_____ O S C A D Y 5 _____

Analysis Program: Release 2.0 (Oct 2003)



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Run with file:- "g:\2006\P062028\calcs\oscady\062028 Do Something AM 2008 Junction_1.voi" at 11:46:33 on Thursday, 29 M

FILE PROPERTIES
**********

RUN TITLE: 062028 2008 Do Something Junction_1 AM 240806 epf
LOCATION: Leixlip
DATE: 17 August 2006
CLIENT: South Dublin County Council
ENUMERATOR: epf
JOB NUMBER: p062028
STATUS: TIA
DESCRIPTION: Signals in place.

**** ERROR AND WARNING MESSAGES ****
==========

No errors or warnings in the data.

TRAFFIC SIGNAL JUNCTION ANALYSIS
**********

INPUT DATA
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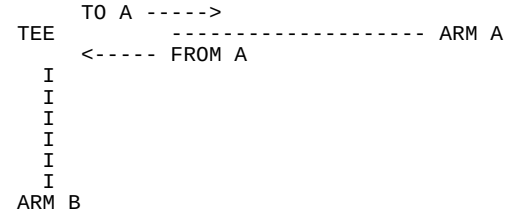


ARM A IS R403 (South)
ARM B IS M4 off-ramp
ARM C IS R403 (North)

GEOMETRIC DATA

| DATA ITEM | | ARM A | ARM B | ARM C |
|---|---|---|---|---|
| GRADIENT | | 0.0 % | 0.0 % | 0.0 % |
| NUMBER OF LANES | | 2 | 2 | 1 |
| PERMITTED MOVEMENTS | LANE 1 | S | L | S |
| | LANE 2 | S | R | |
| TOTAL EXIT WIDTH FOR STRAIGHT-AHEAD VEHICLES FROM THIS ARM | | N/A | N/A | N/A |
| LANE WIDTHS | LANE 1 | 4.00 M | 4.00 M | 5.00 M |
| | LANE 2 | 3.00 M | 4.00 M | 0.00 M |
| LEFT TURN RADII | LANE 1 | N/A | 10.0 M | N/A |
| RIGHT TURN RADII | LANE 2 | N/A | 12.0 M | N/A |

EXIT WIDTH FOR IMAGINARY ARM D = 50.10

TRAFFIC DEMAND DATA

DEMAND PROFILES ARE SYNTHESISED USING THE ** ODTAB ** OPTION

DEMAND DATA SUPPLIED BETWEEN TIMES - 07.45 TO 09.15
PERIOD OF INTEREST (FOR QUEUE AND DELAY CALCULATIONS) - 08.00 TO 09.00

THE FOLLOWING DATA HAS BEEN INPUT

TRAFFIC SCALING FACTOR HAS BEEN SET TO 100 %

062098 2007 Do Something Route 1 Junction_1 AM 240706 epf

TOTAL TRAFFIC DEMAND (VEHICLES / HOUR)

| FROM/TO | ARM A | ARM B | ARM C |
|---|---|---|---|
| ARM A | 0.0 | 0.0 | 666.0 |
| ARM B | 366.0 | 0.0 | 413.0 |
| ARM C | 295.0 | 0.0 | 0.0 |

| TIME PERIOD | ARM | VEHICLE TYPE PROPORTIONS | | | | | |
|---|---|---|---|---|---|---|---|
| | | CARS AND LIGHT GOODS | MEDIUM GOODS | HEAVY GOODS | BUSES AND COACHES | MOTOR CYCLES | PEDAL CYCLES |
| 08.00-09.00 | A | 1.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | B | 1.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | C | 1.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

DATA DETERMINED FOR USE IN SYNTHESIS OF DEMAND PROFILES ARE AS FOLLOWS-

| ENTRY/EXIT FLOWS | ARM | TIME WHEN FLOW STARTS TO RISE | TIME WHEN TOP OF PEAK IS REACHED | TIME WHEN FLOW STOPS FALLING | RATE OF FLOW (VEH/MIN) BEFORE PEAK | AT TOP OF PEAK | AFTER PEAK |
|---|---|---|---|---|---|---|---|
| ENTRY | A | 08.00 | 08.30 | 09.00 | 8.32 | 12.49 | 8.32 |
| | B | 08.00 | 08.30 | 09.00 | 9.74 | 14.61 | 9.74 |
| | C | 08.00 | 08.30 | 09.00 | 3.69 | 5.53 | 3.69 |

SIGNAL TIMING DETAILS FOR SIGNAL SET 1

TIMING OPTION- VEHICLE ACTUATED MODE

MAXIMUM CYCLE TIME- 60.0 SECONDS

GLOBAL EFFECTIVE GREEN DISPLACEMENTS - START = 1.4
END = 2.9

| DATA ITEM | STAGE 1 | STAGE 2 |
|---|---|---|
| LANES ON GREEN: ARM A | 1 2 | |
| B | | 1 2 |
| C | 1 | |
| MINIMUM GREEN TIME (SECS) | 5.0 | 5.0 |
| PRECEDING INTERSTAGE | 5.0 | 5.0 |

DEMAND AND CAPACITY INFORMATION FOR EACH 15 MINUTE TIME SEGMENT BETWEEN 08.00 AND 09.00

| TIME / ARM | LANES | MOVEMENT | DEMAND (VEHS/MIN) | SAT FLOW (PCU/HR) | SAT FLOW (VEHS/MIN) | EFFECTIVE GREEN-TIME TRUE (SECS) | EFFECTIVE GREEN-TIME FLARE+NOTIONL (SECS) | CAPACITY (VEHS /MIN) |
|---|---|---|---|---|---|---|---|---|
| 08.00-08.15 | | | | | | | | |
| A | 12 | S | 9.94 | 4070.0 | 67.83 | 7.0 | | 20.90 |
| B | 1 | L | 6.16 | 1752.2 | 29.20 | 8.8 | | 11.24 |
| | 2 | R | 5.46 | 1915.6 | 31.93 | 8.8 | | 12.29 |
| C | 1 | S | 4.40 | 2115.0 | 35.25 | 7.0 | | 10.86 |
| 08.15-08.30 | | | | | | | | |
| A | 12 | S | 12.18 | 4070.0 | 67.83 | 8.3 | | 21.76 |
| B | 1 | L | 7.55 | 1752.2 | 29.20 | 10.6 | | 11.96 |
| | 2 | R | 6.69 | 1915.6 | 31.93 | 10.6 | | 13.08 |
| C | 1 | S | 5.39 | 2115.0 | 35.25 | 8.3 | | 11.31 |
| 08.30-08.45 | | | | | | | | |
| A | 12 | S | 12.18 | 4070.0 | 67.83 | 8.3 | | 21.76 |
| B | 1 | L | 7.55 | 1752.2 | 29.20 | 10.6 | | 11.96 |
| | 2 | R | 6.69 | 1915.6 | 31.93 | 10.6 | | 13.08 |
| C | 1 | S | 5.39 | 2115.0 | 35.25 | 8.3 | | 11.31 |
| 08.45-09.00 | | | | | | | | |
| A | 12 | S | 9.94 | 4070.0 | 67.83 | 7.0 | | 20.90 |
| B | 1 | L | 6.16 | 1752.2 | 29.20 | 8.8 | | 11.24 |
| | 2 | R | 5.46 | 1915.6 | 31.93 | 8.8 | | 12.29 |
| C | 1 | S | 4.40 | 2115.0 | 35.25 | 7.0 | | 10.86 |

QUEUE AND DELAY INFORMATION FOR EACH 15 MINUTE TIME SEGMENT BETWEEN 08.00 AND 09.00

| TIME / ARM | LANES | MOVEMENT | DEMAND EXCL 2-WHEEL (VEHS/MIN) | CAPACITY (VEHS/MIN) | DEGREE OF SAT (RFC) | QUEUE AT END OF SEGMENT MEAN (PHASE AVERAGED) (VEHS/LANE) | QUEUE AT END OF SEGMENT MAXIMUM (END OF RED) (VEHS/LANE) | QUEUEING DELAY (VEH.MIN/ TIME SEGMENT) | GEOMETRIC DELAY (VEH.MIN/ TIME SEGMENT) |
|---|---|---|---|---|---|---|---|---|---|
| 08.00-08.15 | | | | | | | | | |
| A | 12 | S | 9.94 | 20.90 | 0.476 | 0.7 | 1.4 | 19.7 | |
| B | 1 | L | 6.16 | 11.24 | 0.548 | 1.0 | 1.8 | 14.3 | |
| | 2 | R | 5.46 | 12.29 | 0.444 | 0.7 | 1.5 | 10.3 | |
| C | 1 | S | 4.40 | 10.86 | 0.406 | 0.6 | 1.3 | 9.3 | |
| 08.15-08.30 | | | | | | | | | |
| A | 12 | S | 12.18 | 21.76 | 0.560 | 1.0 | 2.0 | 28.6 | |
| B | 1 | L | 7.55 | 11.96 | 0.631 | 1.4 | 2.6 | 21.1 | |
| | 2 | R | 6.69 | 13.08 | 0.512 | 1.0 | 2.0 | 14.4 | |
| C | 1 | S | 5.39 | 11.31 | 0.477 | 0.9 | 1.8 | 13.4 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| I 08.30-08.45 | | | | | | | | | I |
| I A | 12 | S | 12.18 | 21.76 | 0.560 | 1.0 | 2.0 | 28.6 | I |
| I B | 1 | L | 7.55 | 11.96 | 0.631 | 1.4 | 2.6 | 21.2 | I |
| I | 2 | R | 6.69 | 13.08 | 0.512 | 1.0 | 2.0 | 14.4 | I |
| I C | 1 | S | 5.39 | 11.31 | 0.477 | 0.9 | 1.8 | 13.4 | I |
| I 08.45-09.00 | | | | | | | | | I |
| I A | 12 | S | 9.94 | 20.90 | 0.476 | 0.7 | 1.4 | 19.8 | I |
| I B | 1 | L | 6.16 | 11.24 | 0.548 | 1.0 | 1.8 | 14.5 | I |
| I | 2 | R | 5.46 | 12.29 | 0.444 | 0.7 | 1.5 | 10.3 | I |
| I C | 1 | S | 4.40 | 10.86 | 0.406 | 0.6 | 1.3 | 9.4 | I |

QUEUES FOR ARM A

| TIME SEGMENT ENDING | LANE | NUMBER OF VEHICLES IN QUEUE MEAN (PHASE AVERAGED) * | MAXIMUM (AT END OF RED) + | |
|---|---|---|---|---|
| 08.15 | 2 | 0.7 | 1.4 | * |
| | 1 | 0.7 | 1.4 | * |
| 08.30 | 2 | 1.0 | 2.0 | *+ |
| | 1 | 1.0 | 2.0 | *+ |
| 08.45 | 2 | 1.0 | 2.0 | *+ |
| | 1 | 1.0 | 2.0 | *+ |
| 09.00 | 2 | 0.7 | 1.4 | * |
| | 1 | 0.7 | 1.4 | * |

QUEUES FOR ARM B

| TIME SEGMENT ENDING | LANE | NUMBER OF VEHICLES IN QUEUE MEAN (PHASE AVERAGED) * | MAXIMUM (AT END OF RED) + | |
|---|---|---|---|---|
| 08.15 | 2 | 0.7 | 1.5 | * |
| | 1 | 1.0 | 1.8 | *+ |
| 08.30 | 2 | 1.0 | 2.0 | *+ |
| | 1 | 1.4 | 2.6 | *++ |
| 08.45 | 2 | 1.0 | 2.0 | *+ |
| | 1 | 1.4 | 2.6 | *++ |
| 09.00 | 2 | 0.7 | 1.5 | * |
| | 1 | 1.0 | 1.8 | *+ |

QUEUES FOR ARM C

| TIME SEGMENT ENDING | LANE | NUMBER OF VEHICLES IN QUEUE MEAN (PHASE AVERAGED) * | MAXIMUM (AT END OF RED) + | |
|---|---|---|---|---|
| 08.15 | 1 | 0.6 | 1.3 | * |
| 08.30 | 1 | 0.9 | 1.8 | *+ |
| 08.45 | 1 | 0.9 | 1.8 | *+ |
| 09.00 | 1 | 0.6 | 1.3 | * |

QUEUEING DELAY INFORMATION OVER WHOLE PERIOD (08.00-09.00)

| STREAM | TOTAL DEMAND (EXCL 2-WHEEL) (VEH) | TOTAL DEMAND (EXCL 2-WHEEL) (VEH/H) | * QUEUEING * DELAY * (MIN) | * QUEUEING * DELAY * (MIN/VEH) | * INCLUSIVE QUEUEING * DELAY * (MIN) | * INCLUSIVE QUEUEING * DELAY * (MIN/VEH) |
|---|---|---|---|---|---|---|
| A-B | 0.0 | 0.0 | 0.0 | 0.00 | 0.0 | 0.00 |
| A-C | 663.5 | 663.5 | 96.7 | 0.15 | 96.8 | 0.15 |
| B-C | 411.4 | 411.4 | 71.1 | 0.17 | 71.1 | 0.17 |
| B-A | 364.6 | 364.6 | 49.4 | 0.14 | 49.4 | 0.14 |
| C-A | 293.9 | 293.9 | 45.6 | 0.16 | 45.6 | 0.16 |
| C-B | 0.0 | 0.0 | 0.0 | 0.00 | 0.0 | 0.00 |
| ALL | 1733.4 | 1733.4 | 262.7 | 0.15 | 262.9 | 0.15 |

* 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 BE SIGNIFICANTLY DIFFERENT ONLY IF THERE IS A LARGE QUEUE REMAINING AT THE END OF THE TIME PERIOD.

* TOTAL GEOMETRIC DELAY INCLUDES DELAY SUFFERED BY VEHICLES STILL QUEUEING AT THE END OF THE WHOLE TIME PERIOD.
* THE SUM OF DELAYS FOR EACH SEGMENT AND THE TOTAL GEOMETRIC DELAY WILL BE SIGNIFICANTLY DIFFERENT ONLY IF THERE IS
* A LARGE QUEUE AT THE END OF THE TIME PERIOD.

****** OSCADY 5 run completed
========== end of file ==========

[Printed at 10:09:32 on 16/05/2007]