

# Do Something Junction Modelling Outputs

# Junctions 9

## ARCADY 9 - Roundabout Module

Version: 9.5.0.6896  
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**Filename:** 1\_A29 Fontwell Avenue \_Northern section.j9

**Path:** O:\70117477-70060779-WSCC - A29 Phase 1 Planning Application\03 WIP\TP Transport Planning\02 CAD BIM Models\2020.05.01\_J1\J1

**Report generation date:** 01/05/2020 17:25:03

- »2023\_Option 1, AM
- »2023\_Option 1, PM
- »2023\_Option 1+Option 2, AM
- »2023\_Option 1+Option 2, PM
- »2038\_Option 1, AM
- »2038\_Option 1, PM
- »2038\_Option 1+Option 2, AM
- »2038\_Option 1+Option 2, PM

### Summary of junction performance

|                               | AM          |           |      |     | PM          |           |      |     |
|-------------------------------|-------------|-----------|------|-----|-------------|-----------|------|-----|
|                               | Queue (Veh) | Delay (s) | RFC  | LOS | Queue (Veh) | Delay (s) | RFC  | LOS |
| <b>2023_Option 1</b>          |             |           |      |     |             |           |      |     |
| A - Fontwell Avenue (N)       | 0.8         | 4.37      | 0.44 | A   | 2.1         | 7.62      | 0.68 | A   |
| B - A29 Realignment Road      | 0.4         | 3.93      | 0.28 | A   | 0.2         | 3.70      | 0.15 | A   |
| C - Fontwell Avenue (S)       | 1.2         | 6.11      | 0.56 | A   | 0.5         | 3.67      | 0.32 | A   |
| <b>2023_Option 1+Option 2</b> |             |           |      |     |             |           |      |     |
| A - Fontwell Avenue (N)       | 0.6         | 3.99      | 0.39 | A   | 1.4         | 5.95      | 0.59 | A   |
| B - A29 Realignment Road      | 0.7         | 4.20      | 0.42 | A   | 0.3         | 3.43      | 0.24 | A   |
| C - Fontwell Avenue (S)       | 0.6         | 4.82      | 0.36 | A   | 0.2         | 3.12      | 0.14 | A   |
| <b>2038_Option 1</b>          |             |           |      |     |             |           |      |     |
| A - Fontwell Avenue (N)       | 1.4         | 5.76      | 0.58 | A   | 6.9         | 20.28     | 0.88 | C   |
| B - A29 Realignment Road      | 0.6         | 4.78      | 0.38 | A   | 0.5         | 5.07      | 0.34 | A   |
| C - Fontwell Avenue (S)       | 1.6         | 7.34      | 0.62 | A   | 0.8         | 4.90      | 0.45 | A   |
| <b>2038_Option 1+Option 2</b> |             |           |      |     |             |           |      |     |
| A - Fontwell Avenue (N)       | 1.2         | 5.30      | 0.54 | A   | 4.4         | 13.40     | 0.82 | B   |
| B - A29 Realignment Road      | 1.2         | 5.32      | 0.54 | A   | 0.6         | 4.41      | 0.39 | A   |
| C - Fontwell Avenue (S)       | 0.7         | 5.92      | 0.42 | A   | 0.2         | 3.69      | 0.20 | A   |

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

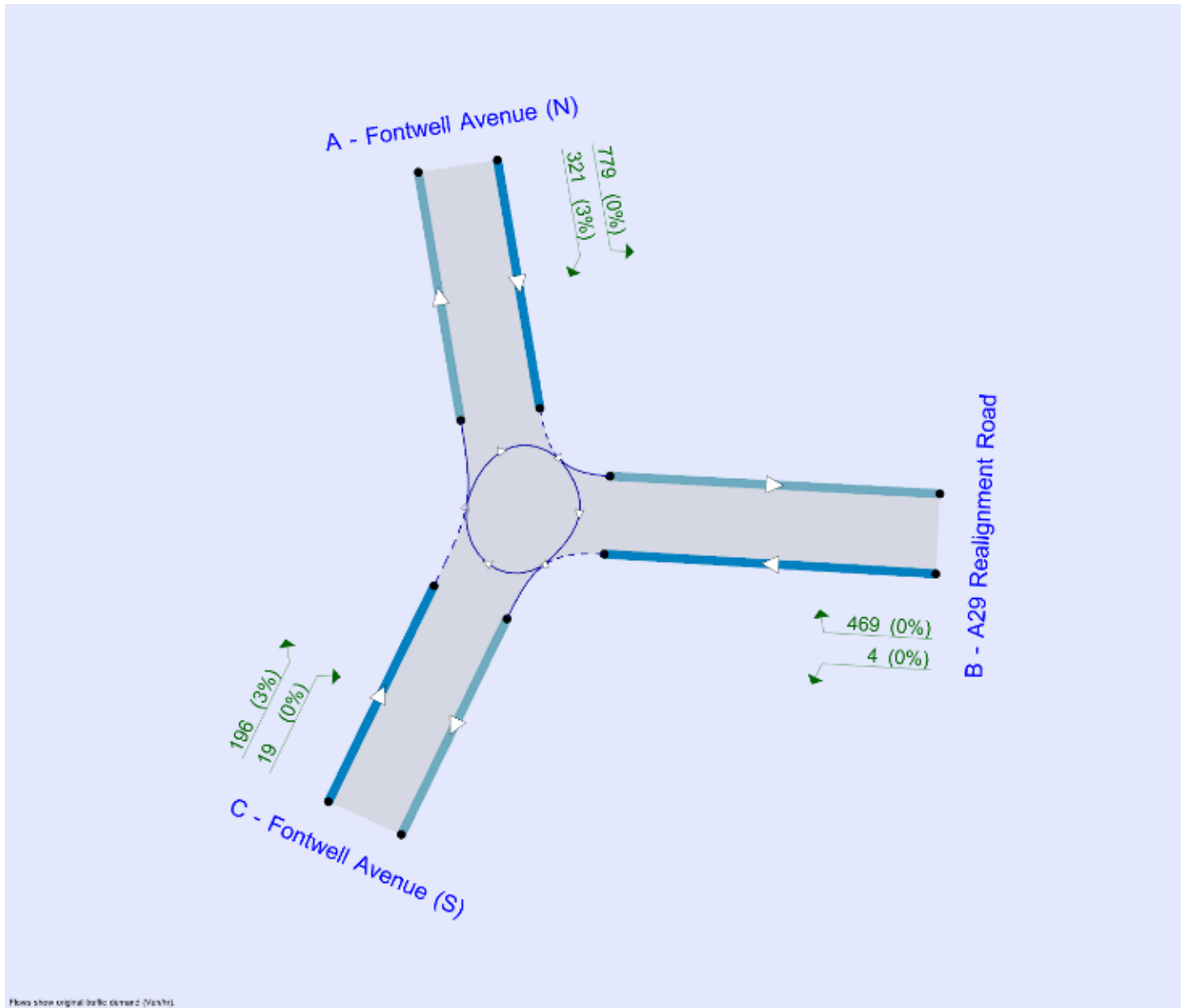
## File summary

### File Description

|                    |   |
|--------------------|---|
| <b>Title</b>       | JTC 1 - A29 Fontwell Avenue / Northern section of Re-alignment road |
| <b>Location</b>    | 50.845207, -0.657517  |
| <b>Site number</b> | 1   |
| <b>Date</b>        | 06/12/2019  |
| <b>Version</b>     |   |
| <b>Status</b>      | (new file)  |
| <b>Identifier</b>  |   |
| <b>Client</b>      |   |
| <b>Jobnumber</b>   |   |
| <b>Enumerator</b>  | CORP\INJV01568  |
| <b>Description</b> |   |

## Units

| <b>Distance units</b> | <b>Speed units</b> | <b>Traffic units input</b> | <b>Traffic units results</b> | <b>Flow units</b> | <b>Average delay units</b> | <b>Total delay units</b> | <b>Rate of delay units</b> |
|-----------------------|--------------------|----------------------------|------------------------------|-------------------|----------------------------|--------------------------|----------------------------|
| m                     | kph                | Veh                        | Veh                          | perHour           | s                          | -Min                     | perMin                     |



Flows show original traffic demand (Veh/hr).

The junction diagram reflects the last run of Junctions.

### Analysis Options

| Vehicle length (m) | Calculate Queue Percentiles | Calculate detailed queueing delay | Calculate residual capacity | RFC Threshold | Average Delay threshold (s) | Queue threshold (PCU) |
|--------------------|-----------------------------|-----------------------------------|-----------------------------|---------------|-----------------------------|-----------------------|
| 5.75               |                             |                                   |                             | 0.85          | 36.00                       | 20.00                 |

### Demand Set Summary

| ID | Scenario name          | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|----|------------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D1 | 2023_Option 1          | AM               | ONE HOUR             | 07:45              | 09:15               | 15                        | ✓                 |
| D2 | 2023_Option 1          | PM               | ONE HOUR             | 16:45              | 18:15               | 15                        | ✓                 |
| D3 | 2023_Option 1+Option 2 | AM               | ONE HOUR             | 07:45              | 09:15               | 15                        | ✓                 |
| D4 | 2023_Option 1+Option 2 | PM               | ONE HOUR             | 16:45              | 18:15               | 15                        | ✓                 |
| D5 | 2038_Option 1          | AM               | ONE HOUR             | 07:45              | 09:15               | 15                        | ✓                 |

|    |                        |    |          |       |       |    |   |
|----|------------------------|----|----------|-------|-------|----|---|
| D6 | 2038_Option 1          | PM | ONE HOUR | 16:45 | 18:15 | 15 | ✓ |
| D7 | 2038_Option 1+Option 2 | AM | ONE HOUR | 07:45 | 09:15 | 15 | ✓ |
| D8 | 2038_Option 1+Option 2 | PM | ONE HOUR | 16:45 | 18:15 | 15 | ✓ |

### Analysis Set Details

| ID | Include in report | Network flow scaling factor (%) | Network capacity scaling factor (%) |
|----|-------------------|---------------------------------|-------------------------------------|
| A1 | ✓                 | 100.000                         | 100.000                             |

# 2023\_Option 1, AM

### Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

| Junction | Name  | Junction type       | Use circulating lanes | Arm order | Junction Delay (s) | Junction LOS |
|----------|---|---------------------|-----------------------|-----------|--------------------|--------------|
| 1        | A29 Fontwell Avenue / Northern section of Re-alignment road | Standard Roundabout |                       | A, B, C   | 5.02               | A            |

### Junction Network Options

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

## Arms

### Arms

| Arm | Name                 | Description |
|-----|----------------------|-------------|
| A   | Fontwell Avenue (N)  |             |
| B   | A29 Realignment Road |             |
| C   | Fontwell Avenue (S)  |             |

### Roundabout Geometry

| Arm                      | 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 |
|--------------------------|----------------------------------|---------------------|---------------------------------|----------------------|-----------------------------------|------------------------------------|-----------|
| A - Fontwell Avenue (N)  | 3.70                             | 7.20                | 7.2                             | 39.0                 | 40.0                              | 43.0                               |           |
| B - A29 Realignment Road | 3.70                             | 5.30                | 16.9                            | 40.0                 | 40.0                              | 23.0                               |           |
| C - Fontwell Avenue (S)  | 3.80                             | 5.60                | 13.0                            | 19.9                 | 40.0                              | 23.0                               |           |

### Slope / Intercept / Capacity

#### Roundabout Slope and Intercept used in model

| Arm                      | Final slope | Final intercept (PCU/hr) |
|--------------------------|-------------|--------------------------|
| A - Fontwell Avenue (N)  | 0.596       | 1503                     |
| B - A29 Realignment Road | 0.630       | 1566                     |
| C - Fontwell Avenue (S)  | 0.622       | 1566                     |

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|----|---------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D1 | 2023_Option 1 | AM               | ONE HOUR             | 07:45              | 09:15               | 15                        | ✓                 |

| Vehicle mix varies over turn | Vehicle mix varies over entry | Vehicle mix source | PCU Factor for a HV (PCU) |
|------------------------------|-------------------------------|--------------------|---------------------------|
| ✓                            | ✓                             | HV Percentages     | 2.00                      |

### Demand overview (Traffic)

| Arm                      | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|--------------------------|------------|--------------|--------------|-------------------------|--------------------|
| A - Fontwell Avenue (N)  |            | ONE HOUR     | ✓            | 593                     | 100.000            |
| B - A29 Realignment Road |            | ONE HOUR     | ✓            | 325                     | 100.000            |
| C - Fontwell Avenue (S)  |            | ONE HOUR     | ✓            | 671                     | 100.000            |

## Origin-Destination Data

### Demand (Veh/hr)

| From                     | To                      |                          |                         |
|--------------------------|-------------------------|--------------------------|-------------------------|
|                          | A - Fontwell Avenue (N) | B - A29 Realignment Road | C - Fontwell Avenue (S) |
| A - Fontwell Avenue (N)  | 0                       | 181                      | 412                     |
| B - A29 Realignment Road | 309                     | 0                        | 16                      |
| C - Fontwell Avenue (S)  | 669                     | 2                        | 0                       |

### Proportions

| From                     | To                      |                          |                         |
|--------------------------|-------------------------|--------------------------|-------------------------|
|                          | A - Fontwell Avenue (N) | B - A29 Realignment Road | C - Fontwell Avenue (S) |
| A - Fontwell Avenue (N)  | 0.00                    | 0.31                     | 0.69                    |
| B - A29 Realignment Road | 0.95                    | 0.00                     | 0.05                    |
| C - Fontwell Avenue (S)  | 1.00                    | 0.00                     | 0.00                    |

## Vehicle Mix

### Heavy Vehicle Percentages

| From                     | To                      |                          |                         |
|--------------------------|-------------------------|--------------------------|-------------------------|
|                          | A - Fontwell Avenue (N) | B - A29 Realignment Road | C - Fontwell Avenue (S) |
| A - Fontwell Avenue (N)  | 0                       | 1                        | 2                       |
| B - A29 Realignment Road | 0                       | 0                        | 0                       |
| C - Fontwell Avenue (S)  | 2                       | 0                        | 0                       |

### Average PCU Per Veh

| From                     | To                      |                          |                         |
|--------------------------|-------------------------|--------------------------|-------------------------|
|                          | A - Fontwell Avenue (N) | B - A29 Realignment Road | C - Fontwell Avenue (S) |
| A - Fontwell Avenue (N)  | 1.000                   | 1.010                    | 1.020                   |
| B - A29 Realignment Road | 1.000                   | 1.000                    | 1.000                   |
| C - Fontwell Avenue (S)  | 1.020                   | 1.000                    | 1.000                   |

## Detailed Demand Data

### Demand for each time segment

| Arm                      | Time Segment | Demand (Veh/hr) | Demand in PCU (PCU/hr) |
|--------------------------|--------------|-----------------|------------------------|
| A - Fontwell Avenue (N)  | 07:45-08:00  | 446             | 454                    |
|                          | 08:00-08:15  | 533             | 542                    |
|                          | 08:15-08:30  | 653             | 664                    |
|                          | 08:30-08:45  | 653             | 664                    |
|                          | 08:45-09:00  | 533             | 542                    |
|                          | 09:00-09:15  | 446             | 454                    |
| B - A29 Realignment Road | 07:45-08:00  | 245             | 245                    |
|                          | 08:00-08:15  | 292             | 292                    |
|                          | 08:15-08:30  | 358             | 358                    |
|                          | 08:30-08:45  | 358             | 358                    |
|                          | 08:45-09:00  | 292             | 292                    |
|                          | 09:00-09:15  | 245             | 245                    |
| C - Fontwell Avenue (S)  | 07:45-08:00  | 505             | 515                    |
|                          | 08:00-08:15  | 603             | 615                    |
|                          | 08:15-08:30  | 739             | 754                    |
|                          | 08:30-08:45  | 739             | 754                    |
|                          | 08:45-09:00  | 603             | 615                    |
|                          | 09:00-09:15  | 505             | 515                    |

## Results

### Results Summary for whole modelled period

| Arm                      | Max RFC | Max Delay (s) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|--------------------------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| A - Fontwell Avenue (N)  | 0.44    | 4.37          | 0.8             | A       | 544                     | 816                           |
| B - A29 Realignment Road | 0.28    | 3.93          | 0.4             | A       | 298                     | 447                           |
| C - Fontwell Avenue (S)  | 0.56    | 6.11          | 1.2             | A       | 616                     | 924                           |

### Main Results for each time segment

#### 07:45 - 08:00

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - Fontwell Avenue (N)  | 446                   | 112                     | 1                         | 1477              | 0.302 | 445                 | 733                             | 0.0               | 0.4             | 3.481     | A                             |
| B - A29 Realignment Road | 245                   | 61                      | 309                       | 1368              | 0.179 | 244                 | 137                             | 0.0               | 0.2             | 3.202     | A                             |
| C - Fontwell Avenue (S)  | 505                   | 126                     | 232                       | 1394              | 0.362 | 503                 | 321                             | 0.0               | 0.6             | 4.030     | A                             |

#### 08:00 - 08:15

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalise d level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|--------------------------------|
| A - Fontwell Avenue (N)  | 533                   | 133                     | 2                         | 1477              | 0.361 | 533                 | 878                             | 0.4               | 0.6             | 3.810     | A                              |
| B - A29 Realignment Road | 292                   | 73                      | 370                       | 1328              | 0.220 | 292                 | 164                             | 0.2               | 0.3             | 3.473     | A                              |
| C - Fontwell Avenue (S)  | 603                   | 151                     | 278                       | 1366              | 0.442 | 602                 | 384                             | 0.6               | 0.8             | 4.708     | A                              |

#### 08:15 - 08:30

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalise d level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|--------------------------------|
| A - Fontwell Avenue (N)  | 653                   | 163                     | 2                         | 1477              | 0.442 | 652                 | 1075                            | 0.6               | 0.8             | 4.361     | A                              |
| B - A29 Realignment Road | 358                   | 89                      | 453                       | 1275              | 0.281 | 357                 | 201                             | 0.3               | 0.4             | 3.921     | A                              |
| C - Fontwell Avenue (S)  | 739                   | 185                     | 340                       | 1328              | 0.556 | 737                 | 471                             | 0.8               | 1.2             | 6.070     | A                              |

#### 08:30 - 08:45

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalise d level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|--------------------------------|
| A - Fontwell Avenue (N)  | 653                   | 163                     | 2                         | 1477              | 0.442 | 653                 | 1077                            | 0.8               | 0.8             | 4.369     | A                              |
| B - A29 Realignment Road | 358                   | 89                      | 454                       | 1275              | 0.281 | 358                 | 201                             | 0.4               | 0.4             | 3.926     | A                              |
| C - Fontwell Avenue (S)  | 739                   | 185                     | 340                       | 1328              | 0.556 | 739                 | 471                             | 1.2               | 1.2             | 6.108     | A                              |

#### 08:45 - 09:00

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalise d level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|--------------------------------|
| A - Fontwell Avenue (N)  | 533                   | 133                     | 2                         | 1477              | 0.361 | 534                 | 881                             | 0.8               | 0.6             | 3.820     | A                              |
| B - A29 Realignment Road | 292                   | 73                      | 371                       | 1328              | 0.220 | 293                 | 165                             | 0.4               | 0.3             | 3.478     | A                              |
| C - Fontwell Avenue (S)  | 603                   | 151                     | 278                       | 1366              | 0.442 | 605                 | 385                             | 1.2               | 0.8             | 4.741     | A                              |

#### 09:00 - 09:15

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalise d level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|--------------------------------|
| A - Fontwell Avenue (N)  | 446                   | 112                     | 2                         | 1477              | 0.302 | 447                 | 737                             | 0.6               | 0.4             | 3.495     | A                              |
| B - A29 Realignment Road | 245                   | 61                      | 311                       | 1367              | 0.179 | 245                 | 138                             | 0.3               | 0.2             | 3.212     | A                              |



|                         |     |     |     |      |           |     |     |     |     |           |   |
|-------------------------|-----|-----|-----|------|-----------|-----|-----|-----|-----|-----------|---|
| C - Fontwell Avenue (S) | 505 | 126 | 233 | 1394 | 0.36<br>3 | 506 | 323 | 0.8 | 0.6 | 4.06<br>0 | A |
|-------------------------|-----|-----|-----|------|-----------|-----|-----|-----|-----|-----------|---|

## 2023\_Option 1, PM

### Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

| Junction | Name  | Junction type       | Use circulating lanes | Arm order | Junction Delay (s) | Junction LOS |
|----------|---|---------------------|-----------------------|-----------|--------------------|--------------|
| 1        | A29 Fontwell Avenue / Northern section of Re-alignment road | Standard Roundabout |                       | A, B, C   | 6.09               | A            |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|----|---------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D2 | 2023_Option 1 | PM               | ONE HOUR             | 16:45              | 18:15               | 15                        | ✓                 |

| Vehicle mix varies over turn | Vehicle mix varies over entry | Vehicle mix source | PCU Factor for a HV (PCU) |
|------------------------------|-------------------------------|--------------------|---------------------------|
| ✓                            | ✓                             | HV Percentages     | 2.00                      |

### Demand overview (Traffic)

| Arm                      | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|--------------------------|------------|--------------|--------------|-------------------------|--------------------|
| A - Fontwell Avenue (N)  |            | ONE HOUR     | ✓            | 903                     | 100.000            |
| B - A29 Realignment Road |            | ONE HOUR     | ✓            | 159                     | 100.000            |
| C - Fontwell Avenue (S)  |            | ONE HOUR     | ✓            | 416                     | 100.000            |

## Origin-Destination Data

## Demand (Veh/hr)

| From |                          | To                      |                           |                         |
|------|--------------------------|-------------------------|---------------------------|-------------------------|
|      |                          | A - Fontwell Avenue (N) | B - A29 Realignm ent Road | C - Fontwell Avenue (S) |
| From | A - Fontwell Avenue (N)  | 0                       | 312                       | 591                     |
|      | B - A29 Realignment Road | 149                     | 0                         | 10                      |
|      | C - Fontwell Avenue (S)  | 389                     | 27                        | 0                       |

## Proportions

| From |                          | To                      |                           |                         |
|------|--------------------------|-------------------------|---------------------------|-------------------------|
|      |                          | A - Fontwell Avenue (N) | B - A29 Realignm ent Road | C - Fontwell Avenue (S) |
| From | A - Fontwell Avenue (N)  | 0.00                    | 0.35                      | 0.65                    |
|      | B - A29 Realignment Road | 0.94                    | 0.00                      | 0.06                    |
|      | C - Fontwell Avenue (S)  | 0.94                    | 0.06                      | 0.00                    |

## Vehicle Mix

### Heavy Vehicle Percentages

| From |                          | To                      |                           |                         |
|------|--------------------------|-------------------------|---------------------------|-------------------------|
|      |                          | A - Fontwell Avenue (N) | B - A29 Realignm ent Road | C - Fontwell Avenue (S) |
| From | A - Fontwell Avenue (N)  | 0                       | 0                         | 2                       |
|      | B - A29 Realignment Road | 0                       | 0                         | 0                       |
|      | C - Fontwell Avenue (S)  | 2                       | 0                         | 0                       |

### Average PCU Per Veh

| From |                          | To                      |                           |                         |
|------|--------------------------|-------------------------|---------------------------|-------------------------|
|      |                          | A - Fontwell Avenue (N) | B - A29 Realignm ent Road | C - Fontwell Avenue (S) |
| From | A - Fontwell Avenue (N)  | 1.000                   | 1.000                     | 1.020                   |
|      | B - A29 Realignment Road | 1.000                   | 1.000                     | 1.000                   |
|      | C - Fontwell Avenue (S)  | 1.020                   | 1.000                     | 1.000                   |

## Detailed Demand Data

### Demand for each time segment

| Arm                      | Time Segment | Demand (Veh/hr) | Demand in PCU (PCU/hr) |
|--------------------------|--------------|-----------------|------------------------|
| A - Fontwell Avenue (N)  | 16:45-17:00  | 680             | 689                    |
|                          | 17:00-17:15  | 812             | 822                    |
|                          | 17:15-17:30  | 994             | 1007                   |
|                          | 17:30-17:45  | 994             | 1007                   |
|                          | 17:45-18:00  | 812             | 822                    |
|                          | 18:00-18:15  | 680             | 689                    |
| B - A29 Realignment Road | 16:45-17:00  | 120             | 120                    |
|                          | 17:00-17:15  | 143             | 143                    |
|                          | 17:15-17:30  | 175             | 175                    |
|                          | 17:30-17:45  | 175             | 175                    |
|                          | 17:45-18:00  | 143             | 143                    |
|                          | 18:00-18:15  | 120             | 120                    |
| C - Fontwell Avenue (S)  | 16:45-17:00  | 313             | 319                    |
|                          | 17:00-17:15  | 374             | 381                    |
|                          | 17:15-17:30  | 458             | 467                    |
|                          | 17:30-17:45  | 458             | 467                    |

|  |             |     |     |
|--|-------------|-----|-----|
|  | 17:45-18:00 | 374 | 381 |
|  | 18:00-18:15 | 313 | 319 |

## Results

### Results Summary for whole modelled period

| Arm                      | Max RFC | Max Delay (s) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|--------------------------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| A - Fontwell Avenue (N)  | 0.68    | 7.62          | 2.1             | A       | 829                     | 1243                          |
| B - A29 Realignment Road | 0.15    | 3.70          | 0.2             | A       | 146                     | 219                           |
| C - Fontwell Avenue (S)  | 0.32    | 3.67          | 0.5             | A       | 382                     | 573                           |

### Main Results for each time segment

#### 16:45 - 17:00

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - Fontwell Avenue (N)  | 680                   | 170                     | 20                        | 1472              | 0.462 | 676                 | 404                             | 0.0               | 0.9             | 4.508     | A                             |
| B - A29 Realignment Road | 120                   | 30                      | 443                       | 1282              | 0.093 | 119                 | 254                             | 0.0               | 0.1             | 3.097     | A                             |
| C - Fontwell Avenue (S)  | 313                   | 78                      | 112                       | 1469              | 0.213 | 312                 | 450                             | 0.0               | 0.3             | 3.108     | A                             |

#### 17:00 - 17:15

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - Fontwell Avenue (N)  | 812                   | 203                     | 24                        | 1469              | 0.552 | 810                 | 483                             | 0.9               | 1.2             | 5.450     | A                             |
| B - A29 Realignment Road | 143                   | 36                      | 530                       | 1225              | 0.117 | 143                 | 304                             | 0.1               | 0.1             | 3.325     | A                             |
| C - Fontwell Avenue (S)  | 374                   | 93                      | 134                       | 1456              | 0.257 | 374                 | 539                             | 0.3               | 0.3             | 3.327     | A                             |

#### 17:15 - 17:30

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - Fontwell Avenue (N)  | 994                   | 249                     | 30                        | 1466              | 0.678 | 991                 | 592                             | 1.2               | 2.1             | 7.520     | A                             |
| B - A29 Realignment Road | 175                   | 44                      | 649                       | 1149              | 0.152 | 175                 | 372                             | 0.1               | 0.2             | 3.693     | A                             |
| C - Fontwell Avenue (S)  | 458                   | 115                     | 164                       | 1437              | 0.319 | 458                 | 660                             | 0.3               | 0.5             | 3.671     | A                             |

### 17:30 - 17:45

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - Fontwell Avenue (N)  | 994                   | 249                     | 30                        | 1466              | 0.678 | 994                 | 592                             | 2.1               | 2.1             | 7.621     | A                             |
| B - A29 Realignment Road | 175                   | 44                      | 651                       | 1148              | 0.152 | 175                 | 373                             | 0.2               | 0.2             | 3.699     | A                             |
| C - Fontwell Avenue (S)  | 458                   | 115                     | 164                       | 1437              | 0.319 | 458                 | 662                             | 0.5               | 0.5             | 3.675     | A                             |

### 17:45 - 18:00

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - Fontwell Avenue (N)  | 812                   | 203                     | 24                        | 1469              | 0.552 | 815                 | 484                             | 2.1               | 1.3             | 5.531     | A                             |
| B - A29 Realignment Road | 143                   | 36                      | 533                       | 1223              | 0.117 | 143                 | 306                             | 0.2               | 0.1             | 3.332     | A                             |
| C - Fontwell Avenue (S)  | 374                   | 93                      | 134                       | 1456              | 0.257 | 374                 | 542                             | 0.5               | 0.3             | 3.333     | A                             |

### 18:00 - 18:15

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - Fontwell Avenue (N)  | 680                   | 170                     | 20                        | 1472              | 0.462 | 681                 | 405                             | 1.3               | 0.9             | 4.565     | A                             |
| B - A29 Realignment Road | 120                   | 30                      | 446                       | 1280              | 0.094 | 120                 | 256                             | 0.1               | 0.1             | 3.106     | A                             |
| C - Fontwell Avenue (S)  | 313                   | 78                      | 112                       | 1469              | 0.213 | 313                 | 453                             | 0.3               | 0.3             | 3.115     | A                             |

## 2023\_Option 1+Option 2, AM

### Data Errors and Warnings

*No errors or warnings*

## Junction Network

### Junctions

| Junction | Name  | Junction type       | Use circulating lanes | Arm order | Junction Delay (s) | Junction LOS |
|----------|---|---------------------|-----------------------|-----------|--------------------|--------------|
| 1        | A29 Fontwell Avenue / Northern section of Re-alignment road | Standard Roundabout |                       | A, B, C   | 4.29               | A            |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name          | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|----|------------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D3 | 2023_Option 1+Option 2 | AM               | ONE HOUR             | 07:45              | 09:15               | 15                        | ✓                 |

| Vehicle mix varies over turn | Vehicle mix varies over entry | Vehicle mix source | PCU Factor for a HV (PCU) |
|------------------------------|-------------------------------|--------------------|---------------------------|
| ✓                            | ✓                             | HV Percentages     | 2.00                      |

### Demand overview (Traffic)

| Arm                      | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|--------------------------|------------|--------------|--------------|-------------------------|--------------------|
| A - Fontwell Avenue (N)  |            | ONE HOUR     | ✓            | 528                     | 100.000            |
| B - A29 Realignment Road |            | ONE HOUR     | ✓            | 552                     | 100.000            |
| C - Fontwell Avenue (S)  |            | ONE HOUR     | ✓            | 378                     | 100.000            |

## Origin-Destination Data

### Demand (Veh/hr)

|      |                          | To                      |                          |                         |
|------|--------------------------|-------------------------|--------------------------|-------------------------|
|      |                          | A - Fontwell Avenue (N) | B - A29 Realignment Road | C - Fontwell Avenue (S) |
| From | A - Fontwell Avenue (N)  | 0                       | 404                      | 124                     |
|      | B - A29 Realignment Road | 550                     | 0                        | 2                       |
|      | C - Fontwell Avenue (S)  | 377                     | 1                        | 0                       |

### Proportions

|      |                          | To                      |                          |                         |
|------|--------------------------|-------------------------|--------------------------|-------------------------|
|      |                          | A - Fontwell Avenue (N) | B - A29 Realignment Road | C - Fontwell Avenue (S) |
| From | A - Fontwell Avenue (N)  | 0.00                    | 0.77                     | 0.23                    |
|      | B - A29 Realignment Road | 1.00                    | 0.00                     | 0.00                    |
|      | C - Fontwell Avenue (S)  | 1.00                    | 0.00                     | 0.00                    |

## Vehicle Mix

### Heavy Vehicle Percentages

|      |                          | To                      |                          |                         |
|------|--------------------------|-------------------------|--------------------------|-------------------------|
|      |                          | A - Fontwell Avenue (N) | B - A29 Realignment Road | C - Fontwell Avenue (S) |
| From | A - Fontwell Avenue (N)  | 0                       | 1                        | 2                       |
|      | B - A29 Realignment Road | 1                       | 0                        | 0                       |
|      | C - Fontwell Avenue (S)  | 2                       | 0                        | 0                       |

### Average PCU Per Veh

|      |                          | To                      |                          |                         |
|------|--------------------------|-------------------------|--------------------------|-------------------------|
|      |                          | A - Fontwell Avenue (N) | B - A29 Realignment Road | C - Fontwell Avenue (S) |
| From | A - Fontwell Avenue (N)  | 1.000                   | 1.010                    | 1.020                   |
|      | B - A29 Realignment Road | 1.010                   | 1.000                    | 1.000                   |
|      | C - Fontwell Avenue (S)  | 1.020                   | 1.000                    | 1.000                   |

## Detailed Demand Data

## Demand for each time segment

| Arm                      | Time Segment | Demand (Veh/hr) | Demand in PCU (PCU/hr) |
|--------------------------|--------------|-----------------|------------------------|
| A - Fontwell Avenue (N)  | 07:45-08:00  | 398             | 402                    |
|                          | 08:00-08:15  | 475             | 481                    |
|                          | 08:15-08:30  | 581             | 589                    |
|                          | 08:30-08:45  | 581             | 589                    |
|                          | 08:45-09:00  | 475             | 481                    |
|                          | 09:00-09:15  | 398             | 402                    |
| B - A29 Realignment Road | 07:45-08:00  | 416             | 420                    |
|                          | 08:00-08:15  | 496             | 501                    |
|                          | 08:15-08:30  | 608             | 614                    |
|                          | 08:30-08:45  | 608             | 614                    |
|                          | 08:45-09:00  | 496             | 501                    |
|                          | 09:00-09:15  | 416             | 420                    |
| C - Fontwell Avenue (S)  | 07:45-08:00  | 285             | 290                    |
|                          | 08:00-08:15  | 340             | 347                    |
|                          | 08:15-08:30  | 416             | 424                    |
|                          | 08:30-08:45  | 416             | 424                    |
|                          | 08:45-09:00  | 340             | 347                    |
|                          | 09:00-09:15  | 285             | 290                    |

## Results

### Results Summary for whole modelled period

| Arm                      | Max RFC | Max Delay (s) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|--------------------------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| A - Fontwell Avenue (N)  | 0.39    | 3.99          | 0.6             | A       | 485                     | 727                           |
| B - A29 Realignment Road | 0.42    | 4.20          | 0.7             | A       | 507                     | 760                           |
| C - Fontwell Avenue (S)  | 0.36    | 4.82          | 0.6             | A       | 347                     | 520                           |

### Main Results for each time segment

#### 07:45 - 08:00

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - Fontwell Avenue (N)  | 398                   | 99                      | 0.75                      | 1484              | 0.268 | 396                 | 695                             | 0.0               | 0.4             | 3.304     | A                             |
| B - A29 Realignment Road | 416                   | 104                     | 93                        | 1491              | 0.279 | 414                 | 304                             | 0.0               | 0.4             | 3.337     | A                             |
| C - Fontwell Avenue (S)  | 285                   | 71                      | 413                       | 1281              | 0.222 | 283                 | 95                              | 0.0               | 0.3             | 3.605     | A                             |

#### 08:00 - 08:15

| Arm | Total Demand | Junction | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit | Start queue | End queue | Delay (s) | Unsignalised level of service |
|-----|--------------|----------|---------------------------|-------------------|-----|---------------------|------------------|-------------|-----------|-----------|-------------------------------|
|-----|--------------|----------|---------------------------|-------------------|-----|---------------------|------------------|-------------|-----------|-----------|-------------------------------|

|                          | (Veh/hr) | Arrivals (Veh) |      |      |       |     | side (Veh/hr) | e (Veh) | e (Veh) |       |   |
|--------------------------|----------|----------------|------|------|-------|-----|---------------|---------|---------|-------|---|
| A - Fontwell Avenue (N)  | 475      | 119            | 0.90 | 1484 | 0.320 | 474 | 833           | 0.4     | 0.5     | 3.562 | A |
| B - A29 Realignment Road | 496      | 124            | 111  | 1480 | 0.335 | 496 | 364           | 0.4     | 0.5     | 3.656 | A |
| C - Fontwell Avenue (S)  | 340      | 85             | 494  | 1231 | 0.276 | 339 | 113           | 0.3     | 0.4     | 4.035 | A |

#### 08:15 - 08:30

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - Fontwell Avenue (N)  | 581                   | 145                     | 1                         | 1484              | 0.392 | 581                 | 1019                            | 0.5               | 0.6             | 3.983     | A                             |
| B - A29 Realignment Road | 608                   | 152                     | 136                       | 1464              | 0.415 | 607                 | 445                             | 0.5               | 0.7             | 4.198     | A                             |
| C - Fontwell Avenue (S)  | 416                   | 104                     | 605                       | 1163              | 0.358 | 415                 | 139                             | 0.4               | 0.6             | 4.813     | A                             |

#### 08:30 - 08:45

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - Fontwell Avenue (N)  | 581                   | 145                     | 1                         | 1484              | 0.392 | 581                 | 1021                            | 0.6               | 0.6             | 3.987     | A                             |
| B - A29 Realignment Road | 608                   | 152                     | 137                       | 1464              | 0.415 | 608                 | 446                             | 0.7               | 0.7             | 4.205     | A                             |
| C - Fontwell Avenue (S)  | 416                   | 104                     | 606                       | 1162              | 0.358 | 416                 | 139                             | 0.6               | 0.6             | 4.823     | A                             |

#### 08:45 - 09:00

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - Fontwell Avenue (N)  | 475                   | 119                     | 0.90                      | 1484              | 0.320 | 475                 | 835                             | 0.6               | 0.5             | 3.572     | A                             |
| B - A29 Realignment Road | 496                   | 124                     | 112                       | 1480              | 0.335 | 497                 | 365                             | 0.7               | 0.5             | 3.668     | A                             |
| C - Fontwell Avenue (S)  | 340                   | 85                      | 495                       | 1230              | 0.276 | 340                 | 113                             | 0.6               | 0.4             | 4.049     | A                             |

#### 09:00 - 09:15

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - Fontwell Avenue (N)  | 398                   | 99                      | 0.75                      | 1484              | 0.268 | 398                 | 699                             | 0.5               | 0.4             | 3.314     | A                             |
| B - A29 Realignment Road | 416                   | 104                     | 93                        | 1491              | 0.279 | 416                 | 305                             | 0.5               | 0.4             | 3.351     | A                             |
| C - Fontwell Avenue (S)  | 285                   | 71                      | 415                       | 1280              | 0.222 | 285                 | 95                              | 0.4               | 0.3             | 3.617     | A                             |

# 2023\_Option 1+Option 2, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

| Junction | Name  | Junction type       | Use circulating lanes | Arm order | Junction Delay (s) | Junction LOS |
|----------|---|---------------------|-----------------------|-----------|--------------------|--------------|
| 1        | A29 Fontwell Avenue / Northern section of Re-alignment road | Standard Roundabout |                       | A, B, C   | 4.96               | A            |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name          | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|----|------------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D4 | 2023_Option 1+Option 2 | PM               | ONE HOUR             | 16:45              | 18:15               | 15                        | ✓                 |

| Vehicle mix varies over turn | Vehicle mix varies over entry | Vehicle mix source | PCU Factor for a HV (PCU) |
|------------------------------|-------------------------------|--------------------|---------------------------|
| ✓                            | ✓                             | HV Percentages     | 2.00                      |

### Demand overview (Traffic)

| Arm                      | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|--------------------------|------------|--------------|--------------|-------------------------|--------------------|
| A - Fontwell Avenue (N)  |            | ONE HOUR     | ✓            | 792                     | 100.000            |
| B - A29 Realignment Road |            | ONE HOUR     | ✓            | 306                     | 100.000            |
| C - Fontwell Avenue (S)  |            | ONE HOUR     | ✓            | 174                     | 100.000            |

## Origin-Destination Data

### Demand (Veh/hr)

|      |                          | To                      |                          |                         |
|------|--------------------------|-------------------------|--------------------------|-------------------------|
|      |                          | A - Fontwell Avenue (N) | B - A29 Realignment Road | C - Fontwell Avenue (S) |
| From | A - Fontwell Avenue (N)  | 0                       | 559                      | 233                     |
|      | B - A29 Realignment Road | 304                     | 0                        | 2                       |
|      | C - Fontwell Avenue (S)  | 164                     | 10                       | 0                       |

### Proportions

|      |                          | To                      |                          |                         |
|------|--------------------------|-------------------------|--------------------------|-------------------------|
|      |                          | A - Fontwell Avenue (N) | B - A29 Realignment Road | C - Fontwell Avenue (S) |
| From | A - Fontwell Avenue (N)  | 0.00                    | 0.71                     | 0.29                    |
|      | B - A29 Realignment Road | 0.99                    | 0.00                     | 0.01                    |
|      | C - Fontwell Avenue (S)  | 0.94                    | 0.06                     | 0.00                    |



## Vehicle Mix

### Heavy Vehicle Percentages

| From |                           | To                      |                           |                         |
|------|---------------------------|-------------------------|---------------------------|-------------------------|
|      |                           | A - Fontwell Avenue (N) | B - A29 Realignm ent Road | C - Fontwell Avenue (S) |
| From | A - Fontwell Avenue (N)   | 0                       | 1                         | 2                       |
|      | B - A29 Realignm ent Road | 1                       | 0                         | 0                       |
|      | C - Fontwell Avenue (S)   | 1                       | 0                         | 0                       |

### Average PCU Per Veh

| From |                           | To                      |                           |                         |
|------|---------------------------|-------------------------|---------------------------|-------------------------|
|      |                           | A - Fontwell Avenue (N) | B - A29 Realignm ent Road | C - Fontwell Avenue (S) |
| From | A - Fontwell Avenue (N)   | 1.000                   | 1.010                     | 1.020                   |
|      | B - A29 Realignm ent Road | 1.010                   | 1.000                     | 1.000                   |
|      | C - Fontwell Avenue (S)   | 1.010                   | 1.000                     | 1.000                   |

## Detailed Demand Data

### Demand for each time segment

| Arm                       | Time Segment | Demand (Veh/hr) | Demand in PCU (PCU/hr) |
|---------------------------|--------------|-----------------|------------------------|
| A - Fontwell Avenue (N)   | 16:45-17:00  | 596             | 604                    |
|                           | 17:00-17:15  | 712             | 721                    |
|                           | 17:15-17:30  | 872             | 883                    |
|                           | 17:30-17:45  | 872             | 883                    |
|                           | 17:45-18:00  | 712             | 721                    |
|                           | 18:00-18:15  | 596             | 604                    |
| B - A29 Realignm ent Road | 16:45-17:00  | 230             | 233                    |
|                           | 17:00-17:15  | 275             | 278                    |
|                           | 17:15-17:30  | 337             | 340                    |
|                           | 17:30-17:45  | 337             | 340                    |
|                           | 17:45-18:00  | 275             | 278                    |
|                           | 18:00-18:15  | 230             | 233                    |
| C - Fontwell Avenue (S)   | 16:45-17:00  | 131             | 132                    |
|                           | 17:00-17:15  | 156             | 158                    |
|                           | 17:15-17:30  | 192             | 193                    |
|                           | 17:30-17:45  | 192             | 193                    |
|                           | 17:45-18:00  | 156             | 158                    |
|                           | 18:00-18:15  | 131             | 132                    |

## Results

### Results Summary for whole modelled period

| Arm                       | Max RFC | Max Delay (s) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|---------------------------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| A - Fontwell Avenue (N)   | 0.59    | 5.95          | 1.4             | A       | 727                     | 1090                          |
| B - A29 Realignm ent Road | 0.24    | 3.43          | 0.3             | A       | 281                     | 421                           |
| C - Fontwell Avenue (S)   | 0.14    | 3.12          | 0.2             | A       | 160                     | 239                           |



|                          | (Veh/hr) | Arrivals (Veh) |     |      |       |     | side (Veh/hr) | e (Veh) | e (Veh) |       |   |
|--------------------------|----------|----------------|-----|------|-------|-----|---------------|---------|---------|-------|---|
| A - Fontwell Avenue (N)  | 712      | 178            | 9   | 1479 | 0.482 | 714 | 421           | 1.4     | 0.9     | 4.721 | A |
| B - A29 Realignment Road | 275      | 69             | 210 | 1417 | 0.194 | 275 | 513           | 0.3     | 0.2     | 3.153 | A |
| C - Fontwell Avenue (S)  | 156      | 39             | 274 | 1381 | 0.113 | 157 | 212           | 0.2     | 0.1     | 2.941 | A |

### 18:00 - 18:15

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - Fontwell Avenue (N)  | 596                   | 149                     | 8                         | 1479              | 0.403 | 597                 | 353                             | 0.9               | 0.7             | 4.085     | A                             |
| B - A29 Realignment Road | 230                   | 58                      | 176                       | 1439              | 0.160 | 231                 | 429                             | 0.2               | 0.2             | 2.981     | A                             |
| C - Fontwell Avenue (S)  | 131                   | 33                      | 229                       | 1409              | 0.093 | 131                 | 177                             | 0.1               | 0.1             | 2.816     | A                             |

# 2038\_Option 1, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

| Junction | Name  | Junction type       | Use circulating lanes | Arm order | Junction Delay (s) | Junction LOS |
|----------|---|---------------------|-----------------------|-----------|--------------------|--------------|
| 1        | A29 Fontwell Avenue / Northern section of Re-alignment road | Standard Roundabout |                       | A, B, C   | 6.14               | A            |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|----|---------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D5 | 2038_Option 1 | AM               | ONE HOUR             | 07:45              | 09:15               | 15                        | ✓                 |

| Vehicle mix varies over turn | Vehicle mix varies over entry | Vehicle mix source | PCU Factor for a HV (PCU) |
|------------------------------|-------------------------------|--------------------|---------------------------|
| ✓                            | ✓                             | HV Percentages     | 2.00                      |

### Demand overview (Traffic)

| Arm | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|-----|------------|--------------|--------------|-------------------------|--------------------|
|-----|------------|--------------|--------------|-------------------------|--------------------|

|                          |  |          |   |     |         |
|--------------------------|--|----------|---|-----|---------|
| A - Fontwell Avenue (N)  |  | ONE HOUR | ✓ | 773 | 100.000 |
| B - A29 Realignment Road |  | ONE HOUR | ✓ | 418 | 100.000 |
| C - Fontwell Avenue (S)  |  | ONE HOUR | ✓ | 715 | 100.000 |

## Origin-Destination Data

### Demand (Veh/hr)

| From                     | To                      |                          |                         |
|--------------------------|-------------------------|--------------------------|-------------------------|
|                          | A - Fontwell Avenue (N) | B - A29 Realignment Road | C - Fontwell Avenue (S) |
| A - Fontwell Avenue (N)  | 0                       | 274                      | 499                     |
| B - A29 Realignment Road | 384                     | 0                        | 34                      |
| C - Fontwell Avenue (S)  | 711                     | 4                        | 0                       |

### Proportions

| From                     | To                      |                          |                         |
|--------------------------|-------------------------|--------------------------|-------------------------|
|                          | A - Fontwell Avenue (N) | B - A29 Realignment Road | C - Fontwell Avenue (S) |
| A - Fontwell Avenue (N)  | 0.00                    | 0.35                     | 0.65                    |
| B - A29 Realignment Road | 0.92                    | 0.00                     | 0.08                    |
| C - Fontwell Avenue (S)  | 0.99                    | 0.01                     | 0.00                    |

## Vehicle Mix

### Heavy Vehicle Percentages

| From                     | To                      |                          |                         |
|--------------------------|-------------------------|--------------------------|-------------------------|
|                          | A - Fontwell Avenue (N) | B - A29 Realignment Road | C - Fontwell Avenue (S) |
| A - Fontwell Avenue (N)  | 0                       | 1                        | 2                       |
| B - A29 Realignment Road | 0                       | 0                        | 0                       |
| C - Fontwell Avenue (S)  | 2                       | 0                        | 0                       |

### Average PCU Per Veh

| From                     | To                      |                          |                         |
|--------------------------|-------------------------|--------------------------|-------------------------|
|                          | A - Fontwell Avenue (N) | B - A29 Realignment Road | C - Fontwell Avenue (S) |
| A - Fontwell Avenue (N)  | 1.000                   | 1.010                    | 1.020                   |
| B - A29 Realignment Road | 1.000                   | 1.000                    | 1.000                   |
| C - Fontwell Avenue (S)  | 1.020                   | 1.000                    | 1.000                   |

## Detailed Demand Data

### Demand for each time segment

| Arm                      | Time Segment | Demand (Veh/hr) | Demand in PCU (PCU/hr) |
|--------------------------|--------------|-----------------|------------------------|
| A - Fontwell Avenue (N)  | 07:45-08:00  | 582             | 592                    |
|                          | 08:00-08:15  | 695             | 706                    |
|                          | 08:15-08:30  | 851             | 865                    |
|                          | 08:30-08:45  | 851             | 865                    |
|                          | 08:45-09:00  | 695             | 706                    |
|                          | 09:00-09:15  | 582             | 592                    |
| B - A29 Realignment Road | 07:45-08:00  | 315             | 315                    |
|                          | 08:00-08:15  | 376             | 376                    |
|                          | 08:15-08:30  | 460             | 460                    |
|                          | 08:30-08:45  | 460             | 460                    |

|                         |             |     |     |
|-------------------------|-------------|-----|-----|
|                         | 08:45-09:00 | 376 | 376 |
|                         | 09:00-09:15 | 315 | 315 |
| C - Fontwell Avenue (S) | 07:45-08:00 | 538 | 549 |
|                         | 08:00-08:15 | 643 | 656 |
|                         | 08:15-08:30 | 787 | 803 |
|                         | 08:30-08:45 | 787 | 803 |
|                         | 08:45-09:00 | 643 | 656 |
|                         | 09:00-09:15 | 538 | 549 |

## Results

### Results Summary for whole modelled period

| Arm                      | Max RFC | Max Delay (s) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|--------------------------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| A - Fontwell Avenue (N)  | 0.58    | 5.76          | 1.4             | A       | 709                     | 1064                          |
| B - A29 Realignment Road | 0.38    | 4.78          | 0.6             | A       | 384                     | 575                           |
| C - Fontwell Avenue (S)  | 0.62    | 7.34          | 1.6             | A       | 656                     | 984                           |

### Main Results for each time segment

#### 07:45 - 08:00

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - Fontwell Avenue (N)  | 582                   | 145                     | 3                         | 1477              | 0.394 | 579                 | 821                             | 0.0               | 0.6             | 4.000     | A                             |
| B - A29 Realignment Road | 315                   | 79                      | 374                       | 1326              | 0.237 | 313                 | 208                             | 0.0               | 0.3             | 3.551     | A                             |
| C - Fontwell Avenue (S)  | 538                   | 135                     | 288                       | 1360              | 0.396 | 536                 | 400                             | 0.0               | 0.6             | 4.367     | A                             |

#### 08:00 - 08:15

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - Fontwell Avenue (N)  | 695                   | 174                     | 4                         | 1477              | 0.471 | 694                 | 983                             | 0.6               | 0.9             | 4.594     | A                             |
| B - A29 Realignment Road | 376                   | 94                      | 448                       | 1278              | 0.294 | 375                 | 250                             | 0.3               | 0.4             | 3.985     | A                             |
| C - Fontwell Avenue (S)  | 643                   | 161                     | 345                       | 1325              | 0.485 | 642                 | 479                             | 0.6               | 0.9             | 5.257     | A                             |

#### 08:15 - 08:30

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|-----|-----------------------|-------------------------|---------------------------|-------------------|-----|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
|-----|-----------------------|-------------------------|---------------------------|-------------------|-----|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|

|                          | (Veh/hr) |     |     |      |       |     |      |     |     |       |   |
|--------------------------|----------|-----|-----|------|-------|-----|------|-----|-----|-------|---|
| A - Fontwell Avenue (N)  | 851      | 213 | 4   | 1476 | 0.577 | 849 | 1202 | 0.9 | 1.3 | 5.725 | A |
| B - A29 Realignment Road | 460      | 115 | 548 | 1214 | 0.379 | 459 | 305  | 0.4 | 0.6 | 4.767 | A |
| C - Fontwell Avenue (S)  | 787      | 197 | 422 | 1278 | 0.616 | 785 | 586  | 0.9 | 1.6 | 7.257 | A |

#### 08:30 - 08:45

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - Fontwell Avenue (N)  | 851                   | 213                     | 4                         | 1476              | 0.577 | 851                 | 1206                            | 1.3               | 1.4             | 5.759     | A                             |
| B - A29 Realignment Road | 460                   | 115                     | 549                       | 1213              | 0.379 | 460                 | 306                             | 0.6               | 0.6             | 4.781     | A                             |
| C - Fontwell Avenue (S)  | 787                   | 197                     | 423                       | 1278              | 0.616 | 787                 | 587                             | 1.6               | 1.6             | 7.335     | A                             |

#### 08:45 - 09:00

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - Fontwell Avenue (N)  | 695                   | 174                     | 4                         | 1477              | 0.471 | 697                 | 988                             | 1.4               | 0.9             | 4.628     | A                             |
| B - A29 Realignment Road | 376                   | 94                      | 450                       | 1277              | 0.294 | 377                 | 251                             | 0.6               | 0.4             | 4.002     | A                             |
| C - Fontwell Avenue (S)  | 643                   | 161                     | 346                       | 1325              | 0.485 | 645                 | 480                             | 1.6               | 1.0             | 5.320     | A                             |

#### 09:00 - 09:15

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - Fontwell Avenue (N)  | 582                   | 145                     | 3                         | 1477              | 0.394 | 583                 | 826                             | 0.9               | 0.7             | 4.032     | A                             |
| B - A29 Realignment Road | 315                   | 79                      | 376                       | 1324              | 0.238 | 315                 | 210                             | 0.4               | 0.3             | 3.567     | A                             |
| C - Fontwell Avenue (S)  | 538                   | 135                     | 289                       | 1359              | 0.396 | 539                 | 402                             | 1.0               | 0.7             | 4.399     | A                             |

## 2038\_Option 1, PM

### Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

| Junction | Name  | Junction type       | Use circulating lanes | Arm order | Junction Delay (s) | Junction LOS |
|----------|---|---------------------|-----------------------|-----------|--------------------|--------------|
| 1        | A29 Fontwell Avenue / Northern section of Re-alignment road | Standard Roundabout |                       | A, B, C   | 13.73              | B            |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|----|---------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D6 | 2038_Option 1 | PM               | ONE HOUR             | 16:45              | 18:15               | 15                        | ✓                 |

| Vehicle mix varies over turn | Vehicle mix varies over entry | Vehicle mix source | PCU Factor for a HV (PCU) |
|------------------------------|-------------------------------|--------------------|---------------------------|
| ✓                            | ✓                             | HV Percentages     | 2.00                      |

### Demand overview (Traffic)

| Arm                      | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|--------------------------|------------|--------------|--------------|-------------------------|--------------------|
| A - Fontwell Avenue (N)  |            | ONE HOUR     | ✓            | 1166                    | 100.000            |
| B - A29 Realignment Road |            | ONE HOUR     | ✓            | 338                     | 100.000            |
| C - Fontwell Avenue (S)  |            | ONE HOUR     | ✓            | 535                     | 100.000            |

## Origin-Destination Data

### Demand (Veh/hr)

|      |                          | To                      |                           |                         |
|------|--------------------------|-------------------------|---------------------------|-------------------------|
|      |                          | A - Fontwell Avenue (N) | B - A29 Realignm ent Road | C - Fontwell Avenue (S) |
| From | A - Fontwell Avenue (N)  | 0                       | 480                       | 686                     |
|      | B - A29 Realignment Road | 319                     | 0                         | 19                      |
|      | C - Fontwell Avenue (S)  | 488                     | 47                        | 0                       |

### Proportions

|      |                          | To                      |                           |                         |
|------|--------------------------|-------------------------|---------------------------|-------------------------|
|      |                          | A - Fontwell Avenue (N) | B - A29 Realignm ent Road | C - Fontwell Avenue (S) |
| From | A - Fontwell Avenue (N)  | 0.00                    | 0.41                      | 0.59                    |
|      | B - A29 Realignment Road | 0.94                    | 0.00                      | 0.06                    |
|      | C - Fontwell Avenue (S)  | 0.91                    | 0.09                      | 0.00                    |

## Vehicle Mix

## Heavy Vehicle Percentages

| From                     | To | A - Fontwell Avenue (N) | B - A29 Realignm ent Road | C - Fontwell Avenue (S) |
|--------------------------|----|-------------------------|---------------------------|-------------------------|
|                          |    |                         |                           |                         |
| A - Fontwell Avenue (N)  |    | 0                       | 0                         | 2                       |
| B - A29 Realignment Road |    | 0                       | 0                         | 0                       |
| C - Fontwell Avenue (S)  |    | 2                       | 0                         | 0                       |

## Average PCU Per Veh

| From                     | To | A - Fontwell Avenue (N) | B - A29 Realignm ent Road | C - Fontwell Avenue (S) |
|--------------------------|----|-------------------------|---------------------------|-------------------------|
|                          |    |                         |                           |                         |
| A - Fontwell Avenue (N)  |    | 1.000                   | 1.000                     | 1.020                   |
| B - A29 Realignment Road |    | 1.000                   | 1.000                     | 1.000                   |
| C - Fontwell Avenue (S)  |    | 1.020                   | 1.000                     | 1.000                   |

## Detailed Demand Data

### Demand for each time segment

| Arm                      | Time Segment | Demand (Veh/hr) | Demand in PCU (PCU/hr) |
|--------------------------|--------------|-----------------|------------------------|
| A - Fontwell Avenue (N)  | 16:45-17:00  | 878             | 888                    |
|                          | 17:00-17:15  | 1048            | 1061                   |
|                          | 17:15-17:30  | 1284            | 1299                   |
|                          | 17:30-17:45  | 1284            | 1299                   |
|                          | 17:45-18:00  | 1048            | 1061                   |
|                          | 18:00-18:15  | 878             | 888                    |
| B - A29 Realignment Road | 16:45-17:00  | 254             | 254                    |
|                          | 17:00-17:15  | 304             | 304                    |
|                          | 17:15-17:30  | 372             | 372                    |
|                          | 17:30-17:45  | 372             | 372                    |
|                          | 17:45-18:00  | 304             | 304                    |
|                          | 18:00-18:15  | 254             | 254                    |
| C - Fontwell Avenue (S)  | 16:45-17:00  | 403             | 410                    |
|                          | 17:00-17:15  | 481             | 490                    |
|                          | 17:15-17:30  | 589             | 600                    |
|                          | 17:30-17:45  | 589             | 600                    |
|                          | 17:45-18:00  | 481             | 490                    |
|                          | 18:00-18:15  | 403             | 410                    |

## Results

### Results Summary for whole modelled period

| Arm                      | Max RFC | Max Delay (s) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|--------------------------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| A - Fontwell Avenue (N)  | 0.88    | 20.28         | 6.9             | C       | 1070                    | 1605                          |
| B - A29 Realignment Road | 0.34    | 5.07          | 0.5             | A       | 310                     | 465                           |
| C - Fontwell Avenue (S)  | 0.45    | 4.90          | 0.8             | A       | 491                     | 736                           |



## Main Results for each time segment

### 16:45 - 17:00

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - Fontwell Avenue (N)  | 878                   | 219                     | 35                        | 1465              | 0.599 | 872                 | 605                             | 0.0               | 1.5             | 6.015     | A                             |
| B - A29 Realignment Road | 254                   | 64                      | 513                       | 1236              | 0.206 | 253                 | 394                             | 0.0               | 0.3             | 3.659     | A                             |
| C - Fontwell Avenue (S)  | 403                   | 101                     | 239                       | 1392              | 0.289 | 401                 | 527                             | 0.0               | 0.4             | 3.626     | A                             |

### 17:00 - 17:15

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - Fontwell Avenue (N)  | 1048                  | 262                     | 42                        | 1461              | 0.718 | 1044                | 725                             | 1.5               | 2.5             | 8.562     | A                             |
| B - A29 Realignment Road | 304                   | 76                      | 614                       | 1171              | 0.259 | 303                 | 472                             | 0.3               | 0.3             | 4.146     | A                             |
| C - Fontwell Avenue (S)  | 481                   | 120                     | 286                       | 1363              | 0.353 | 480                 | 631                             | 0.4               | 0.5             | 4.075     | A                             |

### 17:15 - 17:30

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - Fontwell Avenue (N)  | 1284                  | 321                     | 52                        | 1455              | 0.882 | 1268                | 887                             | 2.5               | 6.4             | 17.872    | C                             |
| B - A29 Realignment Road | 372                   | 93                      | 746                       | 1087              | 0.342 | 371                 | 574                             | 0.3               | 0.5             | 5.029     | A                             |
| C - Fontwell Avenue (S)  | 589                   | 147                     | 351                       | 1324              | 0.445 | 588                 | 767                             | 0.5               | 0.8             | 4.885     | A                             |

### 17:30 - 17:45

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - Fontwell Avenue (N)  | 1284                  | 321                     | 52                        | 1455              | 0.882 | 1282                | 888                             | 6.4               | 6.9             | 20.283    | C                             |
| B - A29 Realignment Road | 372                   | 93                      | 754                       | 1081              | 0.344 | 372                 | 579                             | 0.5               | 0.5             | 5.074     | A                             |
| C - Fontwell Avenue (S)  | 589                   | 147                     | 351                       | 1324              | 0.445 | 589                 | 775                             | 0.8               | 0.8             | 4.900     | A                             |

### 17:45 - 18:00

| Arm                     | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|-------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - Fontwell Avenue (N) | 1048                  | 262                     | 42                        | 1461              | 0.718 | 1065                | 727                             | 6.9               | 2.6             | 9.469     | A                             |

|                          |     |     |     |      |       |     |     |     |     |       |   |
|--------------------------|-----|-----|-----|------|-------|-----|-----|-----|-----|-------|---|
| B - A29 Realignment Road | 304 | 76  | 627 | 1163 | 0.261 | 305 | 481 | 0.5 | 0.4 | 4.196 | A |
| C - Fontwell Avenue (S)  | 481 | 120 | 287 | 1363 | 0.353 | 482 | 644 | 0.8 | 0.5 | 4.092 | A |

### 18:00 - 18:15

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - Fontwell Avenue (N)  | 878                   | 219                     | 35                        | 1465              | 0.599 | 882                 | 608                             | 2.6               | 1.5             | 6.228     | A                             |
| B - A29 Realignment Road | 254                   | 64                      | 519                       | 1233              | 0.206 | 255                 | 399                             | 0.4               | 0.3             | 3.682     | A                             |
| C - Fontwell Avenue (S)  | 403                   | 101                     | 241                       | 1391              | 0.290 | 403                 | 533                             | 0.5               | 0.4             | 3.648     | A                             |

## 2038\_Option 1+Option 2, AM

### Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

| Junction | Name  | Junction type       | Use circulating lanes | Arm order | Junction Delay (s) | Junction LOS |
|----------|---|---------------------|-----------------------|-----------|--------------------|--------------|
| 1        | A29 Fontwell Avenue / Northern section of Re-alignment road | Standard Roundabout |                       | A, B, C   | 5.44               | A            |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name          | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|----|------------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D7 | 2038_Option 1+Option 2 | AM               | ONE HOUR             | 07:45              | 09:15               | 15                        | ✓                 |

| Vehicle mix varies over turn | Vehicle mix varies over entry | Vehicle mix source | PCU Factor for a HV (PCU) |
|------------------------------|-------------------------------|--------------------|---------------------------|
| ✓                            | ✓                             | HV Percentages     | 2.00                      |

### Demand overview (Traffic)

| Arm                      | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|--------------------------|------------|--------------|--------------|-------------------------|--------------------|
| A - Fontwell Avenue (N)  |            | ONE HOUR     | ✓            | 732                     | 100.000            |
| B - A29 Realignment Road |            | ONE HOUR     | ✓            | 715                     | 100.000            |
| C - Fontwell Avenue (S)  |            | ONE HOUR     | ✓            | 392                     | 100.000            |

## Origin-Destination Data

### Demand (Veh/hr)

| From |                           | To                      |                           |                         |
|------|---------------------------|-------------------------|---------------------------|-------------------------|
|      |                           | A - Fontwell Avenue (N) | B - A29 Realignm ent Road | C - Fontwell Avenue (S) |
| From | A - Fontwell Avenue (N)   | 0                       | 588                       | 144                     |
|      | B - A29 Realignm ent Road | 708                     | 0                         | 7                       |
|      | C - Fontwell Avenue (S)   | 391                     | 1                         | 0                       |

### Proportions

| From |                           | To                      |                           |                         |
|------|---------------------------|-------------------------|---------------------------|-------------------------|
|      |                           | A - Fontwell Avenue (N) | B - A29 Realignm ent Road | C - Fontwell Avenue (S) |
| From | A - Fontwell Avenue (N)   | 0.00                    | 0.80                      | 0.20                    |
|      | B - A29 Realignm ent Road | 0.99                    | 0.00                      | 0.01                    |
|      | C - Fontwell Avenue (S)   | 1.00                    | 0.00                      | 0.00                    |

## Vehicle Mix

### Heavy Vehicle Percentages

| From |                           | To                      |                           |                         |
|------|---------------------------|-------------------------|---------------------------|-------------------------|
|      |                           | A - Fontwell Avenue (N) | B - A29 Realignm ent Road | C - Fontwell Avenue (S) |
| From | A - Fontwell Avenue (N)   | 0                       | 1                         | 2                       |
|      | B - A29 Realignm ent Road | 0                       | 0                         | 0                       |
|      | C - Fontwell Avenue (S)   | 4                       | 0                         | 0                       |

### Average PCU Per Veh

| From |                           | To                      |                           |                         |
|------|---------------------------|-------------------------|---------------------------|-------------------------|
|      |                           | A - Fontwell Avenue (N) | B - A29 Realignm ent Road | C - Fontwell Avenue (S) |
| From | A - Fontwell Avenue (N)   | 1.000                   | 1.010                     | 1.020                   |
|      | B - A29 Realignm ent Road | 1.000                   | 1.000                     | 1.000                   |
|      | C - Fontwell Avenue (S)   | 1.040                   | 1.000                     | 1.000                   |

## Detailed Demand Data

### Demand for each time segment

| Arm                       | Time Segment | Demand (Veh/hr) | Demand in PCU (PCU/hr) |
|---------------------------|--------------|-----------------|------------------------|
| A - Fontwell Avenue (N)   | 07:45-08:00  | 551             | 558                    |
|                           | 08:00-08:15  | 658             | 666                    |
|                           | 08:15-08:30  | 806             | 816                    |
|                           | 08:30-08:45  | 806             | 816                    |
|                           | 08:45-09:00  | 658             | 666                    |
|                           | 09:00-09:15  | 551             | 558                    |
| B - A29 Realignm ent Road | 07:45-08:00  | 538             | 538                    |
|                           | 08:00-08:15  | 643             | 643                    |
|                           | 08:15-08:30  | 787             | 787                    |
|                           | 08:30-08:45  | 787             | 787                    |
|                           | 08:45-09:00  | 643             | 643                    |
|                           | 09:00-09:15  | 538             | 538                    |
| C - Fontwell Avenue (S)   | 07:45-08:00  | 295             | 307                    |
|                           | 08:00-08:15  | 352             | 366                    |
|                           | 08:15-08:30  | 432             | 449                    |

|  |             |     |     |
|--|-------------|-----|-----|
|  | 08:30-08:45 | 432 | 449 |
|  | 08:45-09:00 | 352 | 366 |
|  | 09:00-09:15 | 295 | 307 |

## Results

### Results Summary for whole modelled period

| Arm                      | Max RFC | Max Delay (s) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|--------------------------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| A - Fontwell Avenue (N)  | 0.54    | 5.30          | 1.2             | A       | 672                     | 1008                          |
| B - A29 Realignment Road | 0.54    | 5.32          | 1.2             | A       | 656                     | 984                           |
| C - Fontwell Avenue (S)  | 0.42    | 5.92          | 0.7             | A       | 360                     | 540                           |

### Main Results for each time segment

#### 07:45 - 08:00

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - Fontwell Avenue (N)  | 551                   | 138                     | 0.75                      | 1485              | 0.371 | 549                 | 824                             | 0.0               | 0.6             | 3.837     | A                             |
| B - A29 Realignment Road | 538                   | 135                     | 108                       | 1497              | 0.360 | 536                 | 442                             | 0.0               | 0.6             | 3.740     | A                             |
| C - Fontwell Avenue (S)  | 295                   | 74                      | 531                       | 1188              | 0.248 | 294                 | 113                             | 0.0               | 0.3             | 4.018     | A                             |

#### 08:00 - 08:15

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - Fontwell Avenue (N)  | 658                   | 165                     | 0.90                      | 1485              | 0.443 | 657                 | 987                             | 0.6               | 0.8             | 4.345     | A                             |
| B - A29 Realignment Road | 643                   | 161                     | 129                       | 1483              | 0.433 | 642                 | 529                             | 0.6               | 0.8             | 4.277     | A                             |
| C - Fontwell Avenue (S)  | 352                   | 88                      | 636                       | 1126              | 0.313 | 352                 | 136                             | 0.3               | 0.5             | 4.649     | A                             |

#### 08:15 - 08:30

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - Fontwell Avenue (N)  | 806                   | 201                     | 1                         | 1485              | 0.543 | 804                 | 1207                            | 0.8               | 1.2             | 5.281     | A                             |
| B - A29 Realignment Road | 787                   | 197                     | 158                       | 1464              | 0.538 | 786                 | 647                             | 0.8               | 1.1             | 5.292     | A                             |

|                         |     |     |     |      |       |     |     |     |     |       |   |
|-------------------------|-----|-----|-----|------|-------|-----|-----|-----|-----|-------|---|
| C - Fontwell Avenue (S) | 432 | 108 | 778 | 1041 | 0.415 | 431 | 166 | 0.5 | 0.7 | 5.893 | A |
|-------------------------|-----|-----|-----|------|-------|-----|-----|-----|-----|-------|---|

### 08:30 - 08:45

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - Fontwell Avenue (N)  | 806                   | 201                     | 1                         | 1485              | 0.543 | 806                 | 1210                            | 1.2               | 1.2             | 5.303     | A                             |
| B - A29 Realignment Road | 787                   | 197                     | 159                       | 1464              | 0.538 | 787                 | 648                             | 1.1               | 1.2             | 5.317     | A                             |
| C - Fontwell Avenue (S)  | 432                   | 108                     | 779                       | 1040              | 0.415 | 432                 | 166                             | 0.7               | 0.7             | 5.920     | A                             |

### 08:45 - 09:00

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - Fontwell Avenue (N)  | 658                   | 165                     | 0.90                      | 1485              | 0.443 | 660                 | 990                             | 1.2               | 0.8             | 4.372     | A                             |
| B - A29 Realignment Road | 643                   | 161                     | 130                       | 1483              | 0.434 | 644                 | 531                             | 1.2               | 0.8             | 4.301     | A                             |
| C - Fontwell Avenue (S)  | 352                   | 88                      | 638                       | 1124              | 0.313 | 353                 | 136                             | 0.7               | 0.5             | 4.677     | A                             |

### 09:00 - 09:15

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - Fontwell Avenue (N)  | 551                   | 138                     | 0.75                      | 1485              | 0.371 | 552                 | 829                             | 0.8               | 0.6             | 3.863     | A                             |
| B - A29 Realignment Road | 538                   | 135                     | 109                       | 1496              | 0.360 | 539                 | 444                             | 0.8               | 0.6             | 3.763     | A                             |
| C - Fontwell Avenue (S)  | 295                   | 74                      | 534                       | 1187              | 0.249 | 296                 | 114                             | 0.5               | 0.3             | 4.043     | A                             |

## 2038\_Option 1+Option 2, PM

### Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

| Junction | Name  | Junction type       | Use circulating lanes | Arm order | Junction Delay (s) | Junction LOS |
|----------|---|---------------------|-----------------------|-----------|--------------------|--------------|
| 1        | A29 Fontwell Avenue / Northern section of Re-alignment road | Standard Roundabout |                       | A, B, C   | 9.85               | A            |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name          | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|----|------------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D8 | 2038_Option 1+Option 2 | PM               | ONE HOUR             | 16:45              | 18:15               | 15                        | ✓                 |

| Vehicle mix varies over turn | Vehicle mix varies over entry | Vehicle mix source | PCU Factor for a HV (PCU) |
|------------------------------|-------------------------------|--------------------|---------------------------|
| ✓                            | ✓                             | HV Percentages     | 2.00                      |

### Demand overview (Traffic)

| Arm                      | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|--------------------------|------------|--------------|--------------|-------------------------|--------------------|
| A - Fontwell Avenue (N)  |            | ONE HOUR     | ✓            | 1100                    | 100.000            |
| B - A29 Realignment Road |            | ONE HOUR     | ✓            | 473                     | 100.000            |
| C - Fontwell Avenue (S)  |            | ONE HOUR     | ✓            | 215                     | 100.000            |

## Origin-Destination Data

### Demand (Veh/hr)

| From                     | To                      |                          |                         |
|--------------------------|-------------------------|--------------------------|-------------------------|
|                          | A - Fontwell Avenue (N) | B - A29 Realignment Road | C - Fontwell Avenue (S) |
| A - Fontwell Avenue (N)  | 0                       | 779                      | 321                     |
| B - A29 Realignment Road | 469                     | 0                        | 4                       |
| C - Fontwell Avenue (S)  | 196                     | 19                       | 0                       |

### Proportions

| From                     | To                      |                          |                         |
|--------------------------|-------------------------|--------------------------|-------------------------|
|                          | A - Fontwell Avenue (N) | B - A29 Realignment Road | C - Fontwell Avenue (S) |
| A - Fontwell Avenue (N)  | 0.00                    | 0.71                     | 0.29                    |
| B - A29 Realignment Road | 0.99                    | 0.00                     | 0.01                    |
| C - Fontwell Avenue (S)  | 0.91                    | 0.09                     | 0.00                    |

## Vehicle Mix

### Heavy Vehicle Percentages

| From                     | To                      |                          |                         |
|--------------------------|-------------------------|--------------------------|-------------------------|
|                          | A - Fontwell Avenue (N) | B - A29 Realignment Road | C - Fontwell Avenue (S) |
| A - Fontwell Avenue (N)  | 0                       | 0                        | 3                       |
| B - A29 Realignment Road | 0                       | 0                        | 0                       |
| C - Fontwell Avenue (S)  | 3                       | 0                        | 0                       |

### Average PCU Per Veh

| From                     | To                      |                          |                         |
|--------------------------|-------------------------|--------------------------|-------------------------|
|                          | A - Fontwell Avenue (N) | B - A29 Realignment Road | C - Fontwell Avenue (S) |
| A - Fontwell Avenue (N)  | 1.000                   | 1.000                    | 1.030                   |
| B - A29 Realignment Road | 1.000                   | 1.000                    | 1.000                   |
| C - Fontwell Avenue (S)  | 1.030                   | 1.000                    | 1.000                   |

## Detailed Demand Data

### Demand for each time segment

| Arm                      | Time Segment | Demand (Veh/hr) | Demand in PCU (PCU/hr) |
|--------------------------|--------------|-----------------|------------------------|
| A - Fontwell Avenue (N)  | 16:45-17:00  | 828             | 835                    |
|                          | 17:00-17:15  | 989             | 998                    |
|                          | 17:15-17:30  | 1211            | 1222                   |
|                          | 17:30-17:45  | 1211            | 1222                   |
|                          | 17:45-18:00  | 989             | 998                    |
|                          | 18:00-18:15  | 828             | 835                    |
| B - A29 Realignment Road | 16:45-17:00  | 356             | 356                    |
|                          | 17:00-17:15  | 425             | 425                    |
|                          | 17:15-17:30  | 521             | 521                    |
|                          | 17:30-17:45  | 521             | 521                    |
|                          | 17:45-18:00  | 425             | 425                    |
|                          | 18:00-18:15  | 356             | 356                    |
| C - Fontwell Avenue (S)  | 16:45-17:00  | 162             | 166                    |
|                          | 17:00-17:15  | 193             | 199                    |
|                          | 17:15-17:30  | 237             | 243                    |
|                          | 17:30-17:45  | 237             | 243                    |
|                          | 17:45-18:00  | 193             | 199                    |
|                          | 18:00-18:15  | 162             | 166                    |

## Results

### Results Summary for whole modelled period

| Arm                      | Max RFC | Max Delay (s) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|--------------------------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| A - Fontwell Avenue (N)  | 0.82    | 13.40         | 4.4             | B       | 1009                    | 1514                          |
| B - A29 Realignment Road | 0.39    | 4.41          | 0.6             | A       | 434                     | 651                           |
| C - Fontwell Avenue (S)  | 0.20    | 3.69          | 0.2             | A       | 197                     | 296                           |

### Main Results for each time segment

#### 16:45 - 17:00

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - Fontwell Avenue (N)  | 828                   | 207                     | 14                        | 1482              | 0.559 | 823                 | 499                             | 0.0               | 1.3             | 5.427     | A                             |
| B - A29 Realignment Road | 356                   | 89                      | 240                       | 1410              | 0.253 | 355                 | 597                             | 0.0               | 0.3             | 3.406     | A                             |
| C - Fontwell Avenue (S)  | 162                   | 40                      | 352                       | 1311              | 0.123 | 161                 | 243                             | 0.0               | 0.1             | 3.128     | A                             |

#### 17:00 - 17:15

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalise d level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|--------------------------------|
| A - Fontwell Avenue (N)  | 989                   | 247                     | 17                        | 1480              | 0.668 | 986                 | 597                             | 1.3               | 2.0             | 7.244     | A                              |
| B - A29 Realignment Road | 425                   | 106                     | 288                       | 1379              | 0.308 | 425                 | 715                             | 0.3               | 0.4             | 3.769     | A                              |
| C - Fontwell Avenue (S)  | 193                   | 48                      | 421                       | 1269              | 0.152 | 193                 | 291                             | 0.1               | 0.2             | 3.344     | A                              |

#### 17:15 - 17:30

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalise d level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|--------------------------------|
| A - Fontwell Avenue (N)  | 1211                  | 303                     | 21                        | 1478              | 0.820 | 1202                | 731                             | 2.0               | 4.2             | 12.659    | B                              |
| B - A29 Realignment Road | 521                   | 130                     | 351                       | 1338              | 0.389 | 520                 | 872                             | 0.4               | 0.6             | 4.395     | A                              |
| C - Fontwell Avenue (S)  | 237                   | 59                      | 516                       | 1212              | 0.195 | 236                 | 355                             | 0.2               | 0.2             | 3.689     | A                              |

#### 17:30 - 17:45

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalise d level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|--------------------------------|
| A - Fontwell Avenue (N)  | 1211                  | 303                     | 21                        | 1478              | 0.820 | 1211                | 732                             | 4.2               | 4.4             | 13.399    | B                              |
| B - A29 Realignment Road | 521                   | 130                     | 353                       | 1337              | 0.390 | 521                 | 878                             | 0.6               | 0.6             | 4.410     | A                              |
| C - Fontwell Avenue (S)  | 237                   | 59                      | 516                       | 1212              | 0.195 | 237                 | 358                             | 0.2               | 0.2             | 3.691     | A                              |

#### 17:45 - 18:00

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalise d level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|--------------------------------|
| A - Fontwell Avenue (N)  | 989                   | 247                     | 17                        | 1480              | 0.668 | 998                 | 599                             | 4.4               | 2.1             | 7.611     | A                              |
| B - A29 Realignment Road | 425                   | 106                     | 291                       | 1377              | 0.309 | 426                 | 724                             | 0.6               | 0.4             | 3.786     | A                              |
| C - Fontwell Avenue (S)  | 193                   | 48                      | 422                       | 1269              | 0.152 | 194                 | 295                             | 0.2               | 0.2             | 3.348     | A                              |

#### 18:00 - 18:15

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalise d level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|--------------------------------|
| A - Fontwell Avenue (N)  | 828                   | 207                     | 14                        | 1482              | 0.559 | 831                 | 501                             | 2.1               | 1.3             | 5.563     | A                              |
| B - A29 Realignment Road | 356                   | 89                      | 243                       | 1409              | 0.253 | 357                 | 603                             | 0.4               | 0.3             | 3.422     | A                              |



|                         |     |    |     |      |                  |     |     |     |     |                  |   |
|-------------------------|-----|----|-----|------|------------------|-----|-----|-----|-----|------------------|---|
| C - Fontwell Avenue (S) | 162 | 40 | 354 | 1310 | $\frac{0.12}{4}$ | 162 | 246 | 0.2 | 0.1 | $\frac{3.13}{4}$ | A |
|-------------------------|-----|----|-----|------|------------------|-----|-----|-----|-----|------------------|---|

|  |
|--|
| <b>Junctions 9</b>   |
| <b>ARCADY 9 - Roundabout Module</b>  |
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**Filename:** 2\_B2233 Barnham Road Northern section.j9  
**Path:** O:\50610325 - Chancery Lane Projects\Development Planning Projects\00000000 A29 Junctions Modelling\F Record of Issue\2020.04.03 J1\_J2 2023\J2  
**Report generation date:** 03/04/2020 12:06:03

- »2023\_Option 1, AM
- »2023\_Option 1, PM
- »2023\_Option 1+Option 2, AM
- »2023\_Option 1+Option 2, PM
- »2038\_Option 1, AM
- »2038\_Option 1, PM
- »2038\_Option 1+Option 2, AM
- »2038\_Option 1+Option 2, PM

**Summary of junction performance**

|                               | AM          |           |      |     | PM          |           |      |     |
|-------------------------------|-------------|-----------|------|-----|-------------|-----------|------|-----|
|                               | Queue (Veh) | Delay (s) | RFC  | LOS | Queue (Veh) | Delay (s) | RFC  | LOS |
| <b>2023_Option 1</b>          |             |           |      |     |             |           |      |     |
| A - A29 Realignment Road      | 0.2         | 3.33      | 0.13 | A   | 0.4         | 4.11      | 0.27 | A   |
| B - Barnham Road (E)          | 0.8         | 4.59      | 0.45 | A   | 0.7         | 4.30      | 0.40 | A   |
| C - Southern approach         | 0.1         | 3.14      | 0.09 | A   | 0.0         | 2.85      | 0.04 | A   |
| D - Barnham Road (W)          | 0.3         | 3.77      | 0.25 | A   | 0.5         | 3.84      | 0.33 | A   |
| <b>2023_Option 1+Option 2</b> |             |           |      |     |             |           |      |     |
| A - A29 Realignment Road      | 0.5         | 4.58      | 0.35 | A   | 1.2         | 7.21      | 0.54 | A   |
| B - Barnham Road (E)          | 1.5         | 7.05      | 0.60 | A   | 1.4         | 7.33      | 0.59 | A   |
| C - Southern approach         | 1.0         | 5.56      | 0.50 | A   | 0.7         | 4.34      | 0.41 | A   |
| D - Barnham Road (W)          | 0.2         | 4.34      | 0.16 | A   | 0.5         | 4.66      | 0.32 | A   |
| <b>2038_Option 1</b>          |             |           |      |     |             |           |      |     |
| A - A29 Realignment Road      | 0.2         | 3.69      | 0.20 | A   | 0.7         | 5.31      | 0.41 | A   |
| B - Barnham Road (E)          | 0.5         | 4.05      | 0.35 | A   | 1.0         | 5.62      | 0.49 | A   |
| C - Southern approach         | 0.5         | 3.75      | 0.31 | A   | 0.2         | 3.30      | 0.17 | A   |
| D - Barnham Road (W)          | 0.4         | 3.86      | 0.28 | A   | 0.7         | 4.70      | 0.40 | A   |
| <b>2038_Option 1+Option 2</b> |             |           |      |     |             |           |      |     |
| A - A29 Realignment Road      | 1.0         | 6.08      | 0.51 | A   | 3.1         | 14.09     | 0.76 | B   |
| B - Barnham Road (E)          | 1.5         | 7.90      | 0.61 | A   | 3.1         | 14.80     | 0.76 | B   |
| C - Southern approach         | 2.0         | 7.82      | 0.67 | A   | 1.2         | 5.69      | 0.55 | A   |
| D - Barnham Road (W)          | 0.2         | 4.64      | 0.18 | A   | 0.6         | 5.86      | 0.39 | A   |

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

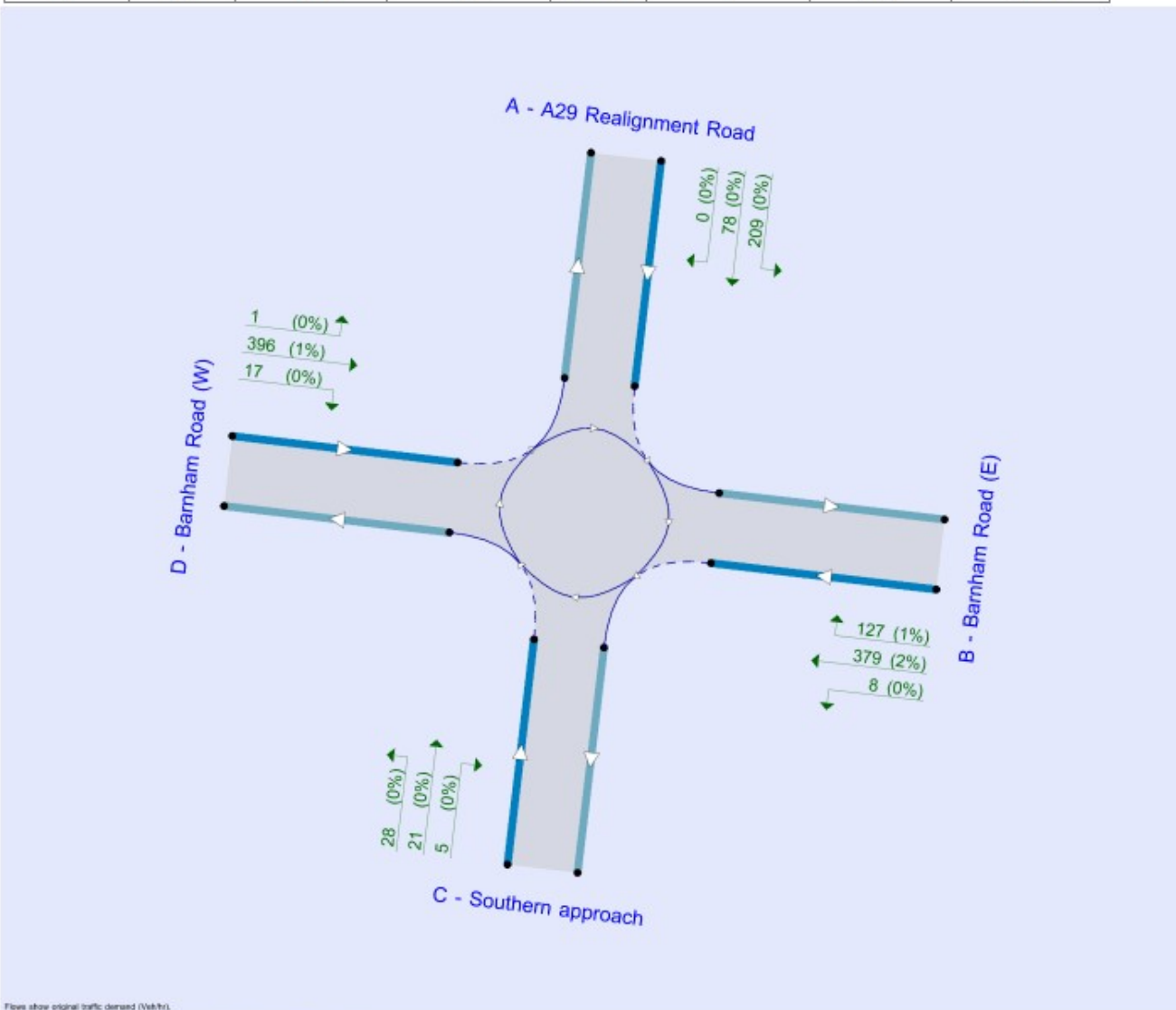
**File summary**

**File Description**

|             |  |
|-------------|--|
| Title       | JTC 2 - B2233 Barnham Road / Northern section of Re-alignment road |
| Location    | 50.837727, -0.649182   |
| Site number | 2  |
| Date        | 08/12/2019   |
| Version     |  |
| Status      | (new file)   |
| Identifier  |  |
| Client      |  |
| Jobnumber   |  |
| Enumerator  | CORP\INJV01568   |
| Description |  |

**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                 | Veh                   | perHour    | s                   | -Min              | perMin              |



### Analysis Options

| Vehicle length (m) | Calculate Queue Percentiles | Calculate detailed queueing delay | Calculate residual capacity | RFC Threshold | Average Delay threshold (s) | Queue threshold (PCU) |
|--------------------|-----------------------------|-----------------------------------|-----------------------------|---------------|-----------------------------|-----------------------|
| 5.75               |                             |                                   |                             | 0.85          | 36.00                       | 20.00                 |

### Demand Set Summary

| ID | Scenario name          | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|----|------------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D1 | 2023_Option 1          | AM               | ONE HOUR             | 07:45              | 09:15               | 15                        | ✓                 |
| D2 | 2023_Option 1          | PM               | ONE HOUR             | 16:45              | 18:15               | 15                        | ✓                 |
| D3 | 2023_Option 1+Option 2 | AM               | ONE HOUR             | 07:45              | 09:15               | 15                        | ✓                 |
| D4 | 2023_Option 1+Option 2 | PM               | ONE HOUR             | 16:45              | 18:15               | 15                        | ✓                 |
| D5 | 2038_Option 1          | AM               | ONE HOUR             | 07:45              | 09:15               | 15                        | ✓                 |
| D6 | 2038_Option 1          | PM               | ONE HOUR             | 16:45              | 18:15               | 15                        | ✓                 |
| D7 | 2038_Option 1+Option 2 | AM               | ONE HOUR             | 07:45              | 09:15               | 15                        | ✓                 |
| D8 | 2038_Option 1+Option 2 | PM               | ONE HOUR             | 16:45              | 18:15               | 15                        | ✓                 |

### Analysis Set Details

| ID | Include in report | Network flow scaling factor (%) | Network capacity scaling factor (%) |
|----|-------------------|---------------------------------|-------------------------------------|
| A1 | ✓                 | 100.000                         | 100.000                             |

# 2023\_Option 1, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

| Junction | Name   | Junction type       | Use circulating lanes | Arm order  | Junction Delay (s) | Junction LOS |
|----------|--|---------------------|-----------------------|------------|--------------------|--------------|
| 2        | B2233 Barnham Road / Northern section of Re-alignment road | Standard Roundabout |                       | A, B, C, D | 4.08               | A            |

### Junction Network Options

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

## Arms

### Arms

| Arm | Name                 | Description |
|-----|----------------------|-------------|
| A   | A29 Realignment Road |             |
| B   | Barnham Road (E)     |             |
| C   | Southern approach    |             |
| D   | Barnham Road (W)     |             |

### Roundabout Geometry

| Arm                      | V - Approach road half-width (m) | E - Entry width (m) | l' - Effective flare length (m) | R - Entry radius (m) | D - Inscribed circle diameter (m) | PHI - Conflict (entry) angle (deg) | Exit only |
|--------------------------|----------------------------------|---------------------|---------------------------------|----------------------|-----------------------------------|------------------------------------|-----------|
| A - A29 Realignment Road | 3.60                             | 5.60                | 10.6                            | 20.7                 | 44.5                              | 32.0                               |           |
| B - Barnham Road (E)     | 3.70                             | 6.40                | 7.4                             | 28.6                 | 44.5                              | 36.0                               |           |
| C - Southern approach    | 3.70                             | 7.10                | 10.5                            | 40.0                 | 44.5                              | 27.0                               |           |
| D - Barnham Road (W)     | 3.50                             | 6.20                | 8.7                             | 25.1                 | 44.5                              | 26.0                               |           |

### Slope / Intercept / Capacity

#### Roundabout Slope and Intercept used in model

| Arm                      | Final slope | Final intercept (PCU/hr) |
|--------------------------|-------------|--------------------------|
| A - A29 Realignment Road | 0.581       | 1461                     |
| B - Barnham Road (E)     | 0.588       | 1489                     |
| C - Southern approach    | 0.637       | 1683                     |
| D - Barnham Road (W)     | 0.599       | 1507                     |

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|----|---------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D1 | 2023_Option 1 | AM               | ONE HOUR             | 07:45              | 09:15               | 15                        | ✓                 |

| Vehicle mix varies over turn | Vehicle mix varies over entry | Vehicle mix source | PCU Factor for a HV (PCU) |
|------------------------------|-------------------------------|--------------------|---------------------------|
| ✓                            | ✓                             | HV Percentages     | 2.00                      |

### Demand overview (Traffic)

| Arm                      | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|--------------------------|------------|--------------|--------------|-------------------------|--------------------|
| A - A29 Realignment Road |            | ONE HOUR     | ✓            | 153                     | 100.000            |
| B - Barnham Road (E)     |            | ONE HOUR     | ✓            | 594                     | 100.000            |
| C - Southern approach    |            | ONE HOUR     | ✓            | 109                     | 100.000            |
| D - Barnham Road (W)     |            | ONE HOUR     | ✓            | 293                     | 100.000            |

## Origin-Destination Data

### Demand (Veh/hr)

| From |                          | To                       |                      |                       |                      |
|------|--------------------------|--------------------------|----------------------|-----------------------|----------------------|
|      |                          | A - A29 Realignment Road | B - Barnham Road (E) | C - Southern approach | D - Barnham Road (W) |
| From | A - A29 Realignment Road | 0                        | 132                  | 21                    | 0                    |
|      | B - Barnham Road (E)     | 176                      | 0                    | 14                    | 404                  |
|      | C - Southern approach    | 57                       | 2                    | 0                     | 50                   |
|      | D - Barnham Road (W)     | 0                        | 286                  | 7                     | 0                    |

### Proportions

| From |                          | To                       |                      |
|------|--------------------------|--------------------------|----------------------|
|      |                          | A - A29 Realignment Road | B - Barnham Road (E) |
| From | A - A29 Realignment Road | 0.00                     | 0.86                 |
|      | B - Barnham Road (E)     | 0.30                     | 0.00                 |
|      | C - Southern approach    | 0.52                     | 0.02                 |
|      | D - Barnham Road (W)     | 0.00                     | 0.98                 |

## Vehicle Mix

### Heavy Vehicle Percentages

| From |                          | To                       |                      |                       |                      |
|------|--------------------------|--------------------------|----------------------|-----------------------|----------------------|
|      |                          | A - A29 Realignment Road | B - Barnham Road (E) | C - Southern approach | D - Barnham Road (W) |
| From | A - A29 Realignment Road | 0                        | 1                    | 0                     | 0                    |
|      | B - Barnham Road (E)     | 1                        | 0                    | 0                     | 3                    |
|      | C - Southern approach    | 0                        | 0                    | 0                     | 0                    |
|      | D - Barnham Road (W)     | 0                        | 6                    | 0                     | 0                    |

### Average PCU Per Veh

| From |                          | To                       |                      |
|------|--------------------------|--------------------------|----------------------|
|      |                          | A - A29 Realignment Road | B - Barnham Road (E) |
| From | A - A29 Realignment Road | 1.000                    | 1.010                |
|      | B - Barnham Road (E)     | 1.010                    | 1.000                |
|      | C - Southern approach    | 1.000                    | 1.000                |
|      | D - Barnham Road (W)     | 1.000                    | 1.060                |

## Detailed Demand Data

### Demand for each time segment

| Arm                      | Time Segment | Demand (Veh/hr) | Demand in PCU (PCU/hr) |
|--------------------------|--------------|-----------------|------------------------|
| A - A29 Realignment Road | 07:45-08:00  | 115             | 116                    |
|                          | 08:00-08:15  | 138             | 139                    |
|                          | 08:15-08:30  | 168             | 170                    |
|                          | 08:30-08:45  | 168             | 170                    |
|                          | 08:45-09:00  | 138             | 139                    |
|                          | 09:00-09:15  | 115             | 116                    |
| B - Barnham Road (E)     | 07:45-08:00  | 447             | 458                    |
|                          | 08:00-08:15  | 534             | 546                    |
|                          | 08:15-08:30  | 654             | 669                    |
|                          | 08:30-08:45  | 654             | 669                    |
|                          | 08:45-09:00  | 534             | 546                    |
|                          | 09:00-09:15  | 447             | 458                    |
| C - Southern approach    | 07:45-08:00  | 82              | 82                     |
|                          | 08:00-08:15  | 98              | 98                     |
|                          | 08:15-08:30  | 120             | 120                    |
|                          | 08:30-08:45  | 120             | 120                    |
|                          | 08:45-09:00  | 98              | 98                     |
|                          | 09:00-09:15  | 82              | 82                     |
| D - Barnham Road (W)     | 07:45-08:00  | 221             | 234                    |
|                          | 08:00-08:15  | 263             | 279                    |
|                          | 08:15-08:30  | 323             | 341                    |
|                          | 08:30-08:45  | 323             | 341                    |
|                          | 08:45-09:00  | 263             | 279                    |
|                          | 09:00-09:15  | 221             | 234                    |

## Results

### Results Summary for whole modelled period

| Arm                      | Max RFC | Max Delay (s) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|--------------------------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| A - A29 Realignment Road | 0.13    | 3.33          | 0.2             | A       | 140                     | 211                           |
| B - Barnham Road (E)     | 0.45    | 4.59          | 0.8             | A       | 545                     | 818                           |
| C - Southern approach    | 0.09    | 3.14          | 0.1             | A       | 100                     | 150                           |
| D - Barnham Road (W)     | 0.25    | 3.77          | 0.3             | A       | 289                     | 403                           |

### Main Results for each time segment

#### 07:45 - 08:00

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - A29 Realignment Road | 115                   | 29                      | 221                       | 1313              | 0.088 | 115                 | 175                             | 0.0               | 0.1             | 3.004     | A                             |
| B - Barnham Road (E)     | 447                   | 112                     | 21                        | 1443              | 0.310 | 445                 | 315                             | 0.0               | 0.4             | 3.601     | A                             |
| C - Southern approach    | 82                    | 21                      | 435                       | 1400              | 0.059 | 82                  | 32                              | 0.0               | 0.1             | 2.731     | A                             |
| D - Barnham Road (W)     | 221                   | 55                      | 176                       | 1323              | 0.167 | 220                 | 340                             | 0.0               | 0.2             | 3.261     | A                             |

**08:00 - 08:15**

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - A29 Realignment Road | 138                   | 34                      | 285                       | 1287              | 0.107 | 137                 | 209                             | 0.1               | 0.1             | 3.132     | A                             |
| B - Barnham Road (E)     | 534                   | 133                     | 25                        | 1441              | 0.371 | 533                 | 377                             | 0.4               | 0.6             | 3.964     | A                             |
| C - Southern approach    | 98                    | 24                      | 521                       | 1344              | 0.073 | 98                  | 38                              | 0.1               | 0.1             | 2.889     | A                             |
| D - Barnham Road (W)     | 263                   | 66                      | 211                       | 1303              | 0.202 | 263                 | 408                             | 0.2               | 0.3             | 3.460     | A                             |

**08:15 - 08:30**

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - A29 Realignment Road | 168                   | 42                      | 324                       | 1250              | 0.135 | 168                 | 256                             | 0.1               | 0.2             | 3.326     | A                             |
| B - Barnham Road (E)     | 654                   | 164                     | 31                        | 1438              | 0.455 | 653                 | 462                             | 0.6               | 0.8             | 4.582     | A                             |
| C - Southern approach    | 120                   | 30                      | 638                       | 1268              | 0.095 | 120                 | 46                              | 0.1               | 0.1             | 3.136     | A                             |
| D - Barnham Road (W)     | 323                   | 81                      | 258                       | 1276              | 0.253 | 322                 | 499                             | 0.3               | 0.3             | 3.773     | A                             |

**08:30 - 08:45**

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - A29 Realignment Road | 168                   | 42                      | 325                       | 1250              | 0.135 | 168                 | 257                             | 0.2               | 0.2             | 3.327     | A                             |
| B - Barnham Road (E)     | 654                   | 164                     | 31                        | 1438              | 0.455 | 654                 | 462                             | 0.8               | 0.8             | 4.593     | A                             |
| C - Southern approach    | 120                   | 30                      | 639                       | 1267              | 0.095 | 120                 | 46                              | 0.1               | 0.1             | 3.137     | A                             |
| D - Barnham Road (W)     | 323                   | 81                      | 259                       | 1276              | 0.253 | 323                 | 500                             | 0.3               | 0.3             | 3.774     | A                             |

**08:45 - 09:00**

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - A29 Realignment Road | 138                   | 34                      | 266                       | 1286              | 0.107 | 138                 | 210                             | 0.2               | 0.1             | 3.133     | A                             |
| B - Barnham Road (E)     | 534                   | 133                     | 25                        | 1441              | 0.371 | 535                 | 378                             | 0.8               | 0.6             | 3.977     | A                             |
| C - Southern approach    | 98                    | 24                      | 522                       | 1343              | 0.073 | 98                  | 38                              | 0.1               | 0.1             | 2.894     | A                             |
| D - Barnham Road (W)     | 263                   | 66                      | 212                       | 1303              | 0.202 | 264                 | 409                             | 0.3               | 0.3             | 3.464     | A                             |

**09:00 - 09:15**

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - A29 Realignment Road | 115                   | 29                      | 222                       | 1313              | 0.088 | 115                 | 176                             | 0.1               | 0.1             | 3.006     | A                             |
| B - Barnham Road (E)     | 447                   | 112                     | 21                        | 1443              | 0.310 | 448                 | 316                             | 0.6               | 0.5             | 3.617     | A                             |
| C - Southern approach    | 82                    | 21                      | 437                       | 1398              | 0.059 | 82                  | 32                              | 0.1               | 0.1             | 2.736     | A                             |
| D - Barnham Road (W)     | 221                   | 55                      | 177                       | 1323              | 0.167 | 221                 | 342                             | 0.3               | 0.2             | 3.267     | A                             |



# 2023\_Option 1, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

| Junction | Name   | Junction type       | Use circulating lanes | Arm order  | Junction Delay (s) | Junction LOS |
|----------|--|---------------------|-----------------------|------------|--------------------|--------------|
| 2        | B2233 Barnham Road / Northern section of Re-alignment road | Standard Roundabout |                       | A, B, C, D | 4.05               | A            |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|----|---------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D2 | 2023_Option 1 | PM               | ONE HOUR             | 16:45              | 18:15               | 15                        | ✓                 |

| Vehicle mix varies over turn | Vehicle mix varies over entry | Vehicle mix source | PCU Factor for a HV (PCU) |
|------------------------------|-------------------------------|--------------------|---------------------------|
| ✓                            | ✓                             | HV Percentages     | 2.00                      |

### Demand overview (Traffic)

| Arm                      | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|--------------------------|------------|--------------|--------------|-------------------------|--------------------|
| A - A29 Realignment Road |            | ONE HOUR     | ✓            | 287                     | 100.000            |
| B - Barnham Road (E)     |            | ONE HOUR     | ✓            | 514                     | 100.000            |
| C - Southern approach    |            | ONE HOUR     | ✓            | 54                      | 100.000            |
| D - Barnham Road (W)     |            | ONE HOUR     | ✓            | 414                     | 100.000            |

## Origin-Destination Data

### Demand (Veh/hr)

| From |                          | To                       |                      |                       |                      |
|------|--------------------------|--------------------------|----------------------|-----------------------|----------------------|
|      |                          | A - A29 Realignment Road | B - Barnham Road (E) | C - Southern approach | D - Barnham Road (W) |
|      | A - A29 Realignment Road | 0                        | 209                  | 78                    | 0                    |
|      | B - Barnham Road (E)     | 127                      | 0                    | 8                     | 379                  |
|      | C - Southern approach    | 21                       | 5                    | 0                     | 28                   |
|      | D - Barnham Road (W)     | 1                        | 398                  | 17                    | 0                    |

### Proportions

| From |                          | To                       |                      | S at |
|------|--------------------------|--------------------------|----------------------|------|
|      |                          | A - A29 Realignment Road | B - Barnham Road (E) |      |
|      | A - A29 Realignment Road | 0.00                     | 0.73                 |      |
|      | B - Barnham Road (E)     | 0.25                     | 0.00                 |      |
|      | C - Southern approach    | 0.39                     | 0.09                 |      |
|      | D - Barnham Road (W)     | 0.00                     | 0.96                 |      |

## Vehicle Mix

### Heavy Vehicle Percentages

| From |                          | To                       |                      |                       |                      |
|------|--------------------------|--------------------------|----------------------|-----------------------|----------------------|
|      |                          | A - A29 Realignment Road | B - Barnham Road (E) | C - Southern approach | D - Barnham Road (W) |
|      | A - A29 Realignment Road | 0                        | 0                    | 0                     | 0                    |
|      | B - Barnham Road (E)     | 1                        | 0                    | 0                     | 2                    |
|      | C - Southern approach    | 0                        | 0                    | 0                     | 0                    |
|      | D - Barnham Road (W)     | 0                        | 1                    | 0                     | 0                    |

### Average PCU Per Veh

| From |                          | To                       |                      | S at |
|------|--------------------------|--------------------------|----------------------|------|
|      |                          | A - A29 Realignment Road | B - Barnham Road (E) |      |
|      | A - A29 Realignment Road | 1.000                    | 1.000                |      |
|      | B - Barnham Road (E)     | 1.010                    | 1.000                |      |
|      | C - Southern approach    | 1.000                    | 1.000                |      |
|      | D - Barnham Road (W)     | 1.000                    | 1.010                |      |

## Detailed Demand Data

### Demand for each time segment

| Arm                      | Time Segment | Demand (Veh/hr) | Demand in PCU (PCU/hr) |
|--------------------------|--------------|-----------------|------------------------|
| A - A29 Realignment Road | 16:45-17:00  | 216             | 216                    |
|                          | 17:00-17:15  | 258             | 258                    |
|                          | 17:15-17:30  | 316             | 316                    |
|                          | 17:30-17:45  | 316             | 316                    |
|                          | 17:45-18:00  | 258             | 258                    |
|                          | 18:00-18:15  | 216             | 216                    |
| B - Barnham Road (E)     | 16:45-17:00  | 387             | 394                    |
|                          | 17:00-17:15  | 462             | 470                    |
|                          | 17:15-17:30  | 566             | 576                    |
|                          | 17:30-17:45  | 566             | 576                    |
|                          | 17:45-18:00  | 462             | 470                    |
|                          | 18:00-18:15  | 387             | 394                    |
| C - Southern approach    | 16:45-17:00  | 41              | 41                     |
|                          | 17:00-17:15  | 49              | 49                     |
|                          | 17:15-17:30  | 59              | 59                     |
|                          | 17:30-17:45  | 59              | 59                     |
|                          | 17:45-18:00  | 49              | 49                     |
|                          | 18:00-18:15  | 41              | 41                     |
| D - Barnham Road (W)     | 16:45-17:00  | 312             | 315                    |
|                          | 17:00-17:15  | 372             | 376                    |
|                          | 17:15-17:30  | 456             | 460                    |
|                          | 17:30-17:45  | 456             | 460                    |
|                          | 17:45-18:00  | 372             | 376                    |
|                          | 18:00-18:15  | 312             | 315                    |

## Results

### Results Summary for whole modelled period

| Arm                      | Max RFC | Max Delay (s) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|--------------------------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| A - A29 Realignment Road | 0.27    | 4.11          | 0.4             | A       | 263                     | 395                           |
| B - Barnham Road (E)     | 0.40    | 4.30          | 0.7             | A       | 472                     | 707                           |
| C - Southern approach    | 0.04    | 2.85          | 0.0             | A       | 50                      | 74                            |
| D - Barnham Road (W)     | 0.33    | 3.84          | 0.5             | A       | 380                     | 570                           |

## Main Results for each time segment

### 16:45 - 17:00

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - A29 Realignment Road | 216                   | 54                      | 314                       | 1277              | 0.189 | 215                 | 112                             | 0.0               | 0.2             | 3.390     | A                             |
| B - Barnham Road (E)     | 387                   | 97                      | 71                        | 1423              | 0.272 | 385                 | 458                             | 0.0               | 0.4             | 3.465     | A                             |
| C - Southern approach    | 41                    | 10                      | 379                       | 1437              | 0.028 | 41                  | 77                              | 0.0               | 0.0             | 2.576     | A                             |
| D - Barnham Road (W)     | 312                   | 78                      | 115                       | 1424              | 0.219 | 311                 | 305                             | 0.0               | 0.3             | 3.230     | A                             |

### 17:00 - 17:15

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - A29 Realignment Road | 258                   | 65                      | 375                       | 1240              | 0.208 | 258                 | 134                             | 0.2               | 0.3             | 3.683     | A                             |
| B - Barnham Road (E)     | 462                   | 116                     | 85                        | 1415              | 0.327 | 462                 | 548                             | 0.4               | 0.5             | 3.774     | A                             |
| C - Southern approach    | 49                    | 12                      | 454                       | 1389              | 0.035 | 49                  | 93                              | 0.0               | 0.0             | 2.685     | A                             |
| D - Barnham Road (W)     | 372                   | 93                      | 137                       | 1411              | 0.264 | 372                 | 366                             | 0.3               | 0.4             | 3.466     | A                             |

### 17:15 - 17:30

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - A29 Realignment Road | 316                   | 79                      | 460                       | 1191              | 0.265 | 316                 | 164                             | 0.3               | 0.4             | 4.110     | A                             |
| B - Barnham Road (E)     | 566                   | 141                     | 104                       | 1404              | 0.403 | 565                 | 671                             | 0.5               | 0.7             | 4.288     | A                             |
| C - Southern approach    | 59                    | 15                      | 556                       | 1323              | 0.045 | 59                  | 113                             | 0.0               | 0.0             | 2.848     | A                             |
| D - Barnham Road (W)     | 456                   | 114                     | 168                       | 1392              | 0.327 | 455                 | 448                             | 0.4               | 0.5             | 3.841     | A                             |

### 17:30 - 17:45

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - A29 Realignment Road | 316                   | 79                      | 460                       | 1191              | 0.265 | 316                 | 164                             | 0.4               | 0.4             | 4.115     | A                             |
| B - Barnham Road (E)     | 566                   | 141                     | 105                       | 1404              | 0.403 | 566                 | 672                             | 0.7               | 0.7             | 4.295     | A                             |
| C - Southern approach    | 59                    | 15                      | 557                       | 1322              | 0.045 | 59                  | 113                             | 0.0               | 0.0             | 2.849     | A                             |
| D - Barnham Road (W)     | 456                   | 114                     | 168                       | 1392              | 0.327 | 456                 | 448                             | 0.5               | 0.5             | 3.845     | A                             |

### 17:45 - 18:00

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - A29 Realignment Road | 258                   | 65                      | 376                       | 1240              | 0.208 | 258                 | 134                             | 0.4               | 0.3             | 3.668     | A                             |
| B - Barnham Road (E)     | 462                   | 116                     | 86                        | 1415              | 0.327 | 463                 | 549                             | 0.7               | 0.5             | 3.766     | A                             |
| C - Southern approach    | 49                    | 12                      | 456                       | 1388              | 0.035 | 49                  | 93                              | 0.0               | 0.0             | 2.689     | A                             |
| D - Barnham Road (W)     | 372                   | 93                      | 138                       | 1410              | 0.264 | 373                 | 366                             | 0.5               | 0.4             | 3.470     | A                             |

### 18:00 - 18:15

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - A29 Realignment Road | 216                   | 54                      | 315                       | 1276              | 0.189 | 216                 | 112                             | 0.3               | 0.2             | 3.397     | A                             |
| B - Barnham Road (E)     | 387                   | 97                      | 72                        | 1423              | 0.272 | 387                 | 460                             | 0.5               | 0.4             | 3.480     | A                             |
| C - Southern approach    | 41                    | 10                      | 381                       | 1436              | 0.028 | 41                  | 78                              | 0.0               | 0.0             | 2.579     | A                             |
| D - Barnham Road (W)     | 312                   | 78                      | 115                       | 1424              | 0.219 | 312                 | 307                             | 0.4               | 0.3             | 3.238     | A                             |

# 2023\_Option 1+Option 2, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

| Junction | Name   | Junction type       | Use circulating lanes | Arm order  | Junction Delay (s) | Junction LOS |
|----------|--|---------------------|-----------------------|------------|--------------------|--------------|
| 2        | B2233 Barnham Road / Northern section of Re-alignment road | Standard Roundabout |                       | A, B, C, D | 5.82               | A            |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name          | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|----|------------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D3 | 2023_Option 1+Option 2 | AM               | ONE HOUR             | 07:45              | 09:15               | 15                        | ✓                 |

| Vehicle mix varies over turn | Vehicle mix varies over entry | Vehicle mix source | PCU Factor for a HV (PCU) |
|------------------------------|-------------------------------|--------------------|---------------------------|
| ✓                            | ✓                             | HV Percentages     | 2.00                      |

### Demand overview (Traffic)

| Arm                      | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|--------------------------|------------|--------------|--------------|-------------------------|--------------------|
| A - A29 Realignment Road |            | ONE HOUR     | ✓            | 390                     | 100.000            |
| B - Barnham Road (E)     |            | ONE HOUR     | ✓            | 684                     | 100.000            |
| C - Southern approach    |            | ONE HOUR     | ✓            | 590                     | 100.000            |
| D - Barnham Road (W)     |            | ONE HOUR     | ✓            | 141                     | 100.000            |

## Origin-Destination Data

### Demand (Veh/hr)

| From |                          | To                       |                      |                       |                      |
|------|--------------------------|--------------------------|----------------------|-----------------------|----------------------|
|      |                          | A - A29 Realignment Road | B - Barnham Road (E) | C - Southern approach | D - Barnham Road (W) |
|      | A - A29 Realignment Road | 0                        | 126                  | 264                   | 0                    |
|      | B - Barnham Road (E)     | 145                      | 0                    | 194                   | 345                  |
|      | C - Southern approach    | 331                      | 191                  | 0                     | 68                   |
|      | D - Barnham Road (W)     | 0                        | 125                  | 16                    | 0                    |

### Proportions

| From |                          | To                       |                      |                       |                      |
|------|--------------------------|--------------------------|----------------------|-----------------------|----------------------|
|      |                          | A - A29 Realignment Road | B - Barnham Road (E) | C - Southern approach | D - Barnham Road (W) |
|      | A - A29 Realignment Road | 0.00                     | 0.32                 | 0.45                  | 0.23                 |
|      | B - Barnham Road (E)     | 0.21                     | 0.00                 | 0.33                  | 0.46                 |
|      | C - Southern approach    | 0.56                     | 0.32                 | 0.00                  | 0.12                 |
|      | D - Barnham Road (W)     | 0.00                     | 0.89                 | 0.12                  | 0.00                 |

## Vehicle Mix

### Heavy Vehicle Percentages

| From |                          | To                       |                      |                       |                      |
|------|--------------------------|--------------------------|----------------------|-----------------------|----------------------|
|      |                          | A - A29 Realignment Road | B - Barnham Road (E) | C - Southern approach | D - Barnham Road (W) |
|      | A - A29 Realignment Road | 0                        | 1                    | 2                     | 0                    |
|      | B - Barnham Road (E)     | 1                        | 0                    | 7                     | 2                    |
|      | C - Southern approach    | 2                        | 5                    | 0                     | 1                    |
|      | D - Barnham Road (W)     | 0                        | 7                    | 9                     | 0                    |

### Average PCU Per Veh

| From |                          | To                       |                      | S at |
|------|--------------------------|--------------------------|----------------------|------|
|      |                          | A - A29 Realignment Road | B - Barnham Road (E) |      |
|      | A - A29 Realignment Road | 1.000                    | 1.010                |      |
|      | B - Barnham Road (E)     | 1.010                    | 1.000                |      |
|      | C - Southern approach    | 1.020                    | 1.050                |      |
|      | D - Barnham Road (W)     | 1.000                    | 1.070                |      |

## Detailed Demand Data

### Demand for each time segment

| Arm                      | Time Segment | Demand (Veh/hr) | Demand in PCU (PCU/hr) |
|--------------------------|--------------|-----------------|------------------------|
| A - A29 Realignment Road | 07:45-08:00  | 294             | 299                    |
|                          | 08:00-08:15  | 351             | 356                    |
|                          | 08:15-08:30  | 429             | 437                    |
|                          | 08:30-08:45  | 429             | 437                    |
|                          | 08:45-09:00  | 351             | 356                    |
|                          | 09:00-09:15  | 294             | 299                    |
| B - Barnham Road (E)     | 07:45-08:00  | 515             | 531                    |
|                          | 08:00-08:15  | 615             | 635                    |
|                          | 08:15-08:30  | 753             | 777                    |
|                          | 08:30-08:45  | 753             | 777                    |
|                          | 08:45-09:00  | 615             | 635                    |
|                          | 09:00-09:15  | 515             | 531                    |
| C - Southern approach    | 07:45-08:00  | 444             | 457                    |
|                          | 08:00-08:15  | 530             | 546                    |
|                          | 08:15-08:30  | 650             | 668                    |
|                          | 08:30-08:45  | 650             | 668                    |
|                          | 08:45-09:00  | 530             | 546                    |
|                          | 09:00-09:15  | 444             | 457                    |
| D - Barnham Road (W)     | 07:45-08:00  | 106             | 114                    |
|                          | 08:00-08:15  | 127             | 136                    |
|                          | 08:15-08:30  | 155             | 166                    |
|                          | 08:30-08:45  | 155             | 166                    |
|                          | 08:45-09:00  | 127             | 136                    |
|                          | 09:00-09:15  | 106             | 114                    |

## Results

### Results Summary for whole modelled period

| Arm                      | Max RFC | Max Delay (s) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|--------------------------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| A - A29 Realignment Road | 0.35    | 4.58          | 0.5             | A       | 358                     | 537                           |
| B - Barnham Road (E)     | 0.60    | 7.05          | 1.5             | A       | 628                     | 941                           |
| C - Southern approach    | 0.50    | 5.56          | 1.0             | A       | 541                     | 812                           |
| D - Barnham Road (W)     | 0.16    | 4.34          | 0.2             | A       | 129                     | 194                           |

## Main Results for each time segment

### 07:45 - 08:00

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - A29 Realignment Road | 294                   | 73                      | 249                       | 1286              | 0.228 | 292                 | 357                             | 0.0               | 0.3             | 3.618     | A                             |
| B - Barnham Road (E)     | 515                   | 129                     | 210                       | 1321              | 0.390 | 512                 | 331                             | 0.0               | 0.6             | 4.440     | A                             |
| C - Southern approach    | 444                   | 111                     | 367                       | 1405              | 0.316 | 442                 | 355                             | 0.0               | 0.5             | 3.732     | A                             |
| D - Barnham Road (W)     | 106                   | 27                      | 500                       | 1119              | 0.095 | 106                 | 309                             | 0.0               | 0.1             | 3.551     | A                             |

### 08:00 - 08:15

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - A29 Realignment Road | 351                   | 88                      | 298                       | 1256              | 0.279 | 350                 | 427                             | 0.3               | 0.4             | 3.972     | A                             |
| B - Barnham Road (E)     | 615                   | 154                     | 251                       | 1297              | 0.474 | 614                 | 397                             | 0.6               | 0.9             | 5.264     | A                             |
| C - Southern approach    | 530                   | 133                     | 440                       | 1360              | 0.390 | 530                 | 426                             | 0.5               | 0.6             | 4.333     | A                             |
| D - Barnham Road (W)     | 127                   | 32                      | 599                       | 1082              | 0.119 | 127                 | 371                             | 0.1               | 0.1             | 3.848     | A                             |

### 08:15 - 08:30

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - A29 Realignment Road | 429                   | 107                     | 365                       | 1216              | 0.353 | 429                 | 523                             | 0.4               | 0.5             | 4.571     | A                             |
| B - Barnham Road (E)     | 753                   | 188                     | 308                       | 1264              | 0.596 | 751                 | 486                             | 0.9               | 1.4             | 6.985     | A                             |
| C - Southern approach    | 650                   | 162                     | 538                       | 1298              | 0.500 | 648                 | 521                             | 0.6               | 1.0             | 5.527     | A                             |
| D - Barnham Road (W)     | 155                   | 39                      | 733                       | 985               | 0.158 | 155                 | 453                             | 0.1               | 0.2             | 4.334     | A                             |

### 08:30 - 08:45

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - A29 Realignment Road | 429                   | 107                     | 366                       | 1215              | 0.353 | 429                 | 524                             | 0.5               | 0.5             | 4.580     | A                             |
| B - Barnham Road (E)     | 753                   | 188                     | 308                       | 1264              | 0.596 | 753                 | 487                             | 1.4               | 1.5             | 7.046     | A                             |
| C - Southern approach    | 650                   | 162                     | 539                       | 1297              | 0.501 | 650                 | 522                             | 1.0               | 1.0             | 5.580     | A                             |
| D - Barnham Road (W)     | 155                   | 39                      | 734                       | 985               | 0.158 | 155                 | 455                             | 0.2               | 0.2             | 4.340     | A                             |

### 08:45 - 09:00

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - A29 Realignment Road | 351                   | 88                      | 299                       | 1255              | 0.279 | 351                 | 429                             | 0.5               | 0.4             | 3.983     | A                             |
| B - Barnham Road (E)     | 615                   | 154                     | 252                       | 1296              | 0.474 | 617                 | 398                             | 1.5               | 0.9             | 5.316     | A                             |
| C - Southern approach    | 530                   | 133                     | 442                       | 1358              | 0.390 | 532                 | 427                             | 1.0               | 0.6             | 4.362     | A                             |
| D - Barnham Road (W)     | 127                   | 32                      | 601                       | 1061              | 0.120 | 127                 | 373                             | 0.2               | 0.1             | 3.857     | A                             |

### 09:00 - 09:15

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - A29 Realignment Road | 294                   | 73                      | 250                       | 1285              | 0.228 | 294                 | 359                             | 0.4               | 0.3             | 3.635     | A                             |
| B - Barnham Road (E)     | 515                   | 129                     | 211                       | 1320              | 0.390 | 516                 | 333                             | 0.9               | 0.6             | 4.481     | A                             |
| C - Southern approach    | 444                   | 111                     | 370                       | 1404              | 0.316 | 445                 | 357                             | 0.6               | 0.5             | 3.755     | A                             |
| D - Barnham Road (W)     | 106                   | 27                      | 503                       | 1117              | 0.095 | 106                 | 312                             | 0.1               | 0.1             | 3.560     | A                             |

# 2023\_Option 1+Option 2, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

| Junction | Name   | Junction type       | Use circulating lanes | Arm order  | Junction Delay (s) | Junction LOS |
|----------|--|---------------------|-----------------------|------------|--------------------|--------------|
| 2        | B2233 Barnham Road / Northern section of Re-alignment road | Standard Roundabout |                       | A, B, C, D | 6.10               | A            |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name          | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|----|------------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D4 | 2023_Option 1+Option 2 | PM               | ONE HOUR             | 16:45              | 18:15               | 15                        | ✓                 |

| Vehicle mix varies over turn | Vehicle mix varies over entry | Vehicle mix source | PCU Factor for a HV (PCU) |
|------------------------------|-------------------------------|--------------------|---------------------------|
| ✓                            | ✓                             | HV Percentages     | 2.00                      |

### Demand overview (Traffic)

| Arm                      | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|--------------------------|------------|--------------|--------------|-------------------------|--------------------|
| A - A29 Realignment Road |            | ONE HOUR     | ✓            | 542                     | 100.000            |
| B - Barnham Road (E)     |            | ONE HOUR     | ✓            | 645                     | 100.000            |
| C - Southern approach    |            | ONE HOUR     | ✓            | 517                     | 100.000            |
| D - Barnham Road (W)     |            | ONE HOUR     | ✓            | 329                     | 100.000            |

## Origin-Destination Data

### Demand (Veh/hr)

| From |                          | To                       |                      |                       |                      |
|------|--------------------------|--------------------------|----------------------|-----------------------|----------------------|
|      |                          | A - A29 Realignment Road | B - Barnham Road (E) | C - Southern approach | D - Barnham Road (W) |
|      | A - A29 Realignment Road | 0                        | 152                  | 390                   | 0                    |
|      | B - Barnham Road (E)     | 96                       | 0                    | 271                   | 278                  |
|      | C - Southern approach    | 224                      | 222                  | 0                     | 71                   |
|      | D - Barnham Road (W)     | 1                        | 302                  | 26                    | 0                    |

### Proportions

| From |                          | To                       |                      | S at |
|------|--------------------------|--------------------------|----------------------|------|
|      |                          | A - A29 Realignment Road | B - Barnham Road (E) |      |
|      | A - A29 Realignment Road | 0.00                     | 0.28                 |      |
|      | B - Barnham Road (E)     | 0.15                     | 0.00                 |      |
|      | C - Southern approach    | 0.43                     | 0.43                 |      |
|      | D - Barnham Road (W)     | 0.00                     | 0.92                 |      |

## Vehicle Mix

### Heavy Vehicle Percentages

| From |                          | To                       |                      |                       |                      |
|------|--------------------------|--------------------------|----------------------|-----------------------|----------------------|
|      |                          | A - A29 Realignment Road | B - Barnham Road (E) | C - Southern approach | D - Barnham Road (W) |
|      | A - A29 Realignment Road | 0                        | 0                    | 1                     | 0                    |
|      | B - Barnham Road (E)     | 1                        | 0                    | 1                     | 2                    |
|      | C - Southern approach    | 1                        | 2                    | 0                     | 0                    |
|      | D - Barnham Road (W)     | 0                        | 1                    | 0                     | 0                    |

### Average PCU Per Veh

| From |                          | To                       |                      | S at |
|------|--------------------------|--------------------------|----------------------|------|
|      |                          | A - A29 Realignment Road | B - Barnham Road (E) |      |
|      | A - A29 Realignment Road | 1.000                    | 1.000                |      |
|      | B - Barnham Road (E)     | 1.010                    | 1.000                |      |
|      | C - Southern approach    | 1.010                    | 1.020                |      |
|      | D - Barnham Road (W)     | 1.000                    | 1.010                |      |

## Detailed Demand Data

### Demand for each time segment

| Arm                      | Time Segment | Demand (Veh/hr) | Demand in PCU (PCU/hr) |
|--------------------------|--------------|-----------------|------------------------|
| A - A29 Realignment Road | 16:45-17:00  | 408             | 411                    |
|                          | 17:00-17:15  | 487             | 491                    |
|                          | 17:15-17:30  | 597             | 601                    |
|                          | 17:30-17:45  | 597             | 601                    |
|                          | 17:45-18:00  | 487             | 491                    |
|                          | 18:00-18:15  | 408             | 411                    |
| B - Barnham Road (E)     | 16:45-17:00  | 496             | 493                    |
|                          | 17:00-17:15  | 580             | 588                    |
|                          | 17:15-17:30  | 710             | 720                    |
|                          | 17:30-17:45  | 710             | 720                    |
|                          | 17:45-18:00  | 580             | 588                    |
|                          | 18:00-18:15  | 496             | 493                    |
| C - Southern approach    | 16:45-17:00  | 389             | 394                    |
|                          | 17:00-17:15  | 465             | 471                    |
|                          | 17:15-17:30  | 569             | 577                    |
|                          | 17:30-17:45  | 569             | 577                    |
|                          | 17:45-18:00  | 465             | 471                    |
|                          | 18:00-18:15  | 389             | 394                    |
| D - Barnham Road (W)     | 16:45-17:00  | 248             | 250                    |
|                          | 17:00-17:15  | 296             | 298                    |
|                          | 17:15-17:30  | 362             | 366                    |
|                          | 17:30-17:45  | 362             | 366                    |
|                          | 17:45-18:00  | 296             | 298                    |
|                          | 18:00-18:15  | 248             | 250                    |

## Results

### Results Summary for whole modelled period

| Arm                      | Max RFC | Max Delay (s) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|--------------------------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| A - A29 Realignment Road | 0.54    | 7.21          | 1.2             | A       | 497                     | 746                           |
| B - Barnham Road (E)     | 0.59    | 7.33          | 1.4             | A       | 592                     | 888                           |
| C - Southern approach    | 0.41    | 4.34          | 0.7             | A       | 474                     | 712                           |
| D - Barnham Road (W)     | 0.32    | 4.66          | 0.5             | A       | 302                     | 453                           |



## Main Results for each time segment

### 16:45 - 17:00

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - A29 Realignment Road | 408                   | 102                     | 412                       | 1209              | 0.338 | 406                 | 241                             | 0.0               | 0.5             | 4.473     | A                             |
| B - Barnham Road (E)     | 486                   | 121                     | 312                       | 1286              | 0.377 | 483                 | 507                             | 0.0               | 0.6             | 4.468     | A                             |
| C - Southern approach    | 389                   | 97                      | 280                       | 1483              | 0.283 | 388                 | 515                             | 0.0               | 0.4             | 3.283     | A                             |
| D - Barnham Road (W)     | 248                   | 62                      | 406                       | 1249              | 0.198 | 247                 | 262                             | 0.0               | 0.2             | 3.589     | A                             |

### 17:00 - 17:15

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - A29 Realignment Road | 487                   | 122                     | 494                       | 1161              | 0.420 | 486                 | 288                             | 0.5               | 0.7             | 5.326     | A                             |
| B - Barnham Road (E)     | 580                   | 145                     | 373                       | 1250              | 0.464 | 579                 | 607                             | 0.6               | 0.9             | 5.352     | A                             |
| C - Southern approach    | 465                   | 116                     | 336                       | 1447              | 0.321 | 464                 | 617                             | 0.4               | 0.5             | 3.680     | A                             |
| D - Barnham Road (W)     | 296                   | 74                      | 487                       | 1200              | 0.246 | 295                 | 313                             | 0.2               | 0.3             | 3.977     | A                             |

### 17:15 - 17:30

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - A29 Realignment Road | 597                   | 149                     | 605                       | 1097              | 0.544 | 595                 | 353                             | 0.7               | 1.2             | 7.149     | A                             |
| B - Barnham Road (E)     | 710                   | 178                     | 457                       | 1202              | 0.591 | 708                 | 743                             | 0.9               | 1.4             | 7.254     | A                             |
| C - Southern approach    | 569                   | 142                     | 410                       | 1399              | 0.407 | 568                 | 754                             | 0.5               | 0.7             | 4.327     | A                             |
| D - Barnham Road (W)     | 362                   | 91                      | 596                       | 1135              | 0.319 | 362                 | 383                             | 0.3               | 0.5             | 4.653     | A                             |

### 17:30 - 17:45

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - A29 Realignment Road | 597                   | 149                     | 606                       | 1096              | 0.544 | 597                 | 353                             | 1.2               | 1.2             | 7.208     | A                             |
| B - Barnham Road (E)     | 710                   | 178                     | 458                       | 1201              | 0.591 | 710                 | 744                             | 1.4               | 1.4             | 7.329     | A                             |
| C - Southern approach    | 569                   | 142                     | 412                       | 1399              | 0.407 | 569                 | 756                             | 0.7               | 0.7             | 4.340     | A                             |
| D - Barnham Road (W)     | 362                   | 91                      | 597                       | 1134              | 0.319 | 362                 | 384                             | 0.5               | 0.5             | 4.662     | A                             |

### 17:45 - 18:00

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - A29 Realignment Road | 487                   | 122                     | 495                       | 1161              | 0.420 | 489                 | 289                             | 1.2               | 0.7             | 5.377     | A                             |
| B - Barnham Road (E)     | 580                   | 145                     | 375                       | 1249              | 0.464 | 582                 | 609                             | 1.4               | 0.9             | 5.412     | A                             |
| C - Southern approach    | 465                   | 116                     | 338                       | 1446              | 0.321 | 466                 | 620                             | 0.7               | 0.5             | 3.677     | A                             |
| D - Barnham Road (W)     | 296                   | 74                      | 488                       | 1199              | 0.247 | 296                 | 315                             | 0.5               | 0.3             | 3.989     | A                             |

### 18:00 - 18:15

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - A29 Realignment Road | 408                   | 102                     | 415                       | 1208              | 0.338 | 409                 | 242                             | 0.7               | 0.5             | 4.512     | A                             |
| B - Barnham Road (E)     | 486                   | 121                     | 314                       | 1285              | 0.378 | 487                 | 510                             | 0.9               | 0.6             | 4.515     | A                             |
| C - Southern approach    | 389                   | 97                      | 282                       | 1481              | 0.283 | 390                 | 518                             | 0.5               | 0.4             | 3.298     | A                             |
| D - Barnham Road (W)     | 248                   | 62                      | 409                       | 1247              | 0.199 | 248                 | 263                             | 0.3               | 0.2             | 3.605     | A                             |

# 2038\_Option 1, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

| Junction | Name   | Junction type       | Use circulating lanes | Arm order  | Junction Delay (s) | Junction LOS |
|----------|--|---------------------|-----------------------|------------|--------------------|--------------|
| 2        | B2233 Barnham Road / Northern section of Re-alignment road | Standard Roundabout |                       | A, B, C, D | 3.86               | A            |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|----|---------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D5 | 2038_Option 1 | AM               | ONE HOUR             | 07:45              | 09:15               | 15                        | ✓                 |

| Vehicle mix varies over turn | Vehicle mix varies over entry | Vehicle mix source | PCU Factor for a HV (PCU) |
|------------------------------|-------------------------------|--------------------|---------------------------|
| ✓                            | ✓                             | HV Percentages     | 2.00                      |

### Demand overview (Traffic)

| Arm                      | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|--------------------------|------------|--------------|--------------|-------------------------|--------------------|
| A - A29 Realignment Road |            | ONE HOUR     | ✓            | 217                     | 100.000            |
| B - Barnham Road (E)     |            | ONE HOUR     | ✓            | 443                     | 100.000            |
| C - Southern approach    |            | ONE HOUR     | ✓            | 397                     | 100.000            |
| D - Barnham Road (W)     |            | ONE HOUR     | ✓            | 324                     | 100.000            |

## Origin-Destination Data

### Demand (Veh/hr)

| From |                          | To                       |                      |                       |                      |
|------|--------------------------|--------------------------|----------------------|-----------------------|----------------------|
|      |                          | A - A29 Realignment Road | B - Barnham Road (E) | C - Southern approach | D - Barnham Road (W) |
|      | A - A29 Realignment Road | 0                        | 152                  | 65                    | 0                    |
|      | B - Barnham Road (E)     | 94                       | 0                    | 51                    | 298                  |
|      | C - Southern approach    | 141                      | 6                    | 0                     | 250                  |
|      | D - Barnham Road (W)     | 0                        | 292                  | 32                    | 0                    |

### Proportions

| From |                          | To                       |                      | S at |
|------|--------------------------|--------------------------|----------------------|------|
|      |                          | A - A29 Realignment Road | B - Barnham Road (E) |      |
|      | A - A29 Realignment Road | 0.00                     | 0.70                 |      |
|      | B - Barnham Road (E)     | 0.21                     | 0.00                 |      |
|      | C - Southern approach    | 0.36                     | 0.02                 |      |
|      | D - Barnham Road (W)     | 0.00                     | 0.90                 |      |

## Vehicle Mix

### Heavy Vehicle Percentages

| From |                          | To                       |                      |                       |                      |
|------|--------------------------|--------------------------|----------------------|-----------------------|----------------------|
|      |                          | A - A29 Realignment Road | B - Barnham Road (E) | C - Southern approach | D - Barnham Road (W) |
|      | A - A29 Realignment Road | 0                        | 3                    | 0                     | 0                    |
|      | B - Barnham Road (E)     | 1                        | 0                    | 0                     | 5                    |
|      | C - Southern approach    | 0                        | 0                    | 0                     | 0                    |
|      | D - Barnham Road (W)     | 0                        | 5                    | 0                     | 0                    |

### Average PCU Per Veh

| From |                          | To                       |                      | S at |
|------|--------------------------|--------------------------|----------------------|------|
|      |                          | A - A29 Realignment Road | B - Barnham Road (E) |      |
|      | A - A29 Realignment Road | 1.000                    | 1.030                |      |
|      | B - Barnham Road (E)     | 1.010                    | 1.000                |      |
|      | C - Southern approach    | 1.000                    | 1.000                |      |
|      | D - Barnham Road (W)     | 1.000                    | 1.050                |      |

## Detailed Demand Data

### Demand for each time segment

| Arm                      | Time Segment | Demand (Veh/hr) | Demand in PCU (PCU/hr) |
|--------------------------|--------------|-----------------|------------------------|
| A - A29 Realignment Road | 07:45-08:00  | 163             | 167                    |
|                          | 08:00-08:15  | 195             | 199                    |
|                          | 08:15-08:30  | 239             | 244                    |
|                          | 08:30-08:45  | 239             | 244                    |
|                          | 08:45-09:00  | 195             | 199                    |
|                          | 09:00-09:15  | 163             | 167                    |
| B - Barnham Road (E)     | 07:45-08:00  | 334             | 345                    |
|                          | 08:00-08:15  | 398             | 412                    |
|                          | 08:15-08:30  | 488             | 505                    |
|                          | 08:30-08:45  | 488             | 505                    |
|                          | 08:45-09:00  | 398             | 412                    |
|                          | 09:00-09:15  | 334             | 345                    |
| C - Southern approach    | 07:45-08:00  | 299             | 299                    |
|                          | 08:00-08:15  | 357             | 357                    |
|                          | 08:15-08:30  | 437             | 437                    |
|                          | 08:30-08:45  | 437             | 437                    |
|                          | 08:45-09:00  | 357             | 357                    |
|                          | 09:00-09:15  | 299             | 299                    |
| D - Barnham Road (W)     | 07:45-08:00  | 244             | 255                    |
|                          | 08:00-08:15  | 291             | 304                    |
|                          | 08:15-08:30  | 357             | 373                    |
|                          | 08:30-08:45  | 357             | 373                    |
|                          | 08:45-09:00  | 291             | 304                    |
|                          | 09:00-09:15  | 244             | 255                    |

## Results

### Results Summary for whole modelled period

| Arm                      | Max RFC | Max Delay (s) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|--------------------------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| A - A29 Realignment Road | 0.20    | 3.69          | 0.2             | A       | 199                     | 299                           |
| B - Barnham Road (E)     | 0.35    | 4.05          | 0.5             | A       | 407                     | 610                           |
| C - Southern approach    | 0.31    | 3.75          | 0.5             | A       | 364                     | 546                           |
| D - Barnham Road (W)     | 0.28    | 3.86          | 0.4             | A       | 297                     | 446                           |

## Main Results for each time segment

### 07:45 - 08:00

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - A29 Realignment Road | 163                   | 41                      | 248                       | 1283              | 0.127 | 163                 | 176                             | 0.0               | 0.1             | 3.210     | A                             |
| B - Barnham Road (E)     | 334                   | 83                      | 73                        | 1397              | 0.239 | 332                 | 338                             | 0.0               | 0.3             | 3.379     | A                             |
| C - Southern approach    | 299                   | 75                      | 294                       | 1489              | 0.201 | 298                 | 111                             | 0.0               | 0.3             | 3.020     | A                             |
| D - Barnham Road (W)     | 244                   | 61                      | 181                       | 1338              | 0.182 | 243                 | 411                             | 0.0               | 0.2             | 3.284     | A                             |

### 08:00 - 08:15

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - A29 Realignment Road | 195                   | 49                      | 296                       | 1254              | 0.156 | 195                 | 211                             | 0.1               | 0.2             | 3.397     | A                             |
| B - Barnham Road (E)     | 398                   | 100                     | 87                        | 1389              | 0.287 | 398                 | 404                             | 0.3               | 0.4             | 3.634     | A                             |
| C - Southern approach    | 357                   | 89                      | 352                       | 1450              | 0.246 | 357                 | 133                             | 0.3               | 0.3             | 3.292     | A                             |
| D - Barnham Road (W)     | 291                   | 73                      | 216                       | 1317              | 0.221 | 291                 | 492                             | 0.2               | 0.3             | 3.507     | A                             |

### 08:15 - 08:30

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - A29 Realignment Road | 239                   | 60                      | 363                       | 1215              | 0.197 | 239                 | 258                             | 0.2               | 0.2             | 3.687     | A                             |
| B - Barnham Road (E)     | 488                   | 122                     | 107                       | 1378              | 0.354 | 487                 | 495                             | 0.4               | 0.5             | 4.040     | A                             |
| C - Southern approach    | 437                   | 109                     | 431                       | 1398              | 0.313 | 437                 | 163                             | 0.3               | 0.5             | 3.743     | A                             |
| D - Barnham Road (W)     | 357                   | 89                      | 265                       | 1290              | 0.277 | 356                 | 603                             | 0.3               | 0.4             | 3.856     | A                             |

### 08:30 - 08:45

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - A29 Realignment Road | 239                   | 60                      | 363                       | 1215              | 0.197 | 239                 | 259                             | 0.2               | 0.2             | 3.688     | A                             |
| B - Barnham Road (E)     | 488                   | 122                     | 107                       | 1377              | 0.354 | 488                 | 495                             | 0.5               | 0.5             | 4.045     | A                             |
| C - Southern approach    | 437                   | 109                     | 432                       | 1397              | 0.313 | 437                 | 163                             | 0.5               | 0.5             | 3.747     | A                             |
| D - Barnham Road (W)     | 357                   | 89                      | 265                       | 1289              | 0.277 | 357                 | 603                             | 0.4               | 0.4             | 3.859     | A                             |

### 08:45 - 09:00

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - A29 Realignment Road | 195                   | 49                      | 297                       | 1254              | 0.156 | 195                 | 212                             | 0.2               | 0.2             | 3.402     | A                             |
| B - Barnham Road (E)     | 398                   | 100                     | 87                        | 1389              | 0.287 | 399                 | 405                             | 0.5               | 0.4             | 3.638     | A                             |
| C - Southern approach    | 357                   | 89                      | 353                       | 1450              | 0.246 | 357                 | 133                             | 0.5               | 0.3             | 3.296     | A                             |
| D - Barnham Road (W)     | 291                   | 73                      | 217                       | 1317              | 0.221 | 292                 | 493                             | 0.4               | 0.3             | 3.510     | A                             |

### 09:00 - 09:15

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - A29 Realignment Road | 163                   | 41                      | 249                       | 1283              | 0.127 | 164                 | 177                             | 0.2               | 0.1             | 3.216     | A                             |
| B - Barnham Road (E)     | 334                   | 83                      | 73                        | 1397              | 0.239 | 334                 | 339                             | 0.4               | 0.3             | 3.387     | A                             |
| C - Southern approach    | 299                   | 75                      | 295                       | 1488              | 0.201 | 299                 | 112                             | 0.3               | 0.3             | 3.029     | A                             |
| D - Barnham Road (W)     | 244                   | 61                      | 182                       | 1338              | 0.182 | 244                 | 413                             | 0.3               | 0.2             | 3.295     | A                             |

# 2038\_Option 1, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

| Junction | Name   | Junction type       | Use circulating lanes | Arm order  | Junction Delay (s) | Junction LOS |
|----------|--|---------------------|-----------------------|------------|--------------------|--------------|
| 2        | B2233 Barnham Road / Northern section of Re-alignment road | Standard Roundabout |                       | A, B, C, D | 5.01               | A            |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|----|---------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D6 | 2038_Option 1 | PM               | ONE HOUR             | 16:45              | 18:15               | 15                        | ✓                 |

| Vehicle mix varies over turn | Vehicle mix varies over entry | Vehicle mix source | PCU Factor for a HV (PCU) |
|------------------------------|-------------------------------|--------------------|---------------------------|
| ✓                            | ✓                             | HV Percentages     | 2.00                      |

### Demand overview (Traffic)

| Arm                      | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|--------------------------|------------|--------------|--------------|-------------------------|--------------------|
| A - A29 Realignment Road |            | ONE HOUR     | ✓            | 432                     | 100.000            |
| B - Barnham Road (E)     |            | ONE HOUR     | ✓            | 568                     | 100.000            |
| C - Southern approach    |            | ONE HOUR     | ✓            | 197                     | 100.000            |
| D - Barnham Road (W)     |            | ONE HOUR     | ✓            | 457                     | 100.000            |

## Origin-Destination Data

### Demand (Veh/hr)

| From |                          | To                       |                      |                       |                      |
|------|--------------------------|--------------------------|----------------------|-----------------------|----------------------|
|      |                          | A - A29 Realignment Road | B - Barnham Road (E) | C - Southern approach | D - Barnham Road (W) |
|      | A - A29 Realignment Road | 0                        | 189                  | 243                   | 0                    |
|      | B - Barnham Road (E)     | 208                      | 0                    | 37                    | 325                  |
|      | C - Southern approach    | 119                      | 20                   | 0                     | 58                   |
|      | D - Barnham Road (W)     | 1                        | 375                  | 81                    | 0                    |

### Proportions

| From |                          | To                       |                      |                       |                      |
|------|--------------------------|--------------------------|----------------------|-----------------------|----------------------|
|      |                          | A - A29 Realignment Road | B - Barnham Road (E) | C - Southern approach | D - Barnham Road (W) |
|      | A - A29 Realignment Road | 0.00                     | 0.44                 | 0.10                  | 0.00                 |
|      | B - Barnham Road (E)     | 0.36                     | 0.00                 | 0.00                  | 0.00                 |
|      | C - Southern approach    | 0.60                     | 0.10                 | 0.00                  | 0.00                 |
|      | D - Barnham Road (W)     | 0.00                     | 0.82                 | 0.00                  | 0.00                 |

## Vehicle Mix

### Heavy Vehicle Percentages

| From |                          | To                       |                      |                       |                      |
|------|--------------------------|--------------------------|----------------------|-----------------------|----------------------|
|      |                          | A - A29 Realignment Road | B - Barnham Road (E) | C - Southern approach | D - Barnham Road (W) |
|      | A - A29 Realignment Road | 0                        | 0                    | 0                     | 0                    |
|      | B - Barnham Road (E)     | 0                        | 0                    | 0                     | 2                    |
|      | C - Southern approach    | 0                        | 0                    | 0                     | 0                    |
|      | D - Barnham Road (W)     | 0                        | 1                    | 0                     | 0                    |

### Average PCU Per Veh

| From |                          | To                       |                      |                       |                      |
|------|--------------------------|--------------------------|----------------------|-----------------------|----------------------|
|      |                          | A - A29 Realignment Road | B - Barnham Road (E) | C - Southern approach | D - Barnham Road (W) |
|      | A - A29 Realignment Road | 1.000                    | 1.000                | 1.000                 | 1.000                |
|      | B - Barnham Road (E)     | 1.000                    | 1.000                | 1.000                 | 1.000                |
|      | C - Southern approach    | 1.000                    | 1.000                | 1.000                 | 1.000                |
|      | D - Barnham Road (W)     | 1.000                    | 1.010                | 1.000                 | 1.000                |

## Detailed Demand Data

### Demand for each time segment

| Arm                      | Time Segment | Demand (Veh/hr) | Demand in PCU (PCU/hr) |
|--------------------------|--------------|-----------------|------------------------|
| A - A29 Realignment Road | 16:45-17:00  | 325             | 325                    |
|                          | 17:00-17:15  | 388             | 388                    |
|                          | 17:15-17:30  | 476             | 476                    |
|                          | 17:30-17:45  | 476             | 476                    |
|                          | 17:45-18:00  | 388             | 388                    |
|                          | 18:00-18:15  | 325             | 325                    |
| B - Barnham Road (E)     | 16:45-17:00  | 428             | 433                    |
|                          | 17:00-17:15  | 511             | 516                    |
|                          | 17:15-17:30  | 625             | 633                    |
|                          | 17:30-17:45  | 625             | 633                    |
|                          | 17:45-18:00  | 511             | 516                    |
|                          | 18:00-18:15  | 428             | 433                    |
| C - Southern approach    | 16:45-17:00  | 148             | 148                    |
|                          | 17:00-17:15  | 177             | 177                    |
|                          | 17:15-17:30  | 217             | 217                    |
|                          | 17:30-17:45  | 217             | 217                    |
|                          | 17:45-18:00  | 177             | 177                    |
|                          | 18:00-18:15  | 148             | 148                    |
| D - Barnham Road (W)     | 16:45-17:00  | 344             | 347                    |
|                          | 17:00-17:15  | 411             | 414                    |
|                          | 17:15-17:30  | 503             | 507                    |
|                          | 17:30-17:45  | 503             | 507                    |
|                          | 17:45-18:00  | 411             | 414                    |
|                          | 18:00-18:15  | 344             | 347                    |

## Results

### Results Summary for whole modelled period

| Arm                      | Max RFC | Max Delay (s) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|--------------------------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| A - A29 Realignment Road | 0.41    | 5.31          | 0.7             | A       | 398                     | 595                           |
| B - Barnham Road (E)     | 0.49    | 5.62          | 1.0             | A       | 521                     | 782                           |
| C - Southern approach    | 0.17    | 3.30          | 0.2             | A       | 181                     | 271                           |
| D - Barnham Road (W)     | 0.40    | 4.70          | 0.7             | A       | 419                     | 629                           |

## Main Results for each time segment

### 16:45 - 17:00

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - A29 Realignment Road | 325                   | 81                      | 357                       | 1252              | 0.280 | 324                 | 244                             | 0.0               | 0.3             | 3.875     | A                             |
| B - Barnham Road (E)     | 428                   | 107                     | 243                       | 1332              | 0.321 | 426                 | 438                             | 0.0               | 0.5             | 3.968     | A                             |
| C - Southern approach    | 148                   | 37                      | 398                       | 1427              | 0.104 | 148                 | 271                             | 0.0               | 0.1             | 2.815     | A                             |
| D - Barnham Road (W)     | 344                   | 88                      | 259                       | 1341              | 0.257 | 343                 | 287                             | 0.0               | 0.3             | 3.601     | A                             |

### 17:00 - 17:15

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - A29 Realignment Road | 388                   | 97                      | 427                       | 1210              | 0.321 | 388                 | 293                             | 0.3               | 0.5             | 4.374     | A                             |
| B - Barnham Road (E)     | 511                   | 128                     | 291                       | 1304              | 0.392 | 510                 | 524                             | 0.5               | 0.8             | 4.530     | A                             |
| C - Southern approach    | 177                   | 44                      | 477                       | 1376              | 0.129 | 177                 | 324                             | 0.1               | 0.1             | 3.001     | A                             |
| D - Barnham Road (W)     | 411                   | 103                     | 310                       | 1311              | 0.313 | 410                 | 344                             | 0.3               | 0.5             | 3.997     | A                             |

### 17:15 - 17:30

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - A29 Realignment Road | 476                   | 119                     | 523                       | 1154              | 0.412 | 475                 | 358                             | 0.5               | 0.7             | 5.292     | A                             |
| B - Barnham Road (E)     | 625                   | 156                     | 356                       | 1286              | 0.494 | 624                 | 642                             | 0.6               | 1.0             | 5.596     | A                             |
| C - Southern approach    | 217                   | 54                      | 583                       | 1307              | 0.166 | 217                 | 397                             | 0.1               | 0.2             | 3.300     | A                             |
| D - Barnham Road (W)     | 503                   | 126                     | 379                       | 1289              | 0.396 | 502                 | 421                             | 0.5               | 0.7             | 4.688     | A                             |

### 17:30 - 17:45

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - A29 Realignment Road | 476                   | 119                     | 524                       | 1154              | 0.412 | 476                 | 359                             | 0.7               | 0.7             | 5.308     | A                             |
| B - Barnham Road (E)     | 625                   | 156                     | 357                       | 1286              | 0.494 | 625                 | 643                             | 1.0               | 1.0             | 5.621     | A                             |
| C - Southern approach    | 217                   | 54                      | 585                       | 1307              | 0.166 | 217                 | 397                             | 0.2               | 0.2             | 3.302     | A                             |
| D - Barnham Road (W)     | 503                   | 126                     | 380                       | 1289              | 0.396 | 503                 | 422                             | 0.7               | 0.7             | 4.699     | A                             |

### 17:45 - 18:00

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - A29 Realignment Road | 388                   | 97                      | 429                       | 1210              | 0.321 | 389                 | 294                             | 0.7               | 0.5             | 4.392     | A                             |
| B - Barnham Road (E)     | 511                   | 128                     | 292                       | 1303              | 0.392 | 512                 | 526                             | 1.0               | 0.8             | 4.556     | A                             |
| C - Southern approach    | 177                   | 44                      | 479                       | 1375              | 0.129 | 177                 | 325                             | 0.2               | 0.1             | 3.008     | A                             |
| D - Barnham Road (W)     | 411                   | 103                     | 311                       | 1310              | 0.314 | 412                 | 345                             | 0.7               | 0.5             | 4.011     | A                             |

### 18:00 - 18:15

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - A29 Realignment Road | 325                   | 81                      | 359                       | 1251              | 0.280 | 326                 | 246                             | 0.5               | 0.4             | 3.894     | A                             |
| B - Barnham Road (E)     | 428                   | 107                     | 244                       | 1331              | 0.321 | 428                 | 440                             | 0.6               | 0.5             | 3.991     | A                             |
| C - Southern approach    | 148                   | 37                      | 400                       | 1425              | 0.104 | 148                 | 272                             | 0.1               | 0.1             | 2.819     | A                             |
| D - Barnham Road (W)     | 344                   | 88                      | 260                       | 1340              | 0.257 | 345                 | 289                             | 0.5               | 0.3             | 3.616     | A                             |

# 2038\_Option 1+Option 2, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

| Junction | Name   | Junction type       | Use circulating lanes | Arm order  | Junction Delay (s) | Junction LOS |
|----------|--|---------------------|-----------------------|------------|--------------------|--------------|
| 2        | B2233 Barnham Road / Northern section of Re-alignment road | Standard Roundabout |                       | A, B, C, D | 7.17               | A            |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name          | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|----|------------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D7 | 2038_Option 1+Option 2 | AM               | ONE HOUR             | 07:45              | 09:15               | 15                        | ✓                 |

| Vehicle mix varies over turn | Vehicle mix varies over entry | Vehicle mix source | PCU Factor for a HV (PCU) |
|------------------------------|-------------------------------|--------------------|---------------------------|
| ✓                            | ✓                             | HV Percentages     | 2.00                      |

### Demand overview (Traffic)

| Arm                      | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|--------------------------|------------|--------------|--------------|-------------------------|--------------------|
| A - A29 Realignment Road |            | ONE HOUR     | ✓            | 559                     | 100.000            |
| B - Barnham Road (E)     |            | ONE HOUR     | ✓            | 645                     | 100.000            |
| C - Southern approach    |            | ONE HOUR     | ✓            | 849                     | 100.000            |
| D - Barnham Road (W)     |            | ONE HOUR     | ✓            | 158                     | 100.000            |

## Origin-Destination Data

### Demand (Veh/hr)

| From |                          | To                       |                      |                       |                      |
|------|--------------------------|--------------------------|----------------------|-----------------------|----------------------|
|      |                          | A - A29 Realignment Road | B - Barnham Road (E) | C - Southern approach | D - Barnham Road (W) |
|      | A - A29 Realignment Road | 0                        | 149                  | 410                   | 0                    |
|      | B - Barnham Road (E)     | 64                       | 0                    | 259                   | 322                  |
|      | C - Southern approach    | 499                      | 198                  | 0                     | 152                  |
|      | D - Barnham Road (W)     | 0                        | 135                  | 23                    | 0                    |

### Proportions

| From |                          | To                       |                      |                       |                      |
|------|--------------------------|--------------------------|----------------------|-----------------------|----------------------|
|      |                          | A - A29 Realignment Road | B - Barnham Road (E) | C - Southern approach | D - Barnham Road (W) |
|      | A - A29 Realignment Road | 0.00                     | 0.27                 | 0.49                  | 0.00                 |
|      | B - Barnham Road (E)     | 0.10                     | 0.00                 | 0.30                  | 0.40                 |
|      | C - Southern approach    | 0.59                     | 0.23                 | 0.00                  | 0.18                 |
|      | D - Barnham Road (W)     | 0.00                     | 0.85                 | 0.03                  | 0.00                 |

## Vehicle Mix



### Heavy Vehicle Percentages

| From |                          | To                       |                      |                       |                      |
|------|--------------------------|--------------------------|----------------------|-----------------------|----------------------|
|      |                          | A - A29 Realignment Road | B - Barnham Road (E) | C - Southern approach | D - Barnham Road (W) |
|      | A - A29 Realignment Road | 0                        | 2                    | 1                     | 0                    |
|      | B - Barnham Road (E)     | 1                        | 0                    | 6                     | 2                    |
|      | C - Southern approach    | 0                        | 4                    | 0                     | 0                    |
|      | D - Barnham Road (W)     | 0                        | 5                    | 7                     | 0                    |

### Average PCU Per Veh

| From |                          | To                       |                      | S at |
|------|--------------------------|--------------------------|----------------------|------|
|      |                          | A - A29 Realignment Road | B - Barnham Road (E) |      |
|      | A - A29 Realignment Road | 1.000                    | 1.020                |      |
|      | B - Barnham Road (E)     | 1.010                    | 1.000                |      |
|      | C - Southern approach    | 1.000                    | 1.040                |      |
|      | D - Barnham Road (W)     | 1.000                    | 1.050                |      |

## Detailed Demand Data

### Demand for each time segment

| Arm                      | Time Segment | Demand (Veh/hr) | Demand in PCU (PCU/hr) |
|--------------------------|--------------|-----------------|------------------------|
| A - A29 Realignment Road | 07:45-08:00  | 421             | 426                    |
|                          | 08:00-08:15  | 503             | 509                    |
|                          | 08:15-08:30  | 615             | 623                    |
|                          | 08:30-08:45  | 615             | 623                    |
|                          | 08:45-09:00  | 503             | 509                    |
|                          | 09:00-09:15  | 421             | 426                    |
| B - Barnham Road (E)     | 07:45-08:00  | 496             | 503                    |
|                          | 08:00-08:15  | 580             | 600                    |
|                          | 08:15-08:30  | 710             | 735                    |
|                          | 08:30-08:45  | 710             | 735                    |
|                          | 08:45-09:00  | 580             | 600                    |
|                          | 09:00-09:15  | 496             | 503                    |
| C - Southern approach    | 07:45-08:00  | 639             | 645                    |
|                          | 08:00-08:15  | 763             | 770                    |
|                          | 08:15-08:30  | 935             | 943                    |
|                          | 08:30-08:45  | 935             | 943                    |
|                          | 08:45-09:00  | 763             | 770                    |
|                          | 09:00-09:15  | 639             | 645                    |
| D - Barnham Road (W)     | 07:45-08:00  | 119             | 125                    |
|                          | 08:00-08:15  | 142             | 150                    |
|                          | 08:15-08:30  | 174             | 183                    |
|                          | 08:30-08:45  | 174             | 183                    |
|                          | 08:45-09:00  | 142             | 150                    |
|                          | 09:00-09:15  | 119             | 125                    |

## Results

### Results Summary for whole modelled period

| Arm                      | Max RFC | Max Delay (s) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|--------------------------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| A - A29 Realignment Road | 0.51    | 6.08          | 1.0             | A       | 513                     | 769                           |
| B - Barnham Road (E)     | 0.61    | 7.90          | 1.5             | A       | 592                     | 888                           |
| C - Southern approach    | 0.67    | 7.82          | 2.0             | A       | 779                     | 1169                          |
| D - Barnham Road (W)     | 0.18    | 4.64          | 0.2             | A       | 145                     | 217                           |

## Main Results for each time segment

### 07:45 - 08:00

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - A29 Realignment Road | 421                   | 105                     | 287                       | 1282              | 0.328 | 419                 | 422                             | 0.0               | 0.5             | 4.160     | A                             |
| B - Barnham Road (E)     | 486                   | 121                     | 324                       | 1253              | 0.388 | 483                 | 381                             | 0.0               | 0.6             | 4.663     | A                             |
| C - Southern approach    | 639                   | 160                     | 289                       | 1482              | 0.431 | 636                 | 518                             | 0.0               | 0.8             | 4.243     | A                             |
| D - Barnham Road (W)     | 119                   | 30                      | 570                       | 1103              | 0.108 | 118                 | 355                             | 0.0               | 0.1             | 3.653     | A                             |

### 08:00 - 08:15

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - A29 Realignment Road | 503                   | 126                     | 320                       | 1251              | 0.402 | 502                 | 505                             | 0.5               | 0.7             | 4.802     | A                             |
| B - Barnham Road (E)     | 580                   | 145                     | 389                       | 1216              | 0.477 | 579                 | 433                             | 0.6               | 0.9             | 5.642     | A                             |
| C - Southern approach    | 763                   | 191                     | 346                       | 1445              | 0.528 | 762                 | 621                             | 0.8               | 1.1             | 5.257     | A                             |
| D - Barnham Road (W)     | 142                   | 36                      | 683                       | 1039              | 0.137 | 142                 | 425                             | 0.1               | 0.2             | 4.015     | A                             |

### 08:15 - 08:30

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - A29 Realignment Road | 615                   | 154                     | 391                       | 1208              | 0.510 | 614                 | 618                             | 0.7               | 1.0             | 6.048     | A                             |
| B - Barnham Road (E)     | 710                   | 178                     | 476                       | 1166              | 0.609 | 708                 | 529                             | 0.9               | 1.5             | 7.814     | A                             |
| C - Southern approach    | 935                   | 234                     | 424                       | 1396              | 0.670 | 931                 | 760                             | 1.1               | 2.0             | 7.693     | A                             |
| D - Barnham Road (W)     | 174                   | 43                      | 835                       | 951               | 0.183 | 174                 | 520                             | 0.2               | 0.2             | 4.629     | A                             |

### 08:30 - 08:45

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - A29 Realignment Road | 615                   | 154                     | 392                       | 1207              | 0.510 | 615                 | 620                             | 1.0               | 1.0             | 6.083     | A                             |
| B - Barnham Road (E)     | 710                   | 178                     | 477                       | 1165              | 0.609 | 710                 | 531                             | 1.5               | 1.5             | 7.905     | A                             |
| C - Southern approach    | 935                   | 234                     | 425                       | 1395              | 0.670 | 935                 | 762                             | 2.0               | 2.0             | 7.819     | A                             |
| D - Barnham Road (W)     | 174                   | 43                      | 838                       | 949               | 0.183 | 174                 | 522                             | 0.2               | 0.2             | 4.641     | A                             |

### 08:45 - 09:00

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - A29 Realignment Road | 503                   | 126                     | 321                       | 1250              | 0.402 | 504                 | 508                             | 1.0               | 0.7             | 4.837     | A                             |
| B - Barnham Road (E)     | 580                   | 145                     | 390                       | 1215              | 0.477 | 582                 | 435                             | 1.5               | 0.9             | 5.715     | A                             |
| C - Southern approach    | 763                   | 191                     | 348                       | 1444              | 0.529 | 767                 | 624                             | 2.0               | 1.1             | 5.342     | A                             |
| D - Barnham Road (W)     | 142                   | 36                      | 687                       | 1036              | 0.137 | 142                 | 428                             | 0.2               | 0.2             | 4.030     | A                             |

### 09:00 - 09:15

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - A29 Realignment Road | 421                   | 105                     | 289                       | 1281              | 0.328 | 422                 | 425                             | 0.7               | 0.5             | 4.192     | A                             |
| B - Barnham Road (E)     | 486                   | 121                     | 327                       | 1251              | 0.388 | 487                 | 384                             | 0.9               | 0.6             | 4.714     | A                             |
| C - Southern approach    | 639                   | 160                     | 291                       | 1481              | 0.432 | 641                 | 522                             | 1.1               | 0.8             | 4.294     | A                             |
| D - Barnham Road (W)     | 119                   | 30                      | 574                       | 1101              | 0.108 | 119                 | 358                             | 0.2               | 0.1             | 3.668     | A                             |

# 2038\_Option 1+Option 2, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

| Junction | Name   | Junction type       | Use circulating lanes | Arm order  | Junction Delay (s) | Junction LOS |
|----------|--|---------------------|-----------------------|------------|--------------------|--------------|
| 2        | B2233 Barnham Road / Northern section of Re-alignment road | Standard Roundabout |                       | A, B, C, D | 10.75              | B            |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name          | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|----|------------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D8 | 2038_Option 1+Option 2 | PM               | ONE HOUR             | 16:45              | 18:15               | 15                        | ✓                 |

| Vehicle mix varies over turn | Vehicle mix varies over entry | Vehicle mix source | PCU Factor for a HV (PCU) |
|------------------------------|-------------------------------|--------------------|---------------------------|
| ✓                            | ✓                             | HV Percentages     | 2.00                      |

### Demand overview (Traffic)

| Arm                      | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|--------------------------|------------|--------------|--------------|-------------------------|--------------------|
| A - A29 Realignment Road |            | ONE HOUR     | ✓            | 747                     | 100.000            |
| B - Barnham Road (E)     |            | ONE HOUR     | ✓            | 708                     | 100.000            |
| C - Southern approach    |            | ONE HOUR     | ✓            | 713                     | 100.000            |
| D - Barnham Road (W)     |            | ONE HOUR     | ✓            | 362                     | 100.000            |

## Origin-Destination Data

### Demand (Veh/hr)

| From |                          | To                       |                      |                       |                      |
|------|--------------------------|--------------------------|----------------------|-----------------------|----------------------|
|      |                          | A - A29 Realignment Road | B - Barnham Road (E) | C - Southern approach | D - Barnham Road (W) |
|      | A - A29 Realignment Road | 0                        | 113                  | 634                   | 0                    |
|      | B - Barnham Road (E)     | 141                      | 0                    | 348                   | 219                  |
|      | C - Southern approach    | 359                      | 232                  | 0                     | 122                  |
|      | D - Barnham Road (W)     | 1                        | 292                  | 69                    | 0                    |

### Proportions

| From |                          | To                       |                      |                       |                      |
|------|--------------------------|--------------------------|----------------------|-----------------------|----------------------|
|      |                          | A - A29 Realignment Road | B - Barnham Road (E) | C - Southern approach | D - Barnham Road (W) |
|      | A - A29 Realignment Road | 0.00                     | 0.15                 | 0.89                  | 0.00                 |
|      | B - Barnham Road (E)     | 0.20                     | 0.00                 | 0.49                  | 0.31                 |
|      | C - Southern approach    | 0.50                     | 0.33                 | 0.00                  | 0.17                 |
|      | D - Barnham Road (W)     | 0.00                     | 0.81                 | 0.11                  | 0.08                 |

## Vehicle Mix

### Heavy Vehicle Percentages

| From |                          | To                       |                      |                       |                      |
|------|--------------------------|--------------------------|----------------------|-----------------------|----------------------|
|      |                          | A - A29 Realignment Road | B - Barnham Road (E) | C - Southern approach | D - Barnham Road (W) |
|      | A - A29 Realignment Road | 0                        | 0                    | 0                     | 0                    |
|      | B - Barnham Road (E)     | 0                        | 0                    | 1                     | 3                    |
|      | C - Southern approach    | 0                        | 2                    | 0                     | 0                    |
|      | D - Barnham Road (W)     | 0                        | 1                    | 0                     | 0                    |

### Average PCU Per Veh

| From |                          | To                       |                      |                       |                      |
|------|--------------------------|--------------------------|----------------------|-----------------------|----------------------|
|      |                          | A - A29 Realignment Road | B - Barnham Road (E) | C - Southern approach | D - Barnham Road (W) |
|      | A - A29 Realignment Road | 1.000                    | 1.000                |                       |                      |
|      | B - Barnham Road (E)     | 1.000                    | 1.000                |                       |                      |
|      | C - Southern approach    | 1.000                    | 1.020                |                       |                      |
|      | D - Barnham Road (W)     | 1.000                    | 1.010                |                       |                      |

## Detailed Demand Data

### Demand for each time segment

| Arm                      | Time Segment | Demand (Veh/hr) | Demand in PCU (PCU/hr) |
|--------------------------|--------------|-----------------|------------------------|
| A - A29 Realignment Road | 16:45-17:00  | 562             | 562                    |
|                          | 17:00-17:15  | 672             | 672                    |
|                          | 17:15-17:30  | 822             | 822                    |
|                          | 17:30-17:45  | 822             | 822                    |
|                          | 17:45-18:00  | 672             | 672                    |
|                          | 18:00-18:15  | 562             | 562                    |
| B - Barnham Road (E)     | 16:45-17:00  | 533             | 541                    |
|                          | 17:00-17:15  | 636             | 646                    |
|                          | 17:15-17:30  | 780             | 791                    |
|                          | 17:30-17:45  | 780             | 791                    |
|                          | 17:45-18:00  | 636             | 646                    |
|                          | 18:00-18:15  | 533             | 541                    |
| C - Southern approach    | 16:45-17:00  | 537             | 540                    |
|                          | 17:00-17:15  | 641             | 645                    |
|                          | 17:15-17:30  | 785             | 790                    |
|                          | 17:30-17:45  | 785             | 790                    |
|                          | 17:45-18:00  | 641             | 645                    |
|                          | 18:00-18:15  | 537             | 540                    |
| D - Barnham Road (W)     | 16:45-17:00  | 273             | 275                    |
|                          | 17:00-17:15  | 325             | 328                    |
|                          | 17:15-17:30  | 399             | 402                    |
|                          | 17:30-17:45  | 399             | 402                    |
|                          | 17:45-18:00  | 325             | 328                    |
|                          | 18:00-18:15  | 273             | 275                    |

## Results

### Results Summary for whole modelled period

| Arm                      | Max RFC | Max Delay (s) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|--------------------------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| A - A29 Realignment Road | 0.76    | 14.09         | 3.1             | B       | 685                     | 1028                          |
| B - Barnham Road (E)     | 0.76    | 14.80         | 3.1             | B       | 650                     | 975                           |
| C - Southern approach    | 0.55    | 5.69          | 1.2             | A       | 654                     | 981                           |
| D - Barnham Road (W)     | 0.39    | 5.86          | 0.8             | A       | 332                     | 498                           |

## Main Results for each time segment

### 16:45 - 17:00

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - A29 Realignment Road | 562                   | 141                     | 445                       | 1199              | 0.469 | 559                 | 375                             | 0.0               | 0.9             | 5.594     | A                             |
| B - Barnham Road (E)     | 533                   | 133                     | 526                       | 1164              | 0.458 | 530                 | 477                             | 0.0               | 0.8             | 5.643     | A                             |
| C - Southern approach    | 537                   | 134                     | 269                       | 1499              | 0.358 | 535                 | 786                             | 0.0               | 0.6             | 3.726     | A                             |
| D - Barnham Road (W)     | 273                   | 68                      | 549                       | 1167              | 0.234 | 271                 | 255                             | 0.0               | 0.3             | 4.014     | A                             |

### 17:00 - 17:15

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - A29 Realignment Road | 672                   | 168                     | 532                       | 1147              | 0.585 | 669                 | 450                             | 0.9               | 1.4             | 7.499     | A                             |
| B - Barnham Road (E)     | 636                   | 159                     | 630                       | 1104              | 0.576 | 634                 | 572                             | 0.8               | 1.3             | 7.632     | A                             |
| C - Southern approach    | 641                   | 160                     | 323                       | 1465              | 0.438 | 640                 | 942                             | 0.6               | 0.8             | 4.361     | A                             |
| D - Barnham Road (W)     | 325                   | 81                      | 657                       | 1102              | 0.295 | 325                 | 306                             | 0.3               | 0.4             | 4.628     | A                             |

### 17:15 - 17:30

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - A29 Realignment Road | 822                   | 206                     | 651                       | 1077              | 0.763 | 816                 | 549                             | 1.4               | 3.0             | 13.435    | B                             |
| B - Barnham Road (E)     | 780                   | 195                     | 768                       | 1024              | 0.761 | 773                 | 699                             | 1.3               | 3.0             | 13.960    | B                             |
| C - Southern approach    | 785                   | 196                     | 393                       | 1419              | 0.553 | 783                 | 1148                            | 0.8               | 1.2             | 5.644     | A                             |
| D - Barnham Road (W)     | 399                   | 100                     | 803                       | 1015              | 0.393 | 398                 | 373                             | 0.4               | 0.6             | 5.824     | A                             |

### 17:30 - 17:45

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - A29 Realignment Road | 822                   | 206                     | 653                       | 1076              | 0.764 | 822                 | 551                             | 3.0               | 3.1             | 14.094    | B                             |
| B - Barnham Road (E)     | 780                   | 195                     | 774                       | 1021              | 0.763 | 779                 | 701                             | 3.0               | 3.1             | 14.797    | B                             |
| C - Southern approach    | 785                   | 196                     | 396                       | 1417              | 0.554 | 785                 | 1157                            | 1.2               | 1.2             | 5.693     | A                             |
| D - Barnham Road (W)     | 399                   | 100                     | 806                       | 1013              | 0.393 | 399                 | 375                             | 0.6               | 0.6             | 5.855     | A                             |

### 17:45 - 18:00

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - A29 Realignment Road | 672                   | 168                     | 535                       | 1146              | 0.586 | 678                 | 453                             | 3.1               | 1.4             | 7.803     | A                             |
| B - Barnham Road (E)     | 636                   | 159                     | 638                       | 1100              | 0.579 | 643                 | 575                             | 3.1               | 1.4             | 8.001     | A                             |
| C - Southern approach    | 641                   | 160                     | 327                       | 1462              | 0.439 | 643                 | 954                             | 1.2               | 0.8             | 4.406     | A                             |
| D - Barnham Road (W)     | 325                   | 81                      | 661                       | 1100              | 0.296 | 326                 | 309                             | 0.6               | 0.4             | 4.660     | A                             |

### 18:00 - 18:15

| Arm                      | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-------------------------------|
| A - A29 Realignment Road | 562                   | 141                     | 447                       | 1197              | 0.470 | 565                 | 378                             | 1.4               | 0.9             | 5.709     | A                             |
| B - Barnham Road (E)     | 533                   | 133                     | 531                       | 1161              | 0.459 | 535                 | 481                             | 1.4               | 0.9             | 5.770     | A                             |
| C - Southern approach    | 537                   | 134                     | 272                       | 1497              | 0.359 | 538                 | 794                             | 0.8               | 0.6             | 3.754     | A                             |
| D - Barnham Road (W)     | 273                   | 68                      | 552                       | 1165              | 0.234 | 273                 | 258                             | 0.4               | 0.3             | 4.040     | A                             |



|  |
|--|
| <b>Junctions 9</b>   |
| <b>PICADY 9 - Priority Intersection Module</b>   |
| Version: 9.5.0.6896<br>© Copyright TRL Limited, 2018   |
| For sales and distribution information, program advice and maintenance, contact TRL:<br>+44 (0)1344 379777 software@trl.co.uk 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: 3b\_B2233 Slip road\_A29.j9  
 Path: C:\Users\NVN01911\Desktop\A29  
 Report generation date: 5/12/2020 1:46:39 PM

- »2023\_Option 1, AM
- »2023\_Option 1, PM
- »2023\_Option 1+Option 2, AM
- »2023\_Option 1+Option 2, PM
- »2038\_Option 1, AM
- »2038\_Option 1, PM
- »2038\_Option 1+Option 2, AM
- »2038\_Option 1+Option 2, PM

**Summary of junction performance**

|                               | AM          |           |      |     | PM          |           |      |     |
|-------------------------------|-------------|-----------|------|-----|-------------|-----------|------|-----|
|                               | Queue (Veh) | Delay (s) | RFC  | LOS | Queue (Veh) | Delay (s) | RFC  | LOS |
| <b>2023_Option 1</b>          |             |           |      |     |             |           |      |     |
| Stream B-C                    | 0.0         | 0.00      | 0.00 | A   | 0.0         | 0.00      | 0.00 | A   |
| Stream B-A                    | 0.4         | 20.07     | 0.29 | C   | 1.0         | 24.21     | 0.51 | C   |
| Stream C-AB                   | 0.0         | 0.00      | 0.00 | A   | 0.0         | 0.00      | 0.00 | A   |
| <b>2023_Option 1+Option 2</b> |             |           |      |     |             |           |      |     |
| Stream B-C                    | 0.0         | 0.00      | 0.00 | A   | 0.0         | 0.00      | 0.00 | A   |
| Stream B-A                    | 0.2         | 9.66      | 0.17 | A   | 0.4         | 10.26     | 0.31 | B   |
| Stream C-AB                   | 0.0         | 0.00      | 0.00 | A   | 0.0         | 0.00      | 0.00 | A   |
| <b>2038_Option 1</b>          |             |           |      |     |             |           |      |     |
| Stream B-C                    | 0.0         | 0.00      | 0.00 | A   | 0.0         | 0.00      | 0.00 | A   |
| Stream B-A                    | 0.4         | 24.70     | 0.30 | C   | 0.8         | 25.70     | 0.44 | D   |
| Stream C-AB                   | 0.0         | 0.00      | 0.00 | A   | 0.0         | 0.00      | 0.00 | A   |
| <b>2038_Option 1+Option 2</b> |             |           |      |     |             |           |      |     |
| Stream B-C                    | 0.0         | 0.00      | 0.00 | A   | 0.0         | 0.00      | 0.00 | A   |
| Stream B-A                    | 0.3         | 10.92     | 0.22 | B   | 0.5         | 11.35     | 0.33 | B   |
| Stream C-AB                   | 0.0         | 0.00      | 0.00 | A   | 0.0         | 0.00      | 0.00 | A   |

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

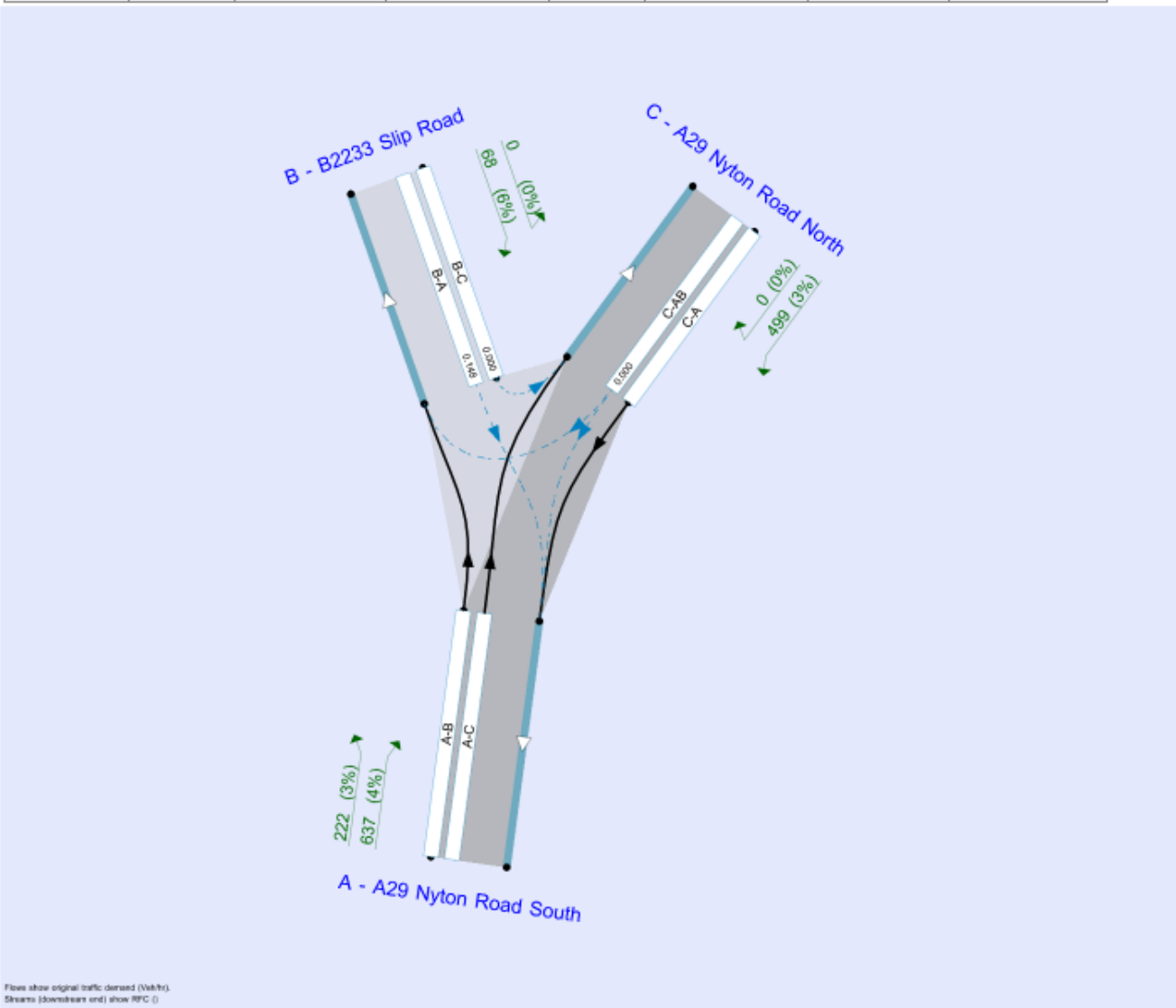
## File summary

### File Description

|             |                        |
|-------------|------------------------|
| Title       | Nyton Road, A29        |
| Location    | 50.842184°, -0.667523° |
| Site number | 3b                     |
| Date        | 3/24/2020              |
| Version     |                        |
| Status      | (new file)             |
| Identifier  |                        |
| Client      |                        |
| Jobnumber   |                        |
| Enumerator  | CORP\INAA02374         |
| Description |                        |

## 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                 | Veh                   | perHour    | s                   | -Min              | perMin              |



### Analysis Options

| Vehicle length (m) | Calculate Queue Percentiles | Calculate detailed queueing delay | Calculate residual capacity | RFC Threshold | Average Delay threshold (s) | Queue threshold (PCU) |
|--------------------|-----------------------------|-----------------------------------|-----------------------------|---------------|-----------------------------|-----------------------|
| 5.75               |                             |                                   |                             | 0.85          | 36.00                       | 20.00                 |

### Demand Set Summary

| ID | Scenario name          | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|----|------------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D1 | 2023_Option 1          | AM               | ONE HOUR             | 07:45              | 09:15               | 15                        | ✓                 |
| D2 | 2023_Option 1          | PM               | ONE HOUR             | 16:45              | 18:15               | 15                        | ✓                 |
| D3 | 2023_Option 1+Option 2 | AM               | ONE HOUR             | 07:45              | 09:15               | 15                        | ✓                 |
| D4 | 2023_Option 1+Option 2 | PM               | ONE HOUR             | 16:45              | 18:15               | 15                        | ✓                 |
| D5 | 2038_Option 1          | AM               | ONE HOUR             | 07:45              | 09:15               | 15                        | ✓                 |
| D6 | 2038_Option 1          | PM               | ONE HOUR             | 16:45              | 18:15               | 15                        | ✓                 |
| D7 | 2038_Option 1+Option 2 | AM               | ONE HOUR             | 07:45              | 09:15               | 15                        | ✓                 |
| D8 | 2038_Option 1+Option 2 | PM               | ONE HOUR             | 16:45              | 18:15               | 15                        | ✓                 |

### Analysis Set Details

| ID | Include in report | Network flow scaling factor (%) | Network capacity scaling factor (%) |
|----|-------------------|---------------------------------|-------------------------------------|
| A1 | ✓                 | 100.000                         | 100.000                             |



# 2023\_Option 1, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

| Junction | Name                 | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|----------|----------------------|---------------|----------------------|-----------------------|--------------------|--------------|
| J3b      | B2233 Slip road/ A29 | T-Junction    | Two-way              |                       | 0.98               | A            |

### Junction Network Options

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

## Arms

### Arms

| Arm | Name                 | Description | Arm type |
|-----|----------------------|-------------|----------|
| A   | A29 Nyton Road South |             | Major    |
| B   | B2233 Slip Road      |             | Minor    |
| C   | A29 Nyton Road North |             | Major    |

### Major Arm Geometry

| Arm                      | Width of carriageway (m) | Has kerbed central reserve | Has right turn bay | Width for right turn (m) | Visibility for right turn (m) | Blocks? | Blocking queue (PCU) |
|--------------------------|--------------------------|----------------------------|--------------------|--------------------------|-------------------------------|---------|----------------------|
| C - A29 Nyton Road North | 6.80                     |                            | ✓                  | 2.20                     | 71.8                          | ✓       | 1.25                 |

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

### Minor Arm Geometry

| Arm                 | Minor arm type      | 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) |
|---------------------|---------------------|-----------------------|-----------------|------------------|------------------|------------------|-----------------------|--------------------|------------------------|-------------------------|
| B - B2233 Slip Road | One lane plus flare | 10.00                 | 6.70            | 3.10             | 3.00             | 3.00             | ✓                     | 1.00               | 25                     | 82                      |

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

| Junction | Stream | Intercept (Veh/hr) | Slope for A-B | Slope for A-C | Slope for C-A | Slope for C-B |
|----------|--------|--------------------|---------------|---------------|---------------|---------------|
| J3b      | B-A    | 589                | 0.100         | 0.253         | 0.159         | 0.381         |
| J3b      | B-C    | 699                | 0.103         | 0.261         | -             | -             |
| J3b      | C-B    | 616                | 0.230         | 0.230         | -             | -             |

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 Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|----|---------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D1 | 2023_Option 1 | AM               | ONE HOUR             | 07:45              | 09:15               | 15                        | ✓                 |

| Vehicle mix varies over turn | Vehicle mix varies over entry | Vehicle mix source | PCU Factor for a HV (PCU) |
|------------------------------|-------------------------------|--------------------|---------------------------|
| ✓                            | ✓                             | HV Percentages     | 2.00                      |

### Demand overview (Traffic)

| Arm                      | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|--------------------------|------------|--------------|--------------|-------------------------|--------------------|
| A - A29 Nyton Road South |            | ONE HOUR     | ✓            | 859                     | 100.000            |
| B - B2233 Slip Road      |            | ONE HOUR     | ✓            | 68                      | 100.000            |
| C - A29 Nyton Road North |            | ONE HOUR     | ✓            | 499                     | 100.000            |

## Origin-Destination Data

### Demand (Veh/hr)

| From                     | To                       |                     |                          |
|--------------------------|--------------------------|---------------------|--------------------------|
|                          | A - A29 Nyton Road South | B - B2233 Slip Road | C - A29 Nyton Road North |
| A - A29 Nyton Road South | 0                        | 222                 | 637                      |
| B - B2233 Slip Road      | 68                       | 0                   | 0                        |
| C - A29 Nyton Road North | 499                      | 0                   | 0                        |

### Proportions

| From                     | To                       |                     |                          |
|--------------------------|--------------------------|---------------------|--------------------------|
|                          | A - A29 Nyton Road South | B - B2233 Slip Road | C - A29 Nyton Road North |
| A - A29 Nyton Road South | 0.00                     | 0.28                | 0.74                     |
| B - B2233 Slip Road      | 1.00                     | 0.00                | 0.00                     |
| C - A29 Nyton Road North | 1.00                     | 0.00                | 0.00                     |

## Vehicle Mix

### Heavy Vehicle Percentages

| From                     | To                       |                     |                          |
|--------------------------|--------------------------|---------------------|--------------------------|
|                          | A - A29 Nyton Road South | B - B2233 Slip Road | C - A29 Nyton Road North |
| A - A29 Nyton Road South | 0                        | 3                   | 4                        |
| B - B2233 Slip Road      | 6                        | 0                   | 0                        |
| C - A29 Nyton Road North | 3                        | 0                   | 0                        |

### Average PCU Per Veh

| From                     | To                       |                     |                          |
|--------------------------|--------------------------|---------------------|--------------------------|
|                          | A - A29 Nyton Road South | B - B2233 Slip Road | C - A29 Nyton Road North |
| A - A29 Nyton Road South | 1.000                    | 1.027               | 1.036                    |
| B - B2233 Slip Road      | 1.062                    | 1.000               | 1.000                    |
| C - A29 Nyton Road North | 1.035                    | 1.000               | 1.000                    |

## Detailed Demand Data

### Demand for each time segment

| Arm                      | Time Segment | Demand (Veh/hr) | Demand in PCU (PCU/hr) |
|--------------------------|--------------|-----------------|------------------------|
| A - A29 Nyton Road South | 07:45-08:00  | 647             | 669                    |
|                          | 08:00-08:15  | 772             | 799                    |
|                          | 08:15-08:30  | 946             | 978                    |
|                          | 08:30-08:45  | 946             | 978                    |
|                          | 08:45-09:00  | 772             | 799                    |
|                          | 09:00-09:15  | 647             | 669                    |
| B - B2233 Slip Road      | 07:45-08:00  | 51              | 54                     |
|                          | 08:00-08:15  | 61              | 65                     |
|                          | 08:15-08:30  | 74              | 79                     |
|                          | 08:30-08:45  | 74              | 79                     |
|                          | 08:45-09:00  | 61              | 65                     |
|                          | 09:00-09:15  | 51              | 54                     |
| C - A29 Nyton Road North | 07:45-08:00  | 376             | 389                    |
|                          | 08:00-08:15  | 449             | 465                    |
|                          | 08:15-08:30  | 550             | 569                    |
|                          | 08:30-08:45  | 550             | 569                    |
|                          | 08:45-09:00  | 449             | 465                    |
|                          | 09:00-09:15  | 376             | 389                    |

## Results

### Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|--------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| B-C    | 0.00    | 0.00          | 0.0             | A       | 0                       | 0                             |
| B-A    | 0.29    | 20.07         | 0.4             | C       | 62                      | 93                            |
| C-AB   | 0.00    | 0.00          | 0.0             | A       | 0                       | 0                             |
| C-A    |         |               |                 |         | 458                     | 687                           |
| A-B    |         |               |                 |         | 204                     | 306                           |
| A-C    |         |               |                 |         | 585                     | 877                           |

### Main Results for each time segment

#### 07:45 - 08:00

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-C    | 0                     | 0                       | 531               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| B-A    | 51                    | 13                      | 343               | 0.148 | 50                  | 0.0               | 0.2             | 12.275    | B                             |
| C-AB   | 0                     | 0                       | 923               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| C-A    | 376                   | 94                      |                   |       | 376                 |                   |                 |           |                               |
| A-B    | 167                   | 42                      |                   |       | 167                 |                   |                 |           |                               |
| A-C    | 480                   | 120                     |                   |       | 480                 |                   |                 |           |                               |

**08:00 - 08:15**

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-C    | 0                     | 0                       | 496               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| B-A    | 61                    | 15                      | 305               | 0.199 | 60                  | 0.2               | 0.2             | 14.678    | B                             |
| C-AB   | 0                     | 0                       | 883               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| C-A    | 449                   | 112                     |                   |       | 449                 |                   |                 |           |                               |
| A-B    | 200                   | 50                      |                   |       | 200                 |                   |                 |           |                               |
| A-C    | 573                   | 143                     |                   |       | 573                 |                   |                 |           |                               |

**08:15 - 08:30**

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-C    | 0                     | 0                       | 447               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| B-A    | 74                    | 19                      | 254               | 0.293 | 74                  | 0.2               | 0.4             | 19.933    | C                             |
| C-AB   | 0                     | 0                       | 781               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| C-A    | 550                   | 137                     |                   |       | 550                 |                   |                 |           |                               |
| A-B    | 244                   | 61                      |                   |       | 244                 |                   |                 |           |                               |
| A-C    | 701                   | 175                     |                   |       | 701                 |                   |                 |           |                               |

**08:30 - 08:45**

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-C    | 0                     | 0                       | 447               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| B-A    | 74                    | 19                      | 254               | 0.293 | 74                  | 0.4               | 0.4             | 20.067    | C                             |
| C-AB   | 0                     | 0                       | 781               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| C-A    | 550                   | 137                     |                   |       | 550                 |                   |                 |           |                               |
| A-B    | 244                   | 61                      |                   |       | 244                 |                   |                 |           |                               |
| A-C    | 701                   | 175                     |                   |       | 701                 |                   |                 |           |                               |

**08:45 - 09:00**

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-C    | 0                     | 0                       | 496               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| B-A    | 61                    | 15                      | 305               | 0.199 | 61                  | 0.4               | 0.3             | 14.790    | B                             |
| C-AB   | 0                     | 0                       | 883               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| C-A    | 449                   | 112                     |                   |       | 449                 |                   |                 |           |                               |
| A-B    | 200                   | 50                      |                   |       | 200                 |                   |                 |           |                               |
| A-C    | 573                   | 143                     |                   |       | 573                 |                   |                 |           |                               |

**09:00 - 09:15**

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-C    | 0                     | 0                       | 531               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| B-A    | 51                    | 13                      | 343               | 0.148 | 51                  | 0.3               | 0.2             | 12.357    | B                             |
| C-AB   | 0                     | 0                       | 923               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| C-A    | 376                   | 94                      |                   |       | 376                 |                   |                 |           |                               |
| A-B    | 167                   | 42                      |                   |       | 167                 |                   |                 |           |                               |
| A-C    | 480                   | 120                     |                   |       | 480                 |                   |                 |           |                               |

# 2023\_Option 1, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

| Junction | Name                 | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|----------|----------------------|---------------|----------------------|-----------------------|--------------------|--------------|
| J3b      | B2233 Slip road/ A29 | T-Junction    | Two-way              |                       | 2.43               | A            |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|----|---------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D2 | 2023_Option 1 | PM               | ONE HOUR             | 16:45              | 18:15               | 15                        | ✓                 |

| Vehicle mix varies over turn | Vehicle mix varies over entry | Vehicle mix source | PCU Factor for a HV (PCU) |
|------------------------------|-------------------------------|--------------------|---------------------------|
| ✓                            | ✓                             | HV Percentages     | 2.00                      |

### Demand overview (Traffic)

| Arm                      | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|--------------------------|------------|--------------|--------------|-------------------------|--------------------|
| A - A29 Nyton Road South |            | ONE HOUR     | ✓            | 636                     | 100.000            |
| B - B2233 Slip Road      |            | ONE HOUR     | ✓            | 141                     | 100.000            |
| C - A29 Nyton Road North |            | ONE HOUR     | ✓            | 614                     | 100.000            |

## Origin-Destination Data

### Demand (Veh/hr)

| From                     | To                       |                     |                          |  |
|--------------------------|--------------------------|---------------------|--------------------------|--|
|                          | A - A29 Nyton Road South | B - B2233 Slip Road | C - A29 Nyton Road North |  |
| A - A29 Nyton Road South | 0                        | 156                 | 480                      |  |
| B - B2233 Slip Road      | 141                      | 0                   | 0                        |  |
| C - A29 Nyton Road North | 614                      | 0                   | 0                        |  |

### Proportions

| From                     | To                       |                     |                          |  |
|--------------------------|--------------------------|---------------------|--------------------------|--|
|                          | A - A29 Nyton Road South | B - B2233 Slip Road | C - A29 Nyton Road North |  |
| A - A29 Nyton Road South | 0.00                     | 0.24                | 0.76                     |  |
| B - B2233 Slip Road      | 1.00                     | 0.00                | 0.00                     |  |
| C - A29 Nyton Road North | 1.00                     | 0.00                | 0.00                     |  |

## Vehicle Mix

### Heavy Vehicle Percentages

| From                     | To                       |                     |                          |  |
|--------------------------|--------------------------|---------------------|--------------------------|--|
|                          | A - A29 Nyton Road South | B - B2233 Slip Road | C - A29 Nyton Road North |  |
| A - A29 Nyton Road South | 0                        | 1                   | 2                        |  |
| B - B2233 Slip Road      | 1                        | 0                   | 0                        |  |
| C - A29 Nyton Road North | 2                        | 0                   | 0                        |  |

### Average PCU Per Veh

| From                     | To                       |                     |                          |  |
|--------------------------|--------------------------|---------------------|--------------------------|--|
|                          | A - A29 Nyton Road South | B - B2233 Slip Road | C - A29 Nyton Road North |  |
| A - A29 Nyton Road South | 1.000                    | 1.012               | 1.020                    |  |
| B - B2233 Slip Road      | 1.008                    | 1.000               | 1.000                    |  |
| C - A29 Nyton Road North | 1.021                    | 1.000               | 1.000                    |  |

## Detailed Demand Data

### Demand for each time segment

| Arm                      | Time Segment | Demand (Veh/hr) | Demand in PCU (PCU/hr) |
|--------------------------|--------------|-----------------|------------------------|
| A - A29 Nyton Road South | 16:45-17:00  | 478             | 487                    |
|                          | 17:00-17:15  | 571             | 581                    |
|                          | 17:15-17:30  | 700             | 712                    |
|                          | 17:30-17:45  | 700             | 712                    |
|                          | 17:45-18:00  | 571             | 581                    |
|                          | 18:00-18:15  | 478             | 487                    |
| B - B2233 Slip Road      | 16:45-17:00  | 106             | 107                    |
|                          | 17:00-17:15  | 127             | 128                    |
|                          | 17:15-17:30  | 155             | 156                    |
|                          | 17:30-17:45  | 155             | 156                    |
|                          | 17:45-18:00  | 127             | 128                    |
|                          | 18:00-18:15  | 106             | 107                    |
| C - A29 Nyton Road North | 16:45-17:00  | 462             | 472                    |
|                          | 17:00-17:15  | 552             | 563                    |
|                          | 17:15-17:30  | 676             | 690                    |
|                          | 17:30-17:45  | 676             | 690                    |
|                          | 17:45-18:00  | 552             | 563                    |
|                          | 18:00-18:15  | 462             | 472                    |

## Results

### Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|--------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| B-C    | 0.00    | 0.00          | 0.0             | A       | 0                       | 0                             |
| B-A    | 0.51    | 24.21         | 1.0             | C       | 130                     | 194                           |
| C-AB   | 0.00    | 0.00          | 0.0             | A       | 0                       | 0                             |
| C-A    |         |               |                 |         | 563                     | 845                           |
| A-B    |         |               |                 |         | 143                     | 214                           |
| A-C    |         |               |                 |         | 441                     | 661                           |

### Main Results for each time segment

#### 16:45 - 17:00

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-C    | 0                     | 0                       | 550               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| B-A    | 106                   | 27                      | 387               | 0.275 | 105                 | 0.0               | 0.4             | 12.714    | B                             |
| C-AB   | 0                     | 0                       | 1007              | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| C-A    | 462                   | 116                     |                   |       | 462                 |                   |                 |           |                               |
| A-B    | 117                   | 29                      |                   |       | 117                 |                   |                 |           |                               |
| A-C    | 381                   | 90                      |                   |       | 381                 |                   |                 |           |                               |

**17:00 - 17:15**

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-C    | 0                     | 0                       | 517               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| B-A    | 127                   | 32                      | 352               | 0.361 | 126                 | 0.4               | 0.6             | 15.903    | C                             |
| C-AB   | 0                     | 0                       | 963               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| C-A    | 552                   | 138                     |                   |       | 552                 |                   |                 |           |                               |
| A-B    | 140                   | 35                      |                   |       | 140                 |                   |                 |           |                               |
| A-C    | 432                   | 108                     |                   |       | 432                 |                   |                 |           |                               |

**17:15 - 17:30**

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-C    | 0                     | 0                       | 470               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| B-A    | 155                   | 39                      | 304               | 0.512 | 154                 | 0.6               | 1.0             | 23.696    | C                             |
| C-AB   | 0                     | 0                       | 903               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| C-A    | 676                   | 169                     |                   |       | 676                 |                   |                 |           |                               |
| A-B    | 171                   | 43                      |                   |       | 171                 |                   |                 |           |                               |
| A-C    | 529                   | 132                     |                   |       | 529                 |                   |                 |           |                               |

**17:30 - 17:45**

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-C    | 0                     | 0                       | 469               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| B-A    | 155                   | 39                      | 304               | 0.512 | 155                 | 1.0               | 1.0             | 24.210    | C                             |
| C-AB   | 0                     | 0                       | 903               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| C-A    | 676                   | 169                     |                   |       | 676                 |                   |                 |           |                               |
| A-B    | 171                   | 43                      |                   |       | 171                 |                   |                 |           |                               |
| A-C    | 529                   | 132                     |                   |       | 529                 |                   |                 |           |                               |

**17:45 - 18:00**

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-C    | 0                     | 0                       | 516               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| B-A    | 127                   | 32                      | 352               | 0.361 | 129                 | 1.0               | 0.6             | 16.259    | C                             |
| C-AB   | 0                     | 0                       | 963               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| C-A    | 552                   | 138                     |                   |       | 552                 |                   |                 |           |                               |
| A-B    | 140                   | 35                      |                   |       | 140                 |                   |                 |           |                               |
| A-C    | 432                   | 108                     |                   |       | 432                 |                   |                 |           |                               |

**18:00 - 18:15**

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-C    | 0                     | 0                       | 549               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| B-A    | 106                   | 27                      | 387               | 0.275 | 107                 | 0.6               | 0.4             | 12.915    | B                             |
| C-AB   | 0                     | 0                       | 1007              | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| C-A    | 462                   | 116                     |                   |       | 462                 |                   |                 |           |                               |
| A-B    | 117                   | 29                      |                   |       | 117                 |                   |                 |           |                               |
| A-C    | 361                   | 90                      |                   |       | 361                 |                   |                 |           |                               |

# 2023\_Option 1+Option 2, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

| Junction | Name                 | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|----------|----------------------|---------------|----------------------|-----------------------|--------------------|--------------|
| J3b      | B2233 Slip road/ A29 | T-Junction    | Two-way              |                       | 1.16               | A            |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name          | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|----|------------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D3 | 2023_Option 1+Option 2 | AM               | ONE HOUR             | 07:45              | 09:15               | 15                        | ✓                 |

| Vehicle mix varies over turn | Vehicle mix varies over entry | Vehicle mix source | PCU Factor for a HV (PCU) |
|------------------------------|-------------------------------|--------------------|---------------------------|
| ✓                            | ✓                             | HV Percentages     | 2.00                      |

### Demand overview (Traffic)

| Arm                      | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|--------------------------|------------|--------------|--------------|-------------------------|--------------------|
| A - A29 Nyton Road South |            | ONE HOUR     | ✓            | 438                     | 100.000            |
| B - B2233 Slip Road      |            | ONE HOUR     | ✓            | 68                      | 100.000            |
| C - A29 Nyton Road North |            | ONE HOUR     | ✓            | 71                      | 100.000            |

## Origin-Destination Data

### Demand (Veh/hr)

| From                     | To                       |                     |                          |  |
|--------------------------|--------------------------|---------------------|--------------------------|--|
|                          | A - A29 Nyton Road South | B - B2233 Slip Road | C - A29 Nyton Road North |  |
| A - A29 Nyton Road South | 0                        | 266                 | 173                      |  |
| B - B2233 Slip Road      | 68                       | 0                   | 0                        |  |
| C - A29 Nyton Road North | 71                       | 0                   | 0                        |  |

### Proportions

| From                     | To                       |                     |                          |  |
|--------------------------|--------------------------|---------------------|--------------------------|--|
|                          | A - A29 Nyton Road South | B - B2233 Slip Road | C - A29 Nyton Road North |  |
| A - A29 Nyton Road South | 0.00                     | 0.61                | 0.39                     |  |
| B - B2233 Slip Road      | 1.00                     | 0.00                | 0.00                     |  |
| C - A29 Nyton Road North | 1.00                     | 0.00                | 0.00                     |  |

## Vehicle Mix

### Heavy Vehicle Percentages

| From                     | To                       |                     |                          |  |
|--------------------------|--------------------------|---------------------|--------------------------|--|
|                          | A - A29 Nyton Road South | B - B2233 Slip Road | C - A29 Nyton Road North |  |
| A - A29 Nyton Road South | 0                        | 2                   | 5                        |  |
| B - B2233 Slip Road      | 6                        | 0                   | 0                        |  |
| C - A29 Nyton Road North | 4                        | 0                   | 0                        |  |

### Average PCU Per Veh

| From                     | To                       |                     |                          |  |
|--------------------------|--------------------------|---------------------|--------------------------|--|
|                          | A - A29 Nyton Road South | B - B2233 Slip Road | C - A29 Nyton Road North |  |
| A - A29 Nyton Road South | 1.000                    | 1.023               | 1.047                    |  |
| B - B2233 Slip Road      | 1.063                    | 1.000               | 1.000                    |  |
| C - A29 Nyton Road North | 1.038                    | 1.000               | 1.000                    |  |



## Detailed Demand Data

### Demand for each time segment

| Arm                      | Time Segment | Demand (Veh/hr) | Demand in PCU (PCU/hr) |
|--------------------------|--------------|-----------------|------------------------|
| A - A29 Nyton Road South | 07:45-08:00  | 330             | 341                    |
|                          | 08:00-08:15  | 394             | 407                    |
|                          | 08:15-08:30  | 483             | 498                    |
|                          | 08:30-08:45  | 483             | 498                    |
|                          | 08:45-09:00  | 394             | 407                    |
|                          | 09:00-09:15  | 330             | 341                    |
| B - B2233 Slip Road      | 07:45-08:00  | 51              | 54                     |
|                          | 08:00-08:15  | 61              | 65                     |
|                          | 08:15-08:30  | 75              | 79                     |
|                          | 08:30-08:45  | 75              | 79                     |
|                          | 08:45-09:00  | 61              | 65                     |
|                          | 09:00-09:15  | 51              | 54                     |
| C - A29 Nyton Road North | 07:45-08:00  | 53              | 55                     |
|                          | 08:00-08:15  | 64              | 66                     |
|                          | 08:15-08:30  | 78              | 81                     |
|                          | 08:30-08:45  | 78              | 81                     |
|                          | 08:45-09:00  | 64              | 66                     |
|                          | 09:00-09:15  | 53              | 55                     |

## Results

### Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|--------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| B-C    | 0.00    | 0.00          | 0.0             | A       | 0                       | 0                             |
| B-A    | 0.17    | 9.66          | 0.2             | A       | 62                      | 93                            |
| C-AB   | 0.00    | 0.00          | 0.0             | A       | 0                       | 0                             |
| C-A    |         |               |                 |         | 65                      | 98                            |
| A-B    |         |               |                 |         | 244                     | 366                           |
| A-C    |         |               |                 |         | 158                     | 238                           |

### Main Results for each time segment

#### 07:45 - 08:00

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-C    | 0                     | 0                       | 625               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| B-A    | 51                    | 13                      | 475               | 0.108 | 51                  | 0.0               | 0.1             | 8.471     | A                             |
| C-AB   | 0                     | 0                       | 1074              | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| C-A    | 53                    | 13                      |                   |       | 53                  |                   |                 |           |                               |
| A-B    | 200                   | 50                      |                   |       | 200                 |                   |                 |           |                               |
| A-C    | 130                   | 33                      |                   |       | 130                 |                   |                 |           |                               |

**08:00 - 08:15**

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-C    | 0                     | 0                       | 610               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| B-A    | 61                    | 15                      | 463               | 0.132 | 61                  | 0.1               | 0.1             | 8.938     | A                             |
| C-AB   | 0                     | 0                       | 1044              | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| C-A    | 64                    | 16                      |                   |       | 64                  |                   |                 |           |                               |
| A-B    | 239                   | 60                      |                   |       | 239                 |                   |                 |           |                               |
| A-C    | 155                   | 39                      |                   |       | 155                 |                   |                 |           |                               |

**08:15 - 08:30**

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-C    | 0                     | 0                       | 590               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| B-A    | 75                    | 19                      | 447               | 0.167 | 75                  | 0.1               | 0.2             | 9.648     | A                             |
| C-AB   | 0                     | 0                       | 1002              | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| C-A    | 78                    | 20                      |                   |       | 78                  |                   |                 |           |                               |
| A-B    | 293                   | 73                      |                   |       | 293                 |                   |                 |           |                               |
| A-C    | 190                   | 48                      |                   |       | 190                 |                   |                 |           |                               |

**08:30 - 08:45**

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-C    | 0                     | 0                       | 590               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| B-A    | 75                    | 19                      | 447               | 0.167 | 75                  | 0.2               | 0.2             | 9.658     | A                             |
| C-AB   | 0                     | 0                       | 1002              | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| C-A    | 78                    | 20                      |                   |       | 78                  |                   |                 |           |                               |
| A-B    | 293                   | 73                      |                   |       | 293                 |                   |                 |           |                               |
| A-C    | 190                   | 48                      |                   |       | 190                 |                   |                 |           |                               |

**08:45 - 09:00**

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-C    | 0                     | 0                       | 610               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| B-A    | 61                    | 15                      | 463               | 0.132 | 61                  | 0.2               | 0.2             | 8.953     | A                             |
| C-AB   | 0                     | 0                       | 1044              | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| C-A    | 64                    | 16                      |                   |       | 64                  |                   |                 |           |                               |
| A-B    | 239                   | 60                      |                   |       | 239                 |                   |                 |           |                               |
| A-C    | 155                   | 39                      |                   |       | 155                 |                   |                 |           |                               |

**09:00 - 09:15**

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-C    | 0                     | 0                       | 625               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| B-A    | 51                    | 13                      | 475               | 0.108 | 51                  | 0.2               | 0.1             | 8.496     | A                             |
| C-AB   | 0                     | 0                       | 1074              | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| C-A    | 53                    | 13                      |                   |       | 53                  |                   |                 |           |                               |
| A-B    | 200                   | 50                      |                   |       | 200                 |                   |                 |           |                               |
| A-C    | 130                   | 33                      |                   |       | 130                 |                   |                 |           |                               |

# 2023\_Option 1+Option 2, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

| Junction | Name                 | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|----------|----------------------|---------------|----------------------|-----------------------|--------------------|--------------|
| J3b      | B2233 Slip road/ A29 | T-Junction    | Two-way              |                       | 2.95               | A            |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name          | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|----|------------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D4 | 2023_Option 1+Option 2 | PM               | ONE HOUR             | 18:45              | 18:15               | 15                        | ✓                 |

| Vehicle mix varies over turn | Vehicle mix varies over entry | Vehicle mix source | PCU Factor for a HV (PCU) |
|------------------------------|-------------------------------|--------------------|---------------------------|
| ✓                            | ✓                             | HV Percentages     | 2.00                      |

### Demand overview (Traffic)

| Arm                      | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|--------------------------|------------|--------------|--------------|-------------------------|--------------------|
| A - A29 Nyton Road South |            | ONE HOUR     | ✓            | 232                     | 100.000            |
| B - B2233 Slip Road      |            | ONE HOUR     | ✓            | 142                     | 100.000            |
| C - A29 Nyton Road North |            | ONE HOUR     | ✓            | 111                     | 100.000            |

## Origin-Destination Data

### Demand (Veh/hr)

| From                     | To                       |                     |                          |  |
|--------------------------|--------------------------|---------------------|--------------------------|--|
|                          | A - A29 Nyton Road South | B - B2233 Slip Road | C - A29 Nyton Road North |  |
| A - A29 Nyton Road South | 0                        | 160                 | 72                       |  |
| B - B2233 Slip Road      | 142                      | 0                   | 0                        |  |
| C - A29 Nyton Road North | 111                      | 0                   | 0                        |  |

### Proportions

| From                     | To                       |                     |                          |  |
|--------------------------|--------------------------|---------------------|--------------------------|--|
|                          | A - A29 Nyton Road South | B - B2233 Slip Road | C - A29 Nyton Road North |  |
| A - A29 Nyton Road South | 0.00                     | 0.69                | 0.31                     |  |
| B - B2233 Slip Road      | 1.00                     | 0.00                | 0.00                     |  |
| C - A29 Nyton Road North | 1.00                     | 0.00                | 0.00                     |  |

## Vehicle Mix

### Heavy Vehicle Percentages

| From                     | To                       |                     |                          |  |
|--------------------------|--------------------------|---------------------|--------------------------|--|
|                          | A - A29 Nyton Road South | B - B2233 Slip Road | C - A29 Nyton Road North |  |
| A - A29 Nyton Road South | 0                        | 1                   | 4                        |  |
| B - B2233 Slip Road      | 1                        | 0                   | 0                        |  |
| C - A29 Nyton Road North | 5                        | 0                   | 0                        |  |

### Average PCU Per Veh

| From                     | To                       |                     |                          |  |
|--------------------------|--------------------------|---------------------|--------------------------|--|
|                          | A - A29 Nyton Road South | B - B2233 Slip Road | C - A29 Nyton Road North |  |
| A - A29 Nyton Road South | 1.000                    | 1.012               | 1.037                    |  |
| B - B2233 Slip Road      | 1.008                    | 1.000               | 1.000                    |  |
| C - A29 Nyton Road North | 1.055                    | 1.000               | 1.000                    |  |

## Detailed Demand Data

### Demand for each time segment

| Arm                      | Time Segment | Demand (Veh/hr) | Demand in PCU (PCU/hr) |
|--------------------------|--------------|-----------------|------------------------|
| A - A29 Nyton Road South | 16:45-17:00  | 175             | 178                    |
|                          | 17:00-17:15  | 208             | 213                    |
|                          | 17:15-17:30  | 255             | 280                    |
|                          | 17:30-17:45  | 255             | 280                    |
|                          | 17:45-18:00  | 208             | 213                    |
|                          | 18:00-18:15  | 175             | 178                    |
| B - B2233 Slip Road      | 16:45-17:00  | 107             | 107                    |
|                          | 17:00-17:15  | 127             | 128                    |
|                          | 17:15-17:30  | 156             | 157                    |
|                          | 17:30-17:45  | 156             | 157                    |
|                          | 17:45-18:00  | 127             | 128                    |
|                          | 18:00-18:15  | 107             | 107                    |
| C - A29 Nyton Road North | 16:45-17:00  | 83              | 88                     |
|                          | 17:00-17:15  | 99              | 105                    |
|                          | 17:15-17:30  | 122             | 128                    |
|                          | 17:30-17:45  | 122             | 128                    |
|                          | 17:45-18:00  | 99              | 105                    |
|                          | 18:00-18:15  | 83              | 88                     |

## Results

### Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|--------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| B-C    | 0.00    | 0.00          | 0.0             | A       | 0                       | 0                             |
| B-A    | 0.31    | 10.26         | 0.4             | B       | 130                     | 195                           |
| C-AB   | 0.00    | 0.00          | 0.0             | A       | 0                       | 0                             |
| C-A    |         |               |                 |         | 101                     | 152                           |
| A-B    |         |               |                 |         | 147                     | 221                           |
| A-C    |         |               |                 |         | 66                      | 98                            |

### Main Results for each time segment

#### 16:45 - 17:00

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-C    | 0                     | 0                       | 638               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| B-A    | 107                   | 27                      | 525               | 0.203 | 106                 | 0.0               | 0.3             | 8.557     | A                             |
| C-AB   | 0                     | 0                       | 1149              | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| C-A    | 83                    | 21                      |                   |       | 83                  |                   |                 |           |                               |
| A-B    | 121                   | 30                      |                   |       | 121                 |                   |                 |           |                               |
| A-C    | 54                    | 13                      |                   |       | 54                  |                   |                 |           |                               |

**17:00 - 17:15**

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-C    | 0                     | 0                       | 625               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| B-A    | 127                   | 32                      | 518               | 0.246 | 127                 | 0.3               | 0.3             | 9.212     | A                             |
| C-AB   | 0                     | 0                       | 1133              | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| C-A    | 99                    | 25                      |                   |       | 99                  |                   |                 |           |                               |
| A-B    | 144                   | 38                      |                   |       | 144                 |                   |                 |           |                               |
| A-C    | 64                    | 16                      |                   |       | 64                  |                   |                 |           |                               |

**17:15 - 17:30**

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-C    | 0                     | 0                       | 608               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| B-A    | 156                   | 39                      | 507               | 0.308 | 156                 | 0.3               | 0.4             | 10.235    | B                             |
| C-AB   | 0                     | 0                       | 1111              | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| C-A    | 122                   | 30                      |                   |       | 122                 |                   |                 |           |                               |
| A-B    | 176                   | 44                      |                   |       | 176                 |                   |                 |           |                               |
| A-C    | 79                    | 20                      |                   |       | 79                  |                   |                 |           |                               |

**17:30 - 17:45**

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-C    | 0                     | 0                       | 608               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| B-A    | 156                   | 39                      | 507               | 0.308 | 156                 | 0.4               | 0.4             | 10.281    | B                             |
| C-AB   | 0                     | 0                       | 1111              | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| C-A    | 122                   | 30                      |                   |       | 122                 |                   |                 |           |                               |
| A-B    | 176                   | 44                      |                   |       | 176                 |                   |                 |           |                               |
| A-C    | 79                    | 20                      |                   |       | 79                  |                   |                 |           |                               |

**17:45 - 18:00**

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-C    | 0                     | 0                       | 625               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| B-A    | 127                   | 32                      | 518               | 0.246 | 128                 | 0.4               | 0.3             | 9.248     | A                             |
| C-AB   | 0                     | 0                       | 1133              | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| C-A    | 99                    | 25                      |                   |       | 99                  |                   |                 |           |                               |
| A-B    | 144                   | 38                      |                   |       | 144                 |                   |                 |           |                               |
| A-C    | 64                    | 16                      |                   |       | 64                  |                   |                 |           |                               |

**18:00 - 18:15**

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-C    | 0                     | 0                       | 637               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| B-A    | 107                   | 27                      | 525               | 0.203 | 107                 | 0.3               | 0.3             | 8.609     | A                             |
| C-AB   | 0                     | 0                       | 1149              | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| C-A    | 83                    | 21                      |                   |       | 83                  |                   |                 |           |                               |
| A-B    | 121                   | 30                      |                   |       | 121                 |                   |                 |           |                               |
| A-C    | 54                    | 13                      |                   |       | 54                  |                   |                 |           |                               |

# 2038\_Option 1, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

| Junction | Name                 | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|----------|----------------------|---------------|----------------------|-----------------------|--------------------|--------------|
| J3b      | B2233 Slip road/ A29 | T-Junction    | Two-way              |                       | 0.88               | A            |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|----|---------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D5 | 2038_Option 1 | AM               | ONE HOUR             | 07:45              | 09:15               | 15                        | ✓                 |

| Vehicle mix varies over turn | Vehicle mix varies over entry | Vehicle mix source | PCU Factor for a HV (PCU) |
|------------------------------|-------------------------------|--------------------|---------------------------|
| ✓                            | ✓                             | HV Percentages     | 2.00                      |

### Demand overview (Traffic)

| Arm                      | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|--------------------------|------------|--------------|--------------|-------------------------|--------------------|
| A - A29 Nyton Road South |            | ONE HOUR     | ✓            | 963                     | 100.000            |
| B - B2233 Slip Road      |            | ONE HOUR     | ✓            | 57                      | 100.000            |
| C - A29 Nyton Road North |            | ONE HOUR     | ✓            | 653                     | 100.000            |

## Origin-Destination Data

### Demand (Veh/hr)

|      |                          | To                       |                     |                          |
|------|--------------------------|--------------------------|---------------------|--------------------------|
|      |                          | A - A29 Nyton Road South | B - B2233 Slip Road | C - A29 Nyton Road North |
| From | A - A29 Nyton Road South | 0                        | 290                 | 673                      |
|      | B - B2233 Slip Road      | 57                       | 0                   | 0                        |
|      | C - A29 Nyton Road North | 653                      | 0                   | 0                        |

### Proportions

|      |                          | To                       |                     |                          |
|------|--------------------------|--------------------------|---------------------|--------------------------|
|      |                          | A - A29 Nyton Road South | B - B2233 Slip Road | C - A29 Nyton Road North |
| From | A - A29 Nyton Road South | 0.00                     | 0.30                | 0.70                     |
|      | B - B2233 Slip Road      | 1.00                     | 0.00                | 0.00                     |
|      | C - A29 Nyton Road North | 1.00                     | 0.00                | 0.00                     |

## Vehicle Mix

### Heavy Vehicle Percentages

|      |                          | To                       |                     |                          |
|------|--------------------------|--------------------------|---------------------|--------------------------|
|      |                          | A - A29 Nyton Road South | B - B2233 Slip Road | C - A29 Nyton Road North |
| From | A - A29 Nyton Road South | 0                        | 2                   | 3                        |
|      | B - B2233 Slip Road      | 8                        | 0                   | 0                        |
|      | C - A29 Nyton Road North | 3                        | 0                   | 0                        |

### Average PCU Per Veh

|      |                          | To                       |                     |                          |
|------|--------------------------|--------------------------|---------------------|--------------------------|
|      |                          | A - A29 Nyton Road South | B - B2233 Slip Road | C - A29 Nyton Road North |
| From | A - A29 Nyton Road South | 1.000                    | 1.022               | 1.034                    |
|      | B - B2233 Slip Road      | 1.077                    | 1.000               | 1.000                    |
|      | C - A29 Nyton Road North | 1.029                    | 1.000               | 1.000                    |

## Detailed Demand Data

### Demand for each time segment

| Arm                      | Time Segment | Demand (Veh/hr) | Demand in PCU (PCU/hr) |
|--------------------------|--------------|-----------------|------------------------|
| A - A29 Nyton Road South | 07:45-08:00  | 725             | 747                    |
|                          | 08:00-08:15  | 886             | 892                    |
|                          | 08:15-08:30  | 1080            | 1092                   |
|                          | 08:30-08:45  | 1080            | 1092                   |
|                          | 08:45-09:00  | 886             | 892                    |
|                          | 09:00-09:15  | 725             | 747                    |
| B - B2233 Slip Road      | 07:45-08:00  | 43              | 47                     |
|                          | 08:00-08:15  | 52              | 56                     |
|                          | 08:15-08:30  | 63              | 68                     |
|                          | 08:30-08:45  | 63              | 68                     |
|                          | 08:45-09:00  | 52              | 56                     |
|                          | 09:00-09:15  | 43              | 47                     |
| C - A29 Nyton Road North | 07:45-08:00  | 492             | 506                    |
|                          | 08:00-08:15  | 587             | 604                    |
|                          | 08:15-08:30  | 719             | 740                    |
|                          | 08:30-08:45  | 719             | 740                    |
|                          | 08:45-09:00  | 587             | 604                    |
|                          | 09:00-09:15  | 492             | 506                    |

## Results

### Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|--------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| B-C    | 0.00    | 0.00          | 0.0             | A       | 0                       | 0                             |
| B-A    | 0.30    | 24.70         | 0.4             | C       | 53                      | 79                            |
| C-AB   | 0.00    | 0.00          | 0.0             | A       | 0                       | 0                             |
| C-A    |         |               |                 |         | 600                     | 899                           |
| A-B    |         |               |                 |         | 266                     | 400                           |
| A-C    |         |               |                 |         | 617                     | 926                           |

### Main Results for each time segment

#### 07:45 - 08:00

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-C    | 0                     | 0                       | 520               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| B-A    | 43                    | 11                      | 310               | 0.139 | 43                  | 0.0               | 0.2             | 13.455    | B                             |
| C-AB   | 0                     | 0                       | 887               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| C-A    | 492                   | 123                     |                   |       | 492                 |                   |                 |           |                               |
| A-B    | 219                   | 55                      |                   |       | 219                 |                   |                 |           |                               |
| A-C    | 506                   | 127                     |                   |       | 506                 |                   |                 |           |                               |

**08:00 - 08:15**

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-C    | 0                     | 0                       | 483               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| B-A    | 52                    | 13                      | 287               | 0.193 | 51                  | 0.2               | 0.2             | 16.637    | C                             |
| C-AB   | 0                     | 0                       | 820               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| C-A    | 587                   | 147                     |                   |       | 587                 |                   |                 |           |                               |
| A-B    | 261                   | 65                      |                   |       | 261                 |                   |                 |           |                               |
| A-C    | 605                   | 151                     |                   |       | 605                 |                   |                 |           |                               |

**08:15 - 08:30**

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-C    | 0                     | 0                       | 429               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| B-A    | 63                    | 16                      | 209               | 0.302 | 62                  | 0.2               | 0.4             | 24.471    | C                             |
| C-AB   | 0                     | 0                       | 728               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| C-A    | 719                   | 180                     |                   |       | 719                 |                   |                 |           |                               |
| A-B    | 320                   | 80                      |                   |       | 320                 |                   |                 |           |                               |
| A-C    | 741                   | 185                     |                   |       | 741                 |                   |                 |           |                               |

**08:30 - 08:45**

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-C    | 0                     | 0                       | 429               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| B-A    | 63                    | 16                      | 209               | 0.302 | 63                  | 0.4               | 0.4             | 24.700    | C                             |
| C-AB   | 0                     | 0                       | 728               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| C-A    | 719                   | 180                     |                   |       | 719                 |                   |                 |           |                               |
| A-B    | 320                   | 80                      |                   |       | 320                 |                   |                 |           |                               |
| A-C    | 741                   | 185                     |                   |       | 741                 |                   |                 |           |                               |

**08:45 - 09:00**

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-C    | 0                     | 0                       | 483               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| B-A    | 52                    | 13                      | 287               | 0.193 | 52                  | 0.4               | 0.2             | 16.795    | C                             |
| C-AB   | 0                     | 0                       | 820               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| C-A    | 587                   | 147                     |                   |       | 587                 |                   |                 |           |                               |
| A-B    | 261                   | 65                      |                   |       | 261                 |                   |                 |           |                               |
| A-C    | 605                   | 151                     |                   |       | 605                 |                   |                 |           |                               |

**09:00 - 09:15**

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-C    | 0                     | 0                       | 520               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| B-A    | 43                    | 11                      | 310               | 0.139 | 43                  | 0.2               | 0.2             | 13.541    | B                             |
| C-AB   | 0                     | 0                       | 887               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| C-A    | 492                   | 123                     |                   |       | 492                 |                   |                 |           |                               |
| A-B    | 219                   | 55                      |                   |       | 219                 |                   |                 |           |                               |
| A-C    | 506                   | 127                     |                   |       | 506                 |                   |                 |           |                               |



# 2038\_Option 1, PM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

| Junction | Name                 | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|----------|----------------------|---------------|----------------------|-----------------------|--------------------|--------------|
| J3b      | B2233 Slip road/ A29 | T-Junction    | Two-way              |                       | 1.54               | A            |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|----|---------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D6 | 2038_Option 1 | PM               | ONE HOUR             | 16:45              | 18:15               | 15                        | ✓                 |

| Vehicle mix varies over turn | Vehicle mix varies over entry | Vehicle mix source | PCU Factor for a HV (PCU) |
|------------------------------|-------------------------------|--------------------|---------------------------|
| ✓                            | ✓                             | HV Percentages     | 2.00                      |

### Demand overview (Traffic)

| Arm                      | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|--------------------------|------------|--------------|--------------|-------------------------|--------------------|
| A - A29 Nyton Road South |            | ONE HOUR     | ✓            | 773                     | 100.000            |
| B - B2233 Slip Road      |            | ONE HOUR     | ✓            | 98                      | 100.000            |
| C - A29 Nyton Road North |            | ONE HOUR     | ✓            | 752                     | 100.000            |

## Origin-Destination Data

### Demand (Veh/hr)

| From                     | To                       |                     |                          |  |
|--------------------------|--------------------------|---------------------|--------------------------|--|
|                          | A - A29 Nyton Road South | B - B2233 Slip Road | C - A29 Nyton Road North |  |
| A - A29 Nyton Road South | 0                        | 196                 | 578                      |  |
| B - B2233 Slip Road      | 98                       | 0                   | 0                        |  |
| C - A29 Nyton Road North | 752                      | 0                   | 0                        |  |

### Proportions

| From                     | To                       |                     |                          |  |
|--------------------------|--------------------------|---------------------|--------------------------|--|
|                          | A - A29 Nyton Road South | B - B2233 Slip Road | C - A29 Nyton Road North |  |
| A - A29 Nyton Road South | 0.00                     | 0.25                | 0.75                     |  |
| B - B2233 Slip Road      | 1.00                     | 0.00                | 0.00                     |  |
| C - A29 Nyton Road North | 1.00                     | 0.00                | 0.00                     |  |

## Vehicle Mix

### Heavy Vehicle Percentages

| From                     | To                       |                     |                          |  |
|--------------------------|--------------------------|---------------------|--------------------------|--|
|                          | A - A29 Nyton Road South | B - B2233 Slip Road | C - A29 Nyton Road North |  |
| A - A29 Nyton Road South | 0                        | 1                   | 2                        |  |
| B - B2233 Slip Road      | 1                        | 0                   | 0                        |  |
| C - A29 Nyton Road North | 2                        | 0                   | 0                        |  |

### Average PCU Per Veh

| From                     | To                       |                     |                          |  |
|--------------------------|--------------------------|---------------------|--------------------------|--|
|                          | A - A29 Nyton Road South | B - B2233 Slip Road | C - A29 Nyton Road North |  |
| A - A29 Nyton Road South | 1.000                    | 1.010               | 1.016                    |  |
| B - B2233 Slip Road      | 1.009                    | 1.000               | 1.000                    |  |
| C - A29 Nyton Road North | 1.018                    | 1.000               | 1.000                    |  |

## Detailed Demand Data

### Demand for each time segment

| Arm                      | Time Segment | Demand (Veh/hr) | Demand in PCU (PCU/hr) |
|--------------------------|--------------|-----------------|------------------------|
| A - A29 Nyton Road South | 16:45-17:00  | 582             | 590                    |
|                          | 17:00-17:15  | 695             | 705                    |
|                          | 17:15-17:30  | 851             | 864                    |
|                          | 17:30-17:45  | 851             | 864                    |
|                          | 17:45-18:00  | 695             | 705                    |
|                          | 18:00-18:15  | 582             | 590                    |
| B - B2233 Slip Road      | 16:45-17:00  | 74              | 74                     |
|                          | 17:00-17:15  | 88              | 89                     |
|                          | 17:15-17:30  | 108             | 109                    |
|                          | 17:30-17:45  | 108             | 109                    |
|                          | 17:45-18:00  | 88              | 89                     |
|                          | 18:00-18:15  | 74              | 74                     |
| C - A29 Nyton Road North | 16:45-17:00  | 586             | 576                    |
|                          | 17:00-17:15  | 676             | 688                    |
|                          | 17:15-17:30  | 827             | 842                    |
|                          | 17:30-17:45  | 827             | 842                    |
|                          | 17:45-18:00  | 676             | 688                    |
|                          | 18:00-18:15  | 586             | 576                    |

## Results

### Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|--------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| B-C    | 0.00    | 0.00          | 0.0             | A       | 0                       | 0                             |
| B-A    | 0.44    | 25.70         | 0.8             | D       | 90                      | 135                           |
| C-AB   | 0.00    | 0.00          | 0.0             | A       | 0                       | 0                             |
| C-A    |         |               |                 |         | 690                     | 1034                          |
| A-B    |         |               |                 |         | 179                     | 269                           |
| A-C    |         |               |                 |         | 530                     | 795                           |

### Main Results for each time segment

#### 16:45 - 17:00

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-C    | 0                     | 0                       | 538               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| B-A    | 74                    | 18                      | 348               | 0.212 | 73                  | 0.0               | 0.3             | 13.041    | B                             |
| C-AB   | 0                     | 0                       | 959               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| C-A    | 586                   | 141                     |                   |       | 586                 |                   |                 |           |                               |
| A-B    | 147                   | 37                      |                   |       | 147                 |                   |                 |           |                               |
| A-C    | 435                   | 109                     |                   |       | 435                 |                   |                 |           |                               |

**17:00 - 17:15**

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-C    | 0                     | 0                       | 503               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| B-A    | 88                    | 22                      | 306               | 0.288 | 88                  | 0.3               | 0.4             | 16.459    | C                             |
| C-AB   | 0                     | 0                       | 906               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| C-A    | 676                   | 169                     |                   |       | 676                 |                   |                 |           |                               |
| A-B    | 176                   | 44                      |                   |       | 176                 |                   |                 |           |                               |
| A-C    | 519                   | 130                     |                   |       | 519                 |                   |                 |           |                               |

**17:15 - 17:30**

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-C    | 0                     | 0                       | 452               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| B-A    | 108                   | 27                      | 248               | 0.435 | 108                 | 0.4               | 0.7             | 25.249    | D                             |
| C-AB   | 0                     | 0                       | 834               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| C-A    | 827                   | 207                     |                   |       | 827                 |                   |                 |           |                               |
| A-B    | 215                   | 54                      |                   |       | 215                 |                   |                 |           |                               |
| A-C    | 636                   | 159                     |                   |       | 636                 |                   |                 |           |                               |

**17:30 - 17:45**

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-C    | 0                     | 0                       | 451               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| B-A    | 108                   | 27                      | 248               | 0.435 | 108                 | 0.7               | 0.8             | 25.696    | D                             |
| C-AB   | 0                     | 0                       | 834               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| C-A    | 827                   | 207                     |                   |       | 827                 |                   |                 |           |                               |
| A-B    | 215                   | 54                      |                   |       | 215                 |                   |                 |           |                               |
| A-C    | 636                   | 159                     |                   |       | 636                 |                   |                 |           |                               |

**17:45 - 18:00**

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-C    | 0                     | 0                       | 502               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| B-A    | 88                    | 22                      | 306               | 0.288 | 89                  | 0.8               | 0.4             | 16.741    | C                             |
| C-AB   | 0                     | 0                       | 906               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| C-A    | 676                   | 169                     |                   |       | 676                 |                   |                 |           |                               |
| A-B    | 176                   | 44                      |                   |       | 176                 |                   |                 |           |                               |
| A-C    | 519                   | 130                     |                   |       | 519                 |                   |                 |           |                               |

**18:00 - 18:15**

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-C    | 0                     | 0                       | 537               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| B-A    | 74                    | 18                      | 348               | 0.212 | 74                  | 0.4               | 0.3             | 13.196    | B                             |
| C-AB   | 0                     | 0                       | 959               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| C-A    | 566                   | 141                     |                   |       | 566                 |                   |                 |           |                               |
| A-B    | 147                   | 37                      |                   |       | 147                 |                   |                 |           |                               |
| A-C    | 435                   | 109                     |                   |       | 435                 |                   |                 |           |                               |

# 2038\_Option 1+Option 2, AM

## Data Errors and Warnings

No errors or warnings

## Junction Network

### Junctions

| Junction | Name                 | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|----------|----------------------|---------------|----------------------|-----------------------|--------------------|--------------|
| J3b      | B2233 Slip road/ A29 | T-Junction    | Two-way              |                       | 1.05               | A            |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name          | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|----|------------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D7 | 2038_Option 1+Option 2 | AM               | ONE HOUR             | 07:45              | 09:15               | 15                        | ✓                 |

| Vehicle mix varies over turn | Vehicle mix varies over entry | Vehicle mix source | PCU Factor for a HV (PCU) |
|------------------------------|-------------------------------|--------------------|---------------------------|
| ✓                            | ✓                             | HV Percentages     | 2.00                      |

### Demand overview (Traffic)

| Arm                      | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|--------------------------|------------|--------------|--------------|-------------------------|--------------------|
| A - A29 Nyton Road South |            | ONE HOUR     | ✓            | 712                     | 100.000            |
| B - B2233 Slip Road      |            | ONE HOUR     | ✓            | 82                      | 100.000            |
| C - A29 Nyton Road North |            | ONE HOUR     | ✓            | 79                      | 100.000            |

## Origin-Destination Data

### Demand (Veh/hr)

| From                     | To                       |                     |                          |  |
|--------------------------|--------------------------|---------------------|--------------------------|--|
|                          | A - A29 Nyton Road South | B - B2233 Slip Road | C - A29 Nyton Road North |  |
| A - A29 Nyton Road South | 0                        | 545                 | 167                      |  |
| B - B2233 Slip Road      | 82                       | 0                   | 0                        |  |
| C - A29 Nyton Road North | 79                       | 0                   | 0                        |  |

### Proportions

| From                     | To                       |                     |                          |  |
|--------------------------|--------------------------|---------------------|--------------------------|--|
|                          | A - A29 Nyton Road South | B - B2233 Slip Road | C - A29 Nyton Road North |  |
| A - A29 Nyton Road South | 0.00                     | 0.77                | 0.23                     |  |
| B - B2233 Slip Road      | 1.00                     | 0.00                | 0.00                     |  |
| C - A29 Nyton Road North | 1.00                     | 0.00                | 0.00                     |  |

## Vehicle Mix

### Heavy Vehicle Percentages

| From                     | To                       |                     |                          |  |
|--------------------------|--------------------------|---------------------|--------------------------|--|
|                          | A - A29 Nyton Road South | B - B2233 Slip Road | C - A29 Nyton Road North |  |
| A - A29 Nyton Road South | 0                        | 1                   | 9                        |  |
| B - B2233 Slip Road      | 6                        | 0                   | 0                        |  |
| C - A29 Nyton Road North | 4                        | 0                   | 0                        |  |

### Average PCU Per Veh

| From                     | To                       |                     |                          |  |
|--------------------------|--------------------------|---------------------|--------------------------|--|
|                          | A - A29 Nyton Road South | B - B2233 Slip Road | C - A29 Nyton Road North |  |
| A - A29 Nyton Road South | 1.000                    | 1.011               | 1.090                    |  |
| B - B2233 Slip Road      | 1.056                    | 1.000               | 1.000                    |  |
| C - A29 Nyton Road North | 1.037                    | 1.000               | 1.000                    |  |

## Detailed Demand Data

### Demand for each time segment

| Arm                      | Time Segment | Demand (Veh/hr) | Demand in PCU (PCU/hr) |
|--------------------------|--------------|-----------------|------------------------|
| A - A29 Nyton Road South | 07:45-08:00  | 536             | 552                    |
|                          | 08:00-08:15  | 640             | 659                    |
|                          | 08:15-08:30  | 784             | 807                    |
|                          | 08:30-08:45  | 784             | 807                    |
|                          | 08:45-09:00  | 640             | 659                    |
|                          | 09:00-09:15  | 536             | 552                    |
| B - B2233 Slip Road      | 07:45-08:00  | 62              | 65                     |
|                          | 08:00-08:15  | 74              | 78                     |
|                          | 08:15-08:30  | 90              | 95                     |
|                          | 08:30-08:45  | 90              | 95                     |
|                          | 08:45-09:00  | 74              | 78                     |
|                          | 09:00-09:15  | 62              | 65                     |
| C - A29 Nyton Road North | 07:45-08:00  | 59              | 62                     |
|                          | 08:00-08:15  | 71              | 74                     |
|                          | 08:15-08:30  | 87              | 90                     |
|                          | 08:30-08:45  | 87              | 90                     |
|                          | 08:45-09:00  | 71              | 74                     |
|                          | 09:00-09:15  | 59              | 62                     |

## Results

### Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|--------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| B-C    | 0.00    | 0.00          | 0.0             | A       | 0                       | 0                             |
| B-A    | 0.22    | 10.92         | 0.3             | B       | 75                      | 113                           |
| C-AB   | 0.00    | 0.00          | 0.0             | A       | 0                       | 0                             |
| C-A    |         |               |                 |         | 72                      | 109                           |
| A-B    |         |               |                 |         | 500                     | 750                           |
| A-C    |         |               |                 |         | 153                     | 229                           |

### Main Results for each time segment

#### 07:45 - 08:00

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-C    | 0                     | 0                       | 599               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| B-A    | 62                    | 15                      | 457               | 0.135 | 61                  | 0.0               | 0.2             | 9.069     | A                             |
| C-AB   | 0                     | 0                       | 977               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| C-A    | 59                    | 15                      |                   |       | 59                  |                   |                 |           |                               |
| A-B    | 410                   | 103                     |                   |       | 410                 |                   |                 |           |                               |
| A-C    | 125                   | 31                      |                   |       | 125                 |                   |                 |           |                               |

**08:00 - 08:15**

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-C    | 0                     | 0                       | 580               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| B-A    | 74                    | 18                      | 442               | 0.167 | 74                  | 0.2               | 0.2             | 9.773     | A                             |
| C-AB   | 0                     | 0                       | 928               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| C-A    | 71                    | 18                      |                   |       | 71                  |                   |                 |           |                               |
| A-B    | 490                   | 123                     |                   |       | 490                 |                   |                 |           |                               |
| A-C    | 150                   | 37                      |                   |       | 150                 |                   |                 |           |                               |

**08:15 - 08:30**

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-C    | 0                     | 0                       | 552               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| B-A    | 90                    | 23                      | 420               | 0.215 | 90                  | 0.2               | 0.3             | 10.903    | B                             |
| C-AB   | 0                     | 0                       | 880               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| C-A    | 87                    | 22                      |                   |       | 87                  |                   |                 |           |                               |
| A-B    | 600                   | 150                     |                   |       | 600                 |                   |                 |           |                               |
| A-C    | 183                   | 46                      |                   |       | 183                 |                   |                 |           |                               |

**08:30 - 08:45**

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-C    | 0                     | 0                       | 552               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| B-A    | 90                    | 23                      | 420               | 0.215 | 90                  | 0.3               | 0.3             | 10.922    | B                             |
| C-AB   | 0                     | 0                       | 880               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| C-A    | 87                    | 22                      |                   |       | 87                  |                   |                 |           |                               |
| A-B    | 600                   | 150                     |                   |       | 600                 |                   |                 |           |                               |
| A-C    | 183                   | 46                      |                   |       | 183                 |                   |                 |           |                               |

**08:45 - 09:00**

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-C    | 0                     | 0                       | 580               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| B-A    | 74                    | 18                      | 442               | 0.167 | 74                  | 0.3               | 0.2             | 9.799     | A                             |
| C-AB   | 0                     | 0                       | 928               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| C-A    | 71                    | 18                      |                   |       | 71                  |                   |                 |           |                               |
| A-B    | 490                   | 123                     |                   |       | 490                 |                   |                 |           |                               |
| A-C    | 150                   | 37                      |                   |       | 150                 |                   |                 |           |                               |

**09:00 - 09:15**

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-C    | 0                     | 0                       | 599               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| B-A    | 62                    | 15                      | 457               | 0.135 | 62                  | 0.2               | 0.2             | 9.106     | A                             |
| C-AB   | 0                     | 0                       | 977               | 0.000 | 0                   | 0.0               | 0.0             | 0.000     | A                             |
| C-A    | 59                    | 15                      |                   |       | 59                  |                   |                 |           |                               |
| A-B    | 410                   | 103                     |                   |       | 410                 |                   |                 |           |                               |
| A-C    | 125                   | 31                      |                   |       | 125                 |                   |                 |           |                               |