.28							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.090	0.008			0.009
B-A	0.058	0.015	0.022	0.004	0.006
C-B	0.104	0.009		0.008	

QUEUE FOR STREAM B-C

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

QUEUE FOR STREAM B-A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.00	0.1
08.15	0.2
08.30	0.3
08.45	0.3
09.00	0.2
09.15	0.1

QUEUE FOR STREAM C-B

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

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-C	23.3	15.5	3.0	0.13	3.0	0.13
B-A	82.3	54.8	18.7	0.23	18.7	0.23
C-A	692.5	461.6				
C-B	64.4	43.0	8.5	0.13	8.5	0.13
A-B	93.2	62.2				
A-C	688.3	458.9				

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 I  ALL   I 1644.1 I 1096.1 I    30.2 I    0.02   I      30.2  I    0.02   I
 ------------------------------------------------------------------------


 * 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

 ****** PICADY 4 run completed.
============================================= end of file ==============================================
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TRL LIMITED

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

PICADY 4.1 ANALYSIS PROGRAM
RELEASE 3.0 (MAY 2001)

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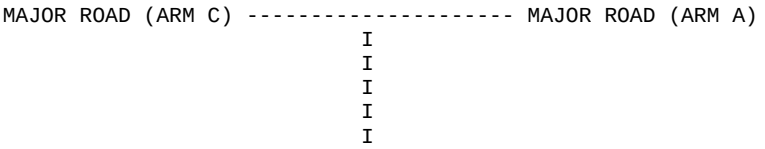
EMAIL: SoftwareBureau@trl.co.uk

Run with file:-
"o:\022961 Hayle Harbour - OPA\F08 - Civils (name)\Transportation\Assessments\PICADY\
20071106 rs Lethlean picady June AM 2011 with dev (ROBUST).vpi"
(drive-on-the-left) at 16:24:45 on Tuesday, 6 November 2007

RUN TITLE
****
Lothlean Lane

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA



I
MINOR ROAD (ARM B)

ARM A IS Beatrice Terrace west
ARM B IS Lethlean Lane
ARM C IS Beatrice Terrace 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)	7.80 M.
CENTRAL RESERVE WIDTH	(WCR)	0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B)	2.20 M.
- VISIBILITY	(VC-B)	200.0 M.
- BLOCKS TRAFFIC		NO
MINOR ROAD - VISIBILITY TO LEFT	(VB-C)	20.0 M.
- VISIBILITY TO RIGHT	(VB-A)	60.0 M.
- LANE 1 WIDTH	(WB-C)	-
- LANE 2 WIDTH	(WB-A)	-
- WIDTH AT 0 M FROM JUNC.		10.00 M.
- WIDTH AT 5 M FROM JUNC.		8.50 M.
- WIDTH AT 10 M FROM JUNC.		6.00 M.
- WIDTH AT 15 M FROM JUNC.		4.20 M.
- WIDTH AT 20 M FROM JUNC.		3.50 M.
- LENGTH OF FLARED SECTION		2 VEHS

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.TRAFFIC DEMAND DATA

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 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
ARM A	15.00	45.00	75.00	8.30	12.45	8.30
ARM B	15.00	45.00	75.00	2.51	3.77	2.51
ARM C	15.00	45.00	75.00	9.52	14.29	9.52

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TIME	FROM/TO	TURNING PROPORTIONS TURNING COUNTS (VEH/HR) (PERCENTAGE OF H.V.S) ARM A	ARM B	ARM C
16.45 - 18.15	ARM A	0.000	0.110	0.890
		0.0	73.0	591.0
		(0.0)	(10.0)	(10.0)
	ARM B	0.607	0.000	0.393
		122.0	0.0	79.0
		(10.0)	(0.0)	(10.0)
	ARM C	0.877	0.123	0.000
		668.0	94.0	0.0
		(10.0)	(10.0)	(0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

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)
16.45-17.00								
B-C	0.99	8.04	0.123		0.0	0.1	2.0	
B-A	1.52	5.29	0.288		0.0	0.4	5.5	
C-A	8.35							
C-B	1.17	8.41	0.140		0.0	0.2	2.3	
A-B	0.91							
A-C	7.39							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.084	0.009			0.008
B-A	0.050	0.019	0.022	0.004	0.006
C-B	0.101	0.011		0.008	

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)
17.00-17.15								
B-C	1.18	7.34	0.161		0.1	0.2	2.8	
B-A	1.82	4.56	0.399		0.4	0.6	9.0	
C-A	9.97							
C-B	1.40	8.01	0.175		0.2	0.2	3.1	
A-B	1.09							
A-C	8.82							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.078	0.011			0.008
B-A	0.044	0.023	0.022	0.003	0.005
C-B	0.096	0.013		0.007	

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)
17.15-17.30								
B-C	1.44	5.78	0.250		0.2	0.3	4.7	
B-A	2.23	3.56	0.627		0.6	1.5	19.6	
C-A	12.21							
C-B	1.72	7.46	0.230		0.2	0.3	4.3	
A-B	1.33							
A-C	10.80							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.068	0.012			0.007
B-A	0.034	0.028	0.022	0.003	0.004
C-B	0.089	0.016		0.007	

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)
17.30-17.45								
B-C	1.44	5.67	0.255		0.3	0.3	5.0	
B-A	2.23	3.56	0.627		1.5	1.6	23.2	
C-A	12.21							
C-B	1.72	7.46	0.230		0.3	0.3	4.4	
A-B	1.33							
A-C	10.80							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.068	0.012			0.007
B-A	0.034	0.028	0.022	0.003	0.004
C-B	0.089	0.016		0.007	

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)
17.45-18.00								
B-C	1.18	7.28	0.162		0.3	0.2	3.1	
B-A	1.82	4.56	0.399		1.6	0.7	11.4	
C-A	9.97							
C-B	1.40	8.01	0.175		0.3	0.2	3.3	
A-B	1.09							
A-C	8.82							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.077	0.011			0.008
B-A	0.044	0.023	0.022	0.003	0.005
C-B	0.096	0.013		0.007	

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)
18.00-18.15								
B-C	0.99	8.01	0.123		0.2	0.1	2.2	
B-A	1.52	5.28	0.289		0.7	0.4	6.6	
C-A	8.35							
C-B	1.17	8.41	0.140		0.2	0.2	2.5	
A-B	0.91							
A-C	7.39							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.083	0.009			0.008
B-A	0.050	0.019	0.022	0.004	0.006
C-B	0.101	0.011		0.008	

QUEUE FOR STREAM B-C

TIME SEGMENT ENDING	NO. OF VEHICLES

	IN QUEUE	
17.00	0.1	
17.15	0.2	
17.30	0.3	
17.45	0.3	
18.00	0.2	
18.15	0.1	

QUEUE FOR STREAM B-A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.00	0.4	
17.15	0.6	*
17.30	1.5	*
17.45	1.6	**
18.00	0.7	*
18.15	0.4	

QUEUE FOR STREAM C-B

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

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-C	108.3	72.2	19.7	0.18	19.7	0.18
B-A	167.3	111.5	75.4	0.45	75.4	0.45
C-A	916.0	610.6				
C-B	128.9	85.9	20.0	0.15	20.0	0.15
A-B	100.1	66.7				
A-C	810.4	540.3				

```
 ------------------------------------------------------------------------
 I  ALL   I 2231.0 I 1487.3 I   115.0 I    0.05   I     115.0  I    0.05   I
 ------------------------------------------------------------------------


 * 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

 ****** PICADY 4 run completed.
============================================= end of file ==============================================
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TRL LIMITED

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

PICADY 4.1 ANALYSIS PROGRAM
RELEASE 3.0 (MAY 2001)

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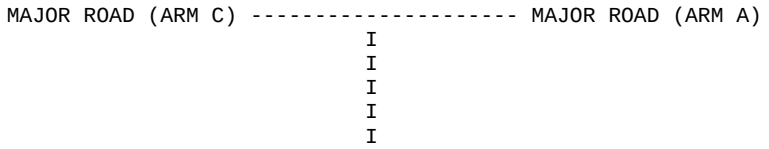
TRL SOFTWARE BUREAU
TEL: CROWTHORNE (01344) 770758, FAX: 770864
EMAIL: SoftwareBureau@trl.co.uk

Run with file:-
"o:\022961 Hayle Harbour - OPA\F08 - Civils (name)\Transportation\Assessments\PICADY\
20071106 rs Lethlean picady June PM 2017 without dev.vpi"
(drive-on-the-left) at 12:09:45 on Tuesday, 6 November 2007

RUN TITLE
****
Lothlean Lane

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA



I
MINOR ROAD (ARM B)

ARM A IS Beatrice Terrace west
ARM B IS Lethlean Lane
ARM C IS Beatrice Terrace 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)	7.80 M.
CENTRAL RESERVE WIDTH	(WCR)	0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B)	2.20 M.
- VISIBILITY	(VC-B)	200.0 M.
- BLOCKS TRAFFIC		NO
MINOR ROAD - VISIBILITY TO LEFT	(VB-C)	20.0 M.
- VISIBILITY TO RIGHT	(VB-A)	60.0 M.
- LANE 1 WIDTH	(WB-C)	-
- LANE 2 WIDTH	(WB-A)	-
- WIDTH AT 0 M FROM JUNC.		10.00 M.
- WIDTH AT 5 M FROM JUNC.		8.50 M.
- WIDTH AT 10 M FROM JUNC.		6.00 M.
- WIDTH AT 15 M FROM JUNC.		4.20 M.
- WIDTH AT 20 M FROM JUNC.		3.50 M.
- LENGTH OF FLARED SECTION		2 VEHS

TRAFFIC DEMAND DATA

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 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	8.26	12.39	8.26
ARM B	15.00	45.00	75.00	0.95	1.42	0.95
ARM C	15.00	45.00	75.00	9.34	14.01	9.34

TURNING PROPORTIONS
TURNING COUNTS (VEH/HR)
(PERCENTAGE OF H.V.S)

TIME	FROM/TO	ARM A	ARM B	ARM C
16.45 - 18.15	ARM A	0.000	0.141	0.859
		0.0	93.0	568.0
		(0.0)	(10.0)	(10.0)
	ARM B	0.750	0.000	0.250
		57.0	0.0	19.0
		(10.0)	(0.0)	(10.0)
	ARM C	0.874	0.126	0.000
		653.0	94.0	0.0
		(10.0)	(10.0)	(0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

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)
16.45-17.00								
B-C	0.24	8.23	0.029		0.0	0.0	0.4	
B-A	0.71	5.32	0.134		0.0	0.2	2.2	
C-A	8.16							
C-B	1.17	8.42	0.140		0.0	0.2	2.3	
A-B	1.16							
A-C	7.10							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.088	0.009			0.009
B-A	0.051	0.019	0.022	0.004	0.006
C-B	0.101	0.011		0.008	

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)
17.00-17.15								
B-C	0.28	7.77	0.037		0.0	0.0	0.6	
B-A	0.85	4.62	0.184		0.2	0.2	3.2	
C-A	9.75							
C-B	1.40	8.02	0.175		0.2	0.2	3.1	
A-B	1.39							
A-C	8.48							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.083	0.011			0.008
B-A	0.044	0.022	0.022	0.003	0.005
C-B	0.096	0.013		0.007	

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)
17.15-17.30								
B-C	0.35	7.07	0.049		0.0	0.1	0.7	
B-A	1.04	3.66	0.285		0.2	0.4	5.4	
C-A	11.94							
C-B	1.72	7.47	0.230		0.2	0.3	4.3	
A-B	1.70							
A-C	10.38							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.076	0.013			0.007
B-A	0.035	0.027	0.022	0.003	0.004
C-B	0.089	0.016		0.007	

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)
17.30-17.45								
B-C	0.35	7.06	0.049		0.1	0.1	0.8	
B-A	1.04	3.65	0.285		0.4	0.4	5.8	
C-A	11.94							
C-B	1.72	7.47	0.230		0.3	0.3	4.4	
A-B	1.70							
A-C	10.38							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.076	0.013			0.007
B-A	0.035	0.027	0.022	0.003	0.004
C-B	0.089	0.016		0.007	

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)
17.45-18.00								
B-C	0.28	7.76	0.037		0.1	0.0	0.6	
B-A	0.85	4.62	0.184		0.4	0.2	3.6	
C-A	9.75							
C-B	1.40	8.02	0.175		0.3	0.2	3.3	
A-B	1.39							
A-C	8.48							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.083	0.011			0.008
B-A	0.044	0.022	0.022	0.003	0.005
C-B	0.096	0.013		0.007	

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)
18.00-18.15								
B-C	0.24	8.22	0.029		0.0	0.0	0.5	
B-A	0.71	5.31	0.134		0.2	0.2	2.5	
C-A	8.16							
C-B	1.17	8.42	0.140		0.2	0.2	2.5	
A-B	1.16							
A-C	7.10							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.088	0.009			0.009
B-A	0.051	0.019	0.022	0.004	0.006
C-B	0.101	0.011		0.008	

QUEUE FOR STREAM B-C

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

QUEUE FOR STREAM B-A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.00	0.2
17.15	0.2
17.30	0.4
17.45	0.4
18.00	0.2
18.15	0.2

QUEUE FOR STREAM C-B

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

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-C	26.1	17.4	3.5	0.14	3.5	0.14
B-A	78.2	52.1	22.7	0.29	22.7	0.29
C-A	895.4	596.9				
C-B	128.9	85.9	19.9	0.15	19.9	0.15
A-B	127.5	85.0				
A-C	778.8	519.2				

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 I  ALL   I 2034.9 I 1356.6 I    46.2 I    0.02   I      46.2  I    0.02   I
 ------------------------------------------------------------------------


 * 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

 ****** PICADY 4 run completed.
============================================= end of file ==============================================
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TRL LIMITED

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

PICADY 4.1 ANALYSIS PROGRAM
RELEASE 3.0 (MAY 2001)

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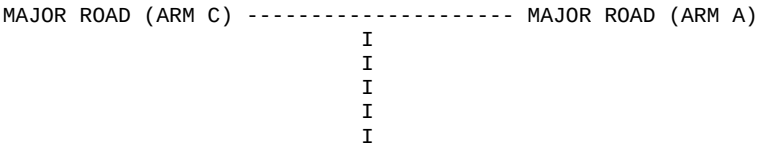
EMAIL: SoftwareBureau@trl.co.uk

Run with file:-
"o:\022961 Hayle Harbour - OPA\F08 - Civils (name)\Transportation\Assessments\PICADY\
20071106 rs Lethlean picady June AM 2011 with dev (lower trips).vpi"
(drive-on-the-left) at 15:55:53 on Tuesday, 6 November 2007

RUN TITLE
****
Lothlean Lane

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA



I
MINOR ROAD (ARM B)

ARM A IS Beatrice Terrace west
ARM B IS Lethlean Lane
ARM C IS Beatrice Terrace 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)	7.80 M.
CENTRAL RESERVE WIDTH	(WCR)	0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B)	2.20 M.
- VISIBILITY	(VC-B)	200.0 M.
- BLOCKS TRAFFIC		NO
MINOR ROAD - VISIBILITY TO LEFT	(VB-C)	20.0 M.
- VISIBILITY TO RIGHT	(VB-A)	60.0 M.
- LANE 1 WIDTH	(WB-C)	-
- LANE 2 WIDTH	(WB-A)	-
- WIDTH AT 0 M FROM JUNC.		10.00 M.
- WIDTH AT 5 M FROM JUNC.		8.50 M.
- WIDTH AT 10 M FROM JUNC.		6.00 M.
- WIDTH AT 15 M FROM JUNC.		4.20 M.
- WIDTH AT 20 M FROM JUNC.		3.50 M.
- LENGTH OF FLARED SECTION		2 VEHS

TRAFFIC DEMAND DATA

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 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	8.13	12.19	8.13
ARM B	15.00	45.00	75.00	2.35	3.52	2.35
ARM C	15.00	45.00	75.00	9.11	13.67	9.11

TURNING PROPORTIONS
TURNING COUNTS (VEH/HR)
(PERCENTAGE OF H.V.S)

TIME	FROM/TO	ARM A	ARM B	ARM C
07.45 - 09.15	ARM A	0.000	0.112	0.888
		0.0	73.0	577.0
		(0.0)	(10.0)	(10.0)
	ARM B	0.617	0.000	0.383
		116.0	0.0	72.0
		(10.0)	(0.0)	(10.0)
	ARM C	0.878	0.122	0.000
		640.0	89.0	0.0
		(10.0)	(10.0)	(0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

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)
07.45-08.00								
B-C	0.90	8.12	0.111		0.0	0.1	1.8	
B-A	1.45	5.42	0.267		0.0	0.4	5.0	
C-A	8.00							
C-B	1.11	8.45	0.132		0.0	0.2	2.2	
A-B	0.91							
A-C	7.21							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.085	0.009			0.009
B-A	0.052	0.019	0.022	0.004	0.006
C-B	0.101	0.010		0.008	

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)
08.00-08.15								
B-C	1.07	7.48	0.144		0.1	0.2	2.4	
B-A	1.73	4.72	0.367		0.4	0.6	7.9	
C-A	9.55							
C-B	1.33	8.06	0.165		0.2	0.2	2.9	
A-B	1.09							
A-C	8.61							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.079	0.011			0.008
B-A	0.045	0.022	0.022	0.003	0.005
C-B	0.096	0.012		0.007	

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)
08.15-08.30								
B-C	1.32	6.19	0.213		0.2	0.3	3.8	
B-A	2.12	3.75	0.565		0.6	1.2	16.1	
C-A	11.70							
C-B	1.63	7.52	0.216		0.2	0.3	4.0	
A-B	1.33							
A-C	10.55							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.070	0.012			0.007
B-A	0.036	0.027	0.022	0.003	0.004
C-B	0.090	0.015		0.007	

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)
08.30-08.45								
B-C	1.32	6.13	0.215		0.3	0.3	4.0	
B-A	2.12	3.75	0.566		1.2	1.2	18.4	
C-A	11.70							
C-B	1.63	7.52	0.216		0.3	0.3	4.1	
A-B	1.33							
A-C	10.55							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.070	0.012			0.007
B-A	0.036	0.027	0.022	0.003	0.004
C-B	0.090	0.015		0.007	

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)
08.45-09.00								
B-C	1.07	7.44	0.144		0.3	0.2	2.7	
B-A	1.73	4.72	0.367		1.2	0.6	9.7	
C-A	9.55							
C-B	1.33	8.06	0.165		0.3	0.2	3.1	
A-B	1.09							
A-C	8.61							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.078	0.011			0.008
B-A	0.045	0.022	0.022	0.003	0.005
C-B	0.096	0.012		0.007	

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)
09.00-09.15								
B-C	0.90	8.10	0.111		0.2	0.1	1.9	
B-A	1.45	5.42	0.268		0.6	0.4	5.9	
C-A	8.00							
C-B	1.11	8.45	0.132		0.2	0.2	2.4	
A-B	0.91							
A-C	7.21							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.084	0.009			0.009
B-A	0.052	0.019	0.022	0.004	0.006
C-B	0.101	0.010		0.008	

QUEUE FOR STREAM B-C

TIME SEGMENT ENDING	NO. OF VEHICLES

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.00	0.1	
08.15	0.2	
08.30	0.3	
08.45	0.3	
09.00	0.2	
09.15	0.1	

QUEUE FOR STREAM B-A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.00	0.4	
08.15	0.6	*
08.30	1.2	*
08.45	1.2	*
09.00	0.6	*
09.15	0.4	

QUEUE FOR STREAM C-B

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

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-C	98.7	65.8	16.7	0.17	16.7	0.17
B-A	159.1	106.0	63.1	0.40	63.1	0.40
C-A	877.6	585.1				
C-B	122.0	81.4	18.5	0.15	18.5	0.15
A-B	100.1	66.7				
A-C	791.2	527.5				

```
 ------------------------------------------------------------------------
 I  ALL   I 2148.7 I 1432.5 I    98.2 I    0.05   I      98.2  I    0.05   I
 ------------------------------------------------------------------------


 * 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

 ****** PICADY 4 run completed.
============================================= end of file ==============================================
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TRL LIMITED

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

PICADY 4.1 ANALYSIS PROGRAM
RELEASE 3.0 (MAY 2001)

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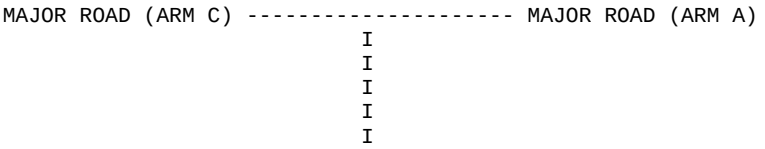
TRL SOFTWARE BUREAU
TEL: CROWTHORNE (01344) 770758, FAX: 770864
EMAIL: SoftwareBureau@trl.co.uk

Run with file:-
"o:\022961 Hayle Harbour - OPA\F08 - Civils (name)\Transportation\Assessments\PICADY\
20071106 rs Lethlean picady June PM 2017 with dev (ROBUST rates).vpi"
(drive-on-the-left) at 09:55:09 on Friday, 9 November 2007

RUN TITLE
****
Lothlean Lane

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA



I
MINOR ROAD (ARM B)

ARM A IS Beatrice Terrace west
ARM B IS Lethlean Lane
ARM C IS Beatrice Terrace 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)	7.80 M.
CENTRAL RESERVE WIDTH	(WCR)	0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B)	2.20 M.
- VISIBILITY	(VC-B)	200.0 M.
- BLOCKS TRAFFIC		NO
MINOR ROAD - VISIBILITY TO LEFT	(VB-C)	20.0 M.
- VISIBILITY TO RIGHT	(VB-A)	60.0 M.
- LANE 1 WIDTH	(WB-C)	-
- LANE 2 WIDTH	(WB-A)	-
- WIDTH AT 0 M FROM JUNC.		10.00 M.
- WIDTH AT 5 M FROM JUNC.		8.50 M.
- WIDTH AT 10 M FROM JUNC.		6.00 M.
- WIDTH AT 15 M FROM JUNC.		4.20 M.
- WIDTH AT 20 M FROM JUNC.		3.50 M.
- LENGTH OF FLARED SECTION		2 VEHS

TRAFFIC DEMAND DATA

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 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	12.02	18.04	12.02
ARM B	15.00	45.00	75.00	1.89	2.83	1.89
ARM C	15.00	45.00	75.00	12.01	18.02	12.01

TIME	TURNING PROPORTIONS / TURNING COUNTS (VEH/HR) (PERCENTAGE OF H.V.S) FROM/TO	ARM A	ARM B	ARM C
16.45 - 18.15	ARM A	0.000	0.160	0.840
		0.0	154.0	808.0
		(0.0)	(10.0)	(10.0)
	ARM B	0.629	0.000	0.371
		95.0	0.0	56.0
		(10.0)	(0.0)	(10.0)
	ARM C	0.839	0.161	0.000
		806.0	155.0	0.0
		(10.0)	(10.0)	(0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

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)
16.45-17.00								
B-C	0.70	7.26	0.096		0.0	0.1	1.5	
B-A	1.19	3.97	0.299		0.0	0.4	5.7	
C-A	10.07							
C-B	1.94	7.49	0.259		0.0	0.3	4.9	
A-B	1.92							
A-C	10.10							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.076	0.013			0.008
B-A	0.038	0.026	0.022	0.003	0.004
C-B	0.090	0.015		0.007	

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)
17.00-17.15								
B-C	0.84	6.20	0.135		0.1	0.2	2.2	
B-A	1.42	2.99	0.475		0.4	0.8	11.4	
C-A	12.03							
C-B	2.31	6.91	0.335		0.3	0.5	7.1	
A-B	2.30							
A-C	12.06							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.067	0.015			0.007
B-A	0.028	0.031	0.022	0.002	0.003
C-B	0.083	0.018		0.006	

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)
17.15-17.30								
B-C	1.02	0.94	1.094		0.2	4.1	37.7	
B-A	1.74	1.62	1.070		0.8	5.7	54.6	
C-A	14.73							
C-B	2.83	6.12	0.463		0.5	0.8	11.7	
A-B	2.82							
A-C	14.77							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.052	0.015			0.005
B-A	0.015	0.038	0.022	0.001	0.002
C-B	0.073	0.023		0.006	

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)
17.30-17.45								
B-C	1.02	0.99	1.034		4.1	5.9	75.5	
B-A	1.74	1.61	1.077		5.7	8.8	109.3	
C-A	14.73							
C-B	2.83	6.12	0.463		0.8	0.8	12.6	
A-B	2.82							
A-C	14.77							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.052	0.015			0.005
B-A	0.015	0.038	0.022	0.001	0.002
C-B	0.073	0.023		0.006	

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)
17.45-18.00								
B-C	0.84	5.17	0.162		5.9	0.2	7.6	
B-A	1.42	2.96	0.478		8.8	1.0	40.6	
C-A	12.03							
C-B	2.31	6.91	0.335		0.8	0.5	8.1	
A-B	2.30							
A-C	12.06							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.064	0.014			0.006
B-A	0.028	0.031	0.022	0.002	0.003
C-B	0.083	0.018		0.006	

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)
18.00-18.15								
B-C	0.70	7.21	0.097		0.2	0.1	1.7	
B-A	1.19	3.96	0.300		1.0	0.4	7.2	
C-A	10.07							
C-B	1.94	7.49	0.259		0.5	0.4	5.5	
A-B	1.92							
A-C	10.10							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.076	0.013			0.008
B-A	0.038	0.026	0.022	0.003	0.004
C-B	0.090	0.015		0.007	

QUEUE FOR STREAM B-C

TIME SEGMENT ENDING	NO. OF VEHICLES

	IN QUEUE	
17.00	0.1	
17.15	0.2	
17.30	4.1	****
17.45	5.9	******
18.00	0.2	
18.15	0.1	

QUEUE FOR STREAM B-A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.00	0.4	
17.15	0.8	*
17.30	5.7	******
17.45	8.8	*********
18.00	1.0	*
18.15	0.4	

QUEUE FOR STREAM C-B

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.00	0.3	
17.15	0.5	
17.30	0.8	*
17.45	0.8	*
18.00	0.5	*
18.15	0.4	

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-C	76.8	51.2	126.2	1.64	126.2	1.64
B-A	130.3	86.8	228.7	1.76	228.7	1.76
C-A	1105.2	736.8				
C-B	212.5	141.7	50.0	0.24	50.0	0.24
A-B	211.2	140.8				
A-C	1107.9	738.6				

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 ------------------------------------------------------------------------
 I  ALL   I 2843.9 I 1895.9 I   404.9 I    0.14   I     404.9  I    0.14   I
 ------------------------------------------------------------------------


 * 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

 ****** PICADY 4 run completed.
============================================= end of file ==============================================
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TRL LIMITED

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

PICADY 4.1 ANALYSIS PROGRAM
RELEASE 3.0 (MAY 2001)

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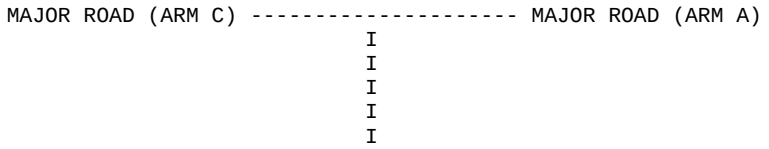
TEL: CROWTHORNE (01344) 770758, FAX: 770864
EMAIL: SoftwareBureau@trl.co.uk

Run with file:-
"o:\022961 Hayle Harbour - OPA\F08 - Civils (name)\Transportation\Assessments\PICADY\
20071106 rs Lethlean picady August PM 2011 without dev.vpi"
(drive-on-the-left) at 14:14:38 on Tuesday, 6 November 2007

RUN TITLE
****
Lothlean Lane

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA



I
MINOR ROAD (ARM B)

ARM A IS Beatrice Terrace west
ARM B IS Lethlean Lane
ARM C IS Beatrice Terrace 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)	7.80 M.
CENTRAL RESERVE WIDTH	(WCR)	0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B)	2.20 M.
- VISIBILITY	(VC-B)	200.0 M.
- BLOCKS TRAFFIC		NO
MINOR ROAD - VISIBILITY TO LEFT	(VB-C)	20.0 M.
- VISIBILITY TO RIGHT	(VB-A)	60.0 M.
- LANE 1 WIDTH	(WB-C)	-
- LANE 2 WIDTH	(WB-A)	-
- WIDTH AT 0 M FROM JUNC.		10.00 M.
- WIDTH AT 5 M FROM JUNC.		8.50 M.
- WIDTH AT 10 M FROM JUNC.		6.00 M.
- WIDTH AT 15 M FROM JUNC.		4.20 M.
- WIDTH AT 20 M FROM JUNC.		3.50 M.
- LENGTH OF FLARED SECTION		2 VEHS

TRAFFIC DEMAND DATA

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 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	9.79	14.68	9.79
ARM B	15.00	45.00	75.00	1.15	1.72	1.15
ARM C	15.00	45.00	75.00	11.09	16.63	11.09

TIME	FROM/TO	TURNING PROPORTIONS TURNING COUNTS (VEH/HR) (PERCENTAGE OF H.V.S) ARM A	ARM B	ARM C
16.45 - 18.15	ARM A	0.000	0.143	0.857
		0.0	112.0	671.0
		(0.0)	(10.0)	(10.0)
	ARM B	0.750	0.000	0.250
		69.0	0.0	23.0
		(10.0)	(0.0)	(10.0)
	ARM C	0.873	0.127	0.000
		774.0	113.0	0.0
		(10.0)	(10.0)	(0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

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)
16.45-17.00								
B-C	0.29	7.79	0.037		0.0	0.0	0.5	
B-A	0.86	4.65	0.185		0.0	0.2	3.1	
C-A	9.68							
C-B	1.41	8.04	0.176		0.0	0.2	3.0	
A-B	1.40							
A-C	8.39							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.083	0.011			0.008
B-A	0.045	0.022	0.022	0.003	0.005
C-B	0.096	0.013		0.007	

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)
17.00-17.15								
B-C	0.34	7.19	0.048		0.0	0.0	0.7	
B-A	1.03	3.82	0.269		0.2	0.4	5.1	
C-A	11.55							
C-B	1.69	7.57	0.223		0.2	0.3	4.1	
A-B	1.67							
A-C	10.02							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.077	0.013			0.008
B-A	0.037	0.026	0.022	0.003	0.004
C-B	0.091	0.015		0.007	

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)
17.15-17.30								
B-C	0.42	6.02	0.070		0.0	0.1	1.1	
B-A	1.26	2.68	0.471		0.4	0.8	11.0	
C-A	14.15							
C-B	2.07	6.93	0.298		0.3	0.4	6.0	
A-B	2.05							
A-C	12.27							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.067	0.015			0.007
B-A	0.026	0.032	0.022	0.002	0.003
C-B	0.083	0.018		0.006	

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)
17.30-17.45								
B-C	0.42	5.97	0.070		0.1	0.1	1.1	
B-A	1.26	2.68	0.471		0.8	0.9	12.6	
C-A	14.15							
C-B	2.07	6.93	0.298		0.4	0.4	6.3	
A-B	2.05							
A-C	12.27							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.067	0.015			0.007
B-A	0.026	0.032	0.022	0.002	0.003
C-B	0.083	0.018		0.006	

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)
17.45-18.00								
B-C	0.34	7.16	0.048		0.1	0.1	0.8	
B-A	1.03	3.82	0.270		0.9	0.4	6.2	
C-A	11.55							
C-B	1.69	7.57	0.223		0.4	0.3	4.5	
A-B	1.67							
A-C	10.02							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.077	0.013			0.008
B-A	0.037	0.026	0.022	0.003	0.004
C-B	0.091	0.015		0.007	

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)
18.00-18.15								
B-C	0.29	7.78	0.037		0.1	0.0	0.6	
B-A	0.86	4.65	0.186		0.4	0.2	3.7	
C-A	9.68							
C-B	1.41	8.04	0.176		0.3	0.2	3.3	
A-B	1.40							
A-C	8.39							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.083	0.011			0.008
B-A	0.045	0.022	0.022	0.003	0.005
C-B	0.096	0.013		0.007	

QUEUE FOR STREAM B-C

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	0.1	
18.15	0.0	

QUEUE FOR STREAM B-A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.00	0.2	
17.15	0.4	
17.30	0.8	*
17.45	0.9	*
18.00	0.4	
18.15	0.2	

QUEUE FOR STREAM C-B

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
17.00	0.2
17.15	0.3
17.30	0.4
17.45	0.4
18.00	0.3
18.15	0.2

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-C	31.5	21.0	4.9	0.15	4.9	0.15
B-A	94.6	63.1	41.7	0.44	41.7	0.44
C-A	1061.3	707.5				
C-B	154.9	103.3	27.3	0.18	27.3	0.18
A-B	153.6	102.4				
A-C	920.1	613.4				

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 I  ALL   I 2416.1 I 1610.7 I    73.9 I    0.03   I      73.9  I    0.03   I
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 * 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

 ****** PICADY 4 run completed.
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TRL LIMITED

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

PICADY 4.1 ANALYSIS PROGRAM
RELEASE 3.0 (MAY 2001)

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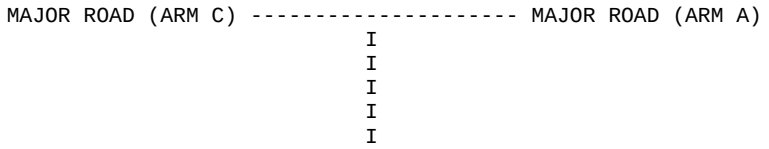
TRL SOFTWARE BUREAU
TEL: CROWTHORNE (01344) 770758, FAX: 770864
EMAIL: SoftwareBureau@trl.co.uk

Run with file:-
"o:\022961 Hayle Harbour - OPA\F08 - Civils (name)\Transportation\Assessments\PICADY\
20071106 rs Lethlean picady June PM 2017 with dev (lower rates).vpi"
(drive-on-the-left) at 09:46:39 on Friday, 9 November 2007

RUN TITLE
****
Lothlean Lane

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA



I
MINOR ROAD (ARM B)

ARM A IS Beatrice Terrace west
ARM B IS Lethlean Lane
ARM C IS Beatrice Terrace 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)	7.80 M.
CENTRAL RESERVE WIDTH	(WCR)	0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B)	2.20 M.
- VISIBILITY	(VC-B)	200.0 M.
- BLOCKS TRAFFIC		NO
MINOR ROAD - VISIBILITY TO LEFT	(VB-C)	20.0 M.
- VISIBILITY TO RIGHT	(VB-A)	60.0 M.
- LANE 1 WIDTH	(WB-C)	-
- LANE 2 WIDTH	(WB-A)	-
- WIDTH AT 0 M FROM JUNC.		10.00 M.
- WIDTH AT 5 M FROM JUNC.		8.50 M.
- WIDTH AT 10 M FROM JUNC.		6.00 M.
- WIDTH AT 15 M FROM JUNC.		4.20 M.
- WIDTH AT 20 M FROM JUNC.		3.50 M.
- LENGTH OF FLARED SECTION		2 VEHS

TRAFFIC DEMAND DATA

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 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	11.34	17.01	11.34
ARM B	15.00	45.00	75.00	1.79	2.68	1.79
ARM C	15.00	45.00	75.00	11.60	17.40	11.60

TIME	FROM/TO	TURNING PROPORTIONS TURNING COUNTS (VEH/HR) (PERCENTAGE OF H.V.S) ARM A	ARM B	ARM C
16.45 - 18.15	ARM A	0.000	0.163	0.837
		0.0	148.0	759.0
		(0.0)	(10.0)	(10.0)
	ARM B	0.636	0.000	0.364
		91.0	0.0	52.0
		(10.0)	(0.0)	(10.0)
	ARM C	0.839	0.161	0.000
		779.0	149.0	0.0
		(10.0)	(10.0)	(0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

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)
16.45-17.00								
B-C	0.65	7.47	0.087		0.0	0.1	1.4	
B-A	1.14	4.22	0.269		0.0	0.4	5.0	
C-A	9.74							
C-B	1.86	7.66	0.243		0.0	0.3	4.5	
A-B	1.85							
A-C	9.49							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.078	0.012			0.008
B-A	0.040	0.025	0.022	0.003	0.004
C-B	0.092	0.015		0.007	

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)
17.00-17.15								
B-C	0.78	6.59	0.118		0.1	0.1	1.9	
B-A	1.36	3.28	0.414		0.4	0.7	9.2	
C-A	11.63							
C-B	2.22	7.12	0.313		0.3	0.4	6.4	
A-B	2.21							
A-C	11.33							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.070	0.014			0.007
B-A	0.031	0.030	0.022	0.002	0.003
C-B	0.085	0.017		0.007	

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)
17.15-17.30								
B-C	0.95	3.00	0.317		0.1	0.4	6.1	
B-A	1.66	1.98	0.839		0.7	2.9	32.6	
C-A	14.24							
C-B	2.72	6.37	0.428		0.4	0.7	10.3	
A-B	2.71							
A-C	13.88							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.056	0.015			0.006
B-A	0.019	0.037	0.022	0.001	0.002
C-B	0.076	0.021		0.006	

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)
17.30-17.45								
B-C	0.95	1.92	0.495		0.4	0.9	11.6	
B-A	1.66	1.97	0.843		2.9	3.6	49.6	
C-A	14.24							
C-B	2.72	6.37	0.428		0.7	0.7	11.0	
A-B	2.71							
A-C	13.88							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.055	0.015			0.005
B-A	0.019	0.037	0.022	0.001	0.002
C-B	0.076	0.021		0.006	

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)
17.45-18.00								
B-C	0.78	6.33	0.123		0.9	0.1	2.3	
B-A	1.36	3.27	0.415		3.6	0.8	15.6	
C-A	11.63							
C-B	2.22	7.12	0.313		0.7	0.5	7.3	
A-B	2.21							
A-C	11.33							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.069	0.014			0.007
B-A	0.031	0.030	0.022	0.002	0.003
C-B	0.085	0.017		0.007	

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)
18.00-18.15								
B-C	0.65	7.44	0.087		0.1	0.1	1.5	
B-A	1.14	4.21	0.270		0.8	0.4	6.1	
C-A	9.74							
C-B	1.86	7.66	0.243		0.5	0.3	5.1	
A-B	1.85							
A-C	9.49							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.078	0.012			0.008
B-A	0.040	0.025	0.022	0.003	0.004
C-B	0.092	0.015		0.007	

QUEUE FOR STREAM B-C

TIME SEGMENT ENDING	NO. OF VEHICLES

	IN QUEUE	
17.00	0.1	
17.15	0.1	
17.30	0.4	
17.45	0.9	*
18.00	0.1	
18.15	0.1	

QUEUE FOR STREAM B-A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.00	0.4	
17.15	0.7	*
17.30	2.9	***
17.45	3.6	****
18.00	0.8	*
18.15	0.4	

QUEUE FOR STREAM C-B

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.00	0.3	
17.15	0.4	
17.30	0.7	*
17.45	0.7	*
18.00	0.5	
18.15	0.3	

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-C	71.3	47.5	24.7	0.35	24.7	0.35
B-A	124.8	83.2	118.1	0.95	118.1	0.95
C-A	1068.2	712.1				
C-B	204.3	136.2	44.6	0.22	44.6	0.22
A-B	202.9	135.3				
A-C	1040.7	693.8				

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 I  ALL   I 2712.3 I 1808.2 I   187.4 I    0.07   I     187.4  I    0.07   I
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 * 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

 ****** PICADY 4 run completed.
============================================= end of file ==============================================
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TRL LIMITED

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

PICADY 4.1 ANALYSIS PROGRAM
RELEASE 3.0 (MAY 2001)

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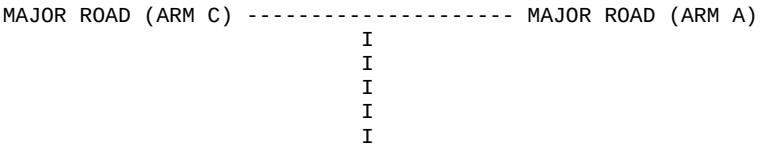
PROGRAM ADVICE AND MAINTENANCE CONTACT:
TRL SOFTWARE BUREAU
TEL: CROWTHORNE (01344) 770758, FAX: 770864
EMAIL: SoftwareBureau@trl.co.uk

Run with file:-
"o:\022961 Hayle Harbour - OPA\F08 - Civils (name)\Transportation\Assessments\PICADY\
20071106 rs Lethlean picady August PM 2011 with dev (ROBUST).vpi"
(drive-on-the-left) at 15:18:59 on Tuesday, 6 November 2007

RUN TITLE
****
Lothlean Lane

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA



I
MINOR ROAD (ARM B)

ARM A IS Beatrice Terrace west
ARM B IS Lethlean Lane
ARM C IS Beatrice Terrace 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)	7.80 M.
CENTRAL RESERVE WIDTH	(WCR)	0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B)	2.20 M.
- VISIBILITY	(VC-B)	200.0 M.
- BLOCKS TRAFFIC		NO
MINOR ROAD - VISIBILITY TO LEFT	(VB-C)	20.0 M.
- VISIBILITY TO RIGHT	(VB-A)	60.0 M.
- LANE 1 WIDTH	(WB-C)	-
- LANE 2 WIDTH	(WB-A)	-
- WIDTH AT 0 M FROM JUNC.		10.00 M.
- WIDTH AT 5 M FROM JUNC.		8.50 M.
- WIDTH AT 10 M FROM JUNC.		6.00 M.
- WIDTH AT 15 M FROM JUNC.		4.20 M.
- WIDTH AT 20 M FROM JUNC.		3.50 M.
- LENGTH OF FLARED SECTION		2 VEHS

TRAFFIC DEMAND DATA

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 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	13.55	20.33	13.55
ARM B	15.00	45.00	75.00	2.09	3.13	2.09
ARM C	15.00	45.00	75.00	13.76	20.64	13.76

TIME	TURNING PROPORTIONS / TURNING COUNTS (VEH/HR) (PERCENTAGE OF H.V.S) FROM/TO	ARM A	ARM B	ARM C
16.45 - 18.15	ARM A	0.000	0.160	0.840
		0.0	173.0	911.0
		(0.0)	(10.0)	(10.0)
	ARM B	0.641	0.000	0.359
		107.0	0.0	60.0
		(10.0)	(0.0)	(10.0)
	ARM C	0.842	0.158	0.000
		927.0	174.0	0.0
		(10.0)	(10.0)	(0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

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)
16.45-17.00								
B-C	0.75	6.63	0.113		0.0	0.1	1.8	
B-A	1.34	3.31	0.405		0.0	0.6	8.6	
C-A	11.59							
C-B	2.17	7.11	0.306		0.0	0.4	6.1	
A-B	2.16							
A-C	11.39							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.071	0.014			0.007
B-A	0.031	0.030	0.022	0.002	0.003
C-B	0.085	0.017		0.007	

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)
17.00-17.15								
B-C	0.90	4.18	0.214		0.1	0.3	3.8	
B-A	1.60	2.18	0.733		0.6	2.1	24.7	
C-A	13.84							
C-B	2.60	6.47	0.402		0.4	0.7	9.3	
A-B	2.58							
A-C	13.60							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.059	0.015			0.006
B-A	0.021	0.036	0.022	0.002	0.002
C-B	0.077	0.021		0.006	

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)
17.15-17.30								
B-C	1.10	0.34	3.212		0.3	11.9	93.0	
B-A	1.96	0.64	3.050		2.1	22.0	180.8	
C-A	16.95							
C-B	3.18	5.57	0.571		0.7	1.3	17.2	
A-B	3.16							
A-C	16.65							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.048	0.017			0.005
B-A	0.006	0.044	0.022	0.000	0.001
C-B	0.067	0.025		0.005	

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)
17.30-17.45								
B-C	1.10	0.35	3.162		11.9	23.2	263.5	
B-A	1.96	0.63	3.120		22.0	41.9	479.0	
C-A	16.95							
C-B	3.18	5.57	0.571		1.3	1.3	19.2	
A-B	3.16							
A-C	16.65							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.048	0.017			0.005
B-A	0.006	0.044	0.022	0.000	0.001
C-B	0.067	0.025		0.005	

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)
17.45-18.00								
B-C	0.90	1.19	0.751		23.2	19.5	320.2	
B-A	1.60	2.14	0.745		41.9	34.5	572.7	
C-A	13.84							
C-B	2.60	6.47	0.402		1.3	0.7	11.0	
A-B	2.58							
A-C	13.60							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.054	0.014			0.005
B-A	0.021	0.036	0.022	0.002	0.002
C-B	0.077	0.021		0.006	

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)
18.00-18.15								
B-C	0.75	1.81	0.414		19.5	4.9	183.0	
B-A	1.34	3.21	0.416		34.5	7.7	316.3	
C-A	11.59							
C-B	2.17	7.11	0.306		0.7	0.4	7.0	
A-B	2.16							
A-C	11.39							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.059	0.012			0.006
B-A	0.031	0.030	0.022	0.002	0.003
C-B	0.085	0.017		0.007	

QUEUE FOR STREAM B-C

TIME SEGMENT ENDING	NO. OF VEHICLES

	IN QUEUE	
17.00	0.1	
17.15	0.3	
17.30	11.9	**********
17.45	23.2	**********
18.00	19.5	**********
18.15	4.9	*****

QUEUE FOR STREAM B-A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.00	0.6	*
17.15	2.1	**
17.30	22.0	**********
17.45	41.9	**********
18.00	34.5	**********
18.15	7.7	********

QUEUE FOR STREAM C-B

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.00	0.4	
17.15	0.7	*
17.30	1.3	*
17.45	1.3	*
18.00	0.7	*
18.15	0.4	

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-C	82.3	54.8	865.3	10.52	871.9	10.60
B-A	146.7	97.8	1582.1	10.78	1591.4	10.85
C-A	1271.1	847.4				
C-B	238.6	159.1	69.9	0.29	69.9	0.29
A-B	237.2	158.1				
A-C	1249.2	832.8				

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 ------------------------------------------------------------------------
 I  ALL   I 3225.1 I 2150.1 I  2517.3 I    0.78   I    2533.2  I    0.79   I
 ------------------------------------------------------------------------


 * 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

 ****** PICADY 4 run completed.
============================================= end of file ==============================================
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CAPACITIES, QUEUES, AND DELAYS AT 3 OR 4-ARM MAJOR/MINOR PRIORITY JUNCTIONS

PICADY 4.1 ANALYSIS PROGRAM
RELEASE 3.0 (MAY 2001)

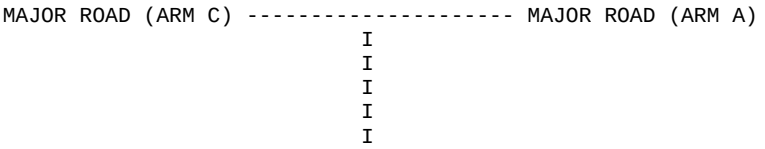
FOR SALES AND DISTRIBUTION INFORMATION,
PROGRAM ADVICE AND MAINTENANCE CONTACT:
TRL SOFTWARE BUREAU
TEL: CROWTHORNE (01344) 770758, FAX: 770864
EMAIL: SoftwareBureau@trl.co.uk

Run with file:-
"o:\022961 Hayle Harbour - OPA\F08 - Civils (name)\Transportation\Assessments\PICADY\
20071106 rs Lethlean picady August PM 2011 with dev (lower trips).vpi"
(drive-on-the-left) at 15:26:00 on Tuesday, 6 November 2007

RUN TITLE
****
Lothlean Lane

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA



I
MINOR ROAD (ARM B)

ARM A IS Beatrice Terrace west
ARM B IS Lethlean Lane
ARM C IS Beatrice Terrace 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)	7.80 M.
CENTRAL RESERVE WIDTH	(WCR)	0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B)	2.20 M.
- VISIBILITY	(VC-B)	200.0 M.
- BLOCKS TRAFFIC		NO
MINOR ROAD - VISIBILITY TO LEFT	(VB-C)	20.0 M.
- VISIBILITY TO RIGHT	(VB-A)	60.0 M.
- LANE 1 WIDTH	(WB-C)	-
- LANE 2 WIDTH	(WB-A)	-
- WIDTH AT 0 M FROM JUNC.		10.00 M.
- WIDTH AT 5 M FROM JUNC.		8.50 M.
- WIDTH AT 10 M FROM JUNC.		6.00 M.
- WIDTH AT 15 M FROM JUNC.		4.20 M.
- WIDTH AT 20 M FROM JUNC.		3.50 M.
- LENGTH OF FLARED SECTION		2 VEHS

TRAFFIC DEMAND DATA

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 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
ARM A	15.00	45.00	75.00	12.86	19.29	12.86
ARM B	15.00	45.00	75.00	1.99	2.98	1.99
ARM C	15.00	45.00	75.00	13.35	20.03	13.35

TIME	FROM/TO	TURNING PROPORTIONS / TURNING COUNTS (VEH/HR) (PERCENTAGE OF H.V.S) ARM A	ARM B	ARM C
16.45 - 18.15	ARM A	0.000	0.162	0.838
		0.0	167.0	862.0
		(0.0)	(10.0)	(10.0)
	ARM B	0.648	0.000	0.352
		103.0	0.0	56.0
		(10.0)	(0.0)	(10.0)
	ARM C	0.843	0.157	0.000
		900.0	168.0	0.0
		(10.0)	(10.0)	(0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

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)
16.45-17.00								
B-C	0.70	6.89	0.102		0.0	0.1	1.6	
B-A	1.29	3.55	0.362		0.0	0.5	7.4	
C-A	11.25							
C-B	2.10	7.28	0.288		0.0	0.4	5.7	
A-B	2.09							
A-C	10.77							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.073	0.014			0.007
B-A	0.034	0.029	0.022	0.003	0.004
C-B	0.087	0.017		0.007	

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)
17.00-17.15								
B-C	0.84	5.20	0.161		0.1	0.2	2.7	
B-A	1.54	2.48	0.621		0.5	1.4	18.0	
C-A	13.43							
C-B	2.51	6.67	0.376		0.4	0.6	8.4	
A-B	2.49							
A-C	12.87							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.063	0.015			0.006
B-A	0.023	0.034	0.022	0.002	0.003
C-B	0.080	0.020		0.006	

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)
17.15-17.30								
B-C	1.02	0.52	1.955		0.2	8.4	67.7	
B-A	1.88	1.00	1.884		1.4	15.2	126.7	
C-A	16.45							
C-B	3.07	5.82	0.528		0.6	1.1	14.8	
A-B	3.05							
A-C	15.76							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.050	0.016			0.005
B-A	0.009	0.042	0.022	0.001	0.001
C-B	0.070	0.024		0.005	

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)
17.30-17.45								
B-C	1.02	0.54	1.893		8.4	15.8	181.8	
B-A	1.88	0.99	1.907		15.2	28.7	329.4	
C-A	16.45							
C-B	3.07	5.82	0.528		1.1	1.1	16.2	
A-B	3.05							
A-C	15.76							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.050	0.016			0.005
B-A	0.009	0.042	0.022	0.001	0.001
C-B	0.070	0.024		0.005	

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)
17.45-18.00								
B-C	0.84	1.33	0.628		15.8	9.5	189.9	
B-A	1.54	2.43	0.632		28.7	16.5	338.9	
C-A	13.43							
C-B	2.51	6.67	0.376		1.1	0.6	9.8	
A-B	2.49							
A-C	12.87							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.056	0.013			0.006
B-A	0.023	0.034	0.022	0.002	0.003
C-B	0.080	0.020		0.006	

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)
18.00-18.15								
B-C	0.70	5.39	0.130		9.5	0.2	12.9	
B-A	1.29	3.52	0.365		16.5	0.6	71.8	
C-A	11.25							
C-B	2.10	7.28	0.288		0.6	0.4	6.4	
A-B	2.09							
A-C	10.77							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.067	0.012			0.007
B-A	0.034	0.029	0.022	0.003	0.004
C-B	0.087	0.017		0.007	

QUEUE FOR STREAM B-C

TIME SEGMENT ENDING	NO. OF VEHICLES

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.00	0.1	
17.15	0.2	
17.30	8.4	********
17.45	15.8	****************
18.00	9.5	**********
18.15	0.2	

QUEUE FOR STREAM B-A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.00	0.5	*
17.15	1.4	*
17.30	15.2	***************
17.45	28.7	****************************
18.00	16.5	****************
18.15	0.6	*

QUEUE FOR STREAM C-B

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
17.00	0.4	
17.15	0.6	*
17.30	1.1	*
17.45	1.1	*
18.00	0.6	*
18.15	0.4	

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-C	76.8	51.2	456.6	5.95	456.6	5.95
B-A	141.2	94.2	892.1	6.32	892.1	6.32
C-A	1234.1	822.7				
C-B	230.4	153.6	61.4	0.27	61.4	0.27
A-B	229.0	152.7				
A-C	1182.0	788.0				

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 ------------------------------------------------------------------------
 I  ALL   I 3093.5 I 2062.3 I  1410.0 I    0.46   I    1410.1  I    0.46   I
 ------------------------------------------------------------------------


 * 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

 ****** PICADY 4 run completed.
============================================= end of file ==============================================
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TRL LIMITED

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

PICADY 4.1 ANALYSIS PROGRAM
RELEASE 3.0 (MAY 2001)

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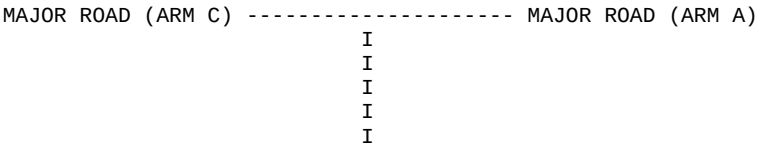
TRL SOFTWARE BUREAU
TEL: CROWTHORNE (01344) 770758, FAX: 770864
EMAIL: SoftwareBureau@trl.co.uk

Run with file:-
"o:\022961 Hayle Harbour - OPA\F08 - Civils (name)\Transportation\Assessments\PICADY\
20071106 rs Lethlean picady August AM 2011 without dev.vpi"
(drive-on-the-left) at 12:50:48 on Tuesday, 6 November 2007

RUN TITLE
****
Lothlean Lane

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA



I
MINOR ROAD (ARM B)

ARM A IS Beatrice Terrace west
ARM B IS Lethlean Lane
ARM C IS Beatrice Terrace 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)	7.80 M.
CENTRAL RESERVE WIDTH	(WCR)	0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B)	2.20 M.
- VISIBILITY	(VC-B)	200.0 M.
- BLOCKS TRAFFIC		NO
MINOR ROAD - VISIBILITY TO LEFT	(VB-C)	20.0 M.
- VISIBILITY TO RIGHT	(VB-A)	60.0 M.
- LANE 1 WIDTH	(WB-C)	-
- LANE 2 WIDTH	(WB-A)	-
- WIDTH AT 0 M FROM JUNC.		10.00 M.
- WIDTH AT 5 M FROM JUNC.		8.50 M.
- WIDTH AT 10 M FROM JUNC.		6.00 M.
- WIDTH AT 15 M FROM JUNC.		4.20 M.
- WIDTH AT 20 M FROM JUNC.		3.50 M.
- LENGTH OF FLARED SECTION		2 VEHS

TRAFFIC DEMAND DATA

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 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	9.35	14.03	9.35
ARM B	15.00	45.00	75.00	1.29	1.93	1.29
ARM C	15.00	45.00	75.00	9.05	13.58	9.05

TURNING PROPORTIONS
TURNING COUNTS (VEH/HR)
(PERCENTAGE OF H.V.S)

TIME	FROM/TO	ARM A	ARM B	ARM C
07.45 - 09.15	ARM A	0.000	0.122	0.878
		0.0	91.0	657.0
		(0.0)	(10.0)	(10.0)
	ARM B	0.786	0.000	0.214
		81.0	0.0	22.0
		(10.0)	(0.0)	(10.0)
	ARM C	0.913	0.087	0.000
		661.0	63.0	0.0
		(10.0)	(10.0)	(0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

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)
07.45-08.00								
B-C	0.28	7.78	0.035		0.0	0.0	0.5	
B-A	1.01	5.19	0.195		0.0	0.2	3.4	
C-A	8.26							
C-B	0.79	8.15	0.097		0.0	0.1	1.5	
A-B	1.14							
A-C	8.21							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.084	0.010			0.008
B-A	0.050	0.019	0.022	0.004	0.005
C-B	0.098	0.012		0.008	

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)
08.00-08.15								
B-C	0.33	7.21	0.046		0.0	0.0	0.7	
B-A	1.21	4.45	0.271		0.2	0.4	5.2	
C-A	9.87							
C-B	0.94	7.70	0.122		0.1	0.1	2.0	
A-B	1.36							
A-C	9.81							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.078	0.012			0.008
B-A	0.043	0.023	0.022	0.003	0.005
C-B	0.092	0.014		0.007	

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)
08.15-08.30								
B-C	0.40	6.23	0.065		0.0	0.1	1.0	
B-A	1.48	3.45	0.429		0.4	0.7	9.8	
C-A	12.08							
C-B	1.15	7.08	0.163		0.1	0.2	2.8	
A-B	1.66							
A-C	12.01							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.069	0.014			0.007
B-A	0.033	0.028	0.022	0.002	0.004
C-B	0.085	0.018		0.007	

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)
08.30-08.45								
B-C	0.40	6.20	0.065		0.1	0.1	1.0	
B-A	1.48	3.45	0.430		0.7	0.7	10.9	
C-A	12.08							
C-B	1.15	7.08	0.163		0.2	0.2	2.9	
A-B	1.66							
A-C	12.01							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.069	0.014			0.007
B-A	0.033	0.028	0.022	0.002	0.004
C-B	0.085	0.018		0.007	

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)
08.45-09.00								
B-C	0.33	7.19	0.046		0.1	0.0	0.7	
B-A	1.21	4.45	0.272		0.7	0.4	6.1	
C-A	9.87							
C-B	0.94	7.70	0.122		0.2	0.1	2.2	
A-B	1.36							
A-C	9.81							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.078	0.012			0.008
B-A	0.043	0.023	0.022	0.003	0.005
C-B	0.092	0.014		0.007	

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)
09.00-09.15								
B-C	0.28	7.77	0.035		0.0	0.0	0.6	
B-A	1.01	5.18	0.195		0.4	0.2	3.9	
C-A	8.26							
C-B	0.79	8.15	0.097		0.1	0.1	1.7	
A-B	1.14							
A-C	8.21							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.083	0.010			0.008
B-A	0.050	0.019	0.022	0.004	0.005
C-B	0.098	0.012		0.008	

QUEUE FOR STREAM B-C

TIME SEGMENT ENDING	NO. OF VEHICLES

	IN QUEUE	
08.00	0.0	
08.15	0.0	
08.30	0.1	
08.45	0.1	
09.00	0.0	
09.15	0.0	

QUEUE FOR STREAM B-A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.00	0.2	
08.15	0.4	
08.30	0.7	*
08.45	0.7	*
09.00	0.4	
09.15	0.2	

QUEUE FOR STREAM C-B

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.00	0.1
08.15	0.1
08.30	0.2
08.45	0.2
09.00	0.1
09.15	0.1

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-C	30.2	20.1	4.6	0.15	4.6	0.15
B-A	111.1	74.0	39.2	0.35	39.2	0.35
C-A	906.4	604.2				
C-B	86.4	57.6	13.1	0.15	13.1	0.15
A-B	124.8	83.2				
A-C	900.9	600.6				

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 I  ALL   I 2159.7 I 1439.8 I    56.8 I    0.03   I      56.8  I    0.03   I
 ------------------------------------------------------------------------


 * 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

 ****** PICADY 4 run completed.
============================================= end of file ==============================================
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TRL LIMITED

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

PICADY 4.1 ANALYSIS PROGRAM
RELEASE 3.0 (MAY 2001)

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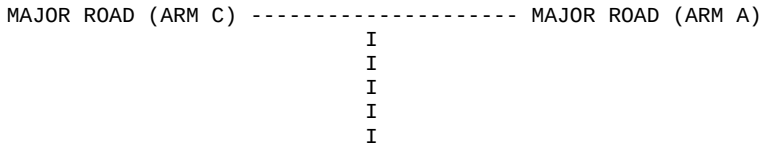
TEL: CROWTHORNE (01344) 770758, FAX: 770864
EMAIL: SoftwareBureau@trl.co.uk

Run with file:-
"o:\022961 Hayle Harbour - OPA\F08 - Civils (name)\Transportation\Assessments\PICADY\
20071106 rs Lethlean picady August AM 2011 with dev (ROBUST trips).vpi"
(drive-on-the-left) at 15:02:58 on Tuesday, 6 November 2007

RUN TITLE
****
Lothlean Lane

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA



I
MINOR ROAD (ARM B)

ARM A IS Beatrice Terrace west
ARM B IS Lethlean Lane
ARM C IS Beatrice Terrace 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)	7.80 M.
CENTRAL RESERVE WIDTH	(WCR)	0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B)	2.20 M.
- VISIBILITY	(VC-B)	200.0 M.
- BLOCKS TRAFFIC		NO
MINOR ROAD - VISIBILITY TO LEFT	(VB-C)	20.0 M.
- VISIBILITY TO RIGHT	(VB-A)	60.0 M.
- LANE 1 WIDTH	(WB-C)	-
- LANE 2 WIDTH	(WB-A)	-
- WIDTH AT 0 M FROM JUNC.		10.00 M.
- WIDTH AT 5 M FROM JUNC.		8.50 M.
- WIDTH AT 10 M FROM JUNC.		6.00 M.
- WIDTH AT 15 M FROM JUNC.		4.20 M.
- WIDTH AT 20 M FROM JUNC.		3.50 M.
- LENGTH OF FLARED SECTION		2 VEHS

TRAFFIC DEMAND DATA

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 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	10.52	15.79	10.52
ARM B	15.00	45.00	75.00	2.84	4.26	2.84
ARM C	15.00	45.00	75.00	11.68	17.51	11.68

TIME	TURNING PROPORTIONS / TURNING COUNTS (VEH/HR) (PERCENTAGE OF H.V.S) FROM/TO	ARM A	ARM B	ARM C
07.45 - 09.15	ARM A	0.000	0.114	0.886
		0.0	96.0	746.0
		(0.0)	(10.0)	(10.0)
	ARM B	0.630	0.000	0.370
		143.0	0.0	84.0
		(10.0)	(0.0)	(10.0)
	ARM C	0.882	0.118	0.000
		824.0	110.0	0.0
		(10.0)	(10.0)	(0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

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)
07.45-08.00								
B-C	1.05	7.18	0.146		0.0	0.2	2.4	
B-A	1.79	4.41	0.406		0.0	0.7	8.9	
C-A	10.30							
C-B	1.38	7.86	0.175		0.0	0.2	3.0	
A-B	1.20							
A-C	9.32							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.076	0.011			0.008
B-A	0.042	0.024	0.022	0.003	0.005
C-B	0.094	0.014		0.007	

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)
08.00-08.15								
B-C	1.25	5.77	0.217		0.2	0.3	3.9	
B-A	2.13	3.50	0.610		0.7	1.4	18.6	
C-A	12.30							
C-B	1.64	7.36	0.223		0.2	0.3	4.1	
A-B	1.43							
A-C	11.13							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.068	0.013			0.007
B-A	0.033	0.029	0.022	0.003	0.004
C-B	0.088	0.016		0.007	

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)
08.15-08.30								
B-C	1.54	1.29	1.191		0.3	6.4	56.6	
B-A	2.61	2.25	1.163		1.4	9.4	86.7	
C-A	15.06							
C-B	2.01	6.66	0.302		0.3	0.4	6.1	
A-B	1.75							
A-C	13.64							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.055	0.014			0.006
B-A	0.022	0.035	0.022	0.002	0.002
C-B	0.080	0.020		0.006	

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)
08.30-08.45								
B-C	1.54	1.36	1.132		6.4	9.9	122.8	
B-A	2.61	2.24	1.167		9.4	15.7	188.8	
C-A	15.06							
C-B	2.01	6.66	0.302		0.4	0.4	6.4	
A-B	1.75							
A-C	13.64							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.055	0.014			0.006
B-A	0.022	0.035	0.022	0.002	0.002
C-B	0.080	0.020		0.006	

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)
08.45-09.00								
B-C	1.25	2.98	0.421		9.9	0.8	41.2	
B-A	2.13	3.43	0.623		15.7	2.2	117.2	
C-A	12.30							
C-B	1.64	7.36	0.223		0.4	0.3	4.5	
A-B	1.43							
A-C	11.13							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.062	0.012			0.006
B-A	0.033	0.029	0.022	0.003	0.004
C-B	0.088	0.016		0.007	

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)
09.00-09.15								
B-C	1.05	7.06	0.149		0.8	0.2	2.9	
B-A	1.79	4.40	0.406		2.2	0.7	12.3	
C-A	10.30							
C-B	1.38	7.86	0.175		0.3	0.2	3.3	
A-B	1.20							
A-C	9.32							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.076	0.011			0.008
B-A	0.042	0.024	0.022	0.003	0.005
C-B	0.094	0.014		0.007	

QUEUE FOR STREAM B-C

TIME SEGMENT ENDING	NO. OF VEHICLES

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.00	0.2	
08.15	0.3	
08.30	6.4	******
08.45	9.9	**********
09.00	0.8	*
09.15	0.2	

QUEUE FOR STREAM B-A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.00	0.7	*
08.15	1.4	*
08.30	9.4	*********
08.45	15.7	****************
09.00	2.2	**
09.15	0.7	*

QUEUE FOR STREAM C-B

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

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-C	115.2	76.8	229.9	2.00	229.9	2.00
B-A	196.1	130.7	432.4	2.21	432.5	2.21
C-A	1129.9	753.3				
C-B	150.8	100.6	27.5	0.18	27.5	0.18
A-B	131.6	87.8				
A-C	1022.9	681.9				

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 I  ALL   I 2746.5 I 1831.0 I   689.8 I    0.25   I     689.9  I    0.25   I
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 * 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

 ****** PICADY 4 run completed.
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TRL LIMITED

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

PICADY 4.1 ANALYSIS PROGRAM
RELEASE 3.0 (MAY 2001)

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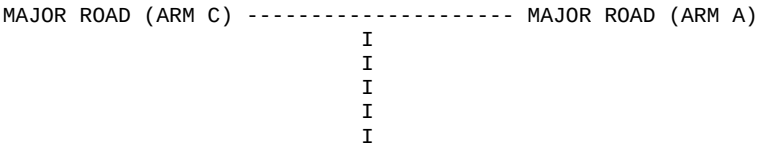
TEL: CROWTHORNE (01344) 770758, FAX: 770864
EMAIL: SoftwareBureau@trl.co.uk

Run with file:-
"o:\022961 Hayle Harbour - OPA\F08 - Civils (name)\Transportation\Assessments\PICADY\
20071106 rs Lethlean picady August AM 2011 with dev (lower trips).vpi"
(drive-on-the-left) at 15:31:24 on Tuesday, 6 November 2007

RUN TITLE
****
Lothlean Lane

.MAJOR/MINOR JUNCTION CAPACITY AND DELAY

INPUT DATA



I
MINOR ROAD (ARM B)

ARM A IS Beatrice Terrace west
ARM B IS Lethlean Lane
ARM C IS Beatrice Terrace 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)	7.80 M.
CENTRAL RESERVE WIDTH	(WCR)	0.00 M.
MAJOR ROAD RIGHT TURN - WIDTH	(WC-B)	2.20 M.
- VISIBILITY	(VC-B)	200.0 M.
- BLOCKS TRAFFIC		NO
MINOR ROAD - VISIBILITY TO LEFT	(VB-C)	20.0 M.
- VISIBILITY TO RIGHT	(VB-A)	60.0 M.
- LANE 1 WIDTH	(WB-C)	-
- LANE 2 WIDTH	(WB-A)	-
- WIDTH AT 0 M FROM JUNC.		10.00 M.
- WIDTH AT 5 M FROM JUNC.		8.50 M.
- WIDTH AT 10 M FROM JUNC.		6.00 M.
- WIDTH AT 15 M FROM JUNC.		4.20 M.
- WIDTH AT 20 M FROM JUNC.		3.50 M.
- LENGTH OF FLARED SECTION		2 VEHS

TRAFFIC DEMAND DATA

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 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	12.85	19.28	12.85
ARM B	15.00	45.00	75.00	2.67	4.01	2.67
ARM C	15.00	45.00	75.00	11.26	16.89	11.26

TURNING PROPORTIONS
TURNING COUNTS (VEH/HR)
(PERCENTAGE OF H.V.S)

TIME	FROM/TO	ARM A	ARM B	ARM C
07.45 - 09.15	ARM A	0.000	0.093	0.907
		0.0	96.0	932.0
		(0.0)	(10.0)	(10.0)
	ARM B	0.640	0.000	0.360
		137.0	0.0	77.0
		(10.0)	(0.0)	(10.0)
	ARM C	0.883	0.117	0.000
		796.0	105.0	0.0
		(10.0)	(10.0)	(0.0)

TURNING PROPORTIONS ARE CALCULATED FROM TURNING COUNT DATA

DEFAULT PROPORTIONS OF HEAVY VEHICLES ARE USED

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)
07.45-08.00								
B-C	0.96	6.55	0.147		0.0	0.2	2.4	
B-A	1.71	3.91	0.438		0.0	0.7	10.0	
C-A	9.95							
C-B	1.31	7.29	0.180		0.0	0.2	3.1	
A-B	1.20							
A-C	11.65							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.070	0.014			0.007
B-A	0.037	0.027	0.022	0.003	0.004
C-B	0.087	0.016		0.007	

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)
08.00-08.15								
B-C	1.15	4.54	0.253		0.2	0.3	4.7	
B-A	2.04	2.90	0.706		0.7	2.0	24.6	
C-A	11.88							
C-B	1.57	6.67	0.235		0.2	0.3	4.4	
A-B	1.43							
A-C	13.91							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.060	0.015			0.006
B-A	0.028	0.032	0.022	0.002	0.003
C-B	0.080	0.020		0.006	

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)
08.15-08.30								
B-C	1.41	0.83	1.703		0.3	10.0	81.4	
B-A	2.50	1.52	1.644		2.0	17.4	147.4	
C-A	14.55							
C-B	1.92	5.82	0.330		0.3	0.5	6.9	
A-B	1.75							
A-C	17.04							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.048	0.017			0.005
B-A	0.015	0.039	0.022	0.001	0.002
C-B	0.070	0.024		0.005	

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)
08.30-08.45								
B-C	1.41	0.86	1.635		10.0	18.4	213.0	
B-A	2.50	1.52	1.649		17.4	32.2	372.0	
C-A	14.55							
C-B	1.92	5.82	0.330		0.5	0.5	7.3	
A-B	1.75							
A-C	17.04							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.048	0.017			0.005
B-A	0.014	0.039	0.022	0.001	0.002
C-B	0.070	0.024		0.005	

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)
08.45-09.00								
B-C	1.15	1.61	0.715		18.4	12.7	233.1	
B-A	2.04	2.84	0.720		32.2	21.6	403.6	
C-A	11.88							
C-B	1.57	6.67	0.235		0.5	0.3	4.9	
A-B	1.43							
A-C	13.91							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.055	0.014			0.005
B-A	0.028	0.032	0.022	0.002	0.003
C-B	0.080	0.020		0.006	

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)
09.00-09.15								
B-C	0.96	4.17	0.231		12.7	0.3	31.5	
B-A	1.71	3.84	0.446		21.6	0.9	123.4	
C-A	9.95							
C-B	1.31	7.29	0.180		0.3	0.2	3.5	
A-B	1.20							
A-C	11.65							

EFFECT ON CAPACITY (PCU/MIN) OF MARGINAL CHANGES IN:

MARGINAL CHANGE:	LANE WIDTH (.1M)	MAJOR RD. WIDTH (.1M)	CENT RES WIDTH (.1M)	VIS TO LEFT (AHEAD FOR MAJOR) (M)	VISIBILITY TO RIGHT (M)
B-C	0.063	0.013			0.006
B-A	0.037	0.027	0.022	0.003	0.004
C-B	0.087	0.016		0.007	

QUEUE FOR STREAM B-C

TIME SEGMENT ENDING	NO. OF VEHICLES

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.00	0.2	
08.15	0.3	
08.30	10.0	**********
08.45	18.4	******************
09.00	12.7	************
09.15	0.3	

QUEUE FOR STREAM B-A

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE	
08.00	0.7	*
08.15	2.0	**
08.30	17.4	*****************
08.45	32.2	********************************
09.00	21.6	**********************
09.15	0.9	*

QUEUE FOR STREAM C-B

TIME SEGMENT ENDING	NO. OF VEHICLES IN QUEUE
08.00	0.2
08.15	0.3
08.30	0.5
08.45	0.5
09.00	0.3
09.15	0.2

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD

STREAM	TOTAL DEMAND		* QUEUEING * DELAY *		* INCLUSIVE QUEUEING * DELAY *	
	(VEH)	(VEH/H)	(MIN)	(MIN/VEH)	(MIN)	(MIN/VEH)
B-C	105.6	70.4	566.1	5.36	566.1	5.36
B-A	187.9	125.2	1080.9	5.75	1081.0	5.75
C-A	1091.5	727.7				
C-B	144.0	96.0	29.9	0.21	29.9	0.21
A-B	131.6	87.8				
A-C	1278.0	852.0				

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 I  ALL   I 2938.5 I 1959.0 I  1676.9 I    0.57   I    1677.1  I    0.57   I
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 * 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

 ****** PICADY 4 run completed.
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