

# ARCADY 7

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File: P:\14-111 - Land West of Bisham Road, Yapton\Trans\Arcady\GLEESONS 250 Units\Main Rd-Canal Rd-Main Rd\Main Rd-Canal Rd-Main Rd GLEESON 250.arc7

Report generation date: 07/12/2017 15:09:20

## Summary of roundabout performance

| AM                                       |             |             |         | PM |             |             |         |
|------------------------------------------|-------------|-------------|---------|----|-------------|-------------|---------|
|                                          | Queue (Veh) | Delay (min) | RFC LOS |    | Queue (Veh) | Delay (min) | RFC LOS |
| (Default Analysis Set) - 2022 Base + Dev |             |             |         |    |             |             |         |
| Arm A                                    | 2.75        | 0.00        | 0.73 A  |    | 0.55        | 0.00        | 0.36 A  |
| Arm B                                    | 1.44        | 0.01        | 0.59 A  |    | 0.16        | 0.00        | 0.14 A  |
| Arm C                                    | 0.41        | 0.00        | 0.29 A  |    | 1.59        | 0.00        | 0.61 A  |
| (Default Analysis Set) - 2031 Base + Dev |             |             |         |    |             |             |         |
| Arm A                                    | 3.54        | 0.00        | 0.78 A  |    | 0.60        | 0.00        | 0.38 A  |
| Arm B                                    | 3.06        | 0.02        | 0.75 A  |    | 0.17        | 0.00        | 0.15 A  |
| Arm C                                    | 0.45        | 0.00        | 0.31 A  |    | 1.89        | 0.00        | 0.65 A  |

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

2022 Base + Dev - AM runs from 07:30:00 to 09:00:00

2022 Base + Dev - PM runs from 16:45:00 to 18:15:00

2031 Base + Dev - AM runs from 07:30:00 to 09:00:00

2031 Base + Dev - PM runs from 16:45:00 to 18:15:00

## File summary

### File Description

|             |                           |
|-------------|---------------------------|
| Title       | Main Rd-Canal Rd-Main Rd  |
| Location    | Yapton                    |
| Site Number |                           |
| Date        | 18/12/2015                |
| Version     |                           |
| Status      | Completed                 |
| Identifier  |                           |
| Client      | Gleeson                   |
| Jobnumber   | 14-110                    |
| Enumerator  | msherdan [BAS-ODYSSEY-03] |
| Description |                           |

## Analysis Options

|               |                    |                     |
|---------------|--------------------|---------------------|
| RFC Threshold | Vehicle Length (m) | Do Queue Variations |
| 0.65          | 5.75               |                     |

## Sorting and Display

|                |              |                   |              |                   |               |
|----------------|--------------|-------------------|--------------|-------------------|---------------|
| Show Arm Names | Arm Grouping | Sorting Direction | Sorting Type | Data Matrix Style | Time Style    |
|                | Order        | Ascending         | Numerical    | By Destination    | Absolute Time |

## 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                   | perMin     | min                 | -Min              | perMin              |

## A1 - (Default Analysis Set) - D3 - 2022 Base + Dev, AM

### Data Errors and Warnings

No errors or warnings

### Analysis Set Details

| Name                   | Description | Include In Report | Use Specific Demand Set | Demand Set | Locked | Network Flow Scaling Factor (%) | Network Capacity Scaling Factor (%) | Reason For Scaling Factors |
|------------------------|-------------|-------------------|-------------------------|------------|--------|---------------------------------|-------------------------------------|----------------------------|
| (Default Analysis Set) |             | Yes               |                         | (D1)       |        | 100.000                         | 100.000                             |                            |

### Demand Set Details

| Name                | Scenario Name   | Time Period Name | Description | Locked | Run Automatically | Use Relationship | Relationship | Start Time (HH:mm) | Finish Time (HH:mm) | Time Period Length (min) | Time Segment Length (min) | Traffic Profile Type |
|---------------------|-----------------|------------------|-------------|--------|-------------------|------------------|--------------|--------------------|---------------------|--------------------------|---------------------------|----------------------|
| 2022 Base + Dev, AM | 2022 Base + Dev | AM               |             |        | Yes               |                  |              | 07:30              | 09:00               | 90                       | 15                        | ONE HOUR             |

## Roundabout Network

### Roundabout Type(s)

| ID          | Name  | Arm Order       | Roundabout Type | Grade Separated | Large Roundabout | Do Geometric Delay |
|-------------|-------|-----------------|-----------------|-----------------|------------------|--------------------|
| 1 (unfiled) | A,B,C | Mini-roundabout |                 |                 |                  |                    |

### Roundabout Network Options

| Driving Side | Lighting       | Road Surface   | In London |
|--------------|----------------|----------------|-----------|
| Left         | Normal/unknown | Normal/unknown |           |

## Arms

### Arms

| ID | Name               | Description |
|----|--------------------|-------------|
| A  | B2233 Main Rd NB   |             |
| B  | Canal Road         |             |
| C  | B2233 Main Road SB |             |

### Capacity Options

| Arm | Minimum Capacity (PCU/min) | Maximum Capacity (PCU/min) | Assume Flat Start Profile | Initial Queue (PCU) |
|-----|----------------------------|----------------------------|---------------------------|---------------------|
| A   | 0.00                       | 1666.65                    |                           | 0.00                |
| B   | 0.00                       | 1666.65                    |                           | 0.00                |
| C   | 0.00                       | 1666.65                    |                           | 0.00                |

### Mini Roundabout Geometry

| Arm | Approach road half-width (m) | Minimum approach road half-width (m) | Entry width (m) | Effective flare length (m) | Distance to next arm (m) | Entry corner kerb line distance (m) | Gradient over 50m (%) | Kerbed central island |
|-----|------------------------------|--------------------------------------|-----------------|----------------------------|--------------------------|-------------------------------------|-----------------------|-----------------------|
|-----|------------------------------|--------------------------------------|-----------------|----------------------------|--------------------------|-------------------------------------|-----------------------|-----------------------|

|   |      |      |      |      |       |       |      |
|---|------|------|------|------|-------|-------|------|
| A | 3.00 | 3.00 | 4.10 | 5.00 | 11.50 | 6.30  | 0.00 |
| B | 3.20 | 3.00 | 6.50 | 5.00 | 9.50  | 6.80  | 0.00 |
| C | 3.30 | 3.30 | 3.40 | 0.50 | 18.00 | 17.00 | 0.00 |

## Pedestrian Crossings

| Arm | Crossing Type |
|-----|---------------|
| A   | None          |
| B   | None          |
| C   | None          |

## Arm Slope/ Intercept and Capacity

Slope and Intercept used in model

| Arm | Enter Directly | Slope | Intercept (PCU/min) | Final Slope | Final Intercept (PCU/min) |
|-----|----------------|-------|---------------------|-------------|---------------------------|
| A   | Yes            | 0.50  | 1750.00             | 0.500       | 1750.000                  |
| B   | Yes            | 0.50  | 850.00              | 0.500       | 850.000                   |
| C   | Yes            | 0.50  | 1500.00             | 0.500       | 1500.000                  |

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

## Traffic Flows

### Demand Set Data Options

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

## Entry Flows

### General Flows Data

| Arm | Profile Type | Use Turning Counts | Average Demand Flow (Veh/min) | Flow Scaling Factor (%) | PHF |
|-----|--------------|--------------------|-------------------------------|-------------------------|-----|
| A   | ONE HOUR     | Yes                | 1098.00                       | 100.000                 | N/A |
| B   | ONE HOUR     | Yes                | 130.00                        | 100.000                 | N/A |
| C   | ONE HOUR     | Yes                | 387.00                        | 100.000                 | N/A |

## Turning Proportions

Turning Counts or Proportions (Veh/min) - Roundabout 1 (for whole period)

|        | To      |        |          |
|--------|---------|--------|----------|
|        | A       | B      | C        |
| From A | 0.000   | 10.000 | 1088.000 |
| From B | 19.000  | 0.000  | 111.000  |
| From C | 383.000 | 24.000 | 0.000    |

Turning Proportions (Veh) - Roundabout 1 (for whole period)

|        | To   |      |      |
|--------|------|------|------|
|        | A    | B    | C    |
| From A | 0.00 | 0.01 | 0.99 |
| From B | 0.15 | 0.00 | 0.85 |
| From C | 0.94 | 0.06 | 0.00 |

## Vehicle Mix

Average PCU Per Vehicle - Roundabout 1 (for whole period)

|      |   | To    |       |       |
|------|---|-------|-------|-------|
|      |   | A     | B     | C     |
| From | A | 1.000 | 1.100 | 1.010 |
|      | B | 1.080 | 1.000 | 1.000 |
|      | C | 1.020 | 1.000 | 1.000 |

Heavy Vehicle Percentages - Roundabout 1 (for whole period)

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

## Results

### Results Summary

| Arm | Max RFC | Max Delay (min) | Max Queue (Veh) | Max LOS | Total Demand (Veh/min) | Total Arrivals (Veh) | Total Queueing Delay (Veh-min) | Average Queueing Delay (min) | Rate Of Queueing Delay (Veh-min/min) | Inclusive Queueing Total Delay (Veh-min) | Inclusive Queueing Average Delay (min) | Slope | Intercept (PCU/min) |
|-----|---------|-----------------|-----------------|---------|------------------------|----------------------|--------------------------------|------------------------------|--------------------------------------|------------------------------------------|----------------------------------------|-------|---------------------|
| A   | 0.73    | 0.00            | 2.75            | A       | 1007.54                | 90678.93             | 157.19                         | 0.00                         | 1.75                                 | 157.19                                   | 0.00                                   | 0.500 | 1750.000            |
| B   | 0.59    | 0.01            | 1.44            | A       | 119.29                 | 10738.15             | 66.81                          | 0.01                         | 0.74                                 | 66.81                                    | 0.01                                   | 0.500 | 850.000             |
| C   | 0.29    | 0.00            | 0.41            | A       | 355.12                 | 31960.61             | 29.15                          | 0.00                         | 0.32                                 | 29.15                                    | 0.00                                   | 0.500 | 1500.000            |

## Overview: Mini-roundabout Geometry

### Mini Roundabout Geometry

| Arm | Approach road half-width (m) | Entry width (m) | Effective flare length (m) | Minimum approach road half-width (m) | Distance to next arm (m) | Entry corner kerb line distance (m) | Gradient over 50m (%) | Kerbed central island | Final Slope | Final Intercept (PCU/min) |
|-----|------------------------------|-----------------|----------------------------|--------------------------------------|--------------------------|-------------------------------------|-----------------------|-----------------------|-------------|---------------------------|
| A   | 3.00                         | 4.10            | 5.00                       | 3.00                                 | 11.50                    | 6.30                                | 0.00                  |                       | 0.500       | 1750.000                  |
| B   | 3.20                         | 6.50            | 5.00                       | 3.00                                 | 9.50                     | 8.80                                | 0.00                  |                       | 0.500       | 850.000                   |
| C   | 3.30                         | 3.40            | 0.50                       | 3.30                                 | 18.00                    | 17.00                               | 0.00                  |                       | 0.500       | 1500.000                  |

## Overview: Time Segment Results

### Time Segment Results

| Time Segment | Arm | Demand (Veh/min) | Capacity (Veh/min) | RFC   | Pedestrian Demand (Ped/min) | Start Queue (Veh) | End Queue (Veh) | Queueing Total Delay (Veh-min) | Geometric Total Delay (Veh-min) | Average Delay Per Arriving Vehicle (min) |
|--------------|-----|------------------|--------------------|-------|-----------------------------|-------------------|-----------------|--------------------------------|---------------------------------|------------------------------------------|
| 1            | A   | 826.63           | 1648.81            | 0.501 | 0.00                        | 0.00              | 1.01            | 15.06                          | (0.02)                          | 0.001                                    |
| 1            | B   | 97.87            | 431.34             | 0.227 | 0.00                        | 0.00              | 0.29            | 4.39                           | (0.02)                          | 0.003                                    |
| 1            | C   | 291.35           | 1484.80            | 0.199 | 0.00                        | 0.00              | 0.25            | 3.72                           | (0.02)                          | 0.001                                    |
| 2            | A   | 987.08           | 1648.81            | 0.599 | 0.00                        | 1.01              | 1.49            | 22.33                          | (0.02)                          | 0.001                                    |
| 2            | B   | 115.87           | 351.97             | 0.332 | 0.00                        | 0.29              | 0.50            | 7.43                           | (0.02)                          | 0.004                                    |
| 2            | C   | 347.90           | 1483.33            | 0.238 | 0.00                        | 0.25              | 0.31            | 4.68                           | (0.02)                          | 0.001                                    |
| 3            | A   | 1208.92          | 1648.81            | 0.733 | 0.00                        | 1.49              | 2.75            | 41.07                          | (0.02)                          | 0.002                                    |
| 3            | B   | 143.13           | 242.27             | 0.591 | 0.00                        | 0.50              | 1.44            | 21.45                          | (0.02)                          | 0.010                                    |
| 3            | C   | 428.09           | 1481.29            | 0.292 | 0.00                        | 0.31              | 0.41            | 6.17                           | (0.02)                          | 0.001                                    |
| 4            | A   | 1208.92          | 1648.81            | 0.733 | 0.00                        | 2.75              | 2.75            | 41.21                          | (0.02)                          | 0.002                                    |

|   |   |        |         |       |      |      |      |       |        |       |
|---|---|--------|---------|-------|------|------|------|-------|--------|-------|
| 4 | B | 143.13 | 242.22  | 0.591 | 0.00 | 1.44 | 1.44 | 21.54 | (0.02) | 0.010 |
| 4 | C | 428.09 | 1461.29 | 0.292 | 0.00 | 0.41 | 0.41 | 8.17  | (0.02) | 0.001 |
| 5 | A | 987.09 | 1548.81 | 0.599 | 0.00 | 2.75 | 1.49 | 22.42 | (0.02) | 0.001 |
| 5 | B | 115.87 | 351.91  | 0.332 | 0.00 | 1.44 | 0.50 | 7.49  | (0.02) | 0.004 |
| 5 | C | 347.90 | 1463.32 | 0.238 | 0.00 | 0.41 | 0.31 | 4.88  | (0.02) | 0.001 |
| 6 | A | 828.63 | 1548.81 | 0.501 | 0.00 | 1.49 | 1.01 | 15.10 | (0.02) | 0.001 |
| 6 | B | 97.87  | 431.29  | 0.227 | 0.00 | 0.50 | 0.29 | 4.41  | (0.02) | 0.003 |
| 6 | C | 291.35 | 1464.80 | 0.199 | 0.00 | 0.31 | 0.25 | 3.73  | (0.02) | 0.001 |

## A1 - (Default Analysis Set) - D6 - 2022 Base + Dev, PM

### Data Errors and Warnings

No errors or warnings

### Analysis Set Details

| Name                   | Description | Include In Report | Use Specific Demand Set | Demand Set | Locked | Network Flow Scaling Factor (%) | Network Capacity Scaling Factor (%) | Reason For Scaling Factors |
|------------------------|-------------|-------------------|-------------------------|------------|--------|---------------------------------|-------------------------------------|----------------------------|
| (Default Analysis Set) |             | Yes               |                         | (D1)       |        | 100.000                         | 100.000                             |                            |

### Demand Set Details

| Name                | Scenario Name   | Time Period Name | Description | Locked | Run Automatically | Use Relationship | Relationship | Start Time (HH:mm) | Finish Time (HH:mm) | Time Period Length (min) | Time Segment Length (min) | Traffic Profile Type |
|---------------------|-----------------|------------------|-------------|--------|-------------------|------------------|--------------|--------------------|---------------------|--------------------------|---------------------------|----------------------|
| 2022 Base + Dev, PM | 2022 Base + Dev | PM               |             |        | Yes               |                  |              | 16:45              | 18:15               | 90                       | 15                        | ONE HOUR             |

## Roundabout Network

### Roundabout Type(s)

| ID           | Name  | Arm Order       | Roundabout Type | Grade Separated | Large Roundabout | Do Geometric Delay |
|--------------|-------|-----------------|-----------------|-----------------|------------------|--------------------|
| 1 (untitled) | A,B,C | Mini-roundabout |                 |                 |                  |                    |

### Roundabout Network Options

| Driving Side | Lighting       | Road Surface   | In London |
|--------------|----------------|----------------|-----------|
| Left         | Normal/unknown | Normal/unknown |           |

## Arms

### Arms

| ID | Name               | Description |
|----|--------------------|-------------|
| A  | B2233 Main Rd NB   |             |
| B  | Canal Road         |             |
| C  | B2233 Main Road SB |             |

### Capacity Options

| Arm | Minimum Capacity (PCU/min) | Maximum Capacity (PCU/min) | Assume Flat Start Profile | Initial Queue (PCU) |
|-----|----------------------------|----------------------------|---------------------------|---------------------|
| A   | 0.00                       | 1566.65                    |                           | 0.00                |
| B   | 0.00                       | 1566.65                    |                           | 0.00                |
| C   | 0.00                       | 1566.65                    |                           | 0.00                |

## Mini Roundabout Geometry

| Arm | Approach road half-width (m) | Minimum approach road half-width (m) | Entry width (m) | Effective flare length (m) | Distance to next arm (m) | Entry corner kerb line distance (m) | Gradient over 50m (%) | Kerbed central island |
|-----|------------------------------|--------------------------------------|-----------------|----------------------------|--------------------------|-------------------------------------|-----------------------|-----------------------|
| A   | 3.00                         | 3.00                                 | 4.10            | 5.00                       | 11.50                    | 6.30                                | 0.00                  |                       |
| B   | 3.20                         | 3.00                                 | 6.50            | 5.00                       | 9.50                     | 8.80                                | 0.00                  |                       |
| C   | 3.30                         | 3.30                                 | 3.40            | 0.50                       | 16.00                    | 17.00                               | 0.00                  |                       |

## Pedestrian Crossings

| Arm | Crossing Type |
|-----|---------------|
| A   | None          |
| B   | None          |
| C   | None          |

## Arm Slope/ Intercept and Capacity

Slope and Intercept used in model

| Arm | Enter Directly | Slope | Intercept (PCU/min) | Final Slope | Final Intercept (PCU/min) |
|-----|----------------|-------|---------------------|-------------|---------------------------|
| A   | Yes            | 0.50  | 1750.00             | 0.500       | 1750.000                  |
| B   | Yes            | 0.50  | 850.00              | 0.500       | 850.000                   |
| C   | Yes            | 0.50  | 1500.00             | 0.500       | 1500.000                  |

The slope and intercept shown above include any corrections and adjustments

## Traffic Flows

### Demand Set Data Options

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

## Entry Flows

### General Flows Data

| Arm | Profile Type | Use Turning Counts | Average Demand Flow (Veh/min) | Flow Scaling factor (%) | PHF |
|-----|--------------|--------------------|-------------------------------|-------------------------|-----|
| A   | ONE HOUR     | Yes                | 529.00                        | 100.000                 | N/A |
| B   | ONE HOUR     | Yes                | 72.00                         | 100.000                 | N/A |
| C   | ONE HOUR     | Yes                | 819.00                        | 100.000                 | N/A |

## Turning Proportions

Turning Counts or Proportions (Veh/min) - Roundabout 1 (for whole period)

|        | To      |        |         |
|--------|---------|--------|---------|
|        | A       | B      | C       |
| From A | 0.000   | 44.000 | 485.000 |
| From B | 28.000  | 0.000  | 44.000  |
| From C | 758.000 | 63.000 | 0.000   |

Turning Proportions (Veh) - Roundabout 1 (for whole period)

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

|      |   | A    | B    | C    |
|------|---|------|------|------|
| From | A | 0.00 | 0.00 | 0.92 |
|      | B | 0.39 | 0.00 | 0.81 |
|      | C | 0.92 | 0.00 | 0.00 |

## Vehicle Mix

Average PCU Per Vehicle - Roundabout 1 (for whole period)

|      |   | To    |       |       |
|------|---|-------|-------|-------|
|      |   | A     | B     | C     |
| From | A | 1.000 | 1.000 | 1.020 |
|      | B | 1.000 | 1.000 | 1.000 |
|      | C | 1.010 | 1.020 | 1.000 |

Heavy Vehicle Percentages - Roundabout 1 (for whole period)

|      |   | To    |       |       |
|------|---|-------|-------|-------|
|      |   | A     | B     | C     |
| From | A | 0.000 | 0.000 | 2.000 |
|      | B | 0.000 | 0.000 | 0.000 |
|      | C | 1.000 | 2.000 | 0.000 |

## Results

### Results Summary

| Arm | Max RFC | Max Delay (min) | Max Queue (Veh) | Max LOS | Total Demand (Veh/min) | Total Arrivals (Veh) | Total Queueing Delay (Veh-min) | Average Queueing Delay (min) | Rate Of Queueing Delay (Veh-min/min) | Inclusive Queueing Total Delay (Veh-min) | Inclusive Queueing Average Delay (min) | Slope | Intercept (PCU/min) |
|-----|---------|-----------------|-----------------|---------|------------------------|----------------------|--------------------------------|------------------------------|--------------------------------------|------------------------------------------|----------------------------------------|-------|---------------------|
| A   | 0.36    | 0.00            | 0.55            | A       | 485.42                 | 43687.62             | 38.50                          | 0.00                         | 0.43                                 | 38.50                                    | 0.00                                   | 0.500 | 1750.000            |
| B   | 0.14    | 0.00            | 0.18            | A       | 66.07                  | 5946.16              | 10.89                          | 0.00                         | 0.12                                 | 10.89                                    | 0.00                                   | 0.500 | 850.000             |
| C   | 0.81    | 0.00            | 1.59            | A       | 751.53                 | 67637.53             | 99.28                          | 0.00                         | 1.10                                 | 99.28                                    | 0.00                                   | 0.500 | 1500.000            |

## Overview: Mini-roundabout Geometry

### Mini Roundabout Geometry

| Arm | Approach road half-width (m) | Entry width (m) | Effective flare length (m) | Minimum approach road half-width (m) | Distance to next arm (m) | Entry corner kerb line distance (m) | Gradient over 50m (%) | Kerbed central island | Final Slope | Final Intercept (PCU/min) |
|-----|------------------------------|-----------------|----------------------------|--------------------------------------|--------------------------|-------------------------------------|-----------------------|-----------------------|-------------|---------------------------|
| A   | 3.00                         | 4.10            | 5.00                       | 3.00                                 | 11.50                    | 6.30                                | 0.00                  |                       | 0.500       | 1750.000                  |
| B   | 3.20                         | 6.50            | 5.00                       | 3.00                                 | 9.50                     | 8.80                                | 0.00                  |                       | 0.500       | 850.000                   |
| C   | 3.30                         | 3.40            | 0.50                       | 3.30                                 | 18.00                    | 17.00                               | 0.00                  |                       | 0.500       | 1500.000                  |

## Overview: Time Segment Results

### Time Segment Results

| Time Segment | Arm | Demand (Veh/min) | Capacity (Veh/min) | RFC   | Pedestrian Demand (Ped/min) | Start Queue (Veh) | End Queue (Veh) | Queueing Total Delay (Veh-min) | Geometric Total Delay (Veh-min) | Average Delay Per Arriving Vehicle (min) |
|--------------|-----|------------------|--------------------|-------|-----------------------------|-------------------|-----------------|--------------------------------|---------------------------------|------------------------------------------|
| 1            | A   | 398.26           | 1636.63            | 0.243 | 0.00                        | 0.00              | 0.32            | 4.82                           | (0.02)                          | 0.001                                    |
| 1            | B   | 54.21            | 663.79             | 0.082 | 0.00                        | 0.00              | 0.09            | 1.33                           | (0.02)                          | 0.002                                    |
| 1            | C   | 616.59           | 1473.59            | 0.418 | 0.00                        | 0.00              | 0.72            | 10.78                          | (0.02)                          | 0.001                                    |
| 2            | A   | 475.56           | 1636.63            | 0.291 | 0.00                        | 0.32              | 0.41            | 6.14                           | (0.02)                          | 0.001                                    |
| 2            | B   | 64.73            | 627.64             | 0.103 | 0.00                        | 0.09              | 0.11            | 1.72                           | (0.02)                          | 0.002                                    |
| 2            | C   | 738.36           | 1471.57            | 0.500 | 0.00                        | 0.72              | 1.00            | 15.00                          | (0.02)                          | 0.001                                    |

|   |   |        |         |       |      |      |      |       |        |       |
|---|---|--------|---------|-------|------|------|------|-------|--------|-------|
| 3 | A | 582.44 | 1636.63 | 0.356 | 0.00 | 0.41 | 0.55 | 8.28  | (0.02) | 0.001 |
| 3 | B | 79.27  | 577.67  | 0.137 | 0.00 | 0.11 | 0.16 | 2.38  | (0.02) | 0.002 |
| 3 | C | 901.74 | 1488.77 | 0.614 | 0.00 | 1.00 | 1.59 | 23.80 | (0.02) | 0.002 |
| 4 | A | 582.44 | 1636.63 | 0.356 | 0.00 | 0.55 | 0.55 | 8.29  | (0.02) | 0.001 |
| 4 | B | 79.27  | 577.66  | 0.137 | 0.00 | 0.16 | 0.16 | 2.39  | (0.02) | 0.002 |
| 4 | C | 901.74 | 1488.77 | 0.614 | 0.00 | 1.59 | 1.59 | 23.85 | (0.02) | 0.002 |
| 5 | A | 475.56 | 1636.63 | 0.291 | 0.00 | 0.55 | 0.41 | 6.15  | (0.02) | 0.001 |
| 5 | B | 64.73  | 627.63  | 0.103 | 0.00 | 0.16 | 0.12 | 1.73  | (0.02) | 0.002 |
| 5 | C | 738.26 | 1471.56 | 0.500 | 0.00 | 1.59 | 1.00 | 15.04 | (0.02) | 0.001 |
| 6 | A | 398.26 | 1636.63 | 0.243 | 0.00 | 0.41 | 0.32 | 4.83  | (0.02) | 0.001 |
| 6 | B | 54.21  | 663.78  | 0.082 | 0.00 | 0.12 | 0.09 | 1.34  | (0.02) | 0.002 |
| 6 | C | 616.59 | 1473.59 | 0.418 | 0.00 | 1.00 | 0.72 | 10.80 | (0.02) | 0.001 |

## A1 - (Default Analysis Set) - D7 - 2031 Base + Dev, AM

### Data Errors and Warnings

No errors or warnings

### Analysis Set Details

| Name                   | Description | Include in Report | Use Specific Demand Set | Demand Set | Locked | Network Flow Scaling Factor (%) | Network Capacity Scaling Factor (%) | Reason For Scaling Factors |
|------------------------|-------------|-------------------|-------------------------|------------|--------|---------------------------------|-------------------------------------|----------------------------|
| (Default Analysis Set) |             | Yes               |                         | (D1)       |        | 100.000                         | 100.000                             |                            |

### Demand Set Details

| Name                | Scenario Name   | Time Period Name | Description | Locked | Run Automatically | Use Relationship | Relationship | Start Time (HH:mm) | Finish Time (HH:mm) | Time Period Length (min) | Time Segment Length (min) | Traffic Profile Type |
|---------------------|-----------------|------------------|-------------|--------|-------------------|------------------|--------------|--------------------|---------------------|--------------------------|---------------------------|----------------------|
| 2031 Base + Dev, AM | 2031 Base + Dev | AM               |             |        | Yes               |                  |              | 07:30              | 09:00               | 90                       | 15                        | ONE HOUR             |

## Roundabout Network

### Roundabout Type(s)

| ID           | Name  | Arm Order | Roundabout Type | Grade Separated | Large Roundabout | Do Geometric Delay |
|--------------|-------|-----------|-----------------|-----------------|------------------|--------------------|
| 1 (untitled) | A,B,C |           | Mini-roundabout |                 |                  |                    |

### Roundabout Network Options

| Driving Side | Lighting       | Road Surface   | In London |
|--------------|----------------|----------------|-----------|
| Left         | Normal/unknown | Normal/unknown |           |

## Arms

### Arms

| ID | Name               | Description |
|----|--------------------|-------------|
| A  | B2233 Main Rd NB   |             |
| B  | Canal Road         |             |
| C  | B2233 Main Road SB |             |

## Capacity Options

| Arm | Minimum Capacity (PCU/min) | Maximum Capacity (PCU/min) | Assume Flat Start Profile | Initial Queue (PCU) |
|-----|----------------------------|----------------------------|---------------------------|---------------------|
| A   | 0.00                       | 1666.65                    |                           | 0.00                |
| B   | 0.00                       | 1666.65                    |                           | 0.00                |
| C   | 0.00                       | 1666.65                    |                           | 0.00                |

## Mini Roundabout Geometry

| Arm | Approach road half-width (m) | Minimum approach road half-width (m) | Entry width (m) | Effective flare length (m) | Distance to next arm (m) | Entry corner kerb line distance (m) | Gradient over 50m (%) | Kerbed central island |
|-----|------------------------------|--------------------------------------|-----------------|----------------------------|--------------------------|-------------------------------------|-----------------------|-----------------------|
| A   | 3.00                         | 3.00                                 | 4.10            | 5.00                       | 11.50                    | 6.30                                | 0.00                  |                       |
| B   | 3.20                         | 3.00                                 | 6.50            | 5.00                       | 8.50                     | 8.80                                | 0.00                  |                       |
| C   | 3.30                         | 3.30                                 | 3.40            | 0.50                       | 18.00                    | 17.00                               | 0.00                  |                       |

## Pedestrian Crossings

| Arm | Crossing Type |
|-----|---------------|
| A   | None          |
| B   | None          |
| C   | None          |

## Arm Slope/ Intercept and Capacity

Slope and Intercept used in model

| Arm | Enter Directly | Slope | Intercept (PCU/min) | Final Slope | Final Intercept (PCU/min) |
|-----|----------------|-------|---------------------|-------------|---------------------------|
| A   | Yes            | 0.50  | 1750.00             | 0.500       | 1750.000                  |
| B   | Yes            | 0.50  | 850.00              | 0.500       | 850.000                   |
| C   | Yes            | 0.50  | 1500.00             | 0.500       | 1500.000                  |

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

## Traffic Flows

### Demand Set Data Options

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

## Entry Flows

### General Flows Data

| Arm | Profile Type | Use Turning Counts | Average Demand Flow (Veh/min) | Flow Scaling Factor (%) | PHF |
|-----|--------------|--------------------|-------------------------------|-------------------------|-----|
| A   | ONE HOUR     | Yes                | 1166.00                       | 100.000                 | N/A |
| B   | ONE HOUR     | Yes                | 140.00                        | 100.000                 | N/A |
| C   | ONE HOUR     | Yes                | 414.00                        | 100.000                 | N/A |

## Turning Proportions

Turning Counts or Proportions (Veh/min) - Roundabout 1 (for whole period)

|   | To    |        |          |
|---|-------|--------|----------|
|   | A     | B      | C        |
| A | 0.000 | 11.000 | 1157.000 |

|      |   |         |        |         |
|------|---|---------|--------|---------|
| From | B | 20.000  | 0.000  | 120.000 |
|      | C | 388.000 | 28.000 | 0.000   |

Turning Proportions (Veh) - Roundabout 1 (for whole period)

|      |   |      |      |      |
|------|---|------|------|------|
|      |   | To   |      |      |
|      |   | A    | B    | C    |
| From | A | 0.00 | 0.01 | 0.99 |
|      | B | 0.14 | 0.00 | 0.86 |
|      | C | 0.94 | 0.05 | 0.00 |

## Vehicle Mix

Average PCU Per Vehicle - Roundabout 1 (for whole period)

|      |   |       |       |       |
|------|---|-------|-------|-------|
|      |   | To    |       |       |
|      |   | A     | B     | C     |
| From | A | 1.000 | 1.100 | 1.010 |
|      | B | 1.080 | 1.000 | 1.000 |
|      | C | 1.020 | 1.000 | 1.000 |

Heavy Vehicle Percentages - Roundabout 1 (for whole period)

|      |   |       |       |       |
|------|---|-------|-------|-------|
|      |   | To    |       |       |
|      |   | A     | B     | C     |
| From | A | 0.000 | 0.000 | 1.000 |
|      | B | 0.000 | 0.000 | 0.000 |
|      | C | 2.000 | 0.000 | 0.000 |

## Results

### Results Summary

| Arm | Max RFC | Max Delay (min) | Max Queue (Veh) | Max LOS | Total Demand (Veh/min) | Total Arrivals (Veh) | Total Queueing Delay (Veh-min) | Average Queueing Delay (min) | Rate Of Queueing Delay (Veh-min/min) | Inclusive Queueing Total Delay (Veh-min) | Inclusive Queueing Average Delay (min) | Slope | Intercept (PCU/min) |
|-----|---------|-----------------|-----------------|---------|------------------------|----------------------|--------------------------------|------------------------------|--------------------------------------|------------------------------------------|----------------------------------------|-------|---------------------|
| A   | 0.78    | 0.00            | 3.54            | A       | 1071.77                | 96459.72             | 192.93                         | 0.00                         | 2.14                                 | 192.94                                   | 0.00                                   | 0.500 | 1750.000            |
| B   | 0.75    | 0.02            | 3.08            | A       | 126.47                 | 11561.96             | 120.57                         | 0.01                         | 1.34                                 | 120.57                                   | 0.01                                   | 0.500 | 850.000             |
| C   | 0.31    | 0.00            | 0.45            | A       | 379.90                 | 34190.56             | 31.95                          | 0.00                         | 0.36                                 | 31.95                                    | 0.00                                   | 0.500 | 1500.000            |

## Overview: Mini-roundabout Geometry

### Mini Roundabout Geometry

| Arm | Approach road half-width (m) | Entry width (m) | Effective flare length (m) | Minimum approach road half-width (m) | Distance to next arm (m) | Entry corner kerb line distance (m) | Gradient over 50m (%) | Kerbed central island | Final Slope | Final Intercept (PCU/min) |
|-----|------------------------------|-----------------|----------------------------|--------------------------------------|--------------------------|-------------------------------------|-----------------------|-----------------------|-------------|---------------------------|
| A   | 3.00                         | 4.10            | 5.00                       | 3.00                                 | 11.50                    | 6.30                                | 0.00                  |                       | 0.500       | 1750.000                  |
| B   | 3.20                         | 6.50            | 5.00                       | 3.00                                 | 9.50                     | 8.80                                | 0.00                  |                       | 0.500       | 850.000                   |
| C   | 3.30                         | 3.40            | 0.50                       | 3.30                                 | 18.00                    | 17.00                               | 0.00                  |                       | 0.500       | 1500.000                  |

## Overview: Time Segment Results

### Time Segment Results

| Time Segment | Arm | Demand (Veh/min) | Capacity (Veh/min) | RFC | Pedestrian Demand (Ped/min) | Start Queue (Veh) | End Queue (Veh) | Queueing Total Delay (Veh-min) | Geometric Total Delay (Veh-min) | Average Delay Per Arriving Vehicle (min) |
|--------------|-----|------------------|--------------------|-----|-----------------------------|-------------------|-----------------|--------------------------------|---------------------------------|------------------------------------------|
|--------------|-----|------------------|--------------------|-----|-----------------------------|-------------------|-----------------|--------------------------------|---------------------------------|------------------------------------------|