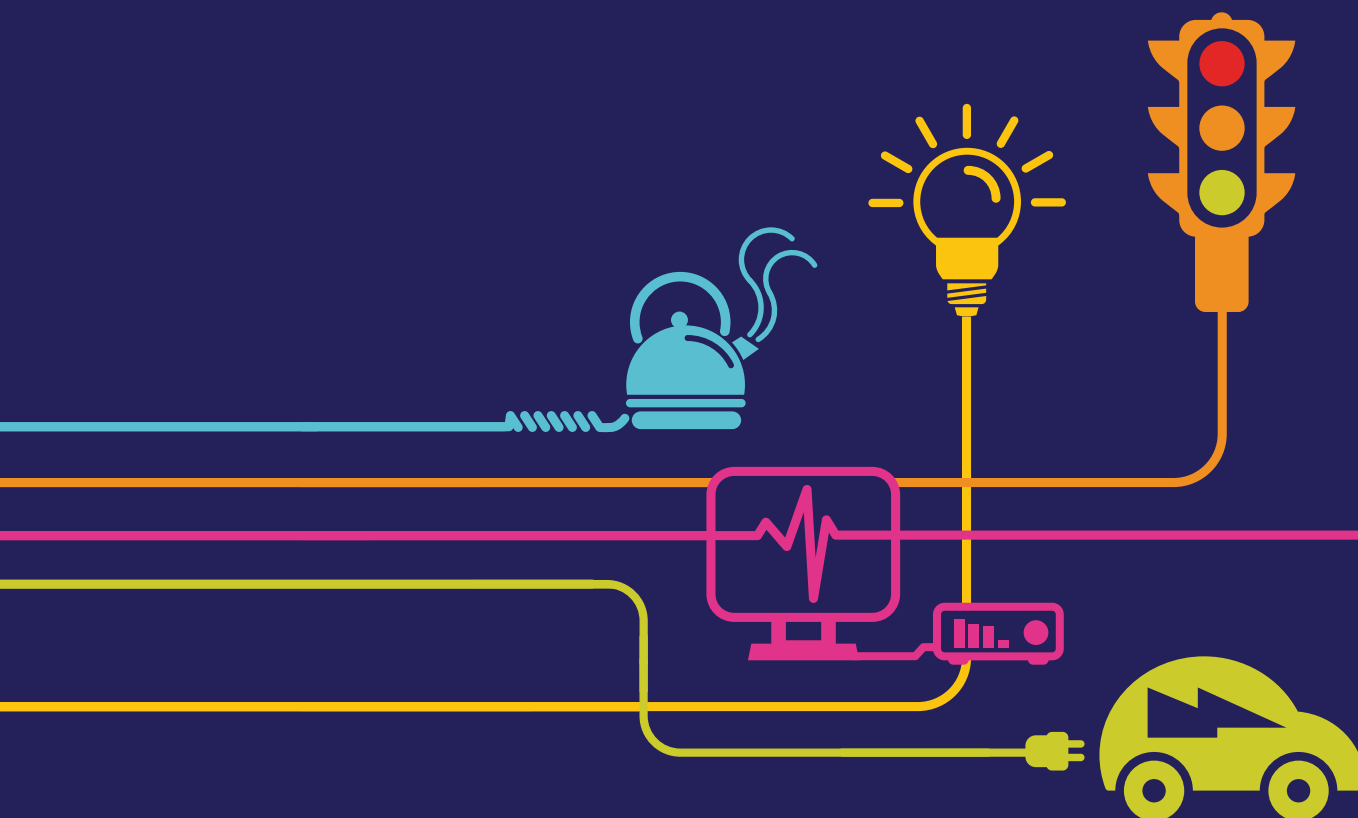


# Environmental Statement Transport Assessment Appendices 22H Part 3

Hinkley Point C Connection Project

*Regulation 5(2)(q) of the Infrastructure Planning  
(Applications: Prescribed Forms and Procedure)  
Regulations 2009*



# Environmental Statement

## Hinkley Point C Connection Project

### 5.22.2 – Transport Assessment – Appendices (orange highlight indicates the contents of this Volume)

| Appendix                | Title                                                 |
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| <b>Volume 5.22.2.1</b>  |                                                       |
| 22A                     | Raw Automatic Traffic Counters Data                   |
| 22B                     | Raw TRADs Data                                        |
| <b>Volume 5.22.2.2</b>  |                                                       |
| 22C                     | Accident Data                                         |
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| <b>Volume 5.22.2.3</b>  |                                                       |
| 22E                     | Network Traffic Flow Diagrams                         |
| 22F                     | Proposed Development Traffic Generation Data          |
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| <b>Volume 5.22.2.5</b>  |                                                       |
| 22H                     | Capacity Model Outputs and Queue Length Data (Part 1) |
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| <b>Volume 5.22.2.11</b> |                                                       |
| 22I                     | Sensitivity Modelling Results (Part 1)                |
| <b>Volume 5.22.2.12</b> |                                                       |
| 22I                     | Sensitivity Modelling Results (Part 2)                |
| <b>Volume 5.22.2.13</b> |                                                       |
| 22I                     | Sensitivity Modelling Results (Part 3)                |

| Document Control    |         |                                                             |                                  |
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|                     |         |                                                             |                                  |
| Date                | Version | Status                                                      | Description/Changes              |
| 09/05/14            | A       | Live                                                        | Final version for DCO submission |

## Appendix 22H – Capacity Model Outputs and Queue Length Data



|                        |       |      |       |   |   |
|------------------------|-------|------|-------|---|---|
| A39 Bristol Road north | 17.31 | 1.15 | 4.647 | A | A |
|------------------------|-------|------|-------|---|---|

### Queueing Delay results: (18:00-18:15)

| Name                   | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|------------------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| A39                    | 3.35                           | 0.22                                 | 2.115                                  | A                             | A                           |
| A39 Bristol Road south | 15.01                          | 1.00                                 | 2.871                                  | A                             | A                           |
| Industrial Estate      | 0.00                           | 0.00                                 | 0.000                                  | A                             | A                           |
| A39 Bristol Road north | 11.86                          | 0.79                                 | 3.834                                  | A                             | A                           |

## (Default Analysis Set) - 2016 Dev, AM

### Data Errors and Warnings

*No errors or warnings*

### Analysis Set Details

| Name                   | Roundabout Capacity Model | Description | Include In Report | Use Specific Demand Set(s) | Specific Demand Set(s) | Locked | Network Flow Scaling Factor (%) | Network Capacity Scaling Factor (%) | Reason For Scaling Factors |
|------------------------|---------------------------|-------------|-------------------|----------------------------|------------------------|--------|---------------------------------|-------------------------------------|----------------------------|
| (Default Analysis Set) | ARCADY                    |             | ✓                 |                            |                        |        | 100.000                         | 100.000                             |                            |

### Demand Set Details

| Name         | Scenario Name | Time Period Name | Description | Traffic Profile Type | Model Start Time (HH:mm) | Model Finish Time (HH:mm) | Model Time Period Length (min) | Time Segment Length (min) | Results For Central Hour Only | Single Time Segment Only | Locked | Run Automatically | Use Relationship | Relationship |
|--------------|---------------|------------------|-------------|----------------------|--------------------------|---------------------------|--------------------------------|---------------------------|-------------------------------|--------------------------|--------|-------------------|------------------|--------------|
| 2016 Dev, AM | 2016 Dev      | AM               |             | ONE HOUR             | 07:45                    | 09:15                     | 90                             | 15                        |                               |                          |        | ✓                 |                  |              |

## Junction Network

### Junctions

| Name       | Junction Type | Arm Order | Grade Separated | Large Roundabout | Do Geometric Delay | Junction Delay (s) | Junction LOS |
|------------|---------------|-----------|-----------------|------------------|--------------------|--------------------|--------------|
| (untitled) | Roundabout    | 1,2,3,4   |                 |                  |                    | 20.81              | C            |

### Junction Network Options

| Driving Side | Lighting       |
|--------------|----------------|
| Left         | Normal/unknown |

## Arms

### Arms

| Name | Name | Description |
|------|------|-------------|
| A39  | A39  |             |

|                               |                        |  |
|-------------------------------|------------------------|--|
| <b>A39 Bristol Road south</b> | A39 Bristol Road south |  |
| <b>Industrial Estate</b>      | Industrial Estate      |  |
| <b>A39 Bristol Road north</b> | A39 Bristol Road north |  |

## Capacity Options

| Name                          | Minimum Capacity (PCU/hr) | Maximum Capacity (PCU/hr) | Assume Flat Start Profile | Initial Queue (PCU) |
|-------------------------------|---------------------------|---------------------------|---------------------------|---------------------|
| <b>A39</b>                    | 0.00                      | 99999.00                  |                           | 0.00                |
| <b>A39 Bristol Road south</b> | 0.00                      | 99999.00                  |                           | 0.00                |
| <b>Industrial Estate</b>      | 0.00                      | 99999.00                  |                           | 0.00                |
| <b>A39 Bristol Road north</b> | 0.00                      | 99999.00                  |                           | 0.00                |

## Roundabout Geometry

| Name                          | V - Approach road half-width (m) | E - Entry width (m) | I' - Effective flare length (m) | R - Entry radius (m) | D - Inscribed circle diameter (m) | PHI - Conflict (entry) angle (deg) | Exit Only |
|-------------------------------|----------------------------------|---------------------|---------------------------------|----------------------|-----------------------------------|------------------------------------|-----------|
| <b>A39</b>                    | 8.15                             | 8.15                | 0.00                            | 24.00                | 79.00                             | 16.00                              |           |
| <b>A39 Bristol Road south</b> | 8.00                             | 8.00                | 0.00                            | 45.00                | 79.00                             | 14.00                              |           |
| <b>Industrial Estate</b>      | 3.70                             | 6.05                | 7.88                            | 14.36                | 79.00                             | 10.00                              |           |
| <b>A39 Bristol Road north</b> | 3.50                             | 7.70                | 17.00                           | 19.00                | 79.00                             | 17.00                              |           |

## Pedestrian Crossings



| Name                   | Crossing Type |
|------------------------|---------------|
| A39                    | None          |
| A39 Bristol Road south | None          |
| Industrial Estate      | None          |
| A39 Bristol Road north | None          |

## Slope / Intercept / Capacity

### Roundabout Slope and Intercept used in model

| Name                   | Enter slope and intercept directly | Entered slope | Entered intercept (PCU/hr) | Final Slope | Final Intercept (PCU/hr) |
|------------------------|------------------------------------|---------------|----------------------------|-------------|--------------------------|
| A39                    |                                    | (calculated)  | (calculated)               | 0.622       | 2609.542                 |
| A39 Bristol Road south |                                    | (calculated)  | (calculated)               | 0.630       | 2624.432                 |
| Industrial Estate      |                                    | (calculated)  | (calculated)               | 0.465       | 1560.008                 |
| A39 Bristol Road north |                                    | (calculated)  | (calculated)               | 0.506       | 1846.557                 |

*The slope and intercept shown above include any corrections and adjustments.*

## Traffic Flows

### Demand Set Data Options

| Default Vehicle Mix | Vehicle Mix Varies Over Time | Vehicle Mix Varies Over Turn | Vehicle Mix Varies Over Entry | Vehicle Mix Source | PCU Factor for a HV (PCU) | Default Turning Proportions | Estimate from entry/exit counts | Turning Proportions Vary Over Time | Turning Proportions Vary Over Turn | Turning Proportions Vary Over Entry |
|---------------------|------------------------------|------------------------------|-------------------------------|--------------------|---------------------------|-----------------------------|---------------------------------|------------------------------------|------------------------------------|-------------------------------------|
|---------------------|------------------------------|------------------------------|-------------------------------|--------------------|---------------------------|-----------------------------|---------------------------------|------------------------------------|------------------------------------|-------------------------------------|

|  |  |   |   |                |      |  |  |  |   |   |
|--|--|---|---|----------------|------|--|--|--|---|---|
|  |  | ✓ | ✓ | HV Percentages | 2.00 |  |  |  | ✓ | ✓ |
|--|--|---|---|----------------|------|--|--|--|---|---|

# Entry Flows

## General Flows Data

| Name                   | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (%) |
|------------------------|--------------|--------------------|------------------------------|-------------------------|
| A39                    | ONE HOUR     | ✓                  | 423.00                       | 100.000                 |
| A39 Bristol Road south | ONE HOUR     | ✓                  | 1092.00                      | 100.000                 |
| Industrial Estate      | ONE HOUR     | ✓                  | 0.00                         | 100.000                 |
| A39 Bristol Road north | ONE HOUR     | ✓                  | 1311.00                      | 100.000                 |

# Turning Proportions

## Turning Counts or Proportions (Veh/hr) - (untitled) (for whole period)

|      | To |         |         |       |         |
|------|----|---------|---------|-------|---------|
| From |    | 1       | 2       | 3     | 4       |
|      | 1  | 1.000   | 308.000 | 0.000 | 114.000 |
|      | 2  | 300.000 | 39.000  | 0.000 | 753.000 |
|      | 3  | 0.000   | 0.000   | 0.000 | 0.000   |

|  |   |         |          |       |        |
|--|---|---------|----------|-------|--------|
|  | 4 | 180.000 | 1118.000 | 0.000 | 13.000 |
|--|---|---------|----------|-------|--------|

### Turning Proportions (Veh) - (untitled) (for whole period)

|      | To |      |      |      |      |
|------|----|------|------|------|------|
|      |    | 1    | 2    | 3    | 4    |
| From | 1  | 0.00 | 0.73 | 0.00 | 0.27 |
|      | 2  | 0.27 | 0.04 | 0.00 | 0.69 |
|      | 3  | 0.25 | 0.25 | 0.25 | 0.25 |
|      | 4  | 0.14 | 0.85 | 0.00 | 0.01 |

## Vehicle Mix

### Average PCU Per Vehicle - (untitled) (for whole period)

|      | To |       |       |       |       |
|------|----|-------|-------|-------|-------|
|      |    | 1     | 2     | 3     | 4     |
| From | 1  | 1.000 | 1.100 | 1.000 | 1.130 |
|      | 2  | 1.070 | 1.030 | 1.000 | 1.100 |
|      | 3  | 1.000 | 1.000 | 1.000 | 1.000 |
|      | 4  | 1.200 | 1.070 | 1.000 | 1.690 |

### Heavy Vehicle Percentages - (untitled) (for whole period)

|      | To |        |        |       |        |
|------|----|--------|--------|-------|--------|
| From |    | 1      | 2      | 3     | 4      |
|      | 1  | 0.000  | 10.000 | 0.000 | 13.000 |
|      | 2  | 7.000  | 3.000  | 0.000 | 10.000 |
|      | 3  | 0.000  | 0.000  | 0.000 | 0.000  |
|      | 4  | 20.000 | 7.000  | 0.000 | 69.000 |

## Results

### Results Summary for whole modelled period

| Name                   | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) | Total Queueing Delay (PCU-min) | Average Queueing Delay (s) | Rate Of Queueing Delay (PCU-min/min) | Inclusive Total Queueing Delay (PCU-min) | Inclusive Average Queueing Delay (s) |
|------------------------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|--------------------------------|----------------------------|--------------------------------------|------------------------------------------|--------------------------------------|
| A39                    | 0.29    | 3.22          | 0.46            | A       | 430.01                  | 645.02                        | 30.10                          | 2.80                       | 0.33                                 | 30.10                                    | 2.80                                 |
| A39 Bristol Road south | 0.52    | 3.24          | 1.17            | A       | 1091.48                 | 1637.22                       | 76.23                          | 2.79                       | 0.85                                 | 76.23                                    | 2.79                                 |
| Industrial Estate      | 0.00    | 0.00          | 0.00            | A       | 0.00                    | 0.00                          | 0.00                           | 0.00                       | 0.00                                 | 0.00                                     | 0.00                                 |
| A39 Bristol Road north | 0.96    | 41.14         | 17.04           | E       | 1316.07                 | 1974.11                       | 574.14                         | 17.45                      | 6.38                                 | 574.21                                   | 17.45                                |

## Main Results for each time segment

### Main results: (07:45-08:00)

| Name                   | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|------------------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| A39                    | 352.80                | 88.20                   | 351.87              | 403.29             | 941.05                    | 0.00                       | 2024.59           | 1741.56                      | 0.174 | 0.00              | 0.23            | 2.383     | A   |
| A39 Bristol Road south | 895.50                | 223.87                  | 893.15              | 1179.01            | 113.90                    | 0.00                       | 2552.72           | 2264.38                      | 0.351 | 0.00              | 0.59            | 2.360     | A   |
| Industrial Estate      | 0.00                  | 0.00                    | 0.00                | 0.00               | 1007.05                   | 0.00                       | 1091.54           | 272.28                       | 0.000 | 0.00              | 0.00            | 0.000     | A   |
| A39 Bristol Road north | 1079.76               | 269.94                  | 1072.39             | 735.11             | 271.95                    | 0.00                       | 1709.01           | 1393.64                      | 0.632 | 0.00              | 1.84            | 6.118     | A   |

### Main results: (08:00-08:15)

| Name                   | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|------------------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| A39                    | 421.28                | 105.32                  | 420.96              | 482.47             | 1125.83                   | 0.00                       | 1909.73           | 1741.56                      | 0.221 | 0.23              | 0.31            | 2.678     | A   |
| A39 Bristol Road south | 1069.31               | 267.33                  | 1068.50             | 1410.52            | 136.27                    | 0.00                       | 2538.64           | 2264.38                      | 0.421 | 0.59              | 0.79            | 2.666     | A   |
| Industrial Estate      | 0.00                  | 0.00                    | 0.00                | 0.00               | 1204.77                   | 0.00                       | 999.56            | 272.28                       | 0.000 | 0.00              | 0.00            | 0.000     | A   |

|                        |         |        |         |        |        |      |         |         |       |      |      |       |   |
|------------------------|---------|--------|---------|--------|--------|------|---------|---------|-------|------|------|-------|---|
| A39 Bristol Road north | 1289.34 | 322.34 | 1282.96 | 879.43 | 325.34 | 0.00 | 1682.01 | 1393.64 | 0.767 | 1.84 | 3.44 | 9.714 | A |
|------------------------|---------|--------|---------|--------|--------|------|---------|---------|-------|------|------|-------|---|

#### Main results: (08:15-08:30)

| Name                   | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|------------------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| A39                    | 515.96                | 128.99                  | 515.40              | 585.60             | 1349.74                   | 0.00                       | 1770.54           | 1741.56                      | 0.291 | 0.31              | 0.45            | 3.175     | A   |
| A39 Bristol Road south | 1309.63               | 327.41                  | 1308.10             | 1698.81            | 166.32                    | 0.00                       | 2519.72           | 2264.38                      | 0.520 | 0.79              | 1.17            | 3.232     | A   |
| Industrial Estate      | 0.00                  | 0.00                    | 0.00                | 0.00               | 1474.43                   | 0.00                       | 874.12            | 272.28                       | 0.000 | 0.00              | 0.00            | 0.000     | A   |
| A39 Bristol Road north | 1579.12               | 394.78                  | 1537.05             | 1076.14            | 398.29                    | 0.00                       | 1645.11           | 1393.64                      | 0.960 | 3.44              | 13.96           | 29.008    | D   |

#### Main results: (08:30-08:45)

| Name                   | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|------------------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| A39                    | 515.96                | 128.99                  | 515.94              | 590.48             | 1375.04                   | 0.00                       | 1754.82           | 1741.56                      | 0.294 | 0.45              | 0.46            | 3.218     | A   |
| A39 Bristol Road south | 1309.63               | 327.41                  | 1309.61             | 1724.04            | 166.93                    | 0.00                       | 2519.33           | 2264.38                      | 0.520 | 1.17              | 1.17            | 3.240     | A   |
| Industrial Estate      | 0.00                  | 0.00                    | 0.00                | 0.00               | 1476.54                   | 0.00                       | 873.14            | 272.28                       | 0.000 | 0.00              | 0.00            | 0.000     | A   |
| A39 Bristol Road north | 1579.12               | 394.78                  | 1566.77             | 1077.79            | 398.75                    | 0.00                       | 1644.88           | 1393.64                      | 0.960 | 13.96             | 17.04           | 41.137    | E   |

### Main results: (08:45-09:00)

| Name                   | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|------------------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| A39                    | 421.28                | 105.32                  | 421.83              | 492.05             | 1176.40                   | 0.00                       | 1878.29           | 1741.56                      | 0.224 | 0.46              | 0.32            | 2.738     | A   |
| A39 Bristol Road south | 1069.31               | 267.33                  | 1070.82             | 1460.81            | 137.42                    | 0.00                       | 2537.91           | 2264.38                      | 0.421 | 1.17              | 0.80            | 2.677     | A   |
| Industrial Estate      | 0.00                  | 0.00                    | 0.00                | 0.00               | 1208.24                   | 0.00                       | 997.95            | 272.28                       | 0.000 | 0.00              | 0.00            | 0.000     | A   |
| A39 Bristol Road north | 1289.34               | 322.34                  | 1342.40             | 882.20             | 326.04                    | 0.00                       | 1681.65           | 1393.64                      | 0.767 | 17.04             | 3.78            | 13.271    | B   |

### Main results: (09:00-09:15)

| Name                   | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|------------------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| A39                    | 352.80                | 88.20                   | 353.15              | 406.38             | 953.75                    | 0.00                       | 2016.69           | 1741.56                      | 0.175 | 0.32              | 0.24            | 2.397     | A   |
| A39 Bristol Road south | 895.50                | 223.87                  | 896.32              | 1192.41            | 114.48                    | 0.00                       | 2552.35           | 2264.38                      | 0.351 | 0.80              | 0.59            | 2.370     | A   |
| Industrial Estate      | 0.00                  | 0.00                    | 0.00                | 0.00               | 1010.80                   | 0.00                       | 1089.79           | 272.28                       | 0.000 | 0.00              | 0.00            | 0.000     | A   |
| A39 Bristol Road north | 1079.76               | 269.94                  | 1087.22             | 737.89             | 272.91                    | 0.00                       | 1708.52           | 1393.64                      | 0.632 | 3.78              | 1.91            | 6.412     | A   |

### Queueing Delay Results for each time segment

#### Queueing Delay results: (07:45-08:00)

| Name                   | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|------------------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| A39                    | 3.44                           | 0.23                                 | 2.383                                  | A                             | A                           |
| A39 Bristol Road south | 8.64                           | 0.58                                 | 2.360                                  | A                             | A                           |
| Industrial Estate      | 0.00                           | 0.00                                 | 0.000                                  | A                             | A                           |
| A39 Bristol Road north | 26.20                          | 1.75                                 | 6.118                                  | A                             | A                           |

#### Queueing Delay results: (08:00-08:15)

| Name                   | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|------------------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| A39                    | 4.63                           | 0.31                                 | 2.678                                  | A                             | A                           |
| A39 Bristol Road south | 11.65                          | 0.78                                 | 2.666                                  | A                             | A                           |
| Industrial Estate      | 0.00                           | 0.00                                 | 0.000                                  | A                             | A                           |
| A39 Bristol Road north | 47.86                          | 3.19                                 | 9.714                                  | A                             | A                           |

#### Queueing Delay results: (08:15-08:30)

| Name | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| A39  | 6.69                           | 0.45                                 | 3.175                                  | A                             | A                           |



|                        |        |       |        |   |   |
|------------------------|--------|-------|--------|---|---|
| A39 Bristol Road south | 17.18  | 1.15  | 3.232  | A | A |
| Industrial Estate      | 0.00   | 0.00  | 0.000  | A | A |
| A39 Bristol Road north | 156.84 | 10.46 | 29.008 | D | C |

#### Queueing Delay results: (08:30-08:45)

| Name                   | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|------------------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| A39                    | 6.87                           | 0.46                                 | 3.218                                  | A                             | A                           |
| A39 Bristol Road south | 17.60                          | 1.17                                 | 3.240                                  | A                             | A                           |
| Industrial Estate      | 0.00                           | 0.00                                 | 0.000                                  | A                             | A                           |
| A39 Bristol Road north | 235.12                         | 15.67                                | 41.137                                 | E                             | D                           |

#### Queueing Delay results: (08:45-09:00)

| Name                   | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|------------------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| A39                    | 4.89                           | 0.33                                 | 2.738                                  | A                             | A                           |
| A39 Bristol Road south | 12.17                          | 0.81                                 | 2.677                                  | A                             | A                           |
| Industrial Estate      | 0.00                           | 0.00                                 | 0.000                                  | A                             | A                           |

|                        |       |      |        |   |   |
|------------------------|-------|------|--------|---|---|
| A39 Bristol Road north | 77.96 | 5.20 | 13.271 | B | B |
|------------------------|-------|------|--------|---|---|

#### Queueing Delay results: (09:00-09:15)

| Name                   | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|------------------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| A39                    | 3.58                           | 0.24                                 | 2.397                                  | A                             | A                           |
| A39 Bristol Road south | 8.99                           | 0.60                                 | 2.370                                  | A                             | A                           |
| Industrial Estate      | 0.00                           | 0.00                                 | 0.000                                  | A                             | A                           |
| A39 Bristol Road north | 30.15                          | 2.01                                 | 6.412                                  | A                             | A                           |

## (Default Analysis Set) - 2016 Dev, PM

### Data Errors and Warnings

*No errors or warnings*

### Analysis Set Details

| Name                   | Roundabout Capacity Model | Description | Include In Report | Use Specific Demand Set(s) | Specific Demand Set(s) | Locked | Network Flow Scaling Factor (%) | Network Capacity Scaling Factor (%) | Reason For Scaling Factors |
|------------------------|---------------------------|-------------|-------------------|----------------------------|------------------------|--------|---------------------------------|-------------------------------------|----------------------------|
| (Default Analysis Set) | ARCADY                    |             | ✓                 |                            |                        |        | 100.000                         | 100.000                             |                            |

### Demand Set Details

| Name         | Scenario Name | Time Period Name | Description | Traffic Profile Type | Model Start Time (HH:mm) | Model Finish Time (HH:mm) | Model Time Period Length (min) | Time Segment Length (min) | Results For Central Hour Only | Single Time Segment Only | Locked | Run Automatically | Use Relationship | Relationship |
|--------------|---------------|------------------|-------------|----------------------|--------------------------|---------------------------|--------------------------------|---------------------------|-------------------------------|--------------------------|--------|-------------------|------------------|--------------|
| 2016 Dev, PM | 2016 Dev      | PM               |             | ONE HOUR             | 16:45                    | 18:15                     | 90                             | 15                        |                               |                          |        | ✓                 |                  |              |

## Junction Network

### Junctions

| Name       | Junction Type | Arm Order | Grade Separated | Large Roundabout | Do Geometric Delay | Junction Delay (s) | Junction LOS |
|------------|---------------|-----------|-----------------|------------------|--------------------|--------------------|--------------|
| (untitled) | Roundabout    | 1,2,3,4   |                 |                  |                    | 5.85               | A            |

### Junction Network Options

| Driving Side | Lighting       |
|--------------|----------------|
| Left         | Normal/unknown |

## Arms

### Arms

| Name | Name | Description |
|------|------|-------------|
| A39  | A39  |             |

|                               |                        |  |
|-------------------------------|------------------------|--|
| <b>A39 Bristol Road south</b> | A39 Bristol Road south |  |
| <b>Industrial Estate</b>      | Industrial Estate      |  |
| <b>A39 Bristol Road north</b> | A39 Bristol Road north |  |

## Capacity Options

| Name                          | Minimum Capacity (PCU/hr) | Maximum Capacity (PCU/hr) | Assume Flat Start Profile | Initial Queue (PCU) |
|-------------------------------|---------------------------|---------------------------|---------------------------|---------------------|
| <b>A39</b>                    | 0.00                      | 99999.00                  |                           | 0.00                |
| <b>A39 Bristol Road south</b> | 0.00                      | 99999.00                  |                           | 0.00                |
| <b>Industrial Estate</b>      | 0.00                      | 99999.00                  |                           | 0.00                |
| <b>A39 Bristol Road north</b> | 0.00                      | 99999.00                  |                           | 0.00                |

## Roundabout Geometry

| Name                          | V - Approach road half-width (m) | E - Entry width (m) | I' - Effective flare length (m) | R - Entry radius (m) | D - Inscribed circle diameter (m) | PHI - Conflict (entry) angle (deg) | Exit Only |
|-------------------------------|----------------------------------|---------------------|---------------------------------|----------------------|-----------------------------------|------------------------------------|-----------|
| <b>A39</b>                    | 8.15                             | 8.15                | 0.00                            | 24.00                | 79.00                             | 16.00                              |           |
| <b>A39 Bristol Road south</b> | 8.00                             | 8.00                | 0.00                            | 45.00                | 79.00                             | 14.00                              |           |
| <b>Industrial Estate</b>      | 3.70                             | 6.05                | 7.88                            | 14.36                | 79.00                             | 10.00                              |           |
| <b>A39 Bristol Road north</b> | 3.50                             | 7.70                | 17.00                           | 19.00                | 79.00                             | 17.00                              |           |

## Pedestrian Crossings

| Name                   | Crossing Type |
|------------------------|---------------|
| A39                    | None          |
| A39 Bristol Road south | None          |
| Industrial Estate      | None          |
| A39 Bristol Road north | None          |

## Slope / Intercept / Capacity

### Roundabout Slope and Intercept used in model

| Name                   | Enter slope and intercept directly | Entered slope | Entered intercept (PCU/hr) | Final Slope | Final Intercept (PCU/hr) |
|------------------------|------------------------------------|---------------|----------------------------|-------------|--------------------------|
| A39                    |                                    | (calculated)  | (calculated)               | 0.622       | 2609.542                 |
| A39 Bristol Road south |                                    | (calculated)  | (calculated)               | 0.630       | 2624.432                 |
| Industrial Estate      |                                    | (calculated)  | (calculated)               | 0.465       | 1560.008                 |
| A39 Bristol Road north |                                    | (calculated)  | (calculated)               | 0.506       | 1846.557                 |

*The slope and intercept shown above include any corrections and adjustments.*

## Traffic Flows

### Demand Set Data Options

| Default Vehicle Mix | Vehicle Mix Varies Over Time | Vehicle Mix Varies Over Turn | Vehicle Mix Varies Over Entry | Vehicle Mix Source | PCU Factor for a HV (PCU) | Default Turning Proportions | Estimate from entry/exit counts | Turning Proportions Vary Over Time | Turning Proportions Vary Over Turn | Turning Proportions Vary Over Entry |
|---------------------|------------------------------|------------------------------|-------------------------------|--------------------|---------------------------|-----------------------------|---------------------------------|------------------------------------|------------------------------------|-------------------------------------|
|---------------------|------------------------------|------------------------------|-------------------------------|--------------------|---------------------------|-----------------------------|---------------------------------|------------------------------------|------------------------------------|-------------------------------------|

|  |  |   |   |                   |      |  |  |  |   |   |
|--|--|---|---|-------------------|------|--|--|--|---|---|
|  |  | ✓ | ✓ | HV<br>Percentages | 2.00 |  |  |  | ✓ | ✓ |
|--|--|---|---|-------------------|------|--|--|--|---|---|

# Entry Flows

## General Flows Data

| Name                   | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (%) |
|------------------------|--------------|--------------------|------------------------------|-------------------------|
| A39                    | ONE HOUR     | ✓                  | 462.00                       | 100.000                 |
| A39 Bristol Road south | ONE HOUR     | ✓                  | 1643.00                      | 100.000                 |
| Industrial Estate      | ONE HOUR     | ✓                  | 0.00                         | 100.000                 |
| A39 Bristol Road north | ONE HOUR     | ✓                  | 922.00                       | 100.000                 |

# Turning Proportions

## Turning Counts or Proportions (Veh/hr) - (untitled) (for whole period)

|      | To |         |         |       |          |
|------|----|---------|---------|-------|----------|
| From |    | 1       | 2       | 3     | 4        |
|      | 1  | 0.000   | 345.000 | 0.000 | 117.000  |
|      | 2  | 410.000 | 15.000  | 0.000 | 1218.000 |
|      | 3  | 0.000   | 0.000   | 0.000 | 0.000    |

|  |   |         |         |       |        |
|--|---|---------|---------|-------|--------|
|  | 4 | 164.000 | 733.000 | 0.000 | 25.000 |
|--|---|---------|---------|-------|--------|

Turning Proportions (Veh) - (untitled) (for whole period)

|      |   | To   |      |      |      |
|------|---|------|------|------|------|
|      |   | 1    | 2    | 3    | 4    |
| From | 1 | 0.00 | 0.75 | 0.00 | 0.25 |
|      | 2 | 0.25 | 0.01 | 0.00 | 0.74 |
|      | 3 | 0.25 | 0.25 | 0.25 | 0.25 |
|      | 4 | 0.18 | 0.80 | 0.00 | 0.03 |

# Vehicle Mix

Average PCU Per Vehicle - (untitled) (for whole period)

|      |   | To    |       |       |       |
|------|---|-------|-------|-------|-------|
|      |   | 1     | 2     | 3     | 4     |
| From | 1 | 1.000 | 1.070 | 1.000 | 1.240 |
|      | 2 | 1.080 | 1.200 | 1.000 | 1.030 |
|      | 3 | 1.000 | 1.000 | 1.000 | 1.000 |
|      | 4 | 1.050 | 1.030 | 1.000 | 1.320 |

### Heavy Vehicle Percentages - (untitled) (for whole period)

|      | To |       |        |       |        |
|------|----|-------|--------|-------|--------|
| From |    | 1     | 2      | 3     | 4      |
|      | 1  | 0.000 | 7.000  | 0.000 | 24.000 |
|      | 2  | 8.000 | 20.000 | 0.000 | 3.000  |
|      | 3  | 0.000 | 0.000  | 0.000 | 0.000  |
|      | 4  | 5.000 | 3.000  | 0.000 | 32.000 |

## Results

### Results Summary for whole modelled period

| Name                   | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) | Total Queueing Delay (PCU-min) | Average Queueing Delay (s) | Rate Of Queueing Delay (PCU-min/min) | Inclusive Total Queueing Delay (PCU-min) | Inclusive Average Queueing Delay (s) |
|------------------------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|--------------------------------|----------------------------|--------------------------------------|------------------------------------------|--------------------------------------|
| A39                    | 0.28    | 2.68          | 0.42            | A       | 471.87                  | 707.80                        | 28.63                          | 2.43                       | 0.32                                 | 28.64                                    | 2.43                                 |
| A39 Bristol Road south | 0.76    | 6.13          | 3.18            | A       | 1574.03                 | 2361.04                       | 173.61                         | 4.41                       | 1.93                                 | 173.62                                   | 4.41                                 |
| Industrial Estate      | 0.00    | 0.00          | 0.00            | A       | 0.00                    | 0.00                          | 0.00                           | 0.00                       | 0.00                                 | 0.00                                     | 0.00                                 |
| A39 Bristol Road north | 0.66    | 7.03          | 2.04            | A       | 881.09                  | 1321.63                       | 118.10                         | 5.36                       | 1.31                                 | 118.11                                   | 5.36                                 |



## Main Results for each time segment

### Main results: (16:45-17:00)

| Name                   | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|------------------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| A39                    | 387.14                | 96.78                   | 386.21              | 461.33             | 604.16                    | 0.00                       | 2233.99           | 1777.06                      | 0.173 | 0.00              | 0.23            | 2.167     | A   |
| A39 Bristol Road south | 1291.40               | 322.85                  | 1287.11             | 856.67             | 133.70                    | 0.00                       | 2540.26           | 2236.08                      | 0.508 | 0.00              | 1.07            | 2.990     | A   |
| Industrial Estate      | 0.00                  | 0.00                    | 0.00                | 0.00               | 1420.81                   | 0.00                       | 899.06            | 263.51                       | 0.000 | 0.00              | 0.00            | 0.000     | A   |
| A39 Bristol Road north | 722.88                | 180.72                  | 719.73              | 1075.04            | 345.76                    | 0.00                       | 1671.68           | 1442.78                      | 0.432 | 0.00              | 0.79            | 3.926     | A   |

### Main results: (17:00-17:15)

| Name                   | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|------------------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| A39                    | 462.28                | 115.57                  | 462.00              | 552.05             | 723.36                    | 0.00                       | 2159.90           | 1777.06                      | 0.214 | 0.23              | 0.30            | 2.359     | A   |
| A39 Bristol Road south | 1542.06               | 385.51                  | 1539.85             | 1025.40            | 159.96                    | 0.00                       | 2523.72           | 2236.08                      | 0.611 | 1.07              | 1.62            | 3.812     | A   |
| Industrial Estate      | 0.00                  | 0.00                    | 0.00                | 0.00               | 1699.82                   | 0.00                       | 769.27            | 263.51                       | 0.000 | 0.00              | 0.00            | 0.000     | A   |

|                        |        |        |        |         |        |      |         |         |       |      |      |       |   |
|------------------------|--------|--------|--------|---------|--------|------|---------|---------|-------|------|------|-------|---|
| A39 Bristol Road north | 863.19 | 215.80 | 861.75 | 1286.16 | 413.66 | 0.00 | 1637.34 | 1442.78 | 0.527 | 0.79 | 1.15 | 4.825 | A |
|------------------------|--------|--------|--------|---------|--------|------|---------|---------|-------|------|------|-------|---|

### Main results: (17:15-17:30)

| Name                   | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|------------------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| A39                    | 566.18                | 141.54                  | 565.71              | 674.94             | 884.49                    | 0.00                       | 2059.74           | 1777.06                      | 0.275 | 0.30              | 0.42            | 2.682     | A   |
| A39 Bristol Road south | 1888.62               | 472.16                  | 1882.58             | 1254.38            | 195.82                    | 0.00                       | 2501.15           | 2236.08                      | 0.755 | 1.62              | 3.14            | 6.017     | A   |
| Industrial Estate      | 0.00                  | 0.00                    | 0.00                | 0.00               | 2078.39                   | 0.00                       | 593.16            | 263.51                       | 0.000 | 0.00              | 0.00            | 0.000     | A   |
| A39 Bristol Road north | 1057.19               | 264.30                  | 1053.71             | 1572.67            | 505.73                    | 0.00                       | 1590.77           | 1442.78                      | 0.665 | 1.15              | 2.02            | 6.934     | A   |

### Main results: (17:30-17:45)

| Name                   | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|------------------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| A39                    | 566.18                | 141.54                  | 566.17              | 677.07             | 887.33                    | 0.00                       | 2057.98           | 1777.06                      | 0.275 | 0.42              | 0.42            | 2.685     | A   |
| A39 Bristol Road south | 1888.62               | 472.16                  | 1888.46             | 1257.44            | 196.07                    | 0.00                       | 2500.99           | 2236.08                      | 0.755 | 3.14              | 3.18            | 6.132     | A   |
| Industrial Estate      | 0.00                  | 0.00                    | 0.00                | 0.00               | 2084.52                   | 0.00                       | 590.31            | 263.51                       | 0.000 | 0.00              | 0.00            | 0.000     | A   |
| A39 Bristol Road north | 1057.19               | 264.30                  | 1057.09             | 1577.22            | 507.31                    | 0.00                       | 1589.97           | 1442.78                      | 0.665 | 2.02              | 2.04            | 7.033     | A   |

### Main results: (17:45-18:00)

| Name                   | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|------------------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| A39                    | 462.28                | 115.57                  | 462.75              | 555.06             | 727.48                    | 0.00                       | 2157.34           | 1777.06                      | 0.214 | 0.42              | 0.30            | 2.364     | A   |
| A39 Bristol Road south | 1542.06               | 385.51                  | 1548.13             | 1029.88            | 160.34                    | 0.00                       | 2523.48           | 2236.08                      | 0.611 | 3.18              | 1.66            | 3.878     | A   |
| Industrial Estate      | 0.00                  | 0.00                    | 0.00                | 0.00               | 1708.47                   | 0.00                       | 765.25            | 263.51                       | 0.000 | 0.00              | 0.00            | 0.000     | A   |
| A39 Bristol Road north | 863.19                | 215.80                  | 866.66              | 1292.59            | 415.88                    | 0.00                       | 1636.21           | 1442.78                      | 0.528 | 2.04              | 1.18            | 4.893     | A   |

### Main results: (18:00-18:15)

| Name                   | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|------------------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| A39                    | 387.14                | 96.78                   | 387.42              | 463.86             | 608.05                    | 0.00                       | 2231.58           | 1777.06                      | 0.173 | 0.30              | 0.23            | 2.174     | A   |
| A39 Bristol Road south | 1291.40               | 322.85                  | 1293.68             | 861.27             | 134.20                    | 0.00                       | 2539.94           | 2236.08                      | 0.508 | 1.66              | 1.09            | 3.023     | A   |
| Industrial Estate      | 0.00                  | 0.00                    | 0.00                | 0.00               | 1427.88                   | 0.00                       | 895.77            | 263.51                       | 0.000 | 0.00              | 0.00            | 0.000     | A   |
| A39 Bristol Road north | 722.88                | 180.72                  | 724.38              | 1080.35            | 347.53                    | 0.00                       | 1670.78           | 1442.78                      | 0.433 | 1.18              | 0.80            | 3.969     | A   |

### Queueing Delay Results for each time segment

#### Queueing Delay results: (16:45-17:00)

| Name                   | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|------------------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| A39                    | 3.44                           | 0.23                                 | 2.167                                  | A                             | A                           |
| A39 Bristol Road south | 15.67                          | 1.04                                 | 2.990                                  | A                             | A                           |
| Industrial Estate      | 0.00                           | 0.00                                 | 0.000                                  | A                             | A                           |
| A39 Bristol Road north | 11.47                          | 0.76                                 | 3.926                                  | A                             | A                           |

#### Queueing Delay results: (17:00-17:15)

| Name                   | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|------------------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| A39                    | 4.48                           | 0.30                                 | 2.359                                  | A                             | A                           |
| A39 Bristol Road south | 23.67                          | 1.58                                 | 3.812                                  | A                             | A                           |
| Industrial Estate      | 0.00                           | 0.00                                 | 0.000                                  | A                             | A                           |
| A39 Bristol Road north | 16.75                          | 1.12                                 | 4.825                                  | A                             | A                           |

#### Queueing Delay results: (17:15-17:30)

| Name | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| A39  | 6.22                           | 0.41                                 | 2.682                                  | A                             | A                           |

|                        |       |      |       |   |   |
|------------------------|-------|------|-------|---|---|
| A39 Bristol Road south | 44.45 | 2.96 | 6.017 | A | A |
| Industrial Estate      | 0.00  | 0.00 | 0.000 | A | A |
| A39 Bristol Road north | 28.83 | 1.92 | 6.934 | A | A |

#### Queueing Delay results: (17:30-17:45)

| Name                   | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|------------------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| A39                    | 6.32                           | 0.42                                 | 2.685                                  | A                             | A                           |
| A39 Bristol Road south | 47.40                          | 3.16                                 | 6.132                                  | A                             | A                           |
| Industrial Estate      | 0.00                           | 0.00                                 | 0.000                                  | A                             | A                           |
| A39 Bristol Road north | 30.49                          | 2.03                                 | 7.033                                  | A                             | A                           |

#### Queueing Delay results: (17:45-18:00)

| Name                   | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|------------------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| A39                    | 4.63                           | 0.31                                 | 2.364                                  | A                             | A                           |
| A39 Bristol Road south | 25.74                          | 1.72                                 | 3.878                                  | A                             | A                           |
| Industrial Estate      | 0.00                           | 0.00                                 | 0.000                                  | A                             | A                           |

|                        |       |      |       |   |   |
|------------------------|-------|------|-------|---|---|
| A39 Bristol Road north | 18.25 | 1.22 | 4.893 | A | A |
|------------------------|-------|------|-------|---|---|

### Queueing Delay results: (18:00-18:15)

| Name                   | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|------------------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| A39                    | 3.55                           | 0.24                                 | 2.174                                  | A                             | A                           |
| A39 Bristol Road south | 16.67                          | 1.11                                 | 3.023                                  | A                             | A                           |
| Industrial Estate      | 0.00                           | 0.00                                 | 0.000                                  | A                             | A                           |
| A39 Bristol Road north | 12.29                          | 0.82                                 | 3.969                                  | A                             | A                           |

| Junctions 8                                                                                                                                                                  |  |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| ARCADY 8 - Roundabout Module                                                                                                                                                 |  |  |  |
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**Filename:** J13 Dunball Roundabout - Mitigated scheme.arc8

**Path:** P:\TP London\TP Projects\Hinkley Point C Connection\Modelling\Junctions 8\J13

**Report generation date:** 03/02/2014 17:10:23

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### Summary of junction performance

|            | AM          |           |      |     | PM          |           |      |     |
|------------|-------------|-----------|------|-----|-------------|-----------|------|-----|
|            | Queue (PCU) | Delay (s) | RFC  | LOS | Queue (PCU) | Delay (s) | RFC  | LOS |
|            | A1 - 2013   |           |      |     |             |           |      |     |
| <b>A39</b> | 0.17        | 2.57      | 0.13 | A   | 0.14        | 2.31      | 0.10 | A   |

|                               |                       |       |      |   |      |      |      |   |
|-------------------------------|-----------------------|-------|------|---|------|------|------|---|
| <b>A39 Bristol Road south</b> | 0.71                  | 2.57  | 0.40 | A | 1.59 | 3.75 | 0.61 | A |
| <b>Industrial Estate</b>      | 0.00                  | 0.00  | 0.00 | A | 0.00 | 0.00 | 0.00 | A |
| <b>A39 Bristol Road north</b> | 5.10                  | 12.77 | 0.83 | B | 1.38 | 4.99 | 0.57 | A |
|                               | <b>A1 - 2016 Base</b> |       |      |   |      |      |      |   |
| <b>A39</b>                    | 0.35                  | 3.03  | 0.24 | A | 0.40 | 2.63 | 0.27 | A |
| <b>A39 Bristol Road south</b> | 1.14                  | 3.19  | 0.51 | A | 2.62 | 5.32 | 0.72 | A |
| <b>Industrial Estate</b>      | 0.00                  | 0.00  | 0.00 | A | 0.00 | 0.00 | 0.00 | A |
| <b>A39 Bristol Road north</b> | 16.21                 | 39.23 | 0.96 | E | 1.88 | 6.45 | 0.65 | A |
|                               | <b>A1 - 2016 Dev</b>  |       |      |   |      |      |      |   |
| <b>A39</b>                    | 0.46                  | 3.22  | 0.29 | A | 0.42 | 2.69 | 0.28 | A |
| <b>A39 Bristol Road south</b> | 0.97                  | 2.94  | 0.47 | A | 3.18 | 6.14 | 0.76 | A |
| <b>Industrial Estate</b>      | 0.00                  | 0.00  | 0.00 | A | 0.00 | 0.00 | 0.00 | A |
| <b>A39 Bristol Road north</b> | 16.97                 | 40.98 | 0.96 | E | 2.04 | 7.03 | 0.66 | A |

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle.

"D1 - 2013, AM " model duration: 07:45 - 09:15

"D2 - 2013, PM" model duration: 16:45 - 18:15

"D3 - 2016 Base, AM" model duration: 07:45 - 09:15

"D4 - 2016 Base, PM" model duration: 16:45 - 18:15

"D5 - 2016 Dev, AM" model duration: 07:45 - 09:15

"D6 - 2016 Dev, PM" model duration: 16:45 - 18:15

Run using Junctions 8.0.3.332 at 03/02/2014 17:10:20



File summary

File Description

|             |            |
|-------------|------------|
| Title       | (untitled) |
| Location    |            |
| Site Number |            |
| Date        | 02/12/2013 |
| Version     |            |
| Status      | (new file) |
| Identifier  |            |
| Client      |            |
| Jobnumber   |            |
| Enumerator  |            |
| Description |            |

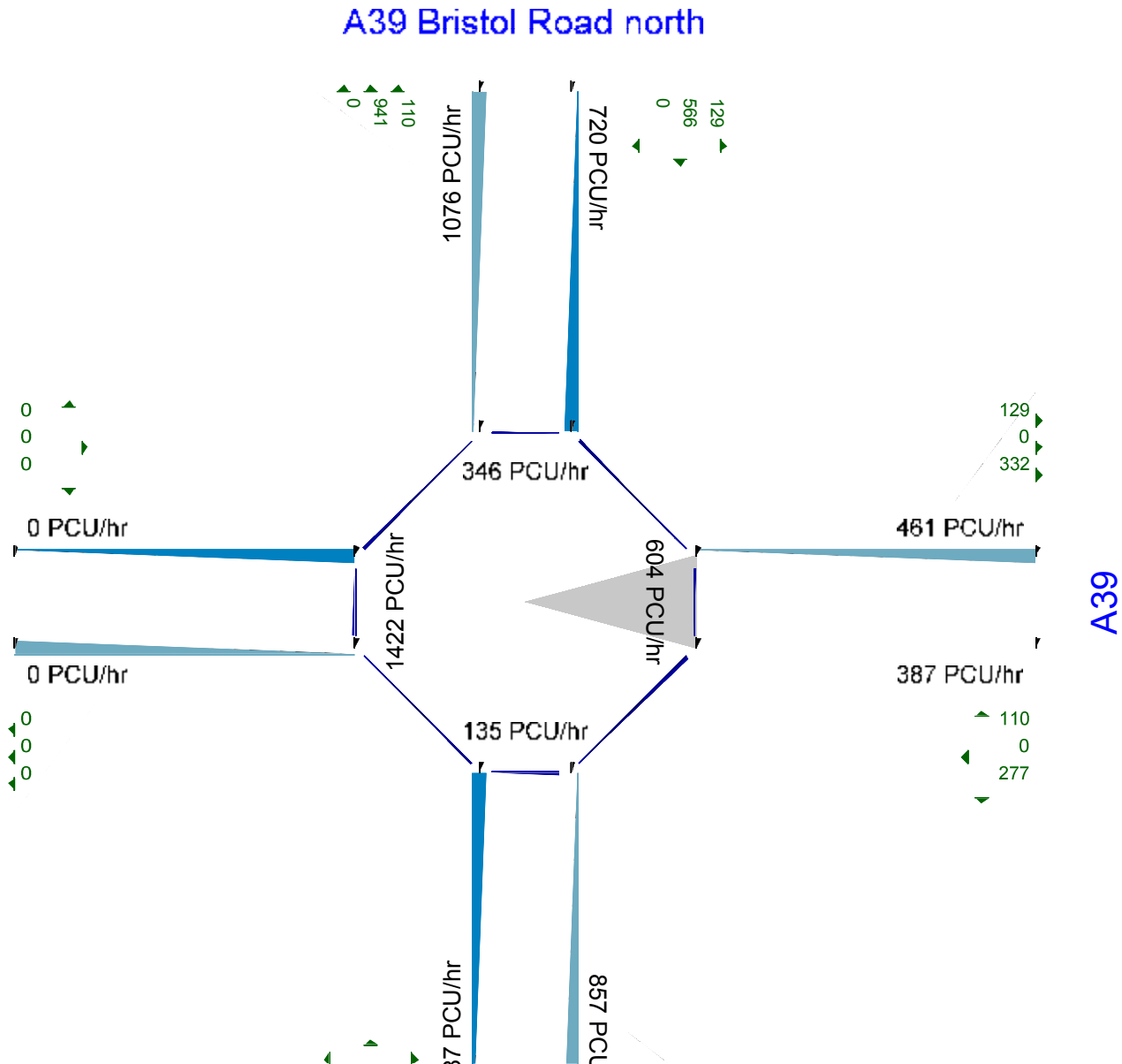
Analysis Options

| Vehicle Length (m) | Do Queue Variations | Calculate Residual Capacity | Residual Capacity Criteria Type | RFC Threshold | Average Delay Threshold (s) | Queue Threshold (PCU) |
|--------------------|---------------------|-----------------------------|---------------------------------|---------------|-----------------------------|-----------------------|
| 5.75               |                     |                             | N/A                             | 0.85          | 36.00                       | 20.00                 |

Units

| Distance Units | Speed Units | Traffic Units Input | Traffic Units Results | Flow Units | Average Delay Units | Total Delay Units | Rate Of Delay Units |
|----------------|-------------|---------------------|-----------------------|------------|---------------------|-------------------|---------------------|
| m              | kph         | Veh                 | PCU                   | perHour    | s                   | -Min              | perMin              |

Industrial Estate



The junction diagram reflects the last run of ARCADY.

## (Default Analysis Set) - 2013, AM

### Data Errors and Warnings

No errors or warnings

### Analysis Set Details

| Name                   | Roundabout Capacity Model | Description | Include In Report | Use Specific Demand Set(s) | Specific Demand Set(s) | Locked | Network Flow Scaling Factor (%) | Network Capacity Scaling Factor (%) | Reason For Scaling Factors |
|------------------------|---------------------------|-------------|-------------------|----------------------------|------------------------|--------|---------------------------------|-------------------------------------|----------------------------|
| (Default Analysis Set) | ARCADY                    |             | ✓                 |                            |                        |        | 100.000                         | 100.000                             |                            |

### Demand Set Details

| Name     | Scenario Name | Time Period Name | Description | Traffic Profile Type | Model Start Time (HH:mm) | Model Finish Time (HH:mm) | Model Time Period Length (min) | Time Segment Length (min) | Results For Central Hour Only | Single Time Segment Only | Locked | Run Automatically | Use Relationship | Relationship |
|----------|---------------|------------------|-------------|----------------------|--------------------------|---------------------------|--------------------------------|---------------------------|-------------------------------|--------------------------|--------|-------------------|------------------|--------------|
| 2013, AM | 2013          | AM               |             | ONE HOUR             | 07:45                    | 09:15                     | 90                             | 15                        |                               |                          |        | ✓                 |                  |              |

## Junction Network

### Junctions

| Name | Junction Type | Arm Order | Grade Separated | Large Roundabout | Do Geometric Delay | Junction Delay (s) | Junction LOS |
|------|---------------|-----------|-----------------|------------------|--------------------|--------------------|--------------|
|------|---------------|-----------|-----------------|------------------|--------------------|--------------------|--------------|

|            |            |         |  |  |  |      |   |
|------------|------------|---------|--|--|--|------|---|
| (untitled) | Roundabout | 1,2,3,4 |  |  |  | 8.13 | A |
|------------|------------|---------|--|--|--|------|---|

## Junction Network Options

| Driving Side | Lighting       |
|--------------|----------------|
| Left         | Normal/unknown |

# Arms

## Arms

| Name                   | Name                   | Description |
|------------------------|------------------------|-------------|
| A39                    | A39                    |             |
| A39 Bristol Road south | A39 Bristol Road south |             |
| Industrial Estate      | Industrial Estate      |             |
| A39 Bristol Road north | A39 Bristol Road north |             |

## Capacity Options

| Name                   | Minimum Capacity (PCU/hr) | Maximum Capacity (PCU/hr) | Assume Flat Start Profile | Initial Queue (PCU) |
|------------------------|---------------------------|---------------------------|---------------------------|---------------------|
| A39                    | 0.00                      | 99999.00                  |                           | 0.00                |
| A39 Bristol Road south | 0.00                      | 99999.00                  |                           | 0.00                |
| Industrial Estate      | 0.00                      | 99999.00                  |                           | 0.00                |

|                        |      |          |  |      |
|------------------------|------|----------|--|------|
| A39 Bristol Road north | 0.00 | 99999.00 |  | 0.00 |
|------------------------|------|----------|--|------|

## Roundabout Geometry

| Name                   | V - Approach road half-width (m) | E - Entry width (m) | I' - Effective flare length (m) | R - Entry radius (m) | D - Inscribed circle diameter (m) | PHI - Conflict (entry) angle (deg) | Exit Only |
|------------------------|----------------------------------|---------------------|---------------------------------|----------------------|-----------------------------------|------------------------------------|-----------|
| A39                    | 8.15                             | 8.15                | 0.00                            | 24.00                | 79.00                             | 16.00                              |           |
| A39 Bristol Road south | 8.00                             | 8.00                | 0.00                            | 45.00                | 79.00                             | 14.00                              |           |
| Industrial Estate      | 3.70                             | 6.85                | 11.00                           | 19.00                | 79.00                             | 18.00                              |           |
| A39 Bristol Road north | 3.50                             | 7.70                | 17.00                           | 19.00                | 79.00                             | 17.00                              |           |

## Pedestrian Crossings

| Name                   | Crossing Type |
|------------------------|---------------|
| A39                    | None          |
| A39 Bristol Road south | None          |
| Industrial Estate      | None          |
| A39 Bristol Road north | None          |

## Slope / Intercept / Capacity

### Roundabout Slope and Intercept used in model

| Name | Enter slope and intercept directly | Entered slope | Entered intercept (PCU/hr) | Final Slope | Final Intercept (PCU/hr) |
|------|------------------------------------|---------------|----------------------------|-------------|--------------------------|
|------|------------------------------------|---------------|----------------------------|-------------|--------------------------|

|                               |  |              |              |       |          |
|-------------------------------|--|--------------|--------------|-------|----------|
| <b>A39</b>                    |  | (calculated) | (calculated) | 0.622 | 2609.542 |
| <b>A39 Bristol Road south</b> |  | (calculated) | (calculated) | 0.630 | 2624.432 |
| <b>Industrial Estate</b>      |  | (calculated) | (calculated) | 0.481 | 1682.407 |
| <b>A39 Bristol Road north</b> |  | (calculated) | (calculated) | 0.506 | 1846.557 |

*The slope and intercept shown above include any corrections and adjustments.*

## Traffic Flows

### Demand Set Data Options

| Default Vehicle Mix | Vehicle Mix Varies Over Time | Vehicle Mix Varies Over Turn | Vehicle Mix Varies Over Entry | Vehicle Mix Source | PCU Factor for a HV (PCU) | Default Turning Proportions | Estimate from entry/exit counts | Turning Proportions Vary Over Time | Turning Proportions Vary Over Turn | Turning Proportions Vary Over Entry |
|---------------------|------------------------------|------------------------------|-------------------------------|--------------------|---------------------------|-----------------------------|---------------------------------|------------------------------------|------------------------------------|-------------------------------------|
|                     |                              | ✓                            | ✓                             | HV Percentages     | 2.00                      |                             |                                 |                                    | ✓                                  | ✓                                   |

## Entry Flows

### General Flows Data

| Name                          | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (%) |
|-------------------------------|--------------|--------------------|------------------------------|-------------------------|
| <b>A39</b>                    | ONE HOUR     | ✓                  | 195.00                       | 100.000                 |
| <b>A39 Bristol Road south</b> | ONE HOUR     | ✓                  | 832.00                       | 100.000                 |

|                        |          |   |         |         |
|------------------------|----------|---|---------|---------|
| Industrial Estate      | ONE HOUR | ✓ | 0.00    | 100.000 |
| A39 Bristol Road north | ONE HOUR | ✓ | 1227.00 | 100.000 |

## Turning Proportions

Turning Counts or Proportions (Veh/hr) - (untitled) (for whole period)

|      | To |         |          |       |         |
|------|----|---------|----------|-------|---------|
|      |    | 1       | 2        | 3     | 4       |
| From | 1  | 1.000   | 96.000   | 0.000 | 98.000  |
|      | 2  | 59.000  | 38.000   | 0.000 | 735.000 |
|      | 3  | 0.000   | 0.000    | 0.000 | 0.000   |
|      | 4  | 123.000 | 1091.000 | 0.000 | 13.000  |

Turning Proportions (Veh) - (untitled) (for whole period)

|      | To |      |      |      |      |
|------|----|------|------|------|------|
|      |    | 1    | 2    | 3    | 4    |
| From | 1  | 0.01 | 0.49 | 0.00 | 0.50 |
|      | 2  | 0.07 | 0.05 | 0.00 | 0.88 |
|      | 3  | 0.25 | 0.25 | 0.25 | 0.25 |



|  |   |      |      |      |      |
|--|---|------|------|------|------|
|  | 4 | 0.10 | 0.89 | 0.00 | 0.01 |
|--|---|------|------|------|------|

# Vehicle Mix

Average PCU Per Vehicle - (untitled) (for whole period)

|      | To |       |       |       |       |
|------|----|-------|-------|-------|-------|
| From |    | 1     | 2     | 3     | 4     |
|      | 1  | 1.000 | 1.040 | 1.000 | 1.150 |
|      | 2  | 1.050 | 1.030 | 1.000 | 1.100 |
|      | 3  | 1.000 | 1.000 | 1.000 | 1.000 |
|      | 4  | 1.280 | 1.070 | 1.000 | 1.690 |

Heavy Vehicle Percentages - (untitled) (for whole period)

|      | To |        |       |       |        |
|------|----|--------|-------|-------|--------|
| From |    | 1      | 2     | 3     | 4      |
|      | 1  | 0.000  | 4.000 | 0.000 | 15.000 |
|      | 2  | 5.000  | 3.000 | 0.000 | 10.000 |
|      | 3  | 0.000  | 0.000 | 0.000 | 0.000  |
|      | 4  | 28.000 | 7.000 | 0.000 | 69.000 |

# Results

## Results Summary for whole modelled period

| Name                   | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) | Total Queueing Delay (PCU-min) | Average Queueing Delay (s) | Rate Of Queueing Delay (PCU-min/min) | Inclusive Total Queueing Delay (PCU-min) | Inclusive Average Queueing Delay (s) |
|------------------------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|--------------------------------|----------------------------|--------------------------------------|------------------------------------------|--------------------------------------|
| A39                    | 0.13    | 2.57          | 0.17            | A       | 195.95                  | 293.92                        | 11.44                          | 2.34                       | 0.13                                 | 11.44                                    | 2.34                                 |
| A39 Bristol Road south | 0.40    | 2.57          | 0.71            | A       | 834.66                  | 1251.98                       | 48.71                          | 2.33                       | 0.54                                 | 48.71                                    | 2.33                                 |
| Industrial Estate      | 0.00    | 0.00          | 0.00            | A       | 0.00                    | 0.00                          | 0.00                           | 0.00                       | 0.00                                 | 0.00                                     | 0.00                                 |
| A39 Bristol Road north | 0.83    | 12.77         | 5.10            | B       | 1235.83                 | 1853.74                       | 252.39                         | 8.17                       | 2.80                                 | 252.43                                   | 8.17                                 |

## Main Results for each time segment

### Main results: (07:45-08:00)

| Name | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| A39  | 160.76                | 40.19                   | 160.39              | 165.16             | 919.90                    | 0.00                       | 2037.73           | 1576.74                      | 0.079 | 0.00              | 0.09            | 2.100     | A   |

|                        |         |        |         |        |        |      |         |         |       |      |      |       |   |
|------------------------|---------|--------|---------|--------|--------|------|---------|---------|-------|------|------|-------|---|
| A39 Bristol Road south | 684.79  | 171.20 | 683.20  | 978.44 | 101.85 | 0.00 | 2560.31 | 2033.85 | 0.267 | 0.00 | 0.40 | 2.094 | A |
| Industrial Estate      | 0.00    | 0.00   | 0.00    | 0.00   | 785.05 | 0.00 | 1304.98 | 288.27  | 0.000 | 0.00 | 0.00 | 0.000 | A |
| A39 Bristol Road north | 1013.93 | 253.48 | 1008.39 | 708.37 | 76.68  | 0.00 | 1807.77 | 1619.15 | 0.561 | 0.00 | 1.38 | 4.910 | A |

#### Main results: (08:00-08:15)

| Name                   | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|------------------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| A39                    | 191.97                | 47.99                   | 191.86              | 197.71             | 1101.46                   | 0.00                       | 1924.88           | 1576.74                      | 0.100 | 0.09              | 0.12            | 2.274     | A   |
| A39 Bristol Road south | 817.70                | 204.43                  | 817.23              | 1171.46            | 121.85                    | 0.00                       | 2547.71           | 2033.85                      | 0.321 | 0.40              | 0.51            | 2.274     | A   |
| Industrial Estate      | 0.00                  | 0.00                    | 0.00                | 0.00               | 939.09                    | 0.00                       | 1230.92           | 288.27                       | 0.000 | 0.00              | 0.00            | 0.000     | A   |
| A39 Bristol Road north | 1210.73               | 302.68                  | 1207.44             | 847.36             | 91.72                     | 0.00                       | 1800.16           | 1619.15                      | 0.673 | 1.38              | 2.21            | 6.629     | A   |

#### Main results: (08:15-08:30)

| Name                   | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|------------------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| A39                    | 235.11                | 58.78                   | 234.93              | 241.33             | 1342.94                   | 0.00                       | 1774.77           | 1576.74                      | 0.132 | 0.12              | 0.17            | 2.559     | A   |
| A39 Bristol Road south | 1001.48               | 250.37                  | 1000.69             | 1428.76            | 149.10                    | 0.00                       | 2530.56           | 2033.85                      | 0.396 | 0.51              | 0.71            | 2.571     | A   |

|                        |         |        |         |         |         |      |         |         |       |      |      |        |   |
|------------------------|---------|--------|---------|---------|---------|------|---------|---------|-------|------|------|--------|---|
| Industrial Estate      | 0.00    | 0.00   | 0.00    | 0.00    | 1149.79 | 0.00 | 1129.62 | 288.27  | 0.000 | 0.00 | 0.00 | 0.000  | A |
| A39 Bristol Road north | 1482.83 | 370.71 | 1471.95 | 1037.47 | 112.31  | 0.00 | 1789.75 | 1619.15 | 0.829 | 2.21 | 4.93 | 12.033 | B |

#### Main results: (08:30-08:45)

| Name                   | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|------------------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| A39                    | 235.11                | 58.78                   | 235.11              | 242.57             | 1351.97                   | 0.00                       | 1769.16           | 1576.74                      | 0.133 | 0.17              | 0.17            | 2.569     | A   |
| A39 Bristol Road south | 1001.48               | 250.37                  | 1001.47             | 1437.72            | 149.36                    | 0.00                       | 2530.39           | 2033.85                      | 0.396 | 0.71              | 0.71            | 2.573     | A   |
| Industrial Estate      | 0.00                  | 0.00                    | 0.00                | 0.00               | 1150.83                   | 0.00                       | 1129.12           | 288.27                       | 0.000 | 0.00              | 0.00            | 0.000     | A   |
| A39 Bristol Road north | 1482.83               | 370.71                  | 1482.14             | 1038.43            | 112.40                    | 0.00                       | 1789.71           | 1619.15                      | 0.829 | 4.93              | 5.10            | 12.770    | B   |

#### Main results: (08:45-09:00)

| Name                   | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|------------------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| A39                    | 191.97                | 47.99                   | 192.15              | 199.49             | 1114.29                   | 0.00                       | 1916.90           | 1576.74                      | 0.100 | 0.17              | 0.12            | 2.287     | A   |
| A39 Bristol Road south | 817.70                | 204.43                  | 818.49              | 1184.19            | 122.24                    | 0.00                       | 2547.47           | 2033.85                      | 0.321 | 0.71              | 0.52            | 2.276     | A   |
| Industrial Estate      | 0.00                  | 0.00                    | 0.00                | 0.00               | 940.73                    | 0.00                       | 1230.13           | 288.27                       | 0.000 | 0.00              | 0.00            | 0.000     | A   |

|                        |         |        |         |        |       |      |         |         |       |      |      |       |   |
|------------------------|---------|--------|---------|--------|-------|------|---------|---------|-------|------|------|-------|---|
| A39 Bristol Road north | 1210.73 | 302.68 | 1221.91 | 848.86 | 91.86 | 0.00 | 1800.09 | 1619.15 | 0.673 | 5.10 | 2.30 | 6.960 | A |
|------------------------|---------|--------|---------|--------|-------|------|---------|---------|-------|------|------|-------|---|

### Main results: (09:00-09:15)

| Name                   | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|------------------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| A39                    | 160.76                | 40.19                   | 160.88              | 166.37             | 928.01                    | 0.00                       | 2032.69           | 1576.74                      | 0.079 | 0.12              | 0.09            | 2.105     | A   |
| A39 Bristol Road south | 684.79                | 171.20                  | 685.26              | 986.63             | 102.26                    | 0.00                       | 2560.05           | 2033.85                      | 0.267 | 0.52              | 0.40            | 2.099     | A   |
| Industrial Estate      | 0.00                  | 0.00                    | 0.00                | 0.00               | 787.52                    | 0.00                       | 1303.79           | 288.27                       | 0.000 | 0.00              | 0.00            | 0.000     | A   |
| A39 Bristol Road north | 1013.93               | 253.48                  | 1017.47             | 710.60             | 76.91                     | 0.00                       | 1807.66           | 1619.15                      | 0.561 | 2.30              | 1.42            | 5.022     | A   |

### Queueing Delay Results for each time segment

#### Queueing Delay results: (07:45-08:00)

| Name                   | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|------------------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| A39                    | 1.39                           | 0.09                                 | 2.100                                  | A                             | A                           |
| A39 Bristol Road south | 5.88                           | 0.39                                 | 2.094                                  | A                             | A                           |
| Industrial Estate      | 0.00                           | 0.00                                 | 0.000                                  | A                             | A                           |

|                        |       |      |       |   |   |
|------------------------|-------|------|-------|---|---|
| A39 Bristol Road north | 19.94 | 1.33 | 4.910 | A | A |
|------------------------|-------|------|-------|---|---|

#### Queueing Delay results: (08:00-08:15)

| Name                   | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|------------------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| A39                    | 1.80                           | 0.12                                 | 2.274                                  | A                             | A                           |
| A39 Bristol Road south | 7.63                           | 0.51                                 | 2.274                                  | A                             | A                           |
| Industrial Estate      | 0.00                           | 0.00                                 | 0.000                                  | A                             | A                           |
| A39 Bristol Road north | 31.63                          | 2.11                                 | 6.629                                  | A                             | A                           |

#### Queueing Delay results: (08:15-08:30)

| Name                   | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|------------------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| A39                    | 2.47                           | 0.16                                 | 2.559                                  | A                             | A                           |
| A39 Bristol Road south | 10.53                          | 0.70                                 | 2.571                                  | A                             | A                           |
| Industrial Estate      | 0.00                           | 0.00                                 | 0.000                                  | A                             | A                           |
| A39 Bristol Road north | 66.47                          | 4.43                                 | 12.033                                 | B                             | B                           |

#### Queueing Delay results: (08:30-08:45)

| Name                   | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|------------------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| A39                    | 2.51                           | 0.17                                 | 2.569                                  | A                             | A                           |
| A39 Bristol Road south | 10.71                          | 0.71                                 | 2.573                                  | A                             | A                           |
| Industrial Estate      | 0.00                           | 0.00                                 | 0.000                                  | A                             | A                           |
| A39 Bristol Road north | 75.48                          | 5.03                                 | 12.770                                 | B                             | B                           |

#### Queueing Delay results: (08:45-09:00)

| Name                   | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|------------------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| A39                    | 1.85                           | 0.12                                 | 2.287                                  | A                             | A                           |
| A39 Bristol Road south | 7.89                           | 0.53                                 | 2.276                                  | A                             | A                           |
| Industrial Estate      | 0.00                           | 0.00                                 | 0.000                                  | A                             | A                           |
| A39 Bristol Road north | 36.83                          | 2.46                                 | 6.960                                  | A                             | A                           |

#### Queueing Delay results: (09:00-09:15)

| Name | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| A39  | 1.43                           | 0.10                                 | 2.105                                  | A                             | A                           |

|                        |       |      |       |   |   |
|------------------------|-------|------|-------|---|---|
| A39 Bristol Road south | 6.07  | 0.41 | 2.099 | A | A |
| Industrial Estate      | 0.00  | 0.00 | 0.000 | A | A |
| A39 Bristol Road north | 22.05 | 1.47 | 5.022 | A | A |

## (Default Analysis Set) - 2013, PM

### Data Errors and Warnings

*No errors or warnings*

### Analysis Set Details

| Name                   | Roundabout Capacity Model | Description | Include In Report | Use Specific Demand Set(s) | Specific Demand Set(s) | Locked | Network Flow Scaling Factor (%) | Network Capacity Scaling Factor (%) | Reason For Scaling Factors |
|------------------------|---------------------------|-------------|-------------------|----------------------------|------------------------|--------|---------------------------------|-------------------------------------|----------------------------|
| (Default Analysis Set) | ARCADY                    |             | ✓                 |                            |                        |        | 100.000                         | 100.000                             |                            |

### Demand Set Details

| Name     | Scenario Name | Time Period Name | Description | Traffic Profile Type | Model Start Time (HH:mm) | Model Finish Time (HH:mm) | Model Time Period Length (min) | Time Segment Length (min) | Results For Central Hour Only | Single Time Segment Only | Locked | Run Automatically | Use Relationship | Relationship |
|----------|---------------|------------------|-------------|----------------------|--------------------------|---------------------------|--------------------------------|---------------------------|-------------------------------|--------------------------|--------|-------------------|------------------|--------------|
| 2013, PM | 2013          | PM               |             | ONE HOUR             | 16:45                    | 18:15                     | 90                             | 15                        |                               |                          |        | ✓                 |                  |              |



# Junction Network

## Junctions

| Name       | Junction Type | Arm Order | Grade Separated | Large Roundabout | Do Geometric Delay | Junction Delay (s) | Junction LOS |
|------------|---------------|-----------|-----------------|------------------|--------------------|--------------------|--------------|
| (untitled) | Roundabout    | 1,2,3,4   |                 |                  |                    | 4.09               | A            |

## Junction Network Options

| Driving Side | Lighting       |
|--------------|----------------|
| Left         | Normal/unknown |

# Arms

## Arms

| Name                   | Name                   | Description |
|------------------------|------------------------|-------------|
| A39                    | A39                    |             |
| A39 Bristol Road south | A39 Bristol Road south |             |
| Industrial Estate      | Industrial Estate      |             |
| A39 Bristol Road north | A39 Bristol Road north |             |

## Capacity Options

| Name | Minimum Capacity (PCU/hr) | Maximum Capacity (PCU/hr) | Assume Flat Start Profile | Initial Queue (PCU) |
|------|---------------------------|---------------------------|---------------------------|---------------------|
|------|---------------------------|---------------------------|---------------------------|---------------------|

|                               |      |          |  |      |
|-------------------------------|------|----------|--|------|
| <b>A39</b>                    | 0.00 | 99999.00 |  | 0.00 |
| <b>A39 Bristol Road south</b> | 0.00 | 99999.00 |  | 0.00 |
| <b>Industrial Estate</b>      | 0.00 | 99999.00 |  | 0.00 |
| <b>A39 Bristol Road north</b> | 0.00 | 99999.00 |  | 0.00 |

## Roundabout Geometry

| Name                          | V - Approach road half-width (m) | E - Entry width (m) | I' - Effective flare length (m) | R - Entry radius (m) | D - Inscribed circle diameter (m) | PHI - Conflict (entry) angle (deg) | Exit Only |
|-------------------------------|----------------------------------|---------------------|---------------------------------|----------------------|-----------------------------------|------------------------------------|-----------|
| <b>A39</b>                    | 8.15                             | 8.15                | 0.00                            | 24.00                | 79.00                             | 16.00                              |           |
| <b>A39 Bristol Road south</b> | 8.00                             | 8.00                | 0.00                            | 45.00                | 79.00                             | 14.00                              |           |
| <b>Industrial Estate</b>      | 3.70                             | 6.85                | 11.00                           | 19.00                | 79.00                             | 18.00                              |           |
| <b>A39 Bristol Road north</b> | 3.50                             | 7.70                | 17.00                           | 19.00                | 79.00                             | 17.00                              |           |

## Pedestrian Crossings

| Name                          | Crossing Type |
|-------------------------------|---------------|
| <b>A39</b>                    | None          |
| <b>A39 Bristol Road south</b> | None          |
| <b>Industrial Estate</b>      | None          |
| <b>A39 Bristol Road north</b> | None          |

## Slope / Intercept / Capacity

### Roundabout Slope and Intercept used in model

| Name                   | Enter slope and intercept directly | Entered slope | Entered intercept (PCU/hr) | Final Slope | Final Intercept (PCU/hr) |
|------------------------|------------------------------------|---------------|----------------------------|-------------|--------------------------|
| A39                    |                                    | (calculated)  | (calculated)               | 0.622       | 2609.542                 |
| A39 Bristol Road south |                                    | (calculated)  | (calculated)               | 0.630       | 2624.432                 |
| Industrial Estate      |                                    | (calculated)  | (calculated)               | 0.481       | 1682.407                 |
| A39 Bristol Road north |                                    | (calculated)  | (calculated)               | 0.506       | 1846.557                 |

*The slope and intercept shown above include any corrections and adjustments.*

## Traffic Flows

### Demand Set Data Options

| Default Vehicle Mix | Vehicle Mix Varies Over Time | Vehicle Mix Varies Over Turn | Vehicle Mix Varies Over Entry | Vehicle Mix Source | PCU Factor for a HV (PCU) | Default Turning Proportions | Estimate from entry/exit counts | Turning Proportions Vary Over Time | Turning Proportions Vary Over Turn | Turning Proportions Vary Over Entry |
|---------------------|------------------------------|------------------------------|-------------------------------|--------------------|---------------------------|-----------------------------|---------------------------------|------------------------------------|------------------------------------|-------------------------------------|
|                     |                              | ✓                            | ✓                             | HV Percentages     | 2.00                      |                             |                                 |                                    | ✓                                  | ✓                                   |

## Entry Flows

### General Flows Data

| Name | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (%) |
|------|--------------|--------------------|------------------------------|-------------------------|
|------|--------------|--------------------|------------------------------|-------------------------|

|                               |          |   |         |         |
|-------------------------------|----------|---|---------|---------|
| <b>A39</b>                    | ONE HOUR | ✓ | 164.00  | 100.000 |
| <b>A39 Bristol Road south</b> | ONE HOUR | ✓ | 1349.00 | 100.000 |
| <b>Industrial Estate</b>      | ONE HOUR | ✓ | 0.00    | 100.000 |
| <b>A39 Bristol Road north</b> | ONE HOUR | ✓ | 871.00  | 100.000 |

## Turning Proportions

Turning Counts or Proportions (Veh/hr) - (untitled) (for whole period)

|      | To |         |         |       |          |
|------|----|---------|---------|-------|----------|
| From |    | 1       | 2       | 3     | 4        |
|      | 1  | 0.000   | 76.000  | 0.000 | 88.000   |
|      | 2  | 149.000 | 15.000  | 0.000 | 1185.000 |
|      | 3  | 0.000   | 0.000   | 0.000 | 0.000    |
|      | 4  | 133.000 | 713.000 | 0.000 | 25.000   |

Turning Proportions (Veh) - (untitled) (for whole period)

|      | To |      |      |      |      |
|------|----|------|------|------|------|
| From |    | 1    | 2    | 3    | 4    |
|      | 1  | 0.00 | 0.46 | 0.00 | 0.54 |

|  |          |      |      |      |      |
|--|----------|------|------|------|------|
|  | <b>2</b> | 0.11 | 0.01 | 0.00 | 0.88 |
|  | <b>3</b> | 0.25 | 0.25 | 0.25 | 0.25 |
|  | <b>4</b> | 0.15 | 0.82 | 0.00 | 0.03 |

# Vehicle Mix

Average PCU Per Vehicle - (untitled) (for whole period)

|      | To       |       |       |       |       |
|------|----------|-------|-------|-------|-------|
| From |          | 1     | 2     | 3     | 4     |
|      | <b>1</b> | 1.000 | 1.040 | 1.000 | 1.320 |
|      | <b>2</b> | 1.020 | 1.200 | 1.000 | 1.030 |
|      | <b>3</b> | 1.000 | 1.000 | 1.000 | 1.000 |
|      | <b>4</b> | 1.060 | 1.030 | 1.000 | 1.320 |

Heavy Vehicle Percentages - (untitled) (for whole period)

|      | To |       |        |       |        |
|------|----|-------|--------|-------|--------|
| From |    | 1     | 2      | 3     | 4      |
|      | 1  | 0.000 | 4.000  | 0.000 | 32.000 |
|      | 2  | 2.000 | 20.000 | 0.000 | 3.000  |

|  |   |       |       |       |        |
|--|---|-------|-------|-------|--------|
|  | 3 | 0.000 | 0.000 | 0.000 | 0.000  |
|  | 4 | 6.000 | 3.000 | 0.000 | 32.000 |

## Results

### Results Summary for whole modelled period

| Name                   | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) | Total Queueing Delay (PCU-min) | Average Queueing Delay (s) | Rate Of Queueing Delay (PCU-min/min) | Inclusive Total Queueing Delay (PCU-min) | Inclusive Average Queueing Delay (s) |
|------------------------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|--------------------------------|----------------------------|--------------------------------------|------------------------------------------|--------------------------------------|
| A39                    | 0.10    | 2.31          | 0.14            | A       | 179.12                  | 268.68                        | 9.74                           | 2.18                       | 0.11                                 | 9.74                                     | 2.18                                 |
| A39 Bristol Road south | 0.61    | 3.75          | 1.59            | A       | 1275.97                 | 1913.96                       | 98.22                          | 3.08                       | 1.09                                 | 98.22                                    | 3.08                                 |
| Industrial Estate      | 0.00    | 0.00          | 0.00            | A       | 0.00                    | 0.00                          | 0.00                           | 0.00                       | 0.00                                 | 0.00                                     | 0.00                                 |
| A39 Bristol Road north | 0.57    | 4.99          | 1.38            | A       | 833.54                  | 1250.30                       | 86.87                          | 4.17                       | 0.97                                 | 86.87                                    | 4.17                                 |

### Main Results for each time segment

Main results: (16:45-17:00)

| Name                   | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|------------------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| A39                    | 146.96                | 36.74                   | 146.62              | 219.84             | 589.06                    | 0.00                       | 2243.38           | 1658.60                      | 0.066 | 0.00              | 0.08            | 2.043     | A   |
| A39 Bristol Road south | 1046.86               | 261.72                  | 1044.01             | 623.68             | 112.00                    | 0.00                       | 2553.92           | 1925.80                      | 0.410 | 0.00              | 0.71            | 2.454     | A   |
| Industrial Estate      | 0.00                  | 0.00                    | 0.00                | 0.00               | 1156.02                   | 0.00                       | 1126.63           | 253.53                       | 0.000 | 0.00              | 0.00            | 0.000     | A   |
| A39 Bristol Road north | 683.87                | 170.97                  | 681.29              | 1028.40            | 127.62                    | 0.00                       | 1782.01           | 1631.32                      | 0.384 | 0.00              | 0.65            | 3.404     | A   |

#### Main results: (17:00-17:15)

| Name                   | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|------------------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| A39                    | 175.48                | 43.87                   | 175.40              | 263.09             | 705.22                    | 0.00                       | 2171.18           | 1658.60                      | 0.081 | 0.08              | 0.10            | 2.146     | A   |
| A39 Bristol Road south | 1250.06               | 312.51                  | 1248.94             | 746.61             | 134.01                    | 0.00                       | 2540.06           | 1925.80                      | 0.492 | 0.71              | 0.99            | 2.871     | A   |
| Industrial Estate      | 0.00                  | 0.00                    | 0.00                | 0.00               | 1382.94                   | 0.00                       | 1017.53           | 253.53                       | 0.000 | 0.00              | 0.00            | 0.000     | A   |
| A39 Bristol Road north | 816.61                | 204.15                  | 815.64              | 1230.27            | 152.67                    | 0.00                       | 1769.34           | 1631.32                      | 0.462 | 0.65              | 0.89            | 3.932     | A   |

#### Main results: (17:15-17:30)

| Name                   | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|------------------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| A39                    | 214.92                | 53.73                   | 214.79              | 322.00             | 863.07                    | 0.00                       | 2073.06           | 1658.60                      | 0.104 | 0.10              | 0.14            | 2.305     | A   |
| A39 Bristol Road south | 1531.00               | 382.75                  | 1528.66             | 913.78             | 164.08                    | 0.00                       | 2521.13           | 1925.80                      | 0.607 | 0.99              | 1.58            | 3.729     | A   |
| Industrial Estate      | 0.00                  | 0.00                    | 0.00                | 0.00               | 1692.74                   | 0.00                       | 868.59            | 253.53                       | 0.000 | 0.00              | 0.00            | 0.000     | A   |
| A39 Bristol Road north | 1000.13               | 250.03                  | 998.20              | 1505.88            | 186.87                    | 0.00                       | 1752.04           | 1631.32                      | 0.571 | 0.89              | 1.37            | 4.967     | A   |

#### Main results: (17:30-17:45)

| Name                   | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|------------------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| A39                    | 214.92                | 53.73                   | 214.92              | 322.55             | 864.70                    | 0.00                       | 2072.04           | 1658.60                      | 0.104 | 0.14              | 0.14            | 2.306     | A   |
| A39 Bristol Road south | 1531.00               | 382.75                  | 1530.97             | 915.39             | 164.23                    | 0.00                       | 2521.04           | 1925.80                      | 0.607 | 1.58              | 1.59            | 3.747     | A   |
| Industrial Estate      | 0.00                  | 0.00                    | 0.00                | 0.00               | 1695.20                   | 0.00                       | 867.41            | 253.53                       | 0.000 | 0.00              | 0.00            | 0.000     | A   |
| A39 Bristol Road north | 1000.13               | 250.03                  | 1000.10             | 1508.05            | 187.15                    | 0.00                       | 1751.90           | 1631.32                      | 0.571 | 1.37              | 1.38            | 4.993     | A   |

#### Main results: (17:45-18:00)



| Name                   | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|------------------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| A39                    | 175.48                | 43.87                   | 175.61              | 263.92             | 707.69                    | 0.00                       | 2169.64           | 1658.60                      | 0.081 | 0.14              | 0.11            | 2.148     | A   |
| A39 Bristol Road south | 1250.06               | 312.51                  | 1252.38             | 749.06             | 134.24                    | 0.00                       | 2539.92           | 1925.80                      | 0.492 | 1.59              | 1.01            | 2.888     | A   |
| Industrial Estate      | 0.00                  | 0.00                    | 0.00                | 0.00               | 1386.62                   | 0.00                       | 1015.76           | 253.53                       | 0.000 | 0.00              | 0.00            | 0.000     | A   |
| A39 Bristol Road north | 816.61                | 204.15                  | 818.52              | 1233.53            | 153.09                    | 0.00                       | 1769.13           | 1631.32                      | 0.462 | 1.38              | 0.90            | 3.958     | A   |

#### Main results: (18:00-18:15)

| Name                   | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|------------------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| A39                    | 146.96                | 36.74                   | 147.04              | 220.83             | 592.13                    | 0.00                       | 2241.47           | 1658.60                      | 0.066 | 0.11              | 0.08            | 2.045     | A   |
| A39 Bristol Road south | 1046.86               | 261.72                  | 1048.01             | 626.79             | 112.38                    | 0.00                       | 2553.68           | 1925.80                      | 0.410 | 1.01              | 0.72            | 2.465     | A   |
| Industrial Estate      | 0.00                  | 0.00                    | 0.00                | 0.00               | 1160.39                   | 0.00                       | 1124.53           | 253.53                       | 0.000 | 0.00              | 0.00            | 0.000     | A   |
| A39 Bristol Road north | 683.87                | 170.97                  | 684.86              | 1032.28            | 128.11                    | 0.00                       | 1781.76           | 1631.32                      | 0.384 | 0.90              | 0.65            | 3.427     | A   |

#### Queueing Delay Results for each time segment

#### Queueing Delay results: (16:45-17:00)

| Name                   | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|------------------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| A39                    | 1.23                           | 0.08                                 | 2.043                                  | A                             | A                           |
| A39 Bristol Road south | 10.48                          | 0.70                                 | 2.454                                  | A                             | A                           |
| Industrial Estate      | 0.00                           | 0.00                                 | 0.000                                  | A                             | A                           |
| A39 Bristol Road north | 9.45                           | 0.63                                 | 3.404                                  | A                             | A                           |

#### Queueing Delay results: (17:00-17:15)

| Name                   | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|------------------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| A39                    | 1.55                           | 0.10                                 | 2.146                                  | A                             | A                           |
| A39 Bristol Road south | 14.62                          | 0.97                                 | 2.871                                  | A                             | A                           |
| Industrial Estate      | 0.00                           | 0.00                                 | 0.000                                  | A                             | A                           |
| A39 Bristol Road north | 13.02                          | 0.87                                 | 3.932                                  | A                             | A                           |

#### Queueing Delay results: (17:15-17:30)

| Name | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| A39  | 2.04                           | 0.14                                 | 2.305                                  | A                             | A                           |

|                        |       |      |       |   |   |
|------------------------|-------|------|-------|---|---|
| A39 Bristol Road south | 23.01 | 1.53 | 3.729 | A | A |
| Industrial Estate      | 0.00  | 0.00 | 0.000 | A | A |
| A39 Bristol Road north | 19.91 | 1.33 | 4.967 | A | A |

#### Queueing Delay results: (17:30-17:45)

| Name                   | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|------------------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| A39                    | 2.06                           | 0.14                                 | 2.306                                  | A                             | A                           |
| A39 Bristol Road south | 23.74                          | 1.58                                 | 3.747                                  | A                             | A                           |
| Industrial Estate      | 0.00                           | 0.00                                 | 0.000                                  | A                             | A                           |
| A39 Bristol Road north | 20.63                          | 1.38                                 | 4.993                                  | A                             | A                           |

#### Queueing Delay results: (17:45-18:00)

| Name                   | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|------------------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| A39                    | 1.59                           | 0.11                                 | 2.148                                  | A                             | A                           |
| A39 Bristol Road south | 15.41                          | 1.03                                 | 2.888                                  | A                             | A                           |
| Industrial Estate      | 0.00                           | 0.00                                 | 0.000                                  | A                             | A                           |

|                        |       |      |       |   |   |
|------------------------|-------|------|-------|---|---|
| A39 Bristol Road north | 13.86 | 0.92 | 3.958 | A | A |
|------------------------|-------|------|-------|---|---|

### Queueing Delay results: (18:00-18:15)

| Name                   | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|------------------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| A39                    | 1.27                           | 0.08                                 | 2.045                                  | A                             | A                           |
| A39 Bristol Road south | 10.96                          | 0.73                                 | 2.465                                  | A                             | A                           |
| Industrial Estate      | 0.00                           | 0.00                                 | 0.000                                  | A                             | A                           |
| A39 Bristol Road north | 9.99                           | 0.67                                 | 3.427                                  | A                             | A                           |

## (Default Analysis Set) - 2016 Base, AM

### Data Errors and Warnings

*No errors or warnings*

### Analysis Set Details

| Name                   | Roundabout Capacity Model | Description | Include In Report | Use Specific Demand Set(s) | Specific Demand Set(s) | Locked | Network Flow Scaling Factor (%) | Network Capacity Scaling Factor (%) | Reason For Scaling Factors |
|------------------------|---------------------------|-------------|-------------------|----------------------------|------------------------|--------|---------------------------------|-------------------------------------|----------------------------|
| (Default Analysis Set) | ARCADY                    |             | ✓                 |                            |                        |        | 100.000                         | 100.000                             |                            |

### Demand Set Details

| Name          | Scenario Name | Time Period Name | Description | Traffic Profile Type | Model Start Time (HH:mm) | Model Finish Time (HH:mm) | Model Time Period Length (min) | Time Segment Length (min) | Results For Central Hour Only | Single Time Segment Only | Locked | Run Automatically | Use Relationship | Relationship |
|---------------|---------------|------------------|-------------|----------------------|--------------------------|---------------------------|--------------------------------|---------------------------|-------------------------------|--------------------------|--------|-------------------|------------------|--------------|
| 2016 Base, AM | 2016 Base     | AM               |             | ONE HOUR             | 07:45                    | 09:15                     | 90                             | 15                        |                               |                          |        | ✓                 |                  |              |

## Junction Network

### Junctions

| Name       | Junction Type | Arm Order | Grade Separated | Large Roundabout | Do Geometric Delay | Junction Delay (s) | Junction LOS |
|------------|---------------|-----------|-----------------|------------------|--------------------|--------------------|--------------|
| (untitled) | Roundabout    | 1,2,3,4   |                 |                  |                    | 20.44              | C            |

### Junction Network Options

| Driving Side | Lighting       |
|--------------|----------------|
| Left         | Normal/unknown |

## Arms

### Arms

| Name | Name | Description |
|------|------|-------------|
| A39  | A39  |             |

|                               |                        |  |
|-------------------------------|------------------------|--|
| <b>A39 Bristol Road south</b> | A39 Bristol Road south |  |
| <b>Industrial Estate</b>      | Industrial Estate      |  |
| <b>A39 Bristol Road north</b> | A39 Bristol Road north |  |

## Capacity Options

| Name                          | Minimum Capacity (PCU/hr) | Maximum Capacity (PCU/hr) | Assume Flat Start Profile | Initial Queue (PCU) |
|-------------------------------|---------------------------|---------------------------|---------------------------|---------------------|
| <b>A39</b>                    | 0.00                      | 99999.00                  |                           | 0.00                |
| <b>A39 Bristol Road south</b> | 0.00                      | 99999.00                  |                           | 0.00                |
| <b>Industrial Estate</b>      | 0.00                      | 99999.00                  |                           | 0.00                |
| <b>A39 Bristol Road north</b> | 0.00                      | 99999.00                  |                           | 0.00                |

## Roundabout Geometry

| Name                          | V - Approach road half-width (m) | E - Entry width (m) | I' - Effective flare length (m) | R - Entry radius (m) | D - Inscribed circle diameter (m) | PHI - Conflict (entry) angle (deg) | Exit Only |
|-------------------------------|----------------------------------|---------------------|---------------------------------|----------------------|-----------------------------------|------------------------------------|-----------|
| <b>A39</b>                    | 8.15                             | 8.15                | 0.00                            | 24.00                | 79.00                             | 16.00                              |           |
| <b>A39 Bristol Road south</b> | 8.00                             | 8.00                | 0.00                            | 45.00                | 79.00                             | 14.00                              |           |
| <b>Industrial Estate</b>      | 3.70                             | 6.85                | 11.00                           | 19.00                | 79.00                             | 18.00                              |           |
| <b>A39 Bristol Road north</b> | 3.50                             | 7.70                | 17.00                           | 19.00                | 79.00                             | 17.00                              |           |

## Pedestrian Crossings

| Name                   | Crossing Type |
|------------------------|---------------|
| A39                    | None          |
| A39 Bristol Road south | None          |
| Industrial Estate      | None          |
| A39 Bristol Road north | None          |

## Slope / Intercept / Capacity

### Roundabout Slope and Intercept used in model

| Name                   | Enter slope and intercept directly | Entered slope | Entered intercept (PCU/hr) | Final Slope | Final Intercept (PCU/hr) |
|------------------------|------------------------------------|---------------|----------------------------|-------------|--------------------------|
| A39                    |                                    | (calculated)  | (calculated)               | 0.622       | 2609.542                 |
| A39 Bristol Road south |                                    | (calculated)  | (calculated)               | 0.630       | 2624.432                 |
| Industrial Estate      |                                    | (calculated)  | (calculated)               | 0.481       | 1682.407                 |
| A39 Bristol Road north |                                    | (calculated)  | (calculated)               | 0.506       | 1846.557                 |

*The slope and intercept shown above include any corrections and adjustments.*

# Traffic Flows

## Demand Set Data Options

| Default Vehicle Mix | Vehicle Mix Varies Over Time | Vehicle Mix Varies Over Turn | Vehicle Mix Varies Over Entry | Vehicle Mix Source | PCU Factor for a HV (PCU) | Default Turning Proportions | Estimate from entry/exit counts | Turning Proportions Vary Over Time | Turning Proportions Vary Over Turn | Turning Proportions Vary Over Entry |
|---------------------|------------------------------|------------------------------|-------------------------------|--------------------|---------------------------|-----------------------------|---------------------------------|------------------------------------|------------------------------------|-------------------------------------|
|---------------------|------------------------------|------------------------------|-------------------------------|--------------------|---------------------------|-----------------------------|---------------------------------|------------------------------------|------------------------------------|-------------------------------------|

|  |  |   |   |                   |      |  |  |  |   |   |
|--|--|---|---|-------------------|------|--|--|--|---|---|
|  |  | ✓ | ✓ | HV<br>Percentages | 2.00 |  |  |  | ✓ | ✓ |
|--|--|---|---|-------------------|------|--|--|--|---|---|

# Entry Flows

## General Flows Data

| Name                   | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (%) |
|------------------------|--------------|--------------------|------------------------------|-------------------------|
| A39                    | ONE HOUR     | ✓                  | 340.00                       | 100.000                 |
| A39 Bristol Road south | ONE HOUR     | ✓                  | 1086.00                      | 100.000                 |
| Industrial Estate      | ONE HOUR     | ✓                  | 0.00                         | 100.000                 |
| A39 Bristol Road north | ONE HOUR     | ✓                  | 1311.00                      | 100.000                 |

# Turning Proportions

## Turning Counts or Proportions (Veh/hr) - (untitled) (for whole period)

|      | To |         |         |       |         |
|------|----|---------|---------|-------|---------|
| From |    | 1       | 2       | 3     | 4       |
|      | 1  | 1.000   | 225.000 | 0.000 | 114.000 |
|      | 2  | 294.000 | 39.000  | 0.000 | 753.000 |
|      | 3  | 0.000   | 0.000   | 0.000 | 0.000   |



|  |   |         |          |       |        |
|--|---|---------|----------|-------|--------|
|  | 4 | 180.000 | 1118.000 | 0.000 | 13.000 |
|--|---|---------|----------|-------|--------|

Turning Proportions (Veh) - (untitled) (for whole period)

|      |   | To   |      |      |      |
|------|---|------|------|------|------|
|      |   | 1    | 2    | 3    | 4    |
| From | 1 | 0.00 | 0.66 | 0.00 | 0.34 |
|      | 2 | 0.27 | 0.04 | 0.00 | 0.69 |
|      | 3 | 0.25 | 0.25 | 0.25 | 0.25 |
|      | 4 | 0.14 | 0.85 | 0.00 | 0.01 |

# Vehicle Mix

Average PCU Per Vehicle - (untitled) (for whole period)

|      |   | To    |       |       |       |
|------|---|-------|-------|-------|-------|
|      |   | 1     | 2     | 3     | 4     |
| From | 1 | 1.000 | 1.120 | 1.000 | 1.130 |
|      | 2 | 1.050 | 1.030 | 1.000 | 1.100 |
|      | 3 | 1.000 | 1.000 | 1.000 | 1.000 |
|      | 4 | 1.200 | 1.070 | 1.000 | 1.690 |

### Heavy Vehicle Percentages - (untitled) (for whole period)

|      |   | To     |        |       |        |
|------|---|--------|--------|-------|--------|
| From |   | 1      | 2      | 3     | 4      |
|      | 1 | 0.000  | 12.000 | 0.000 | 13.000 |
|      | 2 | 5.000  | 3.000  | 0.000 | 10.000 |
|      | 3 | 0.000  | 0.000  | 0.000 | 0.000  |
|      | 4 | 20.000 | 7.000  | 0.000 | 69.000 |

## Results

### Results Summary for whole modelled period

| Name                   | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) | Total Queueing Delay (PCU-min) | Average Queueing Delay (s) | Rate Of Queueing Delay (PCU-min/min) | Inclusive Total Queueing Delay (PCU-min) | Inclusive Average Queueing Delay (s) |
|------------------------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|--------------------------------|----------------------------|--------------------------------------|------------------------------------------|--------------------------------------|
| A39                    | 0.24    | 3.03          | 0.35            | A       | 350.36                  | 525.55                        | 23.47                          | 2.68                       | 0.26                                 | 23.47                                    | 2.68                                 |
| A39 Bristol Road south | 0.51    | 3.19          | 1.14            | A       | 1080.19                 | 1620.29                       | 74.43                          | 2.76                       | 0.83                                 | 74.44                                    | 2.76                                 |
| Industrial Estate      | 0.00    | 0.00          | 0.00            | A       | 0.00                    | 0.00                          | 0.00                           | 0.00                       | 0.00                                 | 0.00                                     | 0.00                                 |
| A39 Bristol Road north | 0.96    | 39.23         | 16.21           | E       | 1316.07                 | 1974.11                       | 555.22                         | 16.87                      | 6.17                                 | 555.28                                   | 16.88                                |

## Main Results for each time segment

### Main results: (07:45-08:00)

| Name                   | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|------------------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| A39                    | 287.45                | 71.86                   | 286.71              | 394.07             | 941.09                    | 0.00                       | 2024.56           | 1725.22                      | 0.142 | 0.00              | 0.19            | 2.325     | A   |
| A39 Bristol Road south | 886.24                | 221.56                  | 883.94              | 1113.90            | 113.91                    | 0.00                       | 2552.71           | 2188.53                      | 0.347 | 0.00              | 0.57            | 2.335     | A   |
| Industrial Estate      | 0.00                  | 0.00                    | 0.00                | 0.00               | 997.85                    | 0.00                       | 1202.67           | 338.00                       | 0.000 | 0.00              | 0.00            | 0.000     | A   |
| A39 Bristol Road north | 1079.76               | 269.94                  | 1072.44             | 735.13             | 262.72                    | 0.00                       | 1713.68           | 1388.01                      | 0.630 | 0.00              | 1.83            | 6.076     | A   |

### Main results: (08:00-08:15)

| Name                   | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|------------------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| A39                    | 343.25                | 85.81                   | 343.01              | 471.44             | 1125.94                   | 0.00                       | 1909.66           | 1725.22                      | 0.180 | 0.19              | 0.25            | 2.580     | A   |
| A39 Bristol Road south | 1058.25               | 264.56                  | 1057.46             | 1332.67            | 136.28                    | 0.00                       | 2538.63           | 2188.53                      | 0.417 | 0.57              | 0.77            | 2.633     | A   |
| Industrial Estate      | 0.00                  | 0.00                    | 0.00                | 0.00               | 1193.74                   | 0.00                       | 1108.49           | 338.00                       | 0.000 | 0.00              | 0.00            | 0.000     | A   |

|                        |         |        |         |        |        |      |         |         |       |      |      |       |   |
|------------------------|---------|--------|---------|--------|--------|------|---------|---------|-------|------|------|-------|---|
| A39 Bristol Road north | 1289.34 | 322.34 | 1283.09 | 879.45 | 314.29 | 0.00 | 1687.59 | 1388.01 | 0.764 | 1.83 | 3.39 | 9.587 | A |
|------------------------|---------|--------|---------|--------|--------|------|---------|---------|-------|------|------|-------|---|

### Main results: (08:15-08:30)

| Name                   | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|------------------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| A39                    | 420.39                | 105.10                  | 419.98              | 572.37             | 1351.37                   | 0.00                       | 1769.53           | 1725.22                      | 0.238 | 0.25              | 0.35            | 2.995     | A   |
| A39 Bristol Road south | 1296.09               | 324.02                  | 1294.61             | 1604.98            | 166.37                    | 0.00                       | 2519.69           | 2188.53                      | 0.514 | 0.77              | 1.14            | 3.180     | A   |
| Industrial Estate      | 0.00                  | 0.00                    | 0.00                | 0.00               | 1460.98                   | 0.00                       | 980.01            | 338.00                       | 0.000 | 0.00              | 0.00            | 0.000     | A   |
| A39 Bristol Road north | 1579.12               | 394.78                  | 1538.97             | 1076.21            | 384.78                    | 0.00                       | 1651.95           | 1388.01                      | 0.956 | 3.39              | 13.43           | 28.109    | D   |

### Main results: (08:30-08:45)

| Name                   | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|------------------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| A39                    | 420.39                | 105.10                  | 420.37              | 577.13             | 1376.09                   | 0.00                       | 1754.17           | 1725.22                      | 0.240 | 0.35              | 0.35            | 3.030     | A   |
| A39 Bristol Road south | 1296.09               | 324.02                  | 1296.07             | 1629.51            | 166.95                    | 0.00                       | 2519.32           | 2188.53                      | 0.514 | 1.14              | 1.14            | 3.189     | A   |
| Industrial Estate      | 0.00                  | 0.00                    | 0.00                | 0.00               | 1463.02                   | 0.00                       | 979.03            | 338.00                       | 0.000 | 0.00              | 0.00            | 0.000     | A   |
| A39 Bristol Road north | 1579.12               | 394.78                  | 1568.00             | 1077.81            | 385.21                    | 0.00                       | 1651.73           | 1388.01                      | 0.956 | 13.43             | 16.21           | 39.227    | E   |

### Main results: (08:45-09:00)

| Name                   | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|------------------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| A39                    | 343.25                | 85.81                   | 343.65              | 480.50             | 1173.76                   | 0.00                       | 1879.93           | 1725.22                      | 0.183 | 0.35              | 0.25            | 2.631     | A   |
| A39 Bristol Road south | 1058.25               | 264.56                  | 1059.71             | 1380.06            | 137.36                    | 0.00                       | 2537.95           | 2188.53                      | 0.417 | 1.14              | 0.78            | 2.641     | A   |
| Industrial Estate      | 0.00                  | 0.00                    | 0.00                | 0.00               | 1197.07                   | 0.00                       | 1106.89           | 338.00                       | 0.000 | 0.00              | 0.00            | 0.000     | A   |
| A39 Bristol Road north | 1289.34               | 322.34                  | 1339.30             | 882.11             | 314.96                    | 0.00                       | 1687.26           | 1388.01                      | 0.764 | 16.21             | 3.72            | 12.808    | B   |

### Main results: (09:00-09:15)

| Name                   | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|------------------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| A39                    | 287.45                | 71.86                   | 287.71              | 397.08             | 953.60                    | 0.00                       | 2016.79           | 1725.22                      | 0.143 | 0.25              | 0.19            | 2.339     | A   |
| A39 Bristol Road south | 886.24                | 221.56                  | 887.04              | 1126.84            | 114.47                    | 0.00                       | 2552.36           | 2188.53                      | 0.347 | 0.78              | 0.58            | 2.345     | A   |
| Industrial Estate      | 0.00                  | 0.00                    | 0.00                | 0.00               | 1001.51                   | 0.00                       | 1200.91           | 338.00                       | 0.000 | 0.00              | 0.00            | 0.000     | A   |
| A39 Bristol Road north | 1079.76               | 269.94                  | 1087.04             | 737.87             | 263.64                    | 0.00                       | 1713.21           | 1388.01                      | 0.630 | 3.72              | 1.90            | 6.362     | A   |

### Queueing Delay Results for each time segment

#### Queueing Delay results: (07:45-08:00)

| Name                   | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|------------------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| A39                    | 2.74                           | 0.18                                 | 2.325                                  | A                             | A                           |
| A39 Bristol Road south | 8.46                           | 0.56                                 | 2.335                                  | A                             | A                           |
| Industrial Estate      | 0.00                           | 0.00                                 | 0.000                                  | A                             | A                           |
| A39 Bristol Road north | 26.02                          | 1.73                                 | 6.076                                  | A                             | A                           |

#### Queueing Delay results: (08:00-08:15)

| Name                   | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|------------------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| A39                    | 3.64                           | 0.24                                 | 2.580                                  | A                             | A                           |
| A39 Bristol Road south | 11.39                          | 0.76                                 | 2.633                                  | A                             | A                           |
| Industrial Estate      | 0.00                           | 0.00                                 | 0.000                                  | A                             | A                           |
| A39 Bristol Road north | 47.30                          | 3.15                                 | 9.587                                  | A                             | A                           |

#### Queueing Delay results: (08:15-08:30)

| Name | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| A39  | 5.15                           | 0.34                                 | 2.995                                  | A                             | A                           |

|                        |        |       |        |   |   |
|------------------------|--------|-------|--------|---|---|
| A39 Bristol Road south | 16.74  | 1.12  | 3.180  | A | A |
| Industrial Estate      | 0.00   | 0.00  | 0.000  | A | A |
| A39 Bristol Road north | 152.27 | 10.15 | 28.109 | D | C |

#### Queueing Delay results: (08:30-08:45)

| Name                   | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|------------------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| A39                    | 5.27                           | 0.35                                 | 3.030                                  | A                             | A                           |
| A39 Bristol Road south | 17.14                          | 1.14                                 | 3.189                                  | A                             | A                           |
| Industrial Estate      | 0.00                           | 0.00                                 | 0.000                                  | A                             | A                           |
| A39 Bristol Road north | 224.78                         | 14.99                                | 39.227                                 | E                             | D                           |

#### Queueing Delay results: (08:45-09:00)

| Name                   | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|------------------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| A39                    | 3.83                           | 0.26                                 | 2.631                                  | A                             | A                           |
| A39 Bristol Road south | 11.89                          | 0.79                                 | 2.641                                  | A                             | A                           |
| Industrial Estate      | 0.00                           | 0.00                                 | 0.000                                  | A                             | A                           |

|                        |       |      |        |   |   |
|------------------------|-------|------|--------|---|---|
| A39 Bristol Road north | 74.94 | 5.00 | 12.808 | B | B |
|------------------------|-------|------|--------|---|---|

#### Queueing Delay results: (09:00-09:15)

| Name                   | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|------------------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| A39                    | 2.84                           | 0.19                                 | 2.339                                  | A                             | A                           |
| A39 Bristol Road south | 8.80                           | 0.59                                 | 2.345                                  | A                             | A                           |
| Industrial Estate      | 0.00                           | 0.00                                 | 0.000                                  | A                             | A                           |
| A39 Bristol Road north | 29.90                          | 1.99                                 | 6.362                                  | A                             | A                           |

## (Default Analysis Set) - 2016 Base, PM

### Data Errors and Warnings

*No errors or warnings*

### Analysis Set Details

| Name                   | Roundabout Capacity Model | Description | Include In Report | Use Specific Demand Set(s) | Specific Demand Set(s) | Locked | Network Flow Scaling Factor (%) | Network Capacity Scaling Factor (%) | Reason For Scaling Factors |
|------------------------|---------------------------|-------------|-------------------|----------------------------|------------------------|--------|---------------------------------|-------------------------------------|----------------------------|
| (Default Analysis Set) | ARCADY                    |             | ✓                 |                            |                        |        | 100.000                         | 100.000                             |                            |

### Demand Set Details



| Name          | Scenario Name | Time Period Name | Description | Traffic Profile Type | Model Start Time (HH:mm) | Model Finish Time (HH:mm) | Model Time Period Length (min) | Time Segment Length (min) | Results For Central Hour Only | Single Time Segment Only | Locked | Run Automatically | Use Relationship | Relationship |
|---------------|---------------|------------------|-------------|----------------------|--------------------------|---------------------------|--------------------------------|---------------------------|-------------------------------|--------------------------|--------|-------------------|------------------|--------------|
| 2016 Base, PM | 2016 Base     | PM               |             | ONE HOUR             | 16:45                    | 18:15                     | 90                             | 15                        |                               |                          |        | ✓                 |                  |              |

## Junction Network

### Junctions

| Name       | Junction Type | Arm Order | Grade Separated | Large Roundabout | Do Geometric Delay | Junction Delay (s) | Junction LOS |
|------------|---------------|-----------|-----------------|------------------|--------------------|--------------------|--------------|
| (untitled) | Roundabout    | 1,2,3,4   |                 |                  |                    | 5.23               | A            |

### Junction Network Options

| Driving Side | Lighting       |
|--------------|----------------|
| Left         | Normal/unknown |

## Arms

### Arms

| Name | Name | Description |
|------|------|-------------|
| A39  | A39  |             |

|                               |                        |  |
|-------------------------------|------------------------|--|
| <b>A39 Bristol Road south</b> | A39 Bristol Road south |  |
| <b>Industrial Estate</b>      | Industrial Estate      |  |
| <b>A39 Bristol Road north</b> | A39 Bristol Road north |  |

## Capacity Options

| Name                          | Minimum Capacity (PCU/hr) | Maximum Capacity (PCU/hr) | Assume Flat Start Profile | Initial Queue (PCU) |
|-------------------------------|---------------------------|---------------------------|---------------------------|---------------------|
| <b>A39</b>                    | 0.00                      | 99999.00                  |                           | 0.00                |
| <b>A39 Bristol Road south</b> | 0.00                      | 99999.00                  |                           | 0.00                |
| <b>Industrial Estate</b>      | 0.00                      | 99999.00                  |                           | 0.00                |
| <b>A39 Bristol Road north</b> | 0.00                      | 99999.00                  |                           | 0.00                |

## Roundabout Geometry

| Name                          | V - Approach road half-width (m) | E - Entry width (m) | I' - Effective flare length (m) | R - Entry radius (m) | D - Inscribed circle diameter (m) | PHI - Conflict (entry) angle (deg) | Exit Only |
|-------------------------------|----------------------------------|---------------------|---------------------------------|----------------------|-----------------------------------|------------------------------------|-----------|
| <b>A39</b>                    | 8.15                             | 8.15                | 0.00                            | 24.00                | 79.00                             | 16.00                              |           |
| <b>A39 Bristol Road south</b> | 8.00                             | 8.00                | 0.00                            | 45.00                | 79.00                             | 14.00                              |           |
| <b>Industrial Estate</b>      | 3.70                             | 6.85                | 11.00                           | 19.00                | 79.00                             | 18.00                              |           |
| <b>A39 Bristol Road north</b> | 3.50                             | 7.70                | 17.00                           | 19.00                | 79.00                             | 17.00                              |           |

## Pedestrian Crossings

| Name                   | Crossing Type |
|------------------------|---------------|
| A39                    | None          |
| A39 Bristol Road south | None          |
| Industrial Estate      | None          |
| A39 Bristol Road north | None          |

## Slope / Intercept / Capacity

### Roundabout Slope and Intercept used in model

| Name                   | Enter slope and intercept directly | Entered slope | Entered intercept (PCU/hr) | Final Slope | Final Intercept (PCU/hr) |
|------------------------|------------------------------------|---------------|----------------------------|-------------|--------------------------|
| A39                    |                                    | (calculated)  | (calculated)               | 0.622       | 2609.542                 |
| A39 Bristol Road south |                                    | (calculated)  | (calculated)               | 0.630       | 2624.432                 |
| Industrial Estate      |                                    | (calculated)  | (calculated)               | 0.481       | 1682.407                 |
| A39 Bristol Road north |                                    | (calculated)  | (calculated)               | 0.506       | 1846.557                 |

*The slope and intercept shown above include any corrections and adjustments.*

# Traffic Flows

## Demand Set Data Options

| Default Vehicle Mix | Vehicle Mix Varies Over Time | Vehicle Mix Varies Over Turn | Vehicle Mix Varies Over Entry | Vehicle Mix Source | PCU Factor for a HV (PCU) | Default Turning Proportions | Estimate from entry/exit counts | Turning Proportions Vary Over Time | Turning Proportions Vary Over Turn | Turning Proportions Vary Over Entry |
|---------------------|------------------------------|------------------------------|-------------------------------|--------------------|---------------------------|-----------------------------|---------------------------------|------------------------------------|------------------------------------|-------------------------------------|
|---------------------|------------------------------|------------------------------|-------------------------------|--------------------|---------------------------|-----------------------------|---------------------------------|------------------------------------|------------------------------------|-------------------------------------|

|  |  |   |   |                   |      |  |  |  |   |   |
|--|--|---|---|-------------------|------|--|--|--|---|---|
|  |  | ✓ | ✓ | HV<br>Percentages | 2.00 |  |  |  | ✓ | ✓ |
|--|--|---|---|-------------------|------|--|--|--|---|---|

# Entry Flows

## General Flows Data

| Name                   | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (%) |
|------------------------|--------------|--------------------|------------------------------|-------------------------|
| A39                    | ONE HOUR     | ✓                  | 457.00                       | 100.000                 |
| A39 Bristol Road south | ONE HOUR     | ✓                  | 1560.00                      | 100.000                 |
| Industrial Estate      | ONE HOUR     | ✓                  | 0.00                         | 100.000                 |
| A39 Bristol Road north | ONE HOUR     | ✓                  | 922.00                       | 100.000                 |

# Turning Proportions

## Turning Counts or Proportions (Veh/hr) - (untitled) (for whole period)

|      | To |         |         |       |          |
|------|----|---------|---------|-------|----------|
| From |    | 1       | 2       | 3     | 4        |
|      | 1  | 0.000   | 339.000 | 0.000 | 118.000  |
|      | 2  | 327.000 | 15.000  | 0.000 | 1218.000 |
|      | 3  | 0.000   | 0.000   | 0.000 | 0.000    |

|  |   |         |         |       |        |
|--|---|---------|---------|-------|--------|
|  | 4 | 164.000 | 733.000 | 0.000 | 25.000 |
|--|---|---------|---------|-------|--------|

Turning Proportions (Veh) - (untitled) (for whole period)

|      | To |      |      |      |      |
|------|----|------|------|------|------|
| From |    | 1    | 2    | 3    | 4    |
|      | 1  | 0.00 | 0.74 | 0.00 | 0.26 |
|      | 2  | 0.21 | 0.01 | 0.00 | 0.78 |
|      | 3  | 0.25 | 0.25 | 0.25 | 0.25 |
|      | 4  | 0.18 | 0.80 | 0.00 | 0.03 |

# Vehicle Mix

Average PCU Per Vehicle - (untitled) (for whole period)

|      | To |       |       |       |       |
|------|----|-------|-------|-------|-------|
| From |    | 1     | 2     | 3     | 4     |
|      | 1  | 1.000 | 1.050 | 1.000 | 1.240 |
|      | 2  | 1.090 | 1.200 | 1.000 | 1.030 |
|      | 3  | 1.000 | 1.000 | 1.000 | 1.000 |
|      | 4  | 1.050 | 1.030 | 1.000 | 1.320 |

### Heavy Vehicle Percentages - (untitled) (for whole period)

|      | To |       |        |       |        |
|------|----|-------|--------|-------|--------|
| From |    | 1     | 2      | 3     | 4      |
|      | 1  | 0.000 | 5.000  | 0.000 | 24.000 |
|      | 2  | 9.000 | 20.000 | 0.000 | 3.000  |
|      | 3  | 0.000 | 0.000  | 0.000 | 0.000  |
|      | 4  | 5.000 | 3.000  | 0.000 | 32.000 |

## Results

### Results Summary for whole modelled period

| Name                   | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) | Total Queueing Delay (PCU-min) | Average Queueing Delay (s) | Rate Of Queueing Delay (PCU-min/min) | Inclusive Total Queueing Delay (PCU-min) | Inclusive Average Queueing Delay (s) |
|------------------------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|--------------------------------|----------------------------|--------------------------------------|------------------------------------------|--------------------------------------|
| A39                    | 0.27    | 2.63          | 0.40            | A       | 460.89                  | 691.34                        | 27.43                          | 2.38                       | 0.30                                 | 27.43                                    | 2.38                                 |
| A39 Bristol Road south | 0.72    | 5.32          | 2.62            | A       | 1494.77                 | 2242.16                       | 149.10                         | 3.99                       | 1.66                                 | 149.11                                   | 3.99                                 |
| Industrial Estate      | 0.00    | 0.00          | 0.00            | A       | 0.00                    | 0.00                          | 0.00                           | 0.00                       | 0.00                                 | 0.00                                     | 0.00                                 |
| A39 Bristol Road north | 0.65    | 6.45          | 1.88            | A       | 881.09                  | 1321.63                       | 110.96                         | 5.04                       | 1.23                                 | 110.97                                   | 5.04                                 |

## Main Results for each time segment

### Main results: (16:45-17:00)

| Name                   | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|------------------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| A39                    | 378.14                | 94.53                   | 377.24              | 396.59             | 604.25                    | 0.00                       | 2233.94           | 1743.12                      | 0.169 | 0.00              | 0.22            | 2.130     | A   |
| A39 Bristol Road south | 1226.37               | 306.59                  | 1222.50             | 846.85             | 134.64                    | 0.00                       | 2539.67           | 2218.48                      | 0.483 | 0.00              | 0.97            | 2.846     | A   |
| Industrial Estate      | 0.00                  | 0.00                    | 0.00                | 0.00               | 1357.13                   | 0.00                       | 1029.94           | 347.62                       | 0.000 | 0.00              | 0.00            | 0.000     | A   |
| A39 Bristol Road north | 722.88                | 180.72                  | 719.84              | 1076.13            | 281.00                    | 0.00                       | 1704.43           | 1456.78                      | 0.424 | 0.00              | 0.76            | 3.797     | A   |

### Main results: (17:00-17:15)

| Name                   | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|------------------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| A39                    | 451.53                | 112.88                  | 451.27              | 474.58             | 723.46                    | 0.00                       | 2159.84           | 1743.13                      | 0.209 | 0.22              | 0.29            | 2.315     | A   |
| A39 Bristol Road south | 1464.41               | 366.10                  | 1462.56             | 1013.64            | 161.08                    | 0.00                       | 2523.02           | 2218.48                      | 0.580 | 0.97              | 1.43            | 3.539     | A   |
| Industrial Estate      | 0.00                  | 0.00                    | 0.00                | 0.00               | 1623.64                   | 0.00                       | 901.81            | 347.62                       | 0.000 | 0.00              | 0.00            | 0.000     | A   |

|                        |        |        |        |         |        |      |         |         |       |      |      |       |   |
|------------------------|--------|--------|--------|---------|--------|------|---------|---------|-------|------|------|-------|---|
| A39 Bristol Road north | 863.19 | 215.80 | 861.86 | 1287.46 | 336.18 | 0.00 | 1676.52 | 1456.78 | 0.515 | 0.76 | 1.09 | 4.594 | A |
|------------------------|--------|--------|--------|---------|--------|------|---------|---------|-------|------|------|-------|---|

### Main results: (17:15-17:30)

| Name                   | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|------------------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| A39                    | 553.01                | 138.25                  | 552.56              | 580.46             | 884.85                    | 0.00                       | 2059.52           | 1743.13                      | 0.269 | 0.29              | 0.40            | 2.625     | A   |
| A39 Bristol Road south | 1793.53               | 448.38                  | 1788.87             | 1240.22            | 197.20                    | 0.00                       | 2500.28           | 2218.48                      | 0.717 | 1.43              | 2.60            | 5.249     | A   |
| Industrial Estate      | 0.00                  | 0.00                    | 0.00                | 0.00               | 1986.06                   | 0.00                       | 727.57            | 347.62                       | 0.000 | 0.00              | 0.00            | 0.000     | A   |
| A39 Bristol Road north | 1057.19               | 264.30                  | 1054.14             | 1574.88            | 411.18                    | 0.00                       | 1638.59           | 1456.78                      | 0.645 | 1.09              | 1.86            | 6.382     | A   |

### Main results: (17:30-17:45)

| Name                   | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|------------------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| A39                    | 553.01                | 138.25                  | 553.01              | 582.00             | 887.35                    | 0.00                       | 2057.97           | 1743.13                      | 0.269 | 0.40              | 0.40            | 2.628     | A   |
| A39 Bristol Road south | 1793.53               | 448.38                  | 1793.43             | 1242.92            | 197.43                    | 0.00                       | 2500.13           | 2218.48                      | 0.717 | 2.60              | 2.62            | 5.317     | A   |
| Industrial Estate      | 0.00                  | 0.00                    | 0.00                | 0.00               | 1990.86                   | 0.00                       | 725.26            | 347.62                       | 0.000 | 0.00              | 0.00            | 0.000     | A   |
| A39 Bristol Road north | 1057.19               | 264.30                  | 1057.11             | 1578.63            | 412.23                    | 0.00                       | 1638.06           | 1456.78                      | 0.645 | 1.86              | 1.88            | 6.451     | A   |



### Main results: (17:45-18:00)

| Name                   | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|------------------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| A39                    | 451.53                | 112.88                  | 451.97              | 476.79             | 727.11                    | 0.00                       | 2157.57           | 1743.13                      | 0.209 | 0.40              | 0.29            | 2.321     | A   |
| A39 Bristol Road south | 1464.41               | 366.10                  | 1469.07             | 1017.65            | 161.44                    | 0.00                       | 2522.79           | 2218.48                      | 0.580 | 2.62              | 1.46            | 3.582     | A   |
| Industrial Estate      | 0.00                  | 0.00                    | 0.00                | 0.00               | 1630.51                   | 0.00                       | 898.51            | 347.62                       | 0.000 | 0.00              | 0.00            | 0.000     | A   |
| A39 Bristol Road north | 863.19                | 215.80                  | 866.23              | 1292.83            | 337.68                    | 0.00                       | 1675.77           | 1456.78                      | 0.515 | 1.88              | 1.12            | 4.649     | A   |

### Main results: (18:00-18:15)

| Name                   | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|------------------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| A39                    | 378.14                | 94.53                   | 378.40              | 398.65             | 607.94                    | 0.00                       | 2231.64           | 1743.12                      | 0.169 | 0.29              | 0.22            | 2.136     | A   |
| A39 Bristol Road south | 1226.37               | 306.59                  | 1228.28             | 851.22             | 135.13                    | 0.00                       | 2539.36           | 2218.48                      | 0.483 | 1.46              | 0.98            | 2.873     | A   |
| Industrial Estate      | 0.00                  | 0.00                    | 0.00                | 0.00               | 1363.41                   | 0.00                       | 1026.92           | 347.62                       | 0.000 | 0.00              | 0.00            | 0.000     | A   |
| A39 Bristol Road north | 722.88                | 180.72                  | 724.26              | 1081.08            | 282.33                    | 0.00                       | 1703.76           | 1456.78                      | 0.424 | 1.12              | 0.77            | 3.831     | A   |

### Queueing Delay Results for each time segment

#### Queueing Delay results: (16:45-17:00)

| Name                   | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|------------------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| A39                    | 3.30                           | 0.22                                 | 2.130                                  | A                             | A                           |
| A39 Bristol Road south | 14.19                          | 0.95                                 | 2.846                                  | A                             | A                           |
| Industrial Estate      | 0.00                           | 0.00                                 | 0.000                                  | A                             | A                           |
| A39 Bristol Road north | 11.11                          | 0.74                                 | 3.797                                  | A                             | A                           |

#### Queueing Delay results: (17:00-17:15)

| Name                   | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|------------------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| A39                    | 4.30                           | 0.29                                 | 2.315                                  | A                             | A                           |
| A39 Bristol Road south | 20.94                          | 1.40                                 | 3.539                                  | A                             | A                           |
| Industrial Estate      | 0.00                           | 0.00                                 | 0.000                                  | A                             | A                           |
| A39 Bristol Road north | 15.98                          | 1.07                                 | 4.594                                  | A                             | A                           |

#### Queueing Delay results: (17:15-17:30)

| Name | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| A39  | 5.95                           | 0.40                                 | 2.625                                  | A                             | A                           |

|                        |       |      |       |   |   |
|------------------------|-------|------|-------|---|---|
| A39 Bristol Road south | 37.20 | 2.48 | 5.249 | A | A |
| Industrial Estate      | 0.00  | 0.00 | 0.000 | A | A |
| A39 Bristol Road north | 26.66 | 1.78 | 6.382 | A | A |

#### Queueing Delay results: (17:30-17:45)

| Name                   | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|------------------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| A39                    | 6.04                           | 0.40                                 | 2.628                                  | A                             | A                           |
| A39 Bristol Road south | 39.20                          | 2.61                                 | 5.317                                  | A                             | A                           |
| Industrial Estate      | 0.00                           | 0.00                                 | 0.000                                  | A                             | A                           |
| A39 Bristol Road north | 28.03                          | 1.87                                 | 6.451                                  | A                             | A                           |

#### Queueing Delay results: (17:45-18:00)

| Name                   | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|------------------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| A39                    | 4.43                           | 0.30                                 | 2.321                                  | A                             | A                           |
| A39 Bristol Road south | 22.55                          | 1.50                                 | 3.582                                  | A                             | A                           |
| Industrial Estate      | 0.00                           | 0.00                                 | 0.000                                  | A                             | A                           |

|                        |       |      |       |   |   |
|------------------------|-------|------|-------|---|---|
| A39 Bristol Road north | 17.31 | 1.15 | 4.649 | A | A |
|------------------------|-------|------|-------|---|---|

### Queueing Delay results: (18:00-18:15)

| Name                   | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|------------------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| A39                    | 3.41                           | 0.23                                 | 2.136                                  | A                             | A                           |
| A39 Bristol Road south | 15.02                          | 1.00                                 | 2.873                                  | A                             | A                           |
| Industrial Estate      | 0.00                           | 0.00                                 | 0.000                                  | A                             | A                           |
| A39 Bristol Road north | 11.86                          | 0.79                                 | 3.831                                  | A                             | A                           |

## (Default Analysis Set) - 2016 Dev, AM

### Data Errors and Warnings

No errors or warnings

### Analysis Set Details

| Name                   | Roundabout Capacity Model | Description | Include In Report | Use Specific Demand Set(s) | Specific Demand Set(s) | Locked | Network Flow Scaling Factor (%) | Network Capacity Scaling Factor (%) | Reason For Scaling Factors |
|------------------------|---------------------------|-------------|-------------------|----------------------------|------------------------|--------|---------------------------------|-------------------------------------|----------------------------|
| (Default Analysis Set) | ARCADY                    |             | ✓                 |                            |                        |        | 100.000                         | 100.000                             |                            |

### Demand Set Details

| Name         | Scenario Name | Time Period Name | Description | Traffic Profile Type | Model Start Time (HH:mm) | Model Finish Time (HH:mm) | Model Time Period Length (min) | Time Segment Length (min) | Results For Central Hour Only | Single Time Segment Only | Locked | Run Automatically | Use Relationship | Relationship |
|--------------|---------------|------------------|-------------|----------------------|--------------------------|---------------------------|--------------------------------|---------------------------|-------------------------------|--------------------------|--------|-------------------|------------------|--------------|
| 2016 Dev, AM | 2016 Dev      | AM               |             | ONE HOUR             | 07:45                    | 09:15                     | 90                             | 15                        |                               |                          |        | ✓                 |                  |              |

## Junction Network

### Junctions

| Name       | Junction Type | Arm Order | Grade Separated | Large Roundabout | Do Geometric Delay | Junction Delay (s) | Junction LOS |
|------------|---------------|-----------|-----------------|------------------|--------------------|--------------------|--------------|
| (untitled) | Roundabout    | 1,2,3,4   |                 |                  |                    | 21.28              | C            |

### Junction Network Options

| Driving Side | Lighting       |
|--------------|----------------|
| Left         | Normal/unknown |

## Arms

### Arms

| Name | Name | Description |
|------|------|-------------|
| A39  | A39  |             |

|                               |                        |  |
|-------------------------------|------------------------|--|
| <b>A39 Bristol Road south</b> | A39 Bristol Road south |  |
| <b>Industrial Estate</b>      | Industrial Estate      |  |
| <b>A39 Bristol Road north</b> | A39 Bristol Road north |  |

## Capacity Options

| Name                          | Minimum Capacity (PCU/hr) | Maximum Capacity (PCU/hr) | Assume Flat Start Profile | Initial Queue (PCU) |
|-------------------------------|---------------------------|---------------------------|---------------------------|---------------------|
| <b>A39</b>                    | 0.00                      | 99999.00                  |                           | 0.00                |
| <b>A39 Bristol Road south</b> | 0.00                      | 99999.00                  |                           | 0.00                |
| <b>Industrial Estate</b>      | 0.00                      | 99999.00                  |                           | 0.00                |
| <b>A39 Bristol Road north</b> | 0.00                      | 99999.00                  |                           | 0.00                |

## Roundabout Geometry

| Name                          | V - Approach road half-width (m) | E - Entry width (m) | I' - Effective flare length (m) | R - Entry radius (m) | D - Inscribed circle diameter (m) | PHI - Conflict (entry) angle (deg) | Exit Only |
|-------------------------------|----------------------------------|---------------------|---------------------------------|----------------------|-----------------------------------|------------------------------------|-----------|
| <b>A39</b>                    | 8.15                             | 8.15                | 0.00                            | 24.00                | 79.00                             | 16.00                              |           |
| <b>A39 Bristol Road south</b> | 8.00                             | 8.00                | 0.00                            | 45.00                | 79.00                             | 14.00                              |           |
| <b>Industrial Estate</b>      | 3.70                             | 6.85                | 11.00                           | 19.00                | 79.00                             | 18.00                              |           |
| <b>A39 Bristol Road north</b> | 3.50                             | 7.70                | 17.00                           | 19.00                | 79.00                             | 17.00                              |           |

## Pedestrian Crossings

| Name                   | Crossing Type |
|------------------------|---------------|
| A39                    | None          |
| A39 Bristol Road south | None          |
| Industrial Estate      | None          |
| A39 Bristol Road north | None          |

## Slope / Intercept / Capacity

### Roundabout Slope and Intercept used in model

| Name                   | Enter slope and intercept directly | Entered slope | Entered intercept (PCU/hr) | Final Slope | Final Intercept (PCU/hr) |
|------------------------|------------------------------------|---------------|----------------------------|-------------|--------------------------|
| A39                    |                                    | (calculated)  | (calculated)               | 0.622       | 2609.542                 |
| A39 Bristol Road south |                                    | (calculated)  | (calculated)               | 0.630       | 2624.432                 |
| Industrial Estate      |                                    | (calculated)  | (calculated)               | 0.481       | 1682.407                 |
| A39 Bristol Road north |                                    | (calculated)  | (calculated)               | 0.506       | 1846.557                 |

*The slope and intercept shown above include any corrections and adjustments.*

# Traffic Flows

## Demand Set Data Options

| Default Vehicle Mix | Vehicle Mix Varies Over Time | Vehicle Mix Varies Over Turn | Vehicle Mix Varies Over Entry | Vehicle Mix Source | PCU Factor for a HV (PCU) | Default Turning Proportions | Estimate from entry/exit counts | Turning Proportions Vary Over Time | Turning Proportions Vary Over Turn | Turning Proportions Vary Over Entry |
|---------------------|------------------------------|------------------------------|-------------------------------|--------------------|---------------------------|-----------------------------|---------------------------------|------------------------------------|------------------------------------|-------------------------------------|
|---------------------|------------------------------|------------------------------|-------------------------------|--------------------|---------------------------|-----------------------------|---------------------------------|------------------------------------|------------------------------------|-------------------------------------|

|  |  |   |   |                   |      |  |  |  |   |   |
|--|--|---|---|-------------------|------|--|--|--|---|---|
|  |  | ✓ | ✓ | HV<br>Percentages | 2.00 |  |  |  | ✓ | ✓ |
|--|--|---|---|-------------------|------|--|--|--|---|---|

# Entry Flows

## General Flows Data

| Name                   | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (%) |
|------------------------|--------------|--------------------|------------------------------|-------------------------|
| A39                    | ONE HOUR     | ✓                  | 422.00                       | 100.000                 |
| A39 Bristol Road south | ONE HOUR     | ✓                  | 992.00                       | 100.000                 |
| Industrial Estate      | ONE HOUR     | ✓                  | 0.00                         | 100.000                 |
| A39 Bristol Road north | ONE HOUR     | ✓                  | 1311.00                      | 100.000                 |

# Turning Proportions

## Turning Counts or Proportions (Veh/hr) - (untitled) (for whole period)

|      | To |         |         |       |         |
|------|----|---------|---------|-------|---------|
| From |    | 1       | 2       | 3     | 4       |
|      | 1  | 0.000   | 308.000 | 0.000 | 114.000 |
|      | 2  | 300.000 | 39.000  | 0.000 | 653.000 |
|      | 3  | 0.000   | 0.000   | 0.000 | 0.000   |



|  |   |         |          |       |        |
|--|---|---------|----------|-------|--------|
|  | 4 | 180.000 | 1118.000 | 0.000 | 13.000 |
|--|---|---------|----------|-------|--------|

Turning Proportions (Veh) - (untitled) (for whole period)

|      |   | To   |      |      |      |
|------|---|------|------|------|------|
|      |   | 1    | 2    | 3    | 4    |
| From | 1 | 0.00 | 0.73 | 0.00 | 0.27 |
|      | 2 | 0.30 | 0.04 | 0.00 | 0.66 |
|      | 3 | 0.25 | 0.25 | 0.25 | 0.25 |
|      | 4 | 0.14 | 0.85 | 0.00 | 0.01 |

# Vehicle Mix

Average PCU Per Vehicle - (untitled) (for whole period)

|      |   | To    |       |       |       |
|------|---|-------|-------|-------|-------|
|      |   | 1     | 2     | 3     | 4     |
| From | 1 | 1.000 | 1.100 | 1.000 | 1.130 |
|      | 2 | 1.070 | 1.030 | 1.000 | 1.100 |
|      | 3 | 1.000 | 1.000 | 1.000 | 1.000 |
|      | 4 | 1.200 | 1.070 | 1.000 | 1.690 |

### Heavy Vehicle Percentages - (untitled) (for whole period)

|      | To |        |        |       |        |
|------|----|--------|--------|-------|--------|
| From |    | 1      | 2      | 3     | 4      |
|      | 1  | 0.000  | 10.000 | 0.000 | 13.000 |
|      | 2  | 7.000  | 3.000  | 0.000 | 10.000 |
|      | 3  | 0.000  | 0.000  | 0.000 | 0.000  |
|      | 4  | 20.000 | 7.000  | 0.000 | 69.000 |

## Results

### Results Summary for whole modelled period

| Name                   | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) | Total Queueing Delay (PCU-min) | Average Queueing Delay (s) | Rate Of Queueing Delay (PCU-min/min) | Inclusive Total Queueing Delay (PCU-min) | Inclusive Average Queueing Delay (s) |
|------------------------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|--------------------------------|----------------------------|--------------------------------------|------------------------------------------|--------------------------------------|
| A39                    | 0.29    | 3.22          | 0.46            | A       | 429.10                  | 643.64                        | 30.03                          | 2.80                       | 0.33                                 | 30.03                                    | 2.80                                 |
| A39 Bristol Road south | 0.47    | 2.94          | 0.97            | A       | 990.54                  | 1485.81                       | 64.16                          | 2.59                       | 0.71                                 | 64.16                                    | 2.59                                 |
| Industrial Estate      | 0.00    | 0.00          | 0.00            | A       | 0.00                    | 0.00                          | 0.00                           | 0.00                       | 0.00                                 | 0.00                                     | 0.00                                 |
| A39 Bristol Road north | 0.96    | 40.98         | 16.97           | E       | 1316.07                 | 1974.11                       | 572.61                         | 17.40                      | 6.36                                 | 572.67                                   | 17.41                                |

## Main Results for each time segment

### Main results: (07:45-08:00)

| Name                   | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|------------------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| A39                    | 352.05                | 88.01                   | 351.12              | 402.57             | 941.06                    | 0.00                       | 2024.58           | 1744.12                      | 0.174 | 0.00              | 0.23            | 2.382     | A   |
| A39 Bristol Road south | 812.68                | 203.17                  | 810.66              | 1179.02            | 113.15                    | 0.00                       | 2553.19           | 2252.66                      | 0.318 | 0.00              | 0.51            | 2.246     | A   |
| Industrial Estate      | 0.00                  | 0.00                    | 0.00                | 0.00               | 923.81                    | 0.00                       | 1238.27           | 358.61                       | 0.000 | 0.00              | 0.00            | 0.000     | A   |
| A39 Bristol Road north | 1079.76               | 269.94                  | 1072.40             | 652.58             | 271.23                    | 0.00                       | 1709.37           | 1329.32                      | 0.632 | 0.00              | 1.84            | 6.115     | A   |

### Main results: (08:00-08:15)

| Name                   | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|------------------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| A39                    | 420.38                | 105.10                  | 420.06              | 481.60             | 1125.84                   | 0.00                       | 1909.72           | 1744.11                      | 0.220 | 0.23              | 0.31            | 2.677     | A   |
| A39 Bristol Road south | 970.42                | 242.61                  | 969.77              | 1410.53            | 135.37                    | 0.00                       | 2539.20           | 2252.66                      | 0.382 | 0.51              | 0.67            | 2.494     | A   |
| Industrial Estate      | 0.00                  | 0.00                    | 0.00                | 0.00               | 1105.14                   | 0.00                       | 1151.09           | 358.61                       | 0.000 | 0.00              | 0.00            | 0.000     | A   |

|                        |         |        |         |        |        |      |         |         |       |      |      |       |   |
|------------------------|---------|--------|---------|--------|--------|------|---------|---------|-------|------|------|-------|---|
| A39 Bristol Road north | 1289.34 | 322.34 | 1282.97 | 780.67 | 324.47 | 0.00 | 1682.45 | 1329.32 | 0.766 | 1.84 | 3.43 | 9.703 | A |
|------------------------|---------|--------|---------|--------|--------|------|---------|---------|-------|------|------|-------|---|

### Main results: (08:15-08:30)

| Name                   | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|------------------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| A39                    | 514.86                | 128.71                  | 514.30              | 584.58             | 1349.87                   | 0.00                       | 1770.46           | 1744.12                      | 0.291 | 0.31              | 0.45            | 3.173     | A   |
| A39 Bristol Road south | 1188.52               | 297.13                  | 1187.34             | 1698.95            | 165.23                    | 0.00                       | 2520.41           | 2252.66                      | 0.472 | 0.67              | 0.97            | 2.936     | A   |
| Industrial Estate      | 0.00                  | 0.00                    | 0.00                | 0.00               | 1352.56                   | 0.00                       | 1032.13           | 358.61                       | 0.000 | 0.00              | 0.00            | 0.000     | A   |
| A39 Bristol Road north | 1579.12               | 394.78                  | 1537.20             | 955.30             | 397.26                    | 0.00                       | 1645.63           | 1329.32                      | 0.960 | 3.43              | 13.91           | 28.936    | D   |

### Main results: (08:30-08:45)

| Name                   | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|------------------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| A39                    | 514.86                | 128.71                  | 514.83              | 589.40             | 1375.13                   | 0.00                       | 1754.76           | 1744.12                      | 0.293 | 0.45              | 0.46            | 3.216     | A   |
| A39 Bristol Road south | 1188.52               | 297.13                  | 1188.51             | 1724.14            | 165.83                    | 0.00                       | 2520.03           | 2252.66                      | 0.472 | 0.97              | 0.97            | 2.941     | A   |
| Industrial Estate      | 0.00                  | 0.00                    | 0.00                | 0.00               | 1354.33                   | 0.00                       | 1031.28           | 358.61                       | 0.000 | 0.00              | 0.00            | 0.000     | A   |
| A39 Bristol Road north | 1579.12               | 394.78                  | 1566.88             | 956.68             | 397.65                    | 0.00                       | 1645.43           | 1329.32                      | 0.960 | 13.91             | 16.97           | 40.982    | E   |

### Main results: (08:45-09:00)

| Name                   | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|------------------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| A39                    | 420.38                | 105.10                  | 420.93              | 491.05             | 1176.17                   | 0.00                       | 1878.43           | 1744.11                      | 0.224 | 0.46              | 0.32            | 2.737     | A   |
| A39 Bristol Road south | 970.42                | 242.61                  | 971.59              | 1460.59            | 136.52                    | 0.00                       | 2538.48           | 2252.66                      | 0.382 | 0.97              | 0.68            | 2.503     | A   |
| Industrial Estate      | 0.00                  | 0.00                    | 0.00                | 0.00               | 1108.11                   | 0.00                       | 1149.66           | 358.61                       | 0.000 | 0.00              | 0.00            | 0.000     | A   |
| A39 Bristol Road north | 1289.34               | 322.34                  | 1342.15             | 783.03             | 325.08                    | 0.00                       | 1682.14           | 1329.32                      | 0.766 | 16.97             | 3.77            | 13.230    | B   |

### Main results: (09:00-09:15)

| Name                   | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|------------------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| A39                    | 352.05                | 88.01                   | 352.39              | 405.60             | 953.73                    | 0.00                       | 2016.70           | 1744.12                      | 0.175 | 0.32              | 0.24            | 2.398     | A   |
| A39 Bristol Road south | 812.68                | 203.17                  | 813.35              | 1192.39            | 113.73                    | 0.00                       | 2552.83           | 2252.66                      | 0.318 | 0.68              | 0.51            | 2.254     | A   |
| Industrial Estate      | 0.00                  | 0.00                    | 0.00                | 0.00               | 927.08                    | 0.00                       | 1236.70           | 358.61                       | 0.000 | 0.00              | 0.00            | 0.000     | A   |
| A39 Bristol Road north | 1079.76               | 269.94                  | 1087.20             | 654.95             | 272.13                    | 0.00                       | 1708.92           | 1329.32                      | 0.632 | 3.77              | 1.91            | 6.410     | A   |

### Queueing Delay Results for each time segment

#### Queueing Delay results: (07:45-08:00)

| Name                   | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|------------------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| A39                    | 3.44                           | 0.23                                 | 2.382                                  | A                             | A                           |
| A39 Bristol Road south | 7.47                           | 0.50                                 | 2.246                                  | A                             | A                           |
| Industrial Estate      | 0.00                           | 0.00                                 | 0.000                                  | A                             | A                           |
| A39 Bristol Road north | 26.19                          | 1.75                                 | 6.115                                  | A                             | A                           |

#### Queueing Delay results: (08:00-08:15)

| Name                   | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|------------------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| A39                    | 4.62                           | 0.31                                 | 2.677                                  | A                             | A                           |
| A39 Bristol Road south | 9.91                           | 0.66                                 | 2.494                                  | A                             | A                           |
| Industrial Estate      | 0.00                           | 0.00                                 | 0.000                                  | A                             | A                           |
| A39 Bristol Road north | 47.82                          | 3.19                                 | 9.703                                  | A                             | A                           |

#### Queueing Delay results: (08:15-08:30)

| Name | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| A39  | 6.67                           | 0.45                                 | 3.173                                  | A                             | A                           |

|                        |        |       |        |   |   |
|------------------------|--------|-------|--------|---|---|
| A39 Bristol Road south | 14.21  | 0.95  | 2.936  | A | A |
| Industrial Estate      | 0.00   | 0.00  | 0.000  | A | A |
| A39 Bristol Road north | 156.49 | 10.43 | 28.936 | D | C |

#### Queueing Delay results: (08:30-08:45)

| Name                   | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|------------------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| A39                    | 6.85                           | 0.46                                 | 3.216                                  | A                             | A                           |
| A39 Bristol Road south | 14.51                          | 0.97                                 | 2.941                                  | A                             | A                           |
| Industrial Estate      | 0.00                           | 0.00                                 | 0.000                                  | A                             | A                           |
| A39 Bristol Road north | 234.28                         | 15.62                                | 40.982                                 | E                             | D                           |

#### Queueing Delay results: (08:45-09:00)

| Name                   | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|------------------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| A39                    | 4.88                           | 0.33                                 | 2.737                                  | A                             | A                           |
| A39 Bristol Road south | 10.31                          | 0.69                                 | 2.503                                  | A                             | A                           |
| Industrial Estate      | 0.00                           | 0.00                                 | 0.000                                  | A                             | A                           |

|                        |       |      |        |   |   |
|------------------------|-------|------|--------|---|---|
| A39 Bristol Road north | 77.70 | 5.18 | 13.230 | B | B |
|------------------------|-------|------|--------|---|---|

#### Queueing Delay results: (09:00-09:15)

| Name                   | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|------------------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| A39                    | 3.57                           | 0.24                                 | 2.398                                  | A                             | A                           |
| A39 Bristol Road south | 7.75                           | 0.52                                 | 2.254                                  | A                             | A                           |
| Industrial Estate      | 0.00                           | 0.00                                 | 0.000                                  | A                             | A                           |
| A39 Bristol Road north | 30.13                          | 2.01                                 | 6.410                                  | A                             | A                           |

## (Default Analysis Set) - 2016 Dev, PM

### Data Errors and Warnings

No errors or warnings

### Analysis Set Details

| Name                   | Roundabout Capacity Model | Description | Include In Report | Use Specific Demand Set(s) | Specific Demand Set(s) | Locked | Network Flow Scaling Factor (%) | Network Capacity Scaling Factor (%) | Reason For Scaling Factors |
|------------------------|---------------------------|-------------|-------------------|----------------------------|------------------------|--------|---------------------------------|-------------------------------------|----------------------------|
| (Default Analysis Set) | ARCADY                    |             | ✓                 |                            |                        |        | 100.000                         | 100.000                             |                            |

### Demand Set Details



| Name         | Scenario Name | Time Period Name | Description | Traffic Profile Type | Model Start Time (HH:mm) | Model Finish Time (HH:mm) | Model Time Period Length (min) | Time Segment Length (min) | Results For Central Hour Only | Single Time Segment Only | Locked | Run Automatically | Use Relationship | Relationship |
|--------------|---------------|------------------|-------------|----------------------|--------------------------|---------------------------|--------------------------------|---------------------------|-------------------------------|--------------------------|--------|-------------------|------------------|--------------|
| 2016 Dev, PM | 2016 Dev      | PM               |             | ONE HOUR             | 16:45                    | 18:15                     | 90                             | 15                        |                               |                          |        | ✓                 |                  |              |

## Junction Network

### Junctions

| Name       | Junction Type | Arm Order | Grade Separated | Large Roundabout | Do Geometric Delay | Junction Delay (s) | Junction LOS |
|------------|---------------|-----------|-----------------|------------------|--------------------|--------------------|--------------|
| (untitled) | Roundabout    | 1,2,3,4   |                 |                  |                    | 5.85               | A            |

### Junction Network Options

| Driving Side | Lighting       |
|--------------|----------------|
| Left         | Normal/unknown |

## Arms

### Arms

| Name | Name | Description |
|------|------|-------------|
| A39  | A39  |             |

|                               |                        |  |
|-------------------------------|------------------------|--|
| <b>A39 Bristol Road south</b> | A39 Bristol Road south |  |
| <b>Industrial Estate</b>      | Industrial Estate      |  |
| <b>A39 Bristol Road north</b> | A39 Bristol Road north |  |

## Capacity Options

| Name                          | Minimum Capacity (PCU/hr) | Maximum Capacity (PCU/hr) | Assume Flat Start Profile | Initial Queue (PCU) |
|-------------------------------|---------------------------|---------------------------|---------------------------|---------------------|
| <b>A39</b>                    | 0.00                      | 99999.00                  |                           | 0.00                |
| <b>A39 Bristol Road south</b> | 0.00                      | 99999.00                  |                           | 0.00                |
| <b>Industrial Estate</b>      | 0.00                      | 99999.00                  |                           | 0.00                |
| <b>A39 Bristol Road north</b> | 0.00                      | 99999.00                  |                           | 0.00                |

## Roundabout Geometry

| Name                          | V - Approach road half-width (m) | E - Entry width (m) | I' - Effective flare length (m) | R - Entry radius (m) | D - Inscribed circle diameter (m) | PHI - Conflict (entry) angle (deg) | Exit Only |
|-------------------------------|----------------------------------|---------------------|---------------------------------|----------------------|-----------------------------------|------------------------------------|-----------|
| <b>A39</b>                    | 8.15                             | 8.15                | 0.00                            | 24.00                | 79.00                             | 16.00                              |           |
| <b>A39 Bristol Road south</b> | 8.00                             | 8.00                | 0.00                            | 45.00                | 79.00                             | 14.00                              |           |
| <b>Industrial Estate</b>      | 3.70                             | 6.85                | 11.00                           | 19.00                | 79.00                             | 18.00                              |           |
| <b>A39 Bristol Road north</b> | 3.50                             | 7.70                | 17.00                           | 19.00                | 79.00                             | 17.00                              |           |

## Pedestrian Crossings

| Name                   | Crossing Type |
|------------------------|---------------|
| A39                    | None          |
| A39 Bristol Road south | None          |
| Industrial Estate      | None          |
| A39 Bristol Road north | None          |

## Slope / Intercept / Capacity

### Roundabout Slope and Intercept used in model

| Name                   | Enter slope and intercept directly | Entered slope | Entered intercept (PCU/hr) | Final Slope | Final Intercept (PCU/hr) |
|------------------------|------------------------------------|---------------|----------------------------|-------------|--------------------------|
| A39                    |                                    | (calculated)  | (calculated)               | 0.622       | 2609.542                 |
| A39 Bristol Road south |                                    | (calculated)  | (calculated)               | 0.630       | 2624.432                 |
| Industrial Estate      |                                    | (calculated)  | (calculated)               | 0.481       | 1682.407                 |
| A39 Bristol Road north |                                    | (calculated)  | (calculated)               | 0.506       | 1846.557                 |

*The slope and intercept shown above include any corrections and adjustments.*

# Traffic Flows

## Demand Set Data Options

| Default Vehicle Mix | Vehicle Mix Varies Over Time | Vehicle Mix Varies Over Turn | Vehicle Mix Varies Over Entry | Vehicle Mix Source | PCU Factor for a HV (PCU) | Default Turning Proportions | Estimate from entry/exit counts | Turning Proportions Vary Over Time | Turning Proportions Vary Over Turn | Turning Proportions Vary Over Entry |
|---------------------|------------------------------|------------------------------|-------------------------------|--------------------|---------------------------|-----------------------------|---------------------------------|------------------------------------|------------------------------------|-------------------------------------|
|---------------------|------------------------------|------------------------------|-------------------------------|--------------------|---------------------------|-----------------------------|---------------------------------|------------------------------------|------------------------------------|-------------------------------------|

|  |  |   |   |                   |      |  |  |  |   |   |
|--|--|---|---|-------------------|------|--|--|--|---|---|
|  |  | ✓ | ✓ | HV<br>Percentages | 2.00 |  |  |  | ✓ | ✓ |
|--|--|---|---|-------------------|------|--|--|--|---|---|

# Entry Flows

## General Flows Data

| Name                   | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (%) |
|------------------------|--------------|--------------------|------------------------------|-------------------------|
| A39                    | ONE HOUR     | ✓                  | 463.00                       | 100.000                 |
| A39 Bristol Road south | ONE HOUR     | ✓                  | 1643.00                      | 100.000                 |
| Industrial Estate      | ONE HOUR     | ✓                  | 0.00                         | 100.000                 |
| A39 Bristol Road north | ONE HOUR     | ✓                  | 922.00                       | 100.000                 |

# Turning Proportions

## Turning Counts or Proportions (Veh/hr) - (untitled) (for whole period)

|      | To |         |         |       |          |
|------|----|---------|---------|-------|----------|
| From |    | 1       | 2       | 3     | 4        |
|      | 1  | 0.000   | 345.000 | 0.000 | 118.000  |
|      | 2  | 410.000 | 15.000  | 0.000 | 1218.000 |
|      | 3  | 0.000   | 0.000   | 0.000 | 0.000    |

|  |   |         |         |       |        |
|--|---|---------|---------|-------|--------|
|  | 4 | 164.000 | 733.000 | 0.000 | 25.000 |
|--|---|---------|---------|-------|--------|

Turning Proportions (Veh) - (untitled) (for whole period)

|      |   | To   |      |      |      |
|------|---|------|------|------|------|
|      |   | 1    | 2    | 3    | 4    |
| From | 1 | 0.00 | 0.75 | 0.00 | 0.25 |
|      | 2 | 0.25 | 0.01 | 0.00 | 0.74 |
|      | 3 | 0.25 | 0.25 | 0.25 | 0.25 |
|      | 4 | 0.18 | 0.80 | 0.00 | 0.03 |

# Vehicle Mix

Average PCU Per Vehicle - (untitled) (for whole period)

|      |   | To    |       |       |       |
|------|---|-------|-------|-------|-------|
|      |   | 1     | 2     | 3     | 4     |
| From | 1 | 1.000 | 1.070 | 1.000 | 1.240 |
|      | 2 | 1.080 | 1.200 | 1.000 | 1.030 |
|      | 3 | 1.000 | 1.000 | 1.000 | 1.000 |
|      | 4 | 1.050 | 1.030 | 1.000 | 1.320 |

### Heavy Vehicle Percentages - (untitled) (for whole period)

|      | To |       |        |       |        |
|------|----|-------|--------|-------|--------|
| From |    | 1     | 2      | 3     | 4      |
|      | 1  | 0.000 | 7.000  | 0.000 | 24.000 |
|      | 2  | 8.000 | 20.000 | 0.000 | 3.000  |
|      | 3  | 0.000 | 0.000  | 0.000 | 0.000  |
|      | 4  | 5.000 | 3.000  | 0.000 | 32.000 |

## Results

### Results Summary for whole modelled period

| Name                   | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) | Total Queueing Delay (PCU-min) | Average Queueing Delay (s) | Rate Of Queueing Delay (PCU-min/min) | Inclusive Total Queueing Delay (PCU-min) | Inclusive Average Queueing Delay (s) |
|------------------------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|--------------------------------|----------------------------|--------------------------------------|------------------------------------------|--------------------------------------|
| A39                    | 0.28    | 2.69          | 0.42            | A       | 473.00                  | 709.51                        | 28.73                          | 2.43                       | 0.32                                 | 28.73                                    | 2.43                                 |
| A39 Bristol Road south | 0.76    | 6.14          | 3.18            | A       | 1574.03                 | 2361.04                       | 173.78                         | 4.42                       | 1.93                                 | 173.79                                   | 4.42                                 |
| Industrial Estate      | 0.00    | 0.00          | 0.00            | A       | 0.00                    | 0.00                          | 0.00                           | 0.00                       | 0.00                                 | 0.00                                     | 0.00                                 |
| A39 Bristol Road north | 0.66    | 7.03          | 2.04            | A       | 881.09                  | 1321.63                       | 118.10                         | 5.36                       | 1.31                                 | 118.11                                   | 5.36                                 |

## Main Results for each time segment

### Main results: (16:45-17:00)

| Name                   | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|------------------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| A39                    | 388.07                | 97.02                   | 387.14              | 461.33             | 604.16                    | 0.00                       | 2233.99           | 1766.21                      | 0.174 | 0.00              | 0.23            | 2.169     | A   |
| A39 Bristol Road south | 1291.40               | 322.85                  | 1287.11             | 856.67             | 134.63                    | 0.00                       | 2539.67           | 2223.27                      | 0.508 | 0.00              | 1.07            | 2.991     | A   |
| Industrial Estate      | 0.00                  | 0.00                    | 0.00                | 0.00               | 1421.73                   | 0.00                       | 998.88            | 349.16                       | 0.000 | 0.00              | 0.00            | 0.000     | A   |
| A39 Bristol Road north | 722.88                | 180.72                  | 719.73              | 1075.97            | 345.76                    | 0.00                       | 1671.68           | 1412.03                      | 0.432 | 0.00              | 0.79            | 3.926     | A   |

### Main results: (17:00-17:15)

| Name                   | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|------------------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| A39                    | 463.40                | 115.85                  | 463.12              | 552.04             | 723.36                    | 0.00                       | 2159.90           | 1766.21                      | 0.215 | 0.23              | 0.30            | 2.362     | A   |
| A39 Bristol Road south | 1542.06               | 385.51                  | 1539.85             | 1025.40            | 161.08                    | 0.00                       | 2523.02           | 2223.27                      | 0.611 | 1.07              | 1.62            | 3.815     | A   |
| Industrial Estate      | 0.00                  | 0.00                    | 0.00                | 0.00               | 1700.93                   | 0.00                       | 864.65            | 349.16                       | 0.000 | 0.00              | 0.00            | 0.000     | A   |

|                        |        |        |        |         |        |      |         |         |       |      |      |       |   |
|------------------------|--------|--------|--------|---------|--------|------|---------|---------|-------|------|------|-------|---|
| A39 Bristol Road north | 863.19 | 215.80 | 861.75 | 1287.27 | 413.66 | 0.00 | 1637.34 | 1412.03 | 0.527 | 0.79 | 1.15 | 4.825 | A |
|------------------------|--------|--------|--------|---------|--------|------|---------|---------|-------|------|------|-------|---|

### Main results: (17:15-17:30)

| Name                   | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|------------------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| A39                    | 567.54                | 141.89                  | 567.07              | 674.94             | 884.49                    | 0.00                       | 2059.74           | 1766.21                      | 0.276 | 0.30              | 0.42            | 2.685     | A   |
| A39 Bristol Road south | 1888.62               | 472.16                  | 1882.56             | 1254.38            | 197.18                    | 0.00                       | 2500.29           | 2223.27                      | 0.755 | 1.62              | 3.14            | 6.026     | A   |
| Industrial Estate      | 0.00                  | 0.00                    | 0.00                | 0.00               | 2079.74                   | 0.00                       | 682.53            | 349.16                       | 0.000 | 0.00              | 0.00            | 0.000     | A   |
| A39 Bristol Road north | 1057.19               | 264.30                  | 1053.71             | 1574.02            | 505.72                    | 0.00                       | 1590.77           | 1412.03                      | 0.665 | 1.15              | 2.02            | 6.934     | A   |

### Main results: (17:30-17:45)

| Name                   | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|------------------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| A39                    | 567.54                | 141.89                  | 567.54              | 677.07             | 887.33                    | 0.00                       | 2057.98           | 1766.21                      | 0.276 | 0.42              | 0.42            | 2.688     | A   |
| A39 Bristol Road south | 1888.62               | 472.16                  | 1888.46             | 1257.44            | 197.43                    | 0.00                       | 2500.13           | 2223.27                      | 0.755 | 3.14              | 3.18            | 6.140     | A   |
| Industrial Estate      | 0.00                  | 0.00                    | 0.00                | 0.00               | 2085.89                   | 0.00                       | 679.57            | 349.16                       | 0.000 | 0.00              | 0.00            | 0.000     | A   |
| A39 Bristol Road north | 1057.19               | 264.30                  | 1057.09             | 1578.58            | 507.31                    | 0.00                       | 1589.97           | 1412.03                      | 0.665 | 2.02              | 2.04            | 7.033     | A   |



### Main results: (17:45-18:00)

| Name                   | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|------------------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| A39                    | 463.40                | 115.85                  | 463.87              | 555.06             | 727.48                    | 0.00                       | 2157.34           | 1766.21                      | 0.215 | 0.42              | 0.31            | 2.368     | A   |
| A39 Bristol Road south | 1542.06               | 385.51                  | 1548.14             | 1029.89            | 161.46                    | 0.00                       | 2522.78           | 2223.27                      | 0.611 | 3.18              | 1.66            | 3.879     | A   |
| Industrial Estate      | 0.00                  | 0.00                    | 0.00                | 0.00               | 1709.60                   | 0.00                       | 860.48            | 349.16                       | 0.000 | 0.00              | 0.00            | 0.000     | A   |
| A39 Bristol Road north | 863.19                | 215.80                  | 866.66              | 1293.71            | 415.88                    | 0.00                       | 1636.21           | 1412.03                      | 0.528 | 2.04              | 1.18            | 4.893     | A   |

### Main results: (18:00-18:15)

| Name                   | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|------------------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| A39                    | 388.07                | 97.02                   | 388.35              | 463.86             | 608.05                    | 0.00                       | 2231.58           | 1766.21                      | 0.174 | 0.31              | 0.24            | 2.176     | A   |
| A39 Bristol Road south | 1291.40               | 322.85                  | 1293.68             | 861.27             | 135.13                    | 0.00                       | 2539.35           | 2223.27                      | 0.509 | 1.66              | 1.09            | 3.024     | A   |
| Industrial Estate      | 0.00                  | 0.00                    | 0.00                | 0.00               | 1428.82                   | 0.00                       | 995.47            | 349.16                       | 0.000 | 0.00              | 0.00            | 0.000     | A   |
| A39 Bristol Road north | 722.88                | 180.72                  | 724.38              | 1081.29            | 347.53                    | 0.00                       | 1670.78           | 1412.03                      | 0.433 | 1.18              | 0.80            | 3.967     | A   |

### Queueing Delay Results for each time segment

#### Queueing Delay results: (16:45-17:00)

| Name                   | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|------------------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| A39                    | 3.45                           | 0.23                                 | 2.169                                  | A                             | A                           |
| A39 Bristol Road south | 15.68                          | 1.05                                 | 2.991                                  | A                             | A                           |
| Industrial Estate      | 0.00                           | 0.00                                 | 0.000                                  | A                             | A                           |
| A39 Bristol Road north | 11.47                          | 0.76                                 | 3.926                                  | A                             | A                           |

#### Queueing Delay results: (17:00-17:15)

| Name                   | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|------------------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| A39                    | 4.50                           | 0.30                                 | 2.362                                  | A                             | A                           |
| A39 Bristol Road south | 23.69                          | 1.58                                 | 3.815                                  | A                             | A                           |
| Industrial Estate      | 0.00                           | 0.00                                 | 0.000                                  | A                             | A                           |
| A39 Bristol Road north | 16.75                          | 1.12                                 | 4.825                                  | A                             | A                           |

#### Queueing Delay results: (17:15-17:30)

| Name | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| A39  | 6.24                           | 0.42                                 | 2.685                                  | A                             | A                           |

|                        |       |      |       |   |   |
|------------------------|-------|------|-------|---|---|
| A39 Bristol Road south | 44.51 | 2.97 | 6.026 | A | A |
| Industrial Estate      | 0.00  | 0.00 | 0.000 | A | A |
| A39 Bristol Road north | 28.83 | 1.92 | 6.934 | A | A |

#### Queueing Delay results: (17:30-17:45)

| Name                   | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|------------------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| A39                    | 6.34                           | 0.42                                 | 2.688                                  | A                             | A                           |
| A39 Bristol Road south | 47.47                          | 3.16                                 | 6.140                                  | A                             | A                           |
| Industrial Estate      | 0.00                           | 0.00                                 | 0.000                                  | A                             | A                           |
| A39 Bristol Road north | 30.49                          | 2.03                                 | 7.033                                  | A                             | A                           |

#### Queueing Delay results: (17:45-18:00)

| Name                   | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|------------------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| A39                    | 4.64                           | 0.31                                 | 2.368                                  | A                             | A                           |
| A39 Bristol Road south | 25.76                          | 1.72                                 | 3.879                                  | A                             | A                           |
| Industrial Estate      | 0.00                           | 0.00                                 | 0.000                                  | A                             | A                           |

|                        |       |      |       |   |   |
|------------------------|-------|------|-------|---|---|
| A39 Bristol Road north | 18.25 | 1.22 | 4.893 | A | A |
|------------------------|-------|------|-------|---|---|

**Queueing Delay results: (18:00-18:15)**

| Name                   | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|------------------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| A39                    | 3.56                           | 0.24                                 | 2.176                                  | A                             | A                           |
| A39 Bristol Road south | 16.68                          | 1.11                                 | 3.024                                  | A                             | A                           |
| Industrial Estate      | 0.00                           | 0.00                                 | 0.000                                  | A                             | A                           |
| A39 Bristol Road north | 12.29                          | 0.82                                 | 3.967                                  | A                             | A                           |

Basic Results Summary  
**Basic Results Summary**

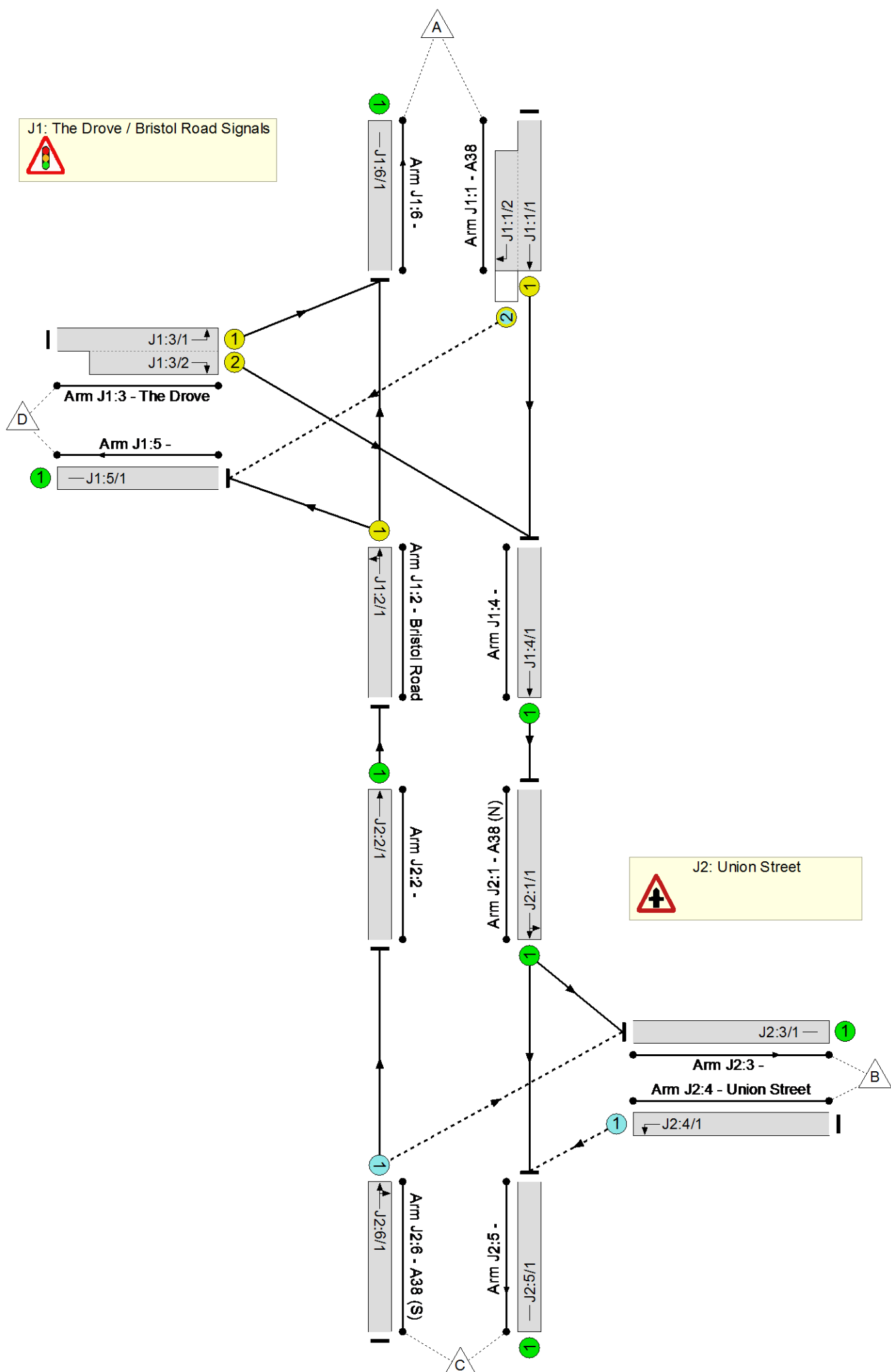
**User and Project Details**

|                   |                                                            |
|-------------------|------------------------------------------------------------|
| <b>Project:</b>   | <b>TPLO1028 Hinkley</b>                                    |
| <b>Title:</b>     | <b>The Drove / Bristol Road Signals (Mitigated Layout)</b> |
| <b>Location:</b>  |                                                            |
| <b>File name:</b> | The Drove_Bristol Road Signals (Mit).lsg3x                 |
| <b>Author:</b>    | T Nichol                                                   |
| <b>Company:</b>   | Curtins                                                    |
| <b>Address:</b>   | 10 Oxford Court, Bishopsgate, Manchester M2 3WQ            |
| <b>Notes:</b>     |                                                            |

Basic Results Summary

**Network Layout Diagram**

# Basic Results Summary







**Scenario 1: 'AM BASE 2014'** (FG1: 'AM BASE 2014', Plan 1: 'Network Control Plan 1')

**Scenario 2: 'PM BASE 2014' (FG2: 'PM BASE 2014', Plan 1: 'Network Control Plan 1')**

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## Basic Results Summary

**Scenario 3: 'AM BASE 2016'** (FG3: 'AM BASE 2016', Plan 1: 'Network Control Plan 1')

| Item                                                                                                                                                                                        | Lane Description        | Lane Type | Full Phase | Arrow Phase | Num Greens | Total Green (s) | Arrow Green (s) | Demand Flow (pcu) | Sat Flow (pcu/Hr) | Capacity (pcu) | Deg Sat (%)  | Turners In Gaps (pcu) | Turners When Unopposed (pcu) | Turners In Intergreen (pcu) | Total Delay (pcuHr) | Av. Delay Per PCU (s/pcu) | Mean Max Queue (pcu) |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|-----------|------------|-------------|------------|-----------------|-----------------|-------------------|-------------------|----------------|--------------|-----------------------|------------------------------|-----------------------------|---------------------|---------------------------|----------------------|
| Network: The Drove / Bristol Road Signals (Mitigated Layout)                                                                                                                                | -                       | -         | -          |             | -          | -               | -               | -                 | -                 | -              | 71.1%        | 190                   | 170                          | 7                           | 16.1                | -                         | -                    |
| J1: The Drove / Bristol Road Signals                                                                                                                                                        | -                       | -         | -          |             | -          | -               | -               | -                 | -                 | -              | 71.1%        | 149                   | 170                          | 7                           | 15.7                | -                         | -                    |
| 1/1+1/2                                                                                                                                                                                     | A38 Ahead Right         | U+O       | A          | B           | 1          | 62              | 17              | 837               | 1915:1781         | 822+502        | 62.1 : 64.9% | 149                   | 170                          | 7                           | 4.6                 | 19.8                      | 8.5                  |
| 2/1                                                                                                                                                                                         | Bristol Road Left Ahead | U         | C          |             | 1          | 45              | -               | 665               | 1963              | 941            | 70.7%        | -                     | -                            | -                           | 4.8                 | 26.2                      | 15.1                 |
| 3/1+3/2                                                                                                                                                                                     | The Drove Right Left    | U         | E          | D           | 1          | 26:12           | 14              | 541               | 1849:1840         | 520+240        | 71.1 : 71.1% | -                     | -                            | -                           | 6.3                 | 41.8                      | 10.1                 |
| J2: Union Street                                                                                                                                                                            | -                       | -         | -          |             | -          | -               | -               | -                 | -                 | -              | 37.2%        | 41                    | 0                            | 0                           | 0.3                 | -                         | -                    |
| 4/1                                                                                                                                                                                         | Union Street Left       | O         | -          |             | -          | -               | -               | 30                | 1900              | 565            | 5.3%         | 30                    | 0                            | 0                           | 0.0                 | 3.4                       | 0.0                  |
| 6/1                                                                                                                                                                                         | A38 (S) Ahead Right     | O         | -          |             | -          | -               | -               | 676               | 1900              | 1816           | 37.2%        | 11                    | 0                            | 0                           | 0.3                 | 1.6                       | 0.3                  |
| C1<br>PRC for Signalled Lanes (%): 26.5<br>PRC Over All Lanes (%): 26.5<br>Total Delay for Signalled Lanes (pcuHr): 15.73<br>Total Delay Over All Lanes(pcuHr): 16.06<br>Cycle Time (s): 96 |                         |           |            |             |            |                 |                 |                   |                   |                |              |                       |                              |                             |                     |                           |                      |

## Basic Results Summary

**Scenario 4: 'PM BASE 2016'** (FG4: 'PM BASE 2016', Plan 1: 'Network Control Plan 1')

| Item                                                                                                                                                                                                                                                                                                             | Lane Description        | Lane Type | Full Phase | Arrow Phase | Num Greens | Total Green (s) | Arrow Green (s) | Demand Flow (pcu) | Sat Flow (pcu/Hr) | Capacity (pcu) | Deg Sat (%)  | Turners In Gaps (pcu) | Turners When Unopposed (pcu) | Turners In Intergreen (pcu) | Total Delay (pcuHr) | Av. Delay Per PCU (s/pcu) | Mean Max Queue (pcu) |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|-----------|------------|-------------|------------|-----------------|-----------------|-------------------|-------------------|----------------|--------------|-----------------------|------------------------------|-----------------------------|---------------------|---------------------------|----------------------|
| Network: The Drove / Bristol Road Signals (Mitigated Layout)                                                                                                                                                                                                                                                     | -                       | -         | -          |             | -          | -               | -               | -                 | -                 | -              | 89.2%        | 80                    | 461                          | 11                          | 25.9                | -                         | -                    |
| J1: The Drove / Bristol Road Signals                                                                                                                                                                                                                                                                             | -                       | -         | -          |             | -          | -               | -               | -                 | -                 | -              | 89.2%        | 42                    | 461                          | 11                          | 25.6                | -                         | -                    |
| 1/1+1/2                                                                                                                                                                                                                                                                                                          | A38 Ahead Right         | U+O       | A          | B           | 1          | 65              | 27              | 983               | 1915:1781         | 530+581        | 88.5 : 88.5% | 42                    | 461                          | 11                          | 9.1                 | 33.2                      | 16.5                 |
| 2/1                                                                                                                                                                                                                                                                                                              | Bristol Road Left Ahead | U         | C          |             | 1          | 38              | -               | 716               | 1975              | 802            | 89.2%        | -                     | -                            | -                           | 9.1                 | 45.7                      | 21.5                 |
| 3/1+3/2                                                                                                                                                                                                                                                                                                          | The Drove Right Left    | U         | E          | D           | 1          | 33:9            | 24              | 654               | 1849:1840         | 644+192        | 75.2 : 88.7% | -                     | -                            | -                           | 7.4                 | 40.8                      | 12.9                 |
| J2: Union Street                                                                                                                                                                                                                                                                                                 | -                       | -         | -          |             | -          | -               | -               | -                 | -                 | -              | 40.5%        | 38                    | 0                            | 0                           | 0.4                 | -                         | -                    |
| 4/1                                                                                                                                                                                                                                                                                                              | Union Street Left       | O         | -          |             | -          | -               | -               | 23                | 1900              | 574            | 4.0%         | 23                    | 0                            | 0                           | 0.0                 | 3.3                       | 0.0                  |
| 6/1                                                                                                                                                                                                                                                                                                              | A38 (S) Ahead Right     | O         | -          |             | -          | -               | -               | 731               | 1900              | 1803           | 40.5%        | 15                    | 0                            | 0                           | 0.3                 | 1.7                       | 0.3                  |
| C1                      PRC for Signalled Lanes (%):            0.9                      Total Delay for Signalled Lanes (pcuHr):            25.58                      Cycle Time (s):    96<br>PRC Over All Lanes (%):            0.9                      Total Delay Over All Lanes(pcuHr):            25.95 |                         |           |            |             |            |                 |                 |                   |                   |                |              |                       |                              |                             |                     |                           |                      |

## Basic Results Summary

**Scenario 5: 'AM BASE 2016+DEV' (FG5: 'AM BASE 2016+DEV', Plan 1: 'Network Control Plan 1')**

| Item                                                                                                                                                                                                                                                                | Lane Description        | Lane Type | Full Phase | Arrow Phase | Num Greens | Total Green (s) | Arrow Green (s) | Demand Flow (pcu) | Sat Flow (pcu/Hr) | Capacity (pcu) | Deg Sat (%)  | Turners In Gaps (pcu) | Turners When Unopposed (pcu) | Turners In Intergreen (pcu) | Total Delay (pcuHr) | Av. Delay Per PCU (s/pcu) | Mean Max Queue (pcu) |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|-----------|------------|-------------|------------|-----------------|-----------------|-------------------|-------------------|----------------|--------------|-----------------------|------------------------------|-----------------------------|---------------------|---------------------------|----------------------|
| Network: The Drove / Bristol Road Signals (Mitigated Layout)                                                                                                                                                                                                        | -                       | -         | -          |             | -          | -               | -               | -                 | -                 | -              | 76.1%        | 158                   | 289                          | 9                           | 18.1                | -                         | -                    |
| J1: The Drove / Bristol Road Signals                                                                                                                                                                                                                                | -                       | -         | -          |             | -          | -               | -               | -                 | -                 | -              | 76.1%        | 117                   | 289                          | 9                           | 17.8                | -                         | -                    |
| 1/1+1/2                                                                                                                                                                                                                                                             | A38 Ahead Right         | U+O       | A          | B           | 1          | 63              | 21              | 925               | 1915:1781         | 672+544        | 76.1 : 76.1% | 117                   | 289                          | 9                           | 6.1                 | 23.9                      | 11.5                 |
| 2/1                                                                                                                                                                                                                                                                 | Bristol Road Left Ahead | U         | C          |             | 1          | 42              | -               | 665               | 1963              | 879            | 75.6%        | -                     | -                            | -                           | 5.6                 | 30.4                      | 16.3                 |
| 3/1+3/2                                                                                                                                                                                                                                                             | The Drove Right Left    | U         | E          | D           | 1          | 29:11           | 18              | 552               | 1849:1840         | 578+230        | 65.9 : 74.3% | -                     | -                            | -                           | 6.0                 | 39.3                      | 9.9                  |
| J2: Union Street                                                                                                                                                                                                                                                    | -                       | -         | -          |             | -          | -               | -               | -                 | -                 | -              | 37.2%        | 41                    | 0                            | 0                           | 0.3                 | -                         | -                    |
| 4/1                                                                                                                                                                                                                                                                 | Union Street Left       | O         | -          |             | -          | -               | -               | 30                | 1900              | 565            | 5.3%         | 30                    | 0                            | 0                           | 0.0                 | 3.4                       | 0.0                  |
| 6/1                                                                                                                                                                                                                                                                 | A38 (S) Ahead Right     | O         | -          |             | -          | -               | -               | 676               | 1900              | 1817           | 37.2%        | 11                    | 0                            | 0                           | 0.3                 | 1.6                       | 0.3                  |
| C1                      PRC for Signalled Lanes (%): 18.3                      Total Delay for Signalled Lanes (pcuHr): 17.77                      Cycle Time (s): 96<br>PRC Over All Lanes (%): 18.3                      Total Delay Over All Lanes(pcuHr): 18.10 |                         |           |            |             |            |                 |                 |                   |                   |                |              |                       |                              |                             |                     |                           |                      |

## Basic Results Summary

**Scenario 6: 'PM BASE 2016+DEV' (FG6: 'PM BASE 2016+DEV', Plan 1: 'Network Control Plan 1')**

| Item                                                                                                                                                                                                                                                                | Lane Description        | Lane Type | Full Phase | Arrow Phase | Num Greens | Total Green (s) | Arrow Green (s) | Demand Flow (pcu) | Sat Flow (pcu/Hr) | Capacity (pcu) | Deg Sat (%)  | Turners In Gaps (pcu) | Turners When Unopposed (pcu) | Turners In Intergreen (pcu) | Total Delay (pcuHr) | Av. Delay Per PCU (s/pcu) | Mean Max Queue (pcu) |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|-----------|------------|-------------|------------|-----------------|-----------------|-------------------|-------------------|----------------|--------------|-----------------------|------------------------------|-----------------------------|---------------------|---------------------------|----------------------|
| Network: The Drove / Bristol Road Signals (Mitigated Layout)                                                                                                                                                                                                        | -                       | -         | -          |             | -          | -               | -               | -                 | -                 | -              | 90.6%        | 80                    | 464                          | 20                          | 29.6                | -                         | -                    |
| J1: The Drove / Bristol Road Signals                                                                                                                                                                                                                                | -                       | -         | -          |             | -          | -               | -               | -                 | -                 | -              | 90.6%        | 42                    | 464                          | 20                          | 29.3                | -                         | -                    |
| 1/1+1/2                                                                                                                                                                                                                                                             | A38 Ahead Right         | U+O       | A          | B           | 1          | 65              | 27              | 995               | 1915:1781         | 518+581        | 90.6 : 90.6% | 42                    | 464                          | 20                          | 10.0                | 36.2                      | 17.7                 |
| 2/1                                                                                                                                                                                                                                                                 | Bristol Road Left Ahead | U         | C          |             | 1          | 38              | -               | 716               | 1975              | 802            | 89.2%        | -                     | -                            | -                           | 9.1                 | 45.7                      | 21.5                 |
| 3/1+3/2                                                                                                                                                                                                                                                             | The Drove Right Left    | U         | E          | D           | 1          | 33:9            | 24              | 742               | 1849:1840         | 648+192        | 88.3 : 88.7% | -                     | -                            | -                           | 10.2                | 49.3                      | 17.7                 |
| J2: Union Street                                                                                                                                                                                                                                                    | -                       | -         | -          |             | -          | -               | -               | -                 | -                 | -              | 40.5%        | 38                    | 0                            | 0                           | 0.4                 | -                         | -                    |
| 4/1                                                                                                                                                                                                                                                                 | Union Street Left       | O         | -          |             | -          | -               | -               | 23                | 1900              | 574            | 4.0%         | 23                    | 0                            | 0                           | 0.0                 | 3.3                       | 0.0                  |
| 6/1                                                                                                                                                                                                                                                                 | A38 (S) Ahead Right     | O         | -          |             | -          | -               | -               | 731               | 1900              | 1803           | 40.5%        | 15                    | 0                            | 0                           | 0.3                 | 1.7                       | 0.3                  |
| C1                      PRC for Signalled Lanes (%): -0.6                      Total Delay for Signalled Lanes (pcuHr): 29.27                      Cycle Time (s): 96<br>PRC Over All Lanes (%): -0.6                      Total Delay Over All Lanes(pcuHr): 29.63 |                         |           |            |             |            |                 |                 |                   |                   |                |              |                       |                              |                             |                     |                           |                      |

**Scenario 7: 'AM BASE 2016+DEV (NO COMM)' (FG7: 'AM BASE 2016+DEV (NO COMM)', Plan 1: 'Network Control Plan 1')**

**Scenario 8: 'PM BASE 2016+DEV (NO COMM)' (FG8: 'PM BASE 2016+DEV (NO COMM)', Plan 1: 'Network Control Plan 1')**

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Basic Results Summary  
**Basic Results Summary**

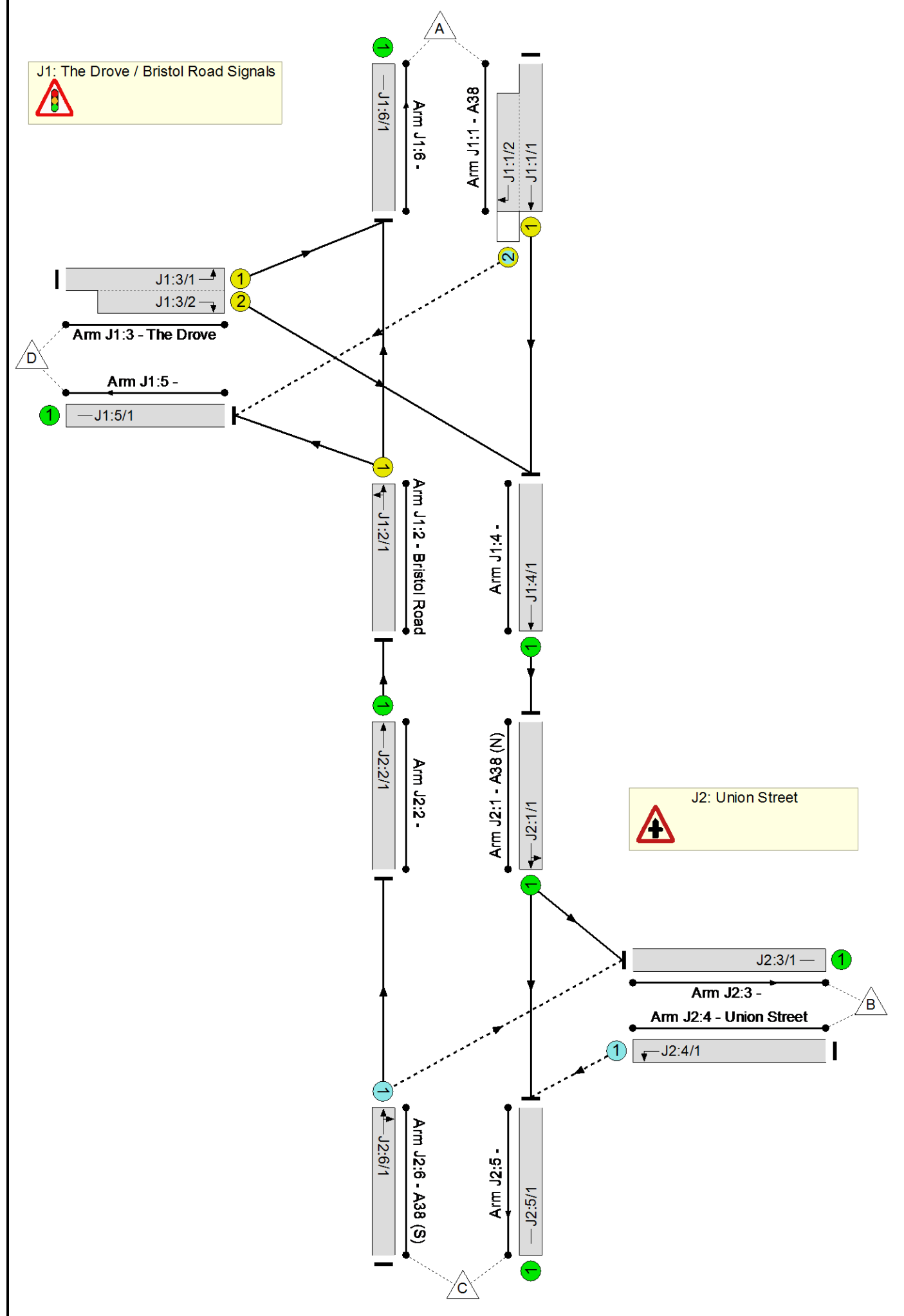
**User and Project Details**

|                   |                                                                      |
|-------------------|----------------------------------------------------------------------|
| <b>Project:</b>   | <b>TPLO1028 Hinkley</b>                                              |
| <b>Title:</b>     | <b>Network Model (Existing Layout)</b>                               |
| <b>Location:</b>  |                                                                      |
| <b>File name:</b> | The Drove_Bristol Road Signals.lsg3x                                 |
| <b>Author:</b>    | T Nichol                                                             |
| <b>Company:</b>   | Curtins                                                              |
| <b>Address:</b>   | 10 Oxford Court, Bishopsgate, Manchester M2 3WQ                      |
| <b>Notes:</b>     | Junction run under SCOOT to a maximum peak cycle time of 96 seconds. |

Basic Results Summary

**Network Layout Diagram**

# Basic Results Summary



## Basic Results Summary

**Scenario 1: 'AM OBS 2014' (FG1: 'AM OBS 2014', Plan 1: 'Network Control Plan 1')**

| Item                                                                                                                                                                                                                                                                             | Lane Description        | Lane Type | Full Phase | Arrow Phase | Num Greens | Total Green (s) | Arrow Green (s) | Demand Flow (pcu) | Sat Flow (pcu/Hr) | Capacity (pcu) | Deg Sat (%)  | Turners In Gaps (pcu) | Turners When Unopposed (pcu) | Turners In Intergreen (pcu) | Total Delay (pcuHr) | Av. Delay Per PCU (s/pcu) | Mean Max Queue (pcu) |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|-----------|------------|-------------|------------|-----------------|-----------------|-------------------|-------------------|----------------|--------------|-----------------------|------------------------------|-----------------------------|---------------------|---------------------------|----------------------|
| Network:<br>Network Model<br>(Existing Layout)                                                                                                                                                                                                                                   | -                       | -         | -          |             | -          | -               | -               | -                 | -                 | -              | 60.0%        | 199                   | 11                           | 4                           | 9.9                 | -                         | -                    |
| J1: The Drove / Bristol Road Signals                                                                                                                                                                                                                                             | -                       | -         | -          |             | -          | -               | -               | -                 | -                 | -              | 60.0%        | 159                   | 11                           | 4                           | 9.6                 | -                         | -                    |
| 1/1+1/2                                                                                                                                                                                                                                                                          | A38 Ahead Right         | U+O       | A          | B           | 1          | 60              | 8               | 672               | 1915:1781         | 982+340        | 50.8 : 50.8% | 159                   | 11                           | 4                           | 2.8                 | 14.8                      | 7.0                  |
| 2/1                                                                                                                                                                                                                                                                              | Bristol Road Left Ahead | U         | C          |             | 1          | 52              | -               | 650               | 1963              | 1084           | 60.0%        | -                     | -                            | -                           | 3.3                 | 18.5                      | 12.3                 |
| 3/1+3/2                                                                                                                                                                                                                                                                          | The Drove Right Left    | U         | E          | D           | 1          | 19:14           | 5               | 287               | 1849:1840         | 207+287        | 58.1 : 58.1% | -                     | -                            | -                           | 3.5                 | 44.0                      | 4.8                  |
| J2: Union Street                                                                                                                                                                                                                                                                 | -                       | -         | -          |             | -          | -               | -               | -                 | -                 | -              | 36.4%        | 40                    | 0                            | 0                           | 0.3                 | -                         | -                    |
| 4/1                                                                                                                                                                                                                                                                              | Union Street Left       | O         | -          |             | -          | -               | -               | 29                | Inf               | 568            | 5.1%         | 29                    | 0                            | 0                           | 0.0                 | 3.3                       | 0.0                  |
| 6/1                                                                                                                                                                                                                                                                              | A38 (S) Ahead Right     | O         | -          |             | -          | -               | -               | 661               | 1900              | 1815           | 36.4%        | 11                    | 0                            | 0                           | 0.3                 | 1.6                       | 0.3                  |
| C1                      PRC for Signalled Lanes (%):    50.1                      Total Delay for Signalled Lanes (pcuHr):    9.61                      Cycle Time (s):    96<br>PRC Over All Lanes (%):    50.1                      Total Delay Over All Lanes(pcuHr):    9.93 |                         |           |            |             |            |                 |                 |                   |                   |                |              |                       |                              |                             |                     |                           |                      |

**Scenario 2: 'PM OBS 2014'** (FG2: 'PM OBS 2014', Plan 1: 'Network Control Plan 1')

**Scenario 2: 'PM OBS 2014'** (FG2: 'PM OBS 2014', Plan 1: 'Network Control Plan 1')

**Scenario 3: 'AM BASE 2016'** (FG3: 'AM BASE 2016', Plan 1: 'Network Control Plan 1')

**Scenario 3: 'AM BASE 2016'** (FG3: 'AM BASE 2016', Plan 1: 'Network Control Plan 1')

**Scenario 4: 'PM BASE 2016' (FG4: 'PM BASE 2016', Plan 1: 'Network Control Plan 1')**

**Scenario 4: 'PM BASE 2016' (FG4: 'PM BASE 2016', Plan 1: 'Network Control Plan 1')**



**Scenario 5: 'AM BASE 2016+DEV' (FG5: 'AM BASE 2016+DEV', Plan 1: 'Network Control Plan 1')**

**Scenario 5: 'AM BASE 2016+DEV' (FG5: 'AM BASE 2016+DEV', Plan 1: 'Network Control Plan 1')**

**Scenario 6: 'PM BASE 2016+DEV'** (FG6: 'PM BASE 2016+DEV', Plan 1: 'Network Control Plan 1')

**Scenario 6: 'PM BASE 2016+DEV'** (FG6: 'PM BASE 2016+DEV', Plan 1: 'Network Control Plan 1')

**Scenario 7: 'AM BASE 2016+DEV (NO COMM)' (FG7: 'AM BASE 2016+DEV (NO COMM)', Plan 1: 'Network Control Plan 1')**

**Scenario 7: 'AM BASE 2016+DEV (NO COMM)' (FG7: 'AM BASE 2016+DEV (NO COMM)', Plan 1: 'Network Control Plan 1')**

**Scenario 8: 'PM BASE 2016+DEV (NO COMM)' (FG8: 'PM BASE 2016+DEV (NO COMM)', Plan 1: 'Network Control Plan 1')**

**Scenario 8: 'PM BASE 2016+DEV (NO COMM)' (FG8: 'PM BASE 2016+DEV (NO COMM)', Plan 1: 'Network Control Plan 1')**

| Junctions 8                                                                                                                                                                  |  |  |  |  |  |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|--|
| PICADY 8 - Priority Intersection Module                                                                                                                                      |  |  |  |  |  |  |  |
| Version: 8.0.3.332 [14595,13/11/2013]<br>© Copyright TRL Limited, 2014                                                                                                       |  |  |  |  |  |  |  |
| For sales and distribution information, program advice and maintenance, contact TRL:<br>Tel: +44 (0)1344 770758 E-mail: software@trl.co.uk Web: http://www.trlsoftware.co.uk |  |  |  |  |  |  |  |
| The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution             |  |  |  |  |  |  |  |

**Filename:** J15 A38 Bristol Road - Wylds Road Existing.arc8

**Path:** P:\TP London\TP Projects\Hinkley Point C Connection\Modelling\Junctions 8\J15

**Report generation date:** 26/02/2014 08:54:48

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### Summary of junction performance

|               | AM          |           |      |     | PM          |           |      |     |
|---------------|-------------|-----------|------|-----|-------------|-----------|------|-----|
|               | Queue (PCU) | Delay (s) | RFC  | LOS | Queue (PCU) | Delay (s) | RFC  | LOS |
| A1 - 2013 Obs |             |           |      |     |             |           |      |     |
| Stream B-AC   | 29.39       | 185.53    | 1.07 | F   | 9.91        | 92.65     | 0.95 | F   |

|                       |       |        |      |   |       |        |      |   |
|-----------------------|-------|--------|------|---|-------|--------|------|---|
| <b>Stream C-AB</b>    | 5.13  | 38.69  | 0.86 | E | 1.28  | 16.47  | 0.56 | C |
| <b>Stream C-A</b>     | -     | -      | -    | - | -     | -      | -    | - |
| <b>Stream A-B</b>     | -     | -      | -    | - | -     | -      | -    | - |
| <b>Stream A-C</b>     | -     | -      | -    | - | -     | -      | -    | - |
| <b>A1 - 2016 Base</b> |       |        |      |   |       |        |      |   |
| <b>Stream B-AC</b>    | 71.27 | 521.69 | 1.28 | F | 32.78 | 269.85 | 1.14 | F |
| <b>Stream C-AB</b>    | 23.83 | 339.24 | 1.50 | F | 2.04  | 25.75  | 0.68 | D |
| <b>Stream C-A</b>     | -     | -      | -    | - | -     | -      | -    | - |
| <b>Stream A-B</b>     | -     | -      | -    | - | -     | -      | -    | - |
| <b>Stream A-C</b>     | -     | -      | -    | - | -     | -      | -    | - |
| <b>A1 - 2016 Dev</b>  |       |        |      |   |       |        |      |   |
| <b>Stream B-AC</b>    | 73.37 | 542.46 | 1.29 | F | 43.87 | 365.32 | 1.22 | F |
| <b>Stream C-AB</b>    | 27.40 | 385.41 | 1.57 | F | 2.52  | 31.92  | 0.72 | D |
| <b>Stream C-A</b>     | -     | -      | -    | - | -     | -      | -    | - |
| <b>Stream A-B</b>     | -     | -      | -    | - | -     | -      | -    | - |
| <b>Stream A-C</b>     | -     | -      | -    | - | -     | -      | -    | - |

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle.

"D3 - 2016 Base, AM " model duration: 07:45 - 09:15

"D4 - 2016 Base, PM" model duration: 16:45 - 18:15

"D5 - 2016 Dev, AM" model duration: 07:45 - 09:15

"D6 - 2016 Dev, PM" model duration: 16:45 - 18:15

"D7 - 2013 Obs, AM" model duration: 07:45 - 09:15

"D8 - 2013 Obs, PM" model duration: 16:45 - 18:15

Run using Junctions 8.0.3.332 at 26/02/2014 08:54:44

## File summary

### File Description

|                    |            |
|--------------------|------------|
| <b>Title</b>       | (untitled) |
| <b>Location</b>    |            |
| <b>Site Number</b> |            |
| <b>Date</b>        | 03/12/2013 |
| <b>Version</b>     |            |
| <b>Status</b>      | (new file) |
| <b>Identifier</b>  |            |
| <b>Client</b>      |            |
| <b>Jobnumber</b>   |            |
| <b>Enumerator</b>  |            |
| <b>Description</b> |            |

## Analysis Options

|                           |                            |                                    |                                        |                      |                                    |                              |
|---------------------------|----------------------------|------------------------------------|----------------------------------------|----------------------|------------------------------------|------------------------------|
| <b>Vehicle Length (m)</b> | <b>Do Queue Variations</b> | <b>Calculate Residual Capacity</b> | <b>Residual Capacity Criteria Type</b> | <b>RFC Threshold</b> | <b>Average Delay Threshold (s)</b> | <b>Queue Threshold (PCU)</b> |
|---------------------------|----------------------------|------------------------------------|----------------------------------------|----------------------|------------------------------------|------------------------------|

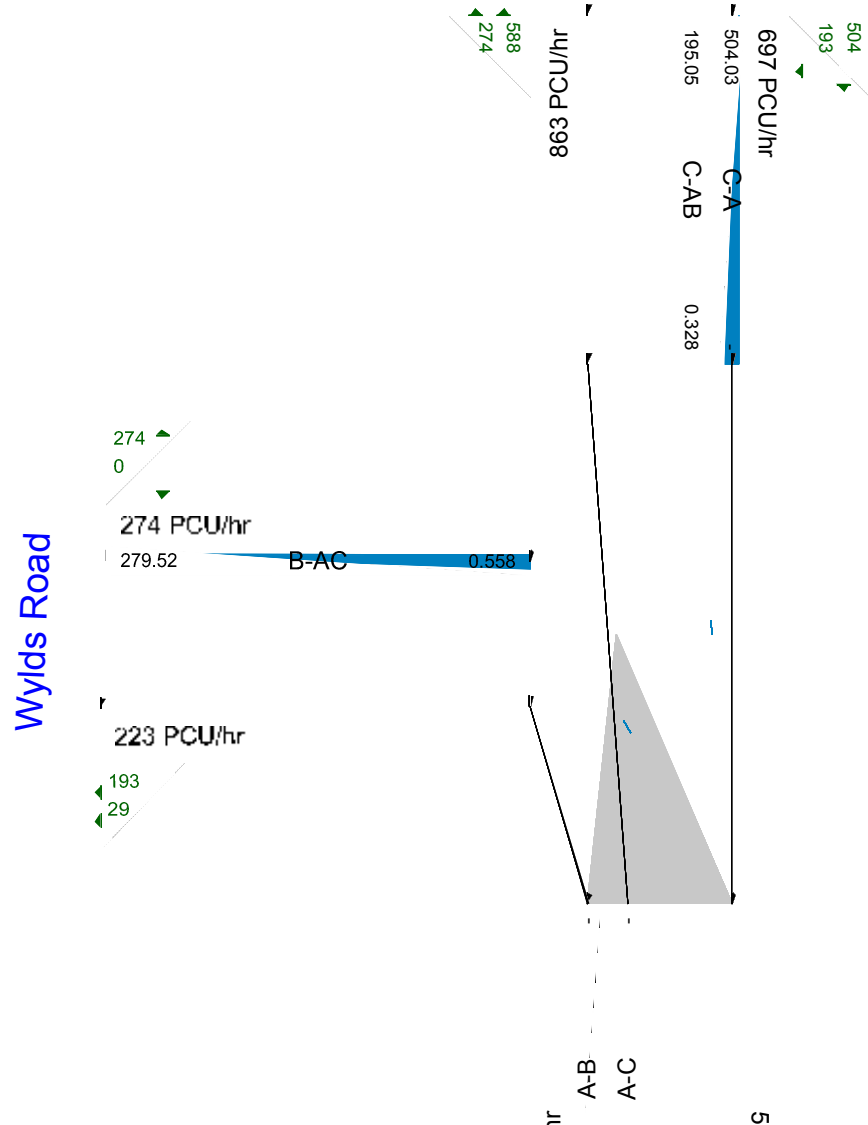
|      |  |  |     |      |       |       |
|------|--|--|-----|------|-------|-------|
| 5.75 |  |  | N/A | 0.85 | 36.00 | 20.00 |
|------|--|--|-----|------|-------|-------|

Units

| Distance Units | Speed Units | Traffic Units Input | Traffic Units Results | Flow Units | Average Delay Units | Total Delay Units | Rate Of Delay Units |
|----------------|-------------|---------------------|-----------------------|------------|---------------------|-------------------|---------------------|
| m              | kph         | Veh                 | PCU                   | perHour    | s                   | -Min              | perMin              |



# A38 Bristol Road north



The junction diagram reflects the last run of ARCADY.

## (Default Analysis Set) - 2016 Base, AM

### Data Errors and Warnings

No errors or warnings

### Analysis Set Details

| Name                   | Description | Locked | Network Flow Scaling Factor (%) | Reason For Scaling Factors |
|------------------------|-------------|--------|---------------------------------|----------------------------|
| (Default Analysis Set) |             |        | 100.000                         |                            |

### Demand Set Details

| Name          | Scenario Name | Time Period Name | Description | Traffic Profile Type | Model Start Time (HH:mm) | Model Finish Time (HH:mm) | Model Time Period Length (min) | Time Segment Length (min) | Single Time Segment Only | Locked |
|---------------|---------------|------------------|-------------|----------------------|--------------------------|---------------------------|--------------------------------|---------------------------|--------------------------|--------|
| 2016 Base, AM | 2016 Base     | AM               |             | ONE HOUR             | 07:45                    | 09:15                     | 90                             | 15                        |                          |        |

## Junction Network

### Junctions

| Name       | Junction Type | Major Road Direction | Arm Order | Junction Delay (s) | Junction LOS |
|------------|---------------|----------------------|-----------|--------------------|--------------|
| (untitled) | T-Junction    | Two-way              | A,B,C     | 410.89             | F            |

### Junction Network Options



## Pedestrian Crossings

| Name                   | Crossing Type |
|------------------------|---------------|
| A38 Bristol Road south | None          |
| Wylds Road             | None          |
| A38 Bristol Road north | None          |

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

| Junction | Stream | Intercept<br>(PCU/hr) | Slope<br>for<br>A-B | Slope<br>for<br>A-C | Slope<br>for<br>C-A | Slope<br>for<br>C-B |
|----------|--------|-----------------------|---------------------|---------------------|---------------------|---------------------|
| 1        | B-A    | 518.129               | 0.094               | 0.239               | 0.150               | 0.341               |
| 1        | B-C    | 652.438               | 0.100               | 0.253               | -                   | -                   |
| 1        | C-B    | 781.320               | 0.303               | 0.303               | -                   | -                   |

*The slopes and intercepts shown above do NOT include any corrections or adjustments.*

*Streams may be combined, in which case capacity will be adjusted.*

*Values are shown for the first time segment only; they may differ for subsequent time segments.*

## Traffic Flows

### Demand Set Data Options

| Default Vehicle Mix | Vehicle Mix Varies Over Time | Vehicle Mix Varies Over Turn | Vehicle Mix Varies Over Entry | Vehicle Mix Source | PCU Factor for a HV (PCU) | Default Turning Proportions | Estimate from entry/exit counts | Turning Proportions Vary Over Time | Turning Proportions Vary Over Turn | Turning Proportions Vary Over Entry |
|---------------------|------------------------------|------------------------------|-------------------------------|--------------------|---------------------------|-----------------------------|---------------------------------|------------------------------------|------------------------------------|-------------------------------------|
|                     |                              | ✓                            | ✓                             | HV Percentages     | 2.00                      |                             |                                 |                                    | ✓                                  | ✓                                   |

## Entry Flows

### General Flows Data

| Name                   | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (%) |
|------------------------|--------------|--------------------|------------------------------|-------------------------|
| A38 Bristol Road south | ONE HOUR     | ✓                  | 716.00                       | 100.000                 |
| Wylds Road             | ONE HOUR     | ✓                  | 484.00                       | 100.000                 |
| A38 Bristol Road north | ONE HOUR     | ✓                  | 1176.00                      | 100.000                 |

## Turning Proportions

### Turning Counts or Proportions (Veh/hr) - (untitled) (for whole period)

|  | To   |       |        |         |
|--|------|-------|--------|---------|
|  |      | A     | B      | C       |
|  | From | A     | B      | C       |
|  | A    | 0.000 | 47.000 | 669.000 |
|  | B    | 0.000 | 0.000  | 484.000 |

|  |          |         |         |       |
|--|----------|---------|---------|-------|
|  | <b>C</b> | 720.000 | 456.000 | 0.000 |
|--|----------|---------|---------|-------|

Turning Proportions (Veh) - (untitled) (for whole period)

|             |          | To   |      |      |
|-------------|----------|------|------|------|
| <b>From</b> |          | A    | B    | C    |
|             | <b>A</b> | 0.00 | 0.07 | 0.93 |
|             | <b>B</b> | 0.00 | 0.00 | 1.00 |
|             | <b>C</b> | 0.61 | 0.39 | 0.00 |

# Vehicle Mix

Average PCU Per Vehicle - (untitled) (for whole period)

|             |          | To    |       |       |
|-------------|----------|-------|-------|-------|
| <b>From</b> |          | A     | B     | C     |
|             | <b>A</b> | 1.000 | 1.040 | 1.100 |
|             | <b>B</b> | 1.000 | 1.000 | 1.060 |
|             | <b>C</b> | 1.100 | 1.040 | 1.000 |

Heavy Vehicle Percentages - (untitled) (for whole period)

|  |  | To |  |  |
|--|--|----|--|--|
|--|--|----|--|--|

| From |   | A      | B     | C      |
|------|---|--------|-------|--------|
|      | A | 0.000  | 4.000 | 10.000 |
|      | B | 0.000  | 0.000 | 6.000  |
|      | C | 10.000 | 4.000 | 0.000  |

## Results

### Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|--------|---------|---------------|-----------------|---------|
| B-AC   | 1.28    | 521.69        | 71.27           | F       |
| C-AB   | 1.50    | 339.24        | 23.83           | F       |
| C-A    | -       | -             | -               | -       |
| A-B    | -       | -             | -               | -       |
| A-C    | -       | -             | -               | -       |

### Main Results for each time segment

**Main results: (07:45-08:00)**

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 386.24                | 374.42              | 0.00                       | 508.71            | 0.759 | 2.96            | 26.508    | D   |
| C-AB   | 357.15                | 351.33              | 0.00                       | 602.59            | 0.593 | 1.45            | 14.588    | B   |
| C-A    | 596.15                | 596.15              | 0.00                       | -                 | -     | -               | -         | -   |
| A-B    | 36.80                 | 36.80               | 0.00                       | -                 | -     | -               | -         | -   |
| A-C    | 554.02                | 554.02              | 0.00                       | -                 | -     | -               | -         | -   |

**Main results: (08:00-08:15)**

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 461.21                | 437.66              | 0.00                       | 480.81            | 0.959 | 8.84            | 65.912    | F   |
| C-AB   | 432.85                | 427.19              | 0.00                       | 573.45            | 0.755 | 2.87            | 24.616    | C   |
| C-A    | 705.47                | 705.47              | 0.00                       | -                 | -     | -               | -         | -   |
| A-B    | 43.94                 | 43.94               | 0.00                       | -                 | -     | -               | -         | -   |
| A-C    | 661.56                | 661.56              | 0.00                       | -                 | -     | -               | -         | -   |

**Main results: (08:15-08:30)**

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 564.87                | 438.44              | 0.00                       | 442.24            | 1.277 | 40.45           | 222.829   | F   |
| C-AB   | 1394.16               | 1349.39             | 0.00                       | 928.68            | 1.501 | 14.06           | 243.285   | F   |



|     |        |        |      |   |   |   |   |   |
|-----|--------|--------|------|---|---|---|---|---|
| C-A | 0.00   | 0.00   | 0.00 | - | - | - | - | - |
| A-B | 53.82  | 53.82  | 0.00 | - | - | - | - | - |
| A-C | 810.24 | 810.24 | 0.00 | - | - | - | - | - |

#### Main results: (08:30-08:45)

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 564.87                | 441.57              | 0.00                       | 442.24            | 1.277 | 71.27           | 458.595   | F   |
| C-AB   | 1394.16               | 1355.10             | 0.00                       | 936.26            | 1.489 | 23.83           | 339.237   | F   |
| C-A    | 0.00                  | 0.00                | 0.00                       | -                 | -     | -               | -         | -   |
| A-B    | 53.82                 | 53.82               | 0.00                       | -                 | -     | -               | -         | -   |
| A-C    | 810.24                | 810.24              | 0.00                       | -                 | -     | -               | -         | -   |

#### Main results: (08:45-09:00)

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 461.21                | 473.76              | 0.00                       | 480.81            | 0.959 | 68.14           | 521.689   | F   |
| C-AB   | 432.85                | 513.24              | 0.00                       | 588.63            | 0.735 | 3.73            | 78.196    | F   |
| C-A    | 705.47                | 705.47              | 0.00                       | -                 | -     | -               | -         | -   |
| A-B    | 43.94                 | 43.94               | 0.00                       | -                 | -     | -               | -         | -   |
| A-C    | 661.56                | 661.56              | 0.00                       | -                 | -     | -               | -         | -   |

**Main results: (09:00-09:15)**

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 386.24                | 500.91              | 0.00                       | 508.71            | 0.759 | 39.47           | 390.011   | F   |
| C-AB   | 357.15                | 365.76              | 0.00                       | 602.86            | 0.592 | 1.57            | 16.334    | C   |
| C-A    | 596.15                | 596.15              | 0.00                       | -                 | -     | -               | -         | -   |
| A-B    | 36.80                 | 36.80               | 0.00                       | -                 | -     | -               | -         | -   |
| A-C    | 554.02                | 554.02              | 0.00                       | -                 | -     | -               | -         | -   |

## (Default Analysis Set) - 2016 Base, PM

**Data Errors and Warnings**

*No errors or warnings*

**Analysis Set Details**

| Name                   | Description | Locked | Network Flow Scaling Factor (%) | Reason For Scaling Factors |
|------------------------|-------------|--------|---------------------------------|----------------------------|
| (Default Analysis Set) |             |        | 100.000                         |                            |

**Demand Set Details**

| Name          | Scenario Name | Time Period Name | Description | Traffic Profile Type | Model Start Time (HH:mm) | Model Finish Time (HH:mm) | Model Time Period Length (min) | Time Segment Length (min) | Single Time Segment Only | Locked |
|---------------|---------------|------------------|-------------|----------------------|--------------------------|---------------------------|--------------------------------|---------------------------|--------------------------|--------|
| 2016 Base, PM | 2016 Base     | PM               |             | ONE HOUR             | 16:45                    | 18:15                     | 90                             | 15                        |                          |        |

# Junction Network

## Junctions

| Name       | Junction Type | Major Road Direction | Arm Order | Junction Delay (s) | Junction LOS |
|------------|---------------|----------------------|-----------|--------------------|--------------|
| (untitled) | T-Junction    | Two-way              | A,B,C     | 169.43             | F            |

## Junction Network Options

| Driving Side | Lighting       |
|--------------|----------------|
| Left         | Normal/unknown |

# Arms

## Arms

| Name                   | Name                   | Description | Arm Type |
|------------------------|------------------------|-------------|----------|
| A38 Bristol Road south | A38 Bristol Road south |             | Major    |
| Wylds Road             | Wylds Road             |             | Minor    |
| A38 Bristol Road north | A38 Bristol Road north |             | Major    |

## Major Arm Geometry

| Name | Width of carriageway (m) | Has kerbed central reserve | Width of kerbed central reserve (m) | Has right turn bay | Width For Right Turn (m) | Visibility For Right Turn (m) | Blocks? | Blocking Queue (PCU) |
|------|--------------------------|----------------------------|-------------------------------------|--------------------|--------------------------|-------------------------------|---------|----------------------|
|------|--------------------------|----------------------------|-------------------------------------|--------------------|--------------------------|-------------------------------|---------|----------------------|

|                        |      |  |      |   |      |        |   |       |
|------------------------|------|--|------|---|------|--------|---|-------|
| A38 Bristol Road north | 6.00 |  | 0.00 | ✓ | 3.00 | 250.00 | ✓ | 16.00 |
|------------------------|------|--|------|---|------|--------|---|-------|

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

### Minor Arm Geometry

| Name       | Minor Arm Type | Lane Width (m) | Lane Width (Left) (m) | Lane Width (Right) (m) | Width at give-way (m) | Width at 5m (m) | Width at 10m (m) | Width at 15m (m) | Width at 20m (m) | Estimate Flare Length | Flare Length (PCU) | Visibility To Left (m) | Visibility To Right (m) |
|------------|----------------|----------------|-----------------------|------------------------|-----------------------|-----------------|------------------|------------------|------------------|-----------------------|--------------------|------------------------|-------------------------|
| Wylde Road | One lane       | 3.10           |                       |                        |                       |                 |                  |                  |                  |                       |                    | 56                     | 35                      |

### Pedestrian Crossings

| Name                   | Crossing Type |
|------------------------|---------------|
| A38 Bristol Road south | None          |
| Wylde Road             | None          |
| A38 Bristol Road north | None          |

### Slope / Intercept / Capacity

#### Priority Intersection Slopes and Intercepts

| Junction | Stream | Intercept (PCU/hr) | Slope for A-B | Slope for A-C | Slope for C-A | Slope for C-B |
|----------|--------|--------------------|---------------|---------------|---------------|---------------|
| 1        | B-A    | 518.129            | 0.094         | 0.239         | 0.150         | 0.341         |
| 1        | B-C    | 652.438            | 0.100         | 0.253         | -             | -             |

|   |     |         |       |       |   |   |
|---|-----|---------|-------|-------|---|---|
| 1 | C-B | 781.320 | 0.303 | 0.303 | - | - |
|---|-----|---------|-------|-------|---|---|

*The slopes and intercepts shown above do NOT include any corrections or adjustments.*

*Streams may be combined, in which case capacity will be adjusted.*

*Values are shown for the first time segment only; they may differ for subsequent time segments.*

## Traffic Flows

### Demand Set Data Options

| Default Vehicle Mix | Vehicle Mix Varies Over Time | Vehicle Mix Varies Over Turn | Vehicle Mix Varies Over Entry | Vehicle Mix Source | PCU Factor for a HV (PCU) | Default Turning Proportions | Estimate from entry/exit counts | Turning Proportions Vary Over Time | Turning Proportions Vary Over Turn | Turning Proportions Vary Over Entry |
|---------------------|------------------------------|------------------------------|-------------------------------|--------------------|---------------------------|-----------------------------|---------------------------------|------------------------------------|------------------------------------|-------------------------------------|
|                     |                              | ✓                            | ✓                             | HV Percentages     | 2.00                      |                             |                                 |                                    | ✓                                  | ✓                                   |

## Entry Flows

### General Flows Data

| Name                   | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (%) |
|------------------------|--------------|--------------------|------------------------------|-------------------------|
| A38 Bristol Road south | ONE HOUR     | ✓                  | 1001.00                      | 100.000                 |
| Wylde Road             | ONE HOUR     | ✓                  | 367.00                       | 100.000                 |
| A38 Bristol Road north | ONE HOUR     | ✓                  | 1190.00                      | 100.000                 |

# Turning Proportions

Turning Counts or Proportions (Veh/hr) - (untitled) (for whole period)

|      | To |         |         |         |
|------|----|---------|---------|---------|
| From |    | A       | B       | C       |
|      | A  | 0.000   | 39.000  | 962.000 |
|      | B  | 0.000   | 0.000   | 367.000 |
|      | C  | 929.000 | 261.000 | 0.000   |

Turning Proportions (Veh) - (untitled) (for whole period)

|      | To |      |      |      |
|------|----|------|------|------|
| From |    | A    | B    | C    |
|      | A  | 0.00 | 0.04 | 0.96 |
|      | B  | 0.00 | 0.00 | 1.00 |
|      | C  | 0.78 | 0.22 | 0.00 |

# Vehicle Mix

Average PCU Per Vehicle - (untitled) (for whole period)

|  | To |
|--|----|
|--|----|

| From |   | A     | B     | C     |
|------|---|-------|-------|-------|
|      | A | 1.000 | 1.030 | 1.040 |
|      | B | 1.000 | 1.000 | 1.040 |
|      | C | 1.040 | 1.020 | 1.000 |

### Heavy Vehicle Percentages - (untitled) (for whole period)

|      | To |       |       |       |
|------|----|-------|-------|-------|
| From |    | A     | B     | C     |
|      | A  | 0.000 | 3.000 | 4.000 |
|      | B  | 0.000 | 0.000 | 4.000 |
|      | C  | 4.000 | 2.000 | 0.000 |

## Results

### Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|--------|---------|---------------|-----------------|---------|
| B-AC   | 1.14    | 269.85        | 32.78           | F       |
| C-AB   | 0.68    | 25.75         | 2.04            | D       |
| C-A    | -       | -             | -               | -       |

|     |   |   |   |   |
|-----|---|---|---|---|
| A-B | - | - | - | - |
| A-C | - | - | - | - |

## Main Results for each time segment

### Main results: (16:45-17:00)

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 287.35                | 280.79              | 0.00                       | 459.01            | 0.626 | 1.64            | 20.338    | C   |
| C-AB   | 200.42                | 198.09              | 0.00                       | 544.15            | 0.368 | 0.58            | 10.542    | B   |
| C-A    | 727.38                | 727.38              | 0.00                       | -                 | -     | -               | -         | -   |
| A-B    | 30.24                 | 30.24               | 0.00                       | -                 | -     | -               | -         | -   |
| A-C    | 753.21                | 753.21              | 0.00                       | -                 | -     | -               | -         | -   |

### Main results: (17:00-17:15)

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 343.12                | 334.81              | 0.00                       | 421.47            | 0.814 | 3.72            | 39.764    | E   |
| C-AB   | 239.33                | 238.00              | 0.00                       | 498.12            | 0.480 | 0.92            | 14.041    | B   |



|     |        |        |      |   |   |   |   |   |
|-----|--------|--------|------|---|---|---|---|---|
| C-A | 868.55 | 868.55 | 0.00 | - | - | - | - | - |
| A-B | 36.11  | 36.11  | 0.00 | - | - | - | - | - |
| A-C | 899.41 | 899.41 | 0.00 | - | - | - | - | - |

#### Main results: (17:15-17:30)

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 420.24                | 357.71              | 0.00                       | 369.56            | 1.137 | 19.35           | 140.498   | F   |
| C-AB   | 294.61                | 290.43              | 0.00                       | 436.13            | 0.676 | 1.96            | 24.516    | C   |
| C-A    | 1062.27               | 1062.27             | 0.00                       | -                 | -     | -               | -         | -   |
| A-B    | 44.23                 | 44.23               | 0.00                       | -                 | -     | -               | -         | -   |
| A-C    | 1101.55               | 1101.55             | 0.00                       | -                 | -     | -               | -         | -   |

#### Main results: (17:30-17:45)

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 420.24                | 366.52              | 0.00                       | 369.56            | 1.137 | 32.78           | 269.847   | F   |
| C-AB   | 294.61                | 294.31              | 0.00                       | 436.15            | 0.675 | 2.04            | 25.748    | D   |
| C-A    | 1062.27               | 1062.27             | 0.00                       | -                 | -     | -               | -         | -   |
| A-B    | 44.23                 | 44.23               | 0.00                       | -                 | -     | -               | -         | -   |
| A-C    | 1101.55               | 1101.55             | 0.00                       | -                 | -     | -               | -         | -   |

### Main results: (17:45-18:00)

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 343.12                | 408.50              | 0.00                       | 421.47            | 0.814 | 16.43           | 221.899   | F   |
| C-AB   | 239.33                | 243.60              | 0.00                       | 498.15            | 0.480 | 0.97            | 14.657    | B   |
| C-A    | 868.55                | 868.55              | 0.00                       | -                 | -     | -               | -         | -   |
| A-B    | 36.11                 | 36.11               | 0.00                       | -                 | -     | -               | -         | -   |
| A-C    | 899.41                | 899.41              | 0.00                       | -                 | -     | -               | -         | -   |

### Main results: (18:00-18:15)

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 287.35                | 345.51              | 0.00                       | 459.01            | 0.626 | 1.89            | 46.939    | E   |
| C-AB   | 200.42                | 201.89              | 0.00                       | 544.15            | 0.368 | 0.61            | 10.775    | B   |
| C-A    | 727.38                | 727.38              | 0.00                       | -                 | -     | -               | -         | -   |
| A-B    | 30.24                 | 30.24               | 0.00                       | -                 | -     | -               | -         | -   |
| A-C    | 753.21                | 753.21              | 0.00                       | -                 | -     | -               | -         | -   |

## (Default Analysis Set) - 2016 Dev, AM

### Data Errors and Warnings

*No errors or warnings*

## Analysis Set Details

| Name                   | Description | Locked | Network Flow Scaling Factor (%) | Reason For Scaling Factors |
|------------------------|-------------|--------|---------------------------------|----------------------------|
| (Default Analysis Set) |             |        | 100.000                         |                            |

## Demand Set Details

| Name         | Scenario Name | Time Period Name | Description | Traffic Profile Type | Model Start Time (HH:mm) | Model Finish Time (HH:mm) | Model Time Period Length (min) | Time Segment Length (min) | Single Time Segment Only | Locked |
|--------------|---------------|------------------|-------------|----------------------|--------------------------|---------------------------|--------------------------------|---------------------------|--------------------------|--------|
| 2016 Dev, AM | 2016 Dev      | AM               |             | ONE HOUR             | 07:45                    | 09:15                     | 90                             | 15                        |                          |        |

# Junction Network

## Junctions

| Name       | Junction Type | Major Road Direction | Arm Order | Junction Delay (s) | Junction LOS |
|------------|---------------|----------------------|-----------|--------------------|--------------|
| (untitled) | T-Junction    | Two-way              | A,B,C     | 445.38             | F            |

## Junction Network Options

| Driving Side | Lighting       |
|--------------|----------------|
| Left         | Normal/unknown |

# Arms

## Arms

| Name                   | Name                   | Description | Arm Type |
|------------------------|------------------------|-------------|----------|
| A38 Bristol Road south | A38 Bristol Road south |             | Major    |
| Wylds Road             | Wylds Road             |             | Minor    |
| A38 Bristol Road north | A38 Bristol Road north |             | Major    |

## Major Arm Geometry

| Name                   | Width of carriageway (m) | Has kerbed central reserve | Width of kerbed central reserve (m) | Has right turn bay | Width For Right Turn (m) | Visibility For Right Turn (m) | Blocks? | Blocking Queue (PCU) |
|------------------------|--------------------------|----------------------------|-------------------------------------|--------------------|--------------------------|-------------------------------|---------|----------------------|
| A38 Bristol Road north | 6.00                     |                            | 0.00                                | ✓                  | 3.00                     | 250.00                        | ✓       | 16.00                |

*Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.*

## Minor Arm Geometry

| Name       | Minor Arm Type | Lane Width (m) | Lane Width (Left) (m) | Lane Width (Right) (m) | Width at give-way (m) | Width at 5m (m) | Width at 10m (m) | Width at 15m (m) | Width at 20m (m) | Estimate Flare Length | Flare Length (PCU) | Visibility To Left (m) | Visibility To Right (m) |
|------------|----------------|----------------|-----------------------|------------------------|-----------------------|-----------------|------------------|------------------|------------------|-----------------------|--------------------|------------------------|-------------------------|
| Wylds Road | One lane       | 3.10           |                       |                        |                       |                 |                  |                  |                  |                       |                    | 56                     | 35                      |

## Pedestrian Crossings

| Name                   | Crossing Type |
|------------------------|---------------|
| A38 Bristol Road south | None          |
| Wylds Road             | None          |

|                        |      |
|------------------------|------|
| A38 Bristol Road north | None |
|------------------------|------|

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

| Junction | Stream | Intercept (PCU/hr) | Slope for A-B | Slope for A-C | Slope for C-A | Slope for C-B |
|----------|--------|--------------------|---------------|---------------|---------------|---------------|
| 1        | B-A    | 518.129            | 0.094         | 0.239         | 0.150         | 0.341         |
| 1        | B-C    | 652.438            | 0.100         | 0.253         | -             | -             |
| 1        | C-B    | 781.320            | 0.303         | 0.303         | -             | -             |

*The slopes and intercepts shown above do NOT include any corrections or adjustments.*

*Streams may be combined, in which case capacity will be adjusted.*

*Values are shown for the first time segment only; they may differ for subsequent time segments.*

## Traffic Flows

### Demand Set Data Options

| Default Vehicle Mix | Vehicle Mix Varies Over Time | Vehicle Mix Varies Over Turn | Vehicle Mix Varies Over Entry | Vehicle Mix Source | PCU Factor for a HV (PCU) | Default Turning Proportions | Estimate from entry/exit counts | Turning Proportions Vary Over Time | Turning Proportions Vary Over Turn | Turning Proportions Vary Over Entry |
|---------------------|------------------------------|------------------------------|-------------------------------|--------------------|---------------------------|-----------------------------|---------------------------------|------------------------------------|------------------------------------|-------------------------------------|
|                     |                              | ✓                            | ✓                             | HV Percentages     | 2.00                      |                             |                                 |                                    | ✓                                  | ✓                                   |

# Entry Flows

## General Flows Data

| Name                   | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (%) |
|------------------------|--------------|--------------------|------------------------------|-------------------------|
| A38 Bristol Road south | ONE HOUR     | ✓                  | 722.00                       | 100.000                 |
| Wylds Road             | ONE HOUR     | ✓                  | 484.00                       | 100.000                 |
| A38 Bristol Road north | ONE HOUR     | ✓                  | 1259.00                      | 100.000                 |

# Turning Proportions

## Turning Counts or Proportions (Veh/hr) - (untitled) (for whole period)

|      | To |         |         |         |
|------|----|---------|---------|---------|
| From |    | A       | B       | C       |
|      | A  | 0.000   | 47.000  | 675.000 |
|      | B  | 0.000   | 0.000   | 484.000 |
|      | C  | 803.000 | 456.000 | 0.000   |

## Turning Proportions (Veh) - (untitled) (for whole period)

|      |    |   |   |   |
|------|----|---|---|---|
|      | To |   |   |   |
| From |    | A | B | C |

|  |          |      |      |      |
|--|----------|------|------|------|
|  | <b>A</b> | 0.00 | 0.07 | 0.93 |
|  | <b>B</b> | 0.00 | 0.00 | 1.00 |
|  | <b>C</b> | 0.64 | 0.36 | 0.00 |

# Vehicle Mix

Average PCU Per Vehicle - (untitled) (for whole period)

|      | To |       |       |       |
|------|----|-------|-------|-------|
| From |    | A     | B     | C     |
|      | A  | 1.000 | 1.040 | 1.110 |
|      | B  | 1.000 | 1.000 | 1.060 |
|      | C  | 1.100 | 1.040 | 1.000 |

Heavy Vehicle Percentages - (untitled) (for whole period)

|      | To |        |       |        |
|------|----|--------|-------|--------|
| From |    | A      | B     | C      |
|      | A  | 0.000  | 4.000 | 11.000 |
|      | B  | 0.000  | 0.000 | 6.000  |
|      | C  | 10.000 | 4.000 | 0.000  |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|--------|---------|---------------|-----------------|---------|
| B-AC   | 1.29    | 542.46        | 73.37           | F       |
| C-AB   | 1.57    | 385.41        | 27.40           | F       |
| C-A    | -       | -             | -               | -       |
| A-B    | -       | -             | -               | -       |
| A-C    | -       | -             | -               | -       |

## Main Results for each time segment

### Main results: (07:45-08:00)

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 386.24                | 374.22              | 0.00                       | 506.17            | 0.763 | 3.01            | 26.926    | D   |
| C-AB   | 357.17                | 351.28              | 0.00                       | 599.57            | 0.596 | 1.47            | 14.756    | B   |
| C-A    | 664.86                | 664.86              | 0.00                       | -                 | -     | -               | -         | -   |



|            |        |        |      |   |   |   |   |   |
|------------|--------|--------|------|---|---|---|---|---|
| <b>A-B</b> | 36.80  | 36.80  | 0.00 | - | - | - | - | - |
| <b>A-C</b> | 564.07 | 564.07 | 0.00 | - | - | - | - | - |

#### Main results: (08:00-08:15)

| Stream      | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-------------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| <b>B-AC</b> | 461.21                | 436.59              | 0.00                       | 477.77            | 0.965 | 9.16            | 67.942    | F   |
| <b>C-AB</b> | 434.41                | 428.54              | 0.00                       | 571.15            | 0.761 | 2.94            | 25.178    | D   |
| <b>C-A</b>  | 785.99                | 785.99              | 0.00                       | -                 | -     | -               | -         | -   |
| <b>A-B</b>  | 43.94                 | 43.94               | 0.00                       | -                 | -     | -               | -         | -   |
| <b>A-C</b>  | 673.56                | 673.56              | 0.00                       | -                 | -     | -               | -         | -   |

#### Main results: (08:15-08:30)

| Stream      | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-------------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| <b>B-AC</b> | 564.87                | 435.01              | 0.00                       | 438.52            | 1.288 | 41.63           | 230.562   | F   |
| <b>C-AB</b> | 1494.68               | 1446.62             | 0.00                       | 954.40            | 1.566 | 14.95           | 271.232   | F   |
| <b>C-A</b>  | 0.00                  | 0.00                | 0.00                       | -                 | -     | -               | -         | -   |
| <b>A-B</b>  | 53.82                 | 53.82               | 0.00                       | -                 | -     | -               | -         | -   |
| <b>A-C</b>  | 824.94                | 824.94              | 0.00                       | -                 | -     | -               | -         | -   |

#### Main results: (08:30-08:45)

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 564.87                | 437.91              | 0.00                       | 438.52            | 1.288 | 73.37           | 474.644   | F   |
| C-AB   | 1494.68               | 1444.91             | 0.00                       | 962.08            | 1.554 | 27.40           | 385.414   | F   |
| C-A    | 0.00                  | 0.00                | 0.00                       | -                 | -     | -               | -         | -   |
| A-B    | 53.82                 | 53.82               | 0.00                       | -                 | -     | -               | -         | -   |
| A-C    | 824.94                | 824.94              | 0.00                       | -                 | -     | -               | -         | -   |

#### Main results: (08:45-09:00)

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 461.21                | 470.97              | 0.00                       | 477.77            | 0.965 | 70.93           | 542.460   | F   |
| C-AB   | 434.41                | 528.14              | 0.00                       | 587.11            | 0.740 | 3.96            | 96.043    | F   |
| C-A    | 785.99                | 785.99              | 0.00                       | -                 | -     | -               | -         | -   |
| A-B    | 43.94                 | 43.94               | 0.00                       | -                 | -     | -               | -         | -   |
| A-C    | 673.56                | 673.56              | 0.00                       | -                 | -     | -               | -         | -   |

#### Main results: (09:00-09:15)

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 386.24                | 498.71              | 0.00                       | 506.17            | 0.763 | 42.81           | 413.583   | F   |
| C-AB   | 357.17                | 366.64              | 0.00                       | 599.90            | 0.595 | 1.59            | 16.669    | C   |

|     |        |        |      |   |   |   |   |   |
|-----|--------|--------|------|---|---|---|---|---|
| C-A | 664.86 | 664.86 | 0.00 | - | - | - | - | - |
| A-B | 36.80  | 36.80  | 0.00 | - | - | - | - | - |
| A-C | 564.07 | 564.07 | 0.00 | - | - | - | - | - |

## (Default Analysis Set) - 2016 Dev, PM

### Data Errors and Warnings

*No errors or warnings*

### Analysis Set Details

| Name                   | Description | Locked | Network Flow Scaling Factor (%) | Reason For Scaling Factors |
|------------------------|-------------|--------|---------------------------------|----------------------------|
| (Default Analysis Set) |             |        | 100.000                         |                            |

### Demand Set Details

| Name         | Scenario Name | Time Period Name | Description | Traffic Profile Type | Model Start Time (HH:mm) | Model Finish Time (HH:mm) | Model Time Period Length (min) | Time Segment Length (min) | Single Time Segment Only | Locked |
|--------------|---------------|------------------|-------------|----------------------|--------------------------|---------------------------|--------------------------------|---------------------------|--------------------------|--------|
| 2016 Dev, PM | 2016 Dev      | PM               |             | ONE HOUR             | 16:45                    | 18:15                     | 90                             | 15                        |                          |        |

## Junction Network

### Junctions

| Name | Junction Type | Major Road Direction | Arm Order | Junction Delay (s) | Junction LOS |
|------|---------------|----------------------|-----------|--------------------|--------------|
|------|---------------|----------------------|-----------|--------------------|--------------|

|            |            |         |       |        |   |
|------------|------------|---------|-------|--------|---|
| (untitled) | T-Junction | Two-way | A,B,C | 227.81 | F |
|------------|------------|---------|-------|--------|---|

## Junction Network Options

| Driving Side | Lighting       |
|--------------|----------------|
| Left         | Normal/unknown |

# Arms

## Arms

| Name                   | Name                   | Description | Arm Type |
|------------------------|------------------------|-------------|----------|
| A38 Bristol Road south | A38 Bristol Road south |             | Major    |
| Wylds Road             | Wylds Road             |             | Minor    |
| A38 Bristol Road north | A38 Bristol Road north |             | Major    |

## Major Arm Geometry

| Name                   | Width of carriageway (m) | Has kerbed central reserve | Width of kerbed central reserve (m) | Has right turn bay | Width For Right Turn (m) | Visibility For Right Turn (m) | Blocks? | Blocking Queue (PCU) |
|------------------------|--------------------------|----------------------------|-------------------------------------|--------------------|--------------------------|-------------------------------|---------|----------------------|
| A38 Bristol Road north | 6.00                     |                            | 0.00                                | ✓                  | 3.00                     | 250.00                        | ✓       | 16.00                |

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

## Minor Arm Geometry

| Name       | Minor Arm Type | Lane Width (m) | Lane Width (Left) (m) | Lane Width (Right) (m) | Width at give-way (m) | Width at 5m (m) | Width at 10m (m) | Width at 15m (m) | Width at 20m (m) | Estimate Flare Length | Flare Length (PCU) | Visibility To Left (m) | Visibility To Right (m) |
|------------|----------------|----------------|-----------------------|------------------------|-----------------------|-----------------|------------------|------------------|------------------|-----------------------|--------------------|------------------------|-------------------------|
| Wylds Road | One lane       | 3.10           |                       |                        |                       |                 |                  |                  |                  |                       |                    | 56                     | 35                      |

## Pedestrian Crossings

| Name                   | Crossing Type |
|------------------------|---------------|
| A38 Bristol Road south | None          |
| Wylds Road             | None          |
| A38 Bristol Road north | None          |

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

| Junction | Stream | Intercept (PCU/hr) | Slope for A-B | Slope for A-C | Slope for C-A | Slope for C-B |
|----------|--------|--------------------|---------------|---------------|---------------|---------------|
| 1        | B-A    | 518.129            | 0.094         | 0.239         | 0.150         | 0.341         |
| 1        | B-C    | 652.438            | 0.100         | 0.253         | -             | -             |
| 1        | C-B    | 781.320            | 0.303         | 0.303         | -             | -             |

*The slopes and intercepts shown above do NOT include any corrections or adjustments.*

*Streams may be combined, in which case capacity will be adjusted.*

*Values are shown for the first time segment only; they may differ for subsequent time segments.*

# Traffic Flows

## Demand Set Data Options

| Default Vehicle Mix | Vehicle Mix Varies Over Time | Vehicle Mix Varies Over Turn | Vehicle Mix Varies Over Entry | Vehicle Mix Source | PCU Factor for a HV (PCU) | Default Turning Proportions | Estimate from entry/exit counts | Turning Proportions Vary Over Time | Turning Proportions Vary Over Turn | Turning Proportions Vary Over Entry |
|---------------------|------------------------------|------------------------------|-------------------------------|--------------------|---------------------------|-----------------------------|---------------------------------|------------------------------------|------------------------------------|-------------------------------------|
|                     |                              | ✓                            | ✓                             | HV Percentages     | 2.00                      |                             |                                 |                                    | ✓                                  | ✓                                   |

# Entry Flows

## General Flows Data

| Name                   | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (%) |
|------------------------|--------------|--------------------|------------------------------|-------------------------|
| A38 Bristol Road south | ONE HOUR     | ✓                  | 1083.00                      | 100.000                 |
| Wylde Road             | ONE HOUR     | ✓                  | 367.00                       | 100.000                 |
| A38 Bristol Road north | ONE HOUR     | ✓                  | 1196.00                      | 100.000                 |

# Turning Proportions

## Turning Counts or Proportions (Veh/hr) - (untitled) (for whole period)

|      |    |   |   |
|------|----|---|---|
|      | To |   |   |
| From | A  | B | C |

|  |          |         |         |          |
|--|----------|---------|---------|----------|
|  | <b>A</b> | 0.000   | 39.000  | 1044.000 |
|  | <b>B</b> | 0.000   | 0.000   | 367.000  |
|  | <b>C</b> | 935.000 | 261.000 | 0.000    |

Turning Proportions (Veh) - (untitled) (for whole period)

|             |           |          |          |          |
|-------------|-----------|----------|----------|----------|
|             | <b>To</b> |          |          |          |
| <b>From</b> |           | <b>A</b> | <b>B</b> | <b>C</b> |
|             | <b>A</b>  | 0.00     | 0.04     | 0.96     |
|             | <b>B</b>  | 0.00     | 0.00     | 1.00     |
|             | <b>C</b>  | 0.78     | 0.22     | 0.00     |

# Vehicle Mix

Average PCU Per Vehicle - (untitled) (for whole period)

|             |           |          |          |          |
|-------------|-----------|----------|----------|----------|
|             | <b>To</b> |          |          |          |
| <b>From</b> |           | <b>A</b> | <b>B</b> | <b>C</b> |
|             | <b>A</b>  | 1.000    | 1.030    | 1.040    |
|             | <b>B</b>  | 1.000    | 1.000    | 1.040    |
|             | <b>C</b>  | 1.040    | 1.020    | 1.000    |

### Heavy Vehicle Percentages - (untitled) (for whole period)

|      | To |       |       |       |
|------|----|-------|-------|-------|
| From |    | A     | B     | C     |
|      | A  | 0.000 | 3.000 | 4.000 |
|      | B  | 0.000 | 0.000 | 4.000 |
|      | C  | 4.000 | 2.000 | 0.000 |

## Results

### Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|--------|---------|---------------|-----------------|---------|
| B-AC   | 1.22    | 365.32        | 43.87           | F       |
| C-AB   | 0.72    | 31.92         | 2.52            | D       |
| C-A    | -       | -             | -               | -       |
| A-B    | -       | -             | -               | -       |
| A-C    | -       | -             | -               | -       |



## Main Results for each time segment

### Main results: (16:45-17:00)

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 287.35                | 280.18              | 0.00                       | 442.78            | 0.649 | 1.79            | 22.165    | C   |
| C-AB   | 200.42                | 197.95              | 0.00                       | 524.71            | 0.382 | 0.62            | 11.156    | B   |
| C-A    | 732.07                | 732.07              | 0.00                       | -                 | -     | -               | -         | -   |
| A-B    | 30.24                 | 30.24               | 0.00                       | -                 | -     | -               | -         | -   |
| A-C    | 817.42                | 817.42              | 0.00                       | -                 | -     | -               | -         | -   |

### Main results: (17:00-17:15)

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 343.12                | 332.32              | 0.00                       | 402.09            | 0.853 | 4.49            | 47.528    | E   |
| C-AB   | 239.34                | 237.79              | 0.00                       | 474.92            | 0.504 | 1.00            | 15.382    | C   |
| C-A    | 874.16                | 874.16              | 0.00                       | -                 | -     | -               | -         | -   |
| A-B    | 36.11                 | 36.11               | 0.00                       | -                 | -     | -               | -         | -   |
| A-C    | 976.08                | 976.08              | 0.00                       | -                 | -     | -               | -         | -   |

### Main results: (17:15-17:30)

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 420.24                | 338.55              | 0.00                       | 345.82            | 1.215 | 24.91           | 181.299   | F   |

|             |         |         |      |        |       |      |        |   |
|-------------|---------|---------|------|--------|-------|------|--------|---|
| <b>C-AB</b> | 297.77  | 292.20  | 0.00 | 410.96 | 0.725 | 2.39 | 29.600 | D |
| <b>C-A</b>  | 1065.98 | 1065.98 | 0.00 | -      | -     | -    | -      | - |
| <b>A-B</b>  | 44.23   | 44.23   | 0.00 | -      | -     | -    | -      | - |
| <b>A-C</b>  | 1195.44 | 1195.44 | 0.00 | -      | -     | -    | -      | - |

#### Main results: (17:30-17:45)

| Stream      | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-------------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| <b>B-AC</b> | 420.24                | 344.41              | 0.00                       | 345.82            | 1.215 | 43.87           | 365.316   | F   |
| <b>C-AB</b> | 297.77                | 297.25              | 0.00                       | 411.02            | 0.724 | 2.52            | 31.917    | D   |
| <b>C-A</b>  | 1065.98               | 1065.98             | 0.00                       | -                 | -     | -               | -         | -   |
| <b>A-B</b>  | 44.23                 | 44.23               | 0.00                       | -                 | -     | -               | -         | -   |
| <b>A-C</b>  | 1195.44               | 1195.44             | 0.00                       | -                 | -     | -               | -         | -   |

#### Main results: (17:45-18:00)

| Stream      | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-------------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| <b>B-AC</b> | 343.12                | 392.77              | 0.00                       | 402.09            | 0.853 | 31.46           | 343.266   | F   |
| <b>C-AB</b> | 239.34                | 245.15              | 0.00                       | 475.00            | 0.504 | 1.07            | 16.357    | C   |
| <b>C-A</b>  | 874.16                | 874.16              | 0.00                       | -                 | -     | -               | -         | -   |
| <b>A-B</b>  | 36.11                 | 36.11               | 0.00                       | -                 | -     | -               | -         | -   |

|     |        |        |      |   |   |   |   |   |
|-----|--------|--------|------|---|---|---|---|---|
| A-C | 976.08 | 976.08 | 0.00 | - | - | - | - | - |
|-----|--------|--------|------|---|---|---|---|---|

### Main results: (18:00-18:15)

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 287.35                | 403.72              | 0.00                       | 442.78            | 0.649 | 2.36            | 134.524   | F   |
| C-AB   | 200.42                | 202.14              | 0.00                       | 524.71            | 0.382 | 0.64            | 11.442    | B   |
| C-A    | 732.07                | 732.07              | 0.00                       | -                 | -     | -               | -         | -   |
| A-B    | 30.24                 | 30.24               | 0.00                       | -                 | -     | -               | -         | -   |
| A-C    | 817.42                | 817.42              | 0.00                       | -                 | -     | -               | -         | -   |

## (Default Analysis Set) - 2013 Obs, AM

### Data Errors and Warnings

*No errors or warnings*

### Analysis Set Details

| Name                   | Description | Locked | Network Flow Scaling Factor (%) | Reason For Scaling Factors |
|------------------------|-------------|--------|---------------------------------|----------------------------|
| (Default Analysis Set) |             |        | 100.000                         |                            |

### Demand Set Details

| Name | Scenario Name | Time Period Name | Description | Traffic Profile Type | Model Start Time (HH:mm) | Model Finish Time (HH:mm) | Model Time Period Length (min) | Time Segment Length (min) | Single Time Segment Only | Locked |
|------|---------------|------------------|-------------|----------------------|--------------------------|---------------------------|--------------------------------|---------------------------|--------------------------|--------|
|------|---------------|------------------|-------------|----------------------|--------------------------|---------------------------|--------------------------------|---------------------------|--------------------------|--------|

|                 |          |    |  |          |       |       |    |    |  |  |
|-----------------|----------|----|--|----------|-------|-------|----|----|--|--|
| 2013 Obs,<br>AM | 2013 Obs | AM |  | ONE HOUR | 07:45 | 09:15 | 90 | 15 |  |  |
|-----------------|----------|----|--|----------|-------|-------|----|----|--|--|

# Junction Network

## Junctions

| Name       | Junction Type | Major Road Direction | Arm Order | Junction Delay (s) | Junction LOS |
|------------|---------------|----------------------|-----------|--------------------|--------------|
| (untitled) | T-Junction    | Two-way              | A,B,C     | 113.90             | F            |

## Junction Network Options

| Driving Side | Lighting       |
|--------------|----------------|
| Left         | Normal/unknown |

# Arms

## Arms

| Name                   | Name                   | Description | Arm Type |
|------------------------|------------------------|-------------|----------|
| A38 Bristol Road south | A38 Bristol Road south |             | Major    |
| Wylds Road             | Wylds Road             |             | Minor    |
| A38 Bristol Road north | A38 Bristol Road north |             | Major    |

## Major Arm Geometry

| Name                   | Width of carriageway (m) | Has kerbed central reserve | Width of kerbed central reserve (m) | Has right turn bay | Width For Right Turn (m) | Visibility For Right Turn (m) | Blocks? | Blocking Queue (PCU) |
|------------------------|--------------------------|----------------------------|-------------------------------------|--------------------|--------------------------|-------------------------------|---------|----------------------|
| A38 Bristol Road north | 6.00                     |                            | 0.00                                | ✓                  | 3.00                     | 250.00                        | ✓       | 16.00                |

*Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.*

## Minor Arm Geometry

| Name       | Minor Arm Type | Lane Width (m) | Lane Width (Left) (m) | Lane Width (Right) (m) | Width at give-way (m) | Width at 5m (m) | Width at 10m (m) | Width at 15m (m) | Width at 20m (m) | Estimate Flare Length | Flare Length (PCU) | Visibility To Left (m) | Visibility To Right (m) |
|------------|----------------|----------------|-----------------------|------------------------|-----------------------|-----------------|------------------|------------------|------------------|-----------------------|--------------------|------------------------|-------------------------|
| Wylds Road | One lane       | 3.10           |                       |                        |                       |                 |                  |                  |                  |                       |                    | 56                     | 35                      |

## Pedestrian Crossings

| Name                   | Crossing Type |
|------------------------|---------------|
| A38 Bristol Road south | None          |
| Wylds Road             | None          |
| A38 Bristol Road north | None          |

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

| Junction | Stream | Intercept (PCU/hr) | Slope for A-B | Slope for A-C | Slope for C-A | Slope for C-B |
|----------|--------|--------------------|---------------|---------------|---------------|---------------|
| 1        | B-A    | 518.129            | 0.094         | 0.239         | 0.150         | 0.341         |

|   |     |         |       |       |   |   |
|---|-----|---------|-------|-------|---|---|
| 1 | B-C | 652.438 | 0.100 | 0.253 | - | - |
| 1 | C-B | 781.320 | 0.303 | 0.303 | - | - |

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

## Traffic Flows

### Demand Set Data Options

| Default Vehicle Mix | Vehicle Mix Varies Over Time | Vehicle Mix Varies Over Turn | Vehicle Mix Varies Over Entry | Vehicle Mix Source | PCU Factor for a HV (PCU) | Default Turning Proportions | Estimate from entry/exit counts | Turning Proportions Vary Over Time | Turning Proportions Vary Over Turn | Turning Proportions Vary Over Entry |
|---------------------|------------------------------|------------------------------|-------------------------------|--------------------|---------------------------|-----------------------------|---------------------------------|------------------------------------|------------------------------------|-------------------------------------|
|                     |                              | ✓                            | ✓                             | HV Percentages     | 2.00                      |                             |                                 |                                    | ✓                                  | ✓                                   |

## Entry Flows

### General Flows Data

| Name                   | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (%) |
|------------------------|--------------|--------------------|------------------------------|-------------------------|
| A38 Bristol Road south | ONE HOUR     | ✓                  | 471.00                       | 100.000                 |
| Wylds Road             | ONE HOUR     | ✓                  | 473.00                       | 100.000                 |
| A38 Bristol Road north | ONE HOUR     | ✓                  | 1024.00                      | 100.000                 |

# Turning Proportions

Turning Counts or Proportions (Veh/hr) - (untitled) (for whole period)

|      | To |         |         |         |
|------|----|---------|---------|---------|
| From |    | A       | B       | C       |
|      | A  | 0.000   | 46.000  | 425.000 |
|      | B  | 0.000   | 0.000   | 473.000 |
|      | C  | 579.000 | 445.000 | 0.000   |

Turning Proportions (Veh) - (untitled) (for whole period)

|      | To |      |      |      |
|------|----|------|------|------|
| From |    | A    | B    | C    |
|      | A  | 0.00 | 0.10 | 0.90 |
|      | B  | 0.00 | 0.00 | 1.00 |
|      | C  | 0.57 | 0.43 | 0.00 |

# Vehicle Mix

Average PCU Per Vehicle - (untitled) (for whole period)

|  | To |
|--|----|
|--|----|

| From |   | A     | B     | C     |
|------|---|-------|-------|-------|
|      | A | 1.000 | 1.040 | 1.120 |
|      | B | 1.000 | 1.000 | 1.060 |
|      | C | 1.090 | 1.040 | 1.000 |

### Heavy Vehicle Percentages - (untitled) (for whole period)

| From | To |       |       |        |
|------|----|-------|-------|--------|
|      |    | A     | B     | C      |
|      | A  | 0.000 | 4.000 | 12.000 |
|      | B  | 0.000 | 0.000 | 6.000  |
|      | C  | 9.000 | 4.000 | 0.000  |

## Results

### Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|--------|---------|---------------|-----------------|---------|
| B-AC   | 1.07    | 185.53        | 29.39           | F       |
| C-AB   | 0.86    | 38.69         | 5.13            | E       |
| C-A    | -       | -             | -               | -       |



|     |   |   |   |   |
|-----|---|---|---|---|
| A-B | - | - | - | - |
| A-C | - | - | - | - |

## Main Results for each time segment

### Main results: (07:45-08:00)

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 377.47                | 369.19              | 0.00                       | 558.25            | 0.676 | 2.07            | 19.429    | C   |
| C-AB   | 348.43                | 343.93              | 0.00                       | 661.95            | 0.526 | 1.12            | 11.617    | B   |
| C-A    | 475.12                | 475.12              | 0.00                       | -                 | -     | -               | -         | -   |
| A-B    | 36.02                 | 36.02               | 0.00                       | -                 | -     | -               | -         | -   |
| A-C    | 358.36                | 358.36              | 0.00                       | -                 | -     | -               | -         | -   |

### Main results: (08:00-08:15)

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 450.73                | 441.51              | 0.00                       | 539.96            | 0.835 | 4.37            | 35.665    | E   |
| C-AB   | 416.55                | 413.64              | 0.00                       | 639.24            | 0.652 | 1.85            | 16.375    | C   |

|     |        |        |      |   |   |   |   |   |
|-----|--------|--------|------|---|---|---|---|---|
| C-A | 566.85 | 566.85 | 0.00 | - | - | - | - | - |
| A-B | 43.01  | 43.01  | 0.00 | - | - | - | - | - |
| A-C | 427.91 | 427.91 | 0.00 | - | - | - | - | - |

#### Main results: (08:15-08:30)

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 552.03                | 495.87              | 0.00                       | 514.69            | 1.073 | 18.42           | 103.041   | F   |
| C-AB   | 549.36                | 538.11              | 0.00                       | 636.44            | 0.863 | 4.66            | 33.486    | D   |
| C-A    | 655.06                | 655.06              | 0.00                       | -                 | -     | -               | -         | -   |
| A-B    | 52.67                 | 52.67               | 0.00                       | -                 | -     | -               | -         | -   |
| A-C    | 524.09                | 524.09              | 0.00                       | -                 | -     | -               | -         | -   |

#### Main results: (08:30-08:45)

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 552.03                | 508.15              | 0.00                       | 514.69            | 1.073 | 29.39           | 185.532   | F   |
| C-AB   | 549.36                | 547.49              | 0.00                       | 637.34            | 0.862 | 5.13            | 38.686    | E   |
| C-A    | 655.06                | 655.06              | 0.00                       | -                 | -     | -               | -         | -   |
| A-B    | 52.67                 | 52.67               | 0.00                       | -                 | -     | -               | -         | -   |
| A-C    | 524.09                | 524.09              | 0.00                       | -                 | -     | -               | -         | -   |

### Main results: (08:45-09:00)

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 450.73                | 521.17              | 0.00                       | 539.96            | 0.835 | 11.78           | 149.674   | F   |
| C-AB   | 416.55                | 428.90              | 0.00                       | 640.45            | 0.650 | 2.04            | 18.716    | C   |
| C-A    | 566.85                | 566.85              | 0.00                       | -                 | -     | -               | -         | -   |
| A-B    | 43.01                 | 43.01               | 0.00                       | -                 | -     | -               | -         | -   |
| A-C    | 427.91                | 427.91              | 0.00                       | -                 | -     | -               | -         | -   |

### Main results: (09:00-09:15)

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 377.47                | 415.01              | 0.00                       | 558.25            | 0.676 | 2.39            | 32.298    | D   |
| C-AB   | 348.43                | 351.86              | 0.00                       | 661.97            | 0.526 | 1.19            | 12.202    | B   |
| C-A    | 475.12                | 475.12              | 0.00                       | -                 | -     | -               | -         | -   |
| A-B    | 36.02                 | 36.02               | 0.00                       | -                 | -     | -               | -         | -   |
| A-C    | 358.36                | 358.36              | 0.00                       | -                 | -     | -               | -         | -   |

## (Default Analysis Set) - 2013 Obs, PM

### Data Errors and Warnings

No errors or warnings

## Analysis Set Details

| Name                   | Description | Locked | Network Flow Scaling Factor (%) | Reason For Scaling Factors |
|------------------------|-------------|--------|---------------------------------|----------------------------|
| (Default Analysis Set) |             |        | 100.000                         |                            |

## Demand Set Details

| Name         | Scenario Name | Time Period Name | Description | Traffic Profile Type | Model Start Time (HH:mm) | Model Finish Time (HH:mm) | Model Time Period Length (min) | Time Segment Length (min) | Single Time Segment Only | Locked |
|--------------|---------------|------------------|-------------|----------------------|--------------------------|---------------------------|--------------------------------|---------------------------|--------------------------|--------|
| 2013 Obs, PM | 2013 Obs      | PM               |             | ONE HOUR             | 16:45                    | 18:15                     | 90                             | 15                        |                          |        |

# Junction Network

## Junctions

| Name       | Junction Type | Major Road Direction | Arm Order | Junction Delay (s) | Junction LOS |
|------------|---------------|----------------------|-----------|--------------------|--------------|
| (untitled) | T-Junction    | Two-way              | A,B,C     | 61.34              | F            |

## Junction Network Options

| Driving Side | Lighting       |
|--------------|----------------|
| Left         | Normal/unknown |

# Arms

## Arms

| Name                   | Name                   | Description | Arm Type |
|------------------------|------------------------|-------------|----------|
| A38 Bristol Road south | A38 Bristol Road south |             | Major    |
| Wylds Road             | Wylds Road             |             | Minor    |
| A38 Bristol Road north | A38 Bristol Road north |             | Major    |

## Major Arm Geometry

| Name                   | Width of carriageway (m) | Has kerbed central reserve | Width of kerbed central reserve (m) | Has right turn bay | Width For Right Turn (m) | Visibility For Right Turn (m) | Blocks? | Blocking Queue (PCU) |
|------------------------|--------------------------|----------------------------|-------------------------------------|--------------------|--------------------------|-------------------------------|---------|----------------------|
| A38 Bristol Road north | 6.00                     |                            | 0.00                                | ✓                  | 3.00                     | 250.00                        | ✓       | 16.00                |

*Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.*

## Minor Arm Geometry

| Name       | Minor Arm Type | Lane Width (m) | Lane Width (Left) (m) | Lane Width (Right) (m) | Width at give-way (m) | Width at 5m (m) | Width at 10m (m) | Width at 15m (m) | Width at 20m (m) | Estimate Flare Length | Flare Length (PCU) | Visibility To Left (m) | Visibility To Right (m) |
|------------|----------------|----------------|-----------------------|------------------------|-----------------------|-----------------|------------------|------------------|------------------|-----------------------|--------------------|------------------------|-------------------------|
| Wylds Road | One lane       | 3.10           |                       |                        |                       |                 |                  |                  |                  |                       |                    | 56                     | 35                      |

## Pedestrian Crossings

| Name                   | Crossing Type |
|------------------------|---------------|
| A38 Bristol Road south | None          |
| Wylds Road             | None          |

|                        |      |
|------------------------|------|
| A38 Bristol Road north | None |
|------------------------|------|

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

| Junction | Stream | Intercept (PCU/hr) | Slope for A-B | Slope for A-C | Slope for C-A | Slope for C-B |
|----------|--------|--------------------|---------------|---------------|---------------|---------------|
| 1        | B-A    | 518.129            | 0.094         | 0.239         | 0.150         | 0.341         |
| 1        | B-C    | 652.438            | 0.100         | 0.253         | -             | -             |
| 1        | C-B    | 781.320            | 0.303         | 0.303         | -             | -             |

*The slopes and intercepts shown above do NOT include any corrections or adjustments.*

*Streams may be combined, in which case capacity will be adjusted.*

*Values are shown for the first time segment only; they may differ for subsequent time segments.*

## Traffic Flows

### Demand Set Data Options

| Default Vehicle Mix | Vehicle Mix Varies Over Time | Vehicle Mix Varies Over Turn | Vehicle Mix Varies Over Entry | Vehicle Mix Source | PCU Factor for a HV (PCU) | Default Turning Proportions | Estimate from entry/exit counts | Turning Proportions Vary Over Time | Turning Proportions Vary Over Turn | Turning Proportions Vary Over Entry |
|---------------------|------------------------------|------------------------------|-------------------------------|--------------------|---------------------------|-----------------------------|---------------------------------|------------------------------------|------------------------------------|-------------------------------------|
|                     |                              | ✓                            | ✓                             | HV Percentages     | 2.00                      |                             |                                 |                                    | ✓                                  | ✓                                   |

# Entry Flows

## General Flows Data

| Name                   | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (%) |
|------------------------|--------------|--------------------|------------------------------|-------------------------|
| A38 Bristol Road south | ONE HOUR     | ✓                  | 804.00                       | 100.000                 |
| Wylds Road             | ONE HOUR     | ✓                  | 357.00                       | 100.000                 |
| A38 Bristol Road north | ONE HOUR     | ✓                  | 904.00                       | 100.000                 |

# Turning Proportions

## Turning Counts or Proportions (Veh/hr) - (untitled) (for whole period)

|      | To |         |         |         |
|------|----|---------|---------|---------|
| From |    | A       | B       | C       |
|      | A  | 0.000   | 38.000  | 766.000 |
|      | B  | 0.000   | 0.000   | 357.000 |
|      | C  | 650.000 | 254.000 | 0.000   |

## Turning Proportions (Veh) - (untitled) (for whole period)

|      | To |   |   |
|------|----|---|---|
| From | A  | B | C |

|  |          |      |      |      |
|--|----------|------|------|------|
|  | <b>A</b> | 0.00 | 0.05 | 0.95 |
|  | <b>B</b> | 0.00 | 0.00 | 1.00 |
|  | <b>C</b> | 0.72 | 0.28 | 0.00 |

# Vehicle Mix

Average PCU Per Vehicle - (untitled) (for whole period)

|      | To |       |       |       |
|------|----|-------|-------|-------|
| From |    | A     | B     | C     |
|      | A  | 1.000 | 1.030 | 1.020 |
|      | B  | 1.000 | 1.000 | 1.040 |
|      | C  | 1.030 | 1.020 | 1.000 |

Heavy Vehicle Percentages - (untitled) (for whole period)

|      | To |       |       |       |
|------|----|-------|-------|-------|
| From |    | A     | B     | C     |
|      | A  | 0.000 | 3.000 | 2.000 |
|      | B  | 0.000 | 0.000 | 4.000 |
|      | C  | 3.000 | 2.000 | 0.000 |



# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|--------|---------|---------------|-----------------|---------|
| B-AC   | 0.95    | 92.65         | 9.91            | F       |
| C-AB   | 0.56    | 16.47         | 1.28            | C       |
| C-A    | -       | -             | -               | -       |
| A-B    | -       | -             | -               | -       |
| A-C    | -       | -             | -               | -       |

## Main Results for each time segment

### Main results: (16:45-17:00)

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 279.52                | 274.47              | 0.00                       | 500.80            | 0.558 | 1.26            | 16.209    | C   |
| C-AB   | 195.05                | 193.09              | 0.00                       | 594.33            | 0.328 | 0.49            | 9.108     | A   |
| C-A    | 504.03                | 504.03              | 0.00                       | -                 | -     | -               | -         | -   |

|            |        |        |      |   |   |   |   |   |
|------------|--------|--------|------|---|---|---|---|---|
| <b>A-B</b> | 29.47  | 29.47  | 0.00 | - | - | - | - | - |
| <b>A-C</b> | 588.22 | 588.22 | 0.00 | - | - | - | - | - |

#### Main results: (17:00-17:15)

| Stream      | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-------------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| <b>B-AC</b> | 333.77                | 329.57              | 0.00                       | 471.36            | 0.708 | 2.31            | 25.637    | D   |
| <b>C-AB</b> | 232.91                | 232.01              | 0.00                       | 558.04            | 0.417 | 0.72            | 11.231    | B   |
| <b>C-A</b>  | 601.87                | 601.87              | 0.00                       | -                 | -     | -               | -         | -   |
| <b>A-B</b>  | 35.19                 | 35.19               | 0.00                       | -                 | -     | -               | -         | -   |
| <b>A-C</b>  | 702.39                | 702.39              | 0.00                       | -                 | -     | -               | -         | -   |

#### Main results: (17:15-17:30)

| Stream      | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-------------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| <b>B-AC</b> | 408.79                | 386.85              | 0.00                       | 430.67            | 0.949 | 7.80            | 65.178    | F   |
| <b>C-AB</b> | 285.30                | 283.13              | 0.00                       | 507.92            | 0.562 | 1.26            | 16.177    | C   |
| <b>C-A</b>  | 737.08                | 737.08              | 0.00                       | -                 | -     | -               | -         | -   |
| <b>A-B</b>  | 43.09                 | 43.09               | 0.00                       | -                 | -     | -               | -         | -   |
| <b>A-C</b>  | 860.25                | 860.25              | 0.00                       | -                 | -     | -               | -         | -   |

#### Main results: (17:30-17:45)

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 408.79                | 400.34              | 0.00                       | 430.67            | 0.949 | 9.91            | 92.648    | F   |
| C-AB   | 285.30                | 285.21              | 0.00                       | 507.92            | 0.562 | 1.28            | 16.468    | C   |
| C-A    | 737.08                | 737.08              | 0.00                       | -                 | -     | -               | -         | -   |
| A-B    | 43.09                 | 43.09               | 0.00                       | -                 | -     | -               | -         | -   |
| A-C    | 860.25                | 860.25              | 0.00                       | -                 | -     | -               | -         | -   |

#### Main results: (17:45-18:00)

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 333.77                | 362.23              | 0.00                       | 471.36            | 0.708 | 2.80            | 40.507    | E   |
| C-AB   | 232.91                | 235.05              | 0.00                       | 558.04            | 0.417 | 0.75            | 11.444    | B   |
| C-A    | 601.87                | 601.87              | 0.00                       | -                 | -     | -               | -         | -   |
| A-B    | 35.19                 | 35.19               | 0.00                       | -                 | -     | -               | -         | -   |
| A-C    | 702.39                | 702.39              | 0.00                       | -                 | -     | -               | -         | -   |

#### Main results: (18:00-18:15)

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 279.52                | 285.23              | 0.00                       | 500.80            | 0.558 | 1.37            | 17.794    | C   |
| C-AB   | 195.05                | 196.01              | 0.00                       | 594.33            | 0.328 | 0.51            | 9.240     | A   |

|            |        |        |      |   |   |   |   |   |
|------------|--------|--------|------|---|---|---|---|---|
| <b>C-A</b> | 504.03 | 504.03 | 0.00 | - | - | - | - | - |
| <b>A-B</b> | 29.47  | 29.47  | 0.00 | - | - | - | - | - |
| <b>A-C</b> | 588.22 | 588.22 | 0.00 | - | - | - | - | - |

| Junctions 8                                                                                                                                                                  |  |  |  |  |  |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|--|
| PICADY 8 - Priority Intersection Module                                                                                                                                      |  |  |  |  |  |  |  |
| Version: 8.0.3.332 [14595,13/11/2013]<br>© Copyright TRL Limited, 2014                                                                                                       |  |  |  |  |  |  |  |
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**Filename:** J15 A38 Bristol Road - Wylds Road.arc8

**Path:** P:\TP London\TP Projects\Hinkley Point C Connection\Modelling\Junctions 8\J15

**Report generation date:** 24/01/2014 10:20:46

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### Summary of junction performance

|                    | AM          |           |      |     | PM          |           |      |     |
|--------------------|-------------|-----------|------|-----|-------------|-----------|------|-----|
|                    | Queue (PCU) | Delay (s) | RFC  | LOS | Queue (PCU) | Delay (s) | RFC  | LOS |
| A1 - 2013 Obs      |             |           |      |     |             |           |      |     |
| <b>Stream B-AC</b> | 16.04       | 107.82    | 0.99 | F   | 7.52        | 68.32     | 0.91 | F   |

|                    |                       |        |      |   |       |        |      |   |
|--------------------|-----------------------|--------|------|---|-------|--------|------|---|
| <b>Stream C-AB</b> | 3.27                  | 23.97  | 0.77 | C | 1.04  | 13.30  | 0.51 | B |
| <b>Stream C-A</b>  | -                     | -      | -    | - | -     | -      | -    | - |
| <b>Stream A-B</b>  | -                     | -      | -    | - | -     | -      | -    | - |
| <b>Stream A-C</b>  | -                     | -      | -    | - | -     | -      | -    | - |
|                    | <b>A1 - 2016 Base</b> |        |      |   |       |        |      |   |
| <b>Stream B-AC</b> | 50.22                 | 311.82 | 1.17 | F | 18.16 | 155.13 | 1.03 | F |
| <b>Stream C-AB</b> | 8.93                  | 76.93  | 1.01 | F | 1.51  | 18.90  | 0.60 | C |
| <b>Stream C-A</b>  | -                     | -      | -    | - | -     | -      | -    | - |
| <b>Stream A-B</b>  | -                     | -      | -    | - | -     | -      | -    | - |
| <b>Stream A-C</b>  | -                     | -      | -    | - | -     | -      | -    | - |
|                    | <b>A1 - 2016 Dev</b>  |        |      |   |       |        |      |   |
| <b>Stream B-AC</b> | 52.09                 | 328.46 | 1.18 | F | 26.79 | 221.13 | 1.10 | F |
| <b>Stream C-AB</b> | 9.67                  | 88.29  | 1.04 | F | 1.76  | 22.21  | 0.64 | C |
| <b>Stream C-A</b>  | -                     | -      | -    | - | -     | -      | -    | - |
| <b>Stream A-B</b>  | -                     | -      | -    | - | -     | -      | -    | - |
| <b>Stream A-C</b>  | -                     | -      | -    | - | -     | -      | -    | - |

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle.

"D1 - 2013 Obs, AM " model duration: 07:45 - 09:15

"D2 - 2013 Obs, PM" model duration: 16:45 - 18:15

"D3 - 2016 Base, AM" model duration: 07:45 - 09:15

"D4 - 2016 Base, PM" model duration: 16:45 - 18:15

"D5 - 2016 Dev, AM" model duration: 07:45 - 09:15

"D6 - 2016 Dev, PM" model duration: 16:45 - 18:15

Run using Junctions 8.0.3.332 at 24/01/2014 10:20:43

## File summary

### File Description

|                    |            |
|--------------------|------------|
| <b>Title</b>       | (untitled) |
| <b>Location</b>    |            |
| <b>Site Number</b> |            |
| <b>Date</b>        | 03/12/2013 |
| <b>Version</b>     |            |
| <b>Status</b>      | (new file) |
| <b>Identifier</b>  |            |
| <b>Client</b>      |            |
| <b>Jobnumber</b>   |            |
| <b>Enumerator</b>  |            |
| <b>Description</b> |            |

## Analysis Options

|                           |                            |                                    |                                        |                      |                                    |                              |
|---------------------------|----------------------------|------------------------------------|----------------------------------------|----------------------|------------------------------------|------------------------------|
| <b>Vehicle Length (m)</b> | <b>Do Queue Variations</b> | <b>Calculate Residual Capacity</b> | <b>Residual Capacity Criteria Type</b> | <b>RFC Threshold</b> | <b>Average Delay Threshold (s)</b> | <b>Queue Threshold (PCU)</b> |
|---------------------------|----------------------------|------------------------------------|----------------------------------------|----------------------|------------------------------------|------------------------------|

|      |  |  |     |      |       |       |
|------|--|--|-----|------|-------|-------|
| 5.75 |  |  | N/A | 0.85 | 36.00 | 20.00 |
|------|--|--|-----|------|-------|-------|

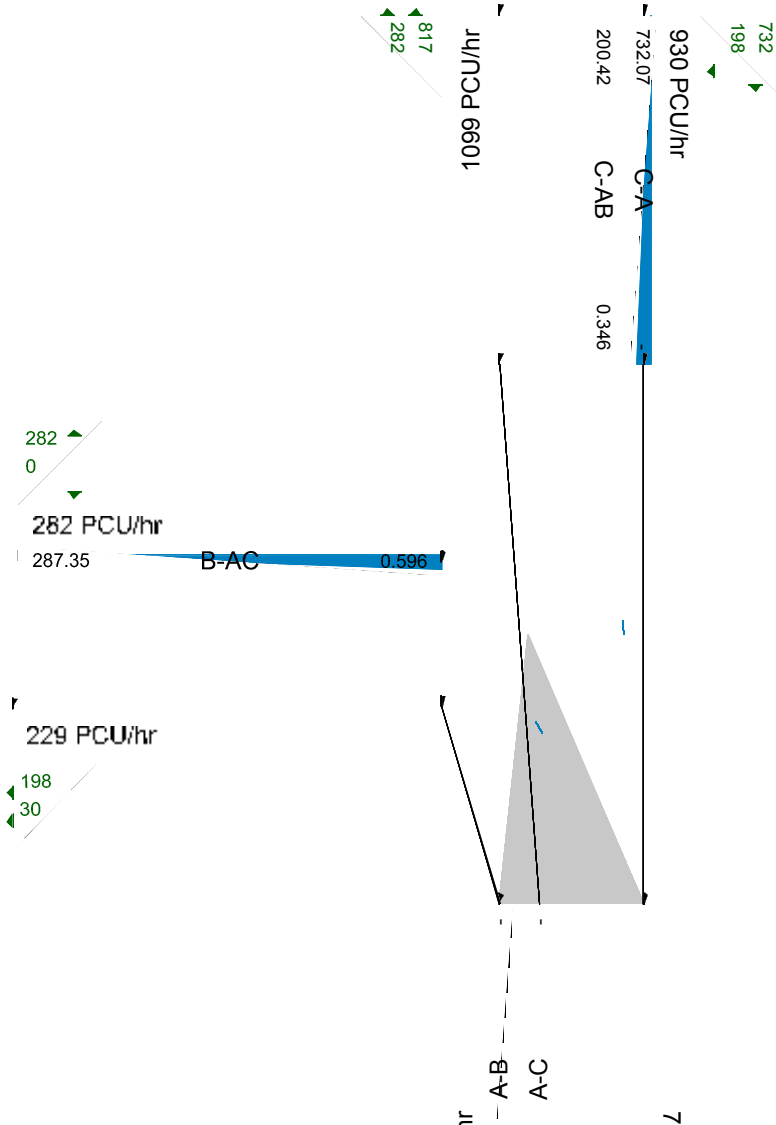
Units

| Distance Units | Speed Units | Traffic Units Input | Traffic Units Results | Flow Units | Average Delay Units | Total Delay Units | Rate Of Delay Units |
|----------------|-------------|---------------------|-----------------------|------------|---------------------|-------------------|---------------------|
| m              | kph         | Veh                 | PCU                   | perHour    | s                   | -Min              | perMin              |



# A38 Bristol Road north

## Wylds Road



The junction diagram reflects the last run of ARCADY.

## (Default Analysis Set) - 2013 Obs, AM

### Data Errors and Warnings

No errors or warnings

### Analysis Set Details

| Name                   | Description | Locked | Network Flow Scaling Factor (%) | Reason For Scaling Factors |
|------------------------|-------------|--------|---------------------------------|----------------------------|
| (Default Analysis Set) |             |        | 100.000                         |                            |

### Demand Set Details

| Name         | Scenario Name | Time Period Name | Description | Traffic Profile Type | Model Start Time (HH:mm) | Model Finish Time (HH:mm) | Model Time Period Length (min) | Time Segment Length (min) | Single Time Segment Only | Locked |
|--------------|---------------|------------------|-------------|----------------------|--------------------------|---------------------------|--------------------------------|---------------------------|--------------------------|--------|
| 2013 Obs, AM | 2013 Obs      | AM               |             | ONE HOUR             | 07:45                    | 09:15                     | 90                             | 15                        |                          |        |

## Junction Network

### Junctions

| Name       | Junction Type | Major Road Direction | Arm Order | Junction Delay (s) | Junction LOS |
|------------|---------------|----------------------|-----------|--------------------|--------------|
| (untitled) | T-Junction    | Two-way              | A,B,C     | 67.44              | F            |

### Junction Network Options

| Driving Side | Lighting       |
|--------------|----------------|
| Left         | Normal/unknown |

## Arms

## Arms

| Name                   | Name                   | Description | Arm Type |
|------------------------|------------------------|-------------|----------|
| A38 Bristol Road south | A38 Bristol Road south |             | Major    |
| Wylds Road             | Wylds Road             |             | Minor    |
| A38 Bristol Road north | A38 Bristol Road north |             | Major    |

## Major Arm Geometry

| Name                   | Width of carriageway (m) | Has kerbed central reserve | Width of kerbed central reserve (m) | Has right turn bay | Width For Right Turn (m) | Visibility For Right Turn (m) | Blocks? | Blocking Queue (PCU) |
|------------------------|--------------------------|----------------------------|-------------------------------------|--------------------|--------------------------|-------------------------------|---------|----------------------|
| A38 Bristol Road north | 7.08                     |                            | 0.00                                | ✓                  | 3.80                     | 250.00                        | ✓       | 17.00                |

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

## Minor Arm Geometry

[illegible]

## Pedestrian Crossings

| Name                   | Crossing Type |
|------------------------|---------------|
| A38 Bristol Road south | None          |
| Wylds Road             | None          |
| A38 Bristol Road north | None          |

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

| Junction | Stream | Intercept<br>(PCU/hr) | Slope<br>for<br>A-B | Slope<br>for<br>A-C | Slope<br>for<br>C-A | Slope<br>for<br>C-B |
|----------|--------|-----------------------|---------------------|---------------------|---------------------|---------------------|
| 1        | B-A    | 551.513               | 0.096               | 0.242               | 0.152               | 0.346               |
| 1        | B-C    | 694.475               | 0.101               | 0.256               | -                   | -                   |
| 1        | C-B    | 843.899               | 0.312               | 0.312               | -                   | -                   |

*The slopes and intercepts shown above do NOT include any corrections or adjustments.*

*Streams may be combined, in which case capacity will be adjusted.*

*Values are shown for the first time segment only; they may differ for subsequent time segments.*

## Traffic Flows

### Demand Set Data Options

| Default Vehicle Mix | Vehicle Mix Varies Over Time | Vehicle Mix Varies Over Turn | Vehicle Mix Varies Over Entry | Vehicle Mix Source | PCU Factor for a HV (PCU) | Default Turning Proportions | Estimate from entry/exit counts | Turning Proportions Vary Over Time | Turning Proportions Vary Over Turn | Turning Proportions Vary Over Entry |
|---------------------|------------------------------|------------------------------|-------------------------------|--------------------|---------------------------|-----------------------------|---------------------------------|------------------------------------|------------------------------------|-------------------------------------|
|                     |                              | ✓                            | ✓                             | HV Percentages     | 2.00                      |                             |                                 |                                    | ✓                                  | ✓                                   |

## Entry Flows

### General Flows Data

| Name                   | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (%) |
|------------------------|--------------|--------------------|------------------------------|-------------------------|
| A38 Bristol Road south | ONE HOUR     | ✓                  | 471.00                       | 100.000                 |
| Wylds Road             | ONE HOUR     | ✓                  | 473.00                       | 100.000                 |
| A38 Bristol Road north | ONE HOUR     | ✓                  | 1024.00                      | 100.000                 |

## Turning Proportions

### Turning Counts or Proportions (Veh/hr) - (untitled) (for whole period)

|  | To   |       |        |         |
|--|------|-------|--------|---------|
|  |      | A     | B      | C       |
|  | From | A     | B      | C       |
|  | A    | 0.000 | 46.000 | 425.000 |
|  | B    | 0.000 | 0.000  | 473.000 |

|  |          |         |         |       |
|--|----------|---------|---------|-------|
|  | <b>C</b> | 579.000 | 445.000 | 0.000 |
|--|----------|---------|---------|-------|

Turning Proportions (Veh) - (untitled) (for whole period)

|             |          | To   |      |      |
|-------------|----------|------|------|------|
| <b>From</b> |          | A    | B    | C    |
|             | <b>A</b> | 0.00 | 0.10 | 0.90 |
|             | <b>B</b> | 0.00 | 0.00 | 1.00 |
|             | <b>C</b> | 0.57 | 0.43 | 0.00 |

# Vehicle Mix

Average PCU Per Vehicle - (untitled) (for whole period)

|             |          | To    |       |       |
|-------------|----------|-------|-------|-------|
| <b>From</b> |          | A     | B     | C     |
|             | <b>A</b> | 1.000 | 1.043 | 1.125 |
|             | <b>B</b> | 1.000 | 1.000 | 1.057 |
|             | <b>C</b> | 1.086 | 1.038 | 1.000 |

Heavy Vehicle Percentages - (untitled) (for whole period)

|  |  | To |  |  |
|--|--|----|--|--|
|--|--|----|--|--|

| From |   | A     | B     | C      |
|------|---|-------|-------|--------|
|      | A | 0.000 | 4.300 | 12.500 |
|      | B | 0.000 | 0.000 | 5.700  |
|      | C | 8.600 | 3.800 | 0.000  |

## Results

### Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|--------|---------|---------------|-----------------|---------|
| B-AC   | 0.99    | 107.82        | 16.04           | F       |
| C-AB   | 0.77    | 23.97         | 3.27            | C       |
| C-A    | -       | -             | -               | -       |
| A-B    | -       | -             | -               | -       |
| A-C    | -       | -             | -               | -       |

### Main Results for each time segment

**Main results: (07:45-08:00)**

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 376.40                | 369.57              | 0.00                       | 598.51            | 0.629 | 1.71            | 16.181    | C   |
| C-AB   | 347.75                | 343.96              | 0.00                       | 720.48            | 0.483 | 0.95            | 9.829     | A   |
| C-A    | 473.39                | 473.39              | 0.00                       | -                 | -     | -               | -         | -   |
| A-B    | 36.12                 | 36.12               | 0.00                       | -                 | -     | -               | -         | -   |
| A-C    | 359.96                | 359.96              | 0.00                       | -                 | -     | -               | -         | -   |

**Main results: (08:00-08:15)**

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 449.45                | 443.30              | 0.00                       | 579.88            | 0.775 | 3.24            | 26.670    | D   |
| C-AB   | 415.32                | 413.18              | 0.00                       | 696.59            | 0.596 | 1.48            | 13.082    | B   |
| C-A    | 565.20                | 565.20              | 0.00                       | -                 | -     | -               | -         | -   |
| A-B    | 43.13                 | 43.13               | 0.00                       | -                 | -     | -               | -         | -   |
| A-C    | 429.82                | 429.82              | 0.00                       | -                 | -     | -               | -         | -   |

**Main results: (08:15-08:30)**

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 550.47                | 516.85              | 0.00                       | 554.12            | 0.993 | 11.65           | 69.462    | F   |
| C-AB   | 515.40                | 508.85              | 0.00                       | 668.83            | 0.771 | 3.12            | 22.421    | C   |



|     |        |        |      |   |   |   |   |   |
|-----|--------|--------|------|---|---|---|---|---|
| C-A | 685.48 | 685.48 | 0.00 | - | - | - | - | - |
| A-B | 52.82  | 52.82  | 0.00 | - | - | - | - | - |
| A-C | 526.43 | 526.43 | 0.00 | - | - | - | - | - |

#### Main results: (08:30-08:45)

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 550.47                | 532.88              | 0.00                       | 554.12            | 0.993 | 16.04           | 107.822   | F   |
| C-AB   | 515.40                | 514.81              | 0.00                       | 669.00            | 0.770 | 3.27            | 23.973    | C   |
| C-A    | 685.48                | 685.48              | 0.00                       | -                 | -     | -               | -         | -   |
| A-B    | 52.82                 | 52.82               | 0.00                       | -                 | -     | -               | -         | -   |
| A-C    | 526.43                | 526.43              | 0.00                       | -                 | -     | -               | -         | -   |

#### Main results: (08:45-09:00)

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 449.45                | 496.64              | 0.00                       | 579.88            | 0.775 | 4.25            | 56.877    | F   |
| C-AB   | 415.32                | 422.05              | 0.00                       | 696.82            | 0.596 | 1.59            | 13.925    | B   |
| C-A    | 565.20                | 565.20              | 0.00                       | -                 | -     | -               | -         | -   |
| A-B    | 43.13                 | 43.13               | 0.00                       | -                 | -     | -               | -         | -   |
| A-C    | 429.82                | 429.82              | 0.00                       | -                 | -     | -               | -         | -   |

**Main results: (09:00-09:15)**

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 376.40                | 385.88              | 0.00                       | 598.51            | 0.629 | 1.88            | 18.615    | C   |
| C-AB   | 347.75                | 350.14              | 0.00                       | 720.48            | 0.483 | 0.99            | 10.155    | B   |
| C-A    | 473.39                | 473.39              | 0.00                       | -                 | -     | -               | -         | -   |
| A-B    | 36.12                 | 36.12               | 0.00                       | -                 | -     | -               | -         | -   |
| A-C    | 359.96                | 359.96              | 0.00                       | -                 | -     | -               | -         | -   |

## (Default Analysis Set) - 2013 Obs, PM

**Data Errors and Warnings**

*No errors or warnings*

**Analysis Set Details**

| Name                   | Description | Locked | Network Flow Scaling Factor (%) | Reason For Scaling Factors |
|------------------------|-------------|--------|---------------------------------|----------------------------|
| (Default Analysis Set) |             |        | 100.000                         |                            |

**Demand Set Details**

| Name         | Scenario Name | Time Period Name | Description | Traffic Profile Type | Model Start Time (HH:mm) | Model Finish Time (HH:mm) | Model Time Period Length (min) | Time Segment Length (min) | Single Time Segment Only | Locked |
|--------------|---------------|------------------|-------------|----------------------|--------------------------|---------------------------|--------------------------------|---------------------------|--------------------------|--------|
| 2013 Obs, PM | 2013 Obs      | PM               |             | ONE HOUR             | 16:45                    | 18:15                     | 90                             | 15                        |                          |        |

# Junction Network

## Junctions

| Name       | Junction Type | Major Road Direction | Arm Order | Junction Delay (s) | Junction LOS |
|------------|---------------|----------------------|-----------|--------------------|--------------|
| (untitled) | T-Junction    | Two-way              | A,B,C     | 46.23              | E            |

## Junction Network Options

| Driving Side | Lighting       |
|--------------|----------------|
| Left         | Normal/unknown |

# Arms

## Arms

| Name                   | Name                   | Description | Arm Type |
|------------------------|------------------------|-------------|----------|
| A38 Bristol Road south | A38 Bristol Road south |             | Major    |
| Wylds Road             | Wylds Road             |             | Minor    |
| A38 Bristol Road north | A38 Bristol Road north |             | Major    |

## Major Arm Geometry

| Name | Width of carriageway (m) | Has kerbed central reserve | Width of kerbed central reserve (m) | Has right turn bay | Width For Right Turn (m) | Visibility For Right Turn (m) | Blocks? | Blocking Queue (PCU) |
|------|--------------------------|----------------------------|-------------------------------------|--------------------|--------------------------|-------------------------------|---------|----------------------|
|------|--------------------------|----------------------------|-------------------------------------|--------------------|--------------------------|-------------------------------|---------|----------------------|

|                        |      |  |      |   |      |        |   |       |
|------------------------|------|--|------|---|------|--------|---|-------|
| A38 Bristol Road north | 7.08 |  | 0.00 | ✓ | 3.80 | 250.00 | ✓ | 17.00 |
|------------------------|------|--|------|---|------|--------|---|-------|

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

### Minor Arm Geometry

| Name       | Minor Arm Type | Lane Width (m) | Lane Width (Left) (m) | Lane Width (Right) (m) | Width at give-way (m) | Width at 5m (m) | Width at 10m (m) | Width at 15m (m) | Width at 20m (m) | Estimate Flare Length | Flare Length (PCU) | Visibility To Left (m) | Visibility To Right (m) |
|------------|----------------|----------------|-----------------------|------------------------|-----------------------|-----------------|------------------|------------------|------------------|-----------------------|--------------------|------------------------|-------------------------|
| Wylde Road | One lane       | 3.75           |                       |                        |                       |                 |                  |                  |                  |                       |                    | 56                     | 35                      |

### Pedestrian Crossings

| Name                   | Crossing Type |
|------------------------|---------------|
| A38 Bristol Road south | None          |
| Wylde Road             | None          |
| A38 Bristol Road north | None          |

### Slope / Intercept / Capacity

#### Priority Intersection Slopes and Intercepts

| Junction | Stream | Intercept (PCU/hr) | Slope for A-B | Slope for A-C | Slope for C-A | Slope for C-B |
|----------|--------|--------------------|---------------|---------------|---------------|---------------|
| 1        | B-A    | 551.513            | 0.096         | 0.242         | 0.152         | 0.346         |
| 1        | B-C    | 694.475            | 0.101         | 0.256         | -             | -             |

|   |     |         |       |       |   |   |
|---|-----|---------|-------|-------|---|---|
| 1 | C-B | 843.899 | 0.312 | 0.312 | - | - |
|---|-----|---------|-------|-------|---|---|

*The slopes and intercepts shown above do NOT include any corrections or adjustments.*

*Streams may be combined, in which case capacity will be adjusted.*

*Values are shown for the first time segment only; they may differ for subsequent time segments.*

## Traffic Flows

### Demand Set Data Options

| Default Vehicle Mix | Vehicle Mix Varies Over Time | Vehicle Mix Varies Over Turn | Vehicle Mix Varies Over Entry | Vehicle Mix Source | PCU Factor for a HV (PCU) | Default Turning Proportions | Estimate from entry/exit counts | Turning Proportions Vary Over Time | Turning Proportions Vary Over Turn | Turning Proportions Vary Over Entry |
|---------------------|------------------------------|------------------------------|-------------------------------|--------------------|---------------------------|-----------------------------|---------------------------------|------------------------------------|------------------------------------|-------------------------------------|
|                     |                              | ✓                            | ✓                             | HV Percentages     | 2.00                      |                             |                                 |                                    | ✓                                  | ✓                                   |

## Entry Flows

### General Flows Data

| Name                   | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (%) |
|------------------------|--------------|--------------------|------------------------------|-------------------------|
| A38 Bristol Road south | ONE HOUR     | ✓                  | 804.00                       | 100.000                 |
| Wylde Road             | ONE HOUR     | ✓                  | 369.00                       | 100.000                 |
| A38 Bristol Road north | ONE HOUR     | ✓                  | 904.00                       | 100.000                 |

# Turning Proportions

Turning Counts or Proportions (Veh/hr) - (untitled) (for whole period)

|      | To |         |         |         |
|------|----|---------|---------|---------|
| From |    | A       | B       | C       |
|      | A  | 0.000   | 38.000  | 766.000 |
|      | B  | 0.000   | 0.000   | 369.000 |
|      | C  | 650.000 | 254.000 | 0.000   |

Turning Proportions (Veh) - (untitled) (for whole period)

|      | To |      |      |      |
|------|----|------|------|------|
| From |    | A    | B    | C    |
|      | A  | 0.00 | 0.05 | 0.95 |
|      | B  | 0.00 | 0.00 | 1.00 |
|      | C  | 0.72 | 0.28 | 0.00 |

# Vehicle Mix

Average PCU Per Vehicle - (untitled) (for whole period)

|  | To |
|--|----|
|--|----|

| From |   | A     | B     | C     |
|------|---|-------|-------|-------|
|      | A | 1.000 | 1.026 | 1.017 |
|      | B | 1.500 | 1.000 | 1.051 |
|      | C | 1.032 | 1.024 | 1.000 |

### Heavy Vehicle Percentages - (untitled) (for whole period)

| From | To |        |       |       |
|------|----|--------|-------|-------|
|      |    | A      | B     | C     |
|      | A  | 0.000  | 2.600 | 1.700 |
|      | B  | 50.000 | 0.000 | 5.100 |
|      | C  | 3.200  | 2.400 | 0.000 |

## Results

### Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|--------|---------|---------------|-----------------|---------|
| B-AC   | 0.91    | 68.32         | 7.52            | F       |
| C-AB   | 0.51    | 13.30         | 1.04            | B       |
| C-A    | -       | -             | -               | -       |

|     |   |   |   |   |
|-----|---|---|---|---|
| A-B | - | - | - | - |
| A-C | - | - | - | - |

## Main Results for each time segment

### Main results: (16:45-17:00)

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 291.97                | 287.21              | 0.00                       | 541.10            | 0.540 | 1.19            | 14.646    | B   |
| C-AB   | 195.81                | 194.08              | 0.00                       | 652.00            | 0.300 | 0.43            | 8.020     | A   |
| C-A    | 505.01                | 505.01              | 0.00                       | -                 | -     | -               | -         | -   |
| A-B    | 29.35                 | 29.35               | 0.00                       | -                 | -     | -               | -         | -   |
| A-C    | 586.49                | 586.49              | 0.00                       | -                 | -     | -               | -         | -   |

### Main results: (17:00-17:15)

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 348.64                | 345.00              | 0.00                       | 511.33            | 0.682 | 2.10            | 22.249    | C   |
| C-AB   | 233.82                | 233.08              | 0.00                       | 614.75            | 0.380 | 0.62            | 9.639     | A   |



|     |        |        |      |   |   |   |   |   |
|-----|--------|--------|------|---|---|---|---|---|
| C-A | 603.04 | 603.04 | 0.00 | - | - | - | - | - |
| A-B | 35.05  | 35.05  | 0.00 | - | - | - | - | - |
| A-C | 700.32 | 700.32 | 0.00 | - | - | - | - | - |

#### Main results: (17:15-17:30)

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 427.00                | 410.01              | 0.00                       | 470.17            | 0.908 | 6.35            | 52.187    | F   |
| C-AB   | 286.38                | 284.73              | 0.00                       | 563.26            | 0.508 | 1.03            | 13.157    | B   |
| C-A    | 738.56                | 738.56              | 0.00                       | -                 | -     | -               | -         | -   |
| A-B    | 42.93                 | 42.93               | 0.00                       | -                 | -     | -               | -         | -   |
| A-C    | 857.72                | 857.72              | 0.00                       | -                 | -     | -               | -         | -   |

#### Main results: (17:30-17:45)

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 427.00                | 422.31              | 0.00                       | 470.17            | 0.908 | 7.52            | 68.316    | F   |
| C-AB   | 286.38                | 286.32              | 0.00                       | 563.26            | 0.508 | 1.04            | 13.302    | B   |
| C-A    | 738.56                | 738.56              | 0.00                       | -                 | -     | -               | -         | -   |
| A-B    | 42.93                 | 42.93               | 0.00                       | -                 | -     | -               | -         | -   |
| A-C    | 857.72                | 857.72              | 0.00                       | -                 | -     | -               | -         | -   |

**Main results: (17:45-18:00)**

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 348.64                | 368.98              | 0.00                       | 511.33            | 0.682 | 2.43            | 29.606    | D   |
| C-AB   | 233.82                | 235.44              | 0.00                       | 614.75            | 0.380 | 0.64            | 9.759     | A   |
| C-A    | 603.04                | 603.04              | 0.00                       | -                 | -     | -               | -         | -   |
| A-B    | 35.05                 | 35.05               | 0.00                       | -                 | -     | -               | -         | -   |
| A-C    | 700.32                | 700.32              | 0.00                       | -                 | -     | -               | -         | -   |

**Main results: (18:00-18:15)**

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 291.97                | 296.60              | 0.00                       | 541.10            | 0.540 | 1.27            | 15.753    | C   |
| C-AB   | 195.81                | 196.59              | 0.00                       | 652.00            | 0.300 | 0.45            | 8.108     | A   |
| C-A    | 505.01                | 505.01              | 0.00                       | -                 | -     | -               | -         | -   |
| A-B    | 29.35                 | 29.35               | 0.00                       | -                 | -     | -               | -         | -   |
| A-C    | 586.49                | 586.49              | 0.00                       | -                 | -     | -               | -         | -   |

**(Default Analysis Set) - 2016 Base, AM****Data Errors and Warnings***No errors or warnings*

## Analysis Set Details

| Name                   | Description | Locked | Network Flow Scaling Factor (%) | Reason For Scaling Factors |
|------------------------|-------------|--------|---------------------------------|----------------------------|
| (Default Analysis Set) |             |        | 100.000                         |                            |

## Demand Set Details

| Name          | Scenario Name | Time Period Name | Description | Traffic Profile Type | Model Start Time (HH:mm) | Model Finish Time (HH:mm) | Model Time Period Length (min) | Time Segment Length (min) | Single Time Segment Only | Locked |
|---------------|---------------|------------------|-------------|----------------------|--------------------------|---------------------------|--------------------------------|---------------------------|--------------------------|--------|
| 2016 Base, AM | 2016 Base     | AM               |             | ONE HOUR             | 07:45                    | 09:15                     | 90                             | 15                        |                          |        |

# Junction Network

## Junctions

| Name       | Junction Type | Major Road Direction | Arm Order | Junction Delay (s) | Junction LOS |
|------------|---------------|----------------------|-----------|--------------------|--------------|
| (untitled) | T-Junction    | Two-way              | A,B,C     | 191.95             | F            |

## Junction Network Options

| Driving Side | Lighting       |
|--------------|----------------|
| Left         | Normal/unknown |

# Arms

## Arms

| Name                   | Name                   | Description | Arm Type |
|------------------------|------------------------|-------------|----------|
| A38 Bristol Road south | A38 Bristol Road south |             | Major    |
| Wylds Road             | Wylds Road             |             | Minor    |
| A38 Bristol Road north | A38 Bristol Road north |             | Major    |

## Major Arm Geometry

| Name                   | Width of carriageway (m) | Has kerbed central reserve | Width of kerbed central reserve (m) | Has right turn bay | Width For Right Turn (m) | Visibility For Right Turn (m) | Blocks? | Blocking Queue (PCU) |
|------------------------|--------------------------|----------------------------|-------------------------------------|--------------------|--------------------------|-------------------------------|---------|----------------------|
| A38 Bristol Road north | 7.08                     |                            | 0.00                                | ✓                  | 3.80                     | 250.00                        | ✓       | 17.00                |

*Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.*

## Minor Arm Geometry

| Name       | Minor Arm Type | Lane Width (m) | Lane Width (Left) (m) | Lane Width (Right) (m) | Width at give-way (m) | Width at 5m (m) | Width at 10m (m) | Width at 15m (m) | Width at 20m (m) | Estimate Flare Length | Flare Length (PCU) | Visibility To Left (m) | Visibility To Right (m) |
|------------|----------------|----------------|-----------------------|------------------------|-----------------------|-----------------|------------------|------------------|------------------|-----------------------|--------------------|------------------------|-------------------------|
| Wylds Road | One lane       | 3.75           |                       |                        |                       |                 |                  |                  |                  |                       |                    | 56                     | 35                      |

## Pedestrian Crossings

| Name                   | Crossing Type |
|------------------------|---------------|
| A38 Bristol Road south | None          |
| Wylds Road             | None          |

|                        |      |
|------------------------|------|
| A38 Bristol Road north | None |
|------------------------|------|

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

| Junction | Stream | Intercept (PCU/hr) | Slope for A-B | Slope for A-C | Slope for C-A | Slope for C-B |
|----------|--------|--------------------|---------------|---------------|---------------|---------------|
| 1        | B-A    | 551.513            | 0.096         | 0.242         | 0.152         | 0.346         |
| 1        | B-C    | 694.475            | 0.101         | 0.256         | -             | -             |
| 1        | C-B    | 843.899            | 0.312         | 0.312         | -             | -             |

*The slopes and intercepts shown above do NOT include any corrections or adjustments.*

*Streams may be combined, in which case capacity will be adjusted.*

*Values are shown for the first time segment only; they may differ for subsequent time segments.*

## Traffic Flows

### Demand Set Data Options

| Default Vehicle Mix | Vehicle Mix Varies Over Time | Vehicle Mix Varies Over Turn | Vehicle Mix Varies Over Entry | Vehicle Mix Source | PCU Factor for a HV (PCU) | Default Turning Proportions | Estimate from entry/exit counts | Turning Proportions Vary Over Time | Turning Proportions Vary Over Turn | Turning Proportions Vary Over Entry |
|---------------------|------------------------------|------------------------------|-------------------------------|--------------------|---------------------------|-----------------------------|---------------------------------|------------------------------------|------------------------------------|-------------------------------------|
|                     |                              | ✓                            | ✓                             | HV Percentages     | 2.00                      |                             |                                 |                                    | ✓                                  | ✓                                   |

# Entry Flows

## General Flows Data

| Name                   | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (%) |
|------------------------|--------------|--------------------|------------------------------|-------------------------|
| A38 Bristol Road south | ONE HOUR     | ✓                  | 716.00                       | 100.000                 |
| Wylds Road             | ONE HOUR     | ✓                  | 484.00                       | 100.000                 |
| A38 Bristol Road north | ONE HOUR     | ✓                  | 1176.00                      | 100.000                 |

# Turning Proportions

## Turning Counts or Proportions (Veh/hr) - (untitled) (for whole period)

|      | To |         |         |         |
|------|----|---------|---------|---------|
| From |    | A       | B       | C       |
|      | A  | 0.000   | 47.000  | 669.000 |
|      | B  | 0.000   | 0.000   | 484.000 |
|      | C  | 720.000 | 456.000 | 0.000   |

## Turning Proportions (Veh) - (untitled) (for whole period)

|      |    |   |   |   |
|------|----|---|---|---|
|      | To |   |   |   |
| From |    | A | B | C |

|  |          |      |      |      |
|--|----------|------|------|------|
|  | <b>A</b> | 0.00 | 0.07 | 0.93 |
|  | <b>B</b> | 0.00 | 0.00 | 1.00 |
|  | <b>C</b> | 0.61 | 0.39 | 0.00 |

# Vehicle Mix

Average PCU Per Vehicle - (untitled) (for whole period)

|      |          |          |          |          |
|------|----------|----------|----------|----------|
|      | To       |          |          |          |
| From |          | <b>A</b> | <b>B</b> | <b>C</b> |
|      | <b>A</b> | 1.000    | 1.040    | 1.100    |
|      | <b>B</b> | 1.000    | 1.000    | 1.060    |
|      | <b>C</b> | 1.100    | 1.040    | 1.000    |

Heavy Vehicle Percentages - (untitled) (for whole period)

|      |          |          |          |          |
|------|----------|----------|----------|----------|
|      | To       |          |          |          |
| From |          | <b>A</b> | <b>B</b> | <b>C</b> |
|      | <b>A</b> | 0.000    | 4.000    | 10.000   |
|      | <b>B</b> | 0.000    | 0.000    | 6.000    |
|      | <b>C</b> | 10.000   | 4.000    | 0.000    |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|--------|---------|---------------|-----------------|---------|
| B-AC   | 1.17    | 311.82        | 50.22           | F       |
| C-AB   | 1.01    | 76.93         | 8.93            | F       |
| C-A    | -       | -             | -               | -       |
| A-B    | -       | -             | -               | -       |
| A-C    | -       | -             | -               | -       |

## Main Results for each time segment

### Main results: (07:45-08:00)

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 386.24                | 376.94              | 0.00                       | 548.67            | 0.704 | 2.33            | 21.221    | C   |
| C-AB   | 357.05                | 352.28              | 0.00                       | 659.81            | 0.541 | 1.19            | 11.998    | B   |
| C-A    | 596.25                | 596.25              | 0.00                       | -                 | -     | -               | -         | -   |



|     |        |        |      |   |   |   |   |   |
|-----|--------|--------|------|---|---|---|---|---|
| A-B | 36.80  | 36.80  | 0.00 | - | - | - | - | - |
| A-C | 554.02 | 554.02 | 0.00 | - | - | - | - | - |

#### Main results: (08:00-08:15)

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 461.21                | 447.33              | 0.00                       | 520.37            | 0.886 | 5.80            | 45.229    | E   |
| C-AB   | 427.29                | 423.59              | 0.00                       | 624.94            | 0.684 | 2.12            | 18.252    | C   |
| C-A    | 711.03                | 711.03              | 0.00                       | -                 | -     | -               | -         | -   |
| A-B    | 43.94                 | 43.94               | 0.00                       | -                 | -     | -               | -         | -   |
| A-C    | 661.56                | 661.56              | 0.00                       | -                 | -     | -               | -         | -   |

#### Main results: (08:15-08:30)

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 564.87                | 472.61              | 0.00                       | 481.24            | 1.174 | 28.86           | 152.840   | F   |
| C-AB   | 687.62                | 666.82              | 0.00                       | 683.78            | 1.006 | 7.32            | 59.070    | F   |
| C-A    | 706.53                | 706.53              | 0.00                       | -                 | -     | -               | -         | -   |
| A-B    | 53.82                 | 53.82               | 0.00                       | -                 | -     | -               | -         | -   |
| A-C    | 810.24                | 810.24              | 0.00                       | -                 | -     | -               | -         | -   |

#### Main results: (08:30-08:45)

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 564.87                | 479.44              | 0.00                       | 481.24            | 1.174 | 50.22           | 307.950   | F   |
| C-AB   | 687.62                | 681.17              | 0.00                       | 687.23            | 1.001 | 8.93            | 76.928    | F   |
| C-A    | 706.53                | 706.53              | 0.00                       | -                 | -     | -               | -         | -   |
| A-B    | 53.82                 | 53.82               | 0.00                       | -                 | -     | -               | -         | -   |
| A-C    | 810.24                | 810.24              | 0.00                       | -                 | -     | -               | -         | -   |

#### Main results: (08:45-09:00)

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 461.21                | 509.61              | 0.00                       | 520.37            | 0.886 | 38.12           | 311.823   | F   |
| C-AB   | 427.29                | 453.44              | 0.00                       | 630.03            | 0.678 | 2.40            | 24.495    | C   |
| C-A    | 711.03                | 711.03              | 0.00                       | -                 | -     | -               | -         | -   |
| A-B    | 43.94                 | 43.94               | 0.00                       | -                 | -     | -               | -         | -   |
| A-C    | 661.56                | 661.56              | 0.00                       | -                 | -     | -               | -         | -   |

#### Main results: (09:00-09:15)

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 386.24                | 524.77              | 0.00                       | 548.67            | 0.704 | 3.49            | 145.375   | F   |
| C-AB   | 357.05                | 361.58              | 0.00                       | 659.85            | 0.541 | 1.26            | 12.738    | B   |

|     |        |        |      |   |   |   |   |   |
|-----|--------|--------|------|---|---|---|---|---|
| C-A | 596.25 | 596.25 | 0.00 | - | - | - | - | - |
| A-B | 36.80  | 36.80  | 0.00 | - | - | - | - | - |
| A-C | 554.02 | 554.02 | 0.00 | - | - | - | - | - |

## (Default Analysis Set) - 2016 Base, PM

### Data Errors and Warnings

*No errors or warnings*

### Analysis Set Details

| Name                   | Description | Locked | Network Flow Scaling Factor (%) | Reason For Scaling Factors |
|------------------------|-------------|--------|---------------------------------|----------------------------|
| (Default Analysis Set) |             |        | 100.000                         |                            |

### Demand Set Details

| Name          | Scenario Name | Time Period Name | Description | Traffic Profile Type | Model Start Time (HH:mm) | Model Finish Time (HH:mm) | Model Time Period Length (min) | Time Segment Length (min) | Single Time Segment Only | Locked |
|---------------|---------------|------------------|-------------|----------------------|--------------------------|---------------------------|--------------------------------|---------------------------|--------------------------|--------|
| 2016 Base, PM | 2016 Base     | PM               |             | ONE HOUR             | 16:45                    | 18:15                     | 90                             | 15                        |                          |        |

## Junction Network

### Junctions

| Name | Junction Type | Major Road Direction | Arm Order | Junction Delay (s) | Junction LOS |
|------|---------------|----------------------|-----------|--------------------|--------------|
|------|---------------|----------------------|-----------|--------------------|--------------|

|            |            |         |       |       |   |
|------------|------------|---------|-------|-------|---|
| (untitled) | T-Junction | Two-way | A,B,C | 99.14 | F |
|------------|------------|---------|-------|-------|---|

## Junction Network Options

| Driving Side | Lighting       |
|--------------|----------------|
| Left         | Normal/unknown |

# Arms

## Arms

| Name                   | Name                   | Description | Arm Type |
|------------------------|------------------------|-------------|----------|
| A38 Bristol Road south | A38 Bristol Road south |             | Major    |
| Wylds Road             | Wylds Road             |             | Minor    |
| A38 Bristol Road north | A38 Bristol Road north |             | Major    |

## Major Arm Geometry

| Name                   | Width of carriageway (m) | Has kerbed central reserve | Width of kerbed central reserve (m) | Has right turn bay | Width For Right Turn (m) | Visibility For Right Turn (m) | Blocks? | Blocking Queue (PCU) |
|------------------------|--------------------------|----------------------------|-------------------------------------|--------------------|--------------------------|-------------------------------|---------|----------------------|
| A38 Bristol Road north | 7.08                     |                            | 0.00                                | ✓                  | 3.80                     | 250.00                        | ✓       | 17.00                |

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

## Minor Arm Geometry

| Name       | Minor Arm Type | Lane Width (m) | Lane Width (Left) (m) | Lane Width (Right) (m) | Width at give-way (m) | Width at 5m (m) | Width at 10m (m) | Width at 15m (m) | Width at 20m (m) | Estimate Flare Length | Flare Length (PCU) | Visibility To Left (m) | Visibility To Right (m) |
|------------|----------------|----------------|-----------------------|------------------------|-----------------------|-----------------|------------------|------------------|------------------|-----------------------|--------------------|------------------------|-------------------------|
| Wylds Road | One lane       | 3.75           |                       |                        |                       |                 |                  |                  |                  |                       |                    | 56                     | 35                      |

## Pedestrian Crossings

| Name                   | Crossing Type |
|------------------------|---------------|
| A38 Bristol Road south | None          |
| Wylds Road             | None          |
| A38 Bristol Road north | None          |

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

| Junction | Stream | Intercept (PCU/hr) | Slope for A-B | Slope for A-C | Slope for C-A | Slope for C-B |
|----------|--------|--------------------|---------------|---------------|---------------|---------------|
| 1        | B-A    | 551.513            | 0.096         | 0.242         | 0.152         | 0.346         |
| 1        | B-C    | 694.475            | 0.101         | 0.256         | -             | -             |
| 1        | C-B    | 843.899            | 0.312         | 0.312         | -             | -             |

*The slopes and intercepts shown above do NOT include any corrections or adjustments.*

*Streams may be combined, in which case capacity will be adjusted.*

*Values are shown for the first time segment only; they may differ for subsequent time segments.*

# Traffic Flows

## Demand Set Data Options

| Default Vehicle Mix | Vehicle Mix Varies Over Time | Vehicle Mix Varies Over Turn | Vehicle Mix Varies Over Entry | Vehicle Mix Source | PCU Factor for a HV (PCU) | Default Turning Proportions | Estimate from entry/exit counts | Turning Proportions Vary Over Time | Turning Proportions Vary Over Turn | Turning Proportions Vary Over Entry |
|---------------------|------------------------------|------------------------------|-------------------------------|--------------------|---------------------------|-----------------------------|---------------------------------|------------------------------------|------------------------------------|-------------------------------------|
|                     |                              | ✓                            | ✓                             | HV Percentages     | 2.00                      |                             |                                 |                                    | ✓                                  | ✓                                   |

# Entry Flows

## General Flows Data

| Name                   | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (%) |
|------------------------|--------------|--------------------|------------------------------|-------------------------|
| A38 Bristol Road south | ONE HOUR     | ✓                  | 1001.00                      | 100.000                 |
| Wylde Road             | ONE HOUR     | ✓                  | 367.00                       | 100.000                 |
| A38 Bristol Road north | ONE HOUR     | ✓                  | 1190.00                      | 100.000                 |

# Turning Proportions

## Turning Counts or Proportions (Veh/hr) - (untitled) (for whole period)

|      |    |   |   |
|------|----|---|---|
|      | To |   |   |
| From | A  | B | C |

|  |          |         |         |         |
|--|----------|---------|---------|---------|
|  | <b>A</b> | 0.000   | 39.000  | 962.000 |
|  | <b>B</b> | 0.000   | 0.000   | 367.000 |
|  | <b>C</b> | 929.000 | 261.000 | 0.000   |

Turning Proportions (Veh) - (untitled) (for whole period)

|      | To |      |      |      |
|------|----|------|------|------|
| From |    | A    | B    | C    |
|      | A  | 0.00 | 0.04 | 0.96 |
|      | B  | 0.00 | 0.00 | 1.00 |
|      | C  | 0.78 | 0.22 | 0.00 |

# Vehicle Mix

Average PCU Per Vehicle - (untitled) (for whole period)

|      | To |       |       |       |
|------|----|-------|-------|-------|
| From |    | A     | B     | C     |
|      | A  | 1.000 | 1.030 | 1.040 |
|      | B  | 1.000 | 1.000 | 1.040 |
|      | C  | 1.040 | 1.020 | 1.000 |

### Heavy Vehicle Percentages - (untitled) (for whole period)

|      | To |       |       |       |
|------|----|-------|-------|-------|
| From |    | A     | B     | C     |
|      | A  | 0.000 | 3.000 | 4.000 |
|      | B  | 0.000 | 0.000 | 4.000 |
|      | C  | 4.000 | 2.000 | 0.000 |

## Results

### Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|--------|---------|---------------|-----------------|---------|
| B-AC   | 1.03    | 155.13        | 18.16           | F       |
| C-AB   | 0.60    | 18.90         | 1.51            | C       |
| C-A    | -       | -             | -               | -       |
| A-B    | -       | -             | -               | -       |
| A-C    | -       | -             | -               | -       |



## Main Results for each time segment

### Main results: (16:45-17:00)

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 287.35                | 281.93              | 0.00                       | 498.26            | 0.577 | 1.36            | 16.917    | C   |
| C-AB   | 200.42                | 198.41              | 0.00                       | 599.77            | 0.334 | 0.50            | 9.104     | A   |
| C-A    | 727.38                | 727.38              | 0.00                       | -                 | -     | -               | -         | -   |
| A-B    | 30.24                 | 30.24               | 0.00                       | -                 | -     | -               | -         | -   |
| A-C    | 753.21                | 753.21              | 0.00                       | -                 | -     | -               | -         | -   |

### Main results: (17:00-17:15)

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 343.12                | 337.66              | 0.00                       | 460.17            | 0.746 | 2.72            | 29.287    | D   |
| C-AB   | 239.33                | 238.29              | 0.00                       | 552.38            | 0.433 | 0.76            | 11.650    | B   |
| C-A    | 868.56                | 868.56              | 0.00                       | -                 | -     | -               | -         | -   |
| A-B    | 36.11                 | 36.11               | 0.00                       | -                 | -     | -               | -         | -   |
| A-C    | 899.41                | 899.41              | 0.00                       | -                 | -     | -               | -         | -   |

### Main results: (17:15-17:30)

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 420.24                | 382.43              | 0.00                       | 407.51            | 1.031 | 12.17           | 92.141    | F   |

|             |         |         |      |        |       |      |        |   |
|-------------|---------|---------|------|--------|-------|------|--------|---|
| <b>C-AB</b> | 293.25  | 290.42  | 0.00 | 487.03 | 0.602 | 1.47 | 18.412 | C |
| <b>C-A</b>  | 1063.63 | 1063.63 | 0.00 | -      | -     | -    | -      | - |
| <b>A-B</b>  | 44.23   | 44.23   | 0.00 | -      | -     | -    | -      | - |
| <b>A-C</b>  | 1101.55 | 1101.55 | 0.00 | -      | -     | -    | -      | - |

#### Main results: (17:30-17:45)

| Stream      | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-------------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| <b>B-AC</b> | 420.24                | 396.30              | 0.00                       | 407.51            | 1.031 | 18.16           | 155.127   | F   |
| <b>C-AB</b> | 293.25                | 293.11              | 0.00                       | 487.03            | 0.602 | 1.51            | 18.899    | C   |
| <b>C-A</b>  | 1063.63               | 1063.63             | 0.00                       | -                 | -     | -               | -         | -   |
| <b>A-B</b>  | 44.23                 | 44.23               | 0.00                       | -                 | -     | -               | -         | -   |
| <b>A-C</b>  | 1101.55               | 1101.55             | 0.00                       | -                 | -     | -               | -         | -   |

#### Main results: (17:45-18:00)

| Stream      | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-------------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| <b>B-AC</b> | 343.12                | 401.11              | 0.00                       | 460.17            | 0.746 | 3.66            | 80.941    | F   |
| <b>C-AB</b> | 239.33                | 242.16              | 0.00                       | 552.39            | 0.433 | 0.80            | 11.940    | B   |
| <b>C-A</b>  | 868.56                | 868.56              | 0.00                       | -                 | -     | -               | -         | -   |
| <b>A-B</b>  | 36.11                 | 36.11               | 0.00                       | -                 | -     | -               | -         | -   |

|     |        |        |      |   |   |   |   |   |
|-----|--------|--------|------|---|---|---|---|---|
| A-C | 899.41 | 899.41 | 0.00 | - | - | - | - | - |
|-----|--------|--------|------|---|---|---|---|---|

### Main results: (18:00-18:15)

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 287.35                | 296.06              | 0.00                       | 498.26            | 0.577 | 1.48            | 19.236    | C   |
| C-AB   | 200.42                | 201.53              | 0.00                       | 599.77            | 0.334 | 0.52            | 9.245     | A   |
| C-A    | 727.38                | 727.38              | 0.00                       | -                 | -     | -               | -         | -   |
| A-B    | 30.24                 | 30.24               | 0.00                       | -                 | -     | -               | -         | -   |
| A-C    | 753.21                | 753.21              | 0.00                       | -                 | -     | -               | -         | -   |

## (Default Analysis Set) - 2016 Dev, AM

### Data Errors and Warnings

*No errors or warnings*

### Analysis Set Details

| Name                   | Description | Locked | Network Flow Scaling Factor (%) | Reason For Scaling Factors |
|------------------------|-------------|--------|---------------------------------|----------------------------|
| (Default Analysis Set) |             |        | 100.000                         |                            |

### Demand Set Details

| Name | Scenario Name | Time Period Name | Description | Traffic Profile Type | Model Start Time (HH:mm) | Model Finish Time (HH:mm) | Model Time Period Length (min) | Time Segment Length (min) | Single Time Segment Only | Locked |
|------|---------------|------------------|-------------|----------------------|--------------------------|---------------------------|--------------------------------|---------------------------|--------------------------|--------|
|------|---------------|------------------|-------------|----------------------|--------------------------|---------------------------|--------------------------------|---------------------------|--------------------------|--------|

|                 |          |    |  |          |       |       |    |    |  |  |
|-----------------|----------|----|--|----------|-------|-------|----|----|--|--|
| 2016 Dev,<br>AM | 2016 Dev | AM |  | ONE HOUR | 07:45 | 09:15 | 90 | 15 |  |  |
|-----------------|----------|----|--|----------|-------|-------|----|----|--|--|

## Junction Network

### Junctions

| Name       | Junction Type | Major Road Direction | Arm Order | Junction Delay (s) | Junction LOS |
|------------|---------------|----------------------|-----------|--------------------|--------------|
| (untitled) | T-Junction    | Two-way              | A,B,C     | 204.01             | F            |

### Junction Network Options

| Driving Side | Lighting       |
|--------------|----------------|
| Left         | Normal/unknown |

## Arms

### Arms

| Name                   | Name                   | Description | Arm Type |
|------------------------|------------------------|-------------|----------|
| A38 Bristol Road south | A38 Bristol Road south |             | Major    |
| Wylds Road             | Wylds Road             |             | Minor    |
| A38 Bristol Road north | A38 Bristol Road north |             | Major    |

### Major Arm Geometry

| Name                   | Width of carriageway (m) | Has kerbed central reserve | Width of kerbed central reserve (m) | Has right turn bay | Width For Right Turn (m) | Visibility For Right Turn (m) | Blocks? | Blocking Queue (PCU) |
|------------------------|--------------------------|----------------------------|-------------------------------------|--------------------|--------------------------|-------------------------------|---------|----------------------|
| A38 Bristol Road north | 7.08                     |                            | 0.00                                | ✓                  | 3.80                     | 250.00                        | ✓       | 17.00                |

*Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.*

## Minor Arm Geometry

| Name       | Minor Arm Type | Lane Width (m) | Lane Width (Left) (m) | Lane Width (Right) (m) | Width at give-way (m) | Width at 5m (m) | Width at 10m (m) | Width at 15m (m) | Width at 20m (m) | Estimate Flare Length | Flare Length (PCU) | Visibility To Left (m) | Visibility To Right (m) |
|------------|----------------|----------------|-----------------------|------------------------|-----------------------|-----------------|------------------|------------------|------------------|-----------------------|--------------------|------------------------|-------------------------|
| Wylds Road | One lane       | 3.75           |                       |                        |                       |                 |                  |                  |                  |                       |                    | 56                     | 35                      |

## Pedestrian Crossings

| Name                   | Crossing Type |
|------------------------|---------------|
| A38 Bristol Road south | None          |
| Wylds Road             | None          |
| A38 Bristol Road north | None          |

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

| Junction | Stream | Intercept (PCU/hr) | Slope for A-B | Slope for A-C | Slope for C-A | Slope for C-B |
|----------|--------|--------------------|---------------|---------------|---------------|---------------|
| 1        | B-A    | 551.513            | 0.096         | 0.242         | 0.152         | 0.346         |

|   |     |         |       |       |   |   |
|---|-----|---------|-------|-------|---|---|
| 1 | B-C | 694.475 | 0.101 | 0.256 | - | - |
| 1 | C-B | 843.899 | 0.312 | 0.312 | - | - |

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

## Traffic Flows

### Demand Set Data Options

| Default Vehicle Mix | Vehicle Mix Varies Over Time | Vehicle Mix Varies Over Turn | Vehicle Mix Varies Over Entry | Vehicle Mix Source | PCU Factor for a HV (PCU) | Default Turning Proportions | Estimate from entry/exit counts | Turning Proportions Vary Over Time | Turning Proportions Vary Over Turn | Turning Proportions Vary Over Entry |
|---------------------|------------------------------|------------------------------|-------------------------------|--------------------|---------------------------|-----------------------------|---------------------------------|------------------------------------|------------------------------------|-------------------------------------|
|                     |                              | ✓                            | ✓                             | HV Percentages     | 2.00                      |                             |                                 |                                    | ✓                                  | ✓                                   |

## Entry Flows

### General Flows Data

| Name                   | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (%) |
|------------------------|--------------|--------------------|------------------------------|-------------------------|
| A38 Bristol Road south | ONE HOUR     | ✓                  | 722.00                       | 100.000                 |
| Wylds Road             | ONE HOUR     | ✓                  | 484.00                       | 100.000                 |
| A38 Bristol Road north | ONE HOUR     | ✓                  | 1259.00                      | 100.000                 |

# Turning Proportions

Turning Counts or Proportions (Veh/hr) - (untitled) (for whole period)

|      | To |         |         |         |
|------|----|---------|---------|---------|
|      |    | A       | B       | C       |
| From | A  | 0.000   | 47.000  | 675.000 |
|      | B  | 0.000   | 0.000   | 484.000 |
|      | C  | 803.000 | 456.000 | 0.000   |

Turning Proportions (Veh) - (untitled) (for whole period)

|      | To |      |      |      |
|------|----|------|------|------|
|      |    | A    | B    | C    |
| From | A  | 0.00 | 0.07 | 0.93 |
|      | B  | 0.00 | 0.00 | 1.00 |
|      | C  | 0.64 | 0.36 | 0.00 |

# Vehicle Mix

Average PCU Per Vehicle - (untitled) (for whole period)

|  | To |
|--|----|
|--|----|

| From |   | A     | B     | C     |
|------|---|-------|-------|-------|
|      | A | 1.000 | 1.040 | 1.110 |
|      | B | 1.000 | 1.000 | 1.060 |
|      | C | 1.100 | 1.040 | 1.000 |

### Heavy Vehicle Percentages - (untitled) (for whole period)

|      | To |        |       |        |
|------|----|--------|-------|--------|
| From |    | A      | B     | C      |
|      | A  | 0.000  | 4.000 | 11.000 |
|      | B  | 0.000  | 0.000 | 6.000  |
|      | C  | 10.000 | 4.000 | 0.000  |

## Results

### Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|--------|---------|---------------|-----------------|---------|
| B-AC   | 1.18    | 328.46        | 52.09           | F       |
| C-AB   | 1.04    | 88.29         | 9.67            | F       |
| C-A    | -       | -             | -               | -       |



|     |   |   |   |   |
|-----|---|---|---|---|
| A-B | - | - | - | - |
| A-C | - | - | - | - |

## Main Results for each time segment

### Main results: (07:45-08:00)

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 386.24                | 376.81              | 0.00                       | 546.09            | 0.707 | 2.36            | 21.503    | C   |
| C-AB   | 357.05                | 352.24              | 0.00                       | 656.68            | 0.544 | 1.20            | 12.116    | B   |
| C-A    | 664.98                | 664.98              | 0.00                       | -                 | -     | -               | -         | -   |
| A-B    | 36.80                 | 36.80               | 0.00                       | -                 | -     | -               | -         | -   |
| A-C    | 564.07                | 564.07              | 0.00                       | -                 | -     | -               | -         | -   |

### Main results: (08:00-08:15)

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 461.21                | 446.76              | 0.00                       | 517.29            | 0.892 | 5.97            | 46.460    | E   |
| C-AB   | 427.52                | 423.71              | 0.00                       | 621.41            | 0.688 | 2.16            | 18.572    | C   |

|     |        |        |      |   |   |   |   |   |
|-----|--------|--------|------|---|---|---|---|---|
| C-A | 792.88 | 792.88 | 0.00 | - | - | - | - | - |
| A-B | 43.94  | 43.94  | 0.00 | - | - | - | - | - |
| A-C | 673.56 | 673.56 | 0.00 | - | - | - | - | - |

#### Main results: (08:15-08:30)

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 564.87                | 469.42              | 0.00                       | 477.47            | 1.183 | 29.83           | 158.122   | F   |
| C-AB   | 734.18                | 711.72              | 0.00                       | 706.10            | 1.040 | 7.77            | 67.393    | F   |
| C-A    | 760.50                | 760.50              | 0.00                       | -                 | -     | -               | -         | -   |
| A-B    | 53.82                 | 53.82               | 0.00                       | -                 | -     | -               | -         | -   |
| A-C    | 824.94                | 824.94              | 0.00                       | -                 | -     | -               | -         | -   |

#### Main results: (08:30-08:45)

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 564.87                | 475.84              | 0.00                       | 477.47            | 1.183 | 52.09           | 320.267   | F   |
| C-AB   | 734.18                | 726.59              | 0.00                       | 710.22            | 1.034 | 9.67            | 88.287    | F   |
| C-A    | 760.50                | 760.50              | 0.00                       | -                 | -     | -               | -         | -   |
| A-B    | 53.82                 | 53.82               | 0.00                       | -                 | -     | -               | -         | -   |
| A-C    | 824.94                | 824.94              | 0.00                       | -                 | -     | -               | -         | -   |

### Main results: (08:45-09:00)

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 461.21                | 506.98              | 0.00                       | 517.29            | 0.892 | 40.65           | 328.460   | F   |
| C-AB   | 427.52                | 456.39              | 0.00                       | 627.64            | 0.681 | 2.45            | 25.806    | D   |
| C-A    | 792.88                | 792.88              | 0.00                       | -                 | -     | -               | -         | -   |
| A-B    | 43.94                 | 43.94               | 0.00                       | -                 | -     | -               | -         | -   |
| A-C    | 673.56                | 673.56              | 0.00                       | -                 | -     | -               | -         | -   |

### Main results: (09:00-09:15)

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 386.24                | 531.94              | 0.00                       | 546.09            | 0.707 | 4.22            | 162.572   | F   |
| C-AB   | 357.05                | 361.75              | 0.00                       | 656.73            | 0.544 | 1.28            | 12.886    | B   |
| C-A    | 664.98                | 664.98              | 0.00                       | -                 | -     | -               | -         | -   |
| A-B    | 36.80                 | 36.80               | 0.00                       | -                 | -     | -               | -         | -   |
| A-C    | 564.07                | 564.07              | 0.00                       | -                 | -     | -               | -         | -   |

## (Default Analysis Set) - 2016 Dev, PM

### Data Errors and Warnings

No errors or warnings

## Analysis Set Details

| Name                   | Description | Locked | Network Flow Scaling Factor (%) | Reason For Scaling Factors |
|------------------------|-------------|--------|---------------------------------|----------------------------|
| (Default Analysis Set) |             |        | 100.000                         |                            |

## Demand Set Details

| Name         | Scenario Name | Time Period Name | Description | Traffic Profile Type | Model Start Time (HH:mm) | Model Finish Time (HH:mm) | Model Time Period Length (min) | Time Segment Length (min) | Single Time Segment Only | Locked |
|--------------|---------------|------------------|-------------|----------------------|--------------------------|---------------------------|--------------------------------|---------------------------|--------------------------|--------|
| 2016 Dev, PM | 2016 Dev      | PM               |             | ONE HOUR             | 16:45                    | 18:15                     | 90                             | 15                        |                          |        |

# Junction Network

## Junctions

| Name       | Junction Type | Major Road Direction | Arm Order | Junction Delay (s) | Junction LOS |
|------------|---------------|----------------------|-----------|--------------------|--------------|
| (untitled) | T-Junction    | Two-way              | A,B,C     | 139.37             | F            |

## Junction Network Options

| Driving Side | Lighting       |
|--------------|----------------|
| Left         | Normal/unknown |

# Arms

## Arms

| Name                   | Name                   | Description | Arm Type |
|------------------------|------------------------|-------------|----------|
| A38 Bristol Road south | A38 Bristol Road south |             | Major    |
| Wylds Road             | Wylds Road             |             | Minor    |
| A38 Bristol Road north | A38 Bristol Road north |             | Major    |

## Major Arm Geometry

| Name                   | Width of carriageway (m) | Has kerbed central reserve | Width of kerbed central reserve (m) | Has right turn bay | Width For Right Turn (m) | Visibility For Right Turn (m) | Blocks? | Blocking Queue (PCU) |
|------------------------|--------------------------|----------------------------|-------------------------------------|--------------------|--------------------------|-------------------------------|---------|----------------------|
| A38 Bristol Road north | 7.08                     |                            | 0.00                                | ✓                  | 3.80                     | 250.00                        | ✓       | 17.00                |

*Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.*

## Minor Arm Geometry

| Name       | Minor Arm Type | Lane Width (m) | Lane Width (Left) (m) | Lane Width (Right) (m) | Width at give-way (m) | Width at 5m (m) | Width at 10m (m) | Width at 15m (m) | Width at 20m (m) | Estimate Flare Length | Flare Length (PCU) | Visibility To Left (m) | Visibility To Right (m) |
|------------|----------------|----------------|-----------------------|------------------------|-----------------------|-----------------|------------------|------------------|------------------|-----------------------|--------------------|------------------------|-------------------------|
| Wylds Road | One lane       | 3.75           |                       |                        |                       |                 |                  |                  |                  |                       |                    | 56                     | 35                      |

## Pedestrian Crossings

| Name                   | Crossing Type |
|------------------------|---------------|
| A38 Bristol Road south | None          |
| Wylds Road             | None          |

|                        |      |
|------------------------|------|
| A38 Bristol Road north | None |
|------------------------|------|

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

| Junction | Stream | Intercept (PCU/hr) | Slope for A-B | Slope for A-C | Slope for C-A | Slope for C-B |
|----------|--------|--------------------|---------------|---------------|---------------|---------------|
| 1        | B-A    | 551.513            | 0.096         | 0.242         | 0.152         | 0.346         |
| 1        | B-C    | 694.475            | 0.101         | 0.256         | -             | -             |
| 1        | C-B    | 843.899            | 0.312         | 0.312         | -             | -             |

*The slopes and intercepts shown above do NOT include any corrections or adjustments.*

*Streams may be combined, in which case capacity will be adjusted.*

*Values are shown for the first time segment only; they may differ for subsequent time segments.*

## Traffic Flows

### Demand Set Data Options

| Default Vehicle Mix | Vehicle Mix Varies Over Time | Vehicle Mix Varies Over Turn | Vehicle Mix Varies Over Entry | Vehicle Mix Source | PCU Factor for a HV (PCU) | Default Turning Proportions | Estimate from entry/exit counts | Turning Proportions Vary Over Time | Turning Proportions Vary Over Turn | Turning Proportions Vary Over Entry |
|---------------------|------------------------------|------------------------------|-------------------------------|--------------------|---------------------------|-----------------------------|---------------------------------|------------------------------------|------------------------------------|-------------------------------------|
|                     |                              | ✓                            | ✓                             | HV Percentages     | 2.00                      |                             |                                 |                                    | ✓                                  | ✓                                   |

# Entry Flows

## General Flows Data

| Name                   | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (%) |
|------------------------|--------------|--------------------|------------------------------|-------------------------|
| A38 Bristol Road south | ONE HOUR     | ✓                  | 1083.00                      | 100.000                 |
| Wylds Road             | ONE HOUR     | ✓                  | 367.00                       | 100.000                 |
| A38 Bristol Road north | ONE HOUR     | ✓                  | 1196.00                      | 100.000                 |

# Turning Proportions

## Turning Counts or Proportions (Veh/hr) - (untitled) (for whole period)

|      | To |         |         |          |
|------|----|---------|---------|----------|
| From |    | A       | B       | C        |
|      | A  | 0.000   | 39.000  | 1044.000 |
|      | B  | 0.000   | 0.000   | 367.000  |
|      | C  | 935.000 | 261.000 | 0.000    |

## Turning Proportions (Veh) - (untitled) (for whole period)

|  | To   |   |   |   |
|--|------|---|---|---|
|  | From | A | B | C |

|  |          |      |      |      |
|--|----------|------|------|------|
|  | <b>A</b> | 0.00 | 0.04 | 0.96 |
|  | <b>B</b> | 0.00 | 0.00 | 1.00 |
|  | <b>C</b> | 0.78 | 0.22 | 0.00 |

# Vehicle Mix

Average PCU Per Vehicle - (untitled) (for whole period)

|      |          |          |          |          |
|------|----------|----------|----------|----------|
|      | To       |          |          |          |
| From |          | <b>A</b> | <b>B</b> | <b>C</b> |
|      | <b>A</b> | 1.000    | 1.030    | 1.040    |
|      | <b>B</b> | 1.000    | 1.000    | 1.040    |
|      | <b>C</b> | 1.040    | 1.020    | 1.000    |

Heavy Vehicle Percentages - (untitled) (for whole period)

|      |          |          |          |          |
|------|----------|----------|----------|----------|
|      | To       |          |          |          |
| From |          | <b>A</b> | <b>B</b> | <b>C</b> |
|      | <b>A</b> | 0.000    | 3.000    | 4.000    |
|      | <b>B</b> | 0.000    | 0.000    | 4.000    |
|      | <b>C</b> | 4.000    | 2.000    | 0.000    |



# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|--------|---------|---------------|-----------------|---------|
| B-AC   | 1.10    | 221.13        | 26.79           | F       |
| C-AB   | 0.64    | 22.21         | 1.76            | C       |
| C-A    | -       | -             | -               | -       |
| A-B    | -       | -             | -               | -       |
| A-C    | -       | -             | -               | -       |

## Main Results for each time segment

### Main results: (16:45-17:00)

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 287.35                | 281.50              | 0.00                       | 481.79            | 0.596 | 1.46            | 18.208    | C   |
| C-AB   | 200.42                | 198.30              | 0.00                       | 579.76            | 0.346 | 0.53            | 9.575     | A   |
| C-A    | 732.07                | 732.07              | 0.00                       | -                 | -     | -               | -         | -   |

|     |        |        |      |   |   |   |   |   |
|-----|--------|--------|------|---|---|---|---|---|
| A-B | 30.24  | 30.24  | 0.00 | - | - | - | - | - |
| A-C | 817.42 | 817.42 | 0.00 | - | - | - | - | - |

#### Main results: (17:00-17:15)

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 343.12                | 336.35              | 0.00                       | 440.51            | 0.779 | 3.16            | 33.871    | D   |
| C-AB   | 239.33                | 238.15              | 0.00                       | 528.49            | 0.453 | 0.82            | 12.597    | B   |
| C-A    | 874.17                | 874.17              | 0.00                       | -                 | -     | -               | -         | -   |
| A-B    | 36.11                 | 36.11               | 0.00                       | -                 | -     | -               | -         | -   |
| A-C    | 976.08                | 976.08              | 0.00                       | -                 | -     | -               | -         | -   |

#### Main results: (17:15-17:30)

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 420.24                | 367.42              | 0.00                       | 383.44            | 1.096 | 16.36           | 119.383   | F   |
| C-AB   | 293.52                | 289.98              | 0.00                       | 458.08            | 0.641 | 1.71            | 21.400    | C   |
| C-A    | 1070.22               | 1070.22             | 0.00                       | -                 | -     | -               | -         | -   |
| A-B    | 44.23                 | 44.23               | 0.00                       | -                 | -     | -               | -         | -   |
| A-C    | 1195.44               | 1195.44             | 0.00                       | -                 | -     | -               | -         | -   |

#### Main results: (17:30-17:45)

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 420.24                | 378.52              | 0.00                       | 383.44            | 1.096 | 26.79           | 221.125   | F   |
| C-AB   | 293.52                | 293.32              | 0.00                       | 458.08            | 0.641 | 1.76            | 22.211    | C   |
| C-A    | 1070.22               | 1070.22             | 0.00                       | -                 | -     | -               | -         | -   |
| A-B    | 44.23                 | 44.23               | 0.00                       | -                 | -     | -               | -         | -   |
| A-C    | 1195.44               | 1195.44             | 0.00                       | -                 | -     | -               | -         | -   |

#### Main results: (17:45-18:00)

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 343.12                | 425.39              | 0.00                       | 440.51            | 0.779 | 6.22            | 152.639   | F   |
| C-AB   | 239.33                | 242.91              | 0.00                       | 528.50            | 0.453 | 0.87            | 13.013    | B   |
| C-A    | 874.17                | 874.17              | 0.00                       | -                 | -     | -               | -         | -   |
| A-B    | 36.11                 | 36.11               | 0.00                       | -                 | -     | -               | -         | -   |
| A-C    | 976.08                | 976.08              | 0.00                       | -                 | -     | -               | -         | -   |

#### Main results: (18:00-18:15)

| Stream | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------|-----------------------|---------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| B-AC   | 287.35                | 305.76              | 0.00                       | 481.79            | 0.596 | 1.62            | 23.225    | C   |
| C-AB   | 200.42                | 201.70              | 0.00                       | 579.76            | 0.346 | 0.55            | 9.746     | A   |

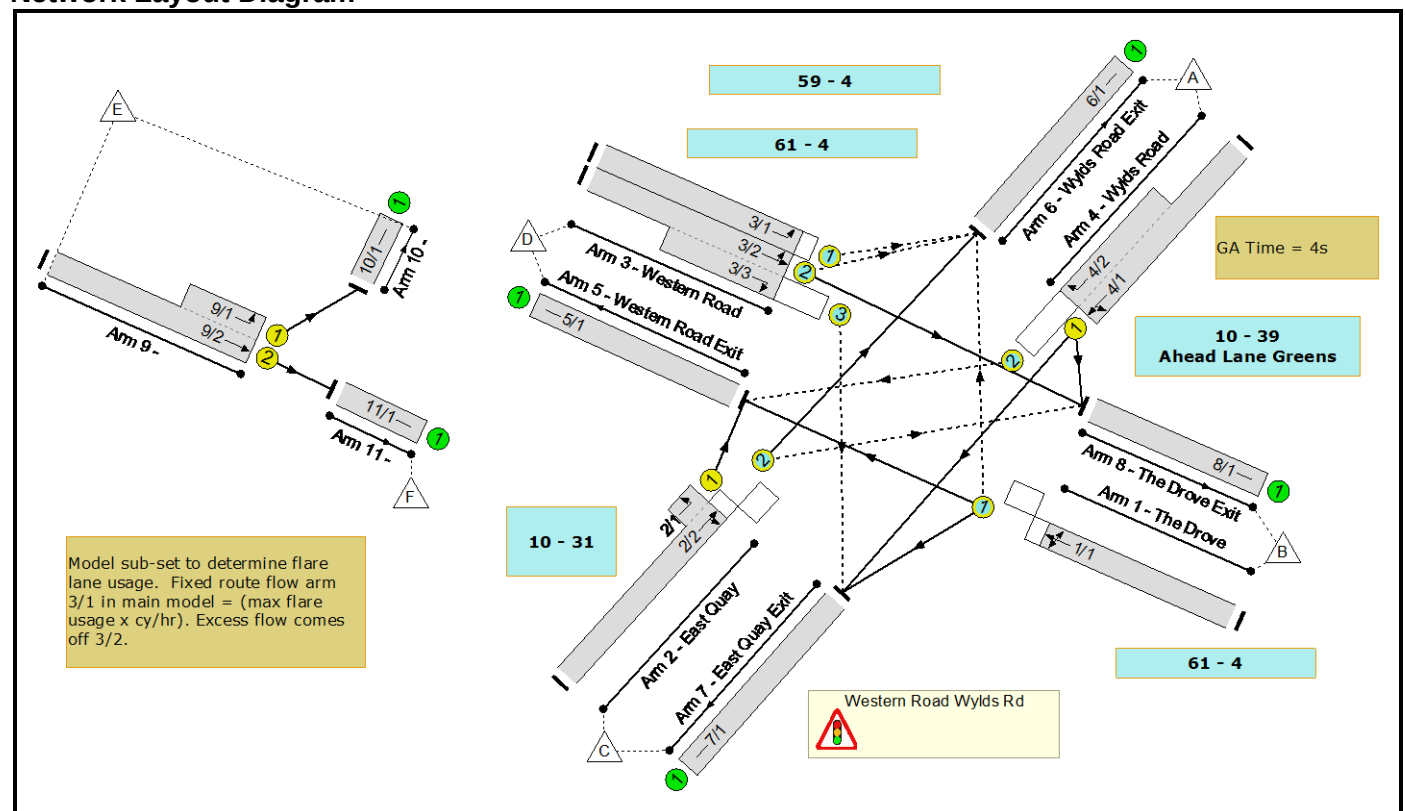
|            |        |        |      |   |   |   |   |   |
|------------|--------|--------|------|---|---|---|---|---|
| <b>C-A</b> | 732.07 | 732.07 | 0.00 | - | - | - | - | - |
| <b>A-B</b> | 30.24  | 30.24  | 0.00 | - | - | - | - | - |
| <b>A-C</b> | 817.42 | 817.42 | 0.00 | - | - | - | - | - |

# Basic Results Summary

## User and Project Details

|            |                                                                |
|------------|----------------------------------------------------------------|
| Project:   | Hinkley Point C                                                |
| Title:     | Wylds Road / The Drove - DCO Scheme                            |
| Location:  |                                                                |
| File name: | Wylds Rd - The Drove - EDF Scheme 2012 (Ex O-C) TN Edits.lsg3x |
| Author:    |                                                                |
| Company:   |                                                                |
| Address:   |                                                                |
| Notes:     | Consented Model                                                |

## Network Layout Diagram



**Scenario 1: 'AM BASE 2016'** (FG1: 'AM BASE 2016', Plan 1: 'AM Peds Every Cycle')

| Item                                                                                                                                                                                          | Lane Description              | Lane Type | Full Phase | Arrow Phase | Num Greens | Total Green (s) | Arrow Green (s) | Demand Flow (pcu) | Sat Flow (pcu/Hr) | Capacity (pcu) | Deg Sat (%)    | Turners In Gaps (pcu) | Turners When Unopposed (pcu) | Turners In Intergreen (pcu) | Total Delay (pcuHr) | Av. Delay Per PCU (s/pcu) | Mean Max Queue (pcu) |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|-----------|------------|-------------|------------|-----------------|-----------------|-------------------|-------------------|----------------|----------------|-----------------------|------------------------------|-----------------------------|---------------------|---------------------------|----------------------|
| Network: Wylds Road / The Drove - DCO Scheme                                                                                                                                                  | -                             | -         | -          |             | -          | -               | -               | -                 | -                 | -              | 103.4%         | 1106                  | 130                          | 113                         | 62.9                | -                         | -                    |
| Western Road Wylds Rd                                                                                                                                                                         | -                             | -         | -          |             | -          | -               | -               | -                 | -                 | -              | 103.4%         | 1106                  | 130                          | 113                         | 62.9                | -                         | -                    |
| 1/1                                                                                                                                                                                           | The Drove Ahead Right Left    | O         | F          |             | 1          | 45              | -               | 507               | 1926              | 923            | 54.9%          | 1                     | 0                            | 32                          | 3.4                 | 23.8                      | 10.0                 |
| 2/2+2/1                                                                                                                                                                                       | East Quay Left Ahead Right    | O+U       | A          |             | 1          | 15              | -               | 295               | 1896:1714         | 235+103        | 87.4 : 87.4%   | 25                    | 0                            | 0                           | 6.2                 | 76.0                      | 9.8                  |
| 3/1                                                                                                                                                                                           | Western Road Left             | O         | E          |             | 1          | 47              | -               | 151               | 1852              | 886            | 17.0%          | 132                   | 19                           | 0                           | 0.7                 | 16.4                      | 2.4                  |
| 3/2+3/3                                                                                                                                                                                       | Western Road Left Right Ahead | O         | D          |             | 1          | 45              | -               | 1000              | 1915:1775         | 739+228        | 103.4 : 103.4% | 929                   | 0                            | 9                           | 35.5                | 127.7                     | 53.1                 |
| 4/1+4/2                                                                                                                                                                                       | Wylds Road Right Ahead Left   | U+O       | B          | C           | 1          | 23              | 4               | 509               | 1898:1775         | 416+206        | 73.6 : 98.5%   | 20                    | 111                          | 72                          | 7.3                 | 51.6                      | 9.4                  |
| 9/2+9/1                                                                                                                                                                                       | Left Ahead                    | U         | D E        |             | 1          | 45:47           | -               | 1151              | 3000:1852         | 859+457        | 87.5 : 87.5%   | -                     | -                            | -                           | 9.9                 | 30.9                      | 27.2                 |
| C1<br>PRC for Signalled Lanes (%): -14.9<br>PRC Over All Lanes (%): -14.9<br>Total Delay for Signalled Lanes (pcuHr): 62.92<br>Total Delay Over All Lanes(pcuHr): 62.92<br>Cycle Time (s): 96 |                               |           |            |             |            |                 |                 |                   |                   |                |                |                       |                              |                             |                     |                           |                      |

## Basic Results Summary

**Scenario 2: 'PM BASE 2016'** (FG2: 'PM BASE 2016', Plan 2: 'PM Peds Alt Cycles')

| Item                                                                                                                                                                                             | Lane Description              | Lane Type | Full Phase | Arrow Phase | Num Greens | Total Green (s) | Arrow Green (s) | Demand Flow (pcu) | Sat Flow (pcu/Hr) | Capacity (pcu) | Deg Sat (%)    | Turners In Gaps (pcu) | Turners When Unopposed (pcu) | Turners In Intergreen (pcu) | Total Delay (pcuHr) | Av. Delay Per PCU (s/pcu) | Mean Max Queue (pcu) |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|-----------|------------|-------------|------------|-----------------|-----------------|-------------------|-------------------|----------------|----------------|-----------------------|------------------------------|-----------------------------|---------------------|---------------------------|----------------------|
| Network: Wylds Road / The Drove - DCO Scheme                                                                                                                                                     | -                             | -         | -          |             | -          | -               | -               | -                 | -                 | -              | 124.8%         | 1040                  | 155                          | 212                         | 211.2               | -                         | -                    |
| Western Road Wylds Rd                                                                                                                                                                            | -                             | -         | -          |             | -          | -               | -               | -                 | -                 | -              | 124.8%         | 1040                  | 155                          | 212                         | 211.2               | -                         | -                    |
| 1/1                                                                                                                                                                                              | The Drove Ahead Right Left    | O         | F          |             | 2          | 88              | -               | 704               | 1946              | 912            | 77.2%          | 2                     | 0                            | 2                           | 6.0                 | 30.8                      | 20.6                 |
| 2/2+2/1                                                                                                                                                                                          | East Quay Left Ahead Right    | O+U       | A          |             | 2          | 42              | -               | 533               | 1817:1714         | 357+70         | 124.8 : 124.8% | 215                   | 0                            | 17                          | 74.2                | 501.2                     | 81.0                 |
| 3/1                                                                                                                                                                                              | Western Road Left             | O         | E          |             | 2          | 91              | -               | 160               | 1852              | 857            | 18.7%          | 150                   | 10                           | 0                           | 0.8                 | 18.2                      | 3.1                  |
| 3/2+3/3                                                                                                                                                                                          | Western Road Left Right Ahead | O         | D          |             | 2          | 88              | -               | 944               | 1915:1775         | 568+189        | 124.7 : 124.7% | 615                   | 0                            | 150                         | 113.9               | 434.5                     | 129.4                |
| 4/1+4/2                                                                                                                                                                                          | Wylds Road Right Ahead Left   | U+O       | B          | C           | 2          | 63              | 13              | 437               | 1881:1775         | 227+290        | 84.6 : 84.6%   | 57                    | 145                          | 43                          | 6.4                 | 52.6                      | 8.1                  |
| 9/2+9/1                                                                                                                                                                                          | Left Ahead                    | U         | D E        |             | 2          | 88:91           | -               | 1104              | 3000:1852         | 821+468        | 85.6 : 85.6%   | -                     | -                            | -                           | 9.8                 | 31.9                      | 31.3                 |
| C1<br>PRC for Signalled Lanes (%): -38.7<br>PRC Over All Lanes (%): -38.7<br>Total Delay for Signalled Lanes (pcuHr): 211.16<br>Total Delay Over All Lanes(pcuHr): 211.16<br>Cycle Time (s): 192 |                               |           |            |             |            |                 |                 |                   |                   |                |                |                       |                              |                             |                     |                           |                      |

# Basic Results Summary

## Scenario 3: 'AM BASE 2016+DEV' (FG3: 'AM BASE 2016+DEV', Plan 1: 'AM Peds Every Cycle')

| Item                                         | Lane Description              | Lane Type | Full Phase | Arrow Phase | Num Greens | Total Green (s) | Arrow Green (s) | Demand Flow (pcu) | Sat Flow (pcu/Hr) | Capacity (pcu) | Deg Sat (%)    | Turners In Gaps (pcu) | Turners When Unopposed (pcu) | Turners In Intergreen (pcu) | Total Delay (pcuHr) | Av. Delay Per PCU (s/pcu) | Mean Max Queue (pcu) |
|----------------------------------------------|-------------------------------|-----------|------------|-------------|------------|-----------------|-----------------|-------------------|-------------------|----------------|----------------|-----------------------|------------------------------|-----------------------------|---------------------|---------------------------|----------------------|
| Network: Wylds Road / The Drove - DCO Scheme | -                             | -         | -          |             | -          | -               | -               | -                 | -                 | -              | 102.7%         | 1008                  | 130                          | 202                         | 61.8                | -                         | -                    |
| Western Road Wylds Rd                        | -                             | -         | -          |             | -          | -               | -               | -                 | -                 | -              | 102.7%         | 1008                  | 130                          | 202                         | 61.8                | -                         | -                    |
| 1/1                                          | The Drove Ahead Right Left    | O         | F          |             | 1          | 45              | -               | 595               | 1932              | 926            | 64.3%          | 1                     | 0                            | 32                          | 4.3                 | 25.8                      | 12.8                 |
| 2/2+2/1                                      | East Quay Left Ahead Right    | O+U       | A          |             | 1          | 15              | -               | 295               | 1896:1714         | 235+103        | 87.4 : 87.4%   | 25                    | 0                            | 0                           | 6.2                 | 76.0                      | 9.8                  |
| 3/1                                          | Western Road Left             | O         | E          |             | 1          | 47              | -               | 168               | 1852              | 886            | 19.0%          | 149                   | 19                           | 0                           | 0.8                 | 16.6                      | 2.7                  |
| 3/2+3/3                                      | Western Road Left Right Ahead | O         | D          |             | 1          | 45              | -               | 994               | 1915:1775         | 738+230        | 102.7 : 102.7% | 813                   | 0                            | 98                          | 33.0                | 119.5                     | 50.0                 |
| 4/1+4/2                                      | Wylds Road Right Ahead Left   | U+O       | B          | C           | 1          | 23              | 4               | 509               | 1898:1775         | 416+206        | 73.6 : 98.5%   | 20                    | 111                          | 72                          | 7.3                 | 51.6                      | 9.4                  |
| 9/2+9/1                                      | Left Ahead                    | U         | D E        |             | 1          | 45:47           | -               | 1162              | 3000:1852         | 863+453        | 88.3 : 88.3%   | -                     | -                            | -                           | 10.3                | 31.8                      | 28.1                 |
| C1                                           |                               |           |            |             |            |                 |                 |                   |                   |                |                |                       |                              |                             |                     |                           |                      |



# Basic Results Summary

## Scenario 4: 'PM BASE 2016+DEV' (FG4: 'PM BASE 2016+DEV', Plan 2: 'PM Peds Alt Cycles')

| Item                                         | Lane Description              | Lane Type | Full Phase | Arrow Phase | Num Greens | Total Green (s) | Arrow Green (s) | Demand Flow (pcu) | Sat Flow (pcu/Hr) | Capacity (pcu) | Deg Sat (%)    | Turners In Gaps (pcu) | Turners When Unopposed (pcu) | Turners In Intergreen (pcu) | Total Delay (pcuHr) | Av. Delay Per PCU (s/pcu) | Mean Max Queue (pcu) |
|----------------------------------------------|-------------------------------|-----------|------------|-------------|------------|-----------------|-----------------|-------------------|-------------------|----------------|----------------|-----------------------|------------------------------|-----------------------------|---------------------|---------------------------|----------------------|
| Network: Wylds Road / The Drove - DCO Scheme | -                             | -         | -          |             | -          | -               | -               | -                 | -                 | -              | 127.6%         | 1094                  | 167                          | 199                         | 187.5               | -                         | -                    |
| Western Road Wylds Rd                        | -                             | -         | -          |             | -          | -               | -               | -                 | -                 | -              | 127.6%         | 1094                  | 167                          | 199                         | 187.5               | -                         | -                    |
| 1/1                                          | The Drove Ahead Right Left    | O         | F          |             | 2          | 89              | -               | 715               | 1946              | 922            | 77.6%          | 0                     | 0                            | 4                           | 5.9                 | 29.8                      | 18.2                 |
| 2/2+2/1                                      | East Quay Left Ahead Right    | O+U       | A          |             | 2          | 41              | -               | 533               | 1817:1714         | 349+68         | 127.6 : 127.6% | 215                   | 0                            | 12                          | 78.7                | 531.8                     | 89.4                 |
| 3/1                                          | Western Road Left             | O         | E          |             | 2          | 92              | -               | 153               | 1852              | 867            | 17.6%          | 143                   | 10                           | 0                           | 0.7                 | 17.2                      | 2.6                  |
| 3/2+3/3                                      | Western Road Left Right Ahead | O         | D          |             | 2          | 89              | -               | 1040              | 1915:1775         | 737+188        | 109.1 : 125.4% | 681                   | 0                            | 150                         | 82.8                | 286.7                     | 100.4                |
| 4/1+4/2                                      | Wylds Road Right Ahead Left   | U+O       | B          | C           | 2          | 62              | 13              | 437               | 1881:1775         | 226+288        | 85.1 : 85.1%   | 55                    | 157                          | 33                          | 6.6                 | 54.7                      | 10.8                 |
| 9/2+9/1                                      | Left Ahead                    | U         | D E        |             | 2          | 89:92           | -               | 1193              | 3000:1852         | 866+438        | 91.5 : 91.5%   | -                     | -                            | -                           | 12.7                | 38.2                      | 32.6                 |
| C1                                           |                               |           |            |             |            |                 |                 |                   |                   |                |                |                       |                              |                             |                     |                           |                      |

# Basic Results Summary

## Scenario 5: 'AM BASE 2016+DEV (NO COMM)' (FG5: 'AM BASE 2016+DEV (NO COMM)', Plan 1: 'AM Peds Every Cycle')

| Item                                         | Lane Description              | Lane Type | Full Phase | Arrow Phase | Num Greens | Total Green (s) | Arrow Green (s)                                                   | Demand Flow (pcu)                                                                          | Sat Flow (pcu/Hr) | Capacity (pcu) | Deg Sat (%)  | Turners In Gaps (pcu) | Turners When Unopposed (pcu) | Turners In Intergreen (pcu) | Total Delay (pcuHr) | Av. Delay Per PCU (s/pcu) | Mean Max Queue (pcu) |
|----------------------------------------------|-------------------------------|-----------|------------|-------------|------------|-----------------|-------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------|----------------|--------------|-----------------------|------------------------------|-----------------------------|---------------------|---------------------------|----------------------|
| Network: Wylds Road / The Drove - DCO Scheme | -                             | -         | -          |             | -          | -               | -                                                                 | -                                                                                          | -                 | -              | 78.3%        | 1003                  | 130                          | 61                          | 28.2                | -                         | -                    |
| Western Road Wylds Rd                        | -                             | -         | -          |             | -          | -               | -                                                                 | -                                                                                          | -                 | -              | 78.3%        | 1003                  | 130                          | 61                          | 28.2                | -                         | -                    |
| 1/1                                          | The Drove Ahead Right Left    | O         | F          |             | 1          | 39              | -                                                                 | 446                                                                                        | 1921              | 800            | 55.7%        | 33                    | 0                            | 0                           | 3.3                 | 26.7                      | 9.5                  |
| 2/2+2/1                                      | East Quay Left Ahead Right    | O+U       | A          |             | 1          | 21              | -                                                                 | 295                                                                                        | 1896:1714         | 314+138        | 65.2 : 65.2% | 25                    | 0                            | 0                           | 3.6                 | 44.5                      | 7.1                  |
| 3/1                                          | Western Road Left             | O         | E          |             | 1          | 41              | -                                                                 | 339                                                                                        | 1852              | 771            | 44.0%        | 320                   | 19                           | 0                           | 2.3                 | 24.1                      | 6.8                  |
| 3/2+3/3                                      | Western Road Left Right Ahead | O         | D          |             | 1          | 39              | -                                                                 | 576                                                                                        | 1915:1775         | 434+301        | 78.3 : 78.3% | 546                   | 0                            | 48                          | 6.2                 | 38.9                      | 8.4                  |
| 4/1+4/2                                      | Wylds Road Right Ahead Left   | U+O       | B          | C           | 1          | 29              | 4                                                                 | 509                                                                                        | 1898:1775         | 485+266        | 63.1 : 76.3% | 80                    | 111                          | 12                          | 5.5                 | 39.0                      | 7.7                  |
| 9/2+9/1                                      | Left Ahead                    | U         | D E        |             | 1          | 39:41           | -                                                                 | 915                                                                                        | 3000:1852         | 658+511        | 78.3 : 78.3% | -                     | -                            | -                           | 7.3                 | 28.6                      | 18.0                 |
| C1                                           |                               |           |            |             |            |                 | PRC for Signalled Lanes (%): 15.0<br>PRC Over All Lanes (%): 15.0 | Total Delay for Signalled Lanes (pcuHr): 28.22<br>Total Delay Over All Lanes(pcuHr): 28.22 |                   |                |              | 28.22                 | Cycle Time (s): 96           |                             |                     |                           |                      |

## Basic Results Summary

**Scenario 6: 'PM BASE 2016+DEV (NO COMM)' (FG6: 'PM BASE 2016+DEV (NO COMM)', Plan 2: 'PM Peds Alt Cycles')**

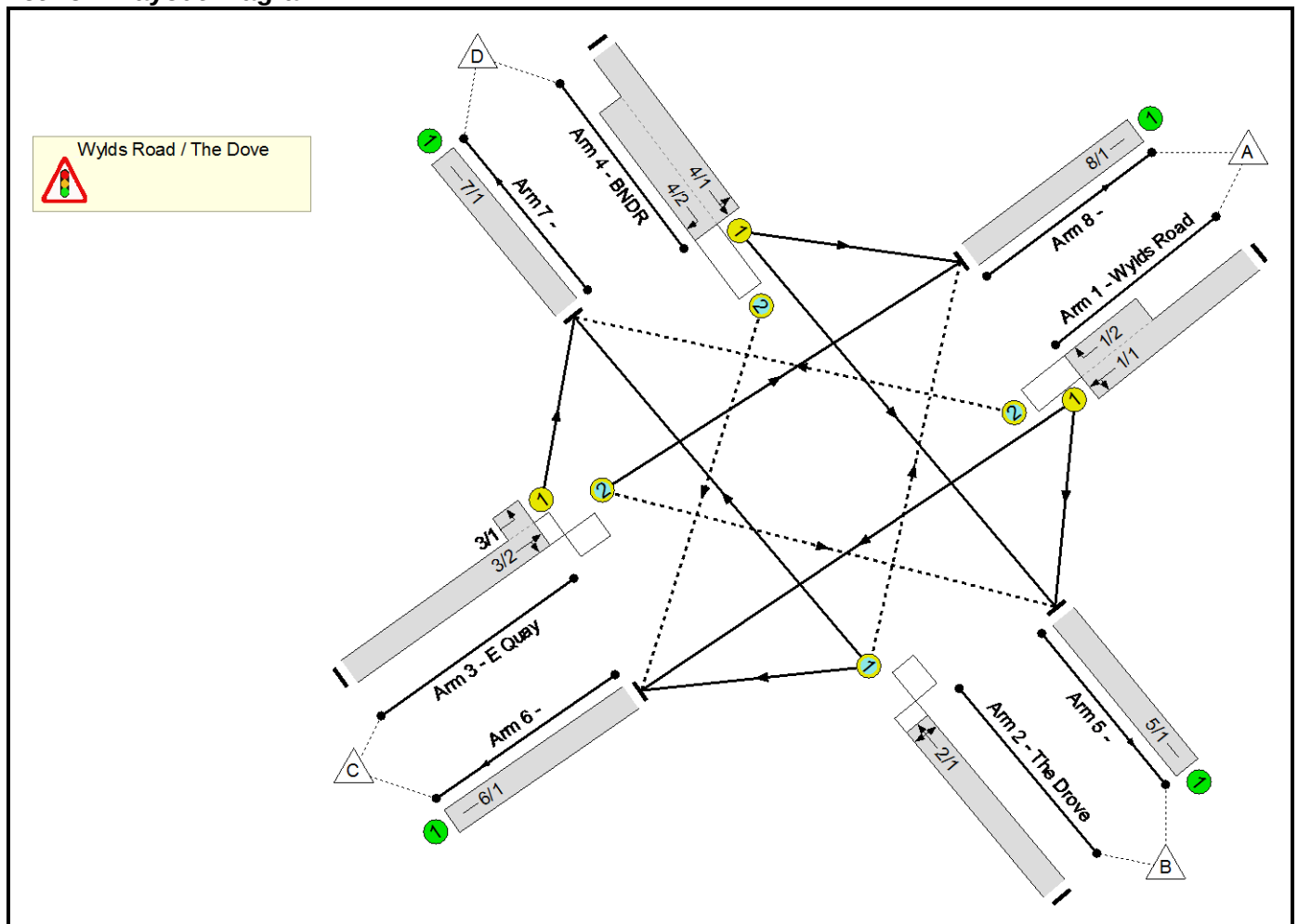
| Item                                                                                                                                                                                           | Lane Description              | Lane Type | Full Phase | Arrow Phase | Num Greens | Total Green (s) | Arrow Green (s) | Demand Flow (pcu) | Sat Flow (pcu/Hr) | Capacity (pcu) | Deg Sat (%)  | Turners In Gaps (pcu) | Turners When Unopposed (pcu) | Turners In Intergreen (pcu) | Total Delay (pcuHr) | Av. Delay Per PCU (s/pcu) | Mean Max Queue (pcu) |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|-----------|------------|-------------|------------|-----------------|-----------------|-------------------|-------------------|----------------|--------------|-----------------------|------------------------------|-----------------------------|---------------------|---------------------------|----------------------|
| Network: Wylds Road / The Drove - DCO Scheme                                                                                                                                                   | -                             | -         | -          |             | -          | -               | -               | -                 | -                 | -              | 92.2%        | 1112                  | 167                          | 156                         | 44.0                | -                         | -                    |
| Western Road Wylds Rd                                                                                                                                                                          | -                             | -         | -          |             | -          | -               | -               | -                 | -                 | -              | 92.2%        | 1112                  | 167                          | 156                         | 44.0                | -                         | -                    |
| 1/1                                                                                                                                                                                            | The Drove Ahead Right Left    | O         | F          |             | 2          | 71              | -               | 440               | 1935              | 736            | 59.8%        | 4                     | 0                            | 0                           | 3.7                 | 30.1                      | 10.6                 |
| 2/2+2/1                                                                                                                                                                                        | East Quay Left Ahead Right    | O+U       | A          |             | 2          | 59              | -               | 533               | 1817:1714         | 491+96         | 90.9 : 90.9% | 287                   | 0                            | 3                           | 9.3                 | 62.7                      | 19.5                 |
| 3/1                                                                                                                                                                                            | Western Road Left             | O         | E          |             | 2          | 74              | -               | 378               | 1852              | 693            | 54.5%        | 368                   | 10                           | 0                           | 3.1                 | 29.3                      | 8.9                  |
| 3/2+3/3                                                                                                                                                                                        | Western Road Left Right Ahead | O         | D          |             | 2          | 71              | -               | 615               | 1915:1775         | 415+258        | 91.4 : 91.4% | 389                   | 0                            | 129                         | 9.9                 | 58.1                      | 13.8                 |
| 4/1+4/2                                                                                                                                                                                        | Wylds Road Right Ahead Left   | U+O       | B          | C           | 2          | 80              | 13              | 437               | 1881:1775         | 235+300        | 81.7 : 81.7% | 63                    | 157                          | 24                          | 5.5                 | 45.4                      | 7.4                  |
| 9/2+9/1                                                                                                                                                                                        | Left Ahead                    | U         | D E        |             | 2          | 71:74           | -               | 993               | 3000:1852         | 642+435        | 92.2 : 92.2% | -                     | -                            | -                           | 12.6                | 45.6                      | 28.4                 |
| C1<br>PRC for Signalised Lanes (%): -2.5<br>PRC Over All Lanes (%): -2.5<br>Total Delay for Signalised Lanes (pcuHr): 44.05<br>Total Delay Over All Lanes(pcuHr): 44.05<br>Cycle Time (s): 192 |                               |           |            |             |            |                 |                 |                   |                   |                |              |                       |                              |                             |                     |                           |                      |

Basic Results Summary  
**Basic Results Summary**

**User and Project Details**

|            |                                                  |
|------------|--------------------------------------------------|
| Project:   | TPLO1028 Hinkley                                 |
| Title:     |                                                  |
| Location:  |                                                  |
| File name: | Wylds Rd_The Drove.lsg3x                         |
| Author:    | T Nichol                                         |
| Company:   | Curtins                                          |
| Address:   | 10 Oxford Court, Bishopsgate, Manchester M2 3WQ. |
| Notes:     | Improvement Scheme                               |

**Network Layout Diagram**



## Network Results

**Scenario 1: 'AM OBS 2013'** (FG1: 'AM OBS 2013', Plan 1: 'Network Control Plan 1')

| Item                  | Lane Description            | Lane Type | Full Phase | Arrow Phase | Num Greens | Total Green (s) | Arrow Green (s) | Demand Flow (pcu) | Sat Flow (pcu/Hr) | Capacity (pcu) | Deg Sat (%)  | Turners In Gaps (pcu) | Turners When Unopposed (pcu) | Turners In Intergreen (pcu) | Total Delay (pcuHr) | Av. Delay Per PCU (s/pcu) | Mean Max Queue (pcu) |
|-----------------------|-----------------------------|-----------|------------|-------------|------------|-----------------|-----------------|-------------------|-------------------|----------------|--------------|-----------------------|------------------------------|-----------------------------|---------------------|---------------------------|----------------------|
| Network               | -                           | -         | -          |             | -          | -               | -               | -                 | -                 | -              | 82.3%        | 450                   | 0                            | 34                          | 18.9                | -                         | -                    |
| Wylds Road / The Dove | -                           | -         | -          |             | -          | -               | -               | -                 | -                 | -              | 82.3%        | 450                   | 0                            | 34                          | 18.9                | -                         | -                    |
| 1/1+1/2               | Wylds Road Left Ahead Right | U+O       | B          |             | 1          | 24              | -               | 496               | 1908:1788         | 374+248        | 79.8 : 79.8% | 169                   | 0                            | 29                          | 6.8                 | 49.1                      | 10.6                 |
| 2/1                   | The Drove Left Ahead Right  | O         | D          |             | 1          | 47              | -               | 349               | 1892              | 919            | 38.0%        | 32                    | 0                            | 0                           | 1.9                 | 19.5                      | 5.9                  |
| 3/2+3/1               | E Quay Right Left Ahead     | O+U       | A          |             | 1          | 24              | -               | 288               | 1887:1769         | 363+160        | 55.1 : 55.1% | 24                    | 0                            | 0                           | 3.0                 | 37.9                      | 6.3                  |
| 4/1+4/2               | BNDR Ahead Right Left       | U+O       | C          |             | 1          | 46              | -               | 881               | 1915:1954         | 791+279        | 82.3 : 82.3% | 225                   | 0                            | 5                           | 7.2                 | 29.4                      | 18.3                 |
| C1                    |                             |           |            |             |            |                 |                 |                   |                   |                |              |                       |                              |                             |                     |                           |                      |

**Scenario 2: 'PM OBS 2013'** (FG2: 'PM OBS 2013', Plan 1: 'Network Control Plan 1')

## Basic Results Summary

**Scenario 3: 'AM BASE 2016'** (FG3: 'AM BASE 2016', Plan 1: 'Network Control Plan 1')

| Item                                                                                                                                                                                                                                                  | Lane Description            | Lane Type | Full Phase | Arrow Phase | Num Greens | Total Green (s) | Arrow Green (s) | Demand Flow (pcu) | Sat Flow (pcu/Hr) | Capacity (pcu) | Deg Sat (%)    | Turners In Gaps (pcu) | Turners When Unopposed (pcu) | Turners In Intergreen (pcu) | Total Delay (pcuHr) | Av. Delay Per PCU (s/pcu) | Mean Max Queue (pcu) |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|-----------|------------|-------------|------------|-----------------|-----------------|-------------------|-------------------|----------------|----------------|-----------------------|------------------------------|-----------------------------|---------------------|---------------------------|----------------------|
| Network                                                                                                                                                                                                                                               | -                           | -         | -          |             | -          | -               | -               | -                 | -                 | -              | 104.5%         | 353                   | 0                            | 128                         | 60.7                | -                         | -                    |
| Wylds Road / The Dove                                                                                                                                                                                                                                 | -                           | -         | -          |             | -          | -               | -               | -                 | -                 | -              | 104.5%         | 353                   | 0                            | 128                         | 60.7                | -                         | -                    |
| 1/1+1/2                                                                                                                                                                                                                                               | Wylds Road Left Ahead Right | U+O       | B          |             | 1          | 20              | -               | 509               | 1908:1788         | 327+194        | 93.5 : 104.5%  | 107                   | 0                            | 87                          | 19.0                | 134.3                     | 22.8                 |
| 2/1                                                                                                                                                                                                                                                   | The Drove Left Ahead Right  | O         | D          |             | 1          | 51              | -               | 507               | 1908              | 1033           | 49.1%          | 0                     | 0                            | 33                          | 2.7                 | 19.4                      | 8.8                  |
| 3/2+3/1                                                                                                                                                                                                                                               | E Quay Right Left Ahead     | O+U       | A          |             | 1          | 20              | -               | 295               | 1887:1769         | 310+136        | 66.2 : 66.2%   | 25                    | 0                            | 0                           | 3.7                 | 45.7                      | 7.3                  |
| 4/1+4/2                                                                                                                                                                                                                                               | BNDR Ahead Right Left       | U+O       | C          |             | 1          | 50              | -               | 1151              | 1915:1954         | 889+229        | 102.9 : 102.9% | 221                   | 0                            | 8                           | 35.2                | 110.2                     | 58.5                 |
| C1                  PRC for Signalled Lanes (%): -16.1                  Total Delay for Signalled Lanes (pcuHr): 60.70                  Cycle Time (s): 96<br>PRC Over All Lanes (%): -16.1                  Total Delay Over All Lanes(pcuHr): 60.70 |                             |           |            |             |            |                 |                 |                   |                   |                |                |                       |                              |                             |                     |                           |                      |

**Scenario 4: 'PM BASE 2016' (FG4: 'PM BASE 2016', Plan 1: 'Network Control Plan 1')**



**Scenario 5: 'AM BASE 2016+DEV' (FG5: 'AM BASE 2016+DEV', Plan 1: 'Network Control Plan 1')**

| Item                                                                                                                                                                                                                                                  | Lane Description            | Lane Type | Full Phase | Arrow Phase | Num Greens | Total Green (s) | Arrow Green (s) | Demand Flow (pcu) | Sat Flow (pcu/Hr) | Capacity (pcu) | Deg Sat (%)    | Turners In Gaps (pcu) | Turners When Unopposed (pcu) | Turners In Intergreen (pcu) | Total Delay (pcuHr) | Av. Delay Per PCU (s/pcu) | Mean Max Queue (pcu) |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|-----------|------------|-------------|------------|-----------------|-----------------|-------------------|-------------------|----------------|----------------|-----------------------|------------------------------|-----------------------------|---------------------|---------------------------|----------------------|
| Network                                                                                                                                                                                                                                               | -                           | -         | -          |             | -          | -               | -               | -                 | -                 | -              | 104.5%         | 351                   | 0                            | 128                         | 66.7                | -                         | -                    |
| Wylds Road / The Dove                                                                                                                                                                                                                                 | -                           | -         | -          |             | -          | -               | -               | -                 | -                 | -              | 104.5%         | 351                   | 0                            | 128                         | 66.7                | -                         | -                    |
| 1/1+1/2                                                                                                                                                                                                                                               | Wylds Road Left Ahead Right | U+O       | B          |             | 1          | 20              | -               | 509               | 1908:1788         | 327+194        | 93.5 : 104.5%  | 107                   | 0                            | 87                          | 19.0                | 134.3                     | 22.8                 |
| 2/1                                                                                                                                                                                                                                                   | The Drove Left Ahead Right  | O         | D          |             | 1          | 51              | -               | 595               | 1913              | 1036           | 57.4%          | 0                     | 0                            | 33                          | 3.4                 | 20.5                      | 11.1                 |
| 3/2+3/1                                                                                                                                                                                                                                               | E Quay Right Left Ahead     | O+U       | A          |             | 1          | 20              | -               | 295               | 1887:1769         | 310+136        | 66.2 : 66.2%   | 25                    | 0                            | 0                           | 3.7                 | 45.7                      | 7.3                  |
| 4/1+4/2                                                                                                                                                                                                                                               | BNDR Ahead Right Left       | U+O       | C          |             | 1          | 50              | -               | 1162              | 1915:1954         | 890+227        | 104.0 : 104.0% | 219                   | 0                            | 8                           | 40.5                | 125.5                     | 63.7                 |
| C1                  PRC for Signalled Lanes (%): -16.1                  Total Delay for Signalled Lanes (pcuHr): 66.66                  Cycle Time (s): 96<br>PRC Over All Lanes (%): -16.1                  Total Delay Over All Lanes(pcuHr): 66.66 |                             |           |            |             |            |                 |                 |                   |                   |                |                |                       |                              |                             |                     |                           |                      |

## Basic Results Summary

**Scenario 6: 'PM BASE 2016+DEV' (FG6: 'PM BASE 2016+DEV', Plan 1: 'Network Control Plan 1')**

| Item                                                                                                                                                                                                                                          | Lane Description            | Lane Type | Full Phase | Arrow Phase | Num Greens | Total Green (s) | Arrow Green (s) | Demand Flow (pcu) | Sat Flow (pcu/Hr) | Capacity (pcu) | Deg Sat (%)    | Turners In Gaps (pcu) | Turners When Unopposed (pcu) | Turners In Intergreen (pcu) | Total Delay (pcuHr) | Av. Delay Per PCU (s/pcu) | Mean Max Queue (pcu) |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|-----------|------------|-------------|------------|-----------------|-----------------|-------------------|-------------------|----------------|----------------|-----------------------|------------------------------|-----------------------------|---------------------|---------------------------|----------------------|
| Network                                                                                                                                                                                                                                       | -                           | -         | -          |             | -          | -               | -               | -                 | -                 | -              | 113.1%         | 477                   | 0                            | 238                         | 148.2               | -                         | -                    |
| Wylds Road / The Dove                                                                                                                                                                                                                         | -                           | -         | -          |             | -          | -               | -               | -                 | -                 | -              | 113.1%         | 477                   | 0                            | 238                         | 148.2               | -                         | -                    |
| 1/1+1/2                                                                                                                                                                                                                                       | Wylds Road Left Ahead Right | U+O       | B          |             | 1          | 23              | -               | 437               | 1891:1788         | 190+243        | 100.9 : 100.9% | 139                   | 0                            | 104                         | 15.9                | 131.3                     | 18.0                 |
| 2/1                                                                                                                                                                                                                                           | The Drove Left Ahead Right  | O         | D          |             | 1          | 48              | -               | 715               | 1926              | 983            | 72.7%          | 0                     | 0                            | 4                           | 5.0                 | 25.2                      | 16.0                 |
| 3/2+3/1                                                                                                                                                                                                                                       | E Quay Right Left Ahead     | O+U       | A          |             | 1          | 23              | -               | 533               | 1812:1769         | 399+78         | 111.7 : 111.7% | 196                   | 0                            | 64                          | 40.4                | 272.7                     | 47.5                 |
| 4/1+4/2                                                                                                                                                                                                                                       | BNDR Ahead Right Left       | U+O       | C          |             | 1          | 47              | -               | 1193              | 1915:1954         | 846+209        | 113.1 : 113.1% | 142                   | 0                            | 67                          | 86.9                | 262.1                     | 109.0                |
| <div>C1<div>PRC for Signalled Lanes (%):-25.7<br/>PRC Over All Lanes (%):-25.7</div><div>Total Delay for Signalled Lanes (pcuHr):<br/>Total Delay Over All Lanes(pcuHr):</div><div>148.18<br/>148.18</div><div>Cycle Time (s): 96</div></div> |                             |           |            |             |            |                 |                 |                   |                   |                |                |                       |                              |                             |                     |                           |                      |

| Junctions 8                                                                                                                                                                  |  |  |  |  |  |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|--|
| ARCADY 8 - Roundabout Module                                                                                                                                                 |  |  |  |  |  |  |  |
| Version: 8.0.3.332 [14595,13/11/2013]<br>© Copyright TRL Limited, 2014                                                                                                       |  |  |  |  |  |  |  |
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**Filename:** J17 Quantcok Road - Homeberg Way.arc8

**Path:** P:\TP London\TP Projects\Hinkley Point C Connection\Modelling\Junctions 8\J17

**Report generation date:** 18/02/2014 11:34:33

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### Summary of junction performance

|                      | AM            |           |      |     | PM          |           |      |     |
|----------------------|---------------|-----------|------|-----|-------------|-----------|------|-----|
|                      | Queue (PCU)   | Delay (s) | RFC  | LOS | Queue (PCU) | Delay (s) | RFC  | LOS |
|                      | A1 - 2013 Obs |           |      |     |             |           |      |     |
| <b>Quantock Road</b> | 0.77          | 4.55      | 0.43 | A   | 1.13        | 5.42      | 0.53 | A   |

|                        |      |      |      |   |      |      |      |   |
|------------------------|------|------|------|---|------|------|------|---|
| <b>A39</b>             | 0.80 | 3.76 | 0.43 | A | 0.72 | 3.64 | 0.42 | A |
| <b>Quantock Meadow</b> | 0.04 | 5.27 | 0.04 | A | 0.02 | 5.25 | 0.02 | A |
| <b>Homeberg Way</b>    | 0.83 | 4.07 | 0.44 | A | 0.55 | 3.28 | 0.35 | A |
| <b>A1 - 2016 Base</b>  |      |      |      |   |      |      |      |   |
| <b>Quantock Road</b>   | 0.93 | 5.14 | 0.47 | A | 1.55 | 6.75 | 0.60 | A |
| <b>A39</b>             | 1.00 | 4.24 | 0.48 | A | 1.21 | 4.85 | 0.53 | A |
| <b>Quantock Meadow</b> | 0.05 | 5.68 | 0.04 | A | 0.03 | 6.26 | 0.03 | A |
| <b>Homeberg Way</b>    | 1.04 | 4.67 | 0.50 | A | 0.72 | 3.84 | 0.41 | A |
| <b>A1 - 2016 Dev</b>   |      |      |      |   |      |      |      |   |
| <b>Quantock Road</b>   | 1.02 | 5.62 | 0.49 | A | 1.57 | 6.86 | 0.60 | A |
| <b>A39</b>             | 1.04 | 4.34 | 0.49 | A | 1.52 | 5.50 | 0.58 | A |
| <b>Quantock Meadow</b> | 0.05 | 5.75 | 0.05 | A | 0.03 | 6.95 | 0.03 | A |
| <b>Homeberg Way</b>    | 1.33 | 5.34 | 0.56 | A | 0.75 | 3.94 | 0.41 | A |

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle.

"D1 - 2013 Obs, AM " model duration: 07:45 - 09:15

"D2 - 2013 Obs, PM" model duration: 16:45 - 18:15

"D3 - 2016 Base, AM" model duration: 07:45 - 09:15

"D4 - 2016 Base, PM" model duration: 16:45 - 18:15

"D5 - 2016 Dev, AM" model duration: 07:45 - 09:15

"D6 - 2016 Dev, PM" model duration: 16:45 - 18:15

Run using Junctions 8.0.3.332 at 18/02/2014 11:34:30

File summary

File Description

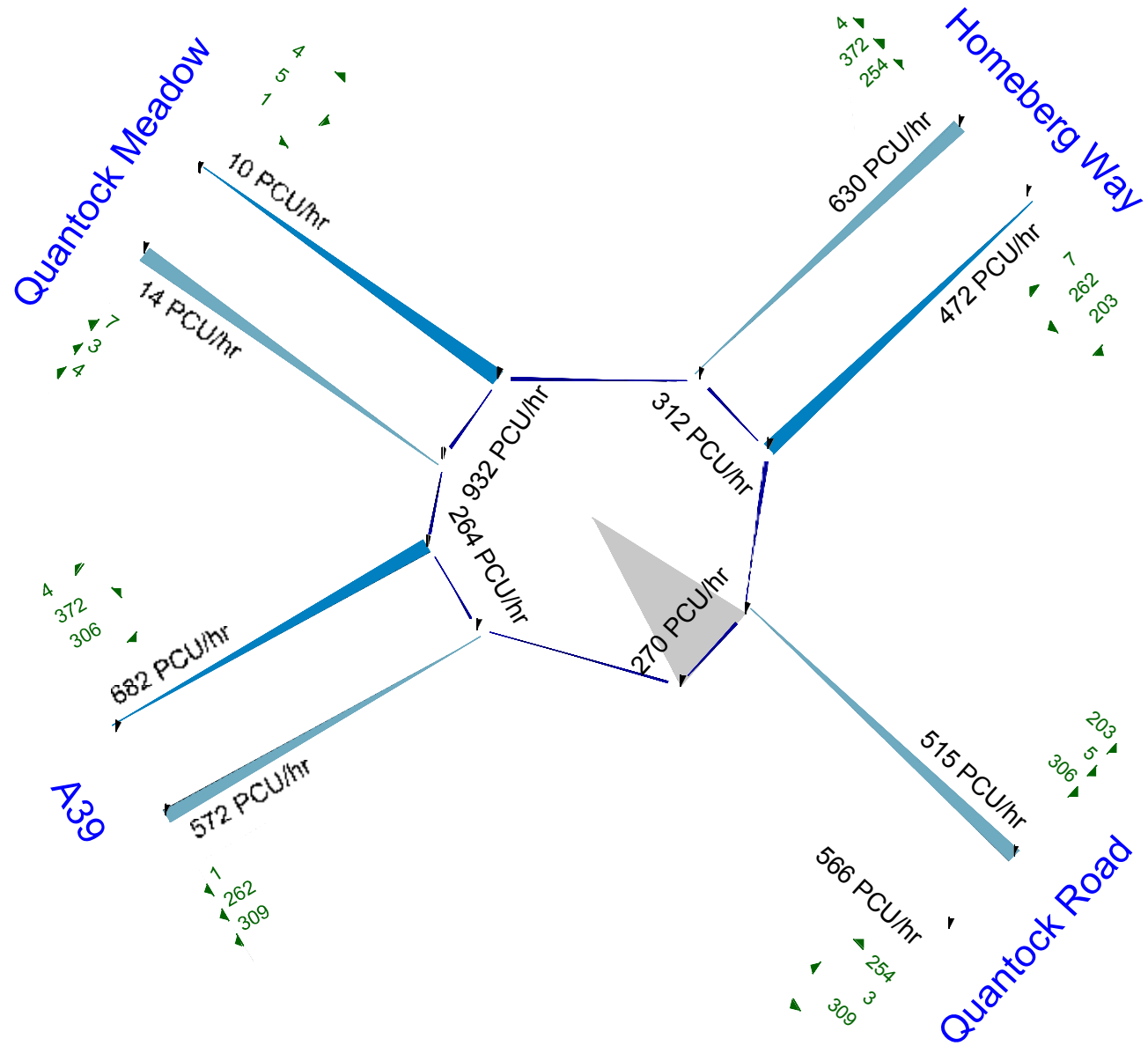
|             |            |
|-------------|------------|
| Title       | (untitled) |
| Location    |            |
| Site Number |            |
| Date        | 02/12/2013 |
| Version     |            |
| Status      | (new file) |
| Identifier  |            |
| Client      |            |
| Jobnumber   |            |
| Enumerator  |            |
| Description |            |

Analysis Options

| Vehicle Length (m) | Do Queue Variations | Calculate Residual Capacity | Residual Capacity Criteria Type | RFC Threshold | Average Delay Threshold (s) | Queue Threshold (PCU) |
|--------------------|---------------------|-----------------------------|---------------------------------|---------------|-----------------------------|-----------------------|
| 5.75               |                     |                             | N/A                             | 0.85          | 36.00                       | 20.00                 |

Units

| Distance Units | Speed Units | Traffic Units Input | Traffic Units Results | Flow Units | Average Delay Units | Total Delay Units | Rate Of Delay Units |
|----------------|-------------|---------------------|-----------------------|------------|---------------------|-------------------|---------------------|
| m              | kph         | Veh                 | PCU                   | perHour    | s                   | -Min              | perMin              |



The junction diagram reflects the last run of ARCADY.

## (Default Analysis Set) - 2013 Obs, AM

### Data Errors and Warnings

No errors or warnings

### Analysis Set Details

| Name                   | Description | Locked | Network Flow Scaling Factor (%) | Reason For Scaling Factors |
|------------------------|-------------|--------|---------------------------------|----------------------------|
| (Default Analysis Set) |             |        | 100.000                         |                            |

### Demand Set Details

| Name         | Scenario Name | Time Period Name | Description | Traffic Profile Type | Model Start Time (HH:mm) | Model Finish Time (HH:mm) | Model Time Period Length (min) | Time Segment Length (min) | Single Time Segment Only | Locked |
|--------------|---------------|------------------|-------------|----------------------|--------------------------|---------------------------|--------------------------------|---------------------------|--------------------------|--------|
| 2013 Obs, AM | 2013 Obs      | AM               |             | ONE HOUR             | 07:45                    | 09:15                     | 90                             | 15                        |                          |        |

## Junction Network

### Junctions

| Name       | Junction Type | Arm Order | Grade Separated | Large Roundabout | Junction Delay (s) | Junction LOS |
|------------|---------------|-----------|-----------------|------------------|--------------------|--------------|
| (untitled) | Roundabout    | 1,2,3,4   |                 |                  | 4.11               | A            |

### Junction Network Options



| Driving Side | Lighting       |
|--------------|----------------|
| Left         | Normal/unknown |

## Arms

### Arms

| Name            | Name            | Description |
|-----------------|-----------------|-------------|
| Quantock Road   | Quantock Road   |             |
| A39             | A39             |             |
| Quantock Meadow | Quantock Meadow |             |
| Homeberg Way    | Homeberg Way    |             |

### Roundabout Geometry

| Name            | V - Approach road half-width (m) | E - Entry width (m) | I' - Effective flare length (m) | R - Entry radius (m) | D - Inscribed circle diameter (m) | PHI - Conflict (entry) angle (deg) | Exit Only |
|-----------------|----------------------------------|---------------------|---------------------------------|----------------------|-----------------------------------|------------------------------------|-----------|
| Quantock Road   | 3.90                             | 7.40                | 7.00                            | 15.00                | 40.00                             | 17.00                              |           |
| A39             | 3.70                             | 7.90                | 23.00                           | 18.00                | 40.00                             | 18.00                              |           |
| Quantock Meadow | 3.00                             | 5.50                | 8.00                            | 16.00                | 40.00                             | 20.00                              |           |
| Homeberg Way    | 3.70                             | 8.90                | 21.00                           | 11.00                | 40.00                             | 20.00                              |           |

## Pedestrian Crossings

| Name            | Crossing Type |
|-----------------|---------------|
| Quantock Road   | None          |
| A39             | None          |
| Quantock Meadow | None          |
| Homeberg Way    | None          |

## Slope / Intercept / Capacity

### Roundabout Slope and Intercept used in model

| Name            | Enter slope and intercept directly | Entered slope | Entered intercept (PCU/hr) | Final Slope | Final Intercept (PCU/hr) |
|-----------------|------------------------------------|---------------|----------------------------|-------------|--------------------------|
| Quantock Road   |                                    | (calculated)  | (calculated)               | 0.638       | 1635.381                 |
| A39             |                                    | (calculated)  | (calculated)               | 0.712       | 1994.006                 |
| Quantock Meadow |                                    | (calculated)  | (calculated)               | 0.572       | 1316.692                 |
| Homeberg Way    |                                    | (calculated)  | (calculated)               | 0.698       | 1989.535                 |

*The slope and intercept shown above include any corrections and adjustments.*

## Traffic Flows

### Demand Set Data Options

| Default Vehicle Mix | Vehicle Mix Varies Over Time | Vehicle Mix Varies Over Turn | Vehicle Mix Varies Over Entry | Vehicle Mix Source | PCU Factor for a HV (PCU) | Default Turning Proportions | Estimate from entry/exit counts | Turning Proportions Vary Over Time | Turning Proportions Vary Over Turn | Turning Proportions Vary Over Entry |
|---------------------|------------------------------|------------------------------|-------------------------------|--------------------|---------------------------|-----------------------------|---------------------------------|------------------------------------|------------------------------------|-------------------------------------|
|                     |                              | ✓                            | ✓                             | HV Percentages     | 2.00                      |                             |                                 |                                    | ✓                                  | ✓                                   |

## Entry Flows

### General Flows Data

| Name            | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (%) |
|-----------------|--------------|--------------------|------------------------------|-------------------------|
| Quantock Road   | ONE HOUR     | ✓                  | 533.00                       | 100.000                 |
| A39             | ONE HOUR     | ✓                  | 664.00                       | 100.000                 |
| Quantock Meadow | ONE HOUR     | ✓                  | 27.00                        | 100.000                 |
| Homeberg Way    | ONE HOUR     | ✓                  | 642.00                       | 100.000                 |

## Turning Proportions

### Turning Counts or Proportions (Veh/hr) - (untitled) (for whole period)

|      | To    |         |       |         |
|------|-------|---------|-------|---------|
|      | 1     | 2       | 3     | 4       |
| From |       |         |       |         |
| 1    | 0.000 | 269.000 | 5.000 | 259.000 |

|  |   |         |         |       |         |
|--|---|---------|---------|-------|---------|
|  | 2 | 408.000 | 0.000   | 1.000 | 255.000 |
|  | 3 | 14.000  | 1.000   | 0.000 | 12.000  |
|  | 4 | 387.000 | 248.000 | 7.000 | 0.000   |

Turning Proportions (Veh) - (untitled) (for whole period)

|      |    |      |      |      |      |
|------|----|------|------|------|------|
|      | To |      |      |      |      |
| From |    | 1    | 2    | 3    | 4    |
|      | 1  | 0.00 | 0.50 | 0.01 | 0.49 |
|      | 2  | 0.61 | 0.00 | 0.00 | 0.38 |
|      | 3  | 0.52 | 0.04 | 0.00 | 0.44 |
|      | 4  | 0.60 | 0.39 | 0.01 | 0.00 |

# Vehicle Mix

Average PCU Per Vehicle - (untitled) (for whole period)

|      |    |       |       |       |       |
|------|----|-------|-------|-------|-------|
|      | To |       |       |       |       |
| From |    | 1     | 2     | 3     | 4     |
|      | 1  | 1.000 | 1.090 | 1.000 | 1.000 |
|      | 2  | 1.040 | 1.000 | 1.000 | 1.080 |

|  |   |       |       |       |       |
|--|---|-------|-------|-------|-------|
|  | 3 | 1.000 | 1.000 | 1.000 | 1.000 |
|  | 4 | 1.010 | 1.080 | 1.140 | 1.000 |

### Heavy Vehicle Percentages - (untitled) (for whole period)

|      | To |       |       |        |       |
|------|----|-------|-------|--------|-------|
| From |    | 1     | 2     | 3      | 4     |
|      | 1  | 0.000 | 9.000 | 0.000  | 0.000 |
|      | 2  | 4.000 | 0.000 | 0.000  | 8.000 |
|      | 3  | 0.000 | 0.000 | 0.000  | 0.000 |
|      | 4  | 1.000 | 8.000 | 14.000 | 0.000 |

## Results

### Results Summary for whole modelled period

| Name            | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|-----------------|---------|---------------|-----------------|---------|
| Quantock Road   | 0.43    | 4.55          | 0.77            | A       |
| A39             | 0.43    | 3.76          | 0.80            | A       |
| Quantock Meadow | 0.04    | 5.27          | 0.04            | A       |
| Homeberg Way    | 0.44    | 4.07          | 0.83            | A       |

## Main Results for each time segment

### Main results: (07:45-08:00)

| Name            | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-----------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| Quantock Road   | 419.50                | 417.89              | 207.72                    | 0.00                       | 1502.91           | 0.279 | 0.40            | 3.464     | A   |
| A39             | 527.54                | 525.86              | 203.98                    | 0.00                       | 1848.86           | 0.285 | 0.42            | 2.867     | A   |
| Quantock Meadow | 20.33                 | 20.24               | 719.35                    | 0.00                       | 905.10            | 0.022 | 0.02            | 4.068     | A   |
| Homeberg Way    | 501.92                | 500.27              | 329.68                    | 0.00                       | 1759.38           | 0.285 | 0.41            | 2.965     | A   |

### Main results: (08:00-08:15)

| Name            | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-----------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| Quantock Road   | 500.92                | 500.40              | 248.62                    | 0.00                       | 1476.83           | 0.339 | 0.53            | 3.853     | A   |
| A39             | 629.93                | 629.39              | 244.25                    | 0.00                       | 1820.21           | 0.346 | 0.56            | 3.188     | A   |
| Quantock Meadow | 24.27                 | 24.24               | 861.08                    | 0.00                       | 824.01            | 0.029 | 0.03            | 4.501     | A   |
| Homeberg Way    | 599.34                | 598.77              | 394.59                    | 0.00                       | 1714.07           | 0.350 | 0.56            | 3.350     | A   |

**Main results: (08:15-08:30)**

| Name            | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-----------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| Quantock Road   | 613.50                | 612.56              | 304.34                    | 0.00                       | 1441.30           | 0.426 | 0.77            | 4.537     | A   |
| A39             | 771.51                | 770.53              | 299.00                    | 0.00                       | 1781.25           | 0.433 | 0.80            | 3.755     | A   |
| Quantock Meadow | 29.73                 | 29.68               | 1054.16                   | 0.00                       | 713.54            | 0.042 | 0.04            | 5.264     | A   |
| Homeberg Way    | 734.04                | 732.97              | 483.08                    | 0.00                       | 1652.29           | 0.444 | 0.82            | 4.060     | A   |

**Main results: (08:30-08:45)**

| Name            | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-----------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| Quantock Road   | 613.50                | 613.49              | 304.78                    | 0.00                       | 1441.02           | 0.426 | 0.77            | 4.547     | A   |
| A39             | 771.51                | 771.49              | 299.45                    | 0.00                       | 1780.93           | 0.433 | 0.80            | 3.762     | A   |
| Quantock Meadow | 29.73                 | 29.73               | 1055.55                   | 0.00                       | 712.74            | 0.042 | 0.04            | 5.270     | A   |
| Homeberg Way    | 734.04                | 734.03              | 483.69                    | 0.00                       | 1651.86           | 0.444 | 0.83            | 4.072     | A   |

**Main results: (08:45-09:00)**

| Name          | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|---------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| Quantock Road | 500.92                | 501.85              | 249.30                    | 0.00                       | 1476.40           | 0.339 | 0.54            | 3.865     | A   |
| A39           | 629.93                | 630.90              | 244.96                    | 0.00                       | 1819.71           | 0.346 | 0.56            | 3.197     | A   |

|                 |        |        |        |      |         |       |      |       |   |
|-----------------|--------|--------|--------|------|---------|-------|------|-------|---|
| Quantock Meadow | 24.27  | 24.32  | 863.27 | 0.00 | 822.76  | 0.030 | 0.03 | 4.508 | A |
| Homeberg Way    | 599.34 | 600.40 | 395.55 | 0.00 | 1713.40 | 0.350 | 0.56 | 3.363 | A |

### Main results: (09:00-09:15)

| Name            | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-----------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| Quantock Road   | 419.50                | 420.03              | 208.65                    | 0.00                       | 1502.32           | 0.279 | 0.41            | 3.478     | A   |
| A39             | 527.54                | 528.09              | 205.02                    | 0.00                       | 1848.12           | 0.285 | 0.42            | 2.878     | A   |
| Quantock Meadow | 20.33                 | 20.36               | 722.57                    | 0.00                       | 903.26            | 0.023 | 0.02            | 4.077     | A   |
| Homeberg Way    | 501.92                | 502.50              | 331.09                    | 0.00                       | 1758.39           | 0.285 | 0.42            | 2.979     | A   |

## (Default Analysis Set) - 2013 Obs, PM

### Data Errors and Warnings

*No errors or warnings*

### Analysis Set Details

| Name                   | Description | Locked | Network Flow Scaling Factor (%) | Reason For Scaling Factors |
|------------------------|-------------|--------|---------------------------------|----------------------------|
| (Default Analysis Set) |             |        | 100.000                         |                            |

### Demand Set Details



| Name         | Scenario Name | Time Period Name | Description | Traffic Profile Type | Model Start Time (HH:mm) | Model Finish Time (HH:mm) | Model Time Period Length (min) | Time Segment Length (min) | Single Time Segment Only | Locked |
|--------------|---------------|------------------|-------------|----------------------|--------------------------|---------------------------|--------------------------------|---------------------------|--------------------------|--------|
| 2013 Obs, PM | 2013 Obs      | PM               |             | ONE HOUR             | 16:45                    | 18:15                     | 90                             | 15                        |                          |        |

## Junction Network

### Junctions

| Name       | Junction Type | Arm Order | Grade Separated | Large Roundabout | Junction Delay (s) | Junction LOS |
|------------|---------------|-----------|-----------------|------------------|--------------------|--------------|
| (untitled) | Roundabout    | 1,2,3,4   |                 |                  | 4.19               | A            |

### Junction Network Options

| Driving Side | Lighting       |
|--------------|----------------|
| Left         | Normal/unknown |

## Arms

### Arms

| Name          | Name          | Description |
|---------------|---------------|-------------|
| Quantock Road | Quantock Road |             |
| A39           | A39           |             |

|                        |                 |  |
|------------------------|-----------------|--|
| <b>Quantock Meadow</b> | Quantock Meadow |  |
| <b>Homeberg Way</b>    | Homeberg Way    |  |

## Roundabout Geometry

| Name                   | V - Approach road half-width (m) | E - Entry width (m) | I' - Effective flare length (m) | R - Entry radius (m) | D - Inscribed circle diameter (m) | PHI - Conflict (entry) angle (deg) | Exit Only |
|------------------------|----------------------------------|---------------------|---------------------------------|----------------------|-----------------------------------|------------------------------------|-----------|
| <b>Quantock Road</b>   | 3.90                             | 7.40                | 7.00                            | 15.00                | 40.00                             | 17.00                              |           |
| <b>A39</b>             | 3.70                             | 7.90                | 23.00                           | 18.00                | 40.00                             | 18.00                              |           |
| <b>Quantock Meadow</b> | 3.00                             | 5.50                | 8.00                            | 16.00                | 40.00                             | 20.00                              |           |
| <b>Homeberg Way</b>    | 3.70                             | 8.90                | 21.00                           | 11.00                | 40.00                             | 20.00                              |           |

## Pedestrian Crossings

| Name                   | Crossing Type |
|------------------------|---------------|
| <b>Quantock Road</b>   | None          |
| <b>A39</b>             | None          |
| <b>Quantock Meadow</b> | None          |
| <b>Homeberg Way</b>    | None          |

## Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

| Name            | Enter slope and intercept directly | Entered slope | Entered intercept (PCU/hr) | Final Slope | Final Intercept (PCU/hr) |
|-----------------|------------------------------------|---------------|----------------------------|-------------|--------------------------|
| Quantock Road   |                                    | (calculated)  | (calculated)               | 0.638       | 1635.381                 |
| A39             |                                    | (calculated)  | (calculated)               | 0.712       | 1994.006                 |
| Quantock Meadow |                                    | (calculated)  | (calculated)               | 0.572       | 1316.692                 |
| Homeberg Way    |                                    | (calculated)  | (calculated)               | 0.698       | 1989.535                 |

*The slope and intercept shown above include any corrections and adjustments.*

## Traffic Flows

### Demand Set Data Options

| Default Vehicle Mix | Vehicle Mix Varies Over Time | Vehicle Mix Varies Over Turn | Vehicle Mix Varies Over Entry | Vehicle Mix Source | PCU Factor for a HV (PCU) | Default Turning Proportions | Estimate from entry/exit counts | Turning Proportions Vary Over Time | Turning Proportions Vary Over Turn | Turning Proportions Vary Over Entry |
|---------------------|------------------------------|------------------------------|-------------------------------|--------------------|---------------------------|-----------------------------|---------------------------------|------------------------------------|------------------------------------|-------------------------------------|
|                     |                              | ✓                            | ✓                             | HV Percentages     | 2.00                      |                             |                                 |                                    | ✓                                  | ✓                                   |

## Entry Flows

### General Flows Data

| Name          | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (%) |
|---------------|--------------|--------------------|------------------------------|-------------------------|
| Quantock Road | ONE HOUR     | ✓                  | 675.00                       | 100.000                 |

|                        |          |   |        |         |
|------------------------|----------|---|--------|---------|
| <b>A39</b>             | ONE HOUR | ✓ | 640.00 | 100.000 |
| <b>Quantock Meadow</b> | ONE HOUR | ✓ | 14.00  | 100.000 |
| <b>Homeberg Way</b>    | ONE HOUR | ✓ | 539.00 | 100.000 |

## Turning Proportions

Turning Counts or Proportions (Veh/hr) - (untitled) (for whole period)

|      | To |         |         |       |         |
|------|----|---------|---------|-------|---------|
| From |    | 1       | 2       | 3     | 4       |
|      | 1  | 0.000   | 348.000 | 4.000 | 323.000 |
|      | 2  | 344.000 | 0.000   | 5.000 | 291.000 |
|      | 3  | 7.000   | 1.000   | 0.000 | 6.000   |
|      | 4  | 261.000 | 269.000 | 9.000 | 0.000   |

Turning Proportions (Veh) - (untitled) (for whole period)

|      | To |      |      |      |      |
|------|----|------|------|------|------|
| From |    | 1    | 2    | 3    | 4    |
|      | 1  | 0.00 | 0.52 | 0.01 | 0.48 |
|      | 2  | 0.54 | 0.00 | 0.01 | 0.45 |

|  |   |      |      |      |      |
|--|---|------|------|------|------|
|  | 3 | 0.50 | 0.07 | 0.00 | 0.43 |
|  | 4 | 0.48 | 0.50 | 0.02 | 0.00 |

# Vehicle Mix

Average PCU Per Vehicle - (untitled) (for whole period)

|      |   |       |       |       |       |
|------|---|-------|-------|-------|-------|
|      |   | To    |       |       |       |
|      |   | 1     | 2     | 3     | 4     |
| From | 1 | 1.000 | 1.020 | 1.000 | 1.020 |
|      | 2 | 1.010 | 1.000 | 1.000 | 1.030 |
|      | 3 | 1.000 | 1.000 | 1.000 | 1.000 |
|      | 4 | 1.010 | 1.020 | 1.000 | 1.000 |

Heavy Vehicle Percentages - (untitled) (for whole period)

|      |   |       |       |       |       |
|------|---|-------|-------|-------|-------|
|      |   | To    |       |       |       |
|      |   | 1     | 2     | 3     | 4     |
| From | 1 | 0.000 | 2.000 | 0.000 | 2.000 |
|      | 2 | 1.000 | 0.000 | 0.000 | 3.000 |
|      | 3 | 0.000 | 0.000 | 0.000 | 0.000 |

|  |   |       |       |       |       |
|--|---|-------|-------|-------|-------|
|  | 4 | 1.000 | 2.000 | 0.000 | 0.000 |
|--|---|-------|-------|-------|-------|

# Results

## Results Summary for whole modelled period

| Name            | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|-----------------|---------|---------------|-----------------|---------|
| Quantock Road   | 0.53    | 5.42          | 1.13            | A       |
| A39             | 0.42    | 3.64          | 0.72            | A       |
| Quantock Meadow | 0.02    | 5.25          | 0.02            | A       |
| Homeberg Way    | 0.35    | 3.28          | 0.55            | A       |

## Main Results for each time segment

### Main results: (16:45-17:00)

| Name          | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|---------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| Quantock Road | 518.28                | 516.14              | 213.47                    | 0.00                       | 1499.24           | 0.346 | 0.54            | 3.727     | A   |
| A39           | 490.99                | 489.48              | 256.76                    | 0.00                       | 1811.30           | 0.271 | 0.38            | 2.773     | A   |

|                 |        |        |        |      |         |       |      |       |   |
|-----------------|--------|--------|--------|------|---------|-------|------|-------|---|
| Quantock Meadow | 10.54  | 10.49  | 732.74 | 0.00 | 897.44  | 0.012 | 0.01 | 4.058 | A |
| Homeberg Way    | 411.80 | 410.61 | 266.76 | 0.00 | 1803.31 | 0.228 | 0.30 | 2.620 | A |

#### Main results: (17:00-17:15)

| Name            | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-----------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| Quantock Road   | 618.88                | 618.08              | 255.46                    | 0.00                       | 1472.47           | 0.420 | 0.73            | 4.294     | A   |
| A39             | 586.29                | 585.80              | 307.47                    | 0.00                       | 1775.22           | 0.330 | 0.50            | 3.082     | A   |
| Quantock Meadow | 12.59                 | 12.57               | 877.10                    | 0.00                       | 814.84            | 0.015 | 0.02            | 4.486     | A   |
| Homeberg Way    | 491.73                | 491.37              | 319.26                    | 0.00                       | 1766.65           | 0.278 | 0.39            | 2.864     | A   |

#### Main results: (17:15-17:30)

| Name            | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-----------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| Quantock Road   | 757.96                | 756.39              | 312.78                    | 0.00                       | 1435.91           | 0.528 | 1.13            | 5.391     | A   |
| A39             | 718.05                | 717.17              | 376.28                    | 0.00                       | 1726.26           | 0.416 | 0.72            | 3.632     | A   |
| Quantock Meadow | 15.41                 | 15.39               | 1073.66                   | 0.00                       | 702.38            | 0.022 | 0.02            | 5.239     | A   |
| Homeberg Way    | 602.25                | 601.62              | 390.86                    | 0.00                       | 1716.67           | 0.351 | 0.55            | 3.274     | A   |

#### Main results: (17:30-17:45)

| Name            | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-----------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| Quantock Road   | 757.96                | 757.94              | 313.10                    | 0.00                       | 1435.71           | 0.528 | 1.13            | 5.416     | A   |
| A39             | 718.05                | 718.04              | 377.04                    | 0.00                       | 1725.72           | 0.416 | 0.72            | 3.639     | A   |
| Quantock Meadow | 15.41                 | 15.41               | 1075.27                   | 0.00                       | 701.46            | 0.022 | 0.02            | 5.246     | A   |
| Homeberg Way    | 602.25                | 602.24              | 391.34                    | 0.00                       | 1716.34           | 0.351 | 0.55            | 3.278     | A   |

#### Main results: (17:45-18:00)

| Name            | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-----------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| Quantock Road   | 618.88                | 620.43              | 255.97                    | 0.00                       | 1472.14           | 0.420 | 0.75            | 4.318     | A   |
| A39             | 586.29                | 587.16              | 308.63                    | 0.00                       | 1774.40           | 0.330 | 0.51            | 3.091     | A   |
| Quantock Meadow | 12.59                 | 12.61               | 879.58                    | 0.00                       | 813.42            | 0.015 | 0.02            | 4.496     | A   |
| Homeberg Way    | 491.73                | 492.35              | 320.01                    | 0.00                       | 1766.13           | 0.278 | 0.39            | 2.868     | A   |

#### Main results: (18:00-18:15)

| Name          | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|---------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| Quantock Road | 518.28                | 519.09              | 214.29                    | 0.00                       | 1498.73           | 0.346 | 0.54            | 3.753     | A   |
| A39           | 490.99                | 491.49              | 258.22                    | 0.00                       | 1810.27           | 0.271 | 0.38            | 2.784     | A   |



|                 |        |        |        |      |         |       |      |       |   |
|-----------------|--------|--------|--------|------|---------|-------|------|-------|---|
| Quantock Meadow | 10.54  | 10.56  | 736.14 | 0.00 | 895.49  | 0.012 | 0.01 | 4.069 | A |
| Homeberg Way    | 411.80 | 412.17 | 267.87 | 0.00 | 1802.53 | 0.228 | 0.30 | 2.627 | A |

## (Default Analysis Set) - 2016 Base, AM

### Data Errors and Warnings

*No errors or warnings*

### Analysis Set Details

| Name                   | Description | Locked | Network Flow Scaling Factor (%) | Reason For Scaling Factors |
|------------------------|-------------|--------|---------------------------------|----------------------------|
| (Default Analysis Set) |             |        | 100.000                         |                            |

### Demand Set Details

| Name          | Scenario Name | Time Period Name | Description | Traffic Profile Type | Model Start Time (HH:mm) | Model Finish Time (HH:mm) | Model Time Period Length (min) | Time Segment Length (min) | Single Time Segment Only | Locked |
|---------------|---------------|------------------|-------------|----------------------|--------------------------|---------------------------|--------------------------------|---------------------------|--------------------------|--------|
| 2016 Base, AM | 2016 Base     | AM               |             | ONE HOUR             | 07:45                    | 09:15                     | 90                             | 15                        |                          |        |

## Junction Network

### Junctions

| Name | Junction Type | Arm Order | Grade Separated | Large Roundabout | Junction Delay (s) | Junction LOS |
|------|---------------|-----------|-----------------|------------------|--------------------|--------------|
|------|---------------|-----------|-----------------|------------------|--------------------|--------------|

|            |            |         |  |  |      |   |
|------------|------------|---------|--|--|------|---|
| (untitled) | Roundabout | 1,2,3,4 |  |  | 4.66 | A |
|------------|------------|---------|--|--|------|---|

## Junction Network Options

| Driving Side | Lighting       |
|--------------|----------------|
| Left         | Normal/unknown |

# Arms

## Arms

| Name            | Name            | Description |
|-----------------|-----------------|-------------|
| Quantock Road   | Quantock Road   |             |
| A39             | A39             |             |
| Quantock Meadow | Quantock Meadow |             |
| Homeberg Way    | Homeberg Way    |             |

## Roundabout Geometry

| Name          | V - Approach road half-width (m) | E - Entry width (m) | I' - Effective flare length (m) | R - Entry radius (m) | D - Inscribed circle diameter (m) | PHI - Conflict (entry) angle (deg) | Exit Only |
|---------------|----------------------------------|---------------------|---------------------------------|----------------------|-----------------------------------|------------------------------------|-----------|
| Quantock Road | 3.90                             | 7.40                | 7.00                            | 15.00                | 40.00                             | 17.00                              |           |
| A39           | 3.70                             | 7.90                | 23.00                           | 18.00                | 40.00                             | 18.00                              |           |

|                 |      |      |       |       |       |       |  |
|-----------------|------|------|-------|-------|-------|-------|--|
| Quantock Meadow | 3.00 | 5.50 | 8.00  | 16.00 | 40.00 | 20.00 |  |
| Homeberg Way    | 3.70 | 8.90 | 21.00 | 11.00 | 40.00 | 20.00 |  |

## Pedestrian Crossings

| Name            | Crossing Type |
|-----------------|---------------|
| Quantock Road   | None          |
| A39             | None          |
| Quantock Meadow | None          |
| Homeberg Way    | None          |

## Slope / Intercept / Capacity

### Roundabout Slope and Intercept used in model

| Name            | Enter slope and intercept directly | Entered slope | Entered intercept (PCU/hr) | Final Slope | Final Intercept (PCU/hr) |
|-----------------|------------------------------------|---------------|----------------------------|-------------|--------------------------|
| Quantock Road   |                                    | (calculated)  | (calculated)               | 0.638       | 1635.381                 |
| A39             |                                    | (calculated)  | (calculated)               | 0.712       | 1994.006                 |
| Quantock Meadow |                                    | (calculated)  | (calculated)               | 0.572       | 1316.692                 |
| Homeberg Way    |                                    | (calculated)  | (calculated)               | 0.698       | 1989.535                 |

*The slope and intercept shown above include any corrections and adjustments.*

# Traffic Flows

## Demand Set Data Options

| Default Vehicle Mix | Vehicle Mix Varies Over Time | Vehicle Mix Varies Over Turn | Vehicle Mix Varies Over Entry | Vehicle Mix Source | PCU Factor for a HV (PCU) | Default Turning Proportions | Estimate from entry/exit counts | Turning Proportions Vary Over Time | Turning Proportions Vary Over Turn | Turning Proportions Vary Over Entry |
|---------------------|------------------------------|------------------------------|-------------------------------|--------------------|---------------------------|-----------------------------|---------------------------------|------------------------------------|------------------------------------|-------------------------------------|
|                     |                              | ✓                            | ✓                             | HV Percentages     | 2.00                      |                             |                                 |                                    | ✓                                  | ✓                                   |

# Entry Flows

## General Flows Data

| Name            | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (%) |
|-----------------|--------------|--------------------|------------------------------|-------------------------|
| Quantock Road   | ONE HOUR     | ✓                  | 559.00                       | 100.000                 |
| A39             | ONE HOUR     | ✓                  | 709.00                       | 100.000                 |
| Quantock Meadow | ONE HOUR     | ✓                  | 27.00                        | 100.000                 |
| Homeberg Way    | ONE HOUR     | ✓                  | 686.00                       | 100.000                 |

# Turning Proportions

Turning Counts or Proportions (Veh/hr) - (untitled) (for whole period)

|  |    |
|--|----|
|  | To |
|--|----|

| From |   | 1       | 2       | 3     | 4       |
|------|---|---------|---------|-------|---------|
|      | 1 | 0.000   | 288.000 | 5.000 | 266.000 |
|      | 2 | 430.000 | 0.000   | 1.000 | 278.000 |
|      | 3 | 14.000  | 1.000   | 0.000 | 12.000  |
|      | 4 | 397.000 | 282.000 | 7.000 | 0.000   |

### Turning Proportions (Veh) - (untitled) (for whole period)

| From | To |      |      |      |      |
|------|----|------|------|------|------|
|      |    | 1    | 2    | 3    | 4    |
|      | 1  | 0.00 | 0.52 | 0.01 | 0.48 |
|      | 2  | 0.61 | 0.00 | 0.00 | 0.39 |
|      | 3  | 0.52 | 0.04 | 0.00 | 0.44 |
|      | 4  | 0.58 | 0.41 | 0.01 | 0.00 |

## Vehicle Mix

### Average PCU Per Vehicle - (untitled) (for whole period)

| From | To |   |   |   |
|------|----|---|---|---|
|      | 1  | 2 | 3 | 4 |

|  |   |       |       |       |       |
|--|---|-------|-------|-------|-------|
|  | 1 | 1.000 | 1.130 | 1.000 | 1.000 |
|  | 2 | 1.070 | 1.000 | 1.000 | 1.120 |
|  | 3 | 1.000 | 1.000 | 1.000 | 1.000 |
|  | 4 | 1.010 | 1.140 | 1.140 | 1.000 |

### Heavy Vehicle Percentages - (untitled) (for whole period)

|      | To |       |        |        |        |
|------|----|-------|--------|--------|--------|
| From | 1  | 2     | 3      | 4      |        |
|      | 1  | 0.000 | 13.000 | 0.000  | 0.000  |
|      | 2  | 7.000 | 0.000  | 0.000  | 12.000 |
|      | 3  | 0.000 | 0.000  | 0.000  | 0.000  |
|      | 4  | 1.000 | 14.000 | 14.000 | 0.000  |

## Results

### Results Summary for whole modelled period

| Name          | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---------------|---------|---------------|-----------------|---------|
| Quantock Road | 0.47    | 5.14          | 0.93            | A       |
| A39           | 0.48    | 4.24          | 1.00            | A       |

|                 |      |      |      |   |
|-----------------|------|------|------|---|
| Quantock Meadow | 0.04 | 5.68 | 0.05 | A |
| Homeberg Way    | 0.50 | 4.67 | 1.04 | A |

## Main Results for each time segment

### Main results: (07:45-08:00)

| Name            | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-----------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| Quantock Road   | 449.03                | 447.18              | 247.90                    | 0.00                       | 1477.29           | 0.304 | 0.46            | 3.722     | A   |
| A39             | 581.55                | 579.55              | 209.17                    | 0.00                       | 1845.17           | 0.315 | 0.50            | 3.089     | A   |
| Quantock Meadow | 20.33                 | 20.23               | 778.23                    | 0.00                       | 871.41            | 0.023 | 0.02            | 4.229     | A   |
| Homeberg Way    | 549.91                | 547.95              | 356.44                    | 0.00                       | 1740.70           | 0.316 | 0.49            | 3.208     | A   |

### Main results: (08:00-08:15)

| Name          | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|---------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| Quantock Road | 536.19                | 535.54              | 296.75                    | 0.00                       | 1446.14           | 0.371 | 0.62            | 4.215     | A   |
| A39           | 694.43                | 693.74              | 250.50                    | 0.00                       | 1815.76           | 0.382 | 0.67            | 3.494     | A   |

|                 |        |        |        |      |         |       |      |       |   |
|-----------------|--------|--------|--------|------|---------|-------|------|-------|---|
| Quantock Meadow | 24.27  | 24.24  | 931.68 | 0.00 | 783.61  | 0.031 | 0.03 | 4.740 | A |
| Homeberg Way    | 656.64 | 655.91 | 426.68 | 0.00 | 1691.67 | 0.388 | 0.67 | 3.699 | A |

#### Main results: (08:15-08:30)

| Name            | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-----------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| Quantock Road   | 656.69                | 655.48              | 363.19                    | 0.00                       | 1403.77           | 0.468 | 0.93            | 5.124     | A   |
| A39             | 850.49                | 849.21              | 306.59                    | 0.00                       | 1775.85           | 0.479 | 0.99            | 4.226     | A   |
| Quantock Meadow | 29.73                 | 29.67               | 1140.44                   | 0.00                       | 664.17            | 0.045 | 0.05            | 5.673     | A   |
| Homeberg Way    | 804.22                | 802.77              | 522.29                    | 0.00                       | 1624.92           | 0.495 | 1.03            | 4.653     | A   |

#### Main results: (08:30-08:45)

| Name            | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-----------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| Quantock Road   | 656.69                | 656.67              | 363.83                    | 0.00                       | 1403.36           | 0.468 | 0.93            | 5.143     | A   |
| A39             | 850.49                | 850.48              | 307.15                    | 0.00                       | 1775.45           | 0.479 | 1.00            | 4.240     | A   |
| Quantock Meadow | 29.73                 | 29.73               | 1142.24                   | 0.00                       | 663.14            | 0.045 | 0.05            | 5.682     | A   |
| Homeberg Way    | 804.22                | 804.20              | 523.08                    | 0.00                       | 1624.37           | 0.495 | 1.04            | 4.673     | A   |

#### Main results: (08:45-09:00)



| Name            | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-----------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| Quantock Road   | 536.19                | 537.39              | 297.72                    | 0.00                       | 1445.52           | 0.371 | 0.63            | 4.234     | A   |
| A39             | 694.43                | 695.70              | 251.36                    | 0.00                       | 1815.15           | 0.383 | 0.68            | 3.509     | A   |
| Quantock Meadow | 24.27                 | 24.33               | 934.46                    | 0.00                       | 782.02            | 0.031 | 0.03            | 4.751     | A   |
| Homeberg Way    | 656.64                | 658.07              | 427.90                    | 0.00                       | 1690.82           | 0.388 | 0.68            | 3.715     | A   |

#### Main results: (09:00-09:15)

| Name            | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-----------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| Quantock Road   | 449.03                | 449.69              | 249.12                    | 0.00                       | 1476.51           | 0.304 | 0.47            | 3.745     | A   |
| A39             | 581.55                | 582.25              | 210.34                    | 0.00                       | 1844.34           | 0.315 | 0.50            | 3.111     | A   |
| Quantock Meadow | 20.33                 | 20.36               | 782.05                    | 0.00                       | 869.23            | 0.023 | 0.02            | 4.242     | A   |
| Homeberg Way    | 549.91                | 550.65              | 358.12                    | 0.00                       | 1739.53           | 0.316 | 0.49            | 3.227     | A   |

## (Default Analysis Set) - 2016 Base, PM

### Data Errors and Warnings

*No errors or warnings*

### Analysis Set Details

| Name                   | Description | Locked | Network Flow Scaling Factor (%) | Reason For Scaling Factors |
|------------------------|-------------|--------|---------------------------------|----------------------------|
| (Default Analysis Set) |             |        | 100.000                         |                            |

## Demand Set Details

| Name          | Scenario Name | Time Period Name | Description | Traffic Profile Type | Model Start Time (HH:mm) | Model Finish Time (HH:mm) | Model Time Period Length (min) | Time Segment Length (min) | Single Time Segment Only | Locked |
|---------------|---------------|------------------|-------------|----------------------|--------------------------|---------------------------|--------------------------------|---------------------------|--------------------------|--------|
| 2016 Base, PM | 2016 Base     | PM               |             | ONE HOUR             | 16:45                    | 18:15                     | 90                             | 15                        |                          |        |

# Junction Network

## Junctions

| Name       | Junction Type | Arm Order | Grade Separated | Large Roundabout | Junction Delay (s) | Junction LOS |
|------------|---------------|-----------|-----------------|------------------|--------------------|--------------|
| (untitled) | Roundabout    | 1,2,3,4   |                 |                  | 5.23               | A            |

## Junction Network Options

| Driving Side | Lighting       |
|--------------|----------------|
| Left         | Normal/unknown |

# Arms

## Arms

| Name            | Name            | Description |
|-----------------|-----------------|-------------|
| Quantock Road   | Quantock Road   |             |
| A39             | A39             |             |
| Quantock Meadow | Quantock Meadow |             |
| Homeberg Way    | Homeberg Way    |             |

## Roundabout Geometry

| Name            | V - Approach road half-width (m) | E - Entry width (m) | I' - Effective flare length (m) | R - Entry radius (m) | D - Inscribed circle diameter (m) | PHI - Conflict (entry) angle (deg) | Exit Only |
|-----------------|----------------------------------|---------------------|---------------------------------|----------------------|-----------------------------------|------------------------------------|-----------|
| Quantock Road   | 3.90                             | 7.40                | 7.00                            | 15.00                | 40.00                             | 17.00                              |           |
| A39             | 3.70                             | 7.90                | 23.00                           | 18.00                | 40.00                             | 18.00                              |           |
| Quantock Meadow | 3.00                             | 5.50                | 8.00                            | 16.00                | 40.00                             | 20.00                              |           |
| Homeberg Way    | 3.70                             | 8.90                | 21.00                           | 11.00                | 40.00                             | 20.00                              |           |

## Pedestrian Crossings

| Name            | Crossing Type |
|-----------------|---------------|
| Quantock Road   | None          |
| A39             | None          |
| Quantock Meadow | None          |

|              |      |
|--------------|------|
| Homeberg Way | None |
|--------------|------|

## Slope / Intercept / Capacity

### Roundabout Slope and Intercept used in model

| Name            | Enter slope and intercept directly | Entered slope | Entered intercept (PCU/hr) | Final Slope | Final Intercept (PCU/hr) |
|-----------------|------------------------------------|---------------|----------------------------|-------------|--------------------------|
| Quantock Road   |                                    | (calculated)  | (calculated)               | 0.638       | 1635.381                 |
| A39             |                                    | (calculated)  | (calculated)               | 0.712       | 1994.006                 |
| Quantock Meadow |                                    | (calculated)  | (calculated)               | 0.572       | 1316.692                 |
| Homeberg Way    |                                    | (calculated)  | (calculated)               | 0.698       | 1989.535                 |

*The slope and intercept shown above include any corrections and adjustments.*

## Traffic Flows

### Demand Set Data Options

| Default Vehicle Mix | Vehicle Mix Varies Over Time | Vehicle Mix Varies Over Turn | Vehicle Mix Varies Over Entry | Vehicle Mix Source | PCU Factor for a HV (PCU) | Default Turning Proportions | Estimate from entry/exit counts | Turning Proportions Vary Over Time | Turning Proportions Vary Over Turn | Turning Proportions Vary Over Entry |
|---------------------|------------------------------|------------------------------|-------------------------------|--------------------|---------------------------|-----------------------------|---------------------------------|------------------------------------|------------------------------------|-------------------------------------|
|                     |                              | ✓                            | ✓                             | HV Percentages     | 2.00                      |                             |                                 |                                    | ✓                                  | ✓                                   |

## Entry Flows

## General Flows Data

| Name            | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (%) |
|-----------------|--------------|--------------------|------------------------------|-------------------------|
| Quantock Road   | ONE HOUR     | ✓                  | 718.00                       | 100.000                 |
| A39             | ONE HOUR     | ✓                  | 746.00                       | 100.000                 |
| Quantock Meadow | ONE HOUR     | ✓                  | 14.00                        | 100.000                 |
| Homeberg Way    | ONE HOUR     | ✓                  | 583.00                       | 100.000                 |

## Turning Proportions

### Turning Counts or Proportions (Veh/hr) - (untitled) (for whole period)

|      | To |         |         |       |         |
|------|----|---------|---------|-------|---------|
| From |    | 1       | 2       | 3     | 4       |
|      | 1  | 0.000   | 382.000 | 4.000 | 332.000 |
|      | 2  | 378.000 | 0.000   | 5.000 | 363.000 |
|      | 3  | 7.000   | 1.000   | 0.000 | 6.000   |
|      | 4  | 268.000 | 306.000 | 9.000 | 0.000   |

### Turning Proportions (Veh) - (untitled) (for whole period)

|  | To |
|--|----|
|--|----|

| From |   | 1    | 2    | 3    | 4    |
|------|---|------|------|------|------|
|      | 1 | 0.00 | 0.53 | 0.01 | 0.46 |
|      | 2 | 0.51 | 0.00 | 0.01 | 0.49 |
|      | 3 | 0.50 | 0.07 | 0.00 | 0.43 |
|      | 4 | 0.46 | 0.52 | 0.02 | 0.00 |

## Vehicle Mix

Average PCU Per Vehicle - (untitled) (for whole period)

|      | To |       |       |       |       |
|------|----|-------|-------|-------|-------|
| From |    | 1     | 2     | 3     | 4     |
|      | 1  | 1.000 | 1.080 | 1.000 | 1.020 |
|      | 2  | 1.080 | 1.000 | 1.000 | 1.120 |
|      | 3  | 1.000 | 1.000 | 1.000 | 1.000 |
|      | 4  | 1.010 | 1.100 | 1.000 | 1.000 |

Heavy Vehicle Percentages - (untitled) (for whole period)

|  | From | To |   |   |   |
|--|------|----|---|---|---|
|  |      | 1  | 2 | 3 | 4 |

|  |   |       |        |       |        |
|--|---|-------|--------|-------|--------|
|  | 1 | 0.000 | 8.000  | 0.000 | 2.000  |
|  | 2 | 8.000 | 0.000  | 0.000 | 12.000 |
|  | 3 | 0.000 | 0.000  | 0.000 | 0.000  |
|  | 4 | 1.000 | 10.000 | 0.000 | 0.000  |

# Results

## Results Summary for whole modelled period

| Name            | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|-----------------|---------|---------------|-----------------|---------|
| Quantock Road   | 0.60    | 6.75          | 1.55            | A       |
| A39             | 0.53    | 4.85          | 1.21            | A       |
| Quantock Meadow | 0.03    | 6.26          | 0.03            | A       |
| Homeberg Way    | 0.41    | 3.84          | 0.72            | A       |

## Main Results for each time segment

Main results: (16:45-17:00)

| Name            | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-----------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| Quantock Road   | 568.55                | 565.92              | 260.10                    | 0.00                       | 1469.51           | 0.387 | 0.66            | 4.179     | A   |
| A39             | 617.19                | 614.92              | 263.52                    | 0.00                       | 1806.50           | 0.342 | 0.57            | 3.315     | A   |
| Quantock Meadow | 10.54                 | 10.49               | 864.93                    | 0.00                       | 821.80            | 0.013 | 0.01            | 4.437     | A   |
| Homeberg Way    | 463.97                | 462.47              | 312.21                    | 0.00                       | 1771.58           | 0.262 | 0.37            | 2.905     | A   |

#### Main results: (17:00-17:15)

| Name            | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-----------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| Quantock Road   | 678.91                | 677.81              | 311.31                    | 0.00                       | 1436.85           | 0.473 | 0.93            | 4.981     | A   |
| A39             | 736.98                | 736.14              | 315.61                    | 0.00                       | 1769.43           | 0.417 | 0.78            | 3.824     | A   |
| Quantock Meadow | 12.59                 | 12.57               | 1035.59                   | 0.00                       | 724.16            | 0.017 | 0.02            | 5.058     | A   |
| Homeberg Way    | 554.02                | 553.53              | 373.76                    | 0.00                       | 1728.61           | 0.321 | 0.50            | 3.236     | A   |

#### Main results: (17:15-17:30)

| Name          | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|---------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| Quantock Road | 831.49                | 829.09              | 381.11                    | 0.00                       | 1392.34           | 0.597 | 1.53            | 6.695     | A   |
| A39           | 902.62                | 900.93              | 386.06                    | 0.00                       | 1719.30           | 0.525 | 1.20            | 4.824     | A   |



|                 |        |        |         |      |         |       |      |       |   |
|-----------------|--------|--------|---------|------|---------|-------|------|-------|---|
| Quantock Meadow | 15.41  | 15.38  | 1267.21 | 0.00 | 591.63  | 0.026 | 0.03 | 6.246 | A |
| Homeberg Way    | 678.54 | 677.65 | 457.43  | 0.00 | 1670.20 | 0.406 | 0.72 | 3.830 | A |

### Main results: (17:30-17:45)

| Name            | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-----------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| Quantock Road   | 831.49                | 831.43              | 381.61                    | 0.00                       | 1392.02           | 0.597 | 1.55            | 6.751     | A   |
| A39             | 902.62                | 902.59              | 387.14                    | 0.00                       | 1718.54           | 0.525 | 1.21            | 4.848     | A   |
| Quantock Meadow | 15.41                 | 15.41               | 1269.91                   | 0.00                       | 590.09            | 0.026 | 0.03            | 6.263     | A   |
| Homeberg Way    | 678.54                | 678.53              | 458.27                    | 0.00                       | 1669.61           | 0.406 | 0.72            | 3.838     | A   |

### Main results: (17:45-18:00)

| Name            | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-----------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| Quantock Road   | 678.91                | 681.28              | 312.08                    | 0.00                       | 1436.36           | 0.473 | 0.95            | 5.031     | A   |
| A39             | 736.98                | 738.65              | 317.21                    | 0.00                       | 1768.29           | 0.417 | 0.79            | 3.848     | A   |
| Quantock Meadow | 12.59                 | 12.62               | 1039.64                   | 0.00                       | 721.84            | 0.017 | 0.02            | 5.077     | A   |
| Homeberg Way    | 554.02                | 554.90              | 375.04                    | 0.00                       | 1727.71           | 0.321 | 0.50            | 3.246     | A   |

### Main results: (18:00-18:15)

| Name            | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-----------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| Quantock Road   | 568.55                | 569.69              | 261.22                    | 0.00                       | 1468.80           | 0.387 | 0.67            | 4.218     | A   |
| A39             | 617.19                | 618.06              | 265.25                    | 0.00                       | 1805.26           | 0.342 | 0.57            | 3.336     | A   |
| Quantock Meadow | 10.54                 | 10.56               | 869.74                    | 0.00                       | 819.05            | 0.013 | 0.01            | 4.454     | A   |
| Homeberg Way    | 463.97                | 464.47              | 313.81                    | 0.00                       | 1770.46           | 0.262 | 0.38            | 2.916     | A   |

## (Default Analysis Set) - 2016 Dev, AM

### Data Errors and Warnings

*No errors or warnings*

### Analysis Set Details

| Name                   | Description | Locked | Network Flow Scaling Factor (%) | Reason For Scaling Factors |
|------------------------|-------------|--------|---------------------------------|----------------------------|
| (Default Analysis Set) |             |        | 100.000                         |                            |

### Demand Set Details

| Name         | Scenario Name | Time Period Name | Description | Traffic Profile Type | Model Start Time (HH:mm) | Model Finish Time (HH:mm) | Model Time Period Length (min) | Time Segment Length (min) | Single Time Segment Only | Locked |
|--------------|---------------|------------------|-------------|----------------------|--------------------------|---------------------------|--------------------------------|---------------------------|--------------------------|--------|
| 2016 Dev, AM | 2016 Dev      | AM               |             | ONE HOUR             | 07:45                    | 09:15                     | 90                             | 15                        |                          |        |

# Junction Network

## Junctions

| Name       | Junction Type | Arm Order | Grade Separated | Large Roundabout | Junction Delay (s) | Junction LOS |
|------------|---------------|-----------|-----------------|------------------|--------------------|--------------|
| (untitled) | Roundabout    | 1,2,3,4   |                 |                  | 5.07               | A            |

## Junction Network Options

| Driving Side | Lighting       |
|--------------|----------------|
| Left         | Normal/unknown |

# Arms

## Arms

| Name            | Name            | Description |
|-----------------|-----------------|-------------|
| Quantock Road   | Quantock Road   |             |
| A39             | A39             |             |
| Quantock Meadow | Quantock Meadow |             |
| Homeberg Way    | Homeberg Way    |             |

## Roundabout Geometry

| Name            | V - Approach road half-width (m) | E - Entry width (m) | I' - Effective flare length (m) | R - Entry radius (m) | D - Inscribed circle diameter (m) | PHI - Conflict (entry) angle (deg) | Exit Only |
|-----------------|----------------------------------|---------------------|---------------------------------|----------------------|-----------------------------------|------------------------------------|-----------|
| Quantock Road   | 3.90                             | 7.40                | 7.00                            | 15.00                | 40.00                             | 17.00                              |           |
| A39             | 3.70                             | 7.90                | 23.00                           | 18.00                | 40.00                             | 18.00                              |           |
| Quantock Meadow | 3.00                             | 5.50                | 8.00                            | 16.00                | 40.00                             | 20.00                              |           |
| Homeberg Way    | 3.70                             | 8.90                | 21.00                           | 11.00                | 40.00                             | 20.00                              |           |

### Pedestrian Crossings

| Name            | Crossing Type |
|-----------------|---------------|
| Quantock Road   | None          |
| A39             | None          |
| Quantock Meadow | None          |
| Homeberg Way    | None          |

### Slope / Intercept / Capacity

#### Roundabout Slope and Intercept used in model

| Name          | Enter slope and intercept directly | Entered slope | Entered intercept (PCU/hr) | Final Slope | Final Intercept (PCU/hr) |
|---------------|------------------------------------|---------------|----------------------------|-------------|--------------------------|
| Quantock Road |                                    | (calculated)  | (calculated)               | 0.638       | 1635.381                 |
| A39           |                                    | (calculated)  | (calculated)               | 0.712       | 1994.006                 |

|                 |  |              |              |       |          |
|-----------------|--|--------------|--------------|-------|----------|
| Quantock Meadow |  | (calculated) | (calculated) | 0.572 | 1316.692 |
| Homeberg Way    |  | (calculated) | (calculated) | 0.698 | 1989.535 |

*The slope and intercept shown above include any corrections and adjustments.*

## Traffic Flows

### Demand Set Data Options

| Default Vehicle Mix | Vehicle Mix Varies Over Time | Vehicle Mix Varies Over Turn | Vehicle Mix Varies Over Entry | Vehicle Mix Source | PCU Factor for a HV (PCU) | Default Turning Proportions | Estimate from entry/exit counts | Turning Proportions Vary Over Time | Turning Proportions Vary Over Turn | Turning Proportions Vary Over Entry |
|---------------------|------------------------------|------------------------------|-------------------------------|--------------------|---------------------------|-----------------------------|---------------------------------|------------------------------------|------------------------------------|-------------------------------------|
|                     |                              | ✓                            | ✓                             | HV Percentages     | 2.00                      |                             |                                 |                                    | ✓                                  | ✓                                   |

## Entry Flows

### General Flows Data

| Name            | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (%) |
|-----------------|--------------|--------------------|------------------------------|-------------------------|
| Quantock Road   | ONE HOUR     | ✓                  | 559.00                       | 100.000                 |
| A39             | ONE HOUR     | ✓                  | 715.00                       | 100.000                 |
| Quantock Meadow | ONE HOUR     | ✓                  | 27.00                        | 100.000                 |
| Homeberg Way    | ONE HOUR     | ✓                  | 769.00                       | 100.000                 |

# Turning Proportions

Turning Counts or Proportions (Veh/hr) - (untitled) (for whole period)

|      | To |         |         |       |         |
|------|----|---------|---------|-------|---------|
| From |    | 1       | 2       | 3     | 4       |
|      | 1  | 0.000   | 288.000 | 5.000 | 266.000 |
|      | 2  | 430.000 | 0.000   | 1.000 | 284.000 |
|      | 3  | 14.000  | 1.000   | 0.000 | 12.000  |
|      | 4  | 397.000 | 365.000 | 7.000 | 0.000   |

Turning Proportions (Veh) - (untitled) (for whole period)

|      | To |      |      |      |      |
|------|----|------|------|------|------|
| From |    | 1    | 2    | 3    | 4    |
|      | 1  | 0.00 | 0.52 | 0.01 | 0.48 |
|      | 2  | 0.60 | 0.00 | 0.00 | 0.40 |
|      | 3  | 0.52 | 0.04 | 0.00 | 0.44 |
|      | 4  | 0.52 | 0.47 | 0.01 | 0.00 |

## Vehicle Mix

### Average PCU Per Vehicle - (untitled) (for whole period)

|      | To |       |       |       |       |
|------|----|-------|-------|-------|-------|
| From |    | 1     | 2     | 3     | 4     |
|      | 1  | 1.000 | 1.130 | 1.000 | 1.000 |
|      | 2  | 1.070 | 1.000 | 1.000 | 1.140 |
|      | 3  | 1.000 | 1.000 | 1.000 | 1.000 |
|      | 4  | 1.010 | 1.130 | 1.140 | 1.000 |

### Heavy Vehicle Percentages - (untitled) (for whole period)

|      | To |       |        |        |        |
|------|----|-------|--------|--------|--------|
| From |    | 1     | 2      | 3      | 4      |
|      | 1  | 0.000 | 13.000 | 0.000  | 0.000  |
|      | 2  | 7.000 | 0.000  | 0.000  | 14.000 |
|      | 3  | 0.000 | 0.000  | 0.000  | 0.000  |
|      | 4  | 1.000 | 13.000 | 14.000 | 0.000  |

## Results

### Results Summary for whole modelled period

| Name | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|------|---------|---------------|-----------------|---------|
|------|---------|---------------|-----------------|---------|

|                 |      |      |      |   |
|-----------------|------|------|------|---|
| Quantock Road   | 0.49 | 5.62 | 1.02 | A |
| A39             | 0.49 | 4.34 | 1.04 | A |
| Quantock Meadow | 0.05 | 5.75 | 0.05 | A |
| Homeberg Way    | 0.56 | 5.34 | 1.33 | A |

## Main Results for each time segment

### Main results: (07:45-08:00)

| Name            | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-----------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| Quantock Road   | 449.03                | 447.10              | 316.07                    | 0.00                       | 1433.81           | 0.313 | 0.48            | 3.886     | A   |
| A39             | 590.88                | 588.83              | 209.13                    | 0.00                       | 1845.20           | 0.320 | 0.51            | 3.139     | A   |
| Quantock Meadow | 20.33                 | 20.23               | 787.47                    | 0.00                       | 866.12            | 0.023 | 0.02            | 4.256     | A   |
| Homeberg Way    | 618.39                | 616.05              | 356.42                    | 0.00                       | 1740.71           | 0.355 | 0.59            | 3.411     | A   |

### Main results: (08:00-08:15)

| Name | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC | End Queue (PCU) | Delay (s) | LOS |
|------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-----|-----------------|-----------|-----|
|------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-----|-----------------|-----------|-----|



|                 |        |        |        |      |         |       |      |       |   |
|-----------------|--------|--------|--------|------|---------|-------|------|-------|---|
| Quantock Road   | 536.19 | 535.47 | 378.37 | 0.00 | 1394.08 | 0.385 | 0.66 | 4.469 | A |
| A39             | 705.57 | 704.86 | 250.46 | 0.00 | 1815.79 | 0.389 | 0.69 | 3.555 | A |
| Quantock Meadow | 24.27  | 24.24  | 942.77 | 0.00 | 777.27  | 0.031 | 0.03 | 4.780 | A |
| Homeberg Way    | 738.42 | 737.48 | 426.67 | 0.00 | 1691.67 | 0.437 | 0.82 | 4.025 | A |

### Main results: (08:15-08:30)

| Name            | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-----------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| Quantock Road   | 656.69                | 655.29              | 462.97                    | 0.00                       | 1340.13           | 0.490 | 1.01            | 5.597     | A   |
| A39             | 864.15                | 862.80              | 306.50                    | 0.00                       | 1775.91           | 0.487 | 1.03            | 4.321     | A   |
| Quantock Meadow | 29.73                 | 29.67               | 1153.94                   | 0.00                       | 656.44            | 0.045 | 0.05            | 5.743     | A   |
| Homeberg Way    | 904.38                | 902.37              | 522.27                    | 0.00                       | 1624.93           | 0.557 | 1.32            | 5.306     | A   |

### Main results: (08:30-08:45)

| Name            | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-----------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| Quantock Road   | 656.69                | 656.67              | 463.98                    | 0.00                       | 1339.49           | 0.490 | 1.02            | 5.624     | A   |
| A39             | 864.15                | 864.13              | 307.15                    | 0.00                       | 1775.45           | 0.487 | 1.04            | 4.336     | A   |
| Quantock Meadow | 29.73                 | 29.73               | 1155.89                   | 0.00                       | 655.33            | 0.045 | 0.05            | 5.753     | A   |

|              |        |        |        |      |         |       |      |       |   |
|--------------|--------|--------|--------|------|---------|-------|------|-------|---|
| Homeberg Way | 904.38 | 904.34 | 523.08 | 0.00 | 1624.37 | 0.557 | 1.33 | 5.340 | A |
|--------------|--------|--------|--------|------|---------|-------|------|-------|---|

#### Main results: (08:45-09:00)

| Name            | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-----------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| Quantock Road   | 536.19                | 537.57              | 379.88                    | 0.00                       | 1393.12           | 0.385 | 0.67            | 4.498     | A   |
| A39             | 705.57                | 706.91              | 251.45                    | 0.00                       | 1815.09           | 0.389 | 0.70            | 3.572     | A   |
| Quantock Meadow | 24.27                 | 24.33               | 945.75                    | 0.00                       | 775.56            | 0.031 | 0.03            | 4.792     | A   |
| Homeberg Way    | 738.42                | 740.41              | 427.92                    | 0.00                       | 1690.80           | 0.437 | 0.83            | 4.055     | A   |

#### Main results: (09:00-09:15)

| Name            | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-----------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| Quantock Road   | 449.03                | 449.76              | 317.77                    | 0.00                       | 1432.73           | 0.313 | 0.49            | 3.910     | A   |
| A39             | 590.88                | 591.61              | 210.37                    | 0.00                       | 1844.31           | 0.320 | 0.52            | 3.158     | A   |
| Quantock Meadow | 20.33                 | 20.36               | 791.44                    | 0.00                       | 863.85            | 0.024 | 0.02            | 4.267     | A   |
| Homeberg Way    | 618.39                | 619.36              | 358.13                    | 0.00                       | 1739.52           | 0.356 | 0.59            | 3.437     | A   |

## (Default Analysis Set) - 2016 Dev, PM

### Data Errors and Warnings

No errors or warnings

## Analysis Set Details

| Name                   | Description | Locked | Network Flow Scaling Factor (%) | Reason For Scaling Factors |
|------------------------|-------------|--------|---------------------------------|----------------------------|
| (Default Analysis Set) |             |        | 100.000                         |                            |

## Demand Set Details

| Name         | Scenario Name | Time Period Name | Description | Traffic Profile Type | Model Start Time (HH:mm) | Model Finish Time (HH:mm) | Model Time Period Length (min) | Time Segment Length (min) | Single Time Segment Only | Locked |
|--------------|---------------|------------------|-------------|----------------------|--------------------------|---------------------------|--------------------------------|---------------------------|--------------------------|--------|
| 2016 Dev, PM | 2016 Dev      | PM               |             | ONE HOUR             | 16:45                    | 18:15                     | 90                             | 15                        |                          |        |

# Junction Network

## Junctions

| Name       | Junction Type | Arm Order | Grade Separated | Large Roundabout | Junction Delay (s) | Junction LOS |
|------------|---------------|-----------|-----------------|------------------|--------------------|--------------|
| (untitled) | Roundabout    | 1,2,3,4   |                 |                  | 5.53               | A            |

## Junction Network Options

| Driving Side | Lighting       |
|--------------|----------------|
| Left         | Normal/unknown |

# Arms

## Arms

| Name            | Name            | Description |
|-----------------|-----------------|-------------|
| Quantock Road   | Quantock Road   |             |
| A39             | A39             |             |
| Quantock Meadow | Quantock Meadow |             |
| Homeberg Way    | Homeberg Way    |             |

## Roundabout Geometry

| Name            | V - Approach road half-width (m) | E - Entry width (m) | I' - Effective flare length (m) | R - Entry radius (m) | D - Inscribed circle diameter (m) | PHI - Conflict (entry) angle (deg) | Exit Only |
|-----------------|----------------------------------|---------------------|---------------------------------|----------------------|-----------------------------------|------------------------------------|-----------|
| Quantock Road   | 3.90                             | 7.40                | 7.00                            | 15.00                | 40.00                             | 17.00                              |           |
| A39             | 3.70                             | 7.90                | 23.00                           | 18.00                | 40.00                             | 18.00                              |           |
| Quantock Meadow | 3.00                             | 5.50                | 8.00                            | 16.00                | 40.00                             | 20.00                              |           |
| Homeberg Way    | 3.70                             | 8.90                | 21.00                           | 11.00                | 40.00                             | 20.00                              |           |

## Pedestrian Crossings

| Name          | Crossing Type |
|---------------|---------------|
| Quantock Road | None          |

|                 |      |
|-----------------|------|
| A39             | None |
| Quantock Meadow | None |
| Homeberg Way    | None |

## Slope / Intercept / Capacity

### Roundabout Slope and Intercept used in model

| Name            | Enter slope and intercept directly | Entered slope | Entered intercept (PCU/hr) | Final Slope | Final Intercept (PCU/hr) |
|-----------------|------------------------------------|---------------|----------------------------|-------------|--------------------------|
| Quantock Road   |                                    | (calculated)  | (calculated)               | 0.638       | 1635.381                 |
| A39             |                                    | (calculated)  | (calculated)               | 0.712       | 1994.006                 |
| Quantock Meadow |                                    | (calculated)  | (calculated)               | 0.572       | 1316.692                 |
| Homeberg Way    |                                    | (calculated)  | (calculated)               | 0.698       | 1989.535                 |

*The slope and intercept shown above include any corrections and adjustments.*

## Traffic Flows

### Demand Set Data Options

| Default Vehicle Mix | Vehicle Mix Varies Over Time | Vehicle Mix Varies Over Turn | Vehicle Mix Varies Over Entry | Vehicle Mix Source | PCU Factor for a HV (PCU) | Default Turning Proportions | Estimate from entry/exit counts | Turning Proportions Vary Over Time | Turning Proportions Vary Over Turn | Turning Proportions Vary Over Entry |
|---------------------|------------------------------|------------------------------|-------------------------------|--------------------|---------------------------|-----------------------------|---------------------------------|------------------------------------|------------------------------------|-------------------------------------|
|                     |                              | ✓                            | ✓                             | HV Percentages     | 2.00                      |                             |                                 |                                    | ✓                                  | ✓                                   |

# Entry Flows

## General Flows Data

| Name            | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (%) |
|-----------------|--------------|--------------------|------------------------------|-------------------------|
| Quantock Road   | ONE HOUR     | ✓                  | 718.00                       | 100.000                 |
| A39             | ONE HOUR     | ✓                  | 830.00                       | 100.000                 |
| Quantock Meadow | ONE HOUR     | ✓                  | 14.00                        | 100.000                 |
| Homeberg Way    | ONE HOUR     | ✓                  | 589.00                       | 100.000                 |

# Turning Proportions

## Turning Counts or Proportions (Veh/hr) - (untitled) (for whole period)

|      | To |         |         |       |         |
|------|----|---------|---------|-------|---------|
| From |    | 1       | 2       | 3     | 4       |
|      | 1  | 0.000   | 382.000 | 4.000 | 332.000 |
|      | 2  | 378.000 | 0.000   | 5.000 | 447.000 |
|      | 3  | 7.000   | 1.000   | 0.000 | 6.000   |
|      | 4  | 268.000 | 312.000 | 9.000 | 0.000   |

## Turning Proportions (Veh) - (untitled) (for whole period)

|      | To |      |      |      |      |
|------|----|------|------|------|------|
| From |    | 1    | 2    | 3    | 4    |
|      | 1  | 0.00 | 0.53 | 0.01 | 0.46 |
|      | 2  | 0.46 | 0.00 | 0.01 | 0.54 |
|      | 3  | 0.50 | 0.07 | 0.00 | 0.43 |
|      | 4  | 0.46 | 0.53 | 0.02 | 0.00 |

## Vehicle Mix

Average PCU Per Vehicle - (untitled) (for whole period)

|      | To |       |       |       |       |
|------|----|-------|-------|-------|-------|
| From |    | 1     | 2     | 3     | 4     |
|      | 1  | 1.000 | 1.080 | 1.000 | 1.020 |
|      | 2  | 1.080 | 1.000 | 1.000 | 1.110 |
|      | 3  | 1.000 | 1.000 | 1.000 | 1.000 |
|      | 4  | 1.010 | 1.120 | 1.000 | 1.000 |

Heavy Vehicle Percentages - (untitled) (for whole period)

|  | To |  |  |  |  |
|--|----|--|--|--|--|
|--|----|--|--|--|--|

| From |   | 1     | 2      | 3     | 4      |
|------|---|-------|--------|-------|--------|
|      | 1 | 0.000 | 8.000  | 0.000 | 2.000  |
|      | 2 | 8.000 | 0.000  | 0.000 | 11.000 |
|      | 3 | 0.000 | 0.000  | 0.000 | 0.000  |
|      | 4 | 1.000 | 12.000 | 0.000 | 0.000  |

## Results

### Results Summary for whole modelled period

| Name            | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|-----------------|---------|---------------|-----------------|---------|
| Quantock Road   | 0.60    | 6.86          | 1.57            | A       |
| A39             | 0.58    | 5.50          | 1.52            | A       |
| Quantock Meadow | 0.03    | 6.95          | 0.03            | A       |
| Homeberg Way    | 0.41    | 3.94          | 0.75            | A       |

### Main Results for each time segment



**Main results: (16:45-17:00)**

| Name            | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-----------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| Quantock Road   | 568.55                | 565.90              | 269.72                    | 0.00                       | 1463.38           | 0.389 | 0.66            | 4.208     | A   |
| A39             | 684.65                | 681.99              | 263.51                    | 0.00                       | 1806.51           | 0.379 | 0.66            | 3.502     | A   |
| Quantock Meadow | 10.54                 | 10.49               | 932.00                    | 0.00                       | 783.43            | 0.013 | 0.01            | 4.657     | A   |
| Homeberg Way    | 473.63                | 472.08              | 312.14                    | 0.00                       | 1771.62           | 0.267 | 0.39            | 2.954     | A   |

**Main results: (17:00-17:15)**

| Name            | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-----------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| Quantock Road   | 678.91                | 677.80              | 322.83                    | 0.00                       | 1429.50           | 0.475 | 0.94            | 5.030     | A   |
| A39             | 817.54                | 816.47              | 315.60                    | 0.00                       | 1769.43           | 0.462 | 0.93            | 4.135     | A   |
| Quantock Meadow | 12.59                 | 12.56               | 1115.91                   | 0.00                       | 678.20            | 0.019 | 0.02            | 5.407     | A   |
| Homeberg Way    | 565.57                | 565.05              | 373.70                    | 0.00                       | 1728.65           | 0.327 | 0.52            | 3.302     | A   |

**Main results: (17:15-17:30)**

| Name          | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|---------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| Quantock Road | 831.49                | 829.03              | 395.21                    | 0.00                       | 1383.35           | 0.601 | 1.56            | 6.801     | A   |
| A39           | 1001.28               | 998.99              | 386.03                    | 0.00                       | 1719.32           | 0.582 | 1.51            | 5.458     | A   |

|                 |        |        |         |      |         |       |      |       |   |
|-----------------|--------|--------|---------|------|---------|-------|------|-------|---|
| Quantock Meadow | 15.41  | 15.37  | 1365.24 | 0.00 | 535.54  | 0.029 | 0.03 | 6.920 | A |
| Homeberg Way    | 692.67 | 691.74 | 457.24  | 0.00 | 1670.33 | 0.415 | 0.75 | 3.926 | A |

### Main results: (17:30-17:45)

| Name            | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-----------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| Quantock Road   | 831.49                | 831.43              | 395.74                    | 0.00                       | 1383.01           | 0.601 | 1.57            | 6.862     | A   |
| A39             | 1001.28               | 1001.23             | 387.14                    | 0.00                       | 1718.54           | 0.583 | 1.52            | 5.498     | A   |
| Quantock Meadow | 15.41                 | 15.41               | 1368.55                   | 0.00                       | 533.65            | 0.029 | 0.03            | 6.945     | A   |
| Homeberg Way    | 692.67                | 692.66              | 458.27                    | 0.00                       | 1669.61           | 0.415 | 0.75            | 3.935     | A   |

### Main results: (17:45-18:00)

| Name            | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-----------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| Quantock Road   | 678.91                | 681.34              | 323.66                    | 0.00                       | 1428.98           | 0.475 | 0.96            | 5.082     | A   |
| A39             | 817.54                | 819.81              | 317.24                    | 0.00                       | 1768.27           | 0.462 | 0.95            | 4.170     | A   |
| Quantock Meadow | 12.59                 | 12.63               | 1120.83                   | 0.00                       | 675.39            | 0.019 | 0.02            | 5.431     | A   |
| Homeberg Way    | 565.57                | 566.49              | 375.24                    | 0.00                       | 1727.58           | 0.327 | 0.52            | 3.316     | A   |

### Main results: (18:00-18:15)

| Name            | Total Demand<br>(PCU/hr) | Entry Flow<br>(PCU/hr) | Circulating Flow<br>(PCU/hr) | Pedestrian Demand<br>(Ped/hr) | Capacity<br>(PCU/hr) | RFC   | End Queue<br>(PCU) | Delay<br>(s) | LOS |
|-----------------|--------------------------|------------------------|------------------------------|-------------------------------|----------------------|-------|--------------------|--------------|-----|
| Quantock Road   | 568.55                   | 569.71                 | 270.90                       | 0.00                          | 1462.62              | 0.389 | 0.67               | 4.245        | A   |
| A39             | 684.65                   | 685.76                 | 265.26                       | 0.00                          | 1805.26              | 0.379 | 0.67               | 3.526        | A   |
| Quantock Meadow | 10.54                    | 10.56                  | 937.45                       | 0.00                          | 780.31               | 0.014 | 0.01               | 4.676        | A   |
| Homeberg Way    | 473.63                   | 474.16                 | 313.88                       | 0.00                          | 1770.42              | 0.268 | 0.39               | 2.969        | A   |

| Junctions 8                                                                                                                                                                  |  |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| ARCADY 8 - Roundabout Module                                                                                                                                                 |  |  |  |
| Version: 8.0.3.332 [14595,13/11/2013]<br>© Copyright TRL Limited, 2014                                                                                                       |  |  |  |
| For sales and distribution information, program advice and maintenance, contact TRL:<br>Tel: +44 (0)1344 770758 E-mail: software@trl.co.uk Web: http://www.trlsoftware.co.uk |  |  |  |
| The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution             |  |  |  |

**Filename:** J18 A39 - Main Road.arc8

**Path:** P:\TP London\TP Projects\Hinkley Point C Connection\Modelling\Junctions 8\J18

**Report generation date:** 24/01/2014 11:07:18

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### Summary of junction performance

|                 | AM            |           |      |     | PM          |           |      |     |
|-----------------|---------------|-----------|------|-----|-------------|-----------|------|-----|
|                 | Queue (PCU)   | Delay (s) | RFC  | LOS | Queue (PCU) | Delay (s) | RFC  | LOS |
|                 | A1 - 2013 Obs |           |      |     |             |           |      |     |
| Main Road south | 0.61          | 3.12      | 0.36 | A   | 0.66        | 3.13      | 0.39 | A   |

|                        |      |       |      |   |      |       |      |   |
|------------------------|------|-------|------|---|------|-------|------|---|
| <b>A39</b>             | 0.31 | 3.06  | 0.22 | A | 0.22 | 2.75  | 0.17 | A |
| <b>Main Road north</b> | 1.16 | 9.27  | 0.53 | A | 1.40 | 9.60  | 0.58 | A |
| <b>A1 - 2016 Base</b>  |      |       |      |   |      |       |      |   |
| <b>Main Road south</b> | 0.77 | 3.51  | 0.41 | A | 0.93 | 3.76  | 0.46 | A |
| <b>A39</b>             | 0.41 | 3.46  | 0.27 | A | 0.46 | 3.65  | 0.28 | A |
| <b>Main Road north</b> | 1.34 | 10.52 | 0.57 | B | 2.00 | 13.52 | 0.67 | B |
| <b>A1 - 2016 Dev</b>   |      |       |      |   |      |       |      |   |
| <b>Main Road south</b> | 0.94 | 3.82  | 0.46 | A | 0.96 | 3.82  | 0.47 | A |
| <b>A39</b>             | 0.44 | 3.56  | 0.28 | A | 0.59 | 3.88  | 0.34 | A |
| <b>Main Road north</b> | 1.37 | 10.76 | 0.57 | B | 2.49 | 16.92 | 0.72 | C |

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle.

"D1 - 2013 Obs, AM " model duration: 07:45 - 09:15

"D2 - 2013 Obs, PM" model duration: 16:45 - 18:15

"D3 - 2016 Base, AM" model duration: 07:45 - 09:15

"D4 - 2016 Base, PM" model duration: 16:45 - 18:15

"D5 - 2016 Dev, AM" model duration: 07:45 - 09:15

"D6 - 2016 Dev, PM" model duration: 16:45 - 18:15

Run using Junctions 8.0.3.332 at 24/01/2014 11:07:15

## File summary

### File Description

|                    |            |
|--------------------|------------|
| <b>Title</b>       | (untitled) |
| <b>Location</b>    |            |
| <b>Site Number</b> |            |
| <b>Date</b>        | 02/12/2013 |
| <b>Version</b>     |            |
| <b>Status</b>      | (new file) |
| <b>Identifier</b>  |            |
| <b>Client</b>      |            |
| <b>Jobnumber</b>   |            |
| <b>Enumerator</b>  |            |
| <b>Description</b> |            |

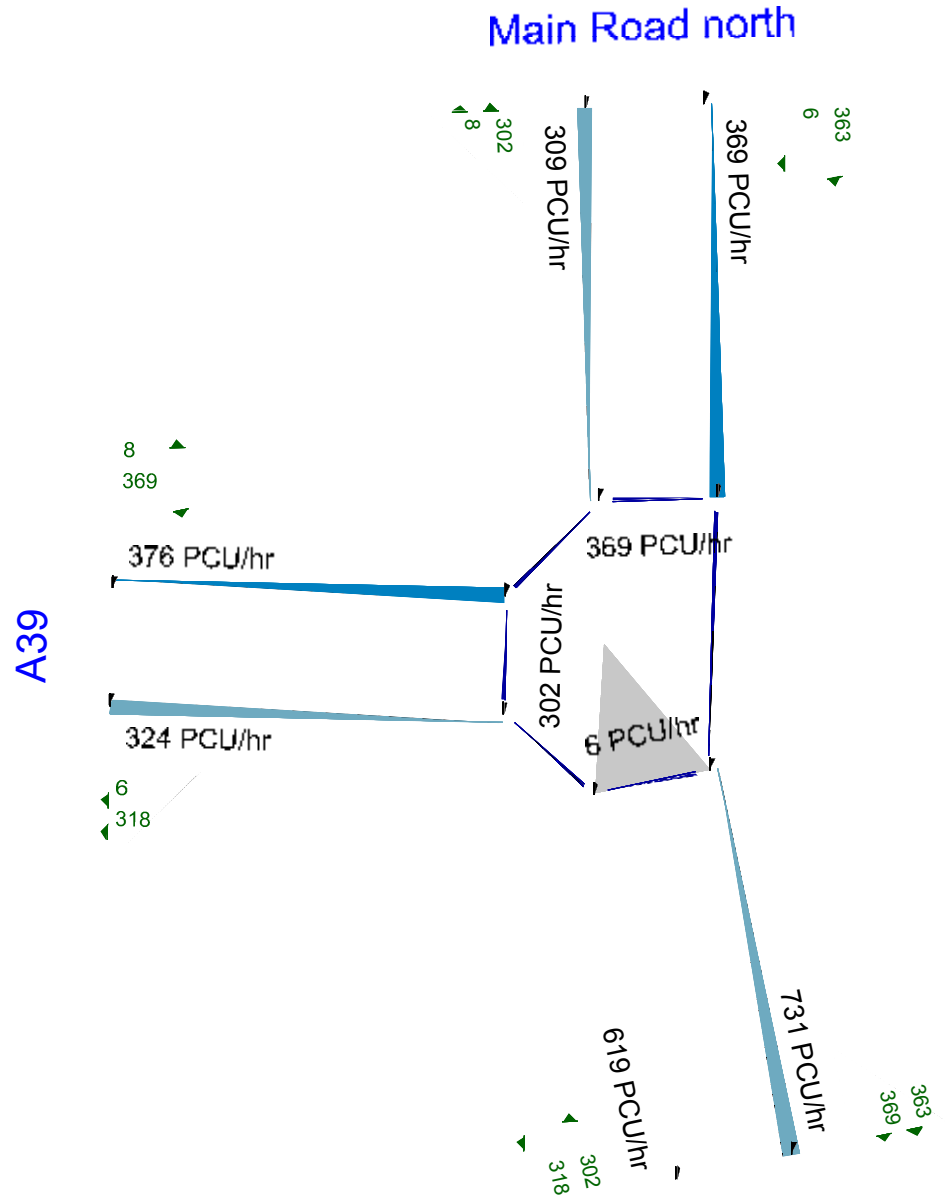
### Analysis Options

| Vehicle Length (m) | Do Queue Variations | Calculate Residual Capacity | Residual Capacity Criteria Type | RFC Threshold | Average Delay Threshold (s) | Queue Threshold (PCU) |
|--------------------|---------------------|-----------------------------|---------------------------------|---------------|-----------------------------|-----------------------|
| 5.75               |                     |                             | N/A                             | 0.85          | 36.00                       | 20.00                 |

### Units

| Distance Units | Speed Units | Traffic Units Input | Traffic Units Results | Flow Units | Average Delay Units | Total Delay Units | Rate Of Delay Units |
|----------------|-------------|---------------------|-----------------------|------------|---------------------|-------------------|---------------------|
|----------------|-------------|---------------------|-----------------------|------------|---------------------|-------------------|---------------------|

|   |     |     |     |         |   |      |        |
|---|-----|-----|-----|---------|---|------|--------|
| m | kph | Veh | PCU | perHour | s | -Min | perMin |
|---|-----|-----|-----|---------|---|------|--------|





The junction diagram reflects the last run of ARCADY.

## (Default Analysis Set) - 2013 Obs, AM

### Data Errors and Warnings

No errors or warnings

### Analysis Set Details

| Name                   | Roundabout Capacity Model | Description | Include In Report | Use Specific Demand Set(s) | Specific Demand Set(s) | Locked | Network Flow Scaling Factor (%) | Network Capacity Scaling Factor (%) | Reason For Scaling Factors |
|------------------------|---------------------------|-------------|-------------------|----------------------------|------------------------|--------|---------------------------------|-------------------------------------|----------------------------|
| (Default Analysis Set) | ARCADY                    |             | ✓                 |                            |                        |        | 100.000                         | 100.000                             |                            |

### Demand Set Details

| Name         | Scenario Name | Time Period Name | Description | Traffic Profile Type | Model Start Time (HH:mm) | Model Finish Time (HH:mm) | Model Time Period Length (min) | Time Segment Length (min) | Results For Central Hour Only | Single Time Segment Only | Locked | Run Automatically | Use Relationship | Relationship |
|--------------|---------------|------------------|-------------|----------------------|--------------------------|---------------------------|--------------------------------|---------------------------|-------------------------------|--------------------------|--------|-------------------|------------------|--------------|
| 2013 Obs, AM | 2013 Obs      | AM               |             | ONE HOUR             | 07:45                    | 09:15                     | 90                             | 15                        |                               |                          |        | ✓                 |                  |              |

## Junction Network

### Junctions

| Name | Junction Type | Arm Order | Grade Separated | Large Roundabout | Do Geometric Delay | Junction Delay (s) | Junction LOS |
|------|---------------|-----------|-----------------|------------------|--------------------|--------------------|--------------|
|------|---------------|-----------|-----------------|------------------|--------------------|--------------------|--------------|

|            |            |       |  |  |  |      |   |
|------------|------------|-------|--|--|--|------|---|
| (untitled) | Roundabout | 1,2,3 |  |  |  | 4.95 | A |
|------------|------------|-------|--|--|--|------|---|

## Junction Network Options

| Driving Side | Lighting       |
|--------------|----------------|
| Left         | Normal/unknown |

# Arms

## Arms

| Name            | Name            | Description |
|-----------------|-----------------|-------------|
| Main Road south | Main Road south |             |
| A39             | A39             |             |
| Main Road north | Main Road north |             |

## Capacity Options

| Name            | Minimum Capacity (PCU/hr) | Maximum Capacity (PCU/hr) | Assume Flat Start Profile | Initial Queue (PCU) |
|-----------------|---------------------------|---------------------------|---------------------------|---------------------|
| Main Road south | 0.00                      | 99999.00                  |                           | 0.00                |
| A39             | 0.00                      | 99999.00                  |                           | 0.00                |
| Main Road north | 0.00                      | 99999.00                  |                           | 0.00                |

## Roundabout Geometry

| Name            | V - Approach road half-width (m) | E - Entry width (m) | I' - Effective flare length (m) | R - Entry radius (m) | D - Inscribed circle diameter (m) | PHI - Conflict (entry) angle (deg) | Exit Only |
|-----------------|----------------------------------|---------------------|---------------------------------|----------------------|-----------------------------------|------------------------------------|-----------|
| Main Road south | 3.70                             | 8.00                | 17.00                           | 20.00                | 48.00                             | 15.00                              |           |
| A39             | 3.90                             | 8.00                | 15.00                           | 20.00                | 48.00                             | 16.00                              |           |
| Main Road north | 3.90                             | 7.40                | 9.00                            | 19.00                | 48.00                             | 44.00                              |           |

### Pedestrian Crossings

| Name            | Crossing Type |
|-----------------|---------------|
| Main Road south | None          |
| A39             | None          |
| Main Road north | None          |

### Slope / Intercept / Capacity

#### Arm Intercept Adjustments

| Name            | Type   | Reason | Direct Intercept Adjustment (PCU/hr) | Percentage Intercept Adjustment (%) |
|-----------------|--------|--------|--------------------------------------|-------------------------------------|
| Main Road south | None   |        |                                      |                                     |
| A39             | None   |        |                                      |                                     |
| Main Road north | Direct |        | -500.00                              |                                     |

### Roundabout Slope and Intercept used in model

| Name            | Enter slope and intercept directly | Entered slope | Entered intercept (PCU/hr) | Final Slope | Final Intercept (PCU/hr) |
|-----------------|------------------------------------|---------------|----------------------------|-------------|--------------------------|
| Main Road south |                                    | (calculated)  | (calculated)               | 0.677       | 1937.001                 |
| A39             |                                    | (calculated)  | (calculated)               | 0.676       | 1933.978                 |
| Main Road north |                                    | (calculated)  | (calculated)               | 0.577       | 1069.582                 |

*The slope and intercept shown above include any corrections and adjustments.*

## Traffic Flows

### Demand Set Data Options

| Default Vehicle Mix | Vehicle Mix Varies Over Time | Vehicle Mix Varies Over Turn | Vehicle Mix Varies Over Entry | Vehicle Mix Source | PCU Factor for a HV (PCU) | Default Turning Proportions | Estimate from entry/exit counts | Turning Proportions Vary Over Time | Turning Proportions Vary Over Turn | Turning Proportions Vary Over Entry |
|---------------------|------------------------------|------------------------------|-------------------------------|--------------------|---------------------------|-----------------------------|---------------------------------|------------------------------------|------------------------------------|-------------------------------------|
|                     |                              | ✓                            | ✓                             | HV Percentages     | 2.00                      |                             |                                 |                                    | ✓                                  | ✓                                   |

## Entry Flows

### General Flows Data

| Name            | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (%) |
|-----------------|--------------|--------------------|------------------------------|-------------------------|
| Main Road south | ONE HOUR     | ✓                  | 600.00                       | 100.000                 |
| A39             | ONE HOUR     | ✓                  | 307.00                       | 100.000                 |

|                 |          |   |        |         |
|-----------------|----------|---|--------|---------|
| Main Road north | ONE HOUR | ✓ | 397.00 | 100.000 |
|-----------------|----------|---|--------|---------|

## Turning Proportions

Turning Counts or Proportions (Veh/hr) - (untitled) (for whole period)

|      | To |         |         |
|------|----|---------|---------|
|      | 1  | 2       | 3       |
| From | 1  | 0.000   | 202.000 |
|      | 2  | 306.000 | 0.000   |
|      | 3  | 389.000 | 8.000   |

Turning Proportions (Veh) - (untitled) (for whole period)

|      | To |      |      |
|------|----|------|------|
|      | 1  | 2    | 3    |
| From | 1  | 0.00 | 0.34 |
|      | 2  | 1.00 | 0.00 |
|      | 3  | 0.98 | 0.02 |

## Vehicle Mix

### Average PCU Per Vehicle - (untitled) (for whole period)

|      | To |       |       |       |
|------|----|-------|-------|-------|
| From |    | 1     | 2     | 3     |
|      | 1  | 1.000 | 1.109 | 1.038 |
|      | 2  | 1.075 | 1.000 | 1.000 |
|      | 3  | 1.023 | 2.000 | 1.000 |

### Heavy Vehicle Percentages - (untitled) (for whole period)

|      | To |       |         |       |
|------|----|-------|---------|-------|
| From |    | 1     | 2       | 3     |
|      | 1  | 0.000 | 10.900  | 3.800 |
|      | 2  | 7.500 | 0.000   | 0.000 |
|      | 3  | 2.300 | 100.000 | 0.000 |

## Results

### Results Summary for whole modelled period

| Name | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) | Total Queueing Delay (PCU-min) | Average Queueing Delay (s) | Rate Of Queueing Delay (PCU-min/min) | Inclusive Total Queueing Delay (PCU-min) | Inclusive Average Queueing Delay (s) |
|------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|--------------------------------|----------------------------|--------------------------------------|------------------------------------------|--------------------------------------|
|------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|--------------------------------|----------------------------|--------------------------------------|------------------------------------------|--------------------------------------|

|                 |      |      |      |   |        |        |       |      |      |       |      |
|-----------------|------|------|------|---|--------|--------|-------|------|------|-------|------|
| Main Road south | 0.36 | 3.12 | 0.61 | A | 584.65 | 876.98 | 42.04 | 2.88 | 0.47 | 42.04 | 2.88 |
| A39             | 0.22 | 3.06 | 0.31 | A | 302.77 | 454.15 | 21.50 | 2.84 | 0.24 | 21.50 | 2.84 |
| Main Road north | 0.53 | 9.27 | 1.16 | A | 379.85 | 569.77 | 71.82 | 7.56 | 0.80 | 71.82 | 7.56 |

## Main Results for each time segment

### Main results: (07:45-08:00)

| Name            | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|-----------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| Main Road south | 479.67                | 119.92                  | 478.27              | 544.52             | 11.96                     | 0.00                       | 1928.90           | 1925.41                      | 0.249 | 0.00              | 0.35            | 2.633     | A   |
| A39             | 248.40                | 62.10                   | 247.68              | 180.12             | 310.11                    | 0.00                       | 1724.37           | 1090.16                      | 0.144 | 0.00              | 0.18            | 2.618     | A   |
| Main Road north | 311.64                | 77.91                   | 309.55              | 310.86             | 246.93                    | 0.00                       | 927.10            | 442.48                       | 0.336 | 0.00              | 0.52            | 6.057     | A   |

### Main results: (08:00-08:15)

| Name            | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|-----------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| Main Road south | 572.78                | 143.19                  | 572.39              | 652.49             | 14.35                     | 0.00                       | 1927.28           | 1925.41                      | 0.297 | 0.35              | 0.45            | 2.821     | A   |
| A39             | 296.62                | 74.15                   | 296.42              | 215.60             | 371.14                    | 0.00                       | 1683.13           | 1090.16                      | 0.176 | 0.18              | 0.23            | 2.789     | A   |
| Main Road north | 372.13                | 93.03                   | 371.31              | 372.04             | 295.52                    | 0.00                       | 899.07            | 442.48                       | 0.414 | 0.52              | 0.73            | 7.100     | A   |

#### Main results: (08:15-08:30)

| Name            | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|-----------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| Main Road south | 701.51                | 175.38                  | 700.87              | 798.39             | 17.55                     | 0.00                       | 1925.11           | 1925.42                      | 0.364 | 0.45              | 0.61            | 3.121     | A   |
| A39             | 363.28                | 90.82                   | 362.97              | 263.98             | 454.45                    | 0.00                       | 1626.82           | 1090.16                      | 0.223 | 0.23              | 0.31            | 3.061     | A   |
| Main Road north | 455.76                | 113.94                  | 454.08              | 455.55             | 361.87                    | 0.00                       | 860.79            | 442.48                       | 0.529 | 0.73              | 1.15            | 9.191     | A   |

#### Main results: (08:30-08:45)

| Name | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-----|-------------------|-----------------|-----------|-----|
|------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-----|-------------------|-----------------|-----------|-----|



|                 |        |        |        |        |        |      |         |         |       |      |      |       |   |
|-----------------|--------|--------|--------|--------|--------|------|---------|---------|-------|------|------|-------|---|
| Main Road south | 701.51 | 175.38 | 701.50 | 800.28 | 17.61  | 0.00 | 1925.07 | 1925.42 | 0.364 | 0.61 | 0.61 | 3.123 | A |
| A39             | 363.28 | 90.82  | 363.28 | 264.26 | 454.85 | 0.00 | 1626.54 | 1090.16 | 0.223 | 0.31 | 0.31 | 3.062 | A |
| Main Road north | 455.76 | 113.94 | 455.72 | 455.95 | 362.18 | 0.00 | 860.61  | 442.48  | 0.530 | 1.15 | 1.16 | 9.267 | A |

#### Main results: (08:45-09:00)

| Name            | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|-----------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| Main Road south | 572.78                | 143.19                  | 573.40              | 655.37             | 14.45                     | 0.00                       | 1927.21           | 1925.41                      | 0.297 | 0.61              | 0.45            | 2.826     | A   |
| A39             | 296.62                | 74.15                   | 296.93              | 216.05             | 371.79                    | 0.00                       | 1682.68           | 1090.16                      | 0.176 | 0.31              | 0.23            | 2.792     | A   |
| Main Road north | 372.13                | 93.03                   | 373.79              | 372.69             | 296.03                    | 0.00                       | 898.78            | 442.48                       | 0.414 | 1.16              | 0.75            | 7.171     | A   |

#### Main results: (09:00-09:15)

| Name            | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|-----------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| Main Road south | 479.67                | 119.92                  | 480.07              | 548.26             | 12.08                     | 0.00                       | 1928.82           | 1925.41                      | 0.249 | 0.45              | 0.35            | 2.638     | A   |
| A39             | 248.40                | 62.10                   | 248.60              | 180.87             | 311.28                    | 0.00                       | 1723.59           | 1090.16                      | 0.144 | 0.23              | 0.18            | 2.622     | A   |

|                 |        |       |        |        |        |      |        |        |       |      |      |       |   |
|-----------------|--------|-------|--------|--------|--------|------|--------|--------|-------|------|------|-------|---|
| Main Road north | 311.64 | 77.91 | 312.49 | 312.03 | 247.85 | 0.00 | 926.58 | 442.48 | 0.336 | 0.75 | 0.53 | 6.122 | A |
|-----------------|--------|-------|--------|--------|--------|------|--------|--------|-------|------|------|-------|---|

## Queueing Delay Results for each time segment

### Queueing Delay results: (07:45-08:00)

| Name            | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|-----------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| Main Road south | 5.16                           | 0.34                                 | 2.633                                  | A                             | A                           |
| A39             | 2.66                           | 0.18                                 | 2.618                                  | A                             | A                           |
| Main Road north | 7.56                           | 0.50                                 | 6.057                                  | A                             | A                           |

### Queueing Delay results: (08:00-08:15)

| Name            | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|-----------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| Main Road south | 6.62                           | 0.44                                 | 2.821                                  | A                             | A                           |
| A39             | 3.40                           | 0.23                                 | 2.789                                  | A                             | A                           |
| Main Road north | 10.58                          | 0.71                                 | 7.100                                  | A                             | A                           |

### Queueing Delay results: (08:15-08:30)

| Name            | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|-----------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| Main Road south | 8.94                           | 0.60                                 | 3.121                                  | A                             | A                           |
| A39             | 4.55                           | 0.30                                 | 3.061                                  | A                             | A                           |
| Main Road north | 16.49                          | 1.10                                 | 9.191                                  | A                             | A                           |

#### Queueing Delay results: (08:30-08:45)

| Name            | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|-----------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| Main Road south | 9.10                           | 0.61                                 | 3.123                                  | A                             | A                           |
| A39             | 4.62                           | 0.31                                 | 3.062                                  | A                             | A                           |
| Main Road north | 17.35                          | 1.16                                 | 9.267                                  | A                             | A                           |

#### Queueing Delay results: (08:45-09:00)

| Name            | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|-----------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| Main Road south | 6.87                           | 0.46                                 | 2.826                                  | A                             | A                           |
| A39             | 3.51                           | 0.23                                 | 2.792                                  | A                             | A                           |
| Main Road north | 11.61                          | 0.77                                 | 7.171                                  | A                             | A                           |

### Queueing Delay results: (09:00-09:15)

| Name            | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|-----------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| Main Road south | 5.36                           | 0.36                                 | 2.638                                  | A                             | A                           |
| A39             | 2.76                           | 0.18                                 | 2.622                                  | A                             | A                           |
| Main Road north | 8.23                           | 0.55                                 | 6.122                                  | A                             | A                           |

## (Default Analysis Set) - 2013 Obs, PM

### Data Errors and Warnings

No errors or warnings

### Analysis Set Details

| Name                   | Roundabout Capacity Model | Description | Include In Report | Use Specific Demand Set(s) | Specific Demand Set(s) | Locked | Network Flow Scaling Factor (%) | Network Capacity Scaling Factor (%) | Reason For Scaling Factors |
|------------------------|---------------------------|-------------|-------------------|----------------------------|------------------------|--------|---------------------------------|-------------------------------------|----------------------------|
| (Default Analysis Set) | ARCADY                    |             | ✓                 |                            |                        |        | 100.000                         | 100.000                             |                            |

### Demand Set Details

| Name | Scenario Name | Time Period Name | Description | Traffic Profile Type | Model Start Time (HH:mm) | Model Finish Time (HH:mm) | Model Time Period Length (min) | Time Segment Length (min) | Results For Central Hour Only | Single Time Segment Only | Locked | Run Automatically | Use Relationship | Relationship |
|------|---------------|------------------|-------------|----------------------|--------------------------|---------------------------|--------------------------------|---------------------------|-------------------------------|--------------------------|--------|-------------------|------------------|--------------|
|------|---------------|------------------|-------------|----------------------|--------------------------|---------------------------|--------------------------------|---------------------------|-------------------------------|--------------------------|--------|-------------------|------------------|--------------|

|              |          |    |  |          |       |       |    |    |  |  |  |   |  |  |
|--------------|----------|----|--|----------|-------|-------|----|----|--|--|--|---|--|--|
| 2013 Obs, PM | 2013 Obs | PM |  | ONE HOUR | 16:45 | 18:15 | 90 | 15 |  |  |  | ✓ |  |  |
|--------------|----------|----|--|----------|-------|-------|----|----|--|--|--|---|--|--|

## Junction Network

### Junctions

| Name       | Junction Type | Arm Order | Grade Separated | Large Roundabout | Do Geometric Delay | Junction Delay (s) | Junction LOS |
|------------|---------------|-----------|-----------------|------------------|--------------------|--------------------|--------------|
| (untitled) | Roundabout    | 1,2,3     |                 |                  |                    | 5.23               | A            |

### Junction Network Options

| Driving Side | Lighting       |
|--------------|----------------|
| Left         | Normal/unknown |

## Arms

### Arms

| Name            | Name            | Description |
|-----------------|-----------------|-------------|
| Main Road south | Main Road south |             |
| A39             | A39             |             |
| Main Road north | Main Road north |             |

## Capacity Options

| Name            | Minimum Capacity (PCU/hr) | Maximum Capacity (PCU/hr) | Assume Flat Start Profile | Initial Queue (PCU) |
|-----------------|---------------------------|---------------------------|---------------------------|---------------------|
| Main Road south | 0.00                      | 99999.00                  |                           | 0.00                |
| A39             | 0.00                      | 99999.00                  |                           | 0.00                |
| Main Road north | 0.00                      | 99999.00                  |                           | 0.00                |

## Roundabout Geometry

| Name            | V - Approach road half-width (m) | E - Entry width (m) | I' - Effective flare length (m) | R - Entry radius (m) | D - Inscribed circle diameter (m) | PHI - Conflict (entry) angle (deg) | Exit Only |
|-----------------|----------------------------------|---------------------|---------------------------------|----------------------|-----------------------------------|------------------------------------|-----------|
| Main Road south | 3.70                             | 8.00                | 17.00                           | 20.00                | 48.00                             | 15.00                              |           |
| A39             | 3.90                             | 8.00                | 15.00                           | 20.00                | 48.00                             | 16.00                              |           |
| Main Road north | 3.90                             | 7.40                | 9.00                            | 19.00                | 48.00                             | 44.00                              |           |

## Pedestrian Crossings

| Name            | Crossing Type |
|-----------------|---------------|
| Main Road south | None          |
| A39             | None          |
| Main Road north | None          |

## Slope / Intercept / Capacity

### Arm Intercept Adjustments

| Name            | Type   | Reason | Direct Intercept Adjustment (PCU/hr) | Percentage Intercept Adjustment (%) |
|-----------------|--------|--------|--------------------------------------|-------------------------------------|
| Main Road south | None   |        |                                      |                                     |
| A39             | None   |        |                                      |                                     |
| Main Road north | Direct |        | -500.00                              |                                     |

### Roundabout Slope and Intercept used in model

| Name            | Enter slope and intercept directly | Entered slope | Entered intercept (PCU/hr) | Final Slope | Final Intercept (PCU/hr) |
|-----------------|------------------------------------|---------------|----------------------------|-------------|--------------------------|
| Main Road south |                                    | (calculated)  | (calculated)               | 0.677       | 1937.001                 |
| A39             |                                    | (calculated)  | (calculated)               | 0.676       | 1933.978                 |
| Main Road north |                                    | (calculated)  | (calculated)               | 0.577       | 1069.582                 |

*The slope and intercept shown above include any corrections and adjustments.*

## Traffic Flows

### Demand Set Data Options

| Default Vehicle Mix | Vehicle Mix Varies Over Time | Vehicle Mix Varies Over Turn | Vehicle Mix Varies Over Entry | Vehicle Mix Source | PCU Factor for a HV (PCU) | Default Turning Proportions | Estimate from entry/exit counts | Turning Proportions Vary Over Time | Turning Proportions Vary Over Turn | Turning Proportions Vary Over Entry |
|---------------------|------------------------------|------------------------------|-------------------------------|--------------------|---------------------------|-----------------------------|---------------------------------|------------------------------------|------------------------------------|-------------------------------------|
|                     |                              | ✓                            | ✓                             | HV Percentages     | 2.00                      |                             |                                 |                                    | ✓                                  | ✓                                   |

# Entry Flows

## General Flows Data

| Name            | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (%) |
|-----------------|--------------|--------------------|------------------------------|-------------------------|
| Main Road south | ONE HOUR     | ✓                  | 681.00                       | 100.000                 |
| A39             | ONE HOUR     | ✓                  | 252.00                       | 100.000                 |
| Main Road north | ONE HOUR     | ✓                  | 476.00                       | 100.000                 |

# Turning Proportions

## Turning Counts or Proportions (Veh/hr) - (untitled) (for whole period)

|      |   | To      |         |         |
|------|---|---------|---------|---------|
| From |   | 1       | 2       | 3       |
|      | 1 | 0.000   | 294.000 | 387.000 |
|      | 2 | 242.000 | 0.000   | 10.000  |
|      | 3 | 468.000 | 8.000   | 0.000   |

## Turning Proportions (Veh) - (untitled) (for whole period)

|      |  | To |   |   |
|------|--|----|---|---|
| From |  | 1  | 2 | 3 |



|  |   |      |      |      |
|--|---|------|------|------|
|  | 1 | 0.00 | 0.43 | 0.57 |
|  | 2 | 0.96 | 0.00 | 0.04 |
|  | 3 | 0.98 | 0.02 | 0.00 |

# Vehicle Mix

Average PCU Per Vehicle - (untitled) (for whole period)

|      |    |       |       |       |
|------|----|-------|-------|-------|
|      | To |       |       |       |
| From |    | 1     | 2     | 3     |
|      | 1  | 1.000 | 1.020 | 1.013 |
|      | 2  | 1.037 | 1.000 | 1.000 |
|      | 3  | 1.013 | 1.000 | 1.000 |

Heavy Vehicle Percentages - (untitled) (for whole period)

|      |    |       |       |       |
|------|----|-------|-------|-------|
|      | To |       |       |       |
| From |    | 1     | 2     | 3     |
|      | 1  | 0.000 | 2.000 | 1.300 |
|      | 2  | 3.700 | 0.000 | 0.000 |
|      | 3  | 1.300 | 0.000 | 0.000 |

# Results

## Results Summary for whole modelled period

| Name            | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) | Total Queueing Delay (PCU-min) | Average Queueing Delay (s) | Rate Of Queueing Delay (PCU-min/min) | Inclusive Total Queueing Delay (PCU-min) | Inclusive Average Queueing Delay (s) |
|-----------------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|--------------------------------|----------------------------|--------------------------------------|------------------------------------------|--------------------------------------|
| Main Road south | 0.39    | 3.13          | 0.66            | A       | 634.91                  | 952.36                        | 45.31                          | 2.85                       | 0.50                                 | 45.31                                    | 2.85                                 |
| A39             | 0.17    | 2.75          | 0.22            | A       | 239.46                  | 359.18                        | 15.48                          | 2.59                       | 0.17                                 | 15.48                                    | 2.59                                 |
| Main Road north | 0.58    | 9.60          | 1.40            | A       | 442.37                  | 663.55                        | 85.16                          | 7.70                       | 0.95                                 | 85.18                                    | 7.70                                 |

## Main Results for each time segment

### Main results: (16:45-17:00)

| Name            | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|-----------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| Main Road south | 520.91                | 130.23                  | 519.41              | 542.95             | 5.98                      | 0.00                       | 1932.95           | 1932.42                      | 0.269 | 0.00              | 0.37            | 2.585     | A   |

|                        |        |       |        |        |        |      |         |         |       |      |      |       |   |
|------------------------|--------|-------|--------|--------|--------|------|---------|---------|-------|------|------|-------|---|
| <b>A39</b>             | 196.46 | 49.11 | 195.93 | 231.10 | 294.30 | 0.00 | 1735.06 | 1193.94 | 0.113 | 0.00 | 0.13 | 2.422 | A |
| <b>Main Road north</b> | 362.94 | 90.73 | 360.51 | 301.80 | 188.42 | 0.00 | 960.86  | 407.09  | 0.378 | 0.00 | 0.61 | 6.049 | A |

#### Main results: (17:00-17:15)

| Name                   | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|------------------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| <b>Main Road south</b> | 622.01                | 155.50                  | 621.59              | 650.69             | 7.18                      | 0.00                       | 1932.14           | 1932.42                      | 0.322 | 0.37              | 0.48            | 2.791     | A   |
| <b>A39</b>             | 234.59                | 58.65                   | 234.46              | 276.58             | 352.19                    | 0.00                       | 1695.94           | 1193.94                      | 0.138 | 0.13              | 0.17            | 2.550     | A   |
| <b>Main Road north</b> | 433.38                | 108.35                  | 432.40              | 361.17             | 225.47                    | 0.00                       | 939.49            | 407.09                       | 0.461 | 0.61              | 0.86            | 7.175     | A   |

#### Main results: (17:15-17:30)

| Name                   | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|------------------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| <b>Main Road south</b> | 761.81                | 190.45                  | 761.10              | 796.00             | 8.77                      | 0.00                       | 1931.06           | 1932.42                      | 0.395 | 0.48              | 0.66            | 3.125     | A   |
| <b>A39</b>             | 287.32                | 71.83                   | 287.10              | 338.64             | 431.23                    | 0.00                       | 1642.51           | 1193.94                      | 0.175 | 0.17              | 0.22            | 2.750     | A   |
| <b>Main Road north</b> | 530.78                | 132.70                  | 528.67              | 442.23             | 276.10                    | 0.00                       | 910.27            | 407.09                       | 0.583 | 0.86              | 1.38            | 9.500     | A   |

### Main results: (17:30-17:45)

| Name            | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|-----------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| Main Road south | 761.81                | 190.45                  | 761.80              | 798.21             | 8.81                      | 0.00                       | 1931.03           | 1932.42                      | 0.395 | 0.66              | 0.66            | 3.127     | A   |
| A39             | 287.32                | 71.83                   | 287.31              | 338.98             | 431.63                    | 0.00                       | 1642.24           | 1193.94                      | 0.175 | 0.22              | 0.22            | 2.750     | A   |
| Main Road north | 530.78                | 132.70                  | 530.72              | 442.64             | 276.30                    | 0.00                       | 910.16            | 407.09                       | 0.583 | 1.38              | 1.40            | 9.604     | A   |

### Main results: (17:45-18:00)

| Name            | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|-----------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| Main Road south | 622.01                | 155.50                  | 622.72              | 654.04             | 7.23                      | 0.00                       | 1932.11           | 1932.42                      | 0.322 | 0.66              | 0.48            | 2.794     | A   |
| A39             | 234.59                | 58.65                   | 234.80              | 277.12             | 352.83                    | 0.00                       | 1695.50           | 1193.94                      | 0.138 | 0.22              | 0.17            | 2.552     | A   |
| Main Road north | 433.38                | 108.35                  | 435.46              | 361.82             | 225.80                    | 0.00                       | 939.30            | 407.09                       | 0.461 | 1.40              | 0.88            | 7.265     | A   |

### Main results: (18:00-18:15)

| Name | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-----|-------------------|-----------------|-----------|-----|
|------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-----|-------------------|-----------------|-----------|-----|

|                 |        |        |        |        |        |      |         |         |       |      |      |       |   |
|-----------------|--------|--------|--------|--------|--------|------|---------|---------|-------|------|------|-------|---|
| Main Road south | 520.91 | 130.23 | 521.34 | 546.99 | 6.04   | 0.00 | 1932.91 | 1932.42 | 0.269 | 0.48 | 0.38 | 2.593 | A |
| A39             | 196.46 | 49.11  | 196.60 | 231.99 | 295.39 | 0.00 | 1734.33 | 1193.94 | 0.113 | 0.17 | 0.13 | 2.424 | A |
| Main Road north | 362.94 | 90.73  | 363.97 | 302.92 | 189.06 | 0.00 | 960.49  | 407.09  | 0.378 | 0.88 | 0.62 | 6.124 | A |

## Queueing Delay Results for each time segment

### Queueing Delay results: (16:45-17:00)

| Name            | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|-----------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| Main Road south | 5.50                           | 0.37                                 | 2.585                                  | A                             | A                           |
| A39             | 1.95                           | 0.13                                 | 2.422                                  | A                             | A                           |
| Main Road north | 8.78                           | 0.59                                 | 6.049                                  | A                             | A                           |

### Queueing Delay results: (17:00-17:15)

| Name            | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|-----------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| Main Road south | 7.11                           | 0.47                                 | 2.791                                  | A                             | A                           |
| A39             | 2.46                           | 0.16                                 | 2.550                                  | A                             | A                           |

|                 |       |      |       |   |   |
|-----------------|-------|------|-------|---|---|
| Main Road north | 12.42 | 0.83 | 7.175 | A | A |
|-----------------|-------|------|-------|---|---|

#### Queueing Delay results: (17:15-17:30)

| Name            | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|-----------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| Main Road south | 9.71                           | 0.65                                 | 3.125                                  | A                             | A                           |
| A39             | 3.24                           | 0.22                                 | 2.750                                  | A                             | A                           |
| Main Road north | 19.75                          | 1.32                                 | 9.500                                  | A                             | A                           |

#### Queueing Delay results: (17:30-17:45)

| Name            | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|-----------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| Main Road south | 9.89                           | 0.66                                 | 3.127                                  | A                             | A                           |
| A39             | 3.29                           | 0.22                                 | 2.750                                  | A                             | A                           |
| Main Road north | 20.89                          | 1.39                                 | 9.604                                  | A                             | A                           |

#### Queueing Delay results: (17:45-18:00)

| Name            | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|-----------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| Main Road south | 7.38                           | 0.49                                 | 2.794                                  | A                             | A                           |

|                 |       |      |       |   |   |
|-----------------|-------|------|-------|---|---|
| A39             | 2.53  | 0.17 | 2.552 | A | A |
| Main Road north | 13.72 | 0.91 | 7.265 | A | A |

### Queueing Delay results: (18:00-18:15)

| Name            | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|-----------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| Main Road south | 5.72                           | 0.38                                 | 2.593                                  | A                             | A                           |
| A39             | 2.01                           | 0.13                                 | 2.424                                  | A                             | A                           |
| Main Road north | 9.60                           | 0.64                                 | 6.124                                  | A                             | A                           |

## (Default Analysis Set) - 2016 Base, AM

### Data Errors and Warnings

*No errors or warnings*

### Analysis Set Details

| Name                   | Roundabout Capacity Model | Description | Include In Report | Use Specific Demand Set(s) | Specific Demand Set(s) | Locked | Network Flow Scaling Factor (%) | Network Capacity Scaling Factor (%) | Reason For Scaling Factors |
|------------------------|---------------------------|-------------|-------------------|----------------------------|------------------------|--------|---------------------------------|-------------------------------------|----------------------------|
| (Default Analysis Set) | ARCADY                    |             | ✓                 |                            |                        |        | 100.000                         | 100.000                             |                            |

### Demand Set Details

| Name          | Scenario Name | Time Period Name | Description | Traffic Profile Type | Model Start Time (HH:mm) | Model Finish Time (HH:mm) | Model Time Period Length (min) | Time Segment Length (min) | Results For Central Hour Only | Single Time Segment Only | Locked | Run Automatically | Use Relationship | Relationship |
|---------------|---------------|------------------|-------------|----------------------|--------------------------|---------------------------|--------------------------------|---------------------------|-------------------------------|--------------------------|--------|-------------------|------------------|--------------|
| 2016 Base, AM | 2016 Base     | AM               |             | ONE HOUR             | 07:45                    | 09:15                     | 90                             | 15                        |                               |                          |        | ✓                 |                  |              |

## Junction Network

### Junctions

| Name       | Junction Type | Arm Order | Grade Separated | Large Roundabout | Do Geometric Delay | Junction Delay (s) | Junction LOS |
|------------|---------------|-----------|-----------------|------------------|--------------------|--------------------|--------------|
| (untitled) | Roundabout    | 1,2,3     |                 |                  |                    | 5.43               | A            |

### Junction Network Options

| Driving Side | Lighting       |
|--------------|----------------|
| Left         | Normal/unknown |

## Arms

### Arms

| Name            | Name            | Description |
|-----------------|-----------------|-------------|
| Main Road south | Main Road south |             |



|                        |                 |  |
|------------------------|-----------------|--|
| <b>A39</b>             | A39             |  |
| <b>Main Road north</b> | Main Road north |  |

## Capacity Options

| Name                   | Minimum Capacity (PCU/hr) | Maximum Capacity (PCU/hr) | Assume Flat Start Profile | Initial Queue (PCU) |
|------------------------|---------------------------|---------------------------|---------------------------|---------------------|
| <b>Main Road south</b> | 0.00                      | 99999.00                  |                           | 0.00                |
| <b>A39</b>             | 0.00                      | 99999.00                  |                           | 0.00                |
| <b>Main Road north</b> | 0.00                      | 99999.00                  |                           | 0.00                |

## Roundabout Geometry

| Name                   | V - Approach road half-width (m) | E - Entry width (m) | I' - Effective flare length (m) | R - Entry radius (m) | D - Inscribed circle diameter (m) | PHI - Conflict (entry) angle (deg) | Exit Only |
|------------------------|----------------------------------|---------------------|---------------------------------|----------------------|-----------------------------------|------------------------------------|-----------|
| <b>Main Road south</b> | 3.70                             | 8.00                | 17.00                           | 20.00                | 48.00                             | 15.00                              |           |
| <b>A39</b>             | 3.90                             | 8.00                | 15.00                           | 20.00                | 48.00                             | 16.00                              |           |
| <b>Main Road north</b> | 3.90                             | 7.40                | 9.00                            | 19.00                | 48.00                             | 44.00                              |           |

## Pedestrian Crossings

| Name                   | Crossing Type |
|------------------------|---------------|
| <b>Main Road south</b> | None          |
| <b>A39</b>             | None          |

|                 |      |
|-----------------|------|
| Main Road north | None |
|-----------------|------|

## Slope / Intercept / Capacity

### Arm Intercept Adjustments

| Name            | Type   | Reason | Direct Intercept Adjustment (PCU/hr) | Percentage Intercept Adjustment (%) |
|-----------------|--------|--------|--------------------------------------|-------------------------------------|
| Main Road south | None   |        |                                      |                                     |
| A39             | None   |        |                                      |                                     |
| Main Road north | Direct |        | -500.00                              |                                     |

### Roundabout Slope and Intercept used in model

| Name            | Enter slope and intercept directly | Entered slope | Entered intercept (PCU/hr) | Final Slope | Final Intercept (PCU/hr) |
|-----------------|------------------------------------|---------------|----------------------------|-------------|--------------------------|
| Main Road south |                                    | (calculated)  | (calculated)               | 0.677       | 1937.001                 |
| A39             |                                    | (calculated)  | (calculated)               | 0.676       | 1933.978                 |
| Main Road north |                                    | (calculated)  | (calculated)               | 0.577       | 1069.582                 |

*The slope and intercept shown above include any corrections and adjustments.*

## Traffic Flows

### Demand Set Data Options

| Default Vehicle Mix | Vehicle Mix Varies Over Time | Vehicle Mix Varies Over Turn | Vehicle Mix Varies Over Entry | Vehicle Mix Source | PCU Factor for a HV (PCU) | Default Turning Proportions | Estimate from entry/exit counts | Turning Proportions Vary Over Time | Turning Proportions Vary Over Turn | Turning Proportions Vary Over Entry |
|---------------------|------------------------------|------------------------------|-------------------------------|--------------------|---------------------------|-----------------------------|---------------------------------|------------------------------------|------------------------------------|-------------------------------------|
|---------------------|------------------------------|------------------------------|-------------------------------|--------------------|---------------------------|-----------------------------|---------------------------------|------------------------------------|------------------------------------|-------------------------------------|

|  |  |   |   |                   |      |  |  |  |   |   |
|--|--|---|---|-------------------|------|--|--|--|---|---|
|  |  | ✓ | ✓ | HV<br>Percentages | 2.00 |  |  |  | ✓ | ✓ |
|--|--|---|---|-------------------|------|--|--|--|---|---|

# Entry Flows

## General Flows Data

| Name            | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (%) |
|-----------------|--------------|--------------------|------------------------------|-------------------------|
| Main Road south | ONE HOUR     | ✓                  | 649.00                       | 100.000                 |
| A39             | ONE HOUR     | ✓                  | 344.00                       | 100.000                 |
| Main Road north | ONE HOUR     | ✓                  | 407.00                       | 100.000                 |

# Turning Proportions

## Turning Counts or Proportions (Veh/hr) - (untitled) (for whole period)

|      | To |         |         |         |
|------|----|---------|---------|---------|
| From |    | 1       | 2       | 3       |
|      | 1  | 0.000   | 241.000 | 408.000 |
|      | 2  | 343.000 | 0.000   | 1.000   |
|      | 3  | 399.000 | 8.000   | 0.000   |

## Turning Proportions (Veh) - (untitled) (for whole period)

|      | To |      |      |      |
|------|----|------|------|------|
| From |    | 1    | 2    | 3    |
|      | 1  | 0.00 | 0.37 | 0.63 |
|      | 2  | 1.00 | 0.00 | 0.00 |
|      | 3  | 0.98 | 0.02 | 0.00 |

## Vehicle Mix

### Average PCU Per Vehicle - (untitled) (for whole period)

|      | To |       |       |       |
|------|----|-------|-------|-------|
| From |    | 1     | 2     | 3     |
|      | 1  | 1.000 | 1.220 | 1.040 |
|      | 2  | 1.140 | 1.000 | 1.000 |
|      | 3  | 1.020 | 2.000 | 1.000 |

### Heavy Vehicle Percentages - (untitled) (for whole period)

|      | To |       |        |       |
|------|----|-------|--------|-------|
| From |    | 1     | 2      | 3     |
|      | 1  | 0.000 | 22.000 | 4.000 |

|  |   |        |         |       |
|--|---|--------|---------|-------|
|  | 2 | 14.000 | 0.000   | 0.000 |
|  | 3 | 2.000  | 100.000 | 0.000 |

## Results

### Results Summary for whole modelled period

| Name            | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) | Total Queueing Delay (PCU-min) | Average Queueing Delay (s) | Rate Of Queueing Delay (PCU-min/min) | Inclusive Total Queueing Delay (PCU-min) | Inclusive Average Queueing Delay (s) |
|-----------------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|--------------------------------|----------------------------|--------------------------------------|------------------------------------------|--------------------------------------|
| Main Road south | 0.41    | 3.51          | 0.77            | A       | 659.16                  | 988.74                        | 52.48                          | 3.18                       | 0.58                                 | 52.48                                    | 3.18                                 |
| A39             | 0.27    | 3.46          | 0.41            | A       | 359.72                  | 539.59                        | 28.47                          | 3.17                       | 0.32                                 | 28.47                                    | 3.17                                 |
| Main Road north | 0.57    | 10.52         | 1.34            | B       | 388.13                  | 582.20                        | 80.46                          | 8.29                       | 0.89                                 | 80.47                                    | 8.29                                 |

### Main Results for each time segment

Main results: (07:45-08:00)

| Name            | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|-----------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| Main Road south | 540.80                | 135.20                  | 539.09              | 597.67             | 11.96                     | 0.00                       | 1928.90           | 1926.77                      | 0.280 | 0.00              | 0.43            | 2.863     | A   |
| A39             | 295.13                | 73.78                   | 294.19              | 232.61             | 318.44                    | 0.00                       | 1718.75           | 1164.71                      | 0.172 | 0.00              | 0.24            | 2.878     | A   |
| Main Road north | 318.44                | 79.61                   | 316.19              | 319.19             | 293.44                    | 0.00                       | 900.27            | 399.27                       | 0.354 | 0.00              | 0.56            | 6.381     | A   |

#### Main results: (08:00-08:15)

| Name            | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|-----------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| Main Road south | 645.77                | 161.44                  | 645.27              | 716.20             | 14.35                     | 0.00                       | 1927.28           | 1926.77                      | 0.335 | 0.43              | 0.55            | 3.106     | A   |
| A39             | 352.42                | 88.10                   | 352.15              | 278.46             | 381.16                    | 0.00                       | 1676.35           | 1164.71                      | 0.210 | 0.24              | 0.30            | 3.098     | A   |
| Main Road north | 380.25                | 95.06                   | 379.30              | 382.06             | 351.25                    | 0.00                       | 866.91            | 399.27                       | 0.439 | 0.56              | 0.80            | 7.657     | A   |

#### Main results: (08:15-08:30)

| Name | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-----|-------------------|-----------------|-----------|-----|
|------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-----|-------------------|-----------------|-----------|-----|

|                 |        |        |        |        |        |      |         |         |       |      |      |        |   |
|-----------------|--------|--------|--------|--------|--------|------|---------|---------|-------|------|------|--------|---|
| Main Road south | 790.91 | 197.73 | 790.06 | 876.15 | 17.54  | 0.00 | 1925.12 | 1926.77 | 0.411 | 0.55 | 0.77 | 3.509  | A |
| A39             | 431.62 | 107.91 | 431.18 | 340.91 | 466.68 | 0.00 | 1618.55 | 1164.71 | 0.267 | 0.30 | 0.41 | 3.455  | A |
| Main Road north | 465.71 | 116.43 | 463.61 | 467.78 | 430.08 | 0.00 | 821.43  | 399.27  | 0.567 | 0.80 | 1.33 | 10.393 | B |

#### Main results: (08:30-08:45)

| Name            | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|-----------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| Main Road south | 790.91                | 197.73                  | 790.90              | 878.54             | 17.61                     | 0.00                       | 1925.07           | 1926.77                      | 0.411 | 0.77              | 0.77            | 3.512     | A   |
| A39             | 431.62                | 107.91                  | 431.62              | 341.33             | 467.18                    | 0.00                       | 1618.21           | 1164.71                      | 0.267 | 0.41              | 0.41            | 3.456     | A   |
| Main Road north | 465.71                | 116.43                  | 465.64              | 468.28             | 430.52                    | 0.00                       | 821.18            | 399.27                       | 0.567 | 1.33              | 1.34            | 10.518    | B   |

#### Main results: (08:45-09:00)

| Name            | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|-----------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| Main Road south | 645.77                | 161.44                  | 646.61              | 719.82             | 14.46                     | 0.00                       | 1927.20           | 1926.77                      | 0.335 | 0.77              | 0.56            | 3.112     | A   |
| A39             | 352.42                | 88.10                   | 352.85              | 279.12             | 381.95                    | 0.00                       | 1675.82           | 1164.71                      | 0.210 | 0.41              | 0.30            | 3.103     | A   |

|                 |        |       |        |        |        |      |        |        |       |      |      |       |   |
|-----------------|--------|-------|--------|--------|--------|------|--------|--------|-------|------|------|-------|---|
| Main Road north | 380.25 | 95.06 | 382.33 | 382.85 | 351.95 | 0.00 | 866.51 | 399.27 | 0.439 | 1.34 | 0.82 | 7.759 | A |
|-----------------|--------|-------|--------|--------|--------|------|--------|--------|-------|------|------|-------|---|

#### Main results: (09:00-09:15)

| Name            | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|-----------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| Main Road south | 540.80                | 135.20                  | 541.31              | 602.00             | 12.08                     | 0.00                       | 1928.81           | 1926.77                      | 0.280 | 0.56              | 0.43            | 2.872     | A   |
| A39             | 295.13                | 73.78                   | 295.40              | 233.65             | 319.75                    | 0.00                       | 1717.86           | 1164.71                      | 0.172 | 0.30              | 0.24            | 2.884     | A   |
| Main Road north | 318.44                | 79.61                   | 319.44              | 320.51             | 294.65                    | 0.00                       | 899.57            | 399.27                       | 0.354 | 0.82              | 0.58            | 6.462     | A   |

#### Queueing Delay Results for each time segment

##### Queueing Delay results: (07:45-08:00)

| Name            | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|-----------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| Main Road south | 6.32                           | 0.42                                 | 2.863                                  | A                             | A                           |
| A39             | 3.47                           | 0.23                                 | 2.878                                  | A                             | A                           |
| Main Road north | 8.12                           | 0.54                                 | 6.381                                  | A                             | A                           |

##### Queueing Delay results: (08:00-08:15)



| Name            | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|-----------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| Main Road south | 8.20                           | 0.55                                 | 3.106                                  | A                             | A                           |
| A39             | 4.47                           | 0.30                                 | 3.098                                  | A                             | A                           |
| Main Road north | 11.62                          | 0.77                                 | 7.657                                  | A                             | A                           |

#### Queueing Delay results: (08:15-08:30)

| Name            | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|-----------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| Main Road south | 11.29                          | 0.75                                 | 3.509                                  | A                             | A                           |
| A39             | 6.09                           | 0.41                                 | 3.455                                  | A                             | A                           |
| Main Road north | 18.90                          | 1.26                                 | 10.393                                 | B                             | B                           |

#### Queueing Delay results: (08:30-08:45)

| Name            | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|-----------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| Main Road south | 11.53                          | 0.77                                 | 3.512                                  | A                             | A                           |
| A39             | 6.19                           | 0.41                                 | 3.456                                  | A                             | A                           |
| Main Road north | 20.05                          | 1.34                                 | 10.518                                 | B                             | B                           |

**Queueing Delay results: (08:45-09:00)**

| Name            | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|-----------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| Main Road south | 8.55                           | 0.57                                 | 3.112                                  | A                             | A                           |
| A39             | 4.64                           | 0.31                                 | 3.103                                  | A                             | A                           |
| Main Road north | 12.88                          | 0.86                                 | 7.759                                  | A                             | A                           |

**Queueing Delay results: (09:00-09:15)**

| Name            | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|-----------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| Main Road south | 6.59                           | 0.44                                 | 2.872                                  | A                             | A                           |
| A39             | 3.61                           | 0.24                                 | 2.884                                  | A                             | A                           |
| Main Road north | 8.89                           | 0.59                                 | 6.462                                  | A                             | A                           |

## (Default Analysis Set) - 2016 Base, PM

**Data Errors and Warnings**

*No errors or warnings*

**Analysis Set Details**

| Name                   | Roundabout Capacity Model | Description | Include In Report | Use Specific Demand Set(s) | Specific Demand Set(s) | Locked | Network Flow Scaling Factor (%) | Network Capacity Scaling Factor (%) | Reason For Scaling Factors |
|------------------------|---------------------------|-------------|-------------------|----------------------------|------------------------|--------|---------------------------------|-------------------------------------|----------------------------|
| (Default Analysis Set) | ARCADY                    |             | ✓                 |                            |                        |        | 100.000                         | 100.000                             |                            |

## Demand Set Details

| Name          | Scenario Name | Time Period Name | Description | Traffic Profile Type | Model Start Time (HH:mm) | Model Finish Time (HH:mm) | Model Time Period Length (min) | Time Segment Length (min) | Results For Central Hour Only | Single Time Segment Only | Locked | Run Automatically | Use Relationship | Relationship |
|---------------|---------------|------------------|-------------|----------------------|--------------------------|---------------------------|--------------------------------|---------------------------|-------------------------------|--------------------------|--------|-------------------|------------------|--------------|
| 2016 Base, PM | 2016 Base     | PM               |             | ONE HOUR             | 16:45                    | 18:15                     | 90                             | 15                        |                               |                          |        | ✓                 |                  |              |

# Junction Network

## Junctions

| Name       | Junction Type | Arm Order | Grade Separated | Large Roundabout | Do Geometric Delay | Junction Delay (s) | Junction LOS |
|------------|---------------|-----------|-----------------|------------------|--------------------|--------------------|--------------|
| (untitled) | Roundabout    | 1,2,3     |                 |                  |                    | 6.53               | A            |

## Junction Network Options

| Driving Side | Lighting       |
|--------------|----------------|
| Left         | Normal/unknown |

# Arms

## Arms

| Name            | Name            | Description |
|-----------------|-----------------|-------------|
| Main Road south | Main Road south |             |
| A39             | A39             |             |
| Main Road north | Main Road north |             |

## Capacity Options

| Name            | Minimum Capacity (PCU/hr) | Maximum Capacity (PCU/hr) | Assume Flat Start Profile | Initial Queue (PCU) |
|-----------------|---------------------------|---------------------------|---------------------------|---------------------|
| Main Road south | 0.00                      | 99999.00                  |                           | 0.00                |
| A39             | 0.00                      | 99999.00                  |                           | 0.00                |
| Main Road north | 0.00                      | 99999.00                  |                           | 0.00                |

## Roundabout Geometry

| Name            | V - Approach road half-width (m) | E - Entry width (m) | I' - Effective flare length (m) | R - Entry radius (m) | D - Inscribed circle diameter (m) | PHI - Conflict (entry) angle (deg) | Exit Only |
|-----------------|----------------------------------|---------------------|---------------------------------|----------------------|-----------------------------------|------------------------------------|-----------|
| Main Road south | 3.70                             | 8.00                | 17.00                           | 20.00                | 48.00                             | 15.00                              |           |
| A39             | 3.90                             | 8.00                | 15.00                           | 20.00                | 48.00                             | 16.00                              |           |
| Main Road north | 3.90                             | 7.40                | 9.00                            | 19.00                | 48.00                             | 44.00                              |           |

## Pedestrian Crossings

| Name            | Crossing Type |
|-----------------|---------------|
| Main Road south | None          |
| A39             | None          |
| Main Road north | None          |

## Slope / Intercept / Capacity

### Arm Intercept Adjustments

| Name            | Type   | Reason | Direct Intercept Adjustment (PCU/hr) | Percentage Intercept Adjustment (%) |
|-----------------|--------|--------|--------------------------------------|-------------------------------------|
| Main Road south | None   |        |                                      |                                     |
| A39             | None   |        |                                      |                                     |
| Main Road north | Direct |        | -500.00                              |                                     |

### Roundabout Slope and Intercept used in model

| Name            | Enter slope and intercept directly | Entered slope | Entered intercept (PCU/hr) | Final Slope | Final Intercept (PCU/hr) |
|-----------------|------------------------------------|---------------|----------------------------|-------------|--------------------------|
| Main Road south |                                    | (calculated)  | (calculated)               | 0.677       | 1937.001                 |
| A39             |                                    | (calculated)  | (calculated)               | 0.676       | 1933.978                 |
| Main Road north |                                    | (calculated)  | (calculated)               | 0.577       | 1069.582                 |

*The slope and intercept shown above include any corrections and adjustments.*

# Traffic Flows

## Demand Set Data Options

| Default Vehicle Mix | Vehicle Mix Varies Over Time | Vehicle Mix Varies Over Turn | Vehicle Mix Varies Over Entry | Vehicle Mix Source | PCU Factor for a HV (PCU) | Default Turning Proportions | Estimate from entry/exit counts | Turning Proportions Vary Over Time | Turning Proportions Vary Over Turn | Turning Proportions Vary Over Entry |
|---------------------|------------------------------|------------------------------|-------------------------------|--------------------|---------------------------|-----------------------------|---------------------------------|------------------------------------|------------------------------------|-------------------------------------|
|                     |                              | ✓                            | ✓                             | HV Percentages     | 2.00                      |                             |                                 |                                    | ✓                                  | ✓                                   |

# Entry Flows

## General Flows Data

| Name            | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (%) |
|-----------------|--------------|--------------------|------------------------------|-------------------------|
| Main Road south | ONE HOUR     | ✓                  | 754.00                       | 100.000                 |
| A39             | ONE HOUR     | ✓                  | 348.00                       | 100.000                 |
| Main Road north | ONE HOUR     | ✓                  | 489.00                       | 100.000                 |

# Turning Proportions

## Turning Counts or Proportions (Veh/hr) - (untitled) (for whole period)

|      |    |   |   |
|------|----|---|---|
|      | To |   |   |
| From | 1  | 2 | 3 |

|  |          |         |         |         |
|--|----------|---------|---------|---------|
|  | <b>1</b> | 0.000   | 356.000 | 398.000 |
|  | <b>2</b> | 338.000 | 0.000   | 10.000  |
|  | <b>3</b> | 481.000 | 8.000   | 0.000   |

### Turning Proportions (Veh) - (untitled) (for whole period)

|      | To |      |      |      |
|------|----|------|------|------|
| From |    | 1    | 2    | 3    |
|      | 1  | 0.00 | 0.47 | 0.53 |
|      | 2  | 0.97 | 0.00 | 0.03 |
|      | 3  | 0.98 | 0.02 | 0.00 |

## Vehicle Mix

### Average PCU Per Vehicle - (untitled) (for whole period)

|      | To |       |       |       |
|------|----|-------|-------|-------|
| From |    | 1     | 2     | 3     |
|      | 1  | 1.000 | 1.160 | 1.010 |
|      | 2  | 1.200 | 1.000 | 1.000 |
|      | 3  | 1.010 | 1.000 | 1.000 |

### Heavy Vehicle Percentages - (untitled) (for whole period)

|      | To |        |        |       |
|------|----|--------|--------|-------|
| From |    | 1      | 2      | 3     |
|      | 1  | 0.000  | 16.000 | 1.000 |
|      | 2  | 20.000 | 0.000  | 0.000 |
|      | 3  | 1.000  | 0.000  | 0.000 |

## Results

### Results Summary for whole modelled period

| Name            | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) | Total Queueing Delay (PCU-min) | Average Queueing Delay (s) | Rate Of Queueing Delay (PCU-min/min) | Inclusive Total Queueing Delay (PCU-min) | Inclusive Average Queueing Delay (s) |
|-----------------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|--------------------------------|----------------------------|--------------------------------------|------------------------------------------|--------------------------------------|
| Main Road south | 0.46    | 3.76          | 0.93            | A       | 747.80                  | 1121.70                       | 62.54                          | 3.35                       | 0.69                                 | 62.55                                    | 3.35                                 |
| A39             | 0.28    | 3.65          | 0.46            | A       | 381.36                  | 572.04                        | 31.82                          | 3.34                       | 0.35                                 | 31.82                                    | 3.34                                 |
| Main Road north | 0.67    | 13.52         | 2.00            | B       | 453.13                  | 679.69                        | 111.28                         | 9.82                       | 1.24                                 | 111.30                                   | 9.82                                 |



## Main Results for each time segment

### Main results: (16:45-17:00)

| Name            | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|-----------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| Main Road south | 613.53                | 153.38                  | 611.53              | 667.28             | 5.98                      | 0.00                       | 1932.95           | 1933.23                      | 0.317 | 0.00              | 0.50            | 2.941     | A   |
| A39             | 312.89                | 78.22                   | 311.84              | 315.86             | 301.64                    | 0.00                       | 1730.10           | 1289.45                      | 0.181 | 0.00              | 0.26            | 3.030     | A   |
| Main Road north | 371.77                | 92.94                   | 368.93              | 309.15             | 304.33                    | 0.00                       | 893.99            | 343.49                       | 0.416 | 0.00              | 0.71            | 6.887     | A   |

### Main results: (17:00-17:15)

| Name            | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|-----------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| Main Road south | 732.61                | 183.15                  | 731.99              | 799.69             | 7.17                      | 0.00                       | 1932.14           | 1933.23                      | 0.379 | 0.50              | 0.66            | 3.240     | A   |
| A39             | 373.62                | 93.40                   | 373.32              | 378.10             | 361.06                    | 0.00                       | 1689.93           | 1289.45                      | 0.221 | 0.26              | 0.34            | 3.265     | A   |
| Main Road north | 443.93                | 110.98                  | 442.53              | 370.05             | 364.33                    | 0.00                       | 859.36            | 343.49                       | 0.517 | 0.71              | 1.06            | 8.692     | A   |

### Main results: (17:15-17:30)

| Name            | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|-----------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| Main Road south | 897.27                | 224.32                  | 896.17              | 977.43             | 8.75                      | 0.00                       | 1931.07           | 1933.23                      | 0.465 | 0.66              | 0.93            | 3.756     | A   |
| A39             | 457.58                | 114.40                  | 457.09              | 462.87             | 442.05                    | 0.00                       | 1635.20           | 1289.45                      | 0.280 | 0.34              | 0.46            | 3.647     | A   |
| Main Road north | 543.69                | 135.92                  | 540.09              | 453.04             | 446.09                    | 0.00                       | 812.19            | 343.49                       | 0.669 | 1.06              | 1.96            | 13.184    | B   |

#### Main results: (17:30-17:45)

| Name            | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|-----------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| Main Road south | 897.27                | 224.32                  | 897.25              | 981.29             | 8.81                      | 0.00                       | 1931.04           | 1933.23                      | 0.465 | 0.93              | 0.93            | 3.762     | A   |
| A39             | 457.58                | 114.40                  | 457.58              | 463.48             | 442.58                    | 0.00                       | 1634.84           | 1289.45                      | 0.280 | 0.46              | 0.46            | 3.651     | A   |
| Main Road north | 543.69                | 135.92                  | 543.53              | 453.59             | 446.57                    | 0.00                       | 811.92            | 343.49                       | 0.670 | 1.96              | 2.00            | 13.517    | B   |

#### Main results: (17:45-18:00)

| Name | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-----|-------------------|-----------------|-----------|-----|
|------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-----|-------------------|-----------------|-----------|-----|

|                 |        |        |        |        |        |      |         |         |       |      |      |       |   |
|-----------------|--------|--------|--------|--------|--------|------|---------|---------|-------|------|------|-------|---|
| Main Road south | 732.61 | 183.15 | 733.70 | 805.38 | 7.25   | 0.00 | 1932.09 | 1933.23 | 0.379 | 0.93 | 0.66 | 3.251 | A |
| A39             | 373.62 | 93.40  | 374.10 | 379.04 | 361.91 | 0.00 | 1689.37 | 1289.45 | 0.221 | 0.46 | 0.34 | 3.269 | A |
| Main Road north | 443.93 | 110.98 | 447.53 | 370.91 | 365.10 | 0.00 | 858.92  | 343.49  | 0.517 | 2.00 | 1.10 | 8.911 | A |

#### Main results: (18:00-18:15)

| Name            | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|-----------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| Main Road south | 613.53                | 153.38                  | 614.17              | 672.86             | 6.05                      | 0.00                       | 1932.90           | 1933.23                      | 0.317 | 0.66              | 0.50            | 2.953     | A   |
| A39             | 312.89                | 78.22                   | 313.19              | 317.27             | 302.95                    | 0.00                       | 1729.22           | 1289.45                      | 0.181 | 0.34              | 0.26            | 3.038     | A   |
| Main Road north | 371.77                | 92.94                   | 373.25              | 310.48             | 305.65                    | 0.00                       | 893.22            | 343.49                       | 0.416 | 1.10              | 0.73            | 7.010     | A   |

#### Queueing Delay Results for each time segment

##### Queueing Delay results: (16:45-17:00)

| Name            | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|-----------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| Main Road south | 7.35                           | 0.49                                 | 2.941                                  | A                             | A                           |

|                 |       |      |       |   |   |
|-----------------|-------|------|-------|---|---|
| A39             | 3.87  | 0.26 | 3.030 | A | A |
| Main Road north | 10.19 | 0.68 | 6.887 | A | A |

#### Queueing Delay results: (17:00-17:15)

| Name            | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|-----------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| Main Road south | 9.69                           | 0.65                                 | 3.240                                  | A                             | A                           |
| A39             | 4.99                           | 0.33                                 | 3.265                                  | A                             | A                           |
| Main Road north | 15.25                          | 1.02                                 | 8.692                                  | A                             | A                           |

#### Queueing Delay results: (17:15-17:30)

| Name            | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|-----------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| Main Road south | 13.67                          | 0.91                                 | 3.756                                  | A                             | A                           |
| A39             | 6.81                           | 0.45                                 | 3.647                                  | A                             | A                           |
| Main Road north | 27.34                          | 1.82                                 | 13.184                                 | B                             | B                           |

#### Queueing Delay results: (17:30-17:45)

| Name | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
|------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|

|                 |       |      |        |   |   |
|-----------------|-------|------|--------|---|---|
| Main Road south | 14.00 | 0.93 | 3.762  | A | A |
| A39             | 6.94  | 0.46 | 3.651  | A | A |
| Main Road north | 29.79 | 1.99 | 13.517 | B | B |

#### Queueing Delay results: (17:45-18:00)

| Name            | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|-----------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| Main Road south | 10.15                          | 0.68                                 | 3.251                                  | A                             | A                           |
| A39             | 5.19                           | 0.35                                 | 3.269                                  | A                             | A                           |
| Main Road north | 17.38                          | 1.16                                 | 8.911                                  | A                             | A                           |

#### Queueing Delay results: (18:00-18:15)

| Name            | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|-----------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| Main Road south | 7.69                           | 0.51                                 | 2.953                                  | A                             | A                           |
| A39             | 4.03                           | 0.27                                 | 3.038                                  | A                             | A                           |
| Main Road north | 11.32                          | 0.75                                 | 7.010                                  | A                             | A                           |

## (Default Analysis Set) - 2016 Dev, AM

### Data Errors and Warnings

No errors or warnings

### Analysis Set Details

| Name                   | Roundabout Capacity Model | Description | Include In Report | Use Specific Demand Set(s) | Specific Demand Set(s) | Locked | Network Flow Scaling Factor (%) | Network Capacity Scaling Factor (%) | Reason For Scaling Factors |
|------------------------|---------------------------|-------------|-------------------|----------------------------|------------------------|--------|---------------------------------|-------------------------------------|----------------------------|
| (Default Analysis Set) | ARCADY                    |             | ✓                 |                            |                        |        | 100.000                         | 100.000                             |                            |

### Demand Set Details

| Name         | Scenario Name | Time Period Name | Description | Traffic Profile Type | Model Start Time (HH:mm) | Model Finish Time (HH:mm) | Model Time Period Length (min) | Time Segment Length (min) | Results For Central Hour Only | Single Time Segment Only | Locked | Run Automatically | Use Relationship | Relationship |
|--------------|---------------|------------------|-------------|----------------------|--------------------------|---------------------------|--------------------------------|---------------------------|-------------------------------|--------------------------|--------|-------------------|------------------|--------------|
| 2016 Dev, AM | 2016 Dev      | AM               |             | ONE HOUR             | 07:45                    | 09:15                     | 90                             | 15                        |                               |                          |        | ✓                 |                  |              |

## Junction Network

### Junctions

| Name       | Junction Type | Arm Order | Grade Separated | Large Roundabout | Do Geometric Delay | Junction Delay (s) | Junction LOS |
|------------|---------------|-----------|-----------------|------------------|--------------------|--------------------|--------------|
| (untitled) | Roundabout    | 1,2,3     |                 |                  |                    | 5.55               | A            |

## Junction Network Options

| Driving Side | Lighting       |
|--------------|----------------|
| Left         | Normal/unknown |

# Arms

## Arms

| Name            | Name            | Description |
|-----------------|-----------------|-------------|
| Main Road south | Main Road south |             |
| A39             | A39             |             |
| Main Road north | Main Road north |             |

## Capacity Options

| Name            | Minimum Capacity (PCU/hr) | Maximum Capacity (PCU/hr) | Assume Flat Start Profile | Initial Queue (PCU) |
|-----------------|---------------------------|---------------------------|---------------------------|---------------------|
| Main Road south | 0.00                      | 99999.00                  |                           | 0.00                |
| A39             | 0.00                      | 99999.00                  |                           | 0.00                |
| Main Road north | 0.00                      | 99999.00                  |                           | 0.00                |

## Roundabout Geometry

| Name | V - Approach road half-width (m) | E - Entry width (m) | I' - Effective flare length (m) | R - Entry radius (m) | D - Inscribed circle diameter (m) | PHI - Conflict (entry) angle (deg) | Exit Only |
|------|----------------------------------|---------------------|---------------------------------|----------------------|-----------------------------------|------------------------------------|-----------|
|------|----------------------------------|---------------------|---------------------------------|----------------------|-----------------------------------|------------------------------------|-----------|

|                 |      |      |       |       |       |       |  |
|-----------------|------|------|-------|-------|-------|-------|--|
| Main Road south | 3.70 | 8.00 | 17.00 | 20.00 | 48.00 | 15.00 |  |
| A39             | 3.90 | 8.00 | 15.00 | 20.00 | 48.00 | 16.00 |  |
| Main Road north | 3.90 | 7.40 | 9.00  | 19.00 | 48.00 | 44.00 |  |

### Pedestrian Crossings

| Name            | Crossing Type |
|-----------------|---------------|
| Main Road south | None          |
| A39             | None          |
| Main Road north | None          |

### Slope / Intercept / Capacity

#### Arm Intercept Adjustments

| Name            | Type   | Reason | Direct Intercept Adjustment (PCU/hr) | Percentage Intercept Adjustment (%) |
|-----------------|--------|--------|--------------------------------------|-------------------------------------|
| Main Road south | None   |        |                                      |                                     |
| A39             | None   |        |                                      |                                     |
| Main Road north | Direct |        | -500.00                              |                                     |

#### Roundabout Slope and Intercept used in model

| Name | Enter slope and intercept directly | Entered slope | Entered intercept (PCU/hr) | Final Slope | Final Intercept (PCU/hr) |
|------|------------------------------------|---------------|----------------------------|-------------|--------------------------|
|------|------------------------------------|---------------|----------------------------|-------------|--------------------------|



|                 |  |              |              |       |          |
|-----------------|--|--------------|--------------|-------|----------|
| Main Road south |  | (calculated) | (calculated) | 0.677 | 1937.001 |
| A39             |  | (calculated) | (calculated) | 0.676 | 1933.978 |
| Main Road north |  | (calculated) | (calculated) | 0.577 | 1069.582 |

*The slope and intercept shown above include any corrections and adjustments.*

## Traffic Flows

### Demand Set Data Options

| Default Vehicle Mix | Vehicle Mix Varies Over Time | Vehicle Mix Varies Over Turn | Vehicle Mix Varies Over Entry | Vehicle Mix Source | PCU Factor for a HV (PCU) | Default Turning Proportions | Estimate from entry/exit counts | Turning Proportions Vary Over Time | Turning Proportions Vary Over Turn | Turning Proportions Vary Over Entry |
|---------------------|------------------------------|------------------------------|-------------------------------|--------------------|---------------------------|-----------------------------|---------------------------------|------------------------------------|------------------------------------|-------------------------------------|
|                     |                              | ✓                            | ✓                             | HV Percentages     | 2.00                      |                             |                                 |                                    | ✓                                  | ✓                                   |

## Entry Flows

### General Flows Data

| Name            | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (%) |
|-----------------|--------------|--------------------|------------------------------|-------------------------|
| Main Road south | ONE HOUR     | ✓                  | 731.00                       | 100.000                 |
| A39             | ONE HOUR     | ✓                  | 349.00                       | 100.000                 |
| Main Road north | ONE HOUR     | ✓                  | 407.00                       | 100.000                 |

# Turning Proportions

Turning Counts or Proportions (Veh/hr) - (untitled) (for whole period)

|      | To |         |         |         |
|------|----|---------|---------|---------|
| From |    | 1       | 2       | 3       |
|      | 1  | 0.000   | 323.000 | 408.000 |
|      | 2  | 348.000 | 0.000   | 1.000   |
|      | 3  | 399.000 | 8.000   | 0.000   |

Turning Proportions (Veh) - (untitled) (for whole period)

|      | To |      |      |      |
|------|----|------|------|------|
| From |    | 1    | 2    | 3    |
|      | 1  | 0.00 | 0.44 | 0.56 |
|      | 2  | 1.00 | 0.00 | 0.00 |
|      | 3  | 0.98 | 0.02 | 0.00 |

# Vehicle Mix

Average PCU Per Vehicle - (untitled) (for whole period)

|  | To |
|--|----|
|--|----|

| From |   | 1     | 2     | 3     |
|------|---|-------|-------|-------|
|      | 1 | 1.000 | 1.180 | 1.040 |
|      | 2 | 1.160 | 1.000 | 1.000 |
|      | 3 | 1.020 | 2.000 | 1.000 |

### Heavy Vehicle Percentages - (untitled) (for whole period)

| From | To |        |         |       |
|------|----|--------|---------|-------|
|      |    | 1      | 2       | 3     |
|      | 1  | 0.000  | 18.000  | 4.000 |
|      | 2  | 16.000 | 0.000   | 0.000 |
|      | 3  | 2.000  | 100.000 | 0.000 |

## Results

### Results Summary for whole modelled period

| Name            | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) | Total Queueing Delay (PCU-min) | Average Queueing Delay (s) | Rate Of Queueing Delay (PCU-min/min) | Inclusive Total Queueing Delay (PCU-min) | Inclusive Average Queueing Delay (s) |
|-----------------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|--------------------------------|----------------------------|--------------------------------------|------------------------------------------|--------------------------------------|
| Main Road south | 0.46    | 3.82          | 0.94            | A       | 739.10                  | 1108.66                       | 62.80                          | 3.40                       | 0.70                                 | 62.80                                    | 3.40                                 |
| A39             | 0.28    | 3.56          | 0.44            | A       | 371.34                  | 557.01                        | 30.18                          | 3.25                       | 0.34                                 | 30.18                                    | 3.25                                 |

|                 |      |       |      |   |        |        |       |      |      |       |      |
|-----------------|------|-------|------|---|--------|--------|-------|------|------|-------|------|
| Main Road north | 0.57 | 10.76 | 1.37 | B | 388.13 | 582.20 | 81.80 | 8.43 | 0.91 | 81.81 | 8.43 |
|-----------------|------|-------|------|---|--------|--------|-------|------|------|-------|------|

## Main Results for each time segment

### Main results: (07:45-08:00)

| Name            | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|-----------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| Main Road south | 606.39                | 151.60                  | 604.38              | 607.13             | 11.96                     | 0.00                       | 1928.90           | 1927.99                      | 0.314 | 0.00              | 0.50            | 2.991     | A   |
| A39             | 304.66                | 76.17                   | 303.67              | 297.95             | 318.39                    | 0.00                       | 1718.78           | 1247.48                      | 0.177 | 0.00              | 0.25            | 2.948     | A   |
| Main Road north | 318.44                | 79.61                   | 316.17              | 319.14             | 302.92                    | 0.00                       | 894.80            | 351.58                       | 0.356 | 0.00              | 0.57            | 6.442     | A   |

### Main results: (08:00-08:15)

| Name            | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|-----------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| Main Road south | 724.09                | 181.02                  | 723.47              | 727.55             | 14.35                     | 0.00                       | 1927.28           | 1927.99                      | 0.376 | 0.50              | 0.66            | 3.293     | A   |

|                        |        |       |        |        |        |      |         |         |       |      |      |       |   |
|------------------------|--------|-------|--------|--------|--------|------|---------|---------|-------|------|------|-------|---|
| <b>A39</b>             | 363.80 | 90.95 | 363.51 | 356.69 | 381.13 | 0.00 | 1676.38 | 1247.48 | 0.217 | 0.25 | 0.32 | 3.179 | A |
| <b>Main Road north</b> | 380.25 | 95.06 | 379.28 | 382.02 | 362.62 | 0.00 | 860.36  | 351.58  | 0.442 | 0.57 | 0.81 | 7.760 | A |

### Main results: (08:15-08:30)

| Name                   | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|------------------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| <b>Main Road south</b> | 886.83                | 221.71                  | 885.73              | 889.99             | 17.53                     | 0.00                       | 1925.12           | 1927.99                      | 0.461 | 0.66              | 0.93            | 3.813     | A   |
| <b>A39</b>             | 445.56                | 111.39                  | 445.09              | 436.66             | 466.61                    | 0.00                       | 1618.60           | 1247.48                      | 0.275 | 0.32              | 0.44            | 3.554     | A   |
| <b>Main Road north</b> | 465.71                | 116.43                  | 463.53              | 467.71             | 443.99                    | 0.00                       | 813.40            | 351.58                       | 0.573 | 0.81              | 1.36            | 10.625    | B   |

### Main results: (08:30-08:45)

| Name                   | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|------------------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| <b>Main Road south</b> | 886.83                | 221.71                  | 886.81              | 892.48             | 17.61                     | 0.00                       | 1925.07           | 1927.99                      | 0.461 | 0.93              | 0.94            | 3.819     | A   |
| <b>A39</b>             | 445.56                | 111.39                  | 445.56              | 437.25             | 467.18                    | 0.00                       | 1618.21           | 1247.48                      | 0.275 | 0.44              | 0.44            | 3.558     | A   |
| <b>Main Road north</b> | 465.71                | 116.43                  | 465.64              | 468.28             | 444.45                    | 0.00                       | 813.14            | 351.58                       | 0.573 | 1.36              | 1.37            | 10.759    | B   |

### Main results: (08:45-09:00)

| Name            | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|-----------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| Main Road south | 724.09                | 181.02                  | 725.17              | 731.30             | 14.47                     | 0.00                       | 1927.20           | 1927.99                      | 0.376 | 0.94              | 0.67            | 3.302     | A   |
| A39             | 363.80                | 90.95                   | 364.26              | 357.61             | 382.03                    | 0.00                       | 1675.77           | 1247.48                      | 0.217 | 0.44              | 0.32            | 3.185     | A   |
| Main Road north | 380.25                | 95.06                   | 382.40              | 382.93             | 363.36                    | 0.00                       | 859.92            | 351.58                       | 0.442 | 1.37              | 0.84            | 7.871     | A   |

### Main results: (09:00-09:15)

| Name            | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|-----------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| Main Road south | 606.39                | 151.60                  | 607.03              | 611.58             | 12.08                     | 0.00                       | 1928.81           | 1927.99                      | 0.314 | 0.67              | 0.51            | 3.004     | A   |
| A39             | 304.66                | 76.17                   | 304.95              | 299.33             | 319.79                    | 0.00                       | 1717.83           | 1247.48                      | 0.177 | 0.32              | 0.25            | 2.956     | A   |
| Main Road north | 318.44                | 79.61                   | 319.46              | 320.54             | 304.20                    | 0.00                       | 894.06            | 351.58                       | 0.356 | 0.84              | 0.58            | 6.524     | A   |

### Queueing Delay Results for each time segment

#### Queueing Delay results: (07:45-08:00)

| Name            | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|-----------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| Main Road south | 7.39                           | 0.49                                 | 2.991                                  | A                             | A                           |
| A39             | 3.67                           | 0.24                                 | 2.948                                  | A                             | A                           |
| Main Road north | 8.20                           | 0.55                                 | 6.442                                  | A                             | A                           |

#### Queueing Delay results: (08:00-08:15)

| Name            | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|-----------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| Main Road south | 9.73                           | 0.65                                 | 3.293                                  | A                             | A                           |
| A39             | 4.74                           | 0.32                                 | 3.179                                  | A                             | A                           |
| Main Road north | 11.77                          | 0.78                                 | 7.760                                  | A                             | A                           |

#### Queueing Delay results: (08:15-08:30)

| Name            | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|-----------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| Main Road south | 13.71                          | 0.91                                 | 3.813                                  | A                             | A                           |
| A39             | 6.47                           | 0.43                                 | 3.554                                  | A                             | A                           |
| Main Road north | 19.29                          | 1.29                                 | 10.625                                 | B                             | B                           |

**Queueing Delay results: (08:30-08:45)**

| Name            | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|-----------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| Main Road south | 14.04                          | 0.94                                 | 3.819                                  | A                             | A                           |
| A39             | 6.58                           | 0.44                                 | 3.558                                  | A                             | A                           |
| Main Road north | 20.50                          | 1.37                                 | 10.759                                 | B                             | B                           |

**Queueing Delay results: (08:45-09:00)**

| Name            | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|-----------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| Main Road south | 10.19                          | 0.68                                 | 3.302                                  | A                             | A                           |
| A39             | 4.92                           | 0.33                                 | 3.185                                  | A                             | A                           |
| Main Road north | 13.07                          | 0.87                                 | 7.871                                  | A                             | A                           |

**Queueing Delay results: (09:00-09:15)**

| Name            | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|-----------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| Main Road south | 7.73                           | 0.52                                 | 3.004                                  | A                             | A                           |
| A39             | 3.81                           | 0.25                                 | 2.956                                  | A                             | A                           |



|                 |      |      |       |   |   |
|-----------------|------|------|-------|---|---|
| Main Road north | 8.98 | 0.60 | 6.524 | A | A |
|-----------------|------|------|-------|---|---|

## (Default Analysis Set) - 2016 Dev, PM

### Data Errors and Warnings

*No errors or warnings*

### Analysis Set Details

| Name                   | Roundabout Capacity Model | Description | Include In Report | Use Specific Demand Set(s) | Specific Demand Set(s) | Locked | Network Flow Scaling Factor (%) | Network Capacity Scaling Factor (%) | Reason For Scaling Factors |
|------------------------|---------------------------|-------------|-------------------|----------------------------|------------------------|--------|---------------------------------|-------------------------------------|----------------------------|
| (Default Analysis Set) | ARCADY                    |             | ✓                 |                            |                        |        | 100.000                         | 100.000                             |                            |

### Demand Set Details

| Name         | Scenario Name | Time Period Name | Description | Traffic Profile Type | Model Start Time (HH:mm) | Model Finish Time (HH:mm) | Model Time Period Length (min) | Time Segment Length (min) | Results For Central Hour Only | Single Time Segment Only | Locked | Run Automatically | Use Relationship | Relationship |
|--------------|---------------|------------------|-------------|----------------------|--------------------------|---------------------------|--------------------------------|---------------------------|-------------------------------|--------------------------|--------|-------------------|------------------|--------------|
| 2016 Dev, PM | 2016 Dev      | PM               |             | ONE HOUR             | 16:45                    | 18:15                     | 90                             | 15                        |                               |                          |        | ✓                 |                  |              |

## Junction Network

### Junctions

| Name       | Junction Type | Arm Order | Grade Separated | Large Roundabout | Do Geometric Delay | Junction Delay (s) | Junction LOS |
|------------|---------------|-----------|-----------------|------------------|--------------------|--------------------|--------------|
| (untitled) | Roundabout    | 1,2,3     |                 |                  |                    | 7.39               | A            |

## Junction Network Options

| Driving Side | Lighting       |
|--------------|----------------|
| Left         | Normal/unknown |

# Arms

## Arms

| Name            | Name            | Description |
|-----------------|-----------------|-------------|
| Main Road south | Main Road south |             |
| A39             | A39             |             |
| Main Road north | Main Road north |             |

## Capacity Options

| Name            | Minimum Capacity (PCU/hr) | Maximum Capacity (PCU/hr) | Assume Flat Start Profile | Initial Queue (PCU) |
|-----------------|---------------------------|---------------------------|---------------------------|---------------------|
| Main Road south | 0.00                      | 99999.00                  |                           | 0.00                |
| A39             | 0.00                      | 99999.00                  |                           | 0.00                |
| Main Road north | 0.00                      | 99999.00                  |                           | 0.00                |

## Roundabout Geometry

| Name            | V - Approach road half-width (m) | E - Entry width (m) | I' - Effective flare length (m) | R - Entry radius (m) | D - Inscribed circle diameter (m) | PHI - Conflict (entry) angle (deg) | Exit Only |
|-----------------|----------------------------------|---------------------|---------------------------------|----------------------|-----------------------------------|------------------------------------|-----------|
| Main Road south | 3.70                             | 8.00                | 17.00                           | 20.00                | 48.00                             | 15.00                              |           |
| A39             | 3.90                             | 8.00                | 15.00                           | 20.00                | 48.00                             | 16.00                              |           |
| Main Road north | 3.90                             | 7.40                | 9.00                            | 19.00                | 48.00                             | 44.00                              |           |

## Pedestrian Crossings

| Name            | Crossing Type |
|-----------------|---------------|
| Main Road south | None          |
| A39             | None          |
| Main Road north | None          |

## Slope / Intercept / Capacity

### Arm Intercept Adjustments

| Name            | Type   | Reason | Direct Intercept Adjustment (PCU/hr) | Percentage Intercept Adjustment (%) |
|-----------------|--------|--------|--------------------------------------|-------------------------------------|
| Main Road south | None   |        |                                      |                                     |
| A39             | None   |        |                                      |                                     |
| Main Road north | Direct |        | -500.00                              |                                     |

### Roundabout Slope and Intercept used in model

| Name            | Enter slope and intercept directly | Entered slope | Entered intercept (PCU/hr) | Final Slope | Final Intercept (PCU/hr) |
|-----------------|------------------------------------|---------------|----------------------------|-------------|--------------------------|
| Main Road south |                                    | (calculated)  | (calculated)               | 0.677       | 1937.001                 |
| A39             |                                    | (calculated)  | (calculated)               | 0.676       | 1933.978                 |
| Main Road north |                                    | (calculated)  | (calculated)               | 0.577       | 1069.582                 |

*The slope and intercept shown above include any corrections and adjustments.*

## Traffic Flows

### Demand Set Data Options

| Default Vehicle Mix | Vehicle Mix Varies Over Time | Vehicle Mix Varies Over Turn | Vehicle Mix Varies Over Entry | Vehicle Mix Source | PCU Factor for a HV (PCU) | Default Turning Proportions | Estimate from entry/exit counts | Turning Proportions Vary Over Time | Turning Proportions Vary Over Turn | Turning Proportions Vary Over Entry |
|---------------------|------------------------------|------------------------------|-------------------------------|--------------------|---------------------------|-----------------------------|---------------------------------|------------------------------------|------------------------------------|-------------------------------------|
|                     |                              | ✓                            | ✓                             | HV Percentages     | 2.00                      |                             |                                 |                                    | ✓                                  | ✓                                   |

## Entry Flows

### General Flows Data

| Name            | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (%) |
|-----------------|--------------|--------------------|------------------------------|-------------------------|
| Main Road south | ONE HOUR     | ✓                  | 760.00                       | 100.000                 |
| A39             | ONE HOUR     | ✓                  | 430.00                       | 100.000                 |

|                 |          |   |        |         |
|-----------------|----------|---|--------|---------|
| Main Road north | ONE HOUR | ✓ | 489.00 | 100.000 |
|-----------------|----------|---|--------|---------|

## Turning Proportions

Turning Counts or Proportions (Veh/hr) - (untitled) (for whole period)

|      | To |         |         |
|------|----|---------|---------|
|      | 1  | 2       | 3       |
| From | 1  | 0.000   | 362.000 |
|      | 2  | 420.000 | 0.000   |
|      | 3  | 481.000 | 8.000   |

Turning Proportions (Veh) - (untitled) (for whole period)

|      | To |      |      |
|------|----|------|------|
|      | 1  | 2    | 3    |
| From | 1  | 0.00 | 0.48 |
|      | 2  | 0.98 | 0.00 |
|      | 3  | 0.98 | 0.02 |

## Vehicle Mix

### Average PCU Per Vehicle - (untitled) (for whole period)

|      | To |       |       |       |
|------|----|-------|-------|-------|
| From |    | 1     | 2     | 3     |
|      | 1  | 1.000 | 1.170 | 1.010 |
|      | 2  | 1.170 | 1.000 | 1.000 |
|      | 3  | 1.010 | 1.000 | 1.000 |

### Heavy Vehicle Percentages - (untitled) (for whole period)

|      | To |        |        |       |
|------|----|--------|--------|-------|
| From |    | 1      | 2      | 3     |
|      | 1  | 0.000  | 17.000 | 1.000 |
|      | 2  | 17.000 | 0.000  | 0.000 |
|      | 3  | 1.000  | 0.000  | 0.000 |

## Results

### Results Summary for whole modelled period

| Name | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) | Total Queueing Delay (PCU-min) | Average Queueing Delay (s) | Rate Of Queueing Delay (PCU-min/min) | Inclusive Total Queueing Delay (PCU-min) | Inclusive Average Queueing Delay (s) |
|------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|--------------------------------|----------------------------|--------------------------------------|------------------------------------------|--------------------------------------|
|------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|--------------------------------|----------------------------|--------------------------------------|------------------------------------------|--------------------------------------|

|                 |      |       |      |   |        |         |        |       |      |        |       |
|-----------------|------|-------|------|---|--------|---------|--------|-------|------|--------|-------|
| Main Road south | 0.47 | 3.82  | 0.96 | A | 757.51 | 1136.27 | 64.23  | 3.39  | 0.71 | 64.24  | 3.39  |
| A39             | 0.34 | 3.88  | 0.59 | A | 460.09 | 690.14  | 40.06  | 3.48  | 0.45 | 40.06  | 3.48  |
| Main Road north | 0.72 | 16.92 | 2.49 | C | 453.13 | 679.69  | 129.72 | 11.45 | 1.44 | 129.74 | 11.45 |

## Main Results for each time segment

### Main results: (16:45-17:00)

| Name            | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|-----------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| Main Road south | 621.49                | 155.37                  | 619.45              | 731.42             | 5.97                      | 0.00                       | 1932.95           | 1933.32                      | 0.322 | 0.00              | 0.51            | 2.974     | A   |
| A39             | 377.48                | 94.37                   | 376.18              | 323.79             | 301.63                    | 0.00                       | 1730.10           | 1297.68                      | 0.218 | 0.00              | 0.32            | 3.097     | A   |
| Main Road north | 371.77                | 92.94                   | 368.71              | 309.14             | 368.68                    | 0.00                       | 856.86            | 335.77                       | 0.434 | 0.00              | 0.76            | 7.402     | A   |

### Main results: (17:00-17:15)

| Name            | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|-----------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| Main Road south | 742.13                | 185.53                  | 741.48              | 876.46             | 7.16                      | 0.00                       | 1932.15           | 1933.32                      | 0.384 | 0.51              | 0.67            | 3.282     | A   |
| A39             | 450.75                | 112.69                  | 450.36              | 387.59             | 361.06                    | 0.00                       | 1689.94           | 1297.68                      | 0.267 | 0.32              | 0.42            | 3.386     | A   |
| Main Road north | 443.93                | 110.98                  | 442.25              | 370.04             | 441.37                    | 0.00                       | 814.91            | 335.77                       | 0.545 | 0.76              | 1.18            | 9.710     | A   |

#### Main results: (17:15-17:30)

| Name            | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|-----------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| Main Road south | 908.91                | 227.23                  | 907.78              | 1070.41            | 8.73                      | 0.00                       | 1931.09           | 1933.32                      | 0.471 | 0.67              | 0.96            | 3.818     | A   |
| A39             | 552.05                | 138.01                  | 551.38              | 474.47             | 442.03                    | 0.00                       | 1635.21           | 1297.68                      | 0.338 | 0.42              | 0.59            | 3.870     | A   |
| Main Road north | 543.69                | 135.92                  | 538.76              | 453.03             | 540.38                    | 0.00                       | 757.79            | 335.77                       | 0.717 | 1.18              | 2.42            | 16.237    | C   |

#### Main results: (17:30-17:45)

| Name | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-----|-------------------|-----------------|-----------|-----|
|------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-----|-------------------|-----------------|-----------|-----|



|                 |        |        |        |         |        |      |         |         |       |      |      |        |   |
|-----------------|--------|--------|--------|---------|--------|------|---------|---------|-------|------|------|--------|---|
| Main Road south | 908.91 | 227.23 | 908.90 | 1075.63 | 8.80   | 0.00 | 1931.04 | 1933.32 | 0.471 | 0.96 | 0.96 | 3.824  | A |
| A39             | 552.05 | 138.01 | 552.04 | 475.12  | 442.58 | 0.00 | 1634.84 | 1297.68 | 0.338 | 0.59 | 0.59 | 3.876  | A |
| Main Road north | 543.69 | 135.92 | 543.40 | 453.59  | 541.03 | 0.00 | 757.41  | 335.77  | 0.718 | 2.42 | 2.49 | 16.925 | C |

#### Main results: (17:45-18:00)

| Name            | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|-----------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| Main Road south | 742.13                | 185.53                  | 743.25              | 884.06             | 7.27                      | 0.00                       | 1932.07           | 1933.32                      | 0.384 | 0.96              | 0.68            | 3.291     | A   |
| A39             | 450.75                | 112.69                  | 451.41              | 388.60             | 361.92                    | 0.00                       | 1689.36           | 1297.68                      | 0.267 | 0.59              | 0.43            | 3.391     | A   |
| Main Road north | 443.93                | 110.98                  | 448.92              | 370.92             | 442.41                    | 0.00                       | 814.32            | 335.77                       | 0.545 | 2.49              | 1.24            | 10.079    | B   |

#### Main results: (18:00-18:15)

| Name            | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Entry Flow (PCU/hr) | Exit Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | Saturation Capacity (PCU/hr) | RFC   | Start Queue (PCU) | End Queue (PCU) | Delay (s) | LOS |
|-----------------|-----------------------|-------------------------|---------------------|--------------------|---------------------------|----------------------------|-------------------|------------------------------|-------|-------------------|-----------------|-----------|-----|
| Main Road south | 621.49                | 155.37                  | 622.15              | 737.86             | 6.05                      | 0.00                       | 1932.90           | 1933.32                      | 0.322 | 0.68              | 0.52            | 2.986     | A   |
| A39             | 377.48                | 94.37                   | 377.88              | 325.25             | 302.95                    | 0.00                       | 1729.21           | 1297.68                      | 0.218 | 0.43              | 0.33            | 3.106     | A   |

|                 |        |       |        |        |        |      |        |        |       |      |      |       |   |
|-----------------|--------|-------|--------|--------|--------|------|--------|--------|-------|------|------|-------|---|
| Main Road north | 371.77 | 92.94 | 373.57 | 310.49 | 370.34 | 0.00 | 855.90 | 335.77 | 0.434 | 1.24 | 0.79 | 7.564 | A |
|-----------------|--------|-------|--------|--------|--------|------|--------|--------|-------|------|------|-------|---|

## Queueing Delay Results for each time segment

### Queueing Delay results: (16:45-17:00)

| Name            | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|-----------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| Main Road south | 7.53                           | 0.50                                 | 2.974                                  | A                             | A                           |
| A39             | 4.77                           | 0.32                                 | 3.097                                  | A                             | A                           |
| Main Road north | 10.92                          | 0.73                                 | 7.402                                  | A                             | A                           |

### Queueing Delay results: (17:00-17:15)

| Name            | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|-----------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| Main Road south | 9.94                           | 0.66                                 | 3.282                                  | A                             | A                           |
| A39             | 6.24                           | 0.42                                 | 3.386                                  | A                             | A                           |
| Main Road north | 16.93                          | 1.13                                 | 9.710                                  | A                             | A                           |

### Queueing Delay results: (17:15-17:30)

| Name            | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|-----------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| Main Road south | 14.06                          | 0.94                                 | 3.818                                  | A                             | A                           |
| A39             | 8.69                           | 0.58                                 | 3.870                                  | A                             | A                           |
| Main Road north | 33.01                          | 2.20                                 | 16.237                                 | C                             | B                           |

#### Queueing Delay results: (17:30-17:45)

| Name            | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|-----------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| Main Road south | 14.41                          | 0.96                                 | 3.824                                  | A                             | A                           |
| A39             | 8.88                           | 0.59                                 | 3.876                                  | A                             | A                           |
| Main Road north | 36.89                          | 2.46                                 | 16.925                                 | C                             | B                           |

#### Queueing Delay results: (17:45-18:00)

| Name            | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|-----------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| Main Road south | 10.42                          | 0.69                                 | 3.291                                  | A                             | A                           |
| A39             | 6.51                           | 0.43                                 | 3.391                                  | A                             | A                           |
| Main Road north | 19.71                          | 1.31                                 | 10.079                                 | B                             | B                           |

**Queueing Delay results: (18:00-18:15)**

| Name            | Queueing Total Delay (PCU-min) | Queueing Rate Of Delay (PCU-min/min) | Average Delay Per Arriving Vehicle (s) | Unsignalised Level Of Service | Signalised Level Of Service |
|-----------------|--------------------------------|--------------------------------------|----------------------------------------|-------------------------------|-----------------------------|
| Main Road south | 7.88                           | 0.53                                 | 2.986                                  | A                             | A                           |
| A39             | 4.98                           | 0.33                                 | 3.106                                  | A                             | A                           |
| Main Road north | 12.26                          | 0.82                                 | 7.564                                  | A                             | A                           |

| Junctions 8                                                                                                                                                                  |  |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| ARCADY 8 - Roundabout Module                                                                                                                                                 |  |  |  |
| Version: 8.0.3.332 [14595,13/11/2013]<br>© Copyright TRL Limited, 2014                                                                                                       |  |  |  |
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**Filename:** J19 A39 - High Street.arc8

**Path:** P:\TP London\TP Projects\Hinkley Point C Connection\Modelling\Junctions 8\J19

**Report generation date:** 24/01/2014 11:24:03

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### Summary of junction performance

|               | AM          |           |      |     | PM          |           |      |     |
|---------------|-------------|-----------|------|-----|-------------|-----------|------|-----|
|               | Queue (PCU) | Delay (s) | RFC  | LOS | Queue (PCU) | Delay (s) | RFC  | LOS |
| A1 - 2013 Obs |             |           |      |     |             |           |      |     |
| High Street   | 0.08        | 2.90      | 0.07 | A   | 0.06        | 2.51      | 0.05 | A   |

|                    |                       |      |      |   |      |      |      |   |
|--------------------|-----------------------|------|------|---|------|------|------|---|
| <b>A39 south</b>   | 0.22                  | 3.04 | 0.16 | A | 0.27 | 2.93 | 0.21 | A |
| <b>A39 west</b>    | 0.30                  | 2.58 | 0.22 | A | 0.20 | 2.28 | 0.16 | A |
|                    | <b>A1 - 2016 Base</b> |      |      |   |      |      |      |   |
| <b>High Street</b> | 0.16                  | 3.54 | 0.11 | A | 0.24 | 3.83 | 0.14 | A |
| <b>A39 south</b>   | 0.32                  | 3.53 | 0.21 | A | 0.47 | 3.69 | 0.29 | A |
| <b>A39 west</b>    | 0.31                  | 2.68 | 0.23 | A | 0.21 | 2.41 | 0.17 | A |
|                    | <b>A1 - 2016 Dev</b>  |      |      |   |      |      |      |   |
| <b>High Street</b> | 0.18                  | 3.67 | 0.12 | A | 0.33 | 3.73 | 0.20 | A |
| <b>A39 south</b>   | 0.44                  | 3.69 | 0.27 | A | 0.49 | 3.78 | 0.30 | A |
| <b>A39 west</b>    | 0.33                  | 2.81 | 0.24 | A | 0.22 | 2.43 | 0.17 | A |

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle.

"D1 - 2013 Obs, AM " model duration: 07:45 - 09:15

"D2 - 2013 Obs, PM" model duration: 16:45 - 18:15

"D3 - 2016 Base, AM" model duration: 07:45 - 09:15

"D4 - 2016 Base, PM" model duration: 16:45 - 18:15

"D5 - 2016 Dev, AM" model duration: 07:45 - 09:15

"D6 - 2016 Dev, PM" model duration: 16:45 - 18:15

Run using Junctions 8.0.3.332 at 24/01/2014 11:24:01

## File summary

### File Description

|                    |            |
|--------------------|------------|
| <b>Title</b>       | (untitled) |
| <b>Location</b>    |            |
| <b>Site Number</b> |            |
| <b>Date</b>        | 02/12/2013 |
| <b>Version</b>     |            |
| <b>Status</b>      | (new file) |
| <b>Identifier</b>  |            |
| <b>Client</b>      |            |
| <b>Jobnumber</b>   |            |
| <b>Enumerator</b>  |            |
| <b>Description</b> |            |

### Analysis Options

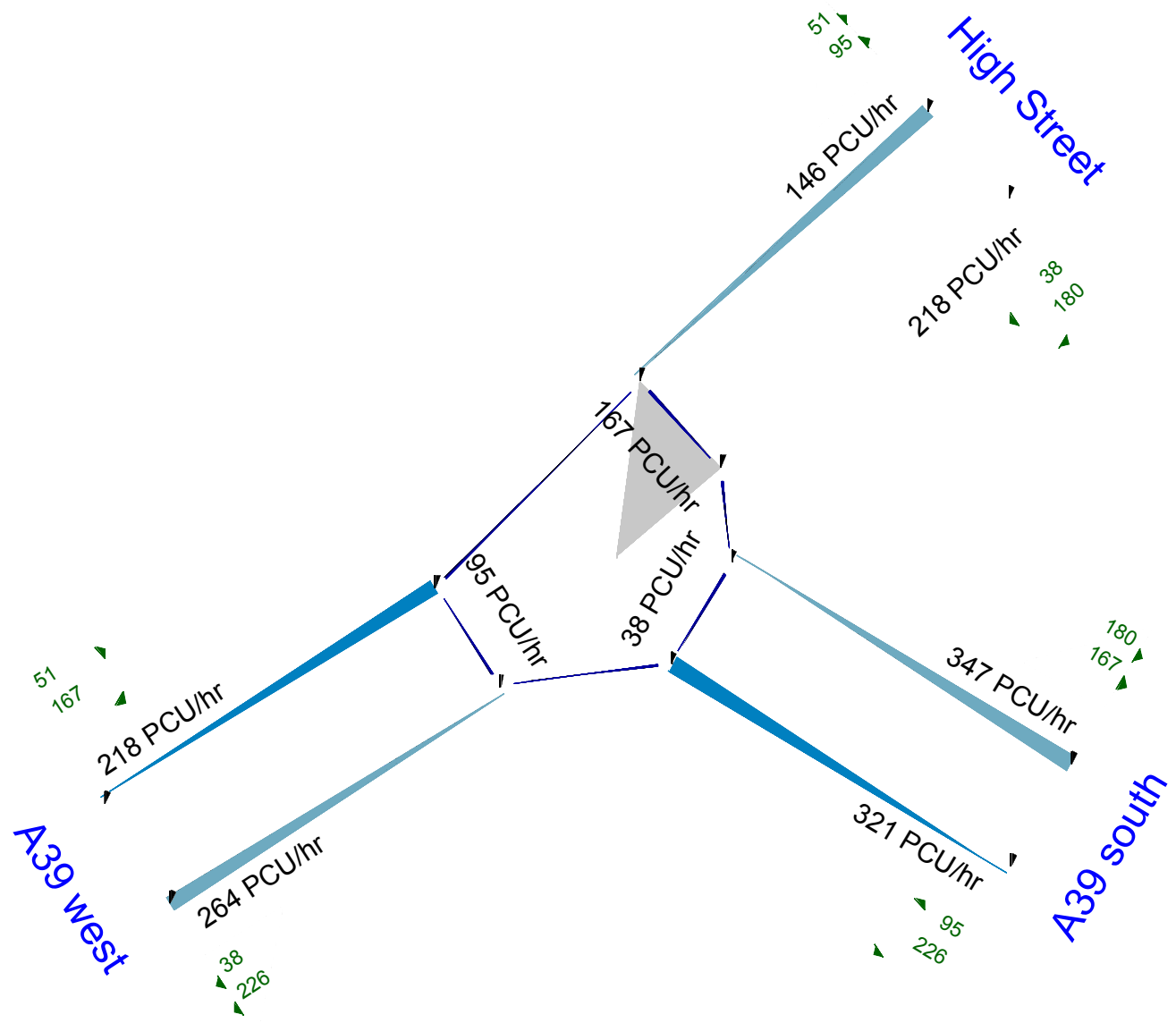
| Vehicle Length (m) | Do Queue Variations | Calculate Residual Capacity | Residual Capacity Criteria Type | RFC Threshold | Average Delay Threshold (s) | Queue Threshold (PCU) |
|--------------------|---------------------|-----------------------------|---------------------------------|---------------|-----------------------------|-----------------------|
| 5.75               |                     |                             | N/A                             | 0.85          | 36.00                       | 20.00                 |

### Units

| Distance Units | Speed Units | Traffic Units Input | Traffic Units Results | Flow Units | Average Delay Units | Total Delay Units | Rate Of Delay Units |
|----------------|-------------|---------------------|-----------------------|------------|---------------------|-------------------|---------------------|
|----------------|-------------|---------------------|-----------------------|------------|---------------------|-------------------|---------------------|

|   |     |     |     |         |   |      |        |
|---|-----|-----|-----|---------|---|------|--------|
| m | kph | Veh | PCU | perHour | s | -Min | perMin |
|---|-----|-----|-----|---------|---|------|--------|





The junction diagram reflects the last run of ARCADY.

## (Default Analysis Set) - 2013 Obs, AM

### Data Errors and Warnings

No errors or warnings

### Analysis Set Details

| Name                   | Description | Locked | Network Flow Scaling Factor (%) | Reason For Scaling Factors |
|------------------------|-------------|--------|---------------------------------|----------------------------|
| (Default Analysis Set) |             |        | 100.000                         |                            |

### Demand Set Details

| Name         | Scenario Name | Time Period Name | Description | Traffic Profile Type | Model Start Time (HH:mm) | Model Finish Time (HH:mm) | Model Time Period Length (min) | Time Segment Length (min) | Single Time Segment Only | Locked |
|--------------|---------------|------------------|-------------|----------------------|--------------------------|---------------------------|--------------------------------|---------------------------|--------------------------|--------|
| 2013 Obs, AM | 2013 Obs      | AM               |             | ONE HOUR             | 07:45                    | 09:15                     | 90                             | 15                        |                          |        |

## Junction Network

### Junctions

| Name       | Junction Type | Arm Order | Grade Separated | Large Roundabout | Junction Delay (s) | Junction LOS |
|------------|---------------|-----------|-----------------|------------------|--------------------|--------------|
| (untitled) | Roundabout    | 1,2,3     |                 |                  | 2.77               | A            |

### Junction Network Options

| Driving Side | Lighting       |
|--------------|----------------|
| Left         | Normal/unknown |

## Arms

### Arms

| Name        | Name        | Description |
|-------------|-------------|-------------|
| High Street | High Street |             |
| A39 south   | A39 south   |             |
| A39 west    | A39 west    |             |

### Roundabout Geometry

| Name        | V - Approach road half-width (m) | E - Entry width (m) | I' - Effective flare length (m) | R - Entry radius (m) | D - Inscribed circle diameter (m) | PHI - Conflict (entry) angle (deg) | Exit Only |
|-------------|----------------------------------|---------------------|---------------------------------|----------------------|-----------------------------------|------------------------------------|-----------|
| High Street | 4.20                             | 6.70                | 8.00                            | 24.00                | 49.00                             | 19.00                              |           |
| A39 south   | 2.90                             | 7.50                | 20.00                           | 22.00                | 49.00                             | 42.00                              |           |
| A39 west    | 3.80                             | 7.50                | 17.00                           | 34.00                | 49.00                             | 17.00                              |           |

### Pedestrian Crossings

| Name | Crossing Type |
|------|---------------|
|------|---------------|

|             |      |
|-------------|------|
| High Street | None |
| A39 south   | None |
| A39 west    | None |

## Slope / Intercept / Capacity

### Roundabout Slope and Intercept used in model

| Name        | Enter slope and intercept directly | Entered slope | Entered intercept (PCU/hr) | Final Slope | Final Intercept (PCU/hr) |
|-------------|------------------------------------|---------------|----------------------------|-------------|--------------------------|
| High Street |                                    | (calculated)  | (calculated)               | 0.632       | 1727.841                 |
| A39 south   |                                    | (calculated)  | (calculated)               | 0.587       | 1619.035                 |
| A39 west    |                                    | (calculated)  | (calculated)               | 0.676       | 1930.483                 |

*The slope and intercept shown above include any corrections and adjustments.*

## Traffic Flows

### Demand Set Data Options

| Default Vehicle Mix | Vehicle Mix Varies Over Time | Vehicle Mix Varies Over Turn | Vehicle Mix Varies Over Entry | Vehicle Mix Source | PCU Factor for a HV (PCU) | Default Turning Proportions | Estimate from entry/exit counts | Turning Proportions Vary Over Time | Turning Proportions Vary Over Turn | Turning Proportions Vary Over Entry |
|---------------------|------------------------------|------------------------------|-------------------------------|--------------------|---------------------------|-----------------------------|---------------------------------|------------------------------------|------------------------------------|-------------------------------------|
|                     |                              | ✓                            | ✓                             | HV Percentages     | 2.00                      |                             |                                 |                                    | ✓                                  | ✓                                   |

## Entry Flows

## General Flows Data

| Name        | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (%) |
|-------------|--------------|--------------------|------------------------------|-------------------------|
| High Street | ONE HOUR     | ✓                  | 85.00                        | 100.000                 |
| A39 south   | ONE HOUR     | ✓                  | 209.00                       | 100.000                 |
| A39 west    | ONE HOUR     | ✓                  | 354.00                       | 100.000                 |

## Turning Proportions

### Turning Counts or Proportions (Veh/hr) - (untitled) (for whole period)

|      | To |        |         |
|------|----|--------|---------|
|      | 1  | 2      | 3       |
| From | 1  | 0.000  | 29.000  |
|      | 2  | 41.000 | 0.000   |
|      | 3  | 55.000 | 299.000 |

### Turning Proportions (Veh) - (untitled) (for whole period)

|      | To |      |      |
|------|----|------|------|
|      | 1  | 2    | 3    |
| From | 1  | 0.00 | 0.34 |

|  |   |      |      |      |
|--|---|------|------|------|
|  | 2 | 0.20 | 0.00 | 0.80 |
|  | 3 | 0.16 | 0.84 | 0.00 |

# Vehicle Mix

Average PCU Per Vehicle - (untitled) (for whole period)

|      |   |       |       |       |
|------|---|-------|-------|-------|
|      |   | To    |       |       |
|      |   | 1     | 2     | 3     |
| From | 1 | 1.000 | 1.241 | 1.071 |
|      | 2 | 1.070 | 1.000 | 1.130 |
|      | 3 | 1.091 | 1.057 | 1.000 |

Heavy Vehicle Percentages - (untitled) (for whole period)

|      |   |       |        |        |
|------|---|-------|--------|--------|
|      |   | To    |        |        |
|      |   | 1     | 2      | 3      |
| From | 1 | 0.000 | 24.100 | 7.100  |
|      | 2 | 7.000 | 0.000  | 13.000 |
|      | 3 | 9.100 | 5.700  | 0.000  |

# Results

## Results Summary for whole modelled period

| Name        | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|-------------|---------|---------------|-----------------|---------|
| High Street | 0.07    | 2.90          | 0.08            | A       |
| A39 south   | 0.16    | 3.04          | 0.22            | A       |
| A39 west    | 0.22    | 2.58          | 0.30            | A       |

## Main Results for each time segment

### Main results: (07:45-08:00)

| Name        | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| High Street | 72.25                 | 72.03               | 237.31                    | 0.00                       | 1577.98           | 0.046 | 0.05            | 2.698     | A   |
| A39 south   | 175.95                | 175.40              | 45.02                     | 0.00                       | 1592.63           | 0.110 | 0.14            | 2.840     | A   |
| A39 west    | 283.11                | 282.37              | 32.92                     | 0.00                       | 1908.24           | 0.148 | 0.18            | 2.350     | A   |

### Main results: (08:00-08:15)

| Name | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC | End Queue (PCU) | Delay (s) | LOS |
|------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-----|-----------------|-----------|-----|
|------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-----|-----------------|-----------|-----|

|             |        |        |        |      |         |       |      |       |   |
|-------------|--------|--------|--------|------|---------|-------|------|-------|---|
| High Street | 86.27  | 86.22  | 283.97 | 0.00 | 1548.51 | 0.056 | 0.07 | 2.778 | A |
| A39 south   | 210.10 | 209.97 | 53.89  | 0.00 | 1587.42 | 0.132 | 0.17 | 2.922 | A |
| A39 west    | 338.06 | 337.88 | 39.41  | 0.00 | 1903.85 | 0.178 | 0.23 | 2.441 | A |

#### Main results: (08:15-08:30)

| Name        | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| High Street | 105.66                | 105.59              | 347.75                    | 0.00                       | 1508.24           | 0.070 | 0.08            | 2.897     | A   |
| A39 south   | 257.32                | 257.13              | 65.99                     | 0.00                       | 1580.32           | 0.163 | 0.22            | 3.042     | A   |
| A39 west    | 414.04                | 413.77              | 48.27                     | 0.00                       | 1897.87           | 0.218 | 0.30            | 2.576     | A   |

#### Main results: (08:30-08:45)

| Name        | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| High Street | 105.66                | 105.66              | 347.97                    | 0.00                       | 1508.10           | 0.070 | 0.08            | 2.897     | A   |
| A39 south   | 257.32                | 257.32              | 66.03                     | 0.00                       | 1580.30           | 0.163 | 0.22            | 3.042     | A   |
| A39 west    | 414.04                | 414.03              | 48.30                     | 0.00                       | 1897.85           | 0.218 | 0.30            | 2.576     | A   |

#### Main results: (08:45-09:00)

| Name        | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| High Street | 86.27                 | 86.34               | 284.34                    | 0.00                       | 1548.28           | 0.056 | 0.07            | 2.779     | A   |
| A39 south   | 210.10                | 210.28              | 53.96                     | 0.00                       | 1587.38           | 0.132 | 0.17            | 2.925     | A   |



|          |        |        |       |      |         |       |      |       |   |
|----------|--------|--------|-------|------|---------|-------|------|-------|---|
| A39 west | 338.06 | 338.32 | 39.47 | 0.00 | 1903.82 | 0.178 | 0.23 | 2.444 | A |
|----------|--------|--------|-------|------|---------|-------|------|-------|---|

### Main results: (09:00-09:15)

| Name        | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| High Street | 72.25                 | 72.30               | 238.08                    | 0.00                       | 1577.49           | 0.046 | 0.05            | 2.701     | A   |
| A39 south   | 175.95                | 176.08              | 45.18                     | 0.00                       | 1592.53           | 0.110 | 0.14            | 2.843     | A   |
| A39 west    | 283.11                | 283.29              | 33.05                     | 0.00                       | 1908.15           | 0.148 | 0.19            | 2.353     | A   |

## (Default Analysis Set) - 2013 Obs, PM

### Data Errors and Warnings

*No errors or warnings*

### Analysis Set Details

| Name                   | Description | Locked | Network Flow Scaling Factor (%) | Reason For Scaling Factors |
|------------------------|-------------|--------|---------------------------------|----------------------------|
| (Default Analysis Set) |             |        | 100.000                         |                            |

### Demand Set Details

| Name         | Scenario Name | Time Period Name | Description | Traffic Profile Type | Model Start Time (HH:mm) | Model Finish Time (HH:mm) | Model Time Period Length (min) | Time Segment Length (min) | Single Time Segment Only | Locked |
|--------------|---------------|------------------|-------------|----------------------|--------------------------|---------------------------|--------------------------------|---------------------------|--------------------------|--------|
| 2013 Obs, PM | 2013 Obs      | PM               |             | ONE HOUR             | 16:45                    | 18:15                     | 90                             | 15                        |                          |        |

# Junction Network

## Junctions

| Name       | Junction Type | Arm Order | Grade Separated | Large Roundabout | Junction Delay (s) | Junction LOS |
|------------|---------------|-----------|-----------------|------------------|--------------------|--------------|
| (untitled) | Roundabout    | 1,2,3     |                 |                  | 2.60               | A            |

## Junction Network Options

| Driving Side | Lighting       |
|--------------|----------------|
| Left         | Normal/unknown |

# Arms

## Arms

| Name        | Name        | Description |
|-------------|-------------|-------------|
| High Street | High Street |             |
| A39 south   | A39 south   |             |
| A39 west    | A39 west    |             |

## Roundabout Geometry

| Name | V - Approach road half-width (m) | E - Entry width (m) | I' - Effective flare length (m) | R - Entry radius (m) | D - Inscribed circle diameter (m) | PHI - Conflict (entry) angle (deg) | Exit Only |
|------|----------------------------------|---------------------|---------------------------------|----------------------|-----------------------------------|------------------------------------|-----------|
|------|----------------------------------|---------------------|---------------------------------|----------------------|-----------------------------------|------------------------------------|-----------|

|             |      |      |       |       |       |       |  |
|-------------|------|------|-------|-------|-------|-------|--|
| High Street | 4.20 | 6.70 | 8.00  | 24.00 | 49.00 | 19.00 |  |
| A39 south   | 2.90 | 7.50 | 20.00 | 22.00 | 49.00 | 42.00 |  |
| A39 west    | 3.80 | 7.50 | 17.00 | 34.00 | 49.00 | 17.00 |  |

## Pedestrian Crossings

| Name        | Crossing Type |
|-------------|---------------|
| High Street | None          |
| A39 south   | None          |
| A39 west    | None          |

## Slope / Intercept / Capacity

### Roundabout Slope and Intercept used in model

| Name        | Enter slope and intercept directly | Entered slope | Entered intercept (PCU/hr) | Final Slope | Final Intercept (PCU/hr) |
|-------------|------------------------------------|---------------|----------------------------|-------------|--------------------------|
| High Street |                                    | (calculated)  | (calculated)               | 0.632       | 1727.841                 |
| A39 south   |                                    | (calculated)  | (calculated)               | 0.587       | 1619.035                 |
| A39 west    |                                    | (calculated)  | (calculated)               | 0.676       | 1930.483                 |

*The slope and intercept shown above include any corrections and adjustments.*

## Traffic Flows

## Demand Set Data Options

| Default Vehicle Mix | Vehicle Mix Varies Over Time | Vehicle Mix Varies Over Turn | Vehicle Mix Varies Over Entry | Vehicle Mix Source | PCU Factor for a HV (PCU) | Default Turning Proportions | Estimate from entry/exit counts | Turning Proportions Vary Over Time | Turning Proportions Vary Over Turn | Turning Proportions Vary Over Entry |
|---------------------|------------------------------|------------------------------|-------------------------------|--------------------|---------------------------|-----------------------------|---------------------------------|------------------------------------|------------------------------------|-------------------------------------|
|                     |                              | ✓                            | ✓                             | HV Percentages     | 2.00                      |                             |                                 |                                    | ✓                                  | ✓                                   |

## Entry Flows

### General Flows Data

| Name        | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (%) |
|-------------|--------------|--------------------|------------------------------|-------------------------|
| High Street | ONE HOUR     | ✓                  | 74.00                        | 100.000                 |
| A39 south   | ONE HOUR     | ✓                  | 297.00                       | 100.000                 |
| A39 west    | ONE HOUR     | ✓                  | 276.00                       | 100.000                 |

## Turning Proportions

### Turning Counts or Proportions (Veh/hr) - (untitled) (for whole period)

|      |    |       |        |        |
|------|----|-------|--------|--------|
|      | To |       |        |        |
| From |    | 1     | 2      | 3      |
|      | 1  | 0.000 | 25.000 | 49.000 |

|  |          |        |         |         |
|--|----------|--------|---------|---------|
|  | <b>2</b> | 10.000 | 0.000   | 287.000 |
|  | <b>3</b> | 66.000 | 210.000 | 0.000   |

Turning Proportions (Veh) - (untitled) (for whole period)

|      |          |          |          |          |
|------|----------|----------|----------|----------|
|      | To       |          |          |          |
| From |          | <b>1</b> | <b>2</b> | <b>3</b> |
|      | <b>1</b> | 0.00     | 0.34     | 0.66     |
|      | <b>2</b> | 0.03     | 0.00     | 0.97     |
|      | <b>3</b> | 0.24     | 0.76     | 0.00     |

# Vehicle Mix

Average PCU Per Vehicle - (untitled) (for whole period)

|      |          |          |          |          |
|------|----------|----------|----------|----------|
|      | To       |          |          |          |
| From |          | <b>1</b> | <b>2</b> | <b>3</b> |
|      | <b>1</b> | 1.000    | 1.080    | 1.020    |
|      | <b>2</b> | 1.100    | 1.000    | 1.017    |
|      | <b>3</b> | 1.000    | 1.029    | 1.000    |

Heavy Vehicle Percentages - (untitled) (for whole period)

|      | To |        |       |       |
|------|----|--------|-------|-------|
| From |    | 1      | 2     | 3     |
|      | 1  | 0.000  | 8.000 | 2.000 |
|      | 2  | 10.000 | 0.000 | 1.700 |
|      | 3  | 0.000  | 2.900 | 0.000 |

## Results

### Results Summary for whole modelled period

| Name        | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|-------------|---------|---------------|-----------------|---------|
| High Street | 0.05    | 2.51          | 0.06            | A       |
| A39 south   | 0.21    | 2.93          | 0.27            | A       |
| A39 west    | 0.16    | 2.28          | 0.20            | A       |

### Main Results for each time segment

**Main results: (16:45-17:00)**

| Name        | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| High Street | 57.95                 | 57.80               | 162.30                    | 0.00                       | 1625.35           | 0.036 | 0.04            | 2.388     | A   |
| A39 south   | 228.02                | 227.35              | 37.53                     | 0.00                       | 1597.02           | 0.143 | 0.17            | 2.679     | A   |
| A39 west    | 212.37                | 211.87              | 8.26                      | 0.00                       | 1924.90           | 0.110 | 0.13            | 2.148     | A   |

#### Main results: (17:00-17:15)

| Name        | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| High Street | 69.20                 | 69.17               | 194.17                    | 0.00                       | 1605.22           | 0.043 | 0.05            | 2.437     | A   |
| A39 south   | 272.28                | 272.12              | 44.91                     | 0.00                       | 1592.69           | 0.171 | 0.21            | 2.779     | A   |
| A39 west    | 253.59                | 253.48              | 9.88                      | 0.00                       | 1923.81           | 0.132 | 0.15            | 2.202     | A   |

#### Main results: (17:15-17:30)

| Name        | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| High Street | 84.76                 | 84.71               | 237.79                    | 0.00                       | 1577.67           | 0.054 | 0.06            | 2.508     | A   |
| A39 south   | 333.48                | 333.23              | 55.00                     | 0.00                       | 1586.77           | 0.210 | 0.27            | 2.928     | A   |
| A39 west    | 310.59                | 310.42              | 12.10                     | 0.00                       | 1922.31           | 0.162 | 0.20            | 2.282     | A   |

#### Main results: (17:30-17:45)

| Name        | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| High Street | 84.76                 | 84.76               | 237.92                    | 0.00                       | 1577.59           | 0.054 | 0.06            | 2.508     | A   |

|           |        |        |       |      |         |       |      |       |   |
|-----------|--------|--------|-------|------|---------|-------|------|-------|---|
| A39 south | 333.48 | 333.47 | 55.03 | 0.00 | 1586.75 | 0.210 | 0.27 | 2.928 | A |
| A39 west  | 310.59 | 310.59 | 12.11 | 0.00 | 1922.30 | 0.162 | 0.20 | 2.282 | A |

#### Main results: (17:45-18:00)

| Name        | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| High Street | 69.20                 | 69.25               | 194.39                    | 0.00                       | 1605.09           | 0.043 | 0.05            | 2.438     | A   |
| A39 south   | 272.28                | 272.52              | 44.96                     | 0.00                       | 1592.66           | 0.171 | 0.21            | 2.780     | A   |
| A39 west    | 253.59                | 253.76              | 9.90                      | 0.00                       | 1923.80           | 0.132 | 0.16            | 2.204     | A   |

#### Main results: (18:00-18:15)

| Name        | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| High Street | 57.95                 | 57.99               | 162.77                    | 0.00                       | 1625.05           | 0.036 | 0.04            | 2.391     | A   |
| A39 south   | 228.02                | 228.19              | 37.65                     | 0.00                       | 1596.95           | 0.143 | 0.17            | 2.681     | A   |
| A39 west    | 212.37                | 212.49              | 8.29                      | 0.00                       | 1924.88           | 0.110 | 0.13            | 2.150     | A   |

## (Default Analysis Set) - 2016 Base, AM

### Data Errors and Warnings

No errors or warnings

### Analysis Set Details

| Name | Description | Locked | Network Flow Scaling Factor (%) | Reason For Scaling Factors |
|------|-------------|--------|---------------------------------|----------------------------|
|------|-------------|--------|---------------------------------|----------------------------|



|                        |  |  |         |  |
|------------------------|--|--|---------|--|
| (Default Analysis Set) |  |  | 100.000 |  |
|------------------------|--|--|---------|--|

## Demand Set Details

| Name          | Scenario Name | Time Period Name | Description | Traffic Profile Type | Model Start Time (HH:mm) | Model Finish Time (HH:mm) | Model Time Period Length (min) | Time Segment Length (min) | Single Time Segment Only | Locked |
|---------------|---------------|------------------|-------------|----------------------|--------------------------|---------------------------|--------------------------------|---------------------------|--------------------------|--------|
| 2016 Base, AM | 2016 Base     | AM               |             | ONE HOUR             | 07:45                    | 09:15                     | 90                             | 15                        |                          |        |

# Junction Network

## Junctions

| Name       | Junction Type | Arm Order | Grade Separated | Large Roundabout | Junction Delay (s) | Junction LOS |
|------------|---------------|-----------|-----------------|------------------|--------------------|--------------|
| (untitled) | Roundabout    | 1,2,3     |                 |                  | 3.14               | A            |

## Junction Network Options

| Driving Side | Lighting       |
|--------------|----------------|
| Left         | Normal/unknown |

# Arms

## Arms

| Name | Name | Description |
|------|------|-------------|
|------|------|-------------|

|                    |             |  |
|--------------------|-------------|--|
| <b>High Street</b> | High Street |  |
| <b>A39 south</b>   | A39 south   |  |
| <b>A39 west</b>    | A39 west    |  |

## Roundabout Geometry

| Name               | V - Approach road half-width (m) | E - Entry width (m) | I' - Effective flare length (m) | R - Entry radius (m) | D - Inscribed circle diameter (m) | PHI - Conflict (entry) angle (deg) | Exit Only |
|--------------------|----------------------------------|---------------------|---------------------------------|----------------------|-----------------------------------|------------------------------------|-----------|
| <b>High Street</b> | 4.20                             | 6.70                | 8.00                            | 24.00                | 49.00                             | 19.00                              |           |
| <b>A39 south</b>   | 2.90                             | 7.50                | 20.00                           | 22.00                | 49.00                             | 42.00                              |           |
| <b>A39 west</b>    | 3.80                             | 7.50                | 17.00                           | 34.00                | 49.00                             | 17.00                              |           |

## Pedestrian Crossings

| Name               | Crossing Type |
|--------------------|---------------|
| <b>High Street</b> | None          |
| <b>A39 south</b>   | None          |
| <b>A39 west</b>    | None          |

## Slope / Intercept / Capacity

### Roundabout Slope and Intercept used in model

| Name | Enter slope and intercept directly | Entered slope | Entered intercept (PCU/hr) | Final Slope | Final Intercept (PCU/hr) |
|------|------------------------------------|---------------|----------------------------|-------------|--------------------------|
|------|------------------------------------|---------------|----------------------------|-------------|--------------------------|

|             |  |              |              |       |          |
|-------------|--|--------------|--------------|-------|----------|
| High Street |  | (calculated) | (calculated) | 0.632 | 1727.841 |
| A39 south   |  | (calculated) | (calculated) | 0.587 | 1619.035 |
| A39 west    |  | (calculated) | (calculated) | 0.676 | 1930.483 |

*The slope and intercept shown above include any corrections and adjustments.*

## Traffic Flows

### Demand Set Data Options

| Default Vehicle Mix | Vehicle Mix Varies Over Time | Vehicle Mix Varies Over Turn | Vehicle Mix Varies Over Entry | Vehicle Mix Source | PCU Factor for a HV (PCU) | Default Turning Proportions | Estimate from entry/exit counts | Turning Proportions Vary Over Time | Turning Proportions Vary Over Turn | Turning Proportions Vary Over Entry |
|---------------------|------------------------------|------------------------------|-------------------------------|--------------------|---------------------------|-----------------------------|---------------------------------|------------------------------------|------------------------------------|-------------------------------------|
|                     |                              | ✓                            | ✓                             | HV Percentages     | 2.00                      |                             |                                 |                                    | ✓                                  | ✓                                   |

## Entry Flows

### General Flows Data

| Name        | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (%) |
|-------------|--------------|--------------------|------------------------------|-------------------------|
| High Street | ONE HOUR     | ✓                  | 116.00                       | 100.000                 |
| A39 south   | ONE HOUR     | ✓                  | 245.00                       | 100.000                 |
| A39 west    | ONE HOUR     | ✓                  | 361.00                       | 100.000                 |

# Turning Proportions

Turning Counts or Proportions (Veh/hr) - (untitled) (for whole period)

|      | To |        |         |         |
|------|----|--------|---------|---------|
|      |    | 1      | 2       | 3       |
| From | 1  | 0.000  | 59.000  | 57.000  |
|      | 2  | 73.000 | 0.000   | 172.000 |
|      | 3  | 55.000 | 306.000 | 0.000   |

Turning Proportions (Veh) - (untitled) (for whole period)

|      | To |      |      |      |
|------|----|------|------|------|
|      |    | 1    | 2    | 3    |
| From | 1  | 0.00 | 0.51 | 0.49 |
|      | 2  | 0.30 | 0.00 | 0.70 |
|      | 3  | 0.15 | 0.85 | 0.00 |

# Vehicle Mix

Average PCU Per Vehicle - (untitled) (for whole period)

|  | To |
|--|----|
|--|----|

| From |   | 1     | 2     | 3     |
|------|---|-------|-------|-------|
|      | 1 | 1.000 | 1.550 | 1.070 |
|      | 2 | 1.470 | 1.000 | 1.120 |
|      | 3 | 1.090 | 1.060 | 1.000 |

### Heavy Vehicle Percentages - (untitled) (for whole period)

| From | To |        |        |        |
|------|----|--------|--------|--------|
|      |    | 1      | 2      | 3      |
|      | 1  | 0.000  | 55.000 | 7.000  |
|      | 2  | 47.000 | 0.000  | 12.000 |
|      | 3  | 9.000  | 6.000  | 0.000  |

## Results

### Results Summary for whole modelled period

| Name        | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|-------------|---------|---------------|-----------------|---------|
| High Street | 0.11    | 3.54          | 0.16            | A       |
| A39 south   | 0.21    | 3.53          | 0.32            | A       |
| A39 west    | 0.23    | 2.68          | 0.31            | A       |

## Main Results for each time segment

### Main results: (07:45-08:00)

| Name        | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| High Street | 114.76                | 114.35              | 243.54                    | 0.00                       | 1574.04           | 0.073 | 0.10            | 3.241     | A   |
| A39 south   | 225.82                | 225.01              | 45.75                     | 0.00                       | 1592.19           | 0.142 | 0.20            | 3.222     | A   |
| A39 west    | 289.33                | 288.55              | 80.50                     | 0.00                       | 1876.10           | 0.154 | 0.19            | 2.412     | A   |

### Main results: (08:00-08:15)

| Name        | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| High Street | 137.04                | 136.94              | 291.43                    | 0.00                       | 1543.80           | 0.089 | 0.13            | 3.362     | A   |
| A39 south   | 269.65                | 269.46              | 54.79                     | 0.00                       | 1586.89           | 0.170 | 0.25            | 3.345     | A   |
| A39 west    | 345.49                | 345.30              | 96.40                     | 0.00                       | 1865.36           | 0.185 | 0.24            | 2.521     | A   |

### Main results: (08:15-08:30)

| Name        | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| High Street | 167.84                | 167.69              | 356.88                    | 0.00                       | 1502.47           | 0.112 | 0.16            | 3.543     | A   |

|                  |        |        |        |      |         |       |      |       |   |
|------------------|--------|--------|--------|------|---------|-------|------|-------|---|
| <b>A39 south</b> | 330.25 | 329.96 | 67.09  | 0.00 | 1579.68 | 0.209 | 0.32 | 3.526 | A |
| <b>A39 west</b>  | 423.13 | 422.84 | 118.05 | 0.00 | 1850.73 | 0.229 | 0.31 | 2.684 | A |

#### Main results: (08:30-08:45)

| Name               | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| <b>High Street</b> | 167.84                | 167.84              | 357.12                    | 0.00                       | 1502.32           | 0.112 | 0.16            | 3.544     | A   |
| <b>A39 south</b>   | 330.25                | 330.25              | 67.15                     | 0.00                       | 1579.64           | 0.209 | 0.32            | 3.526     | A   |
| <b>A39 west</b>    | 423.13                | 423.13              | 118.15                    | 0.00                       | 1850.66           | 0.229 | 0.31            | 2.684     | A   |

#### Main results: (08:45-09:00)

| Name               | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| <b>High Street</b> | 137.04                | 137.19              | 291.84                    | 0.00                       | 1543.55           | 0.089 | 0.13            | 3.363     | A   |
| <b>A39 south</b>   | 269.65                | 269.93              | 54.89                     | 0.00                       | 1586.84           | 0.170 | 0.25            | 3.349     | A   |
| <b>A39 west</b>    | 345.49                | 345.78              | 96.57                     | 0.00                       | 1865.24           | 0.185 | 0.24            | 2.522     | A   |

#### Main results: (09:00-09:15)

| Name               | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|--------------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| <b>High Street</b> | 114.76                | 114.86              | 244.36                    | 0.00                       | 1573.53           | 0.073 | 0.10            | 3.242     | A   |
| <b>A39 south</b>   | 225.82                | 226.01              | 45.96                     | 0.00                       | 1592.07           | 0.142 | 0.20            | 3.226     | A   |
| <b>A39 west</b>    | 289.33                | 289.52              | 80.86                     | 0.00                       | 1875.86           | 0.154 | 0.19            | 2.415     | A   |

## (Default Analysis Set) - 2016 Base, PM

### Data Errors and Warnings

*No errors or warnings*

### Analysis Set Details

| Name                   | Description | Locked | Network Flow Scaling Factor (%) | Reason For Scaling Factors |
|------------------------|-------------|--------|---------------------------------|----------------------------|
| (Default Analysis Set) |             |        | 100.000                         |                            |

### Demand Set Details

| Name          | Scenario Name | Time Period Name | Description | Traffic Profile Type | Model Start Time (HH:mm) | Model Finish Time (HH:mm) | Model Time Period Length (min) | Time Segment Length (min) | Single Time Segment Only | Locked |
|---------------|---------------|------------------|-------------|----------------------|--------------------------|---------------------------|--------------------------------|---------------------------|--------------------------|--------|
| 2016 Base, PM | 2016 Base     | PM               |             | ONE HOUR             | 16:45                    | 18:15                     | 90                             | 15                        |                          |        |

## Junction Network

### Junctions

| Name       | Junction Type | Arm Order | Grade Separated | Large Roundabout | Junction Delay (s) | Junction LOS |
|------------|---------------|-----------|-----------------|------------------|--------------------|--------------|
| (untitled) | Roundabout    | 1,2,3     |                 |                  | 3.31               | A            |

### Junction Network Options

|              |          |
|--------------|----------|
| Driving Side | Lighting |
|--------------|----------|



|      |                |
|------|----------------|
| Left | Normal/unknown |
|------|----------------|

# Arms

## Arms

| Name        | Name        | Description |
|-------------|-------------|-------------|
| High Street | High Street |             |
| A39 south   | A39 south   |             |
| A39 west    | A39 west    |             |

## Roundabout Geometry

| Name        | V - Approach road half-width (m) | E - Entry width (m) | I' - Effective flare length (m) | R - Entry radius (m) | D - Inscribed circle diameter (m) | PHI - Conflict (entry) angle (deg) | Exit Only |
|-------------|----------------------------------|---------------------|---------------------------------|----------------------|-----------------------------------|------------------------------------|-----------|
| High Street | 4.20                             | 6.70                | 8.00                            | 24.00                | 49.00                             | 19.00                              |           |
| A39 south   | 2.90                             | 7.50                | 20.00                           | 22.00                | 49.00                             | 42.00                              |           |
| A39 west    | 3.80                             | 7.50                | 17.00                           | 34.00                | 49.00                             | 17.00                              |           |

## Pedestrian Crossings

| Name        | Crossing Type |
|-------------|---------------|
| High Street | None          |

|                  |      |
|------------------|------|
| <b>A39 south</b> | None |
| <b>A39 west</b>  | None |

## Slope / Intercept / Capacity

### Roundabout Slope and Intercept used in model

| Name        | Enter slope and intercept directly | Entered slope | Entered intercept (PCU/hr) | Final Slope | Final Intercept (PCU/hr) |
|-------------|------------------------------------|---------------|----------------------------|-------------|--------------------------|
| High Street |                                    | (calculated)  | (calculated)               | 0.632       | 1727.841                 |
| A39 south   |                                    | (calculated)  | (calculated)               | 0.587       | 1619.035                 |
| A39 west    |                                    | (calculated)  | (calculated)               | 0.676       | 1930.483                 |

*The slope and intercept shown above include any corrections and adjustments.*

## Traffic Flows

### Demand Set Data Options

| Default Vehicle Mix | Vehicle Mix Varies Over Time | Vehicle Mix Varies Over Turn | Vehicle Mix Varies Over Entry | Vehicle Mix Source | PCU Factor for a HV (PCU) | Default Turning Proportions | Estimate from entry/exit counts | Turning Proportions Vary Over Time | Turning Proportions Vary Over Turn | Turning Proportions Vary Over Entry |
|---------------------|------------------------------|------------------------------|-------------------------------|--------------------|---------------------------|-----------------------------|---------------------------------|------------------------------------|------------------------------------|-------------------------------------|
|                     |                              | ✓                            | ✓                             | HV Percentages     | 2.00                      |                             |                                 |                                    | ✓                                  | ✓                                   |

## Entry Flows

## General Flows Data

| Name        | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (%) |
|-------------|--------------|--------------------|------------------------------|-------------------------|
| High Street | ONE HOUR     | ✓                  | 142.00                       | 100.000                 |
| A39 south   | ONE HOUR     | ✓                  | 359.00                       | 100.000                 |
| A39 west    | ONE HOUR     | ✓                  | 284.00                       | 100.000                 |

## Turning Proportions

### Turning Counts or Proportions (Veh/hr) - (untitled) (for whole period)

|      |   | To     |         |         |
|------|---|--------|---------|---------|
| From |   | 1      | 2       | 3       |
|      | 1 | 0.000  | 92.000  | 50.000  |
|      | 2 | 64.000 | 0.000   | 295.000 |
|      | 3 | 68.000 | 216.000 | 0.000   |

### Turning Proportions (Veh) - (untitled) (for whole period)

|      |   | To   |      |      |
|------|---|------|------|------|
| From |   | 1    | 2    | 3    |
|      | 1 | 0.00 | 0.65 | 0.35 |

|  |   |      |      |      |
|--|---|------|------|------|
|  | 2 | 0.18 | 0.00 | 0.82 |
|  | 3 | 0.24 | 0.76 | 0.00 |

# Vehicle Mix

Average PCU Per Vehicle - (untitled) (for whole period)

|      |   |       |       |       |
|------|---|-------|-------|-------|
|      |   | To    |       |       |
|      |   | 1     | 2     | 3     |
| From | 1 | 1.000 | 1.660 | 1.020 |
|      | 2 | 1.790 | 1.000 | 1.020 |
|      | 3 | 1.000 | 1.030 | 1.000 |

Heavy Vehicle Percentages - (untitled) (for whole period)

|      |   |        |        |       |
|------|---|--------|--------|-------|
|      |   | To     |        |       |
|      |   | 1      | 2      | 3     |
| From | 1 | 0.000  | 66.000 | 2.000 |
|      | 2 | 79.000 | 0.000  | 2.000 |
|      | 3 | 0.000  | 3.000  | 0.000 |

# Results

## Results Summary for whole modelled period

| Name        | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|-------------|---------|---------------|-----------------|---------|
| High Street | 0.14    | 3.83          | 0.24            | A       |
| A39 south   | 0.29    | 3.69          | 0.47            | A       |
| A39 west    | 0.17    | 2.41          | 0.21            | A       |

## Main Results for each time segment

### Main results: (16:45-17:00)

| Name        | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| High Street | 153.37                | 152.77              | 167.08                    | 0.00                       | 1622.33           | 0.095 | 0.15            | 3.512     | A   |
| A39 south   | 312.78                | 311.66              | 38.25                     | 0.00                       | 1596.60           | 0.196 | 0.28            | 3.239     | A   |
| A39 west    | 218.69                | 218.15              | 85.94                     | 0.00                       | 1872.42           | 0.117 | 0.13            | 2.226     | A   |

### Main results: (17:00-17:15)

| Name | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC | End Queue (PCU) | Delay (s) | LOS |
|------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-----|-----------------|-----------|-----|
|------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-----|-----------------|-----------|-----|

|             |        |        |        |      |         |       |      |       |   |
|-------------|--------|--------|--------|------|---------|-------|------|-------|---|
| High Street | 183.14 | 183.00 | 199.91 | 0.00 | 1601.60 | 0.114 | 0.18 | 3.640 | A |
| A39 south   | 373.49 | 373.20 | 45.81  | 0.00 | 1592.16 | 0.235 | 0.35 | 3.417 | A |
| A39 west    | 261.14 | 261.01 | 102.91 | 0.00 | 1860.96 | 0.140 | 0.17 | 2.301 | A |

#### Main results: (17:15-17:30)

| Name        | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| High Street | 224.30                | 224.09              | 244.81                    | 0.00                       | 1573.24           | 0.143 | 0.24            | 3.827     | A   |
| A39 south   | 457.43                | 456.98              | 56.10                     | 0.00                       | 1586.12           | 0.288 | 0.47            | 3.687     | A   |
| A39 west    | 319.82                | 319.64              | 126.01                    | 0.00                       | 1845.35           | 0.173 | 0.21            | 2.413     | A   |

#### Main results: (17:30-17:45)

| Name        | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| High Street | 224.30                | 224.30              | 244.95                    | 0.00                       | 1573.15           | 0.143 | 0.24            | 3.827     | A   |
| A39 south   | 457.43                | 457.42              | 56.15                     | 0.00                       | 1586.09           | 0.288 | 0.47            | 3.690     | A   |
| A39 west    | 319.82                | 319.82              | 126.13                    | 0.00                       | 1845.27           | 0.173 | 0.21            | 2.413     | A   |

#### Main results: (17:45-18:00)

| Name        | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| High Street | 183.14                | 183.35              | 200.15                    | 0.00                       | 1601.45           | 0.114 | 0.19            | 3.641     | A   |
| A39 south   | 373.49                | 373.94              | 45.90                     | 0.00                       | 1592.11           | 0.235 | 0.36            | 3.420     | A   |

|          |        |        |        |      |         |       |      |       |   |
|----------|--------|--------|--------|------|---------|-------|------|-------|---|
| A39 west | 261.14 | 261.32 | 103.11 | 0.00 | 1860.82 | 0.140 | 0.17 | 2.301 | A |
|----------|--------|--------|--------|------|---------|-------|------|-------|---|

### Main results: (18:00-18:15)

| Name        | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| High Street | 153.37                | 153.51              | 167.59                    | 0.00                       | 1622.01           | 0.095 | 0.15            | 3.519     | A   |
| A39 south   | 312.78                | 313.07              | 38.43                     | 0.00                       | 1596.49           | 0.196 | 0.28            | 3.248     | A   |
| A39 west    | 218.69                | 218.82              | 86.33                     | 0.00                       | 1872.16           | 0.117 | 0.14            | 2.228     | A   |

## (Default Analysis Set) - 2016 Dev, AM

### Data Errors and Warnings

*No errors or warnings*

### Analysis Set Details

| Name                   | Description | Locked | Network Flow Scaling Factor (%) | Reason For Scaling Factors |
|------------------------|-------------|--------|---------------------------------|----------------------------|
| (Default Analysis Set) |             |        | 100.000                         |                            |

### Demand Set Details

| Name         | Scenario Name | Time Period Name | Description | Traffic Profile Type | Model Start Time (HH:mm) | Model Finish Time (HH:mm) | Model Time Period Length (min) | Time Segment Length (min) | Single Time Segment Only | Locked |
|--------------|---------------|------------------|-------------|----------------------|--------------------------|---------------------------|--------------------------------|---------------------------|--------------------------|--------|
| 2016 Dev, AM | 2016 Dev      | AM               |             | ONE HOUR             | 07:45                    | 09:15                     | 90                             | 15                        |                          |        |

# Junction Network

## Junctions

| Name       | Junction Type | Arm Order | Grade Separated | Large Roundabout | Junction Delay (s) | Junction LOS |
|------------|---------------|-----------|-----------------|------------------|--------------------|--------------|
| (untitled) | Roundabout    | 1,2,3     |                 |                  | 3.33               | A            |

## Junction Network Options

| Driving Side | Lighting       |
|--------------|----------------|
| Left         | Normal/unknown |

# Arms

## Arms

| Name        | Name        | Description |
|-------------|-------------|-------------|
| High Street | High Street |             |
| A39 south   | A39 south   |             |
| A39 west    | A39 west    |             |

## Roundabout Geometry

| Name | V - Approach road half-width (m) | E - Entry width (m) | I' - Effective flare length (m) | R - Entry radius (m) | D - Inscribed circle diameter (m) | PHI - Conflict (entry) angle (deg) | Exit Only |
|------|----------------------------------|---------------------|---------------------------------|----------------------|-----------------------------------|------------------------------------|-----------|
|------|----------------------------------|---------------------|---------------------------------|----------------------|-----------------------------------|------------------------------------|-----------|



|             |      |      |       |       |       |       |  |
|-------------|------|------|-------|-------|-------|-------|--|
| High Street | 4.20 | 6.70 | 8.00  | 24.00 | 49.00 | 19.00 |  |
| A39 south   | 2.90 | 7.50 | 20.00 | 22.00 | 49.00 | 42.00 |  |
| A39 west    | 3.80 | 7.50 | 17.00 | 34.00 | 49.00 | 17.00 |  |

## Pedestrian Crossings

| Name        | Crossing Type |
|-------------|---------------|
| High Street | None          |
| A39 south   | None          |
| A39 west    | None          |

## Slope / Intercept / Capacity

### Roundabout Slope and Intercept used in model

| Name        | Enter slope and intercept directly | Entered slope | Entered intercept (PCU/hr) | Final Slope | Final Intercept (PCU/hr) |
|-------------|------------------------------------|---------------|----------------------------|-------------|--------------------------|
| High Street |                                    | (calculated)  | (calculated)               | 0.632       | 1727.841                 |
| A39 south   |                                    | (calculated)  | (calculated)               | 0.587       | 1619.035                 |
| A39 west    |                                    | (calculated)  | (calculated)               | 0.676       | 1930.483                 |

*The slope and intercept shown above include any corrections and adjustments.*

## Traffic Flows

## Demand Set Data Options

| Default Vehicle Mix | Vehicle Mix Varies Over Time | Vehicle Mix Varies Over Turn | Vehicle Mix Varies Over Entry | Vehicle Mix Source | PCU Factor for a HV (PCU) | Default Turning Proportions | Estimate from entry/exit counts | Turning Proportions Vary Over Time | Turning Proportions Vary Over Turn | Turning Proportions Vary Over Entry |
|---------------------|------------------------------|------------------------------|-------------------------------|--------------------|---------------------------|-----------------------------|---------------------------------|------------------------------------|------------------------------------|-------------------------------------|
|                     |                              | ✓                            | ✓                             | HV Percentages     | 2.00                      |                             |                                 |                                    | ✓                                  | ✓                                   |

## Entry Flows

### General Flows Data

| Name        | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (%) |
|-------------|--------------|--------------------|------------------------------|-------------------------|
| High Street | ONE HOUR     | ✓                  | 122.00                       | 100.000                 |
| A39 south   | ONE HOUR     | ✓                  | 328.00                       | 100.000                 |
| A39 west    | ONE HOUR     | ✓                  | 361.00                       | 100.000                 |

## Turning Proportions

### Turning Counts or Proportions (Veh/hr) - (untitled) (for whole period)

| From | To |       |        |        |
|------|----|-------|--------|--------|
|      |    | 1     | 2      | 3      |
|      | 1  | 0.000 | 65.000 | 57.000 |

|  |          |         |         |         |
|--|----------|---------|---------|---------|
|  | <b>2</b> | 156.000 | 0.000   | 172.000 |
|  | <b>3</b> | 55.000  | 306.000 | 0.000   |

Turning Proportions (Veh) - (untitled) (for whole period)

|      |          |          |          |          |
|------|----------|----------|----------|----------|
|      | To       |          |          |          |
| From |          | <b>1</b> | <b>2</b> | <b>3</b> |
|      | <b>1</b> | 0.00     | 0.53     | 0.47     |
|      | <b>2</b> | 0.48     | 0.00     | 0.52     |
|      | <b>3</b> | 0.15     | 0.85     | 0.00     |

# Vehicle Mix

Average PCU Per Vehicle - (untitled) (for whole period)

|      |          |          |          |          |
|------|----------|----------|----------|----------|
|      | To       |          |          |          |
| From |          | <b>1</b> | <b>2</b> | <b>3</b> |
|      | <b>1</b> | 1.000    | 1.590    | 1.070    |
|      | <b>2</b> | 1.250    | 1.000    | 1.120    |
|      | <b>3</b> | 1.090    | 1.060    | 1.000    |

Heavy Vehicle Percentages - (untitled) (for whole period)

|      | To |        |        |        |
|------|----|--------|--------|--------|
| From |    | 1      | 2      | 3      |
|      | 1  | 0.000  | 59.000 | 7.000  |
|      | 2  | 25.000 | 0.000  | 12.000 |
|      | 3  | 9.000  | 6.000  | 0.000  |

# Results

## Results Summary for whole modelled period

| Name        | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|-------------|---------|---------------|-----------------|---------|
| High Street | 0.12    | 3.67          | 0.18            | A       |
| A39 south   | 0.27    | 3.69          | 0.44            | A       |
| A39 west    | 0.24    | 2.81          | 0.33            | A       |

## Main Results for each time segment

Main results: (07:45-08:00)

| Name        | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| High Street | 123.72                | 123.27              | 243.52                    | 0.00                       | 1574.06           | 0.079 | 0.11            | 3.342     | A   |
| A39 south   | 291.84                | 290.78              | 45.75                     | 0.00                       | 1592.20           | 0.183 | 0.26            | 3.265     | A   |
| A39 west    | 289.33                | 288.53              | 146.27                    | 0.00                       | 1831.66           | 0.158 | 0.20            | 2.482     | A   |

#### Main results: (08:00-08:15)

| Name        | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| High Street | 147.74                | 147.63              | 291.42                    | 0.00                       | 1543.81           | 0.096 | 0.14            | 3.472     | A   |
| A39 south   | 348.48                | 348.21              | 54.79                     | 0.00                       | 1586.89           | 0.220 | 0.33            | 3.434     | A   |
| A39 west    | 345.49                | 345.28              | 175.17                    | 0.00                       | 1812.14           | 0.191 | 0.25            | 2.612     | A   |

#### Main results: (08:15-08:30)

| Name        | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| High Street | 180.94                | 180.78              | 356.86                    | 0.00                       | 1502.48           | 0.120 | 0.18            | 3.668     | A   |
| A39 south   | 426.80                | 426.38              | 67.09                     | 0.00                       | 1579.68           | 0.270 | 0.44            | 3.689     | A   |
| A39 west    | 423.13                | 422.82              | 214.49                    | 0.00                       | 1785.58           | 0.237 | 0.33            | 2.812     | A   |

#### Main results: (08:30-08:45)

| Name        | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| High Street | 180.94                | 180.94              | 357.12                    | 0.00                       | 1502.32           | 0.120 | 0.18            | 3.669     | A   |

|           |        |        |        |      |         |       |      |       |   |
|-----------|--------|--------|--------|------|---------|-------|------|-------|---|
| A39 south | 426.80 | 426.79 | 67.15  | 0.00 | 1579.64 | 0.270 | 0.44 | 3.689 | A |
| A39 west  | 423.13 | 423.13 | 214.70 | 0.00 | 1785.44 | 0.237 | 0.33 | 2.812 | A |

#### Main results: (08:45-09:00)

| Name        | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| High Street | 147.74                | 147.90              | 291.86                    | 0.00                       | 1543.53           | 0.096 | 0.14            | 3.476     | A   |
| A39 south   | 348.48                | 348.89              | 54.89                     | 0.00                       | 1586.83           | 0.220 | 0.33            | 3.437     | A   |
| A39 west    | 345.49                | 345.80              | 175.51                    | 0.00                       | 1811.91           | 0.191 | 0.25            | 2.616     | A   |

#### Main results: (09:00-09:15)

| Name        | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| High Street | 123.72                | 123.83              | 244.37                    | 0.00                       | 1573.52           | 0.079 | 0.12            | 3.344     | A   |
| A39 south   | 291.84                | 292.11              | 45.96                     | 0.00                       | 1592.07           | 0.183 | 0.27            | 3.275     | A   |
| A39 west    | 289.33                | 289.53              | 146.94                    | 0.00                       | 1831.21           | 0.158 | 0.20            | 2.487     | A   |

## (Default Analysis Set) - 2016 Dev, PM

### Data Errors and Warnings

*No errors or warnings*

### Analysis Set Details

| Name | Description | Locked | Network Flow Scaling Factor (%) | Reason For Scaling Factors |
|------|-------------|--------|---------------------------------|----------------------------|
|------|-------------|--------|---------------------------------|----------------------------|

|                        |  |  |         |  |
|------------------------|--|--|---------|--|
| (Default Analysis Set) |  |  | 100.000 |  |
|------------------------|--|--|---------|--|

## Demand Set Details

| Name         | Scenario Name | Time Period Name | Description | Traffic Profile Type | Model Start Time (HH:mm) | Model Finish Time (HH:mm) | Model Time Period Length (min) | Time Segment Length (min) | Single Time Segment Only | Locked |
|--------------|---------------|------------------|-------------|----------------------|--------------------------|---------------------------|--------------------------------|---------------------------|--------------------------|--------|
| 2016 Dev, PM | 2016 Dev      | PM               |             | ONE HOUR             | 16:45                    | 18:15                     | 90                             | 15                        |                          |        |

# Junction Network

## Junctions

| Name       | Junction Type | Arm Order | Grade Separated | Large Roundabout | Junction Delay (s) | Junction LOS |
|------------|---------------|-----------|-----------------|------------------|--------------------|--------------|
| (untitled) | Roundabout    | 1,2,3     |                 |                  | 3.38               | A            |

## Junction Network Options

| Driving Side | Lighting       |
|--------------|----------------|
| Left         | Normal/unknown |

# Arms

## Arms

| Name | Name | Description |
|------|------|-------------|
|------|------|-------------|

|                    |             |  |
|--------------------|-------------|--|
| <b>High Street</b> | High Street |  |
| <b>A39 south</b>   | A39 south   |  |
| <b>A39 west</b>    | A39 west    |  |

## Roundabout Geometry

| Name               | V - Approach road half-width (m) | E - Entry width (m) | I' - Effective flare length (m) | R - Entry radius (m) | D - Inscribed circle diameter (m) | PHI - Conflict (entry) angle (deg) | Exit Only |
|--------------------|----------------------------------|---------------------|---------------------------------|----------------------|-----------------------------------|------------------------------------|-----------|
| <b>High Street</b> | 4.20                             | 6.70                | 8.00                            | 24.00                | 49.00                             | 19.00                              |           |
| <b>A39 south</b>   | 2.90                             | 7.50                | 20.00                           | 22.00                | 49.00                             | 42.00                              |           |
| <b>A39 west</b>    | 3.80                             | 7.50                | 17.00                           | 34.00                | 49.00                             | 17.00                              |           |

## Pedestrian Crossings

| Name               | Crossing Type |
|--------------------|---------------|
| <b>High Street</b> | None          |
| <b>A39 south</b>   | None          |
| <b>A39 west</b>    | None          |

## Slope / Intercept / Capacity

### Roundabout Slope and Intercept used in model

| Name | Enter slope and intercept directly | Entered slope | Entered intercept (PCU/hr) | Final Slope | Final Intercept (PCU/hr) |
|------|------------------------------------|---------------|----------------------------|-------------|--------------------------|
|------|------------------------------------|---------------|----------------------------|-------------|--------------------------|



|             |  |              |              |       |          |
|-------------|--|--------------|--------------|-------|----------|
| High Street |  | (calculated) | (calculated) | 0.632 | 1727.841 |
| A39 south   |  | (calculated) | (calculated) | 0.587 | 1619.035 |
| A39 west    |  | (calculated) | (calculated) | 0.676 | 1930.483 |

*The slope and intercept shown above include any corrections and adjustments.*

## Traffic Flows

### Demand Set Data Options

| Default Vehicle Mix | Vehicle Mix Varies Over Time | Vehicle Mix Varies Over Turn | Vehicle Mix Varies Over Entry | Vehicle Mix Source | PCU Factor for a HV (PCU) | Default Turning Proportions | Estimate from entry/exit counts | Turning Proportions Vary Over Time | Turning Proportions Vary Over Turn | Turning Proportions Vary Over Entry |
|---------------------|------------------------------|------------------------------|-------------------------------|--------------------|---------------------------|-----------------------------|---------------------------------|------------------------------------|------------------------------------|-------------------------------------|
|                     |                              | ✓                            | ✓                             | HV Percentages     | 2.00                      |                             |                                 |                                    | ✓                                  | ✓                                   |

## Entry Flows

### General Flows Data

| Name        | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (%) |
|-------------|--------------|--------------------|------------------------------|-------------------------|
| High Street | ONE HOUR     | ✓                  | 224.00                       | 100.000                 |
| A39 south   | ONE HOUR     | ✓                  | 365.00                       | 100.000                 |
| A39 west    | ONE HOUR     | ✓                  | 284.00                       | 100.000                 |

# Turning Proportions

Turning Counts or Proportions (Veh/hr) - (untitled) (for whole period)

|      | To |        |         |         |
|------|----|--------|---------|---------|
|      |    | 1      | 2       | 3       |
| From | 1  | 0.000  | 174.000 | 50.000  |
|      | 2  | 70.000 | 0.000   | 295.000 |
|      | 3  | 68.000 | 216.000 | 0.000   |

Turning Proportions (Veh) - (untitled) (for whole period)

|      | To |      |      |      |
|------|----|------|------|------|
|      |    | 1    | 2    | 3    |
| From | 1  | 0.00 | 0.78 | 0.22 |
|      | 2  | 0.19 | 0.00 | 0.81 |
|      | 3  | 0.24 | 0.76 | 0.00 |

# Vehicle Mix

Average PCU Per Vehicle - (untitled) (for whole period)

|  | To |
|--|----|
|--|----|

| From |   | 1     | 2     | 3     |
|------|---|-------|-------|-------|
|      | 1 | 1.000 | 1.380 | 1.020 |
|      | 2 | 1.810 | 1.000 | 1.020 |
|      | 3 | 1.000 | 1.030 | 1.000 |

### Heavy Vehicle Percentages - (untitled) (for whole period)

|      | To |        |        |       |
|------|----|--------|--------|-------|
| From |    | 1      | 2      | 3     |
|      | 1  | 0.000  | 38.000 | 2.000 |
|      | 2  | 81.000 | 0.000  | 2.000 |
|      | 3  | 0.000  | 3.000  | 0.000 |

## Results

### Results Summary for whole modelled period

| Name        | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|-------------|---------|---------------|-----------------|---------|
| High Street | 0.20    | 3.73          | 0.33            | A       |
| A39 south   | 0.30    | 3.78          | 0.49            | A       |
| A39 west    | 0.17    | 2.43          | 0.22            | A       |

## Main Results for each time segment

### Main results: (16:45-17:00)

| Name        | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| High Street | 219.17                | 218.36              | 167.08                    | 0.00                       | 1622.33           | 0.135 | 0.20            | 3.331     | A   |
| A39 south   | 321.92                | 320.74              | 38.25                     | 0.00                       | 1596.59           | 0.202 | 0.29            | 3.302     | A   |
| A39 west    | 218.69                | 218.15              | 95.04                     | 0.00                       | 1866.28           | 0.117 | 0.14            | 2.234     | A   |

### Main results: (17:00-17:15)

| Name        | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| High Street | 261.71                | 261.51              | 199.91                    | 0.00                       | 1601.60           | 0.163 | 0.25            | 3.491     | A   |
| A39 south   | 384.40                | 384.10              | 45.81                     | 0.00                       | 1592.16           | 0.241 | 0.37            | 3.491     | A   |
| A39 west    | 261.14                | 261.01              | 113.81                    | 0.00                       | 1853.59           | 0.141 | 0.17            | 2.311     | A   |

### Main results: (17:15-17:30)

| Name        | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| High Street | 320.53                | 320.22              | 244.81                    | 0.00                       | 1573.24           | 0.204 | 0.33            | 3.733     | A   |

|           |        |        |        |      |         |       |      |       |   |
|-----------|--------|--------|--------|------|---------|-------|------|-------|---|
| A39 south | 470.80 | 470.31 | 56.10  | 0.00 | 1586.13 | 0.297 | 0.49 | 3.777 | A |
| A39 west  | 319.82 | 319.63 | 139.36 | 0.00 | 1836.34 | 0.174 | 0.22 | 2.427 | A |

#### Main results: (17:30-17:45)

| Name        | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| High Street | 320.53                | 320.53              | 244.95                    | 0.00                       | 1573.15           | 0.204 | 0.33            | 3.734     | A   |
| A39 south   | 470.80                | 470.79              | 56.15                     | 0.00                       | 1586.09           | 0.297 | 0.49            | 3.780     | A   |
| A39 west    | 319.82                | 319.82              | 139.50                    | 0.00                       | 1836.24           | 0.174 | 0.22            | 2.427     | A   |

#### Main results: (17:45-18:00)

| Name        | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| High Street | 261.71                | 262.02              | 200.15                    | 0.00                       | 1601.45           | 0.163 | 0.26            | 3.495     | A   |
| A39 south   | 384.40                | 384.88              | 45.90                     | 0.00                       | 1592.11           | 0.241 | 0.37            | 3.496     | A   |
| A39 west    | 261.14                | 261.32              | 114.04                    | 0.00                       | 1853.44           | 0.141 | 0.17            | 2.314     | A   |

#### Main results: (18:00-18:15)

| Name        | Total Demand (PCU/hr) | Entry Flow (PCU/hr) | Circulating Flow (PCU/hr) | Pedestrian Demand (Ped/hr) | Capacity (PCU/hr) | RFC   | End Queue (PCU) | Delay (s) | LOS |
|-------------|-----------------------|---------------------|---------------------------|----------------------------|-------------------|-------|-----------------|-----------|-----|
| High Street | 219.17                | 219.37              | 167.59                    | 0.00                       | 1622.01           | 0.135 | 0.20            | 3.335     | A   |
| A39 south   | 321.92                | 322.23              | 38.43                     | 0.00                       | 1596.49           | 0.202 | 0.30            | 3.312     | A   |
| A39 west    | 218.69                | 218.82              | 95.48                     | 0.00                       | 1865.98           | 0.117 | 0.14            | 2.237     | A   |

| Junctions 8                                                                                                                                                                  |  |  |  |  |  |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|--|
| PICADY 8 - Priority Intersection Module                                                                                                                                      |  |  |  |  |  |  |  |
| Version: 8.0.3.332 [14595,13/11/2013]<br>© Copyright TRL Limited, 2014                                                                                                       |  |  |  |  |  |  |  |
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**Filename:** J20 east High Street - Fore Street - Rodway.arc8

**Path:** P:\TP London\TP Projects\Hinkley Point C Connection\Modelling\Junctions 8\J20 east

**Report generation date:** 18/02/2014 11:47:26

---

### Summary of junction performance

|                    | AM          |           |      |     | PM          |           |      |     |
|--------------------|-------------|-----------|------|-----|-------------|-----------|------|-----|
|                    | Queue (PCU) | Delay (s) | RFC  | LOS | Queue (PCU) | Delay (s) | RFC  | LOS |
| A1 - 2013 Obs      |             |           |      |     |             |           |      |     |
| <b>Stream B-AC</b> | 0.79        | 10.38     | 0.43 | B   | 1.78        | 15.41     | 0.64 | C   |

|                    |                       |       |      |   |      |       |      |   |
|--------------------|-----------------------|-------|------|---|------|-------|------|---|
| <b>Stream C-AB</b> | 1.35                  | 12.39 | 0.55 | B | 0.68 | 8.44  | 0.38 | A |
| <b>Stream C-A</b>  | -                     | -     | -    | - | -    | -     | -    | - |
| <b>Stream A-B</b>  | -                     | -     | -    | - | -    | -     | -    | - |
| <b>Stream A-C</b>  | -                     | -     | -    | - | -    | -     | -    | - |
|                    | <b>A1 - 2016 Base</b> |       |      |   |      |       |      |   |
| <b>Stream B-AC</b> | 0.85                  | 10.92 | 0.45 | B | 2.06 | 17.35 | 0.67 | C |
| <b>Stream C-AB</b> | 1.62                  | 14.26 | 0.59 | B | 0.78 | 9.21  | 0.41 | A |
| <b>Stream C-A</b>  | -                     | -     | -    | - | -    | -     | -    | - |
| <b>Stream A-B</b>  | -                     | -     | -    | - | -    | -     | -    | - |
| <b>Stream A-C</b>  | -                     | -     | -    | - | -    | -     | -    | - |
|                    | <b>A1 - 2016 Dev</b>  |       |      |   |      |       |      |   |
| <b>Stream B-AC</b> | 0.88                  | 11.21 | 0.46 | B | 1.85 | 15.99 | 0.65 | C |
| <b>Stream C-AB</b> | 1.78                  | 15.60 | 0.61 | C | 0.75 | 8.90  | 0.40 | A |
| <b>Stream C-A</b>  | -                     | -     | -    | - | -    | -     | -    | - |
| <b>Stream A-B</b>  | -                     | -     | -    | - | -    | -     | -    | - |
| <b>Stream A-C</b>  | -                     | -     | -    | - | -    | -     | -    | - |

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle.

"D1 - 2013 Obs, AM " model duration: 07:45 - 09:15

"D2 - 2013 Obs, PM" model duration: 16:45 - 18:15

"D3 - 2016 Base, AM" model duration: 07:45 - 09:15

"D4 - 2016 Base, PM" model duration: 16:45 - 18:15

"D5 - 2016 Dev, AM" model duration: 07:45 - 09:15

"D6 - 2016 Dev, PM" model duration: 16:45 - 18:15

Run using Junctions 8.0.3.332 at 18/02/2014 11:47:23

## File summary

### File Description

|                    |            |
|--------------------|------------|
| <b>Title</b>       | (untitled) |
| <b>Location</b>    |            |
| <b>Site Number</b> |            |
| <b>Date</b>        | 03/12/2013 |
| <b>Version</b>     |            |
| <b>Status</b>      | (new file) |
| <b>Identifier</b>  |            |
| <b>Client</b>      |            |
| <b>Jobnumber</b>   |            |
| <b>Enumerator</b>  |            |
| <b>Description</b> |            |

## Analysis Options

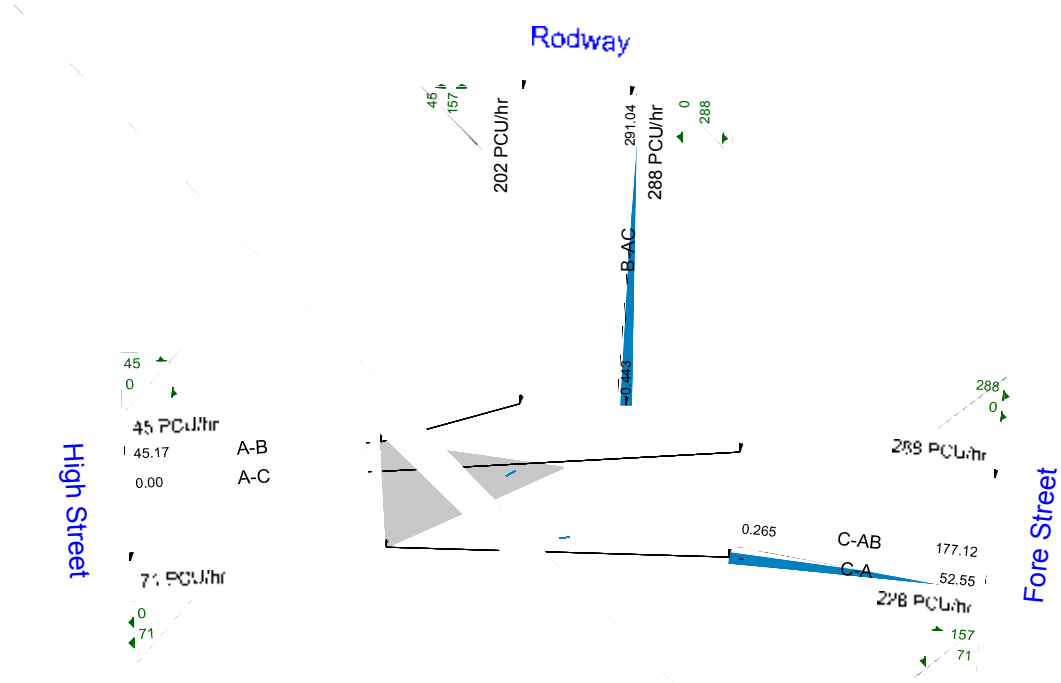
|                           |                            |                                    |                                        |                      |                                    |                              |
|---------------------------|----------------------------|------------------------------------|----------------------------------------|----------------------|------------------------------------|------------------------------|
| <b>Vehicle Length (m)</b> | <b>Do Queue Variations</b> | <b>Calculate Residual Capacity</b> | <b>Residual Capacity Criteria Type</b> | <b>RFC Threshold</b> | <b>Average Delay Threshold (s)</b> | <b>Queue Threshold (PCU)</b> |
|---------------------------|----------------------------|------------------------------------|----------------------------------------|----------------------|------------------------------------|------------------------------|



|      |  |  |     |      |       |       |
|------|--|--|-----|------|-------|-------|
| 5.75 |  |  | N/A | 0.85 | 36.00 | 20.00 |
|------|--|--|-----|------|-------|-------|

Units

| Distance Units | Speed Units | Traffic Units Input | Traffic Units Results | Flow Units | Average Delay Units | Total Delay Units | Rate Of Delay Units |
|----------------|-------------|---------------------|-----------------------|------------|---------------------|-------------------|---------------------|
| m              | kph         | Veh                 | PCU                   | perHour    | s                   | -Min              | perMin              |



The junction diagram reflects the last run of ARCADY.

## (Default Analysis Set) - 2013 Obs, AM

### Data Errors and Warnings

No errors or warnings

### Analysis Set Details

| Name                   | Description | Locked | Network Flow Scaling Factor (%) | Reason For Scaling Factors |
|------------------------|-------------|--------|---------------------------------|----------------------------|
| (Default Analysis Set) |             |        | 100.000                         |                            |

### Demand Set Details

| Name         | Scenario Name | Time Period Name | Description | Traffic Profile Type | Model Start Time (HH:mm) | Model Finish Time (HH:mm) | Model Time Period Length (min) | Time Segment Length (min) | Single Time Segment Only | Locked |
|--------------|---------------|------------------|-------------|----------------------|--------------------------|---------------------------|--------------------------------|---------------------------|--------------------------|--------|
| 2013 Obs, AM | 2013 Obs      | AM               |             | ONE HOUR             | 07:45                    | 09:15                     | 90                             | 15                        |                          |        |

## Junction Network

### Junctions

| Name       | Junction Type | Major Road Direction | Arm Order | Junction Delay (s) | Junction LOS |
|------------|---------------|----------------------|-----------|--------------------|--------------|
| (untitled) | T-Junction    | Two-way              | A,B,C     | 11.51              | B            |

### Junction Network Options

| Driving Side | Lighting       |
|--------------|----------------|
| Left         | Normal/unknown |

## Arms

## Arms

| Name        | Name        | Description | Arm Type |
|-------------|-------------|-------------|----------|
| High Street | High Street |             | Major    |
| Rodway      | Rodway      |             | Minor    |
| Fore Street | Fore Street |             | Major    |

## Major Arm Geometry

| Name        | Width of carriageway (m) | Has kerbed central reserve | Width of kerbed central reserve (m) | Has right turn bay | Width For Right Turn (m) | Visibility For Right Turn (m) | Blocks? | Blocking Queue (PCU) |
|-------------|--------------------------|----------------------------|-------------------------------------|--------------------|--------------------------|-------------------------------|---------|----------------------|
| Fore Street | 7.84                     |                            | 0.00                                |                    | 2.20                     | 100.00                        | ✓       | 0.00                 |

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

## Minor Arm Geometry

[illegible]

## Pedestrian Crossings

| Name        | Crossing Type |
|-------------|---------------|
| High Street | None          |
| Rodway      | None          |
| Fore Street | None          |

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

| Junction | Stream | Intercept<br>(PCU/hr) | Slope<br>for<br>A-B | Slope<br>for<br>A-C | Slope<br>for<br>C-A | Slope<br>for<br>C-B |
|----------|--------|-----------------------|---------------------|---------------------|---------------------|---------------------|
| 1        | B-A    | 515.071               | 0.086               | 0.218               | 0.137               | 0.312               |
| 1        | B-C    | 660.771               | 0.093               | 0.236               | -                   | -                   |
| 1        | C-B    | 631.874               | 0.225               | 0.225               | -                   | -                   |

*The slopes and intercepts shown above do NOT include any corrections or adjustments.*

*Streams may be combined, in which case capacity will be adjusted.*

*Values are shown for the first time segment only; they may differ for subsequent time segments.*

## Traffic Flows

### Demand Set Data Options

| Default Vehicle Mix | Vehicle Mix Varies Over Time | Vehicle Mix Varies Over Turn | Vehicle Mix Varies Over Entry | Vehicle Mix Source | PCU Factor for a HV (PCU) | Default Turning Proportions | Estimate from entry/exit counts | Turning Proportions Vary Over Time | Turning Proportions Vary Over Turn | Turning Proportions Vary Over Entry |
|---------------------|------------------------------|------------------------------|-------------------------------|--------------------|---------------------------|-----------------------------|---------------------------------|------------------------------------|------------------------------------|-------------------------------------|
|                     |                              | ✓                            | ✓                             | HV Percentages     | 2.00                      |                             |                                 |                                    | ✓                                  | ✓                                   |

## Entry Flows

### General Flows Data

| Name        | Profile Type | Use Turning Counts | Average Demand Flow (Veh/hr) | Flow Scaling Factor (%) |
|-------------|--------------|--------------------|------------------------------|-------------------------|
| High Street | ONE HOUR     | ✓                  | 85.00                        | 100.000                 |
| Rodway      | ONE HOUR     | ✓                  | 242.00                       | 100.000                 |
| Fore Street | ONE HOUR     | ✓                  | 355.00                       | 100.000                 |

## Turning Proportions

### Turning Counts or Proportions (Veh/hr) - (untitled) (for whole period)

|      | To |       |         |
|------|----|-------|---------|
|      | A  | B     | C       |
| From | A  | 0.000 | 0.000   |
|      | B  | 0.000 | 242.000 |

|  |          |        |         |       |
|--|----------|--------|---------|-------|
|  | <b>C</b> | 77.000 | 278.000 | 0.000 |
|--|----------|--------|---------|-------|

Turning Proportions (Veh) - (untitled) (for whole period)

|      |   | To   |      |      |
|------|---|------|------|------|
| From |   | A    | B    | C    |
|      | A | 0.00 | 0.00 | 1.00 |
|      | B | 0.00 | 0.00 | 1.00 |
|      | C | 0.22 | 0.78 | 0.00 |

# Vehicle Mix

Average PCU Per Vehicle - (untitled) (for whole period)

|      |   | To    |       |       |
|------|---|-------|-------|-------|
| From |   | A     | B     | C     |
|      | A | 1.000 | 1.000 | 1.024 |
|      | B | 1.044 | 1.000 | 1.041 |
|      | C | 1.080 | 1.036 | 1.000 |

Heavy Vehicle Percentages - (untitled) (for whole period)

|  |  | To |  |  |
|--|--|----|--|--|
|--|--|----|--|--|

| From |   | A     | B     | C     |
|------|---|-------|-------|-------|
|      | A | 0.000 | 0.000 | 2.400 |
|      | B | 4.400 | 0.000 | 4.100 |
|      | C | 8.000 | 3.600 | 0.000 |

## Results

### Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|--------|---------|---------------|-----------------|---------|
| B-AC   | 0.43    | 10.38         | 0.79            | B       |
| C-AB   | 0.55    | 12.39         | 1.35            | B       |
| C-A    | -       | -             | -               | -       |
| A-B    | -       | -             | -               | -       |
| A-C    | -       | -             | -               | -       |

### Main Results for each time segment