



RiverOak Strategic Partners

5.2- 19

**Environmental Statement
Volume 19: Transport
Assessment, Appendix F
(Junctions 1A to 8B)**

TR020002/APP/5.2-19

Project Name:

Manston Airport Development Consent Order

Regulation:

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

Date:

July 2018



Volume 19 Contents

Transport Assessment

**Appendix F - 2039 Validated Models
(Junctions 1a to 8b)**



Transport Assessment Appendix F 2039 Validated Models

| |
|--|
| Junctions 9 |
| ARCADY 9 - Roundabout Module |
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Filename: Jct 1_A256-Sandwich_R1_validated.j9

Path: R:\Projects\38199 Manston Airport DCO EIA\4 Design\Transport\Junction Modelling\Base Models\Validated\Jct 1_A256_Sandwich Road

Report generation date: 26/01/2018 15:52:18

- »2017 Baseline Traffic, AM
- »2017 Baseline Traffic, PM
- »2017 Baseline Traffic, Airport Peak
- »2039 Growthed Traffic, AM
- »2039 Growthed Traffic, PM
- »2039 Growthed Traffic, Airport Peak
- »2039 + Dev Traffic, AM
- »2039 + Dev Traffic, PM
- »2039 + Dev Traffic, Airport Peak

Summary of junction performance

| | AM | | | | | PM | | | | | Airport Peak | | | | |
|------------------------------|-------------|-------------|------|-----|---------------------------|-------------|-------------|--------------|-----|---------------------------|--------------|-------------|------|-----|-----------------------------|
| | Queue (Veh) | Delay (min) | RFC | LOS | Network Residual Capacity | Queue (Veh) | Delay (min) | RFC | LOS | Network Residual Capacity | Queue (Veh) | Delay (min) | RFC | LOS | Network Residual Capacity |
| 2017 Baseline Traffic | | | | | | | | | | | | | | | |
| 1 - Sandwich Road | 2.5 | 0.67 | 0.73 | E | -2 % | 0.7 | 0.22 | 0.43 | B | 10 % [3 - Jutes Lane] | 0.6 | 0.17 | 0.36 | B | 59 % [1 - Sandwich Road] |
| 2 - A256 S | 1.5 | 0.07 | 0.61 | A | [1 - Sandwich Road] | 3.3 | 0.11 | 0.77 | A | | 0.7 | 0.05 | 0.43 | A | |
| 3 - Jutes Lane | 0.1 | 0.19 | 0.11 | B | | 0.2 | 0.30 | 0.18 | C | | 0.1 | 0.11 | 0.07 | A | |
| 4 - A256 N | 7.3 | 0.28 | 0.89 | C | | 1.8 | 0.10 | 0.64 | A | | 0.8 | 0.06 | 0.45 | A | |
| 2039 Growthed Traffic | | | | | | | | | | | | | | | |
| 1 - Sandwich Road | 21.1 | 4.51 | 1.11 | F | -22 % | 1.7 | 0.42 | 0.64 | D | -13 % [3 - Jutes Lane] | 1.0 | 0.25 | 0.50 | C | 25 % [1 - Sandwich Road] |
| 2 - A256 S | 2.8 | 0.10 | 0.74 | A | [1 - Sandwich Road] | 11.8 | 0.32 | 0.93 | C | | 1.3 | 0.06 | 0.57 | A | |
| 3 - Jutes Lane | 0.3 | 0.35 | 0.22 | C | | 23.7 | 430.62 | 21.77 | F | | 0.1 | 0.16 | 0.12 | A | |
| 4 - A256 N | 123.8 | 3.50 | 1.12 | F | | 4.4 | 0.19 | 0.82 | B | | 1.6 | 0.09 | 0.61 | A | |
| 2039 + Dev Traffic | | | | | | | | | | | | | | | |
| 1 - Sandwich Road | 21.3 | 4.58 | 1.11 | F | -23 % | 2.3 | 0.55 | 0.71 | D | -14 % [3 - Jutes Lane] | 1.0 | 0.26 | 0.51 | C | 23 % [1 - Sandwich Road] |
| 2 - A256 S | 3.5 | 0.12 | 0.78 | A | [1 - Sandwich Road] | 13.1 | 0.35 | 0.94 | C | | 1.7 | 0.07 | 0.63 | A | |
| 3 - Jutes Lane | 0.4 | 0.47 | 0.27 | D | | 26.3 | 24.34 | 999999999.00 | F | | 0.2 | 0.19 | 0.14 | B | |
| 4 - A256 N | 132.7 | 3.84 | 1.13 | F | | 7.7 | 0.31 | 0.89 | C | | 1.7 | 0.10 | 0.63 | A | |

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

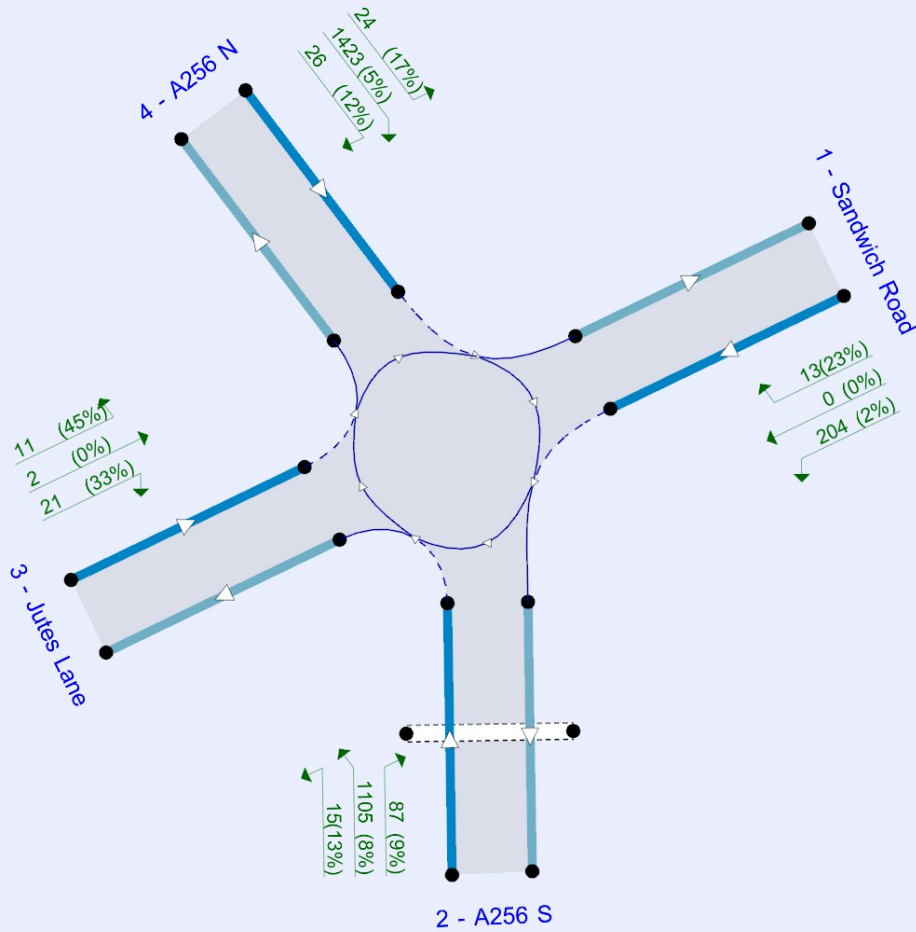
File summary

File Description

| | |
|--------------------|----------------|
| Title | (untitled) |
| Location | |
| Site number | |
| Date | 29/09/2017 |
| Version | |
| Status | (new file) |
| Identifier | |
| Client | |
| Jobnumber | |
| Enumerator | GLOBALadam.guy |
| 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 | mph | Veh | Veh | perHour | min | -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 | Residual capacity criteria type | RFC Threshold | Average Delay threshold (min) | Queue threshold (PCU) |
|--------------------|-----------------------------|-----------------------------------|-----------------------------|---------------------------------|---------------|-------------------------------|-----------------------|
| 5.75 | | | ✓ | Delay | 0.85 | 0.60 | 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 |
|-----|-----------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D3 | 2017 Baseline Traffic | AM | ONE HOUR | 07:30 | 09:00 | 15 | ✓ |
| D4 | 2017 Baseline Traffic | PM | ONE HOUR | 16:30 | 18:00 | 15 | ✓ |
| D5 | 2017 Baseline Traffic | Airport Peak | ONE HOUR | 12:45 | 14:15 | 15 | ✓ |
| D6 | 2039 Growthed Traffic | AM | ONE HOUR | 07:30 | 09:00 | 15 | ✓ |
| D7 | 2039 Growthed Traffic | PM | ONE HOUR | 16:30 | 18:00 | 15 | ✓ |
| D8 | 2039 Growthed Traffic | Airport Peak | ONE HOUR | 12:45 | 14:15 | 15 | ✓ |
| D9 | 2039 + Dev Traffic | AM | ONE HOUR | 07:30 | 09:00 | 15 | ✓ |
| D10 | 2039 + Dev Traffic | PM | ONE HOUR | 16:30 | 18:00 | 15 | ✓ |
| D11 | 2039 + Dev Traffic | Airport Peak | ONE HOUR | 12:45 | 14:15 | 15 | ✓ |

Analysis Set Details

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

2017 Baseline Traffic, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|--------------------|---------------------|------------|----------------------|--------------|
| 1 | A256/Sandwich Road | Standard Roundabout | 1, 2, 3, 4 | 0.22 | B |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | -2 | 1 - Sandwich Road |

Arms

Arms

| Arm | Name | Description |
|-----|---------------|-------------|
| 1 | Sandwich Road | |
| 2 | A256 S | |
| 3 | Jutes Lane | |
| 4 | A256 N | |

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 |
|-------------------|----------------------------------|---------------------|---------------------------------|----------------------|-----------------------------------|------------------------------------|-----------|
| 1 - Sandwich Road | 5.10 | 7.00 | 3.0 | 19.6 | 54.2 | 49.0 | |
| 2 - A256 S | 7.28 | 8.04 | 5.0 | 17.7 | 54.2 | 52.0 | |
| 3 - Jutes Lane | 3.56 | 5.00 | 1.7 | 14.3 | 54.2 | 27.5 | |
| 4 - A256 N | 8.03 | 10.04 | 3.9 | 24.7 | 54.2 | 50.0 | |

Pelican/Puffin Crossings

| Arm | Space between crossing and junction entry (Signalised) (PCU) | Amber time preceding red (s) | Amber time regarded as green (s) | Time from traffic red start to green man start (s) | Time period green man shown (s) | Clearance Period (s) | Traffic minimum green (s) |
|------------|--|------------------------------|----------------------------------|--|---------------------------------|----------------------|---------------------------|
| 2 - A256 S | 5.00 | 3.00 | 2.90 | 1.00 | 6.00 | 6.00 | 7.00 |

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

| Arm | Final slope | Final intercept (PCU/hr) |
|-------------------|-------------|--------------------------|
| 1 - Sandwich Road | 0.555 | 1619 |
| 2 - A256 S | 0.651 | 2166 |
| 3 - Jutes Lane | 0.491 | 1183 |
| 4 - A256 N | 0.719 | 2503 |

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

Arm Capacity Adjustments

| Arm | Type | Reason | Percentage capacity adjustment (%) |
|-------------------|------------|------------------|------------------------------------|
| 1 - Sandwich Road | Percentage | Queue validation | 50.00 |
| 2 - A256 S | Percentage | | 120.00 |
| 4 - A256 N | Percentage | | 80.00 |

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 | 2017 Baseline Traffic | AM | ONE HOUR | 07:30 | 09:00 | 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 (%) |
|-------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - Sandwich Road | | ONE HOUR | ✓ | 217 | 100.000 |
| 2 - A256 S | | ONE HOUR | ✓ | 1207 | 100.000 |
| 3 - Jutes Lane | | ONE HOUR | ✓ | 34 | 100.000 |
| 4 - A256 N | | ONE HOUR | ✓ | 1473 | 100.000 |

Demand overview (Pedestrians)

| Arm | Profile type | Average pedestrian flow (Ped/hr) |
|-------------------|--------------|----------------------------------|
| 1 - Sandwich Road | | |
| 2 - A256 S | [ONEHOUR] | 60.00 |
| 3 - Jutes Lane | | |
| 4 - A256 N | | |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | |
|------|-------------------|-------------------|------------|----------------|------------|
| | | 1 - Sandwich Road | 2 - A256 S | 3 - Jutes Lane | 4 - A256 N |
| From | 1 - Sandwich Road | 0 | 204 | 0 | 13 |
| | 2 - A256 S | 87 | 0 | 15 | 1105 |
| | 3 - Jutes Lane | 2 | 21 | 0 | 11 |
| | 4 - A256 N | 24 | 1423 | 26 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | |
|------|-------------------|-------------------|------------|----------------|------------|
| | | 1 - Sandwich Road | 2 - A256 S | 3 - Jutes Lane | 4 - A256 N |
| From | 1 - Sandwich Road | 0 | 2 | 0 | 23 |
| | 2 - A256 S | 9 | 0 | 13 | 8 |
| | 3 - Jutes Lane | 0 | 33 | 0 | 45 |
| | 4 - A256 N | 17 | 5 | 12 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|-------------------|---------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - Sandwich Road | 0.73 | 0.67 | 2.5 | E | 199 | 299 |
| 2 - A256 S | 0.61 | 0.07 | 1.5 | A | 1108 | 1661 |
| 3 - Jutes Lane | 0.11 | 0.19 | 0.1 | B | 31 | 47 |
| 4 - A256 N | 0.89 | 0.28 | 7.3 | C | 1352 | 2027 |

Main Results for each time segment

07:30 - 07:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Sandwich Road | 163 | 41 | 1101 | | 472 | 0.346 | 161 | 85 | 0.0 | 0.5 | 0.192 | B |
| 2 - A256 S | 909 | 227 | 29 | 45.17 | 2212 | 0.411 | 906 | 1233 | 0.0 | 0.7 | 0.046 | A |
| 3 - Jutes Lane | 26 | 6 | 904 | | 521 | 0.049 | 25 | 31 | 0.0 | 0.1 | 0.121 | A |
| 4 - A256 N | 1109 | 277 | 82 | | 1850 | 0.599 | 1103 | 847 | 0.0 | 1.5 | 0.080 | A |

07:45 - 08:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Sandwich Road | 195 | 49 | 1317 | | 410 | 0.475 | 194 | 101 | 0.5 | 0.9 | 0.275 | C |
| 2 - A256 S | 1085 | 271 | 35 | 53.94 | 2204 | 0.492 | 1084 | 1476 | 0.7 | 1.0 | 0.054 | A |
| 3 - Jutes Lane | 31 | 8 | 1082 | | 451 | 0.068 | 30 | 37 | 0.1 | 0.1 | 0.143 | A |
| 4 - A256 N | 1324 | 331 | 99 | | 1840 | 0.720 | 1320 | 1014 | 1.5 | 2.5 | 0.114 | A |

08:00 - 08:15

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Sandwich Road | 239 | 60 | 1601 | | 330 | 0.724 | 233 | 124 | 0.9 | 2.3 | 0.589 | E |
| 2 - A256 S | 1329 | 332 | 42 | 66.06 | 2191 | 0.607 | 1327 | 1792 | 1.0 | 1.5 | 0.069 | A |
| 3 - Jutes Lane | 37 | 9 | 1324 | | 356 | 0.105 | 37 | 45 | 0.1 | 0.1 | 0.188 | B |
| 4 - A256 N | 1622 | 405 | 121 | | 1826 | 0.888 | 1604 | 1241 | 2.5 | 6.9 | 0.252 | C |

08:15 - 08:30

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Sandwich Road | 239 | 60 | 1617 | | 326 | 0.734 | 238 | 124 | 2.3 | 2.5 | 0.672 | E |
| 2 - A256 S | 1329 | 332 | 43 | 66.06 | 2208 | 0.602 | 1329 | 1812 | 1.5 | 1.5 | 0.068 | A |
| 3 - Jutes Lane | 37 | 9 | 1327 | | 354 | 0.106 | 37 | 45 | 0.1 | 0.1 | 0.189 | B |
| 4 - A256 N | 1622 | 405 | 121 | | 1826 | 0.888 | 1620 | 1243 | 6.9 | 7.3 | 0.285 | C |

08:30 - 08:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Sandwich Road | 195 | 49 | 1340 | | 404 | 0.483 | 201 | 102 | 2.5 | 1.0 | 0.304 | C |
| 2 - A256 S | 1085 | 271 | 36 | 53.94 | 2225 | 0.488 | 1087 | 1506 | 1.5 | 1.0 | 0.053 | A |
| 3 - Jutes Lane | 31 | 8 | 1086 | | 449 | 0.068 | 31 | 37 | 0.1 | 0.1 | 0.143 | A |
| 4 - A256 N | 1324 | 331 | 99 | | 1840 | 0.720 | 1343 | 1017 | 7.3 | 2.6 | 0.125 | A |

08:45 - 09:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Sandwich Road | 163 | 41 | 1111 | | 469 | 0.348 | 165 | 85 | 1.0 | 0.5 | 0.198 | B |
| 2 - A256 S | 909 | 227 | 30 | 45.17 | 2233 | 0.407 | 910 | 1247 | 1.0 | 0.7 | 0.045 | A |
| 3 - Jutes Lane | 26 | 6 | 908 | | 519 | 0.049 | 26 | 31 | 0.1 | 0.1 | 0.122 | A |
| 4 - A256 N | 1109 | 277 | 83 | | 1850 | 0.599 | 1113 | 851 | 2.6 | 1.5 | 0.082 | A |

2017 Baseline Traffic, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|--------------------|---------------------|------------|----------------------|--------------|
| 1 | A256/Sandwich Road | Standard Roundabout | 1, 2, 3, 4 | 0.11 | A |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | 10 | 3 - Jutes Lane |

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 | 2017 Baseline Traffic | PM | ONE HOUR | 16:30 | 18:00 | 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 (%) |
|-------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - Sandwich Road | | ONE HOUR | ✓ | 185 | 100.000 |
| 2 - A256 S | | ONE HOUR | ✓ | 1689 | 100.000 |
| 3 - Jutes Lane | | ONE HOUR | ✓ | 40 | 100.000 |
| 4 - A256 N | | ONE HOUR | ✓ | 1026 | 100.000 |

Demand overview (Pedestrians)

| Arm | Profile type | Average pedestrian flow (Ped/hr) |
|-------------------|--------------|----------------------------------|
| 1 - Sandwich Road | | |
| 2 - A256 S | [ONEHOUR] | 60.00 |
| 3 - Jutes Lane | | |
| 4 - A256 N | | |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | |
|------|-------------------|-------------------|------------|----------------|------------|
| | | 1 - Sandwich Road | 2 - A256 S | 3 - Jutes Lane | 4 - A256 N |
| From | 1 - Sandwich Road | 0 | 164 | 1 | 20 |
| | 2 - A256 S | 223 | 0 | 4 | 1462 |
| | 3 - Jutes Lane | 4 | 24 | 0 | 12 |
| | 4 - A256 N | 31 | 986 | 9 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | |
|------|-------------------|-------------------|------------|----------------|------------|
| From | | 1 - Sandwich Road | 2 - A256 S | 3 - Jutes Lane | 4 - A256 N |
| | 1 - Sandwich Road | 0 | 2 | 0 | 0 |
| | 2 - A256 S | 1 | 0 | 25 | 2 |
| | 3 - Jutes Lane | 0 | 0 | 0 | 0 |
| | 4 - A256 N | 0 | 5 | 11 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|-------------------|---------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - Sandwich Road | 0.43 | 0.22 | 0.7 | B | 170 | 255 |
| 2 - A256 S | 0.77 | 0.11 | 3.3 | A | 1550 | 2325 |
| 3 - Jutes Lane | 0.18 | 0.30 | 0.2 | C | 37 | 55 |
| 4 - A256 N | 0.64 | 0.10 | 1.8 | A | 941 | 1412 |

Main Results for each time segment

16:30 - 16:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Sandwich Road | 139 | 35 | 764 | | 577 | 0.241 | 138 | 194 | 0.0 | 0.3 | 0.136 | A |
| 2 - A256 S | 1272 | 318 | 22 | 45.17 | 2361 | 0.539 | 1267 | 880 | 0.0 | 1.2 | 0.055 | A |
| 3 - Jutes Lane | 30 | 8 | 1279 | | 544 | 0.055 | 30 | 10 | 0.0 | 0.1 | 0.117 | A |
| 4 - A256 N | 772 | 193 | 188 | | 1805 | 0.428 | 769 | 1121 | 0.0 | 0.7 | 0.058 | A |

16:45 - 17:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Sandwich Road | 166 | 42 | 915 | | 534 | 0.312 | 166 | 232 | 0.3 | 0.4 | 0.163 | A |
| 2 - A256 S | 1518 | 380 | 27 | 53.94 | 2375 | 0.639 | 1516 | 1054 | 1.2 | 1.8 | 0.070 | A |
| 3 - Jutes Lane | 36 | 9 | 1530 | | 418 | 0.086 | 36 | 13 | 0.1 | 0.1 | 0.157 | A |
| 4 - A256 N | 922 | 231 | 225 | | 1784 | 0.517 | 921 | 1341 | 0.7 | 1.1 | 0.069 | A |

17:00 - 17:15

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Sandwich Road | 204 | 51 | 1119 | | 475 | 0.429 | 203 | 283 | 0.4 | 0.7 | 0.219 | B |
| 2 - A256 S | 1860 | 465 | 33 | 66.06 | 2408 | 0.772 | 1853 | 1289 | 1.8 | 3.3 | 0.107 | A |
| 3 - Jutes Lane | 44 | 11 | 1871 | | 248 | 0.178 | 44 | 15 | 0.1 | 0.2 | 0.293 | C |
| 4 - A256 N | 1130 | 282 | 275 | | 1757 | 0.643 | 1127 | 1639 | 1.1 | 1.8 | 0.095 | A |

17:15 - 17:30

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Sandwich Road | 204 | 51 | 1122 | | 475 | 0.429 | 204 | 284 | 0.7 | 0.7 | 0.221 | B |
| 2 - A256 S | 1860 | 465 | 33 | 66.06 | 2454 | 0.758 | 1860 | 1292 | 3.3 | 3.2 | 0.101 | A |
| 3 - Jutes Lane | 44 | 11 | 1878 | | 245 | 0.180 | 44 | 15 | 0.2 | 0.2 | 0.299 | C |
| 4 - A256 N | 1130 | 282 | 276 | | 1756 | 0.643 | 1130 | 1645 | 1.8 | 1.8 | 0.096 | A |

17:30 - 17:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Sandwich Road | 166 | 42 | 919 | | 533 | 0.312 | 167 | 233 | 0.7 | 0.5 | 0.165 | A |
| 2 - A256 S | 1518 | 380 | 27 | 53.94 | 2428 | 0.625 | 1524 | 1059 | 3.2 | 1.7 | 0.067 | A |
| 3 - Jutes Lane | 36 | 9 | 1539 | | 414 | 0.087 | 36 | 13 | 0.2 | 0.1 | 0.159 | A |
| 4 - A256 N | 922 | 231 | 227 | | 1783 | 0.517 | 925 | 1349 | 1.8 | 1.1 | 0.070 | A |

17:45 - 18:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Sandwich Road | 139 | 35 | 769 | | 576 | 0.242 | 140 | 195 | 0.5 | 0.3 | 0.138 | A |
| 2 - A256 S | 1272 | 318 | 23 | 45.17 | 2399 | 0.530 | 1274 | 886 | 1.7 | 1.1 | 0.053 | A |
| 3 - Jutes Lane | 30 | 8 | 1286 | | 540 | 0.056 | 30 | 11 | 0.1 | 0.1 | 0.118 | A |
| 4 - A256 N | 772 | 193 | 189 | | 1804 | 0.428 | 774 | 1127 | 1.1 | 0.8 | 0.058 | A |

2017 Baseline Traffic, Airport Peak

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|--------------------|---------------------|------------|----------------------|--------------|
| 1 | A256/Sandwich Road | Standard Roundabout | 1, 2, 3, 4 | 0.07 | A |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | 59 | 1 - Sandwich Road |

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 | 2017 Baseline Traffic | Airport Peak | ONE HOUR | 12:45 | 14:15 | 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 (%) |
|-------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - Sandwich Road | | ONE HOUR | ✓ | 185 | 100.000 |
| 2 - A256 S | | ONE HOUR | ✓ | 837 | 100.000 |
| 3 - Jutes Lane | | ONE HOUR | ✓ | 35 | 100.000 |
| 4 - A256 N | | ONE HOUR | ✓ | 701 | 100.000 |

Demand overview (Pedestrians)

| Arm | Profile type | Average pedestrian flow (Ped/hr) |
|-------------------|--------------|----------------------------------|
| 1 - Sandwich Road | | |
| 2 - A256 S | [ONEHOUR] | 60.00 |
| 3 - Jutes Lane | | |
| 4 - A256 N | | |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | |
|------|-------------------|-------------------|------------|----------------|------------|
| | | 1 - Sandwich Road | 2 - A256 S | 3 - Jutes Lane | 4 - A256 N |
| From | 1 - Sandwich Road | 0 | 164 | 1 | 20 |
| | 2 - A256 S | 127 | 0 | 6 | 704 |
| | 3 - Jutes Lane | 2 | 29 | 0 | 4 |
| | 4 - A256 N | 16 | 666 | 19 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | |
|------|-------------------|-------------------|------------|----------------|------------|
| | | 1 - Sandwich Road | 2 - A256 S | 3 - Jutes Lane | 4 - A256 N |
| From | 1 - Sandwich Road | 0 | 2 | 0 | 0 |
| | 2 - A256 S | 4 | 0 | 0 | 9 |
| | 3 - Jutes Lane | 50 | 10 | 0 | 75 |
| | 4 - A256 N | 6 | 9 | 32 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|-------------------|---------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - Sandwich Road | 0.36 | 0.17 | 0.6 | B | 170 | 255 |
| 2 - A256 S | 0.43 | 0.05 | 0.7 | A | 768 | 1152 |
| 3 - Jutes Lane | 0.07 | 0.11 | 0.1 | A | 32 | 48 |
| 4 - A256 N | 0.45 | 0.06 | 0.8 | A | 643 | 965 |

Main Results for each time segment

12:45 - 13:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Sandwich Road | 139 | 35 | 536 | | 635 | 0.219 | 138 | 109 | 0.0 | 0.3 | 0.120 | A |
| 2 - A256 S | 630 | 158 | 30 | 45.17 | 2206 | 0.286 | 629 | 644 | 0.0 | 0.4 | 0.038 | A |
| 3 - Jutes Lane | 26 | 7 | 639 | | 705 | 0.037 | 26 | 20 | 0.0 | 0.0 | 0.088 | A |
| 4 - A256 N | 528 | 132 | 119 | | 1762 | 0.300 | 526 | 547 | 0.0 | 0.4 | 0.048 | A |

13:00 - 13:15

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Sandwich Road | 166 | 42 | 641 | | 604 | 0.275 | 166 | 130 | 0.3 | 0.4 | 0.137 | A |
| 2 - A256 S | 752 | 188 | 36 | 53.94 | 2186 | 0.344 | 752 | 771 | 0.4 | 0.5 | 0.042 | A |
| 3 - Jutes Lane | 31 | 8 | 764 | | 650 | 0.048 | 31 | 23 | 0.0 | 0.1 | 0.097 | A |
| 4 - A256 N | 630 | 158 | 142 | | 1749 | 0.360 | 630 | 654 | 0.4 | 0.6 | 0.054 | A |

13:15 - 13:30

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Sandwich Road | 204 | 51 | 785 | | 561 | 0.363 | 203 | 159 | 0.4 | 0.6 | 0.167 | B |
| 2 - A256 S | 922 | 230 | 44 | 66.06 | 2155 | 0.428 | 921 | 944 | 0.5 | 0.7 | 0.049 | A |
| 3 - Jutes Lane | 39 | 10 | 936 | | 574 | 0.067 | 38 | 29 | 0.1 | 0.1 | 0.112 | A |
| 4 - A256 N | 772 | 193 | 174 | | 1731 | 0.446 | 771 | 801 | 0.6 | 0.8 | 0.062 | A |

13:30 - 13:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Sandwich Road | 204 | 51 | 786 | | 560 | 0.363 | 204 | 160 | 0.6 | 0.6 | 0.168 | B |
| 2 - A256 S | 922 | 230 | 44 | 66.06 | 2161 | 0.426 | 922 | 946 | 0.7 | 0.7 | 0.048 | A |
| 3 - Jutes Lane | 39 | 10 | 937 | | 573 | 0.067 | 39 | 29 | 0.1 | 0.1 | 0.112 | A |
| 4 - A256 N | 772 | 193 | 174 | | 1731 | 0.446 | 772 | 802 | 0.8 | 0.8 | 0.063 | A |

13:45 - 14:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Sandwich Road | 166 | 42 | 643 | | 603 | 0.276 | 167 | 131 | 0.6 | 0.4 | 0.138 | A |
| 2 - A256 S | 752 | 188 | 36 | 53.94 | 2195 | 0.343 | 753 | 774 | 0.7 | 0.5 | 0.042 | A |
| 3 - Jutes Lane | 31 | 8 | 766 | | 649 | 0.048 | 32 | 23 | 0.1 | 0.1 | 0.097 | A |
| 4 - A256 N | 630 | 158 | 142 | | 1749 | 0.360 | 631 | 655 | 0.8 | 0.6 | 0.054 | A |

14:00 - 14:15

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Sandwich Road | 139 | 35 | 538 | | 635 | 0.219 | 140 | 109 | 0.4 | 0.3 | 0.121 | A |
| 2 - A256 S | 630 | 158 | 30 | 45.17 | 2217 | 0.284 | 631 | 648 | 0.5 | 0.4 | 0.038 | A |
| 3 - Jutes Lane | 26 | 7 | 641 | | 704 | 0.037 | 26 | 20 | 0.1 | 0.0 | 0.089 | A |
| 4 - A256 N | 528 | 132 | 119 | | 1762 | 0.300 | 528 | 549 | 0.6 | 0.4 | 0.049 | A |

2039 Growthed Traffic, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|--------------------|---------------------|------------|----------------------|--------------|
| 1 | A256/Sandwich Road | Standard Roundabout | 1, 2, 3, 4 | 2.10 | F |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | -22 | 1 - Sandwich Road |

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 | 2039 Growthed Traffic | AM | ONE HOUR | 07:30 | 09:00 | 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 (%) |
|-------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - Sandwich Road | | ONE HOUR | ✓ | 271 | 100.000 |
| 2 - A256 S | | ONE HOUR | ✓ | 1513 | 100.000 |
| 3 - Jutes Lane | | ONE HOUR | ✓ | 43 | 100.000 |
| 4 - A256 N | | ONE HOUR | ✓ | 1844 | 100.000 |

Demand overview (Pedestrians)

| Arm | Profile type | Average pedestrian flow (Ped/hr) |
|-------------------|--------------|----------------------------------|
| 1 - Sandwich Road | | |
| 2 - A256 S | [ONEHOUR] | 60.00 |
| 3 - Jutes Lane | | |
| 4 - A256 N | | |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | |
|------|-------------------|-------------------|------------|----------------|------------|
| | | 1 - Sandwich Road | 2 - A256 S | 3 - Jutes Lane | 4 - A256 N |
| From | 1 - Sandwich Road | 0 | 255 | 0 | 16 |
| | 2 - A256 S | 109 | 0 | 19 | 1385 |
| | 3 - Jutes Lane | 2 | 27 | 0 | 14 |
| | 4 - A256 N | 30 | 1781 | 33 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | |
|------|-------------------|-------------------|------------|----------------|------------|
| | | 1 - Sandwich Road | 2 - A256 S | 3 - Jutes Lane | 4 - A256 N |
| From | 1 - Sandwich Road | 0 | 3 | 0 | 24 |
| | 2 - A256 S | 10 | 0 | 14 | 8 |
| | 3 - Jutes Lane | 0 | 34 | 0 | 47 |
| | 4 - A256 N | 17 | 5 | 12 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|-------------------|---------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - Sandwich Road | 1.11 | 4.51 | 21.1 | F | 249 | 373 |
| 2 - A256 S | 0.74 | 0.10 | 2.8 | A | 1388 | 2083 |
| 3 - Jutes Lane | 0.22 | 0.35 | 0.3 | C | 39 | 59 |
| 4 - A256 N | 1.12 | 3.50 | 123.8 | F | 1692 | 2538 |

Main Results for each time segment

07:30 - 07:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Sandwich Road | 204 | 51 | 1374 | | 391 | 0.522 | 200 | 106 | 0.0 | 1.0 | 0.308 | C |
| 2 - A256 S | 1139 | 285 | 36 | 45.17 | 2211 | 0.515 | 1135 | 1537 | 0.0 | 1.1 | 0.056 | A |
| 3 - Jutes Lane | 32 | 8 | 1132 | | 425 | 0.076 | 32 | 39 | 0.0 | 0.1 | 0.152 | A |
| 4 - A256 N | 1388 | 347 | 103 | | 1837 | 0.756 | 1376 | 1061 | 0.0 | 3.0 | 0.127 | A |

07:45 - 08:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Sandwich Road | 244 | 61 | 1634 | | 317 | 0.768 | 237 | 126 | 1.0 | 2.8 | 0.692 | E |
| 2 - A256 S | 1360 | 340 | 43 | 53.94 | 2220 | 0.613 | 1358 | 1828 | 1.1 | 1.6 | 0.069 | A |
| 3 - Jutes Lane | 39 | 10 | 1355 | | 339 | 0.114 | 38 | 46 | 0.1 | 0.1 | 0.200 | B |
| 4 - A256 N | 1658 | 414 | 124 | | 1824 | 0.909 | 1637 | 1270 | 3.0 | 8.2 | 0.292 | C |

08:00 - 08:15

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Sandwich Road | 298 | 75 | 1794 | | 272 | 1.096 | 258 | 151 | 2.8 | 12.7 | 2.277 | F |
| 2 - A256 S | 1666 | 416 | 47 | 66.06 | 2243 | 0.743 | 1661 | 2005 | 1.6 | 2.8 | 0.102 | A |
| 3 - Jutes Lane | 47 | 12 | 1655 | | 222 | 0.213 | 47 | 53 | 0.1 | 0.3 | 0.341 | C |
| 4 - A256 N | 2030 | 508 | 151 | | 1807 | 1.124 | 1794 | 1551 | 8.2 | 67.4 | 1.411 | F |

08:15 - 08:30

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Sandwich Road | 298 | 75 | 1805 | | 269 | 1.108 | 265 | 152 | 12.7 | 21.1 | 4.267 | F |
| 2 - A256 S | 1666 | 416 | 48 | 66.06 | 2280 | 0.731 | 1666 | 2022 | 2.8 | 2.8 | 0.098 | A |
| 3 - Jutes Lane | 47 | 12 | 1661 | | 220 | 0.215 | 47 | 53 | 0.3 | 0.3 | 0.348 | C |
| 4 - A256 N | 2030 | 508 | 152 | | 1806 | 1.124 | 1805 | 1556 | 67.4 | 123.8 | 3.274 | F |

08:30 - 08:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Sandwich Road | 244 | 61 | 1804 | | 270 | 0.903 | 265 | 130 | 21.1 | 15.7 | 4.507 | F |
| 2 - A256 S | 1360 | 340 | 48 | 53.94 | 2260 | 0.602 | 1365 | 2021 | 2.8 | 1.5 | 0.067 | A |
| 3 - Jutes Lane | 39 | 10 | 1364 | | 335 | 0.115 | 39 | 50 | 0.3 | 0.1 | 0.203 | B |
| 4 - A256 N | 1658 | 414 | 125 | | 1823 | 0.909 | 1809 | 1278 | 123.8 | 86.1 | 3.497 | F |

08:45 - 09:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Sandwich Road | 204 | 51 | 1711 | | 296 | 0.689 | 256 | 112 | 15.7 | 2.7 | 1.865 | F |
| 2 - A256 S | 1139 | 285 | 46 | 45.17 | 2238 | 0.509 | 1141 | 1921 | 1.5 | 1.0 | 0.055 | A |
| 3 - Jutes Lane | 32 | 8 | 1142 | | 421 | 0.077 | 33 | 45 | 0.1 | 0.1 | 0.154 | A |
| 4 - A256 N | 1388 | 347 | 104 | | 1836 | 0.756 | 1719 | 1070 | 86.1 | 3.5 | 1.219 | F |

2039 Growthed Traffic, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|--------------------|---------------------|------------|----------------------|--------------|
| 1 | A256/Sandwich Road | Standard Roundabout | 1, 2, 3, 4 | 5.92 | F |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | -13 | 3 - Jutes Lane |

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 | 2039 Growthed Traffic | PM | ONE HOUR | 16:30 | 18:00 | 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 (%) |
|-------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - Sandwich Road | | ONE HOUR | ✓ | 233 | 100.000 |
| 2 - A256 S | | ONE HOUR | ✓ | 2129 | 100.000 |
| 3 - Jutes Lane | | ONE HOUR | ✓ | 50 | 100.000 |
| 4 - A256 N | | ONE HOUR | ✓ | 1294 | 100.000 |

Demand overview (Pedestrians)

| Arm | Profile type | Average pedestrian flow (Ped/hr) |
|-------------------|--------------|----------------------------------|
| 1 - Sandwich Road | | |
| 2 - A256 S | [ONEHOUR] | 60.00 |
| 3 - Jutes Lane | | |
| 4 - A256 N | | |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | |
|------|-------------------|-------------------|------------|----------------|------------|
| | | 1 - Sandwich Road | 2 - A256 S | 3 - Jutes Lane | 4 - A256 N |
| From | 1 - Sandwich Road | 0 | 207 | 1 | 25 |
| | 2 - A256 S | 281 | 0 | 5 | 1843 |
| | 3 - Jutes Lane | 5 | 30 | 0 | 15 |
| | 4 - A256 N | 39 | 1244 | 11 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | |
|------|-------------------|-------------------|------------|----------------|------------|
| From | | 1 - Sandwich Road | 2 - A256 S | 3 - Jutes Lane | 4 - A256 N |
| | 1 - Sandwich Road | 0 | 2 | 0 | 0 |
| | 2 - A256 S | 1 | 0 | 26 | 2 |
| | 3 - Jutes Lane | 0 | 0 | 0 | 0 |
| | 4 - A256 N | 0 | 5 | 12 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|-------------------|---------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - Sandwich Road | 0.64 | 0.42 | 1.7 | D | 214 | 321 |
| 2 - A256 S | 0.93 | 0.32 | 11.8 | C | 1954 | 2930 |
| 3 - Jutes Lane | 21.77 | 430.62 | 23.7 | F | 46 | 69 |
| 4 - A256 N | 0.82 | 0.19 | 4.4 | B | 1187 | 1781 |

Main Results for each time segment

16:30 - 16:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Sandwich Road | 175 | 44 | 963 | | 520 | 0.337 | 173 | 243 | 0.0 | 0.5 | 0.172 | B |
| 2 - A256 S | 1603 | 401 | 28 | 45.17 | 2376 | 0.675 | 1595 | 1108 | 0.0 | 2.0 | 0.076 | A |
| 3 - Jutes Lane | 38 | 9 | 1610 | | 379 | 0.099 | 37 | 13 | 0.0 | 0.1 | 0.176 | B |
| 4 - A256 N | 974 | 244 | 237 | | 1778 | 0.548 | 969 | 1410 | 0.0 | 1.2 | 0.074 | A |

16:45 - 17:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Sandwich Road | 209 | 52 | 1152 | | 466 | 0.450 | 208 | 291 | 0.5 | 0.8 | 0.232 | B |
| 2 - A256 S | 1914 | 478 | 33 | 53.94 | 2441 | 0.784 | 1908 | 1327 | 2.0 | 3.5 | 0.111 | A |
| 3 - Jutes Lane | 45 | 11 | 1926 | | 220 | 0.204 | 44 | 15 | 0.1 | 0.2 | 0.340 | C |
| 4 - A256 N | 1163 | 291 | 283 | | 1752 | 0.664 | 1160 | 1687 | 1.2 | 1.9 | 0.101 | A |

17:00 - 17:15

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Sandwich Road | 257 | 64 | 1381 | | 400 | 0.641 | 253 | 350 | 0.8 | 1.7 | 0.399 | C |
| 2 - A256 S | 2344 | 586 | 40 | 66.06 | 2518 | 0.931 | 2315 | 1594 | 3.5 | 10.7 | 0.265 | C |
| 3 - Jutes Lane | 55 | 14 | 2337 | | 15 | 3.700 | 14 | 19 | 0.2 | 10.6 | 20.116 | F |
| 4 - A256 N | 1425 | 356 | 315 | | 1734 | 0.822 | 1415 | 2036 | 1.9 | 4.3 | 0.183 | B |

17:15 - 17:30

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|--------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Sandwich Road | 257 | 64 | 1383 | | 399 | 0.642 | 256 | 352 | 1.7 | 1.7 | 0.418 | D |
| 2 - A256 S | 2344 | 586 | 41 | 66.06 | 2517 | 0.931 | 2340 | 1598 | 10.7 | 11.8 | 0.321 | C |
| 3 - Jutes Lane | 55 | 14 | 2362 | | 3 | 21.773 | 3 | 19 | 10.6 | 23.7 | 430.618 | F |
| 4 - A256 N | 1425 | 356 | 311 | | 1737 | 0.820 | 1424 | 2054 | 4.3 | 4.4 | 0.191 | B |

17:30 - 17:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Sandwich Road | 209 | 52 | 1220 | | 447 | 0.468 | 213 | 306 | 1.7 | 0.9 | 0.259 | C |
| 2 - A256 S | 1914 | 478 | 34 | 53.94 | 2523 | 0.759 | 1948 | 1399 | 11.8 | 3.2 | 0.110 | A |
| 3 - Jutes Lane | 45 | 11 | 1967 | | 200 | 0.225 | 138 | 15 | 23.7 | 0.3 | 2.492 | F |
| 4 - A256 N | 1163 | 291 | 354 | | 1713 | 0.679 | 1172 | 1751 | 4.4 | 2.2 | 0.113 | A |

17:45 - 18:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Sandwich Road | 175 | 44 | 972 | | 518 | 0.339 | 177 | 246 | 0.9 | 0.5 | 0.177 | B |
| 2 - A256 S | 1603 | 401 | 28 | 45.17 | 2448 | 0.655 | 1608 | 1120 | 3.2 | 1.9 | 0.072 | A |
| 3 - Jutes Lane | 38 | 9 | 1623 | | 372 | 0.101 | 38 | 13 | 0.3 | 0.1 | 0.180 | B |
| 4 - A256 N | 974 | 244 | 239 | | 1776 | 0.548 | 978 | 1423 | 2.2 | 1.2 | 0.076 | A |

2039 Growthed Traffic, Airport Peak

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|--------------------|---------------------|------------|----------------------|--------------|
| 1 | A256/Sandwich Road | Standard Roundabout | 1, 2, 3, 4 | 0.09 | A |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | 25 | 1 - Sandwich Road |

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 | 2039 Growthed Traffic | Airport Peak | ONE HOUR | 12:45 | 14:15 | 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 (%) |
|-------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - Sandwich Road | | ONE HOUR | ✓ | 217 | 100.000 |
| 2 - A256 S | | ONE HOUR | ✓ | 1119 | 100.000 |
| 3 - Jutes Lane | | ONE HOUR | ✓ | 48 | 100.000 |
| 4 - A256 N | | ONE HOUR | ✓ | 938 | 100.000 |

Demand overview (Pedestrians)

| Arm | Profile type | Average pedestrian flow (Ped/hr) |
|-------------------|--------------|----------------------------------|
| 1 - Sandwich Road | | |
| 2 - A256 S | [ONEHOUR] | 60.00 |
| 3 - Jutes Lane | | |
| 4 - A256 N | | |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | |
|------|-------------------|-------------------|------------|----------------|------------|
| | | 1 - Sandwich Road | 2 - A256 S | 3 - Jutes Lane | 4 - A256 N |
| From | 1 - Sandwich Road | 0 | 193 | 0 | 24 |
| | 2 - A256 S | 169 | 0 | 8 | 942 |
| | 3 - Jutes Lane | 3 | 39 | 0 | 6 |
| | 4 - A256 N | 21 | 891 | 26 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | |
|------|-------------------|-------------------|------------|----------------|------------|
| From | | 1 - Sandwich Road | 2 - A256 S | 3 - Jutes Lane | 4 - A256 N |
| | 1 - Sandwich Road | 0 | 2 | 0 | 0 |
| | 2 - A256 S | 4 | 0 | 0 | 10 |
| | 3 - Jutes Lane | 51 | 11 | 0 | 76 |
| | 4 - A256 N | 7 | 10 | 33 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|-------------------|---------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - Sandwich Road | 0.50 | 0.25 | 1.0 | C | 199 | 299 |
| 2 - A256 S | 0.57 | 0.06 | 1.3 | A | 1027 | 1540 |
| 3 - Jutes Lane | 0.12 | 0.16 | 0.1 | A | 44 | 66 |
| 4 - A256 N | 0.61 | 0.09 | 1.6 | A | 861 | 1291 |

Main Results for each time segment

12:45 - 13:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Sandwich Road | 163 | 41 | 717 | | 579 | 0.282 | 162 | 145 | 0.0 | 0.4 | 0.143 | A |
| 2 - A256 S | 842 | 211 | 37 | 45.17 | 2186 | 0.385 | 840 | 841 | 0.0 | 0.6 | 0.045 | A |
| 3 - Jutes Lane | 36 | 9 | 852 | | 598 | 0.060 | 36 | 26 | 0.0 | 0.1 | 0.107 | A |
| 4 - A256 N | 706 | 177 | 158 | | 1724 | 0.410 | 703 | 729 | 0.0 | 0.7 | 0.059 | A |

13:00 - 13:15

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Sandwich Road | 195 | 49 | 858 | | 537 | 0.364 | 194 | 173 | 0.4 | 0.6 | 0.175 | B |
| 2 - A256 S | 1006 | 251 | 45 | 53.94 | 2174 | 0.463 | 1005 | 1008 | 0.6 | 0.9 | 0.051 | A |
| 3 - Jutes Lane | 43 | 11 | 1019 | | 525 | 0.082 | 43 | 31 | 0.1 | 0.1 | 0.124 | A |
| 4 - A256 N | 843 | 211 | 189 | | 1707 | 0.494 | 842 | 873 | 0.7 | 1.0 | 0.069 | A |

13:15 - 13:30

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Sandwich Road | 239 | 60 | 1050 | | 479 | 0.499 | 237 | 212 | 0.6 | 1.0 | 0.247 | B |
| 2 - A256 S | 1232 | 308 | 55 | 66.06 | 2155 | 0.572 | 1230 | 1233 | 0.9 | 1.3 | 0.065 | A |
| 3 - Jutes Lane | 53 | 13 | 1248 | | 425 | 0.124 | 53 | 37 | 0.1 | 0.1 | 0.161 | A |
| 4 - A256 N | 1033 | 258 | 232 | | 1683 | 0.614 | 1030 | 1068 | 1.0 | 1.6 | 0.092 | A |

13:30 - 13:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Sandwich Road | 239 | 60 | 1053 | | 478 | 0.500 | 239 | 212 | 1.0 | 1.0 | 0.251 | C |
| 2 - A256 S | 1232 | 308 | 55 | 66.06 | 2169 | 0.568 | 1232 | 1236 | 1.3 | 1.3 | 0.064 | A |
| 3 - Jutes Lane | 53 | 13 | 1250 | | 424 | 0.125 | 53 | 37 | 0.1 | 0.1 | 0.162 | A |
| 4 - A256 N | 1033 | 258 | 232 | | 1683 | 0.614 | 1033 | 1070 | 1.6 | 1.6 | 0.092 | A |

13:45 - 14:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Sandwich Road | 195 | 49 | 862 | | 535 | 0.364 | 197 | 174 | 1.0 | 0.6 | 0.178 | B |
| 2 - A256 S | 1006 | 251 | 45 | 53.94 | 2192 | 0.459 | 1008 | 1013 | 1.3 | 0.9 | 0.051 | A |
| 3 - Jutes Lane | 43 | 11 | 1022 | | 524 | 0.082 | 43 | 31 | 0.1 | 0.1 | 0.125 | A |
| 4 - A256 N | 843 | 211 | 190 | | 1706 | 0.494 | 846 | 876 | 1.6 | 1.0 | 0.070 | A |

14:00 - 14:15

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Sandwich Road | 163 | 41 | 721 | | 578 | 0.283 | 164 | 145 | 0.6 | 0.4 | 0.145 | A |
| 2 - A256 S | 842 | 211 | 38 | 45.17 | 2205 | 0.382 | 843 | 847 | 0.9 | 0.6 | 0.044 | A |
| 3 - Jutes Lane | 36 | 9 | 855 | | 597 | 0.061 | 36 | 26 | 0.1 | 0.1 | 0.107 | A |
| 4 - A256 N | 706 | 177 | 159 | | 1723 | 0.410 | 707 | 733 | 1.0 | 0.7 | 0.059 | A |

2039 + Dev Traffic, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|--------------------|---------------------|------------|----------------------|--------------|
| 1 | A256/Sandwich Road | Standard Roundabout | 1, 2, 3, 4 | 2.24 | F |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | -23 | 1 - Sandwich Road |

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 |
|----|--------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D9 | 2039 + Dev Traffic | AM | ONE HOUR | 07:30 | 09:00 | 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 (%) |
|-------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - Sandwich Road | | ONE HOUR | ✓ | 271 | 100.000 |
| 2 - A256 S | | ONE HOUR | ✓ | 1630 | 100.000 |
| 3 - Jutes Lane | | ONE HOUR | ✓ | 43 | 100.000 |
| 4 - A256 N | | ONE HOUR | ✓ | 1860 | 100.000 |

Demand overview (Pedestrians)

| Arm | Profile type | Average pedestrian flow (Ped/hr) |
|-------------------|--------------|----------------------------------|
| 1 - Sandwich Road | | |
| 2 - A256 S | [ONEHOUR] | 60.00 |
| 3 - Jutes Lane | | |
| 4 - A256 N | | |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | |
|------|-------------------|-------------------|------------|----------------|------------|
| | | 1 - Sandwich Road | 2 - A256 S | 3 - Jutes Lane | 4 - A256 N |
| From | 1 - Sandwich Road | 0 | 255 | 0 | 16 |
| | 2 - A256 S | 109 | 0 | 19 | 1502 |
| | 3 - Jutes Lane | 2 | 27 | 0 | 14 |
| | 4 - A256 N | 30 | 1797 | 33 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | |
|------|-------------------|-------------------|------------|----------------|------------|
| | | 1 - Sandwich Road | 2 - A256 S | 3 - Jutes Lane | 4 - A256 N |
| From | 1 - Sandwich Road | 0 | 3 | 0 | 24 |
| | 2 - A256 S | 10 | 0 | 14 | 7 |
| | 3 - Jutes Lane | 0 | 34 | 0 | 47 |
| | 4 - A256 N | 17 | 5 | 12 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|-------------------|---------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - Sandwich Road | 1.11 | 4.58 | 21.3 | F | 249 | 373 |
| 2 - A256 S | 0.78 | 0.12 | 3.5 | A | 1496 | 2244 |
| 3 - Jutes Lane | 0.27 | 0.47 | 0.4 | D | 39 | 59 |
| 4 - A256 N | 1.13 | 3.84 | 132.7 | F | 1707 | 2560 |

Main Results for each time segment

07:30 - 07:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Sandwich Road | 204 | 51 | 1386 | | 387 | 0.527 | 200 | 106 | 0.0 | 1.1 | 0.313 | C |
| 2 - A256 S | 1227 | 307 | 36 | 45.17 | 2233 | 0.550 | 1222 | 1549 | 0.0 | 1.2 | 0.059 | A |
| 3 - Jutes Lane | 32 | 8 | 1220 | | 395 | 0.082 | 32 | 39 | 0.0 | 0.1 | 0.165 | A |
| 4 - A256 N | 1400 | 350 | 103 | | 1837 | 0.762 | 1388 | 1149 | 0.0 | 3.1 | 0.130 | A |

07:45 - 08:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Sandwich Road | 244 | 61 | 1647 | | 314 | 0.776 | 236 | 126 | 1.1 | 2.9 | 0.716 | E |
| 2 - A256 S | 1465 | 366 | 43 | 53.94 | 2249 | 0.651 | 1463 | 1840 | 1.2 | 1.8 | 0.076 | A |
| 3 - Jutes Lane | 39 | 10 | 1460 | | 303 | 0.128 | 38 | 46 | 0.1 | 0.1 | 0.227 | B |
| 4 - A256 N | 1672 | 418 | 124 | | 1824 | 0.917 | 1649 | 1374 | 3.1 | 8.8 | 0.309 | C |

08:00 - 08:15

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Sandwich Road | 298 | 75 | 1796 | | 272 | 1.098 | 258 | 151 | 2.9 | 12.9 | 2.307 | F |
| 2 - A256 S | 1795 | 449 | 47 | 66.06 | 2291 | 0.783 | 1788 | 2007 | 1.8 | 3.5 | 0.118 | A |
| 3 - Jutes Lane | 47 | 12 | 1782 | | 179 | 0.265 | 47 | 53 | 0.1 | 0.3 | 0.452 | D |
| 4 - A256 N | 2048 | 512 | 151 | | 1807 | 1.133 | 1795 | 1678 | 8.8 | 72.0 | 1.493 | F |

08:15 - 08:30

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Sandwich Road | 298 | 75 | 1805 | | 269 | 1.109 | 265 | 151 | 12.9 | 21.3 | 4.302 | F |
| 2 - A256 S | 1795 | 449 | 48 | 66.06 | 2340 | 0.767 | 1795 | 2023 | 3.5 | 3.4 | 0.110 | A |
| 3 - Jutes Lane | 47 | 12 | 1790 | | 176 | 0.270 | 47 | 53 | 0.3 | 0.4 | 0.467 | D |
| 4 - A256 N | 2048 | 512 | 152 | | 1806 | 1.134 | 1805 | 1685 | 72.0 | 132.7 | 3.493 | F |

08:30 - 08:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Sandwich Road | 244 | 61 | 1805 | | 270 | 0.904 | 265 | 129 | 21.3 | 15.9 | 4.584 | F |
| 2 - A256 S | 1465 | 366 | 48 | 53.94 | 2302 | 0.637 | 1472 | 2023 | 3.4 | 1.8 | 0.073 | A |
| 3 - Jutes Lane | 39 | 10 | 1470 | | 299 | 0.129 | 39 | 49 | 0.4 | 0.2 | 0.232 | B |
| 4 - A256 N | 1672 | 418 | 125 | | 1823 | 0.917 | 1809 | 1385 | 132.7 | 98.4 | 3.842 | F |

08:45 - 09:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Sandwich Road | 204 | 51 | 1770 | | 280 | 0.730 | 253 | 112 | 15.9 | 3.6 | 2.292 | F |
| 2 - A256 S | 1227 | 307 | 46 | 45.17 | 2266 | 0.542 | 1229 | 1977 | 1.8 | 1.2 | 0.058 | A |
| 3 - Jutes Lane | 32 | 8 | 1230 | | 391 | 0.083 | 33 | 46 | 0.2 | 0.1 | 0.167 | B |
| 4 - A256 N | 1400 | 350 | 104 | | 1836 | 0.763 | 1778 | 1158 | 98.4 | 3.9 | 1.620 | F |

2039 + Dev Traffic, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|--------------------|---------------------|------------|----------------------|--------------|
| 1 | A256/Sandwich Road | Standard Roundabout | 1, 2, 3, 4 | 0.65 | E |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | -14 | 3 - Jutes Lane |

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 |
|-----|--------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D10 | 2039 + Dev Traffic | PM | ONE HOUR | 16:30 | 18:00 | 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 (%) |
|-------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - Sandwich Road | | ONE HOUR | ✓ | 233 | 100.000 |
| 2 - A256 S | | ONE HOUR | ✓ | 2148 | 100.000 |
| 3 - Jutes Lane | | ONE HOUR | ✓ | 50 | 100.000 |
| 4 - A256 N | | ONE HOUR | ✓ | 1424 | 100.000 |

Demand overview (Pedestrians)

| Arm | Profile type | Average pedestrian flow (Ped/hr) |
|-------------------|--------------|----------------------------------|
| 1 - Sandwich Road | | |
| 2 - A256 S | [ONEHOUR] | 60.00 |
| 3 - Jutes Lane | | |
| 4 - A256 N | | |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | |
|------|-------------------|-------------------|------------|----------------|------------|
| | | 1 - Sandwich Road | 2 - A256 S | 3 - Jutes Lane | 4 - A256 N |
| From | 1 - Sandwich Road | 0 | 207 | 1 | 25 |
| | 2 - A256 S | 281 | 0 | 5 | 1862 |
| | 3 - Jutes Lane | 5 | 30 | 0 | 15 |
| | 4 - A256 N | 39 | 1374 | 11 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | |
|------|-------------------|-------------------|------------|----------------|------------|
| From | | 1 - Sandwich Road | 2 - A256 S | 3 - Jutes Lane | 4 - A256 N |
| | 1 - Sandwich Road | 0 | 2 | 0 | 0 |
| | 2 - A256 S | 1 | 0 | 26 | 2 |
| | 3 - Jutes Lane | 0 | 0 | 0 | 0 |
| | 4 - A256 N | 0 | 4 | 12 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|-------------------|--------------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - Sandwich Road | 0.71 | 0.55 | 2.3 | D | 214 | 321 |
| 2 - A256 S | 0.94 | 0.35 | 13.1 | C | 1971 | 2957 |
| 3 - Jutes Lane | 999999999.00 | 24.34 | 26.3 | F | 46 | 69 |
| 4 - A256 N | 0.89 | 0.31 | 7.7 | C | 1307 | 1960 |

Main Results for each time segment

16:30 - 16:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Sandwich Road | 175 | 44 | 1059 | | 495 | 0.354 | 173 | 243 | 0.0 | 0.5 | 0.185 | B |
| 2 - A256 S | 1617 | 404 | 28 | 45.17 | 2377 | 0.680 | 1609 | 1205 | 0.0 | 2.1 | 0.077 | A |
| 3 - Jutes Lane | 38 | 9 | 1624 | | 372 | 0.101 | 37 | 13 | 0.0 | 0.1 | 0.179 | B |
| 4 - A256 N | 1072 | 268 | 236 | | 1794 | 0.598 | 1066 | 1424 | 0.0 | 1.5 | 0.082 | A |

16:45 - 17:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Sandwich Road | 209 | 52 | 1267 | | 436 | 0.480 | 208 | 291 | 0.5 | 0.9 | 0.261 | C |
| 2 - A256 S | 1931 | 483 | 33 | 53.94 | 2445 | 0.790 | 1925 | 1442 | 2.1 | 3.6 | 0.114 | A |
| 3 - Jutes Lane | 45 | 11 | 1943 | | 212 | 0.212 | 44 | 15 | 0.1 | 0.3 | 0.357 | C |
| 4 - A256 N | 1280 | 320 | 283 | | 1768 | 0.724 | 1276 | 1704 | 1.5 | 2.5 | 0.121 | A |

17:00 - 17:15

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Sandwich Road | 257 | 64 | 1510 | | 367 | 0.699 | 252 | 348 | 0.9 | 2.1 | 0.501 | D |
| 2 - A256 S | 2365 | 591 | 40 | 66.06 | 2518 | 0.939 | 2333 | 1722 | 3.6 | 11.7 | 0.284 | C |
| 3 - Jutes Lane | 55 | 14 | 2354 | | 6 | 8.811 | 6 | 18 | 0.3 | 12.6 | 24.344 | F |
| 4 - A256 N | 1568 | 392 | 309 | | 1753 | 0.894 | 1549 | 2051 | 2.5 | 7.2 | 0.272 | C |

17:15 - 17:30

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|---------------|---------------------|---------------------------------|-------------------|-----------------|--------------|-----|
| 1 - Sandwich Road | 257 | 64 | 1523 | | 363 | 0.706 | 256 | 352 | 2.1 | 2.3 | 0.552 | D |
| 2 - A256 S | 2365 | 591 | 41 | 66.06 | 2517 | 0.939 | 2359 | 1738 | 11.7 | 13.1 | 0.354 | C |
| 3 - Jutes Lane | 55 | 14 | 2381 | | 0 | 999999999.000 | 0 | 19 | 12.6 | 26.3 | - 124.253 | ? |
| 4 - A256 N | 1568 | 392 | 309 | | 1754 | 0.894 | 1566 | 2073 | 7.2 | 7.7 | 0.311 | C |

17:30 - 17:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Sandwich Road | 209 | 52 | 1353 | | 413 | 0.508 | 214 | 308 | 2.3 | 1.1 | 0.309 | C |
| 2 - A256 S | 1931 | 483 | 34 | 53.94 | 2523 | 0.765 | 1970 | 1533 | 13.1 | 3.4 | 0.116 | A |
| 3 - Jutes Lane | 45 | 11 | 1988 | | 189 | 0.238 | 149 | 16 | 26.3 | 0.4 | 3.610 | F |
| 4 - A256 N | 1280 | 320 | 362 | | 1725 | 0.742 | 1299 | 1775 | 7.7 | 3.0 | 0.147 | A |

17:45 - 18:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Sandwich Road | 175 | 44 | 1072 | | 492 | 0.357 | 177 | 246 | 1.1 | 0.6 | 0.192 | B |
| 2 - A256 S | 1617 | 404 | 28 | 45.17 | 2452 | 0.660 | 1623 | 1221 | 3.4 | 2.0 | 0.073 | A |
| 3 - Jutes Lane | 38 | 9 | 1638 | | 364 | 0.103 | 39 | 13 | 0.4 | 0.1 | 0.185 | B |
| 4 - A256 N | 1072 | 268 | 239 | | 1793 | 0.598 | 1078 | 1437 | 3.0 | 1.5 | 0.085 | A |

2039 + Dev Traffic, Airport Peak

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|--------------------|---------------------|------------|----------------------|--------------|
| 1 | A256/Sandwich Road | Standard Roundabout | 1, 2, 3, 4 | 0.10 | A |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | 23 | 1 - Sandwich Road |

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 |
|-----|--------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D11 | 2039 + Dev Traffic | Airport Peak | ONE HOUR | 12:45 | 14:15 | 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 (%) |
|-------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - Sandwich Road | | ONE HOUR | ✓ | 217 | 100.000 |
| 2 - A256 S | | ONE HOUR | ✓ | 1257 | 100.000 |
| 3 - Jutes Lane | | ONE HOUR | ✓ | 48 | 100.000 |
| 4 - A256 N | | ONE HOUR | ✓ | 977 | 100.000 |

Demand overview (Pedestrians)

| Arm | Profile type | Average pedestrian flow (Ped/hr) |
|-------------------|--------------|----------------------------------|
| 1 - Sandwich Road | | |
| 2 - A256 S | [ONEHOUR] | 60.00 |
| 3 - Jutes Lane | | |
| 4 - A256 N | | |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | |
|------|-------------------|-------------------|------------|----------------|------------|
| | | 1 - Sandwich Road | 2 - A256 S | 3 - Jutes Lane | 4 - A256 N |
| From | 1 - Sandwich Road | 0 | 193 | 0 | 24 |
| | 2 - A256 S | 169 | 0 | 8 | 1080 |
| | 3 - Jutes Lane | 3 | 39 | 0 | 6 |
| | 4 - A256 N | 21 | 930 | 26 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | |
|------|-------------------|-------------------|------------|----------------|------------|
| From | | 1 - Sandwich Road | 2 - A256 S | 3 - Jutes Lane | 4 - A256 N |
| | 1 - Sandwich Road | 0 | 2 | 0 | 0 |
| | 2 - A256 S | 4 | 0 | 0 | 8 |
| | 3 - Jutes Lane | 51 | 11 | 0 | 76 |
| | 4 - A256 N | 7 | 9 | 33 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|-------------------|---------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - Sandwich Road | 0.51 | 0.26 | 1.0 | C | 199 | 299 |
| 2 - A256 S | 0.63 | 0.07 | 1.7 | A | 1153 | 1730 |
| 3 - Jutes Lane | 0.14 | 0.19 | 0.2 | B | 44 | 66 |
| 4 - A256 N | 0.63 | 0.10 | 1.7 | A | 897 | 1345 |

Main Results for each time segment

12:45 - 13:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Sandwich Road | 163 | 41 | 746 | | 572 | 0.285 | 162 | 145 | 0.0 | 0.4 | 0.146 | A |
| 2 - A256 S | 946 | 237 | 37 | 45.17 | 2220 | 0.426 | 943 | 870 | 0.0 | 0.7 | 0.047 | A |
| 3 - Jutes Lane | 36 | 9 | 955 | | 559 | 0.065 | 36 | 26 | 0.0 | 0.1 | 0.115 | A |
| 4 - A256 N | 736 | 184 | 158 | | 1739 | 0.423 | 733 | 833 | 0.0 | 0.7 | 0.059 | A |

13:00 - 13:15

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Sandwich Road | 195 | 49 | 893 | | 528 | 0.369 | 194 | 173 | 0.4 | 0.6 | 0.179 | B |
| 2 - A256 S | 1130 | 283 | 45 | 53.94 | 2213 | 0.511 | 1129 | 1043 | 0.7 | 1.0 | 0.055 | A |
| 3 - Jutes Lane | 43 | 11 | 1143 | | 478 | 0.090 | 43 | 31 | 0.1 | 0.1 | 0.138 | A |
| 4 - A256 N | 878 | 220 | 189 | | 1722 | 0.510 | 877 | 997 | 0.7 | 1.0 | 0.071 | A |

13:15 - 13:30

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Sandwich Road | 239 | 60 | 1093 | | 469 | 0.510 | 237 | 212 | 0.6 | 1.0 | 0.257 | C |
| 2 - A256 S | 1384 | 346 | 55 | 66.06 | 2201 | 0.629 | 1381 | 1275 | 1.0 | 1.7 | 0.073 | A |
| 3 - Jutes Lane | 53 | 13 | 1399 | | 367 | 0.144 | 53 | 37 | 0.1 | 0.2 | 0.191 | B |
| 4 - A256 N | 1076 | 269 | 232 | | 1698 | 0.633 | 1073 | 1220 | 1.0 | 1.7 | 0.096 | A |

13:30 - 13:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Sandwich Road | 239 | 60 | 1095 | | 468 | 0.511 | 239 | 212 | 1.0 | 1.0 | 0.262 | C |
| 2 - A256 S | 1384 | 346 | 55 | 66.06 | 2221 | 0.623 | 1384 | 1279 | 1.7 | 1.7 | 0.072 | A |
| 3 - Jutes Lane | 53 | 13 | 1402 | | 366 | 0.144 | 53 | 37 | 0.2 | 0.2 | 0.192 | B |
| 4 - A256 N | 1076 | 269 | 232 | | 1698 | 0.634 | 1076 | 1222 | 1.7 | 1.7 | 0.096 | A |

13:45 - 14:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Sandwich Road | 195 | 49 | 897 | | 527 | 0.370 | 197 | 174 | 1.0 | 0.6 | 0.183 | B |
| 2 - A256 S | 1130 | 283 | 45 | 53.94 | 2237 | 0.505 | 1133 | 1049 | 1.7 | 1.0 | 0.054 | A |
| 3 - Jutes Lane | 43 | 11 | 1147 | | 476 | 0.091 | 43 | 31 | 0.2 | 0.1 | 0.139 | A |
| 4 - A256 N | 878 | 220 | 190 | | 1721 | 0.510 | 881 | 1000 | 1.7 | 1.1 | 0.072 | A |

14:00 - 14:15

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|-------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Sandwich Road | 163 | 41 | 750 | | 571 | 0.286 | 164 | 145 | 0.6 | 0.4 | 0.148 | A |
| 2 - A256 S | 946 | 237 | 38 | 45.17 | 2243 | 0.422 | 948 | 877 | 1.0 | 0.7 | 0.046 | A |
| 3 - Jutes Lane | 36 | 9 | 960 | | 557 | 0.065 | 36 | 26 | 0.1 | 0.1 | 0.115 | A |
| 4 - A256 N | 736 | 184 | 159 | | 1739 | 0.423 | 737 | 837 | 1.1 | 0.7 | 0.060 | A |

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.0.2.5947
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Filename: Jct 2_A256_A299_R1_validated.j9

Path: R:\Projects\38199 Manston Airport DCO EIA\4 Design\Transport\Junction Modelling\Base Models\Validated\Jct 2_A56_A299

Report generation date: 26/01/2018 16:13:04

- » Lane simulation - 2017 Base Traffic Flow, AM
- » Lane simulation - 2017 Base Traffic Flow, PM
- » Lane simulation - 2017 Base Traffic Flow, Airport Peak
- » Lane simulation - 2039 Growthed Future Baseline, AM
- » Lane simulation - 2039 Growthed Future Baseline, PM
- » Lane simulation - 2039 Growthed Future Baseline, Airport Peak
- » Lane simulation - 2039 + Dev Traffic, AM
- » Lane simulation - 2039 + Dev Traffic, PM
- » Lane simulation - 2039 + Dev Traffic, Airport Peak
- » Lane simulation - 2039 B+Dev Net Change, AM
- » Lane simulation - 2039 B+Dev Net Change, PM
- » Lane simulation - 2039 B+Dev Net Change, Airport Peak

Summary of junction performance

| | AM | | | | | PM | | | | | Airport Peak | | | | |
|--|-------------|-------------|-----|-----|---------------------------|-------------|-------------|-----|-----|---------------------------|--------------|-------------|-----|-----|---------------------------|
| | Queue (Veh) | Delay (min) | RFC | LOS | Network Residual Capacity | Queue (Veh) | Delay (min) | RFC | LOS | Network Residual Capacity | Queue (Veh) | Delay (min) | RFC | LOS | Network Residual Capacity |
| Lane simulation [Lane Simulation] - 2017 Base Traffic Flow | | | | | | | | | | | | | | | |
| 1 - A299 Hengist Way E | 9.3 | 0.31 | | C | % | 2.8 | 0.11 | | A | % | 1.9 | 0.09 | | A | % |
| 2 - A256 | 9.8 | 0.46 | | D | | 26.6 | 0.90 | | F | | 1.5 | 0.12 | | A | |
| 3 - Cottingham Link Road | 6.7 | 3.33 | | F | | 4.2 | 3.13 | | F | | 0.3 | 0.18 | | B | |
| 4 - A299 Hengist Way N | 1.8 | 0.17 | | B | | 1.0 | 0.14 | | A | | 0.5 | 0.13 | | A | |
| Lane simulation [Lane Simulation] - 2039 Growthed Future Baseline | | | | | | | | | | | | | | | |
| 1 - A299 Hengist Way E | 102.2 | 2.43 | | F | % | 7.2 | 0.21 | | B | % | 2.9 | 0.13 | | A | % |
| 2 - A256 | 96.8 | 4.25 | | F | | 182.3 | 6.58 | | F | | 4.1 | 0.24 | | B | |
| 3 - Cottingham Link Road | 88.5 | 39.88 | | F | | 58.6 | 40.46 | | F | | 1.0 | 0.58 | | D | |
| 4 - A299 Hengist Way N | 2.9 | 0.23 | | B | | 1.3 | 0.16 | | A | | 0.7 | 0.14 | | A | |
| Lane simulation [Lane Simulation] - 2039 + Dev Traffic | | | | | | | | | | | | | | | |
| 1 - A299 Hengist Way E | 115.0 | 2.74 | | F | % | 12.3 | 0.38 | | C | % | 3.2 | 0.13 | | A | % |
| 2 - A256 | 171.8 | 7.77 | | F | | 204.3 | 7.30 | | F | | 11.5 | 0.54 | | D | |
| 3 - Cottingham Link Road | 96.6 | 43.61 | | F | | 58.1 | 40.48 | | F | | 2.0 | 1.15 | | F | |
| 4 - A299 Hengist Way N | 2.7 | 0.23 | | B | | 1.1 | 0.15 | | A | | 0.8 | 0.16 | | A | |
| Lane simulation [Lane Simulation] - 2039 B+Dev Net Change | | | | | | | | | | | | | | | |
| 1 - A299 Hengist Way E | 94.1 | 2.46 | | F | % | 12.0 | 0.38 | | C | % | 2.9 | 0.12 | | A | % |
| 2 - A256 | 137.3 | 6.03 | | F | | 168.8 | 6.04 | | F | | 8.1 | 0.40 | | C | |
| 3 - Cottingham Link Road | 66.1 | 30.01 | | F | | 37.1 | 25.56 | | F | | 1.1 | 0.59 | | E | |
| 4 - A299 Hengist Way N | 3.0 | 0.25 | | B | | 1.4 | 0.16 | | A | | 0.8 | 0.16 | | A | |

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Arm and junction delays are averages for all movements, including movements with zero delay. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

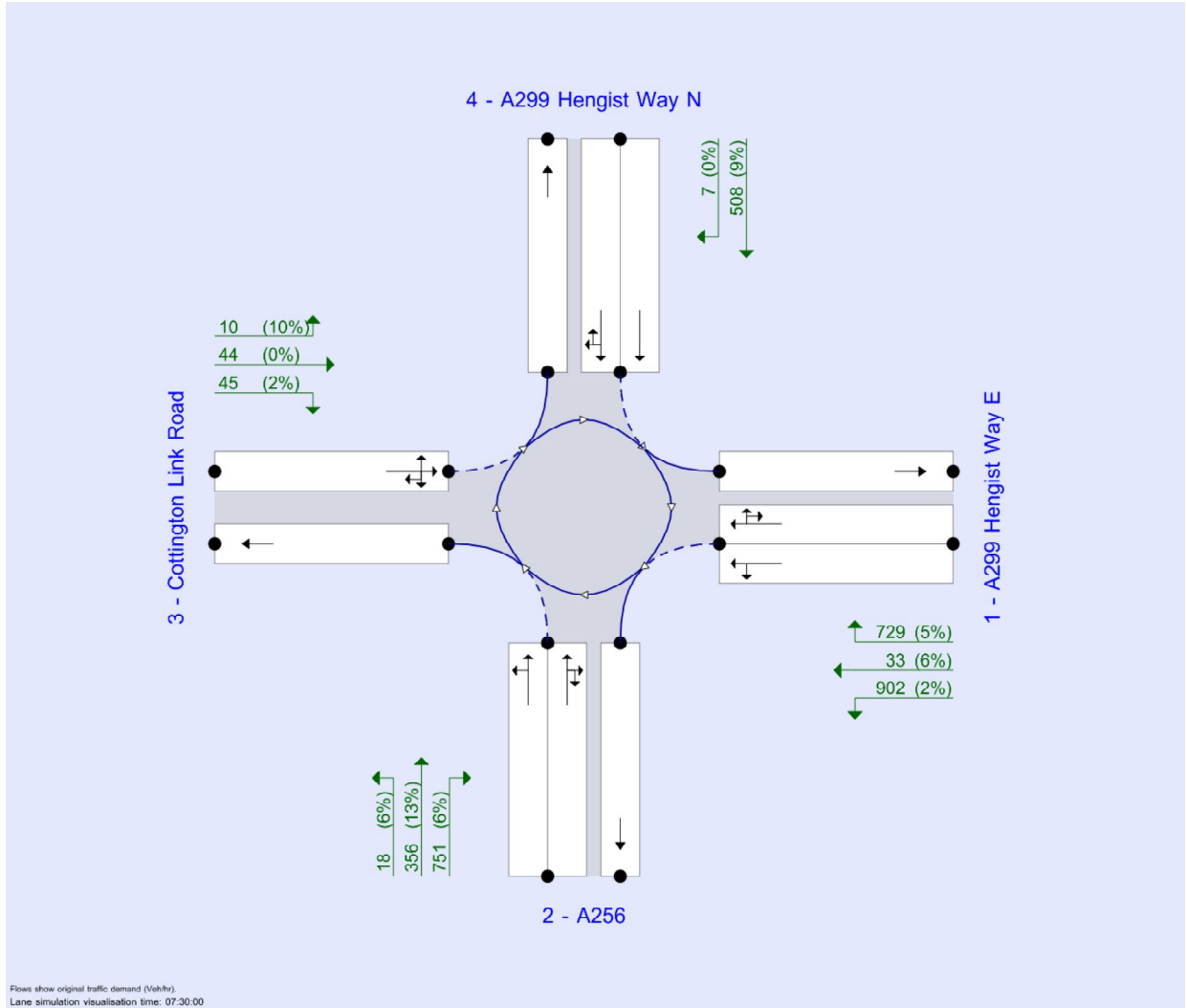
File Description

| | |
|-------------|------------|
| Title | (untitled) |
| Location | |
| Site number | |

| | |
|-------------|-----------------|
| Date | 29/09/2017 |
| Version | |
| Status | (new file) |
| Identifier | |
| Client | |
| Jobnumber | |
| Enumerator | GLOBAL\adam.guy |
| 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 | mph | Veh | Veh | perHour | min | -Min | perMin |



Analysis Options

| Vehicle length (m) | Calculate Queue Percentiles | Calculate detailed queuing delay | Calculate residual capacity | Residual capacity criteria type | RFC Threshold | Average Delay threshold (min) | Queue threshold (PCU) |
|--------------------|-----------------------------|----------------------------------|-----------------------------|---------------------------------|---------------|-------------------------------|-----------------------|
| 5.75 | | | ✓ | Delay | 0.85 | 0.60 | 20.00 |

Lane Simulation options

| Stop criteria (%) | Stop criteria time (s) | Stop criteria number of trials | Random seed | Results refresh speed (s) | Individual vehicle animation number of trials | Use crossings quick response | Last run random seed | Last run number of trials | Last run time taken (s) |
|-------------------|------------------------|--------------------------------|-------------|---------------------------|---|------------------------------|----------------------|---------------------------|-------------------------|
| 1.00 | 100000 | 100000 | -1 | 3 | 1 | ✓ | 1202091447 | 353 | 73.43 |

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 |
|----|------------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D3 | 2017 Base Traffic Flow | AM | ONE HOUR | 07:30 | 09:00 | 15 | ✓ |
| D4 | 2017 Base Traffic Flow | PM | ONE HOUR | 16:30 | 18:00 | 15 | ✓ |

| | | | | | | | |
|-----|-------------------------------|--------------|----------|-------|-------|----|---|
| D5 | 2017 Base Traffic Flow | Airport Peak | ONE HOUR | 12:45 | 14:15 | 15 | ✓ |
| D6 | 2039 Growthed Future Baseline | AM | ONE HOUR | 07:30 | 09:00 | 15 | ✓ |
| D7 | 2039 Growthed Future Baseline | PM | ONE HOUR | 16:30 | 18:00 | 15 | ✓ |
| D8 | 2039 Growthed Future Baseline | Airport Peak | ONE HOUR | 12:45 | 14:15 | 15 | ✓ |
| D9 | 2039 + Dev Traffic | AM | ONE HOUR | 07:30 | 09:00 | 15 | ✓ |
| D10 | 2039 + Dev Traffic | PM | ONE HOUR | 16:30 | 18:00 | 15 | ✓ |
| D11 | 2039 + Dev Traffic | Airport Peak | ONE HOUR | 12:45 | 14:15 | 15 | ✓ |
| D12 | 2039 B+Dev Net Change | AM | ONE HOUR | 07:30 | 09:00 | 15 | ✓ |
| D13 | 2039 B+Dev Net Change | PM | ONE HOUR | 16:30 | 18:00 | 15 | ✓ |
| D14 | 2039 B+Dev Net Change | Airport Peak | ONE HOUR | 12:45 | 14:15 | 15 | ✓ |

Analysis Set Details

| ID | Name | Use Lane Simulation | Include in report | Network flow scaling factor (%) | Network capacity scaling factor (%) |
|----|-----------------|---------------------|-------------------|---------------------------------|-------------------------------------|
| A2 | Lane simulation | ✓ | ✓ | 100.000 | 100.000 |

Lane simulation - 2017 Base Traffic Flow, AM

Data Errors and Warnings

| Severity | Area | Item | Description |
|----------|-----------------|--|---|
| Warning | Lane Simulation | A2 - Lane simulation [Lane Simulation] | This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results. |

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|------------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3, 4 | 0.42 | D |

Junction Network Options

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

Arms

Arms

| Arm | Name | Description |
|-----|----------------------|-------------|
| 1 | A299 Hengist Way E | |
| 2 | A256 | |
| 3 | Cottington Link Road | |
| 4 | A299 Hengist Way N | |

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 |
|--------------------------|----------------------------------|---------------------|---------------------------------|----------------------|-----------------------------------|------------------------------------|-----------|
| 1 - A299 Hengist Way E | 7.29 | 10.47 | 9.3 | 42.0 | 60.0 | 14.5 | |
| 2 - A256 | 7.66 | 10.10 | 14.8 | 25.1 | 60.0 | 56.0 | |
| 3 - Cottington Link Road | 2.80 | 4.40 | 6.9 | 22.3 | 60.0 | 21.0 | |
| 4 - A299 Hengist Way N | 7.37 | 10.01 | 4.5 | 23.2 | 60.0 | 22.0 | |

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

| Arm | Final slope | Final intercept (PCU/hr) |
|--------------------------|-------------|--------------------------|
| 1 - A299 Hengist Way E | 0.783 | 2881 |
| 2 - A256 | 0.688 | 2580 |
| 3 - Cottington Link Road | 0.474 | 1168 |
| 4 - A299 Hengist Way N | 0.722 | 2599 |

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

Arm Capacity Adjustments

| Arm | Type | Reason | Percentage capacity adjustment (%) |
|--------------------------|------------|--------|------------------------------------|
| 3 - Cottington Link Road | Percentage | | 85.00 |
| 4 - A299 Hengist Way N | Percentage | | 60.00 |

Lane Simulation: Arm options

| Arm | Lane capacity source | Traffic Considering Secondary Lanes (%) |
|--------------------------|----------------------|---|
| 1 - A299 Hengist Way E | Evenly split | 10.00 |
| 2 - A256 | Evenly split | 10.00 |
| 3 - Cottington Link Road | Evenly split | 10.00 |
| 4 - A299 Hengist Way N | Evenly split | 10.00 |

Lanes

| Arm | Lane level | Lane | Destination arms | Has limited storage | Storage (PCU) | Minimum capacity (PCU/hr) | Maximum capacity (PCU/hr) |
|------------------------|-------------------|------|------------------|---------------------|---------------|---------------------------|---------------------------|
| 1 - A299 Hengist Way E | 1 [Give-way line] | 1 | 2, 3 | | Infinity | 0 | 99999 |
| | | 2 | 1, 3, 4 | | Infinity | 0 | 99999 |
| | | 1 | 3, 4 | | Infinity | 0 | 99999 |

| | | | | | | | |
|--------------------------|-------------------|---|------------|--|----------|---|-------|
| 2 - A256 | 1 [Give-way line] | 2 | 1, 2, 4 | | Infinity | 0 | 99999 |
| 3 - Cottington Link Road | 1 [Give-way line] | 1 | 1, 2, 3, 4 | | Infinity | 0 | 99999 |
| 4 - A299 Hengist Way N | 1 [Give-way line] | 2 | 2 | | Infinity | 0 | 99999 |
| | | 3 | 2, 3, 4 | | Infinity | 0 | 99999 |

Entry Lane slope and intercept

| Arm | Lane level | Lane | Final slope | Final intercept (PCU/hr) |
|--------------------------|-------------------|------|-------------|--------------------------|
| 1 - A299 Hengist Way E | 1 [Give-way line] | 1 | 0.391 | 1440 |
| | | 2 | 0.391 | 1440 |
| 2 - A256 | 1 [Give-way line] | 1 | 0.344 | 1290 |
| | | 2 | 0.344 | 1290 |
| 3 - Cottington Link Road | 1 [Give-way line] | 1 | 0.474 | 1168 |
| | | 2 | 0.361 | 1300 |
| 4 - A299 Hengist Way N | 1 [Give-way line] | 3 | 0.361 | 1300 |

Lane Movements

| Arm | Lane Level | Lane | Destination arm | | | |
|--------------------------|-------------------|------|--------------------|------|----------------------|--------------------|
| | | | A299 Hengist Way E | A256 | Cottington Link Road | A299 Hengist Way N |
| 1 - A299 Hengist Way E | 1 [Give-way line] | 1 | | ✓ | ✓ | |
| | | 2 | ✓ | | ✓ | ✓ |
| 2 - A256 | 1 [Give-way line] | 1 | | | ✓ | ✓ |
| | | 2 | ✓ | ✓ | | ✓ |
| 3 - Cottington Link Road | 1 [Give-way line] | 1 | ✓ | ✓ | ✓ | ✓ |
| 4 - A299 Hengist Way N | 1 [Give-way line] | 2 | | ✓ | | |
| | | 3 | | ✓ | ✓ | ✓ |

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 | 2017 Base Traffic Flow | AM | ONE HOUR | 07:30 | 09:00 | 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 (%) |
|--------------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - A299 Hengist Way E | | ONE HOUR | ✓ | 1664 | 100.000 |
| 2 - A256 | | ONE HOUR | ✓ | 1125 | 100.000 |
| 3 - Cottington Link Road | | ONE HOUR | ✓ | 99 | 100.000 |
| 4 - A299 Hengist Way N | | ONE HOUR | ✓ | 515 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | |
|------|--------------------------|------------------------|----------|--------------------------|------------------------|
| | | 1 - A299 Hengist Way E | 2 - A256 | 3 - Cottington Link Road | 4 - A299 Hengist Way N |
| From | 1 - A299 Hengist Way E | 0 | 902 | 33 | 729 |
| | 2 - A256 | 751 | 0 | 18 | 356 |
| | 3 - Cottington Link Road | 44 | 45 | 0 | 10 |
| | 4 - A299 Hengist Way N | 0 | 508 | 7 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | |
|------|--------------------------|------------------------|----------|--------------------------|------------------------|
| | | 1 - A299 Hengist Way E | 2 - A256 | 3 - Cottington Link Road | 4 - A299 Hengist Way N |
| From | 1 - A299 Hengist Way E | 0 | 2 | 6 | 5 |
| | 2 - A256 | 6 | 0 | 6 | 13 |
| | 3 - Cottington Link Road | 0 | 2 | 0 | 10 |
| | 4 - A299 Hengist Way N | 0 | 9 | 0 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|--------------------------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - A299 Hengist Way E | 0.31 | 9.3 | C | 1525 | 2288 |
| 2 - A256 | 0.46 | 9.8 | D | 1032 | 1548 |
| 3 - Cottington Link Road | 3.33 | 6.7 | F | 91 | 137 |
| 4 - A299 Hengist Way N | 0.17 | 1.8 | B | 471 | 707 |

Main Results for each time segment

07:30 - 07:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 1250 | 313 | 409 | 1251 | 596 | 0.0 | 2.2 | 0.098 | A |
| 2 - A256 | 849 | 212 | 573 | 848 | 1087 | 0.0 | 1.9 | 0.117 | A |
| 3 - Cottington Link Road | 75 | 19 | 1378 | 74 | 43 | 0.0 | 0.3 | 0.168 | B |
| 4 - A299 Hengist Way N | 376 | 94 | 630 | 374 | 823 | 0.0 | 0.8 | 0.116 | A |

07:45 - 08:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 1503 | 376 | 503 | 1502 | 707 | 2.2 | 3.7 | 0.137 | A |
| 2 - A256 | 1002 | 251 | 696 | 1003 | 1310 | 1.9 | 2.9 | 0.172 | B |
| 3 - Cottington Link Road | 88 | 22 | 1647 | 87 | 52 | 0.3 | 0.6 | 0.315 | C |
| 4 - A299 Hengist Way N | 466 | 116 | 745 | 465 | 988 | 0.8 | 1.1 | 0.136 | A |

08:00 - 08:15

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 1834 | 459 | 614 | 1832 | 856 | 3.7 | 9.3 | 0.266 | C |
| 2 - A256 | 1231 | 308 | 842 | 1221 | 1603 | 2.9 | 8.8 | 0.358 | C |
| 3 - Cottington Link Road | 109 | 27 | 2000 | 98 | 63 | 0.6 | 4.4 | 1.848 | F |
| 4 - A299 Hengist Way N | 571 | 143 | 901 | 569 | 1196 | 1.1 | 1.7 | 0.173 | B |

08:15 - 08:30

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 1817 | 454 | 609 | 1825 | 868 | 9.3 | 9.0 | 0.307 | C |
| 2 - A256 | 1238 | 310 | 847 | 1233 | 1588 | 8.8 | 9.9 | 0.458 | D |
| 3 - Cottington Link Road | 108 | 27 | 2019 | 97 | 61 | 4.4 | 6.7 | 3.332 | F |
| 4 - A299 Hengist Way N | 567 | 142 | 911 | 566 | 1204 | 1.7 | 1.7 | 0.173 | B |

08:30 - 08:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 1494 | 374 | 506 | 1492 | 724 | 9.0 | 3.6 | 0.158 | A |
| 2 - A256 | 1012 | 253 | 697 | 1014 | 1302 | 9.9 | 3.0 | 0.237 | B |
| 3 - Cottington Link Road | 91 | 23 | 1661 | 97 | 50 | 6.7 | 0.7 | 1.096 | F |
| 4 - A299 Hengist Way N | 462 | 115 | 767 | 463 | 990 | 1.7 | 1.0 | 0.144 | A |

08:45 - 09:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 1256 | 314 | 420 | 1256 | 605 | 3.6 | 2.2 | 0.108 | A |
| 2 - A256 | 858 | 215 | 581 | 859 | 1095 | 3.0 | 1.7 | 0.128 | A |
| 3 - Cottington Link Road | 75 | 19 | 1395 | 76 | 44 | 0.7 | 0.2 | 0.220 | B |
| 4 - A299 Hengist Way N | 386 | 96 | 640 | 385 | 831 | 1.0 | 0.8 | 0.121 | A |

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | Entry | 1 | 1 | 2, 3 | 818 | 1201 | 0.681 | 814 | 6.4 | 2.3 | 0.182 | B |
| | | | 2 | 1, 3, 4 | 676 | 1169 | 0.579 | 678 | 2.6 | 1.3 | 0.128 | A |
| | Exit | 1 | 1 | | 724 | | | 724 | 0.0 | 0.0 | 0.000 | A |
| 2 - A256 | Entry | 1 | 1 | 3, 4 | 274 | 915 | 0.299 | 273 | 0.8 | 0.4 | 0.092 | A |
| | | | 2 | 1, 2, 4 | 738 | 971 | 0.760 | 741 | 9.1 | 2.6 | 0.293 | C |
| | Exit | 1 | 1 | | 1302 | | | 1302 | 0.0 | 0.0 | 0.000 | A |
| 3 - Cottington Link Road | Entry | 1 | 1 | 1, 2, 3, 4 | 91 | 270 | 0.336 | 97 | 6.7 | 0.7 | 1.096 | F |
| | Exit | 1 | 1 | | 50 | | | 50 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 Hengist Way N | Entry | 1 | 2 | 2 | 230 | 555 | 0.415 | 232 | 0.8 | 0.4 | 0.145 | A |
| | | | 3 | 2, 3, 4 | 231 | 554 | 0.418 | 232 | 0.8 | 0.5 | 0.144 | A |
| | Exit | 1 | 1 | | 990 | | | 990 | 0.0 | 0.0 | 0.000 | A |

08:45 - 09:00

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | Entry | 1 | 1 | 2, 3 | 692 | 1236 | 0.559 | 691 | 2.3 | 1.3 | 0.117 | A |
| | | | 2 | 1, 3, 4 | 564 | 1204 | 0.468 | 565 | 1.3 | 0.9 | 0.097 | A |
| | Exit | 1 | 1 | | 605 | | | 605 | 0.0 | 0.0 | 0.000 | A |
| 2 - A256 | Entry | 1 | 1 | 3, 4 | 218 | 954 | 0.229 | 218 | 0.4 | 0.2 | 0.076 | A |
| | | | 2 | 1, 2, 4 | 640 | 1016 | 0.631 | 640 | 2.6 | 1.5 | 0.146 | A |
| | Exit | 1 | 1 | | 1095 | | | 1095 | 0.0 | 0.0 | 0.000 | A |
| 3 - Cottington Link Road | Entry | 1 | 1 | 1, 2, 3, 4 | 75 | 384 | 0.195 | 76 | 0.7 | 0.2 | 0.220 | B |
| | Exit | 1 | 1 | | 44 | | | 44 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 Hengist Way N | Entry | 1 | 2 | 2 | 191 | 581 | 0.328 | 190 | 0.4 | 0.4 | 0.121 | A |
| | | | 3 | 2, 3, 4 | 195 | 582 | 0.335 | 195 | 0.5 | 0.4 | 0.122 | A |
| | Exit | 1 | 1 | | 831 | | | 831 | 0.0 | 0.0 | 0.000 | A |

Lane simulation - 2017 Base Traffic Flow, PM

Data Errors and Warnings

| Severity | Area | Item | Description |
|----------|-----------------|--|---|
| Warning | Lane Simulation | A2 - Lane simulation [Lane Simulation] | This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results. |

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|------------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3, 4 | 0.54 | D |

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 | 2017 Base Traffic Flow | PM | ONE HOUR | 16:30 | 18:00 | 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 (%) |
|--------------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - A299 Hengist Way E | | ONE HOUR | ✓ | 1301 | 100.000 |
| 2 - A256 | | ONE HOUR | ✓ | 1482 | 100.000 |
| 3 - Cottington Link Road | | ONE HOUR | ✓ | 65 | 100.000 |
| 4 - A299 Hengist Way N | | ONE HOUR | ✓ | 338 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | |
|------|--------------------------|------------------------|----------|--------------------------|------------------------|
| | | 1 - A299 Hengist Way E | 2 - A256 | 3 - Cottington Link Road | 4 - A299 Hengist Way N |
| From | 1 - A299 Hengist Way E | 0 | 688 | 57 | 556 |
| | 2 - A256 | 921 | 0 | 28 | 533 |
| | 3 - Cottington Link Road | 36 | 20 | 0 | 9 |
| | 4 - A299 Hengist Way N | 0 | 321 | 17 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | |
|------|--------------------------|------------------------|----------|--------------------------|------------------------|
| | | 1 - A299 Hengist Way E | 2 - A256 | 3 - Cottington Link Road | 4 - A299 Hengist Way N |
| From | 1 - A299 Hengist Way E | 0 | 3 | 0 | 2 |
| | 2 - A256 | 2 | 0 | 0 | 2 |
| | 3 - Cottington Link Road | 3 | 0 | 0 | 0 |
| | 4 - A299 Hengist Way N | 0 | 7 | 0 | 0 |

Results

Results Summary for whole modelled period

| | | | | Average Demand | Total Junction |
|--|--|--|--|----------------|----------------|
| | | | | | |

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | Entry | 1 | 1 | 2, 3 | 540 | 1290 | 0.419 | 540 | 0.0 | 0.7 | 0.079 | A |
| | | | 2 | 1, 3, 4 | 448 | 1300 | 0.345 | 448 | 0.0 | 0.5 | 0.067 | A |
| | Exit | 1 | 1 | | 722 | | | 722 | 0.0 | 0.0 | 0.000 | A |
| 2 - A256 | Entry | 1 | 1 | 3, 4 | 331 | 1101 | 0.300 | 332 | 0.0 | 0.4 | 0.069 | A |
| | | | 2 | 1, 2, 4 | 786 | 1099 | 0.716 | 792 | 0.0 | 1.8 | 0.146 | A |
| | Exit | 1 | 1 | | 783 | | | 783 | 0.0 | 0.0 | 0.000 | A |
| 3 - Cottington Link Road | Entry | 1 | 1 | 1, 2, 3, 4 | 48 | 359 | 0.133 | 48 | 0.0 | 0.2 | 0.169 | B |
| | Exit | 1 | 1 | | 76 | | | 76 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 Hengist Way N | Entry | 1 | 2 | 2 | 123 | 581 | 0.212 | 124 | 0.0 | 0.2 | 0.109 | A |
| | | | 3 | 2, 3, 4 | 135 | 579 | 0.234 | 136 | 0.0 | 0.2 | 0.109 | A |
| | Exit | 1 | 1 | | 837 | | | 837 | 0.0 | 0.0 | 0.000 | A |

16:45 - 17:00

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | Entry | 1 | 1 | 2, 3 | 642 | 1272 | 0.505 | 646 | 0.7 | 0.9 | 0.092 | A |
| | | | 2 | 1, 3, 4 | 532 | 1283 | 0.415 | 531 | 0.5 | 0.7 | 0.077 | A |
| | Exit | 1 | 1 | | 861 | | | 861 | 0.0 | 0.0 | 0.000 | A |
| 2 - A256 | Entry | 1 | 1 | 3, 4 | 435 | 1071 | 0.407 | 433 | 0.4 | 0.7 | 0.088 | A |
| | | | 2 | 1, 2, 4 | 903 | 1068 | 0.846 | 903 | 1.8 | 3.8 | 0.256 | C |
| | Exit | 1 | 1 | | 930 | | | 930 | 0.0 | 0.0 | 0.000 | A |
| 3 - Cottington Link Road | Entry | 1 | 1 | 1, 2, 3, 4 | 57 | 242 | 0.237 | 58 | 0.2 | 0.3 | 0.309 | C |
| | Exit | 1 | 1 | | 95 | | | 95 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 Hengist Way N | Entry | 1 | 2 | 2 | 147 | 549 | 0.269 | 147 | 0.2 | 0.3 | 0.123 | A |
| | | | 3 | 2, 3, 4 | 159 | 556 | 0.285 | 159 | 0.2 | 0.3 | 0.123 | A |
| | Exit | 1 | 1 | | 992 | | | 992 | 0.0 | 0.0 | 0.000 | A |

17:00 - 17:15

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | Entry | 1 | 1 | 2, 3 | 788 | 1237 | 0.636 | 786 | 0.9 | 1.7 | 0.126 | A |
| | | | 2 | 1, 3, 4 | 646 | 1252 | 0.516 | 648 | 0.7 | 1.0 | 0.095 | A |
| | Exit | 1 | 1 | | 1016 | | | 1016 | 0.0 | 0.0 | 0.000 | A |
| 2 - A256 | Entry | 1 | 1 | 3, 4 | 597 | 1028 | 0.581 | 594 | 0.7 | 1.4 | 0.133 | A |
| | | | 2 | 1, 2, 4 | 1040 | 1027 | 1.012 | 1001 | 3.8 | 17.4 | 0.731 | E |
| | Exit | 1 | 1 | | 1136 | | | 1136 | 0.0 | 0.0 | 0.000 | A |
| 3 - Cottington Link Road | Entry | 1 | 1 | 1, 2, 3, 4 | 71 | 97 | 0.726 | 65 | 0.3 | 2.6 | 1.756 | F |
| | Exit | 1 | 1 | | 116 | | | 116 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 Hengist Way N | Entry | 1 | 2 | 2 | 185 | 512 | 0.362 | 185 | 0.3 | 0.5 | 0.143 | A |
| | | | 3 | 2, 3, 4 | 191 | 517 | 0.370 | 191 | 0.3 | 0.4 | 0.142 | A |
| | Exit | 1 | 1 | | 1202 | | | 1202 | 0.0 | 0.0 | 0.000 | A |

17:15 - 17:30

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | Entry | 1 | 1 | 2, 3 | 787 | 1245 | 0.632 | 787 | 1.7 | 1.7 | 0.128 | A |
| | | | 2 | 1, 3, 4 | 650 | 1255 | 0.518 | 651 | 1.0 | 1.0 | 0.096 | A |
| | Exit | 1 | 1 | | 1026 | | | 1026 | 0.0 | 0.0 | 0.000 | A |
| 2 - A256 | Entry | 1 | 1 | 3, 4 | 609 | 1027 | 0.593 | 606 | 1.4 | 1.6 | 0.143 | A |
| | | | 2 | 1, 2, 4 | 1021 | 1026 | 0.995 | 1003 | 17.4 | 25.2 | 1.350 | F |
| | Exit | 1 | 1 | | 1131 | | | 1131 | 0.0 | 0.0 | 0.000 | A |
| 3 - Cottington Link Road | Entry | 1 | 1 | 1, 2, 3, 4 | 73 | 91 | 0.799 | 66 | 2.6 | 4.2 | 3.130 | F |
| | Exit | 1 | 1 | | 111 | | | 111 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 Hengist Way N | Entry | 1 | 2 | 2 | 179 | 513 | 0.349 | 180 | 0.5 | 0.4 | 0.142 | A |
| | | | 3 | 2, 3, 4 | 187 | 516 | 0.364 | 188 | 0.4 | 0.5 | 0.146 | A |
| | Exit | 1 | 1 | | 1212 | | | 1212 | 0.0 | 0.0 | 0.000 | A |

17:30 - 17:45

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | Entry | 1 | 1 | 2, 3 | 643 | 1270 | 0.507 | 644 | 1.7 | 1.0 | 0.095 | A |
| | | | 2 | 1, 3, 4 | 536 | 1280 | 0.419 | 538 | 1.0 | 0.6 | 0.081 | A |
| | Exit | 1 | 1 | | 905 | | | 905 | 0.0 | 0.0 | 0.000 | A |
| 2 - A256 | Entry | 1 | 1 | 3, 4 | 443 | 1066 | 0.415 | 443 | 1.6 | 0.7 | 0.099 | A |
| | | | 2 | 1, 2, 4 | 893 | 1066 | 0.837 | 930 | 25.2 | 5.2 | 0.719 | E |
| | Exit | 1 | 1 | | 935 | | | 935 | 0.0 | 0.0 | 0.000 | A |
| | Entry | 1 | 1 | 1, 2, 3, 4 | 61 | 224 | 0.271 | 66 | 4.2 | 0.5 | 1.121 | F |

| | | | | | | | | | | | | |
|--------------------------|-------|---|---|---------|------|-----|-------|------|-----|-----|-------|---|
| 3 - Cottington Link Road | Exit | 1 | 1 | | 91 | | | 91 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 Hengist Way N | Entry | 1 | 2 | 2 | 147 | 538 | 0.274 | 148 | 0.4 | 0.3 | 0.135 | A |
| | | | 3 | 2, 3, 4 | 164 | 542 | 0.303 | 163 | 0.5 | 0.4 | 0.132 | A |
| | Exit | 1 | 1 | | 1001 | | | 1001 | 0.0 | 0.0 | 0.000 | A |

17:45 - 18:00

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | Entry | 1 | 1 | 2, 3 | 536 | 1293 | 0.414 | 536 | 1.0 | 0.7 | 0.078 | A |
| | | | 2 | 1, 3, 4 | 440 | 1302 | 0.338 | 441 | 0.6 | 0.5 | 0.069 | A |
| | Exit | 1 | 1 | | 721 | | | 721 | 0.0 | 0.0 | 0.000 | A |
| 2 - A256 | Entry | 1 | 1 | 3, 4 | 332 | 1102 | 0.301 | 331 | 0.7 | 0.4 | 0.073 | A |
| | | | 2 | 1, 2, 4 | 785 | 1101 | 0.713 | 784 | 5.2 | 2.2 | 0.174 | B |
| | Exit | 1 | 1 | | 769 | | | 769 | 0.0 | 0.0 | 0.000 | A |
| 3 - Cottington Link Road | Entry | 1 | 1 | 1, 2, 3, 4 | 47 | 363 | 0.131 | 48 | 0.5 | 0.2 | 0.228 | B |
| | Exit | 1 | 1 | | 75 | | | 75 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 Hengist Way N | Entry | 1 | 2 | 2 | 119 | 575 | 0.206 | 119 | 0.3 | 0.2 | 0.113 | A |
| | | | 3 | 2, 3, 4 | 131 | 575 | 0.227 | 131 | 0.4 | 0.2 | 0.117 | A |
| | Exit | 1 | 1 | | 825 | | | 825 | 0.0 | 0.0 | 0.000 | A |

Lane simulation - 2017 Base Traffic Flow, Airport Peak

Data Errors and Warnings

| Severity | Area | Item | Description |
|----------|-----------------|--|---|
| Warning | Lane Simulation | A2 - Lane simulation [Lane Simulation] | This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results. |

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|------------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3, 4 | 0.11 | 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 | 2017 Base Traffic Flow | Airport Peak | ONE HOUR | 12:45 | 14:15 | 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 (%) |
|--------------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - A299 Hengist Way E | | ONE HOUR | ✓ | 963 | 100.000 |
| 2 - A256 | | ONE HOUR | ✓ | 723 | 100.000 |
| 3 - Cottington Link Road | | ONE HOUR | ✓ | 69 | 100.000 |
| 4 - A299 Hengist Way N | | ONE HOUR | ✓ | 189 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | |
|------|--------------------------|------------------------|----------|--------------------------|------------------------|
| | | 1 - A299 Hengist Way E | 2 - A256 | 3 - Cottington Link Road | 4 - A299 Hengist Way N |
| From | 1 - A299 Hengist Way E | 0 | 499 | 28 | 436 |
| | 2 - A256 | 506 | 0 | 9 | 208 |
| | 3 - Cottington Link Road | 34 | 23 | 0 | 12 |
| | 4 - A299 Hengist Way N | 0 | 187 | 2 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | |
|------|--------------------------|------------------------|----------|--------------------------|------------------------|
| | | 1 - A299 Hengist Way E | 2 - A256 | 3 - Cottington Link Road | 4 - A299 Hengist Way N |
| From | 1 - A299 Hengist Way E | 0 | 6 | 0 | 9 |
| | 2 - A256 | 6 | 0 | 0 | 20 |
| | 3 - Cottington Link Road | 3 | 4 | 0 | 0 |
| | 4 - A299 Hengist Way N | 0 | 24 | 0 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|--------------------------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - A299 Hengist Way E | 0.09 | 1.9 | A | 891 | 1337 |
| 2 - A256 | 0.12 | 1.5 | A | 661 | 992 |
| 3 - Cottington Link Road | 0.18 | 0.3 | B | 63 | 95 |
| 4 - A299 Hengist Way N | 0.13 | 0.5 | A | 170 | 255 |

Main Results for each time segment

12:45 - 13:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 738 | 185 | 158 | 737 | 403 | 0.0 | 1.0 | 0.067 | A |
| 2 - A256 | 542 | 135 | 348 | 540 | 547 | 0.0 | 0.8 | 0.081 | A |
| 3 - Cottington Link Road | 53 | 13 | 858 | 53 | 29 | 0.0 | 0.1 | 0.098 | A |
| 4 - A299 Hengist Way N | 140 | 35 | 419 | 141 | 492 | 0.0 | 0.2 | 0.113 | A |

13:00 - 13:15

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 865 | 216 | 187 | 866 | 493 | 1.0 | 1.0 | 0.072 | A |
| 2 - A256 | 662 | 165 | 411 | 662 | 642 | 0.8 | 0.9 | 0.098 | A |
| 3 - Cottington Link Road | 59 | 15 | 1039 | 59 | 34 | 0.1 | 0.1 | 0.125 | A |
| 4 - A299 Hengist Way N | 167 | 42 | 512 | 167 | 585 | 0.2 | 0.3 | 0.116 | A |

13:15 - 13:30

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 1080 | 270 | 230 | 1076 | 604 | 1.0 | 1.8 | 0.086 | A |
| 2 - A256 | 800 | 200 | 524 | 800 | 782 | 0.9 | 1.4 | 0.114 | A |
| 3 - Cottington Link Road | 80 | 20 | 1281 | 80 | 43 | 0.1 | 0.2 | 0.170 | B |
| 4 - A299 Hengist Way N | 202 | 51 | 632 | 202 | 728 | 0.3 | 0.4 | 0.122 | A |

13:30 - 13:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 1072 | 268 | 233 | 1074 | 584 | 1.8 | 1.5 | 0.088 | A |
| 2 - A256 | 779 | 195 | 523 | 781 | 783 | 1.4 | 1.5 | 0.122 | A |
| 3 - Cottington Link Road | 77 | 19 | 1262 | 77 | 43 | 0.2 | 0.3 | 0.180 | B |
| 4 - A299 Hengist Way N | 206 | 51 | 609 | 208 | 729 | 0.4 | 0.4 | 0.128 | A |

13:45 - 14:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 871 | 218 | 187 | 873 | 484 | 1.5 | 1.0 | 0.072 | A |
| 2 - A256 | 645 | 161 | 423 | 648 | 637 | 1.5 | 1.0 | 0.096 | A |
| 3 - Cottington Link Road | 62 | 15 | 1036 | 62 | 35 | 0.3 | 0.1 | 0.137 | A |
| 4 - A299 Hengist Way N | 166 | 42 | 504 | 167 | 593 | 0.4 | 0.3 | 0.120 | A |

14:00 - 14:15

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 725 | 181 | 156 | 721 | 408 | 1.0 | 0.9 | 0.066 | A |
| 2 - A256 | 542 | 135 | 358 | 541 | 519 | 1.0 | 0.7 | 0.083 | A |
| 3 - Cottington Link Road | 51 | 13 | 870 | 52 | 29 | 0.1 | 0.0 | 0.111 | A |
| 4 - A299 Hengist Way N | 139 | 35 | 423 | 140 | 499 | 0.3 | 0.2 | 0.116 | A |

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

12:45 - 13:00

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | Entry | 1 | 1 | 2, 3 | 400 | 1292 | 0.310 | 399 | 0.0 | 0.6 | 0.067 | A |
| | | | 2 | 1, 3, 4 | 338 | 1250 | 0.271 | 338 | 0.0 | 0.4 | 0.068 | A |
| | Exit | 1 | 1 | | 403 | | | 403 | 0.0 | 0.0 | 0.000 | A |
| 2 - A256 | Entry | 1 | 1 | 3, 4 | 106 | 980 | 0.108 | 107 | 0.0 | 0.1 | 0.062 | A |
| | | | 2 | 1, 2, 4 | 435 | 1080 | 0.403 | 433 | 0.0 | 0.7 | 0.086 | A |
| | Exit | 1 | 1 | | 547 | | | 547 | 0.0 | 0.0 | 0.000 | A |
| 3 - Cottington Link Road | Entry | 1 | 1 | 1, 2, 3, 4 | 53 | 596 | 0.089 | 53 | 0.0 | 0.1 | 0.098 | A |
| | Exit | 1 | 1 | | 29 | | | 29 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 Hengist Way N | Entry | 1 | 2 | 2 | 70 | 549 | 0.128 | 71 | 0.0 | 0.1 | 0.114 | A |
| | | | 3 | 2, 3, 4 | 70 | 555 | 0.125 | 70 | 0.0 | 0.1 | 0.112 | A |
| | Exit | 1 | 1 | | 492 | | | 492 | 0.0 | 0.0 | 0.000 | A |

13:00 - 13:15

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | Entry | 1 | 1 | 2, 3 | 468 | 1276 | 0.367 | 469 | 0.6 | 0.5 | 0.072 | A |
| | | | 2 | 1, 3, 4 | 397 | 1253 | 0.317 | 397 | 0.4 | 0.5 | 0.071 | A |
| | Exit | 1 | 1 | | 493 | | | 493 | 0.0 | 0.0 | 0.000 | A |
| 2 - A256 | Entry | 1 | 1 | 3, 4 | 138 | 945 | 0.145 | 138 | 0.1 | 0.1 | 0.070 | A |
| | | | 2 | 1, 2, 4 | 524 | 1048 | 0.500 | 524 | 0.7 | 0.8 | 0.105 | A |
| | Exit | 1 | 1 | | 642 | | | 642 | 0.0 | 0.0 | 0.000 | A |
| 3 - Cottington Link Road | Entry | 1 | 1 | 1, 2, 3, 4 | 59 | 518 | 0.113 | 59 | 0.1 | 0.1 | 0.125 | A |
| | Exit | 1 | 1 | | 34 | | | 34 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 Hengist Way N | Entry | 1 | 2 | 2 | 80 | 543 | 0.147 | 80 | 0.1 | 0.2 | 0.117 | A |
| | | | 3 | 2, 3, 4 | 87 | 543 | 0.161 | 88 | 0.1 | 0.2 | 0.115 | A |
| | Exit | 1 | 1 | | 585 | | | 585 | 0.0 | 0.0 | 0.000 | A |

13:15 - 13:30

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | Entry | 1 | 1 | 2, 3 | 571 | 1254 | 0.455 | 568 | 0.5 | 0.9 | 0.087 | A |
| | | | 2 | 1, 3, 4 | 509 | 1228 | 0.415 | 508 | 0.5 | 0.9 | 0.085 | A |
| | Exit | 1 | 1 | | 604 | | | 604 | 0.0 | 0.0 | 0.000 | A |
| 2 - A256 | Entry | 1 | 1 | 3, 4 | 174 | 925 | 0.187 | 175 | 0.1 | 0.2 | 0.072 | A |
| | | | 2 | 1, 2, 4 | 626 | 1019 | 0.615 | 626 | 0.8 | 1.2 | 0.126 | A |
| | Exit | 1 | 1 | | 782 | | | 782 | 0.0 | 0.0 | 0.000 | A |
| 3 - Cottington Link Road | Entry | 1 | 1 | 1, 2, 3, 4 | 80 | 416 | 0.191 | 80 | 0.1 | 0.2 | 0.170 | B |
| | Exit | 1 | 1 | | 43 | | | 43 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 Hengist Way N | Entry | 1 | 2 | 2 | 99 | 516 | 0.192 | 99 | 0.2 | 0.2 | 0.121 | A |
| | | | 3 | 2, 3, 4 | 103 | 512 | 0.201 | 103 | 0.2 | 0.2 | 0.123 | A |
| | Exit | 1 | 1 | | 728 | | | 728 | 0.0 | 0.0 | 0.000 | A |

13:30 - 13:45

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | Entry | 1 | 1 | 2, 3 | 567 | 1253 | 0.453 | 568 | 0.9 | 0.9 | 0.089 | A |
| | | | 2 | 1, 3, 4 | 505 | 1226 | 0.411 | 506 | 0.9 | 0.6 | 0.086 | A |
| | Exit | 1 | 1 | | 584 | | | 584 | 0.0 | 0.0 | 0.000 | A |
| 2 - A256 | Entry | 1 | 1 | 3, 4 | 173 | 916 | 0.189 | 173 | 0.2 | 0.2 | 0.077 | A |
| | | | 2 | 1, 2, 4 | 607 | 1018 | 0.596 | 609 | 1.2 | 1.3 | 0.135 | A |
| | Exit | 1 | 1 | | 783 | | | 783 | 0.0 | 0.0 | 0.000 | A |
| 3 - Cottington Link Road | Entry | 1 | 1 | 1, 2, 3, 4 | 77 | 421 | 0.182 | 77 | 0.2 | 0.3 | 0.180 | B |
| | Exit | 1 | 1 | | 43 | | | 43 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 Hengist Way N | Entry | 1 | 2 | 2 | 98 | 504 | 0.195 | 98 | 0.2 | 0.2 | 0.130 | A |
| | | | 3 | 2, 3, 4 | 107 | 518 | 0.206 | 109 | 0.2 | 0.2 | 0.126 | A |
| | Exit | 1 | 1 | | 729 | | | 729 | 0.0 | 0.0 | 0.000 | A |

13:45 - 14:00

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | Entry | 1 | 1 | 2, 3 | 463 | 1270 | 0.364 | 465 | 0.9 | 0.6 | 0.073 | A |
| | | | 2 | 1, 3, 4 | 407 | 1242 | 0.328 | 408 | 0.6 | 0.4 | 0.072 | A |
| | Exit | 1 | 1 | | 484 | | | 484 | 0.0 | 0.0 | 0.000 | A |
| 2 - A256 | Entry | 1 | 1 | 3, 4 | 136 | 945 | 0.144 | 137 | 0.2 | 0.2 | 0.070 | A |
| | | | 2 | 1, 2, 4 | 509 | 1054 | 0.483 | 512 | 1.3 | 0.9 | 0.103 | A |
| | Exit | 1 | 1 | | 637 | | | 637 | 0.0 | 0.0 | 0.000 | A |

| | | | | | | | | | | | | |
|--------------------------|-------|---|---|------------|-----|-----|-------|-----|-----|-----|-------|---|
| 3 - Cottington Link Road | Entry | 1 | 1 | 1, 2, 3, 4 | 62 | 523 | 0.118 | 62 | 0.3 | 0.1 | 0.137 | A |
| | Exit | 1 | 1 | | 35 | | | 35 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 Hengist Way N | Entry | 1 | 2 | 2 | 81 | 535 | 0.153 | 82 | 0.2 | 0.2 | 0.122 | A |
| | | | 3 | 2, 3, 4 | 85 | 527 | 0.161 | 85 | 0.2 | 0.2 | 0.118 | A |
| | Exit | 1 | 1 | | 593 | | | 593 | 0.0 | 0.0 | 0.000 | A |

14:00 - 14:15

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | Entry | 1 | 1 | 2, 3 | 377 | 1294 | 0.291 | 376 | 0.6 | 0.4 | 0.066 | A |
| | | | 2 | 1, 3, 4 | 348 | 1262 | 0.275 | 345 | 0.4 | 0.5 | 0.066 | A |
| | Exit | 1 | 1 | | 408 | | | 408 | 0.0 | 0.0 | 0.000 | A |
| 2 - A256 | Entry | 1 | 1 | 3, 4 | 108 | 966 | 0.111 | 107 | 0.2 | 0.1 | 0.065 | A |
| | | | 2 | 1, 2, 4 | 434 | 1071 | 0.405 | 434 | 0.9 | 0.6 | 0.087 | A |
| | Exit | 1 | 1 | | 519 | | | 519 | 0.0 | 0.0 | 0.000 | A |
| 3 - Cottington Link Road | Entry | 1 | 1 | 1, 2, 3, 4 | 51 | 589 | 0.086 | 52 | 0.1 | 0.0 | 0.111 | A |
| | Exit | 1 | 1 | | 29 | | | 29 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 Hengist Way N | Entry | 1 | 2 | 2 | 67 | 557 | 0.122 | 67 | 0.2 | 0.1 | 0.118 | A |
| | | | 3 | 2, 3, 4 | 72 | 549 | 0.131 | 72 | 0.2 | 0.1 | 0.114 | A |
| | Exit | 1 | 1 | | 499 | | | 499 | 0.0 | 0.0 | 0.000 | A |

Lane simulation - 2039 Growthed Future Baseline, AM

Data Errors and Warnings

| Severity | Area | Item | Description |
|----------|-----------------|--|---|
| Warning | Lane Simulation | A2 - Lane simulation [Lane Simulation] | This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results. |
| Last Run | Lane Simulation | 1 - A299 Hengist Way E - Lane Simulation | Arm 1: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated. |
| Last Run | Lane Simulation | 2 - A256 - Lane Simulation | Arm 2: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated. |
| Last Run | Lane Simulation | 3 - Cottington Link Road - Lane Simulation | Arm 3: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated. |

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|------------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3, 4 | 3.74 | F |

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 | 2039 Growthed Future Baseline | AM | ONE HOUR | 07:30 | 09:00 | 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 (%) |
|--------------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - A299 Hengist Way E | | ONE HOUR | ✓ | 2081 | 100.000 |
| 2 - A256 | | ONE HOUR | ✓ | 1410 | 100.000 |
| 3 - Cottington Link Road | | ONE HOUR | ✓ | 124 | 100.000 |
| 4 - A299 Hengist Way N | | ONE HOUR | ✓ | 646 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | |
|------|--------------------------|------------------------|----------|--------------------------|------------------------|
| | | 1 - A299 Hengist Way E | 2 - A256 | 3 - Cottington Link Road | 4 - A299 Hengist Way N |
| From | 1 - A299 Hengist Way E | 0 | 1127 | 41 | 913 |
| | 2 - A256 | 940 | 0 | 23 | 447 |
| | 3 - Cottington Link Road | 55 | 56 | 0 | 13 |
| | 4 - A299 Hengist Way N | 0 | 637 | 9 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | |
|------|--------------------------|------------------------|----------|--------------------------|------------------------|
| | | 1 - A299 Hengist Way E | 2 - A256 | 3 - Cottington Link Road | 4 - A299 Hengist Way N |
| From | 1 - A299 Hengist Way E | 0 | 3 | 6 | 6 |
| | 2 - A256 | 6 | 0 | 6 | 14 |
| | 3 - Cottington Link Road | 0 | 2 | 0 | 10 |

| | | | | |
|------------------------|---|---|---|---|
| 4 - A299 Hengist Way N | 0 | 9 | 0 | 0 |
|------------------------|---|---|---|---|

Results

Results Summary for whole modelled period

| Arm | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|--------------------------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - A299 Hengist Way E | 2.43 | 102.2 | F | 1909 | 2863 |
| 2 - A256 | 4.25 | 96.8 | F | 1296 | 1944 |
| 3 - Cottington Link Road | 39.88 | 88.5 | F | 113 | 169 |
| 4 - A299 Hengist Way N | 0.23 | 2.9 | B | 595 | 892 |

Main Results for each time segment

07:30 - 07:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 1570 | 392 | 526 | 1569 | 744 | 0.0 | 4.3 | 0.150 | A |
| 2 - A256 | 1067 | 267 | 726 | 1058 | 1368 | 0.0 | 4.2 | 0.184 | B |
| 3 - Cottington Link Road | 92 | 23 | 1727 | 92 | 57 | 0.0 | 0.7 | 0.380 | C |
| 4 - A299 Hengist Way N | 484 | 121 | 787 | 483 | 1032 | 0.0 | 1.2 | 0.138 | A |

07:45 - 08:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 1869 | 467 | 627 | 1861 | 870 | 4.3 | 11.5 | 0.314 | C |
| 2 - A256 | 1277 | 319 | 863 | 1258 | 1625 | 4.2 | 11.1 | 0.421 | D |
| 3 - Cottington Link Road | 110 | 28 | 2054 | 86 | 66 | 0.7 | 6.6 | 6.750 | F |
| 4 - A299 Hengist Way N | 589 | 147 | 909 | 588 | 1231 | 1.2 | 1.9 | 0.175 | B |

08:00 - 08:15

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 2296 | 574 | 725 | 2115 | 864 | 11.5 | 62.3 | 1.153 | F |
| 2 - A256 | 1562 | 390 | 1036 | 1378 | 1803 | 11.1 | 56.0 | 1.607 | F |
| 3 - Cottington Link Road | 137 | 34 | 2335 | 14 | 80 | 6.6 | 32.2 | 39.885 | F |
| 4 - A299 Hengist Way N | 718 | 179 | 870 | 719 | 1478 | 1.9 | 2.8 | 0.231 | B |

08:15 - 08:30

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 2281 | 570 | 708 | 2122 | 871 | 62.3 | 103.1 | 2.432 | F |
| 2 - A256 | 1547 | 387 | 1038 | 1388 | 1792 | 56.0 | 99.1 | 3.668 | F |
| 3 - Cottington Link Road | 137 | 34 | 2347 | 3 | 79 | 32.2 | 64.9 | 38.760 | F |
| 4 - A299 Hengist Way N | 705 | 176 | 873 | 707 | 1478 | 2.8 | 2.6 | 0.224 | B |

08:30 - 08:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 1880 | 470 | 600 | 2037 | 924 | 103.1 | 53.8 | 2.158 | F |
| 2 - A256 | 1265 | 316 | 898 | 1330 | 1740 | 99.1 | 87.3 | 4.250 | F |
| 3 - Cottington Link Road | 108 | 27 | 2162 | 26 | 66 | 64.9 | 88.4 | 28.645 | F |
| 4 - A299 Hengist Way N | 586 | 147 | 935 | 589 | 1252 | 2.6 | 1.5 | 0.177 | B |

08:45 - 09:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 1557 | 389 | 548 | 1650 | 958 | 53.8 | 10.8 | 0.791 | E |
| 2 - A256 | 1061 | 265 | 718 | 1255 | 1479 | 87.3 | 34.2 | 2.373 | F |
| 3 - Cottington Link Road | 92 | 23 | 1920 | 137 | 53 | 88.4 | 87.5 | 14.851 | F |
| 4 - A299 Hengist Way N | 485 | 121 | 1022 | 484 | 1035 | 1.5 | 1.4 | 0.168 | B |

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-------|
| 1 - A299 Hengist Way E | Entry | 1 | 1 | 2, 3 | 1015 | 1150 | 0.883 | 1151 | 82.0 | 50.2 | 3.520 | F |
| | | | 2 | 1, 3, 4 | 865 | 1119 | 0.773 | 886 | 21.1 | 3.5 | 0.553 | D |
| | Exit | 1 | 1 | | 924 | | | 924 | 0.0 | 0.0 | 0.000 | A |
| 2 - A256 | Entry | 1 | 1 | 3, 4 | 415 | 849 | 0.489 | 417 | 2.0 | 0.9 | 0.154 | A |
| | | | 2 | 1, 2, 4 | 850 | 908 | 0.937 | 913 | 97.1 | 86.5 | 6.271 | F |
| | Exit | 1 | 1 | | 1740 | | | 1740 | 0.0 | 0.0 | 0.000 | A |
| 3 - Cottington Link Road | Entry | 1 | 1 | 1, 2, 3, 4 | 108 | 30 | 3.632 | 26 | 64.9 | 88.4 | 28.645 | F |
| | | | Exit | 1 | 1 | | 66 | | 66 | 0.0 | 0.0 | 0.000 |
| 4 - A299 Hengist Way N | Entry | 1 | 2 | 2 | 293 | 520 | 0.563 | 294 | 1.3 | 0.8 | 0.177 | B |
| | | | 3 | 2, 3, 4 | 293 | 521 | 0.564 | 295 | 1.3 | 0.8 | 0.178 | B |
| | Exit | 1 | 1 | | 1252 | | | 1252 | 0.0 | 0.0 | 0.000 | A |

08:45 - 09:00

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-------|
| 1 - A299 Hengist Way E | Entry | 1 | 1 | 2, 3 | 853 | 1173 | 0.728 | 946 | 50.2 | 9.2 | 1.332 | F |
| | | | 2 | 1, 3, 4 | 704 | 1139 | 0.618 | 704 | 3.5 | 1.6 | 0.150 | A |
| | Exit | 1 | 1 | | 958 | | | 958 | 0.0 | 0.0 | 0.000 | A |
| 2 - A256 | Entry | 1 | 1 | 3, 4 | 342 | 906 | 0.378 | 341 | 0.9 | 0.7 | 0.118 | A |
| | | | 2 | 1, 2, 4 | 719 | 966 | 0.743 | 914 | 86.5 | 33.5 | 3.587 | F |
| | Exit | 1 | 1 | | 1479 | | | 1479 | 0.0 | 0.0 | 0.000 | A |
| 3 - Cottington Link Road | Entry | 1 | 1 | 1, 2, 3, 4 | 92 | 149 | 0.619 | 137 | 88.4 | 87.5 | 14.851 | F |
| | | | Exit | 1 | 1 | | 53 | | 53 | 0.0 | 0.0 | 0.000 |
| 4 - A299 Hengist Way N | Entry | 1 | 2 | 2 | 241 | 498 | 0.483 | 241 | 0.8 | 0.7 | 0.167 | B |
| | | | 3 | 2, 3, 4 | 245 | 502 | 0.488 | 243 | 0.8 | 0.8 | 0.168 | B |
| | Exit | 1 | 1 | | 1035 | | | 1035 | 0.0 | 0.0 | 0.000 | A |

Lane simulation - 2039 Growthed Future Baseline, PM

Data Errors and Warnings

| Severity | Area | Item | Description |
|----------|-----------------|--|---|
| Warning | Lane Simulation | A2 - Lane simulation [Lane Simulation] | This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results. |
| Last Run | Lane Simulation | 2 - A256 - Lane Simulation | Arm 2: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated. |
| Last Run | Lane Simulation | 3 - Cottington Link Road - Lane Simulation | Arm 3: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated. |

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|------------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3, 4 | 3.94 | F |

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 | 2039 Growthed Future Baseline | PM | ONE HOUR | 16:30 | 18:00 | 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 (%) |
|--------------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - A299 Hengist Way E | | ONE HOUR | ✓ | 1641 | 100.000 |
| 2 - A256 | | ONE HOUR | ✓ | 1868 | 100.000 |
| 3 - Cottington Link Road | | ONE HOUR | ✓ | 81 | 100.000 |
| 4 - A299 Hengist Way N | | ONE HOUR | ✓ | 427 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | |
|------|--------------------------|------------------------|----------|--------------------------|------------------------|
| | | 1 - A299 Hengist Way E | 2 - A256 | 3 - Cottington Link Road | 4 - A299 Hengist Way N |
| From | 1 - A299 Hengist Way E | 0 | 868 | 72 | 701 |
| | 2 - A256 | 1161 | 0 | 35 | 672 |
| | 3 - Cottington Link Road | 45 | 25 | 0 | 11 |
| | 4 - A299 Hengist Way N | 0 | 406 | 21 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | |
|------|--------------------------|------------------------|----------|--------------------------|------------------------|
| | | 1 - A299 Hengist Way E | 2 - A256 | 3 - Cottington Link Road | 4 - A299 Hengist Way N |
| From | 1 - A299 Hengist Way E | 0 | 4 | 0 | 2 |
| | 2 - A256 | 2 | 0 | 0 | 3 |
| | 3 - Cottington Link Road | 3 | 0 | 0 | 0 |
| | 4 - A299 Hengist Way N | 0 | 7 | 0 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|--------------------------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - A299 Hengist Way E | 0.21 | 7.2 | B | 1499 | 2248 |
| 2 - A256 | 6.58 | 182.3 | F | 1708 | 2562 |
| 3 - Cottington Link Road | 40.46 | 58.6 | F | 74 | 111 |
| 4 - A299 Hengist Way N | 0.16 | 1.3 | A | 397 | 596 |

Main Results for each time segment

16:30 - 16:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 1225 | 306 | 356 | 1222 | 904 | 0.0 | 2.0 | 0.090 | A |
| 2 - A256 | 1403 | 351 | 590 | 1405 | 988 | 0.0 | 5.9 | 0.219 | B |
| 3 - Cottington Link Road | 62 | 15 | 1896 | 61 | 100 | 0.0 | 0.5 | 0.351 | C |
| 4 - A299 Hengist Way N | 338 | 85 | 922 | 338 | 1034 | 0.0 | 0.7 | 0.121 | A |

16:45 - 17:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 1462 | 365 | 406 | 1461 | 1027 | 2.0 | 3.1 | 0.120 | A |
| 2 - A256 | 1651 | 413 | 704 | 1619 | 1163 | 5.9 | 22.6 | 0.616 | E |
| 3 - Cottington Link Road | 73 | 18 | 2207 | 59 | 116 | 0.5 | 4.4 | 8.574 | F |
| 4 - A299 Hengist Way N | 389 | 97 | 1045 | 388 | 1221 | 0.7 | 1.0 | 0.142 | A |

17:00 - 17:15

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 1803 | 451 | 483 | 1800 | 972 | 3.1 | 7.1 | 0.208 | B |
| 2 - A256 | 2048 | 512 | 878 | 1753 | 1405 | 22.6 | 99.7 | 2.360 | F |
| 3 - Cottington Link Road | 88 | 22 | 2485 | 7 | 146 | 4.4 | 22.0 | 40.460 | F |
| 4 - A299 Hengist Way N | 481 | 120 | 974 | 481 | 1518 | 1.0 | 1.2 | 0.159 | A |

17:15 - 17:30

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 1804 | 451 | 466 | 1809 | 959 | 7.1 | 6.2 | 0.212 | B |
| 2 - A256 | 2060 | 515 | 877 | 1733 | 1398 | 99.7 | 178.0 | 5.292 | F |
| 3 - Cottington Link Road | 88 | 22 | 2472 | 2 | 139 | 22.0 | 43.7 | 36.119 | F |
| 4 - A299 Hengist Way N | 464 | 116 | 960 | 465 | 1513 | 1.2 | 1.2 | 0.151 | A |

17:30 - 17:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 1464 | 366 | 397 | 1469 | 1042 | 6.2 | 3.0 | 0.130 | A |
| 2 - A256 | 1678 | 419 | 717 | 1666 | 1148 | 178.0 | 182.7 | 6.577 | F |
| 3 - Cottington Link Road | 71 | 18 | 2268 | 22 | 115 | 43.7 | 58.7 | 25.656 | F |
| 4 - A299 Hengist Way N | 390 | 97 | 1049 | 390 | 1241 | 1.2 | 0.9 | 0.145 | A |

17:45 - 18:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 1234 | 309 | 356 | 1236 | 1109 | 3.0 | 1.7 | 0.094 | A |
| 2 - A256 | 1408 | 352 | 599 | 1584 | 993 | 182.7 | 137.9 | 4.400 | F |
| 3 - Cottington Link Road | 62 | 15 | 2091 | 106 | 92 | 58.7 | 53.9 | 12.492 | F |
| 4 - A299 Hengist Way N | 322 | 80 | 1142 | 323 | 1055 | 0.9 | 0.7 | 0.138 | A |

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | Entry | 1 | 1 | 2, 3 | 792 | 1229 | 0.645 | 797 | 4.1 | 1.7 | 0.152 | A |
| | | | 2 | 1, 3, 4 | 671 | 1250 | 0.537 | 671 | 2.1 | 1.3 | 0.104 | A |
| | Exit | 1 | 1 | | 1042 | | | 1042 | 0.0 | 0.0 | 0.000 | A |
| 2 - A256 | Entry | 1 | 1 | 3, 4 | 633 | 1011 | 0.625 | 635 | 4.0 | 1.5 | 0.177 | B |
| | | | 2 | 1, 2, 4 | 1045 | 1018 | 1.027 | 1031 | 174.0 | 181.2 | 10.483 | F |
| | Exit | 1 | 1 | | 1148 | | | 1148 | 0.0 | 0.0 | 0.000 | A |
| 3 - Cottington Link Road | Entry | 1 | 1 | 1, 2, 3, 4 | 71 | 22 | 3.211 | 22 | 43.7 | 58.7 | 25.656 | F |
| | | | Exit | 1 | 1 | | 115 | | | 115 | 0.0 | 0.0 |
| 4 - A299 Hengist Way N | Entry | 1 | 2 | 2 | 187 | 512 | 0.365 | 187 | 0.6 | 0.5 | 0.142 | A |
| | | | 3 | 2, 3, 4 | 203 | 513 | 0.396 | 203 | 0.6 | 0.4 | 0.147 | A |
| | Exit | 1 | 1 | | 1241 | | | 1241 | 0.0 | 0.0 | 0.000 | A |

17:45 - 18:00

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | Entry | 1 | 1 | 2, 3 | 674 | 1246 | 0.540 | 674 | 1.7 | 1.0 | 0.105 | A |
| | | | 2 | 1, 3, 4 | 561 | 1270 | 0.442 | 562 | 1.3 | 0.7 | 0.081 | A |
| | Exit | 1 | 1 | | 1109 | | | 1109 | 0.0 | 0.0 | 0.000 | A |
| 2 - A256 | Entry | 1 | 1 | 3, 4 | 533 | 1050 | 0.508 | 534 | 1.5 | 1.0 | 0.115 | A |
| | | | 2 | 1, 2, 4 | 875 | 1058 | 0.826 | 1050 | 181.2 | 137.0 | 8.727 | F |
| | Exit | 1 | 1 | | 993 | | | 993 | 0.0 | 0.0 | 0.000 | A |
| 3 - Cottington Link Road | Entry | 1 | 1 | 1, 2, 3, 4 | 62 | 110 | 0.553 | 106 | 58.7 | 53.9 | 12.492 | F |
| | | | Exit | 1 | 1 | | 92 | | | 92 | 0.0 | 0.0 |
| 4 - A299 Hengist Way N | Entry | 1 | 2 | 2 | 153 | 494 | 0.311 | 154 | 0.5 | 0.4 | 0.139 | A |
| | | | 3 | 2, 3, 4 | 168 | 498 | 0.338 | 169 | 0.4 | 0.3 | 0.138 | A |
| | Exit | 1 | 1 | | 1055 | | | 1055 | 0.0 | 0.0 | 0.000 | A |

Lane simulation - 2039 Growthed Future Baseline, Airport Peak

Data Errors and Warnings

| Severity | Area | Item | Description |
|----------|-----------------|--|---|
| Warning | Lane Simulation | A2 - Lane simulation [Lane Simulation] | This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results. |

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|------------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3, 4 | 0.19 | 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 | 2039 Growthed Future Baseline | Airport Peak | ONE HOUR | 12:45 | 14:15 | 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 (%) |
|--------------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - A299 Hengist Way E | | ONE HOUR | ✓ | 1287 | 100.000 |
| 2 - A256 | | ONE HOUR | ✓ | 968 | 100.000 |
| 3 - Cottington Link Road | | ONE HOUR | ✓ | 92 | 100.000 |
| 4 - A299 Hengist Way N | | ONE HOUR | ✓ | 255 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | |
|------|--------------------------|------------------------|----------|--------------------------|------------------------|
| | | 1 - A299 Hengist Way E | 2 - A256 | 3 - Cottington Link Road | 4 - A299 Hengist Way N |
| From | 1 - A299 Hengist Way E | 0 | 667 | 37 | 583 |
| | 2 - A256 | 676 | 0 | 12 | 280 |
| | 3 - Cottington Link Road | 45 | 31 | 0 | 16 |
| | 4 - A299 Hengist Way N | 0 | 252 | 3 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | |
|------|--------------------------|------------------------|----------|--------------------------|------------------------|
| | | 1 - A299 Hengist Way E | 2 - A256 | 3 - Cottington Link Road | 4 - A299 Hengist Way N |
| From | 1 - A299 Hengist Way E | 0 | 6 | 0 | 10 |
| | 2 - A256 | 6 | 0 | 0 | 21 |
| | 3 - Cottington Link Road | 3 | 5 | 0 | 0 |
| | 4 - A299 Hengist Way N | 0 | 24 | 0 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|--------------------------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - A299 Hengist Way E | 0.13 | 2.9 | A | 1176 | 1764 |
| 2 - A256 | 0.24 | 4.1 | B | 889 | 1333 |
| 3 - Cottington Link Road | 0.58 | 1.0 | D | 84 | 126 |
| 4 - A299 Hengist Way N | 0.14 | 0.7 | A | 236 | 354 |

Main Results for each time segment

12:45 - 13:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 964 | 241 | 218 | 964 | 540 | 0.0 | 1.4 | 0.079 | A |
| 2 - A256 | 731 | 183 | 467 | 730 | 715 | 0.0 | 1.4 | 0.105 | A |
| 3 - Cottington Link Road | 69 | 17 | 1159 | 70 | 38 | 0.0 | 0.1 | 0.139 | A |
| 4 - A299 Hengist Way N | 195 | 49 | 563 | 195 | 665 | 0.0 | 0.3 | 0.115 | A |

13:00 - 13:15

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 1155 | 289 | 258 | 1155 | 649 | 1.4 | 1.8 | 0.093 | A |
| 2 - A256 | 875 | 219 | 557 | 875 | 856 | 1.4 | 1.9 | 0.142 | A |
| 3 - Cottington Link Road | 83 | 21 | 1383 | 83 | 48 | 0.1 | 0.3 | 0.207 | B |
| 4 - A299 Hengist Way N | 231 | 58 | 677 | 231 | 790 | 0.3 | 0.5 | 0.128 | A |

13:15 - 13:30

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 1415 | 354 | 319 | 1421 | 789 | 1.8 | 2.9 | 0.127 | A |
| 2 - A256 | 1065 | 266 | 682 | 1067 | 1058 | 1.9 | 4.1 | 0.223 | B |
| 3 - Cottington Link Road | 100 | 25 | 1690 | 101 | 59 | 0.3 | 0.9 | 0.485 | D |
| 4 - A299 Hengist Way N | 283 | 71 | 825 | 282 | 965 | 0.5 | 0.7 | 0.142 | A |

13:30 - 13:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 1405 | 351 | 316 | 1404 | 798 | 2.9 | 2.8 | 0.124 | A |
| 2 - A256 | 1068 | 267 | 677 | 1071 | 1043 | 4.1 | 4.0 | 0.239 | B |
| 3 - Cottington Link Road | 101 | 25 | 1691 | 103 | 57 | 0.9 | 0.9 | 0.577 | D |
| 4 - A299 Hengist Way N | 281 | 70 | 833 | 282 | 961 | 0.7 | 0.6 | 0.145 | A |

13:45 - 14:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 1149 | 287 | 260 | 1150 | 643 | 2.8 | 1.8 | 0.097 | A |
| 2 - A256 | 862 | 215 | 555 | 862 | 856 | 4.0 | 2.0 | 0.145 | A |
| 3 - Cottington Link Road | 82 | 21 | 1370 | 83 | 46 | 0.9 | 0.2 | 0.263 | C |
| 4 - A299 Hengist Way N | 233 | 58 | 672 | 232 | 782 | 0.6 | 0.5 | 0.132 | A |

14:00 - 14:15

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 967 | 242 | 214 | 966 | 548 | 1.8 | 1.3 | 0.079 | A |
| 2 - A256 | 732 | 183 | 468 | 732 | 712 | 2.0 | 1.4 | 0.111 | A |
| 3 - Cottington Link Road | 69 | 17 | 1163 | 69 | 38 | 0.2 | 0.2 | 0.163 | A |
| 4 - A299 Hengist Way N | 191 | 48 | 571 | 191 | 661 | 0.5 | 0.4 | 0.122 | A |

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

12:45 - 13:00

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | Entry | 1 | 1 | 2, 3 | 510 | 1262 | 0.404 | 510 | 0.0 | 0.7 | 0.079 | A |
| | | | 2 | 1, 3, 4 | 454 | 1220 | 0.372 | 453 | 0.0 | 0.7 | 0.079 | A |
| | Exit | 1 | 1 | | 540 | | | 540 | 0.0 | 0.0 | 0.000 | A |
| 2 - A256 | Entry | 1 | 1 | 3, 4 | 162 | 931 | 0.175 | 162 | 0.0 | 0.2 | 0.071 | A |
| | | | 2 | 1, 2, 4 | 568 | 1035 | 0.549 | 568 | 0.0 | 1.2 | 0.115 | A |
| | Exit | 1 | 1 | | 715 | | | 715 | 0.0 | 0.0 | 0.000 | A |
| 3 - Cottington Link Road | Entry | 1 | 1 | 1, 2, 3, 4 | 69 | 464 | 0.149 | 70 | 0.0 | 0.1 | 0.139 | A |
| | Exit | 1 | 1 | | 38 | | | 38 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 Hengist Way N | Entry | 1 | 2 | 2 | 97 | 528 | 0.183 | 96 | 0.0 | 0.2 | 0.117 | A |
| | | | 3 | 2, 3, 4 | 99 | 526 | 0.188 | 99 | 0.0 | 0.2 | 0.114 | A |
| | Exit | 1 | 1 | | 665 | | | 665 | 0.0 | 0.0 | 0.000 | A |

13:00 - 13:15

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | Entry | 1 | 1 | 2, 3 | 617 | 1244 | 0.496 | 617 | 0.7 | 0.9 | 0.094 | A |
| | | | 2 | 1, 3, 4 | 538 | 1199 | 0.449 | 537 | 0.7 | 0.8 | 0.090 | A |
| | Exit | 1 | 1 | | 649 | | | 649 | 0.0 | 0.0 | 0.000 | A |
| 2 - A256 | Entry | 1 | 1 | 3, 4 | 203 | 893 | 0.227 | 202 | 0.2 | 0.3 | 0.080 | A |
| | | | 2 | 1, 2, 4 | 672 | 1007 | 0.668 | 672 | 1.2 | 1.7 | 0.161 | A |
| | Exit | 1 | 1 | | 856 | | | 856 | 0.0 | 0.0 | 0.000 | A |
| 3 - Cottington Link Road | Entry | 1 | 1 | 1, 2, 3, 4 | 83 | 366 | 0.228 | 83 | 0.1 | 0.3 | 0.207 | B |
| | Exit | 1 | 1 | | 48 | | | 48 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 Hengist Way N | Entry | 1 | 2 | 2 | 113 | 505 | 0.225 | 114 | 0.2 | 0.2 | 0.128 | A |
| | | | 3 | 2, 3, 4 | 117 | 507 | 0.231 | 117 | 0.2 | 0.3 | 0.129 | A |
| | Exit | 1 | 1 | | 790 | | | 790 | 0.0 | 0.0 | 0.000 | A |

13:15 - 13:30

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | Entry | 1 | 1 | 2, 3 | 756 | 1217 | 0.620 | 761 | 0.9 | 1.7 | 0.133 | A |
| | | | 2 | 1, 3, 4 | 659 | 1177 | 0.560 | 661 | 0.8 | 1.2 | 0.120 | A |
| | Exit | 1 | 1 | | 789 | | | 789 | 0.0 | 0.0 | 0.000 | A |
| 2 - A256 | Entry | 1 | 1 | 3, 4 | 274 | 867 | 0.316 | 274 | 0.3 | 0.5 | 0.098 | A |
| | | | 2 | 1, 2, 4 | 791 | 967 | 0.817 | 792 | 1.7 | 3.7 | 0.266 | C |
| | Exit | 1 | 1 | | 1058 | | | 1058 | 0.0 | 0.0 | 0.000 | A |
| 3 - Cottington Link Road | Entry | 1 | 1 | 1, 2, 3, 4 | 100 | 235 | 0.427 | 101 | 0.3 | 0.9 | 0.485 | D |
| | Exit | 1 | 1 | | 59 | | | 59 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 Hengist Way N | Entry | 1 | 2 | 2 | 139 | 475 | 0.293 | 139 | 0.2 | 0.3 | 0.141 | A |
| | | | 3 | 2, 3, 4 | 143 | 481 | 0.299 | 143 | 0.3 | 0.3 | 0.142 | A |
| | Exit | 1 | 1 | | 965 | | | 965 | 0.0 | 0.0 | 0.000 | A |

13:30 - 13:45

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | Entry | 1 | 1 | 2, 3 | 747 | 1219 | 0.613 | 750 | 1.7 | 1.5 | 0.131 | A |
| | | | 2 | 1, 3, 4 | 658 | 1177 | 0.559 | 655 | 1.2 | 1.3 | 0.117 | A |
| | Exit | 1 | 1 | | 798 | | | 798 | 0.0 | 0.0 | 0.000 | A |
| 2 - A256 | Entry | 1 | 1 | 3, 4 | 274 | 859 | 0.319 | 274 | 0.5 | 0.4 | 0.099 | A |
| | | | 2 | 1, 2, 4 | 793 | 967 | 0.821 | 797 | 3.7 | 3.5 | 0.287 | C |
| | Exit | 1 | 1 | | 1043 | | | 1043 | 0.0 | 0.0 | 0.000 | A |
| 3 - Cottington Link Road | Entry | 1 | 1 | 1, 2, 3, 4 | 101 | 234 | 0.432 | 103 | 0.9 | 0.9 | 0.577 | D |
| | Exit | 1 | 1 | | 57 | | | 57 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 Hengist Way N | Entry | 1 | 2 | 2 | 137 | 476 | 0.288 | 138 | 0.3 | 0.3 | 0.145 | A |
| | | | 3 | 2, 3, 4 | 143 | 479 | 0.300 | 144 | 0.3 | 0.3 | 0.145 | A |
| | Exit | 1 | 1 | | 961 | | | 961 | 0.0 | 0.0 | 0.000 | A |

13:45 - 14:00

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | Entry | 1 | 1 | 2, 3 | 613 | 1243 | 0.494 | 613 | 1.5 | 1.0 | 0.101 | A |
| | | | 2 | 1, 3, 4 | 536 | 1201 | 0.446 | 537 | 1.3 | 0.8 | 0.093 | A |
| | Exit | 1 | 1 | | 643 | | | 643 | 0.0 | 0.0 | 0.000 | A |
| 2 - A256 | Entry | 1 | 1 | 3, 4 | 198 | 905 | 0.218 | 198 | 0.4 | 0.3 | 0.080 | A |
| | | | 2 | 1, 2, 4 | 664 | 1010 | 0.658 | 664 | 3.5 | 1.7 | 0.165 | A |
| | Exit | 1 | 1 | | 856 | | | 856 | 0.0 | 0.0 | 0.000 | A |

| | | | | | | | | | | | | |
|--------------------------|-------|---|---|------------|-----|-----|-------|-----|-----|-----|-------|---|
| 3 - Cottington Link Road | Entry | 1 | 1 | 1, 2, 3, 4 | 82 | 374 | 0.220 | 83 | 0.9 | 0.2 | 0.263 | C |
| | Exit | 1 | 1 | | 46 | | | 46 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 Hengist Way N | Entry | 1 | 2 | 2 | 115 | 506 | 0.228 | 115 | 0.3 | 0.3 | 0.131 | A |
| | | | 3 | 2, 3, 4 | 118 | 514 | 0.230 | 117 | 0.3 | 0.3 | 0.132 | A |
| | Exit | 1 | 1 | | 782 | | | 782 | 0.0 | 0.0 | 0.000 | A |

14:00 - 14:15

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | Entry | 1 | 1 | 2, 3 | 513 | 1268 | 0.405 | 513 | 1.0 | 0.7 | 0.080 | A |
| | | | 2 | 1, 3, 4 | 454 | 1219 | 0.372 | 453 | 0.8 | 0.6 | 0.079 | A |
| | Exit | 1 | 1 | | 548 | | | 548 | 0.0 | 0.0 | 0.000 | A |
| 2 - A256 | Entry | 1 | 1 | 3, 4 | 159 | 930 | 0.171 | 159 | 0.3 | 0.2 | 0.074 | A |
| | | | 2 | 1, 2, 4 | 573 | 1037 | 0.553 | 573 | 1.7 | 1.1 | 0.122 | A |
| | Exit | 1 | 1 | | 712 | | | 712 | 0.0 | 0.0 | 0.000 | A |
| 3 - Cottington Link Road | Entry | 1 | 1 | 1, 2, 3, 4 | 69 | 462 | 0.149 | 69 | 0.2 | 0.2 | 0.163 | A |
| | Exit | 1 | 1 | | 38 | | | 38 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 Hengist Way N | Entry | 1 | 2 | 2 | 95 | 527 | 0.180 | 94 | 0.3 | 0.2 | 0.122 | A |
| | | | 3 | 2, 3, 4 | 97 | 523 | 0.185 | 97 | 0.3 | 0.2 | 0.122 | A |
| | Exit | 1 | 1 | | 661 | | | 661 | 0.0 | 0.0 | 0.000 | A |

Lane simulation - 2039 + Dev Traffic, AM

Data Errors and Warnings

| Severity | Area | Item | Description |
|----------|-----------------|--|---|
| Warning | Lane Simulation | A2 - Lane simulation [Lane Simulation] | This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results. |
| Last Run | Lane Simulation | 1 - A299 Hengist Way E - Lane Simulation | Arm 1: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated. |
| Last Run | Lane Simulation | 2 - A256 - Lane Simulation | Arm 2: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated. |
| Last Run | Lane Simulation | 3 - Cottington Link Road - Lane Simulation | Arm 3: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated. |

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|------------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3, 4 | 5.24 | F |

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 |
|----|--------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D9 | 2039 + Dev Traffic | AM | ONE HOUR | 07:30 | 09:00 | 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 (%) |
|--------------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - A299 Hengist Way E | | ONE HOUR | ✓ | 2098 | 100.000 |
| 2 - A256 | | ONE HOUR | ✓ | 1527 | 100.000 |
| 3 - Cottington Link Road | | ONE HOUR | ✓ | 124 | 100.000 |
| 4 - A299 Hengist Way N | | ONE HOUR | ✓ | 646 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | |
|------|--------------------------|------------------------|----------|--------------------------|------------------------|
| | | 1 - A299 Hengist Way E | 2 - A256 | 3 - Cottington Link Road | 4 - A299 Hengist Way N |
| From | 1 - A299 Hengist Way E | 0 | 1144 | 41 | 913 |
| | 2 - A256 | 1057 | 0 | 23 | 447 |
| | 3 - Cottington Link Road | 55 | 56 | 0 | 13 |
| | 4 - A299 Hengist Way N | 0 | 637 | 9 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | |
|------|--------------------------|------------------------|----------|--------------------------|------------------------|
| | | 1 - A299 Hengist Way E | 2 - A256 | 3 - Cottington Link Road | 4 - A299 Hengist Way N |
| From | 1 - A299 Hengist Way E | 0 | 3 | 6 | 6 |
| | 2 - A256 | 5 | 0 | 6 | 14 |
| | 3 - Cottington Link Road | 0 | 2 | 0 | 10 |
| | 4 - A299 Hengist Way N | 0 | 9 | 0 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|--------------------------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - A299 Hengist Way E | 2.74 | 115.0 | F | 1933 | 2899 |
| 2 - A256 | 7.77 | 171.8 | F | 1393 | 2089 |
| 3 - Cottington Link Road | 43.61 | 96.6 | F | 114 | 171 |
| 4 - A299 Hengist Way N | 0.23 | 2.7 | B | 593 | 889 |

Main Results for each time segment

07:30 - 07:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 1581 | 395 | 531 | 1578 | 836 | 0.0 | 4.4 | 0.147 | A |
| 2 - A256 | 1154 | 289 | 726 | 1151 | 1382 | 0.0 | 5.2 | 0.225 | B |
| 3 - Cottington Link Road | 94 | 24 | 1822 | 94 | 56 | 0.0 | 1.1 | 0.534 | D |
| 4 - A299 Hengist Way N | 490 | 123 | 878 | 489 | 1038 | 0.0 | 1.4 | 0.141 | A |

07:45 - 08:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 1895 | 474 | 610 | 1878 | 941 | 4.4 | 12.3 | 0.324 | C |
| 2 - A256 | 1365 | 341 | 860 | 1325 | 1627 | 5.2 | 20.9 | 0.695 | E |
| 3 - Cottington Link Road | 110 | 28 | 2119 | 76 | 66 | 1.1 | 9.2 | 11.887 | F |
| 4 - A299 Hengist Way N | 580 | 145 | 975 | 576 | 1220 | 1.4 | 1.9 | 0.180 | B |

08:00 - 08:15

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 2328 | 582 | 717 | 2107 | 882 | 12.3 | 69.5 | 1.259 | F |
| 2 - A256 | 1667 | 417 | 1024 | 1392 | 1800 | 20.9 | 90.8 | 2.662 | F |
| 3 - Cottington Link Road | 139 | 35 | 2338 | 12 | 78 | 9.2 | 36.1 | 43.613 | F |
| 4 - A299 Hengist Way N | 707 | 177 | 887 | 712 | 1464 | 1.9 | 2.4 | 0.230 | B |

08:15 - 08:30

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 2315 | 579 | 720 | 2132 | 863 | 69.5 | 115.6 | 2.735 | F |
| 2 - A256 | 1683 | 421 | 1045 | 1385 | 1807 | 90.8 | 164.1 | 6.048 | F |
| 3 - Cottington Link Road | 140 | 35 | 2348 | 4 | 82 | 36.1 | 69.4 | 39.650 | F |
| 4 - A299 Hengist Way N | 714 | 179 | 865 | 717 | 1488 | 2.4 | 2.7 | 0.231 | B |

08:30 - 08:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 1900 | 475 | 599 | 2029 | 919 | 115.6 | 71.5 | 2.606 | F |
| 2 - A256 | 1363 | 341 | 896 | 1338 | 1732 | 164.1 | 176.1 | 7.773 | F |
| 3 - Cottington Link Road | 108 | 27 | 2165 | 23 | 69 | 69.4 | 93.7 | 28.386 | F |
| 4 - A299 Hengist Way N | 587 | 147 | 929 | 588 | 1259 | 2.7 | 1.7 | 0.182 | B |

08:45 - 09:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 1577 | 394 | 528 | 1715 | 1017 | 71.5 | 16.8 | 1.107 | F |
| 2 - A256 | 1139 | 285 | 731 | 1318 | 1512 | 176.1 | 135.8 | 5.178 | F |
| 3 - Cottington Link Road | 95 | 24 | 1995 | 110 | 55 | 93.7 | 96.9 | 14.916 | F |
| 4 - A299 Hengist Way N | 477 | 119 | 1067 | 479 | 1038 | 1.7 | 1.2 | 0.169 | B |

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-------|
| 1 - A299 Hengist Way E | Entry | 1 | 1 | 2, 3 | 1031 | 1151 | 0.897 | 1142 | 94.6 | 66.4 | 4.267 | F |
| | | | 2 | 1, 3, 4 | 868 | 1121 | 0.775 | 887 | 21.0 | 5.0 | 0.616 | E |
| | Exit | 1 | 1 | | 919 | | | 919 | 0.0 | 0.0 | 0.000 | A |
| 2 - A256 | Entry | 1 | 1 | 3, 4 | 427 | 851 | 0.501 | 429 | 1.9 | 1.1 | 0.165 | A |
| | | | 2 | 1, 2, 4 | 936 | 918 | 1.021 | 908 | 162.2 | 175.0 | 11.175 | F |
| | Exit | 1 | 1 | | 1732 | | | 1732 | 0.0 | 0.0 | 0.000 | A |
| 3 - Cottington Link Road | Entry | 1 | 1 | 1, 2, 3, 4 | 108 | 26 | 4.131 | 23 | 69.4 | 93.7 | 28.386 | F |
| | | | Exit | 1 | 1 | 69 | | | 69 | 0.0 | 0.0 | 0.000 |
| 4 - A299 Hengist Way N | Entry | 1 | 2 | 2 | 292 | 522 | 0.560 | 292 | 1.3 | 0.9 | 0.183 | B |
| | | | 3 | 2, 3, 4 | 295 | 523 | 0.564 | 297 | 1.4 | 0.8 | 0.182 | B |
| | Exit | 1 | 1 | | 1259 | | | 1259 | 0.0 | 0.0 | 0.000 | A |

08:45 - 09:00

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-------|
| 1 - A299 Hengist Way E | Entry | 1 | 1 | 2, 3 | 866 | 1182 | 0.733 | 999 | 66.4 | 15.4 | 1.906 | F |
| | | | 2 | 1, 3, 4 | 711 | 1152 | 0.617 | 717 | 5.0 | 1.4 | 0.164 | A |
| | Exit | 1 | 1 | | 1017 | | | 1017 | 0.0 | 0.0 | 0.000 | A |
| 2 - A256 | Entry | 1 | 1 | 3, 4 | 350 | 900 | 0.388 | 350 | 1.1 | 0.6 | 0.116 | A |
| | | | 2 | 1, 2, 4 | 789 | 974 | 0.809 | 967 | 175.0 | 135.2 | 9.156 | F |
| | Exit | 1 | 1 | | 1512 | | | 1512 | 0.0 | 0.0 | 0.000 | A |
| 3 - Cottington Link Road | Entry | 1 | 1 | 1, 2, 3, 4 | 95 | 115 | 0.823 | 110 | 93.7 | 96.9 | 14.916 | F |
| | | | Exit | 1 | 1 | 55 | | | 55 | 0.0 | 0.0 | 0.000 |
| 4 - A299 Hengist Way N | Entry | 1 | 2 | 2 | 236 | 496 | 0.475 | 236 | 0.9 | 0.6 | 0.168 | B |
| | | | 3 | 2, 3, 4 | 241 | 497 | 0.485 | 242 | 0.8 | 0.6 | 0.170 | B |
| | Exit | 1 | 1 | | 1038 | | | 1038 | 0.0 | 0.0 | 0.000 | A |

Lane simulation - 2039 + Dev Traffic, PM

Data Errors and Warnings

| Severity | Area | Item | Description |
|----------|-----------------|--|---|
| Warning | Lane Simulation | A2 - Lane simulation [Lane Simulation] | This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results. |
| Last Run | Lane Simulation | 2 - A256 - Lane Simulation | Arm 2: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated. |
| Last Run | Lane Simulation | 3 - Cottington Link Road - Lane Simulation | Arm 3: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated. |

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|------------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3, 4 | 4.25 | F |

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 |
|-----|--------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D10 | 2039 + Dev Traffic | PM | ONE HOUR | 16:30 | 18:00 | 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 (%) |
|--------------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - A299 Hengist Way E | | ONE HOUR | ✓ | 1770 | 100.000 |
| 2 - A256 | | ONE HOUR | ✓ | 1887 | 100.000 |
| 3 - Cottington Link Road | | ONE HOUR | ✓ | 81 | 100.000 |
| 4 - A299 Hengist Way N | | ONE HOUR | ✓ | 427 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | |
|------|--------------------------|------------------------|----------|--------------------------|------------------------|
| | | 1 - A299 Hengist Way E | 2 - A256 | 3 - Cottington Link Road | 4 - A299 Hengist Way N |
| From | 1 - A299 Hengist Way E | 0 | 997 | 72 | 701 |
| | 2 - A256 | 1180 | 0 | 35 | 672 |
| | 3 - Cottington Link Road | 45 | 25 | 0 | 11 |
| | 4 - A299 Hengist Way N | 0 | 406 | 21 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | |
|------|--------------------------|------------------------|----------|--------------------------|------------------------|
| | | 1 - A299 Hengist Way E | 2 - A256 | 3 - Cottington Link Road | 4 - A299 Hengist Way N |
| From | 1 - A299 Hengist Way E | 0 | 3 | 0 | 2 |
| | 2 - A256 | 2 | 0 | 0 | 3 |
| | 3 - Cottington Link Road | 3 | 0 | 0 | 0 |
| | 4 - A299 Hengist Way N | 0 | 7 | 0 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|--------------------------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - A299 Hengist Way E | 0.38 | 12.3 | C | 1616 | 2424 |
| 2 - A256 | 7.30 | 204.3 | F | 1731 | 2597 |
| 3 - Cottington Link Road | 40.48 | 58.1 | F | 74 | 111 |
| 4 - A299 Hengist Way N | 0.15 | 1.1 | A | 392 | 589 |

Main Results for each time segment

16:30 - 16:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 1321 | 330 | 341 | 1323 | 919 | 0.0 | 2.2 | 0.099 | A |
| 2 - A256 | 1424 | 356 | 595 | 1413 | 1069 | 0.0 | 6.6 | 0.227 | B |
| 3 - Cottington Link Road | 58 | 15 | 1914 | 59 | 94 | 0.0 | 0.4 | 0.359 | C |
| 4 - A299 Hengist Way N | 323 | 81 | 938 | 322 | 1035 | 0.0 | 0.7 | 0.120 | A |

16:45 - 17:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 1588 | 397 | 405 | 1589 | 1026 | 2.2 | 3.9 | 0.150 | A |
| 2 - A256 | 1692 | 423 | 717 | 1634 | 1277 | 6.6 | 26.6 | 0.715 | E |
| 3 - Cottington Link Road | 71 | 18 | 2235 | 56 | 116 | 0.4 | 4.5 | 7.921 | F |
| 4 - A299 Hengist Way N | 388 | 97 | 1042 | 389 | 1248 | 0.7 | 0.8 | 0.146 | A |

17:00 - 17:15

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 1946 | 486 | 479 | 1936 | 968 | 3.9 | 12.1 | 0.311 | C |
| 2 - A256 | 2076 | 519 | 870 | 1734 | 1545 | 26.6 | 110.5 | 2.648 | F |
| 3 - Cottington Link Road | 87 | 22 | 2464 | 8 | 140 | 4.5 | 21.9 | 40.483 | F |
| 4 - A299 Hengist Way N | 475 | 119 | 971 | 476 | 1501 | 0.8 | 1.1 | 0.154 | A |

17:15 - 17:30

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 1934 | 483 | 466 | 1942 | 968 | 12.1 | 11.8 | 0.379 | C |
| 2 - A256 | 2075 | 519 | 871 | 1750 | 1537 | 110.5 | 194.5 | 5.858 | F |
| 3 - Cottington Link Road | 91 | 23 | 2478 | 2 | 143 | 21.9 | 43.3 | 36.152 | F |
| 4 - A299 Hengist Way N | 464 | 116 | 968 | 465 | 1512 | 1.1 | 1.1 | 0.148 | A |

17:30 - 17:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 1580 | 395 | 389 | 1588 | 1023 | 11.8 | 3.9 | 0.182 | B |
| 2 - A256 | 1710 | 428 | 710 | 1648 | 1268 | 194.5 | 205.3 | 7.296 | F |
| 3 - Cottington Link Road | 76 | 19 | 2245 | 23 | 112 | 43.3 | 58.0 | 25.329 | F |
| 4 - A299 Hengist Way N | 384 | 96 | 1030 | 382 | 1238 | 1.1 | 1.0 | 0.145 | A |

17:45 - 18:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 1326 | 331 | 354 | 1329 | 1126 | 3.9 | 2.3 | 0.109 | A |
| 2 - A256 | 1414 | 353 | 594 | 1601 | 1090 | 205.3 | 163.7 | 4.755 | F |
| 3 - Cottington Link Road | 61 | 15 | 2100 | 108 | 95 | 58.0 | 52.7 | 12.684 | F |
| 4 - A299 Hengist Way N | 322 | 80 | 1159 | 321 | 1048 | 1.0 | 0.8 | 0.139 | A |

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

16:30 - 16:45

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | Entry | 1 | 1 | 2, 3 | 763 | 1262 | 0.604 | 764 | 0.0 | 1.5 | 0.112 | A |
| | | | 2 | 1, 3, 4 | 557 | 1272 | 0.438 | 559 | 0.0 | 0.7 | 0.080 | A |
| | Exit | 1 | 1 | | 919 | | | 919 | 0.0 | 0.0 | 0.000 | A |
| 2 - A256 | Entry | 1 | 1 | 3, 4 | 465 | 1048 | 0.444 | 466 | 0.0 | 0.7 | 0.091 | A |
| | | | 2 | 1, 2, 4 | 959 | 1058 | 0.906 | 947 | 0.0 | 6.0 | 0.291 | C |
| | Exit | 1 | 1 | | 1069 | | | 1069 | 0.0 | 0.0 | 0.000 | A |
| 3 - Cottington Link Road | Entry | 1 | 1 | 1, 2, 3, 4 | 58 | 199 | 0.293 | 59 | 0.0 | 0.4 | 0.359 | C |
| | Exit | 1 | 1 | | 94 | | | 94 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 Hengist Way N | Entry | 1 | 2 | 2 | 156 | 540 | 0.289 | 155 | 0.0 | 0.4 | 0.120 | A |
| | | | 3 | 2, 3, 4 | 167 | 537 | 0.311 | 167 | 0.0 | 0.4 | 0.121 | A |
| | Exit | 1 | 1 | | 1035 | | | 1035 | 0.0 | 0.0 | 0.000 | A |

16:45 - 17:00

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | Entry | 1 | 1 | 2, 3 | 913 | 1237 | 0.738 | 912 | 1.5 | 2.8 | 0.185 | B |
| | | | 2 | 1, 3, 4 | 675 | 1249 | 0.540 | 676 | 0.7 | 1.1 | 0.102 | A |
| | Exit | 1 | 1 | | 1026 | | | 1026 | 0.0 | 0.0 | 0.000 | A |
| 2 - A256 | Entry | 1 | 1 | 3, 4 | 623 | 1010 | 0.617 | 625 | 0.7 | 1.4 | 0.142 | A |
| | | | 2 | 1, 2, 4 | 1069 | 1019 | 1.050 | 1009 | 6.0 | 25.2 | 1.039 | F |
| | Exit | 1 | 1 | | 1277 | | | 1277 | 0.0 | 0.0 | 0.000 | A |
| 3 - Cottington Link Road | Entry | 1 | 1 | 1, 2, 3, 4 | 71 | 70 | 1.018 | 56 | 0.4 | 4.5 | 7.921 | F |
| | Exit | 1 | 1 | | 116 | | | 116 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 Hengist Way N | Entry | 1 | 2 | 2 | 191 | 513 | 0.371 | 191 | 0.4 | 0.4 | 0.145 | A |
| | | | 3 | 2, 3, 4 | 197 | 519 | 0.379 | 198 | 0.4 | 0.4 | 0.146 | A |
| | Exit | 1 | 1 | | 1248 | | | 1248 | 0.0 | 0.0 | 0.000 | A |

17:00 - 17:15

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-------|------------|------|------------------|-----------------------|-------------------|--------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | Entry | 1 | 1 | 2, 3 | 1111 | 1205 | 0.923 | 1103 | 2.8 | 9.7 | 0.429 | D |
| | | | 2 | 1, 3, 4 | 835 | 1217 | 0.686 | 833 | 1.1 | 2.4 | 0.154 | A |
| | Exit | 1 | 1 | | 968 | | | 968 | 0.0 | 0.0 | 0.000 | A |
| 2 - A256 | Entry | 1 | 1 | 3, 4 | 774 | 954 | 0.811 | 770 | 1.4 | 4.5 | 0.294 | C |
| | | | 2 | 1, 2, 4 | 1301 | 966 | 1.347 | 964 | 25.2 | 105.9 | 4.052 | F |
| | Exit | 1 | 1 | | 1545 | | | 1545 | 0.0 | 0.0 | 0.000 | A |
| 3 - Cottington Link Road | Entry | 1 | 1 | 1, 2, 3, 4 | 87 | 7 | 13.298 | 8 | 4.5 | 21.9 | 40.483 | F |
| | Exit | 1 | 1 | | 140 | | | 140 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 Hengist Way N | Entry | 1 | 2 | 2 | 230 | 528 | 0.434 | 231 | 0.4 | 0.5 | 0.155 | A |
| | | | 3 | 2, 3, 4 | 245 | 532 | 0.460 | 246 | 0.4 | 0.6 | 0.154 | A |
| | Exit | 1 | 1 | | 1501 | | | 1501 | 0.0 | 0.0 | 0.000 | A |

17:15 - 17:30

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-------|------------|------|------------------|-----------------------|-------------------|--------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | Entry | 1 | 1 | 2, 3 | 1101 | 1213 | 0.908 | 1108 | 9.7 | 9.8 | 0.552 | D |
| | | | 2 | 1, 3, 4 | 832 | 1223 | 0.680 | 834 | 2.4 | 2.1 | 0.148 | A |
| | Exit | 1 | 1 | | 968 | | | 968 | 0.0 | 0.0 | 0.000 | A |
| 2 - A256 | Entry | 1 | 1 | 3, 4 | 783 | 958 | 0.818 | 783 | 4.5 | 4.4 | 0.338 | C |
| | | | 2 | 1, 2, 4 | 1292 | 966 | 1.338 | 966 | 105.9 | 190.1 | 9.158 | F |
| | Exit | 1 | 1 | | 1537 | | | 1537 | 0.0 | 0.0 | 0.000 | A |
| 3 - Cottington Link Road | Entry | 1 | 1 | 1, 2, 3, 4 | 91 | 1 | 70.472 | 2 | 21.9 | 43.3 | 36.152 | F |
| | Exit | 1 | 1 | | 143 | | | 143 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 Hengist Way N | Entry | 1 | 2 | 2 | 225 | 531 | 0.424 | 225 | 0.5 | 0.6 | 0.149 | A |
| | | | 3 | 2, 3, 4 | 239 | 534 | 0.448 | 240 | 0.6 | 0.5 | 0.147 | A |
| | Exit | 1 | 1 | | 1512 | | | 1512 | 0.0 | 0.0 | 0.000 | A |

17:30 - 17:45

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | Entry | 1 | 1 | 2, 3 | 912 | 1244 | 0.733 | 918 | 9.8 | 2.7 | 0.239 | B |
| | | | 2 | 1, 3, 4 | 668 | 1256 | 0.532 | 670 | 2.1 | 1.2 | 0.105 | A |
| | Exit | 1 | 1 | | 1023 | | | 1023 | 0.0 | 0.0 | 0.000 | A |
| 2 - A256 | Entry | 1 | 1 | 3, 4 | 640 | 1012 | 0.632 | 639 | 4.4 | 1.8 | 0.186 | B |
| | | | 2 | 1, 2, 4 | 1070 | 1021 | 1.046 | 1009 | 190.1 | 203.5 | 11.587 | F |
| | Exit | 1 | 1 | | 1268 | | | 1268 | 0.0 | 0.0 | 0.000 | A |

| | | | | | | | | | | | | |
|--------------------------|-------|---|---|------------|------|-----|-------|------|------|------|--------|---|
| 3 - Cottington Link Road | Entry | 1 | 1 | 1, 2, 3, 4 | 76 | 23 | 3.245 | 23 | 43.3 | 58.0 | 25.329 | F |
| | Exit | 1 | 1 | | 112 | | | 112 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 Hengist Way N | Entry | 1 | 2 | 2 | 186 | 518 | 0.359 | 186 | 0.6 | 0.5 | 0.146 | A |
| | | | 3 | 2, 3, 4 | 198 | 519 | 0.382 | 196 | 0.5 | 0.6 | 0.145 | A |
| | Exit | 1 | 1 | | 1238 | | | 1238 | 0.0 | 0.0 | 0.000 | A |

17:45 - 18:00

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | Entry | 1 | 1 | 2, 3 | 771 | 1256 | 0.614 | 771 | 2.7 | 1.7 | 0.128 | A |
| | | | 2 | 1, 3, 4 | 555 | 1270 | 0.437 | 558 | 1.2 | 0.7 | 0.082 | A |
| | Exit | 1 | 1 | | 1126 | | | 1126 | 0.0 | 0.0 | 0.000 | A |
| 2 - A256 | Entry | 1 | 1 | 3, 4 | 535 | 1051 | 0.509 | 535 | 1.8 | 1.1 | 0.121 | A |
| | | | 2 | 1, 2, 4 | 879 | 1061 | 0.828 | 1066 | 203.5 | 162.7 | 9.990 | F |
| | Exit | 1 | 1 | | 1090 | | | 1090 | 0.0 | 0.0 | 0.000 | A |
| 3 - Cottington Link Road | Entry | 1 | 1 | 1, 2, 3, 4 | 61 | 113 | 0.534 | 108 | 58.0 | 52.7 | 12.684 | F |
| | Exit | 1 | 1 | | 95 | | | 95 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 Hengist Way N | Entry | 1 | 2 | 2 | 157 | 492 | 0.320 | 157 | 0.5 | 0.4 | 0.136 | A |
| | | | 3 | 2, 3, 4 | 164 | 490 | 0.335 | 164 | 0.6 | 0.4 | 0.141 | A |
| | Exit | 1 | 1 | | 1048 | | | 1048 | 0.0 | 0.0 | 0.000 | A |

Lane simulation - 2039 + Dev Traffic, Airport Peak

Data Errors and Warnings

| Severity | Area | Item | Description |
|----------|-----------------|--|---|
| Warning | Lane Simulation | A2 - Lane simulation [Lane Simulation] | This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results. |

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|------------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3, 4 | 0.33 | C |

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 |
|-----|--------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D11 | 2039 + Dev Traffic | Airport Peak | ONE HOUR | 12:45 | 14:15 | 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 (%) |
|--------------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - A299 Hengist Way E | | ONE HOUR | ✓ | 1326 | 100.000 |
| 2 - A256 | | ONE HOUR | ✓ | 1106 | 100.000 |
| 3 - Cottington Link Road | | ONE HOUR | ✓ | 92 | 100.000 |
| 4 - A299 Hengist Way N | | ONE HOUR | ✓ | 255 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | |
|------|--------------------------|------------------------|----------|--------------------------|------------------------|
| | | 1 - A299 Hengist Way E | 2 - A256 | 3 - Cottington Link Road | 4 - A299 Hengist Way N |
| From | 1 - A299 Hengist Way E | 0 | 706 | 37 | 583 |
| | 2 - A256 | 814 | 0 | 12 | 280 |
| | 3 - Cottington Link Road | 45 | 31 | 0 | 16 |
| | 4 - A299 Hengist Way N | 0 | 252 | 3 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | |
|------|--------------------------|------------------------|----------|--------------------------|------------------------|
| | | 1 - A299 Hengist Way E | 2 - A256 | 3 - Cottington Link Road | 4 - A299 Hengist Way N |
| From | 1 - A299 Hengist Way E | 0 | 6 | 0 | 10 |
| | 2 - A256 | 5 | 0 | 0 | 21 |
| | 3 - Cottington Link Road | 3 | 5 | 0 | 0 |
| | 4 - A299 Hengist Way N | 0 | 24 | 0 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|--------------------------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - A299 Hengist Way E | 0.13 | 3.2 | A | 1220 | 1830 |
| 2 - A256 | 0.54 | 11.5 | D | 1016 | 1524 |
| 3 - Cottington Link Road | 1.15 | 2.0 | F | 84 | 126 |
| 4 - A299 Hengist Way N | 0.16 | 0.8 | A | 234 | 351 |

Main Results for each time segment

12:45 - 13:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 1012 | 253 | 214 | 1012 | 650 | 0.0 | 1.4 | 0.081 | A |
| 2 - A256 | 837 | 209 | 474 | 838 | 751 | 0.0 | 1.8 | 0.124 | A |
| 3 - Cottington Link Road | 69 | 17 | 1273 | 69 | 39 | 0.0 | 0.2 | 0.153 | A |
| 4 - A299 Hengist Way N | 189 | 47 | 674 | 190 | 667 | 0.0 | 0.4 | 0.118 | A |

13:00 - 13:15

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 1175 | 294 | 256 | 1177 | 774 | 1.4 | 1.8 | 0.095 | A |
| 2 - A256 | 999 | 250 | 547 | 998 | 886 | 1.8 | 3.1 | 0.184 | B |
| 3 - Cottington Link Road | 83 | 21 | 1501 | 83 | 44 | 0.2 | 0.4 | 0.261 | C |
| 4 - A299 Hengist Way N | 228 | 57 | 802 | 229 | 783 | 0.4 | 0.5 | 0.133 | A |

13:15 - 13:30

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 1467 | 367 | 316 | 1466 | 926 | 1.8 | 3.0 | 0.131 | A |
| 2 - A256 | 1216 | 304 | 697 | 1205 | 1084 | 3.1 | 9.8 | 0.402 | C |
| 3 - Cottington Link Road | 100 | 25 | 1842 | 94 | 60 | 0.4 | 1.7 | 0.789 | E |
| 4 - A299 Hengist Way N | 285 | 71 | 959 | 284 | 978 | 0.5 | 0.7 | 0.148 | A |

13:30 - 13:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 1460 | 365 | 320 | 1460 | 940 | 3.0 | 3.2 | 0.131 | A |
| 2 - A256 | 1208 | 302 | 687 | 1209 | 1092 | 9.8 | 11.7 | 0.545 | D |
| 3 - Cottington Link Road | 100 | 25 | 1837 | 101 | 59 | 1.7 | 2.0 | 1.146 | F |
| 4 - A299 Hengist Way N | 285 | 71 | 974 | 286 | 965 | 0.7 | 0.7 | 0.156 | A |

13:45 - 14:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 1201 | 300 | 255 | 1199 | 774 | 3.2 | 1.9 | 0.099 | A |
| 2 - A256 | 995 | 249 | 566 | 1002 | 888 | 11.7 | 3.1 | 0.284 | C |
| 3 - Cottington Link Road | 83 | 21 | 1521 | 82 | 47 | 2.0 | 0.5 | 0.403 | C |
| 4 - A299 Hengist Way N | 227 | 57 | 802 | 226 | 802 | 0.7 | 0.5 | 0.141 | A |

14:00 - 14:15

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 1002 | 250 | 211 | 1001 | 653 | 1.9 | 1.4 | 0.082 | A |
| 2 - A256 | 843 | 211 | 469 | 841 | 743 | 3.1 | 2.0 | 0.140 | A |
| 3 - Cottington Link Road | 69 | 17 | 1271 | 69 | 39 | 0.5 | 0.2 | 0.200 | B |
| 4 - A299 Hengist Way N | 189 | 47 | 676 | 188 | 663 | 0.5 | 0.4 | 0.127 | A |

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

12:45 - 13:00

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | Entry | 1 | 1 | 2, 3 | 555 | 1262 | 0.439 | 553 | 0.0 | 0.8 | 0.083 | A |
| | | | 2 | 1, 3, 4 | 458 | 1225 | 0.374 | 459 | 0.0 | 0.5 | 0.078 | A |
| | Exit | 1 | 1 | | 650 | | | 650 | 0.0 | 0.0 | 0.000 | A |
| 2 - A256 | Entry | 1 | 1 | 3, 4 | 171 | 929 | 0.184 | 171 | 0.0 | 0.2 | 0.072 | A |
| | | | 2 | 1, 2, 4 | 666 | 1049 | 0.635 | 667 | 0.0 | 1.5 | 0.137 | A |
| | Exit | 1 | 1 | | 751 | | | 751 | 0.0 | 0.0 | 0.000 | A |
| 3 - Cottington Link Road | Entry | 1 | 1 | 1, 2, 3, 4 | 69 | 418 | 0.164 | 69 | 0.0 | 0.2 | 0.153 | A |
| | Exit | 1 | 1 | | 39 | | | 39 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 Hengist Way N | Entry | 1 | 2 | 2 | 95 | 506 | 0.187 | 95 | 0.0 | 0.2 | 0.119 | A |
| | | | 3 | 2, 3, 4 | 94 | 512 | 0.184 | 95 | 0.0 | 0.1 | 0.118 | A |
| | Exit | 1 | 1 | | 667 | | | 667 | 0.0 | 0.0 | 0.000 | A |

13:00 - 13:15

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | Entry | 1 | 1 | 2, 3 | 645 | 1245 | 0.519 | 646 | 0.8 | 1.0 | 0.099 | A |
| | | | 2 | 1, 3, 4 | 530 | 1200 | 0.442 | 531 | 0.5 | 0.7 | 0.090 | A |
| | Exit | 1 | 1 | | 774 | | | 774 | 0.0 | 0.0 | 0.000 | A |
| 2 - A256 | Entry | 1 | 1 | 3, 4 | 217 | 903 | 0.240 | 217 | 0.2 | 0.3 | 0.084 | A |
| | | | 2 | 1, 2, 4 | 782 | 1022 | 0.765 | 782 | 1.5 | 2.8 | 0.212 | B |
| | Exit | 1 | 1 | | 886 | | | 886 | 0.0 | 0.0 | 0.000 | A |
| 3 - Cottington Link Road | Entry | 1 | 1 | 1, 2, 3, 4 | 83 | 321 | 0.261 | 83 | 0.2 | 0.4 | 0.261 | C |
| | Exit | 1 | 1 | | 44 | | | 44 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 Hengist Way N | Entry | 1 | 2 | 2 | 113 | 480 | 0.234 | 113 | 0.2 | 0.2 | 0.132 | A |
| | | | 3 | 2, 3, 4 | 115 | 488 | 0.236 | 116 | 0.1 | 0.2 | 0.134 | A |
| | Exit | 1 | 1 | | 783 | | | 783 | 0.0 | 0.0 | 0.000 | A |

13:15 - 13:30

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | Entry | 1 | 1 | 2, 3 | 795 | 1220 | 0.652 | 790 | 1.0 | 1.9 | 0.141 | A |
| | | | 2 | 1, 3, 4 | 672 | 1176 | 0.572 | 675 | 0.7 | 1.1 | 0.120 | A |
| | Exit | 1 | 1 | | 926 | | | 926 | 0.0 | 0.0 | 0.000 | A |
| 2 - A256 | Entry | 1 | 1 | 3, 4 | 300 | 854 | 0.352 | 300 | 0.3 | 0.5 | 0.108 | A |
| | | | 2 | 1, 2, 4 | 916 | 976 | 0.938 | 904 | 2.8 | 9.3 | 0.497 | D |
| | Exit | 1 | 1 | | 1084 | | | 1084 | 0.0 | 0.0 | 0.000 | A |
| 3 - Cottington Link Road | Entry | 1 | 1 | 1, 2, 3, 4 | 100 | 174 | 0.574 | 94 | 0.4 | 1.7 | 0.789 | E |
| | Exit | 1 | 1 | | 60 | | | 60 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 Hengist Way N | Entry | 1 | 2 | 2 | 140 | 449 | 0.313 | 139 | 0.2 | 0.4 | 0.151 | A |
| | | | 3 | 2, 3, 4 | 145 | 459 | 0.317 | 144 | 0.2 | 0.4 | 0.145 | A |
| | Exit | 1 | 1 | | 978 | | | 978 | 0.0 | 0.0 | 0.000 | A |

13:30 - 13:45

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | Entry | 1 | 1 | 2, 3 | 794 | 1217 | 0.653 | 795 | 1.9 | 1.9 | 0.140 | A |
| | | | 2 | 1, 3, 4 | 666 | 1176 | 0.566 | 666 | 1.1 | 1.3 | 0.120 | A |
| | Exit | 1 | 1 | | 940 | | | 940 | 0.0 | 0.0 | 0.000 | A |
| 2 - A256 | Entry | 1 | 1 | 3, 4 | 297 | 860 | 0.346 | 298 | 0.5 | 0.6 | 0.107 | A |
| | | | 2 | 1, 2, 4 | 911 | 978 | 0.930 | 911 | 9.3 | 11.2 | 0.687 | E |
| | Exit | 1 | 1 | | 1092 | | | 1092 | 0.0 | 0.0 | 0.000 | A |
| 3 - Cottington Link Road | Entry | 1 | 1 | 1, 2, 3, 4 | 100 | 176 | 0.571 | 101 | 1.7 | 2.0 | 1.146 | F |
| | Exit | 1 | 1 | | 59 | | | 59 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 Hengist Way N | Entry | 1 | 2 | 2 | 142 | 450 | 0.315 | 142 | 0.4 | 0.4 | 0.158 | A |
| | | | 3 | 2, 3, 4 | 143 | 454 | 0.315 | 144 | 0.4 | 0.3 | 0.154 | A |
| | Exit | 1 | 1 | | 965 | | | 965 | 0.0 | 0.0 | 0.000 | A |

13:45 - 14:00

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | Entry | 1 | 1 | 2, 3 | 652 | 1245 | 0.524 | 652 | 1.9 | 1.1 | 0.104 | A |
| | | | 2 | 1, 3, 4 | 549 | 1206 | 0.455 | 548 | 1.3 | 0.8 | 0.093 | A |
| | Exit | 1 | 1 | | 774 | | | 774 | 0.0 | 0.0 | 0.000 | A |
| 2 - A256 | Entry | 1 | 1 | 3, 4 | 224 | 895 | 0.251 | 224 | 0.6 | 0.3 | 0.088 | A |
| | Exit | 1 | 1 | 1, 2, 4 | 771 | 1015 | 0.759 | 778 | 11.2 | 2.8 | 0.341 | C |
| | Exit | 1 | 1 | | 888 | | | 888 | 0.0 | 0.0 | 0.000 | A |

| | | | | | | | | | | | | |
|--------------------------|-------|---|---|------------|-----|-----|-------|-----|-----|-----|-------|---|
| 3 - Cottington Link Road | Entry | 1 | 1 | 1, 2, 3, 4 | 83 | 311 | 0.266 | 82 | 2.0 | 0.5 | 0.403 | C |
| | Exit | 1 | 1 | | 47 | | | 47 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 Hengist Way N | Entry | 1 | 2 | 2 | 113 | 478 | 0.236 | 112 | 0.4 | 0.3 | 0.140 | A |
| | | | 3 | 2, 3, 4 | 114 | 483 | 0.236 | 114 | 0.3 | 0.3 | 0.141 | A |
| | Exit | 1 | 1 | | 802 | | | 802 | 0.0 | 0.0 | 0.000 | A |

14:00 - 14:15

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | Entry | 1 | 1 | 2, 3 | 548 | 1268 | 0.432 | 547 | 1.1 | 0.8 | 0.085 | A |
| | | | 2 | 1, 3, 4 | 454 | 1222 | 0.372 | 454 | 0.8 | 0.6 | 0.079 | A |
| | Exit | 1 | 1 | | 653 | | | 653 | 0.0 | 0.0 | 0.000 | A |
| 2 - A256 | Entry | 1 | 1 | 3, 4 | 170 | 924 | 0.183 | 170 | 0.3 | 0.2 | 0.076 | A |
| | | | 2 | 1, 2, 4 | 673 | 1047 | 0.643 | 671 | 2.8 | 1.8 | 0.157 | A |
| | Exit | 1 | 1 | | 743 | | | 743 | 0.0 | 0.0 | 0.000 | A |
| 3 - Cottington Link Road | Entry | 1 | 1 | 1, 2, 3, 4 | 69 | 418 | 0.166 | 69 | 0.5 | 0.2 | 0.200 | B |
| | Exit | 1 | 1 | | 39 | | | 39 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 Hengist Way N | Entry | 1 | 2 | 2 | 92 | 498 | 0.186 | 91 | 0.3 | 0.2 | 0.128 | A |
| | | | 3 | 2, 3, 4 | 97 | 515 | 0.189 | 97 | 0.3 | 0.2 | 0.127 | A |
| | Exit | 1 | 1 | | 663 | | | 663 | 0.0 | 0.0 | 0.000 | A |

Lane simulation - 2039 B+Dev Net Change, AM

Data Errors and Warnings

| Severity | Area | Item | Description |
|----------|-----------------|--|---|
| Warning | Lane Simulation | A2 - Lane simulation [Lane Simulation] | This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results. |
| Last Run | Lane Simulation | 1 - A299 Hengist Way E - Lane Simulation | Arm 1: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated. |
| Last Run | Lane Simulation | 2 - A256 - Lane Simulation | Arm 2: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated. |
| Last Run | Lane Simulation | 3 - Cottington Link Road - Lane Simulation | Arm 3: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated. |

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|------------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3, 4 | 4.19 | F |

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 |
|-----|-----------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D12 | 2039 B+Dev Net Change | AM | ONE HOUR | 07:30 | 09:00 | 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 (%) |
|--------------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - A299 Hengist Way E | | ONE HOUR | ✓ | 1975 | 100.000 |
| 2 - A256 | | ONE HOUR | ✓ | 1527 | 100.000 |
| 3 - Cottington Link Road | | ONE HOUR | ✓ | 124 | 100.000 |
| 4 - A299 Hengist Way N | | ONE HOUR | ✓ | 646 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | |
|------|--------------------------|------------------------|----------|--------------------------|------------------------|
| | | 1 - A299 Hengist Way E | 2 - A256 | 3 - Cottington Link Road | 4 - A299 Hengist Way N |
| From | 1 - A299 Hengist Way E | 0 | 1144 | 41 | 790 |
| | 2 - A256 | 1057 | 0 | 23 | 447 |
| | 3 - Cottington Link Road | 55 | 56 | 0 | 13 |
| | 4 - A299 Hengist Way N | 0 | 637 | 9 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | |
|------|--------------------------|------------------------|----------|--------------------------|------------------------|
| | | 1 - A299 Hengist Way E | 2 - A256 | 3 - Cottington Link Road | 4 - A299 Hengist Way N |
| From | 1 - A299 Hengist Way E | 0 | 3 | 6 | 4 |
| | 2 - A256 | 5 | 0 | 6 | 14 |
| | 3 - Cottington Link Road | 0 | 2 | 0 | 10 |
| | 4 - A299 Hengist Way N | 0 | 9 | 0 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|--------------------------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - A299 Hengist Way E | 2.46 | 94.1 | F | 1809 | 2713 |
| 2 - A256 | 6.03 | 137.3 | F | 1402 | 2103 |
| 3 - Cottington Link Road | 30.01 | 66.1 | F | 114 | 171 |
| 4 - A299 Hengist Way N | 0.25 | 3.0 | B | 589 | 884 |

Main Results for each time segment

07:30 - 07:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 1475 | 369 | 522 | 1477 | 845 | 0.0 | 3.8 | 0.146 | A |
| 2 - A256 | 1157 | 289 | 635 | 1155 | 1365 | 0.0 | 4.8 | 0.212 | B |
| 3 - Cottington Link Road | 95 | 24 | 1736 | 92 | 54 | 0.0 | 0.8 | 0.344 | C |
| 4 - A299 Hengist Way N | 480 | 120 | 887 | 480 | 941 | 0.0 | 1.3 | 0.142 | A |

07:45 - 08:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 1774 | 444 | 618 | 1771 | 964 | 3.8 | 10.7 | 0.315 | C |
| 2 - A256 | 1377 | 344 | 759 | 1345 | 1630 | 4.8 | 16.5 | 0.556 | D |
| 3 - Cottington Link Road | 110 | 27 | 2038 | 96 | 66 | 0.8 | 4.9 | 3.357 | F |
| 4 - A299 Hengist Way N | 578 | 144 | 1007 | 576 | 1128 | 1.3 | 1.9 | 0.184 | B |

08:00 - 08:15

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 2160 | 540 | 725 | 2015 | 920 | 10.7 | 54.9 | 1.108 | F |
| 2 - A256 | 1681 | 420 | 927 | 1428 | 1813 | 16.5 | 77.8 | 2.147 | F |
| 3 - Cottington Link Road | 139 | 35 | 2276 | 29 | 79 | 4.9 | 28.4 | 24.997 | F |
| 4 - A299 Hengist Way N | 712 | 178 | 934 | 712 | 1372 | 1.9 | 2.9 | 0.250 | B |

08:15 - 08:30

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 2158 | 540 | 718 | 2016 | 926 | 54.9 | 94.4 | 2.373 | F |
| 2 - A256 | 1690 | 423 | 920 | 1435 | 1814 | 77.8 | 140.3 | 4.954 | F |
| 3 - Cottington Link Road | 136 | 34 | 2273 | 24 | 82 | 28.4 | 56.1 | 30.011 | F |
| 4 - A299 Hengist Way N | 705 | 176 | 937 | 708 | 1360 | 2.9 | 2.7 | 0.238 | B |

08:30 - 08:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 1785 | 446 | 615 | 1881 | 1007 | 94.4 | 66.2 | 2.461 | F |
| 2 - A256 | 1367 | 342 | 760 | 1386 | 1735 | 140.3 | 137.7 | 6.027 | F |
| 3 - Cottington Link Road | 109 | 27 | 2081 | 89 | 65 | 56.1 | 66.3 | 23.058 | F |
| 4 - A299 Hengist Way N | 577 | 144 | 1047 | 575 | 1124 | 2.7 | 1.9 | 0.199 | B |

08:45 - 09:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 1496 | 374 | 555 | 1615 | 1082 | 66.2 | 16.7 | 1.094 | F |
| 2 - A256 | 1141 | 285 | 634 | 1364 | 1536 | 137.7 | 85.3 | 4.009 | F |
| 3 - Cottington Link Road | 97 | 24 | 1941 | 156 | 57 | 66.3 | 53.1 | 12.280 | F |
| 4 - A299 Hengist Way N | 482 | 120 | 1153 | 483 | 944 | 1.9 | 1.5 | 0.180 | B |

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-------|
| 1 - A299 Hengist Way E | Entry | 1 | 1 | 2, 3 | 1031 | 1146 | 0.900 | 1129 | 89.0 | 64.2 | 4.116 | F |
| | | | 2 | 1, 3, 4 | 754 | 1136 | 0.665 | 751 | 5.4 | 2.0 | 0.178 | B |
| | Exit | 1 | 1 | | 1007 | | | 1007 | 0.0 | 0.0 | 0.000 | A |
| 2 - A256 | Entry | 1 | 1 | 3, 4 | 418 | 899 | 0.466 | 419 | 1.8 | 0.9 | 0.140 | A |
| | | | 2 | 1, 2, 4 | 948 | 971 | 0.977 | 967 | 138.5 | 136.8 | 8.640 | F |
| | Exit | 1 | 1 | | 1735 | | | 1735 | 0.0 | 0.0 | 0.000 | A |
| 3 - Cottington Link Road | Entry | 1 | 1 | 1, 2, 3, 4 | 109 | 92 | 1.181 | 89 | 56.1 | 66.3 | 23.058 | F |
| | | | Exit | 1 | 1 | | 65 | | 65 | 0.0 | 0.0 | 0.000 |
| 4 - A299 Hengist Way N | Entry | 1 | 2 | 2 | 286 | 499 | 0.574 | 285 | 1.3 | 0.9 | 0.197 | B |
| | | | 3 | 2, 3, 4 | 291 | 501 | 0.581 | 290 | 1.3 | 1.0 | 0.201 | B |
| | Exit | 1 | 1 | | 1124 | | | 1124 | 0.0 | 0.0 | 0.000 | A |

08:45 - 09:00

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-------|
| 1 - A299 Hengist Way E | Entry | 1 | 1 | 2, 3 | 871 | 1171 | 0.745 | 993 | 64.2 | 15.5 | 1.820 | F |
| | | | 2 | 1, 3, 4 | 624 | 1159 | 0.539 | 622 | 2.0 | 1.2 | 0.115 | A |
| | Exit | 1 | 1 | | 1082 | | | 1082 | 0.0 | 0.0 | 0.000 | A |
| 2 - A256 | Entry | 1 | 1 | 3, 4 | 348 | 941 | 0.370 | 348 | 0.9 | 0.6 | 0.109 | A |
| | | | 2 | 1, 2, 4 | 793 | 1012 | 0.784 | 1016 | 136.8 | 84.7 | 6.417 | F |
| | Exit | 1 | 1 | | 1536 | | | 1536 | 0.0 | 0.0 | 0.000 | A |
| 3 - Cottington Link Road | Entry | 1 | 1 | 1, 2, 3, 4 | 97 | 158 | 0.608 | 156 | 66.3 | 53.1 | 12.280 | F |
| | | | Exit | 1 | 1 | | 57 | | 57 | 0.0 | 0.0 | 0.000 |
| 4 - A299 Hengist Way N | Entry | 1 | 2 | 2 | 238 | 476 | 0.501 | 239 | 0.9 | 0.7 | 0.181 | B |
| | | | 3 | 2, 3, 4 | 244 | 478 | 0.509 | 244 | 1.0 | 0.8 | 0.180 | B |
| | Exit | 1 | 1 | | 944 | | | 944 | 0.0 | 0.0 | 0.000 | A |

Lane simulation - 2039 B+Dev Net Change, PM

Data Errors and Warnings

| Severity | Area | Item | Description |
|----------|-----------------|--|---|
| Warning | Lane Simulation | A2 - Lane simulation [Lane Simulation] | This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results. |
| Last Run | Lane Simulation | 2 - A256 - Lane Simulation | Arm 2: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated. |
| Last Run | Lane Simulation | 3 - Cottington Link Road - Lane Simulation | Arm 3: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated. |

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|------------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3, 4 | 3.47 | F |

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 |
|-----|-----------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D13 | 2039 B+Dev Net Change | PM | ONE HOUR | 16:30 | 18:00 | 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 (%) |
|--------------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - A299 Hengist Way E | | ONE HOUR | ✓ | 1658 | 100.000 |
| 2 - A256 | | ONE HOUR | ✓ | 1887 | 100.000 |
| 3 - Cottington Link Road | | ONE HOUR | ✓ | 81 | 100.000 |
| 4 - A299 Hengist Way N | | ONE HOUR | ✓ | 427 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | |
|------|--------------------------|------------------------|----------|--------------------------|------------------------|
| | | 1 - A299 Hengist Way E | 2 - A256 | 3 - Cottington Link Road | 4 - A299 Hengist Way N |
| From | 1 - A299 Hengist Way E | 0 | 997 | 72 | 589 |
| | 2 - A256 | 1180 | 0 | 35 | 672 |
| | 3 - Cottington Link Road | 45 | 25 | 0 | 11 |
| | 4 - A299 Hengist Way N | 0 | 406 | 21 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | |
|------|--------------------------|------------------------|----------|--------------------------|------------------------|
| | | 1 - A299 Hengist Way E | 2 - A256 | 3 - Cottington Link Road | 4 - A299 Hengist Way N |
| From | 1 - A299 Hengist Way E | 0 | 3 | 0 | 2 |
| | 2 - A256 | 2 | 0 | 0 | 3 |
| | 3 - Cottington Link Road | 3 | 0 | 0 | 0 |
| | 4 - A299 Hengist Way N | 0 | 7 | 0 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|--------------------------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - A299 Hengist Way E | 0.38 | 12.0 | C | 1522 | 2283 |
| 2 - A256 | 6.04 | 168.8 | F | 1726 | 2589 |
| 3 - Cottington Link Road | 25.56 | 37.1 | F | 74 | 111 |
| 4 - A299 Hengist Way N | 0.16 | 1.4 | A | 389 | 584 |

Main Results for each time segment

16:30 - 16:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 1241 | 310 | 344 | 1242 | 922 | 0.0 | 1.9 | 0.096 | A |
| 2 - A256 | 1417 | 354 | 502 | 1413 | 1084 | 0.0 | 5.7 | 0.201 | B |
| 3 - Cottington Link Road | 62 | 15 | 1823 | 61 | 92 | 0.0 | 0.4 | 0.288 | C |
| 4 - A299 Hengist Way N | 325 | 81 | 942 | 324 | 942 | 0.0 | 0.6 | 0.120 | A |

16:45 - 17:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 1476 | 369 | 401 | 1477 | 1059 | 1.9 | 3.7 | 0.142 | A |
| 2 - A256 | 1691 | 423 | 608 | 1659 | 1270 | 5.7 | 20.7 | 0.571 | D |
| 3 - Cottington Link Road | 73 | 18 | 2154 | 65 | 114 | 0.4 | 2.7 | 2.677 | F |
| 4 - A299 Hengist Way N | 383 | 96 | 1078 | 383 | 1141 | 0.6 | 1.0 | 0.144 | A |

17:00 - 17:15

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 1840 | 460 | 469 | 1821 | 1026 | 3.7 | 11.4 | 0.295 | C |
| 2 - A256 | 2079 | 520 | 756 | 1789 | 1534 | 20.7 | 93.5 | 2.138 | F |
| 3 - Cottington Link Road | 85 | 21 | 2403 | 21 | 142 | 2.7 | 16.7 | 22.270 | F |
| 4 - A299 Hengist Way N | 466 | 117 | 1032 | 462 | 1392 | 1.0 | 1.3 | 0.159 | A |

17:15 - 17:30

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 1837 | 459 | 474 | 1833 | 1019 | 11.4 | 11.8 | 0.378 | C |
| 2 - A256 | 2074 | 518 | 756 | 1792 | 1551 | 93.5 | 165.9 | 4.857 | F |
| 3 - Cottington Link Road | 92 | 23 | 2409 | 19 | 139 | 16.7 | 34.0 | 25.562 | F |
| 4 - A299 Hengist Way N | 468 | 117 | 1024 | 469 | 1403 | 1.3 | 1.1 | 0.156 | A |

17:30 - 17:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 1484 | 371 | 407 | 1492 | 1091 | 11.8 | 3.4 | 0.183 | B |
| 2 - A256 | 1689 | 422 | 619 | 1683 | 1279 | 165.9 | 169.3 | 6.038 | F |
| 3 - Cottington Link Road | 73 | 18 | 2188 | 81 | 114 | 34.0 | 37.1 | 18.076 | F |
| 4 - A299 Hengist Way N | 380 | 95 | 1115 | 382 | 1154 | 1.1 | 1.0 | 0.150 | A |

17:45 - 18:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 1252 | 313 | 356 | 1253 | 1159 | 3.4 | 2.3 | 0.107 | A |
| 2 - A256 | 1410 | 352 | 516 | 1612 | 1093 | 169.3 | 121.1 | 4.092 | F |
| 3 - Cottington Link Road | 60 | 15 | 2028 | 135 | 99 | 37.1 | 19.3 | 7.887 | F |
| 4 - A299 Hengist Way N | 314 | 79 | 1201 | 315 | 963 | 1.0 | 0.8 | 0.147 | A |

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | Entry | 1 | 1 | 2, 3 | 904 | 1237 | 0.730 | 909 | 10.4 | 2.6 | 0.242 | B |
| | | | 2 | 1, 3, 4 | 581 | 1249 | 0.465 | 582 | 1.4 | 0.8 | 0.091 | A |
| | Exit | 1 | 1 | | 1091 | | | 1091 | 0.0 | 0.0 | 0.000 | A |
| 2 - A256 | Entry | 1 | 1 | 3, 4 | 641 | 1045 | 0.613 | 637 | 3.6 | 1.8 | 0.160 | A |
| | | | 2 | 1, 2, 4 | 1048 | 1053 | 0.997 | 1046 | 162.3 | 167.5 | 9.564 | F |
| | Exit | 1 | 1 | | 1279 | | | 1279 | 0.0 | 0.0 | 0.000 | A |
| 3 - Cottington Link Road | Entry | 1 | 1 | 1, 2, 3, 4 | 73 | 76 | 0.952 | 81 | 34.0 | 37.1 | 18.076 | F |
| | | | | | | | | | | | | |
| 4 - A299 Hengist Way N | Entry | 1 | 2 | 2 | 184 | 500 | 0.366 | 185 | 0.5 | 0.5 | 0.152 | A |
| | | | 3 | 2, 3, 4 | 197 | 497 | 0.396 | 197 | 0.6 | 0.5 | 0.149 | A |
| | Exit | 1 | 1 | | 1154 | | | 1154 | 0.0 | 0.0 | 0.000 | A |

17:45 - 18:00

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | Entry | 1 | 1 | 2, 3 | 771 | 1254 | 0.616 | 773 | 2.6 | 1.6 | 0.126 | A |
| | | | 2 | 1, 3, 4 | 481 | 1272 | 0.378 | 480 | 0.8 | 0.7 | 0.075 | A |
| | Exit | 1 | 1 | | 1159 | | | 1159 | 0.0 | 0.0 | 0.000 | A |
| 2 - A256 | Entry | 1 | 1 | 3, 4 | 526 | 1079 | 0.487 | 527 | 1.8 | 1.0 | 0.116 | A |
| | | | 2 | 1, 2, 4 | 884 | 1087 | 0.814 | 1085 | 167.5 | 120.2 | 7.732 | F |
| | Exit | 1 | 1 | | 1093 | | | 1093 | 0.0 | 0.0 | 0.000 | A |
| 3 - Cottington Link Road | Entry | 1 | 1 | 1, 2, 3, 4 | 60 | 154 | 0.390 | 135 | 37.1 | 19.3 | 7.887 | F |
| | | | | | | | | | | | | |
| 4 - A299 Hengist Way N | Entry | 1 | 2 | 2 | 153 | 478 | 0.319 | 153 | 0.5 | 0.4 | 0.145 | A |
| | | | 3 | 2, 3, 4 | 161 | 481 | 0.336 | 161 | 0.5 | 0.4 | 0.148 | A |
| | Exit | 1 | 1 | | 963 | | | 963 | 0.0 | 0.0 | 0.000 | A |

Lane simulation - 2039 B+Dev Net Change, Airport Peak

Data Errors and Warnings

| Severity | Area | Item | Description |
|----------|-----------------|--|---|
| Warning | Lane Simulation | A2 - Lane simulation [Lane Simulation] | This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results. |

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|------------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3, 4 | 0.26 | C |

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 |
|-----|-----------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D14 | 2039 B+Dev Net Change | Airport Peak | ONE HOUR | 12:45 | 14:15 | 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 (%) |
|--------------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - A299 Hengist Way E | | ONE HOUR | ✓ | 1224 | 100.000 |
| 2 - A256 | | ONE HOUR | ✓ | 1106 | 100.000 |
| 3 - Cottington Link Road | | ONE HOUR | ✓ | 92 | 100.000 |
| 4 - A299 Hengist Way N | | ONE HOUR | ✓ | 255 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | |
|------|--------------------------|------------------------|----------|--------------------------|------------------------|
| | | 1 - A299 Hengist Way E | 2 - A256 | 3 - Cottington Link Road | 4 - A299 Hengist Way N |
| From | 1 - A299 Hengist Way E | 0 | 706 | 37 | 481 |
| | 2 - A256 | 814 | 0 | 12 | 280 |
| | 3 - Cottington Link Road | 45 | 31 | 0 | 16 |
| | 4 - A299 Hengist Way N | 0 | 252 | 3 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | |
|------|--------------------------|------------------------|----------|--------------------------|------------------------|
| | | 1 - A299 Hengist Way E | 2 - A256 | 3 - Cottington Link Road | 4 - A299 Hengist Way N |
| From | 1 - A299 Hengist Way E | 0 | 6 | 0 | 8 |
| | 2 - A256 | 5 | 0 | 0 | 21 |
| | 3 - Cottington Link Road | 3 | 5 | 0 | 0 |
| | 4 - A299 Hengist Way N | 0 | 24 | 0 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|--------------------------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - A299 Hengist Way E | 0.12 | 2.9 | A | 1122 | 1684 |
| 2 - A256 | 0.40 | 8.1 | C | 1015 | 1523 |
| 3 - Cottington Link Road | 0.59 | 1.1 | E | 84 | 125 |
| 4 - A299 Hengist Way N | 0.16 | 0.8 | A | 234 | 351 |

Main Results for each time segment

12:45 - 13:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 912 | 228 | 215 | 910 | 647 | 0.0 | 1.2 | 0.077 | A |
| 2 - A256 | 828 | 207 | 392 | 830 | 733 | 0.0 | 1.7 | 0.115 | A |
| 3 - Cottington Link Road | 67 | 17 | 1184 | 66 | 39 | 0.0 | 0.2 | 0.134 | A |
| 4 - A299 Hengist Way N | 194 | 48 | 670 | 192 | 580 | 0.0 | 0.5 | 0.122 | A |

13:00 - 13:15

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 1106 | 277 | 253 | 1103 | 784 | 1.2 | 1.8 | 0.091 | A |
| 2 - A256 | 997 | 249 | 475 | 1001 | 881 | 1.7 | 2.7 | 0.168 | B |
| 3 - Cottington Link Road | 82 | 20 | 1431 | 82 | 45 | 0.2 | 0.3 | 0.217 | B |
| 4 - A299 Hengist Way N | 227 | 57 | 810 | 227 | 703 | 0.5 | 0.6 | 0.138 | A |

13:15 - 13:30

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 1352 | 338 | 311 | 1351 | 944 | 1.8 | 2.9 | 0.120 | A |
| 2 - A256 | 1218 | 304 | 572 | 1216 | 1090 | 2.7 | 8.2 | 0.344 | C |
| 3 - Cottington Link Road | 101 | 25 | 1728 | 98 | 60 | 0.3 | 1.0 | 0.503 | D |
| 4 - A299 Hengist Way N | 278 | 69 | 977 | 278 | 848 | 0.6 | 0.7 | 0.153 | A |

13:30 - 13:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 1340 | 335 | 314 | 1343 | 941 | 2.9 | 2.7 | 0.124 | A |
| 2 - A256 | 1210 | 303 | 571 | 1212 | 1086 | 8.2 | 8.0 | 0.402 | C |
| 3 - Cottington Link Road | 102 | 26 | 1723 | 101 | 59 | 1.0 | 1.1 | 0.594 | E |
| 4 - A299 Hengist Way N | 280 | 70 | 975 | 279 | 849 | 0.7 | 0.8 | 0.155 | A |

13:45 - 14:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 1100 | 275 | 258 | 1100 | 773 | 2.7 | 1.8 | 0.093 | A |
| 2 - A256 | 998 | 250 | 461 | 1000 | 898 | 8.0 | 2.6 | 0.197 | B |
| 3 - Cottington Link Road | 82 | 20 | 1412 | 83 | 50 | 1.1 | 0.3 | 0.288 | C |
| 4 - A299 Hengist Way N | 230 | 58 | 800 | 231 | 694 | 0.8 | 0.5 | 0.139 | A |

14:00 - 14:15

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | 925 | 231 | 217 | 927 | 653 | 1.8 | 1.2 | 0.078 | A |
| 2 - A256 | 841 | 210 | 394 | 841 | 750 | 2.6 | 1.8 | 0.126 | A |
| 3 - Cottington Link Road | 69 | 17 | 1196 | 69 | 39 | 0.3 | 0.2 | 0.165 | A |
| 4 - A299 Hengist Way N | 194 | 48 | 676 | 194 | 589 | 0.5 | 0.4 | 0.125 | A |

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

12:45 - 13:00

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | Entry | 1 | 1 | 2, 3 | 533 | 1262 | 0.423 | 533 | 0.0 | 0.8 | 0.083 | A |
| | | | 2 | 1, 3, 4 | 378 | 1247 | 0.303 | 378 | 0.0 | 0.4 | 0.069 | A |
| | Exit | 1 | 1 | | 647 | | | 647 | 0.0 | 0.0 | 0.000 | A |
| 2 - A256 | Entry | 1 | 1 | 3, 4 | 164 | 953 | 0.172 | 165 | 0.0 | 0.2 | 0.071 | A |
| | | | 2 | 1, 2, 4 | 664 | 1075 | 0.618 | 666 | 0.0 | 1.5 | 0.126 | A |
| | Exit | 1 | 1 | | 733 | | | 733 | 0.0 | 0.0 | 0.000 | A |
| 3 - Cottington Link Road | Entry | 1 | 1 | 1, 2, 3, 4 | 67 | 459 | 0.145 | 66 | 0.0 | 0.2 | 0.134 | A |
| | Exit | 1 | 1 | | 39 | | | 39 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 Hengist Way N | Entry | 1 | 2 | 2 | 96 | 512 | 0.189 | 95 | 0.0 | 0.3 | 0.121 | A |
| | | | 3 | 2, 3, 4 | 98 | 504 | 0.193 | 96 | 0.0 | 0.3 | 0.122 | A |
| | Exit | 1 | 1 | | 580 | | | 580 | 0.0 | 0.0 | 0.000 | A |

13:00 - 13:15

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | Entry | 1 | 1 | 2, 3 | 644 | 1243 | 0.518 | 643 | 0.8 | 1.1 | 0.101 | A |
| | | | 2 | 1, 3, 4 | 462 | 1225 | 0.377 | 460 | 0.4 | 0.6 | 0.075 | A |
| | Exit | 1 | 1 | | 784 | | | 784 | 0.0 | 0.0 | 0.000 | A |
| 2 - A256 | Entry | 1 | 1 | 3, 4 | 214 | 927 | 0.230 | 213 | 0.2 | 0.3 | 0.080 | A |
| | | | 2 | 1, 2, 4 | 784 | 1050 | 0.746 | 788 | 1.5 | 2.4 | 0.192 | B |
| | Exit | 1 | 1 | | 881 | | | 881 | 0.0 | 0.0 | 0.000 | A |
| 3 - Cottington Link Road | Entry | 1 | 1 | 1, 2, 3, 4 | 82 | 352 | 0.232 | 82 | 0.2 | 0.3 | 0.217 | B |
| | Exit | 1 | 1 | | 45 | | | 45 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 Hengist Way N | Entry | 1 | 2 | 2 | 110 | 475 | 0.233 | 110 | 0.3 | 0.3 | 0.135 | A |
| | | | 3 | 2, 3, 4 | 117 | 478 | 0.243 | 117 | 0.3 | 0.3 | 0.140 | A |
| | Exit | 1 | 1 | | 703 | | | 703 | 0.0 | 0.0 | 0.000 | A |

13:15 - 13:30

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | Entry | 1 | 1 | 2, 3 | 797 | 1217 | 0.655 | 799 | 1.1 | 1.9 | 0.138 | A |
| | | | 2 | 1, 3, 4 | 554 | 1207 | 0.460 | 553 | 0.6 | 1.0 | 0.094 | A |
| | Exit | 1 | 1 | | 944 | | | 944 | 0.0 | 0.0 | 0.000 | A |
| 2 - A256 | Entry | 1 | 1 | 3, 4 | 292 | 898 | 0.326 | 292 | 0.3 | 0.5 | 0.097 | A |
| | | | 2 | 1, 2, 4 | 925 | 1023 | 0.904 | 924 | 2.4 | 7.7 | 0.421 | D |
| | Exit | 1 | 1 | | 1090 | | | 1090 | 0.0 | 0.0 | 0.000 | A |
| 3 - Cottington Link Road | Entry | 1 | 1 | 1, 2, 3, 4 | 101 | 229 | 0.440 | 98 | 0.3 | 1.0 | 0.503 | D |
| | Exit | 1 | 1 | | 60 | | | 60 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 Hengist Way N | Entry | 1 | 2 | 2 | 139 | 451 | 0.308 | 139 | 0.3 | 0.4 | 0.155 | A |
| | | | 3 | 2, 3, 4 | 139 | 452 | 0.308 | 139 | 0.3 | 0.4 | 0.151 | A |
| | Exit | 1 | 1 | | 848 | | | 848 | 0.0 | 0.0 | 0.000 | A |

13:30 - 13:45

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | Entry | 1 | 1 | 2, 3 | 789 | 1221 | 0.646 | 792 | 1.9 | 1.9 | 0.145 | A |
| | | | 2 | 1, 3, 4 | 551 | 1201 | 0.459 | 552 | 1.0 | 0.9 | 0.094 | A |
| | Exit | 1 | 1 | | 941 | | | 941 | 0.0 | 0.0 | 0.000 | A |
| 2 - A256 | Entry | 1 | 1 | 3, 4 | 291 | 899 | 0.324 | 292 | 0.5 | 0.5 | 0.099 | A |
| | | | 2 | 1, 2, 4 | 919 | 1022 | 0.899 | 919 | 7.7 | 7.5 | 0.498 | D |
| | Exit | 1 | 1 | | 1086 | | | 1086 | 0.0 | 0.0 | 0.000 | A |
| 3 - Cottington Link Road | Entry | 1 | 1 | 1, 2, 3, 4 | 102 | 229 | 0.446 | 101 | 1.0 | 1.1 | 0.594 | E |
| | Exit | 1 | 1 | | 59 | | | 59 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 Hengist Way N | Entry | 1 | 2 | 2 | 139 | 451 | 0.308 | 138 | 0.4 | 0.4 | 0.155 | A |
| | | | 3 | 2, 3, 4 | 141 | 453 | 0.311 | 141 | 0.4 | 0.4 | 0.155 | A |
| | Exit | 1 | 1 | | 849 | | | 849 | 0.0 | 0.0 | 0.000 | A |

13:45 - 14:00

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | Entry | 1 | 1 | 2, 3 | 656 | 1244 | 0.528 | 656 | 1.9 | 1.1 | 0.103 | A |
| | | | 2 | 1, 3, 4 | 444 | 1223 | 0.363 | 444 | 0.9 | 0.7 | 0.078 | A |
| | Exit | 1 | 1 | | 773 | | | 773 | 0.0 | 0.0 | 0.000 | A |
| 2 - A256 | Entry | 1 | 1 | 3, 4 | 219 | 936 | 0.234 | 220 | 0.5 | 0.3 | 0.082 | A |
| | | | 2 | 1, 2, 4 | 779 | 1057 | 0.737 | 781 | 7.5 | 2.3 | 0.229 | B |
| | Exit | 1 | 1 | | 898 | | | 898 | 0.0 | 0.0 | 0.000 | A |

| | | | | | | | | | | | | |
|--------------------------|-------|---|---|------------|-----|-----|-------|-----|-----|-----|-------|---|
| 3 - Cottington Link Road | Entry | 1 | 1 | 1, 2, 3, 4 | 82 | 360 | 0.226 | 83 | 1.1 | 0.3 | 0.288 | C |
| | Exit | 1 | 1 | | 50 | | | 50 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 Hengist Way N | Entry | 1 | 2 | 2 | 114 | 488 | 0.234 | 115 | 0.4 | 0.2 | 0.139 | A |
| | | | 3 | 2, 3, 4 | 116 | 479 | 0.242 | 116 | 0.4 | 0.3 | 0.138 | A |
| | Exit | 1 | 1 | | 694 | | | 694 | 0.0 | 0.0 | 0.000 | A |

14:00 - 14:15

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 Hengist Way E | Entry | 1 | 1 | 2, 3 | 548 | 1266 | 0.433 | 548 | 1.1 | 0.8 | 0.083 | A |
| | | | 2 | 1, 3, 4 | 377 | 1245 | 0.303 | 379 | 0.7 | 0.4 | 0.070 | A |
| | Exit | 1 | 1 | | 653 | | | 653 | 0.0 | 0.0 | 0.000 | A |
| 2 - A256 | Entry | 1 | 1 | 3, 4 | 169 | 956 | 0.177 | 168 | 0.3 | 0.2 | 0.075 | A |
| | | | 2 | 1, 2, 4 | 672 | 1080 | 0.623 | 672 | 2.3 | 1.6 | 0.139 | A |
| | Exit | 1 | 1 | | 750 | | | 750 | 0.0 | 0.0 | 0.000 | A |
| 3 - Cottington Link Road | Entry | 1 | 1 | 1, 2, 3, 4 | 69 | 455 | 0.152 | 69 | 0.3 | 0.2 | 0.165 | A |
| | Exit | 1 | 1 | | 39 | | | 39 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 Hengist Way N | Entry | 1 | 2 | 2 | 95 | 511 | 0.186 | 95 | 0.2 | 0.2 | 0.124 | A |
| | | | 3 | 2, 3, 4 | 99 | 510 | 0.193 | 99 | 0.3 | 0.2 | 0.125 | A |
| | Exit | 1 | 1 | | 589 | | | 589 | 0.0 | 0.0 | 0.000 | A |

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.0.2.5947
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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: Jct 3_A299_Canterbury_R1_validated.j9

Path: R:\Projects\38199 Manston Airport DCO EIA\4 Design\Transport\Junction Modelling\Base Models\Validated\Jct 3_A299_Canterbury Rd

Report generation date: 29/01/2018 09:40:20

-
- »2017 Baseline Traffic, AM
 - »2017 Baseline Traffic, PM
 - »2017 Baseline Traffic, Airport Peak
 - »2039 Growthed Traffic, AM
 - »2039 Growthed Traffic, PM
 - »2039 Growthed Traffic, Airport Peak
 - »2039 + Dev Traffic, AM
 - »2039 + Dev Traffic, PM
 - »2039 + Dev Traffic, Airport Peak
 - »2039 B+Dev Net Change, AM
 - »2039 B+Dev Net Change, PM
 - »2039 B+Dev Net Change, Airport Peak

Summary of junction performance

| | AM | | | | | PM | | | | | Airport Peak | | | | |
|------------------------------|-------------|-------------|------|-----|---------------------------|-------------|-------------|------|-----|---------------------------|--------------|-------------|------|-----|---------------------------|
| | Queue (Veh) | Delay (min) | RFC | LOS | Network Residual Capacity | Queue (Veh) | Delay (min) | RFC | LOS | Network Residual Capacity | Queue (Veh) | Delay (min) | RFC | LOS | Network Residual Capacity |
| 2017 Baseline Traffic | | | | | | | | | | | | | | | |
| 1 - Canterbury Road | 0.4 | 0.24 | 0.29 | B | 38 % | 0.3 | 0.24 | 0.21 | B | 44 % | 0.1 | 0.14 | 0.09 | A | 137 % |
| 2 - A299 Hengist Way S | 1.8 | 0.09 | 0.64 | A | [1 - Canterbury Road] | 1.7 | 0.08 | 0.63 | A | [3 - A299 Hengist Way W] | 0.7 | 0.06 | 0.40 | A | [2 - A299 Hengist Way S] |
| 3 - A299 Hengist Way W | 1.4 | 0.06 | 0.58 | A | | 2.0 | 0.08 | 0.67 | A | | 0.6 | 0.04 | 0.36 | A | |
| 2039 Grownth Traffic | | | | | | | | | | | | | | | |
| 1 - Canterbury Road | 0.8 | 0.40 | 0.45 | C | 10 % | 0.5 | 0.37 | 0.34 | C | 14 % | 0.2 | 0.17 | 0.13 | B | 75 % |
| 2 - A299 Hengist Way S | 4.7 | 0.19 | 0.83 | B | [1 - Canterbury Road] | 4.2 | 0.16 | 0.81 | A | [3 - A299 Hengist Way W] | 1.2 | 0.07 | 0.54 | A | [2 - A299 Hengist Way S] |
| 3 - A299 Hengist Way W | 2.7 | 0.10 | 0.73 | A | | 5.4 | 0.17 | 0.85 | B | | 0.9 | 0.05 | 0.49 | A | |
| 2039 + Dev Traffic | | | | | | | | | | | | | | | |
| 1 - Canterbury Road | 0.8 | 0.41 | 0.46 | C | 10 % | 0.5 | 0.38 | 0.35 | C | 14 % | 0.2 | 0.17 | 0.14 | B | 75 % |
| 2 - A299 Hengist Way S | 4.8 | 0.19 | 0.83 | B | [1 - Canterbury Road] | 4.2 | 0.16 | 0.81 | A | [1 - Canterbury Road] | 1.2 | 0.07 | 0.54 | A | [2 - A299 Hengist Way S] |
| 3 - A299 Hengist Way W | 2.7 | 0.10 | 0.73 | A | | 5.4 | 0.17 | 0.85 | B | | 0.9 | 0.05 | 0.49 | A | |
| 2039 B+Dev Net Change | | | | | | | | | | | | | | | |
| 1 - Canterbury Road | 0.7 | 0.35 | 0.42 | C | 16 % | 0.4 | 0.31 | 0.31 | C | 22 % | 0.2 | 0.17 | 0.13 | A | 99 % |
| 2 - A299 Hengist Way S | 3.1 | 0.13 | 0.76 | A | [1 - Canterbury Road] | 2.9 | 0.12 | 0.75 | A | [3 - A299 Hengist Way W] | 0.9 | 0.06 | 0.47 | A | [2 - A299 Hengist Way S] |
| 3 - A299 Hengist Way W | 2.2 | 0.09 | 0.69 | A | | 3.6 | 0.12 | 0.79 | A | | 0.9 | 0.05 | 0.47 | A | |

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

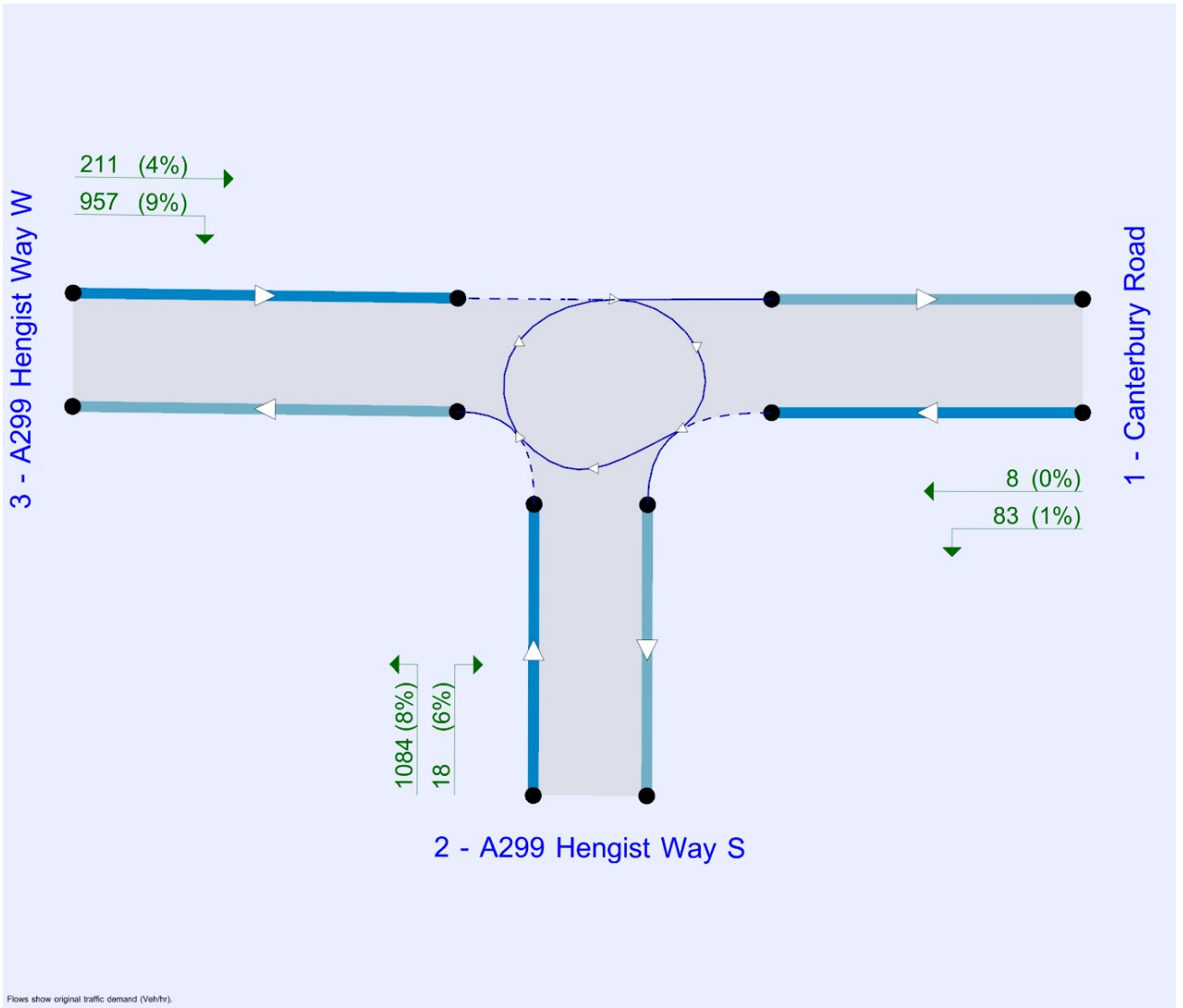
File summary

File Description

| | |
|-------------|-----------------|
| Title | (untitled) |
| Location | |
| Site number | |
| Date | 29/09/2017 |
| Version | |
| Status | (new file) |
| Identifier | |
| Client | |
| Jobnumber | |
| Enumerator | GLOBAL\adam.guy |
| 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 | mph | Veh | Veh | perHour | min | -Min | perMin |



Analysis Options

| Vehicle length (m) | Calculate Queue Percentiles | Calculate detailed queueing delay | Calculate residual capacity | Residual capacity criteria type | RFC Threshold | Average Delay threshold (min) | Queue threshold (PCU) |
|--------------------|-----------------------------|-----------------------------------|-----------------------------|---------------------------------|---------------|-------------------------------|-----------------------|
| 5.75 | | | ✓ | Delay | 0.85 | 0.60 | 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 |
|-----|-----------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D3 | 2017 Baseline Traffic | AM | ONE HOUR | 07:30 | 09:00 | 15 | ✓ |
| D4 | 2017 Baseline Traffic | PM | ONE HOUR | 16:30 | 18:00 | 15 | ✓ |
| D5 | 2017 Baseline Traffic | Airport Peak | ONE HOUR | 12:45 | 14:15 | 15 | ✓ |
| D6 | 2039 Growthed Traffic | AM | ONE HOUR | 07:30 | 09:00 | 15 | ✓ |
| D7 | 2039 Growthed Traffic | PM | ONE HOUR | 16:30 | 18:00 | 15 | ✓ |
| D8 | 2039 Growthed Traffic | Airport Peak | ONE HOUR | 12:45 | 14:15 | 15 | ✓ |
| D9 | 2039 + Dev Traffic | AM | ONE HOUR | 07:30 | 09:00 | 15 | ✓ |
| D10 | 2039 + Dev Traffic | PM | ONE HOUR | 16:30 | 18:00 | 15 | ✓ |
| D11 | 2039 + Dev Traffic | Airport Peak | ONE HOUR | 12:45 | 14:15 | 15 | ✓ |
| D12 | 2039 B+Dev Net Change | AM | ONE HOUR | 07:30 | 09:00 | 15 | ✓ |
| D13 | 2039 B+Dev Net Change | PM | ONE HOUR | 16:30 | 18:00 | 15 | ✓ |
| D14 | 2039 B+Dev Net Change | Airport Peak | ONE HOUR | 12:45 | 14:15 | 15 | ✓ |

Analysis Set Details

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

2017 Baseline Traffic, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|-----------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3 | 0.08 | A |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | 38 | 1 - Canterbury Road |

Arms

Arms

| Arm | Name | Description |
|-----|--------------------|-------------|
| 1 | Canterbury Road | |
| 2 | A299 Hengist Way S | |
| 3 | A299 Hengist Way W | |

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 |
|------------------------|----------------------------------|---------------------|---------------------------------|----------------------|-----------------------------------|------------------------------------|-----------|
| 1 - Canterbury Road | 3.00 | 4.79 | 7.9 | 23.4 | 60.0 | 23.0 | |
| 2 - A299 Hengist Way S | 8.09 | 9.48 | 13.8 | 27.3 | 60.0 | 19.0 | |
| 3 - A299 Hengist Way W | 8.88 | 9.04 | 12.0 | 25.8 | 60.0 | 40.0 | |

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

| Arm | Final slope | Final intercept (PCU/hr) |
|------------------------|-------------|--------------------------|
| 1 - Canterbury Road | 0.489 | 1261 |
| 2 - A299 Hengist Way S | 0.780 | 2912 |
| 3 - A299 Hengist Way W | 0.719 | 2672 |

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

Arm Capacity Adjustments

| Arm | Type | Reason | Percentage capacity adjustment (%) |
|------------------------|------------|--------|------------------------------------|
| 1 - Canterbury Road | Percentage | | 50.00 |
| 2 - A299 Hengist Way S | Percentage | | 70.00 |
| 3 - A299 Hengist Way W | Percentage | | 90.00 |

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 | 2017 Baseline Traffic | AM | ONE HOUR | 07:30 | 09:00 | 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 (%) |
|------------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - Canterbury Road | | ONE HOUR | ✓ | 91 | 100.000 |
| 2 - A299 Hengist Way S | | ONE HOUR | ✓ | 1102 | 100.000 |
| 3 - A299 Hengist Way W | | ONE HOUR | ✓ | 1168 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| From | To | | |
|------------------------|---------------------|------------------------|------------------------|
| | 1 - Canterbury Road | 2 - A299 Hengist Way S | 3 - A299 Hengist Way W |
| 1 - Canterbury Road | 0 | 83 | 8 |
| 2 - A299 Hengist Way S | 18 | 0 | 1084 |
| 3 - A299 Hengist Way W | 211 | 957 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| From | To | | |
|------------------------|---------------------|------------------------|------------------------|
| | 1 - Canterbury Road | 2 - A299 Hengist Way S | 3 - A299 Hengist Way W |
| 1 - Canterbury Road | 0 | 1 | 0 |
| 2 - A299 Hengist Way S | 6 | 0 | 8 |
| 3 - A299 Hengist Way W | 4 | 9 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|------------------------|---------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - Canterbury Road | 0.29 | 0.24 | 0.4 | B | 84 | 125 |
| 2 - A299 Hengist Way S | 0.64 | 0.09 | 1.8 | A | 1011 | 1517 |
| 3 - A299 Hengist Way W | 0.58 | 0.06 | 1.4 | A | 1072 | 1608 |

Main Results for each time segment

07:30 - 07:45

| 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 69 | 17 | 718 | 435 | 0.157 | 68 | 172 | 0.0 | 0.2 | 0.163 | A |
| 2 - A299 Hengist Way S | 830 | 207 | 6 | 1885 | 0.440 | 827 | 780 | 0.0 | 0.8 | 0.057 | A |
| 3 - A299 Hengist Way W | 879 | 220 | 14 | 2216 | 0.397 | 877 | 819 | 0.0 | 0.7 | 0.045 | A |

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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 82 | 20 | 860 | 398 | 0.206 | 82 | 206 | 0.2 | 0.3 | 0.189 | B |
| 2 - A299 Hengist Way S | 991 | 248 | 7 | 1884 | 0.526 | 989 | 934 | 0.8 | 1.1 | 0.067 | A |
| 3 - A299 Hengist Way W | 1050 | 263 | 16 | 2215 | 0.474 | 1049 | 980 | 0.7 | 0.9 | 0.051 | 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 100 | 25 | 1052 | 347 | 0.289 | 100 | 252 | 0.3 | 0.4 | 0.242 | B |
| 2 - A299 Hengist Way S | 1213 | 303 | 9 | 1883 | 0.644 | 1211 | 1143 | 1.1 | 1.8 | 0.089 | A |
| 3 - A299 Hengist Way W | 1286 | 321 | 20 | 2212 | 0.581 | 1284 | 1200 | 0.9 | 1.4 | 0.065 | 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 100 | 25 | 1054 | 347 | 0.289 | 100 | 252 | 0.4 | 0.4 | 0.243 | B |
| 2 - A299 Hengist Way S | 1213 | 303 | 9 | 1883 | 0.644 | 1213 | 1145 | 1.8 | 1.8 | 0.090 | A |
| 3 - A299 Hengist Way W | 1286 | 321 | 20 | 2212 | 0.581 | 1286 | 1202 | 1.4 | 1.4 | 0.065 | 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 82 | 20 | 862 | 397 | 0.206 | 82 | 206 | 0.4 | 0.3 | 0.191 | B |
| 2 - A299 Hengist Way S | 991 | 248 | 7 | 1884 | 0.526 | 993 | 937 | 1.8 | 1.1 | 0.068 | A |
| 3 - A299 Hengist Way W | 1050 | 263 | 16 | 2215 | 0.474 | 1052 | 984 | 1.4 | 0.9 | 0.052 | 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 69 | 17 | 721 | 434 | 0.158 | 69 | 173 | 0.3 | 0.2 | 0.164 | A |
| 2 - A299 Hengist Way S | 830 | 207 | 6 | 1885 | 0.440 | 831 | 784 | 1.1 | 0.8 | 0.057 | A |
| 3 - A299 Hengist Way W | 879 | 220 | 14 | 2216 | 0.397 | 880 | 823 | 0.9 | 0.7 | 0.045 | A |

2017 Baseline Traffic, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|-----------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3 | 0.08 | A |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | 44 | 3 - A299 Hengist Way W |

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 | 2017 Baseline Traffic | PM | ONE HOUR | 16:30 | 18:00 | 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 (%) |
|------------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - Canterbury Road | | ONE HOUR | ✓ | 61 | 100.000 |
| 2 - A299 Hengist Way S | | ONE HOUR | ✓ | 1144 | 100.000 |
| 3 - A299 Hengist Way W | | ONE HOUR | ✓ | 1385 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | |
|------|------------------------|---------------------|------------------------|------------------------|
| | | 1 - Canterbury Road | 2 - A299 Hengist Way S | 3 - A299 Hengist Way W |
| From | 1 - Canterbury Road | 0 | 57 | 4 |
| | 2 - A299 Hengist Way S | 65 | 0 | 1079 |
| | 3 - A299 Hengist Way W | 349 | 1036 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | |
|------|------------------------|---------------------|------------------------|------------------------|
| | | 1 - Canterbury Road | 2 - A299 Hengist Way S | 3 - A299 Hengist Way W |
| From | 1 - Canterbury Road | 0 | 7 | 0 |
| | 2 - A299 Hengist Way S | 0 | 0 | 2 |
| | 3 - A299 Hengist Way W | 1 | 4 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|------------------------|---------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - Canterbury Road | 0.21 | 0.24 | 0.3 | B | 56 | 84 |
| 2 - A299 Hengist Way S | 0.63 | 0.08 | 1.7 | A | 1050 | 1575 |
| 3 - A299 Hengist Way W | 0.67 | 0.08 | 2.0 | A | 1271 | 1906 |

Main Results for each time segment

16:30 - 16:45

| 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 46 | 11 | 777 | 406 | 0.113 | 45 | 311 | 0.0 | 0.1 | 0.166 | A |
| 2 - A299 Hengist Way S | 861 | 215 | 3 | 1999 | 0.431 | 858 | 820 | 0.0 | 0.8 | 0.052 | A |
| 3 - A299 Hengist Way W | 1043 | 261 | 49 | 2299 | 0.454 | 1039 | 812 | 0.0 | 0.8 | 0.048 | A |

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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 55 | 14 | 930 | 370 | 0.148 | 55 | 372 | 0.1 | 0.2 | 0.190 | B |
| 2 - A299 Hengist Way S | 1028 | 257 | 4 | 1999 | 0.515 | 1027 | 981 | 0.8 | 1.1 | 0.062 | A |
| 3 - A299 Hengist Way W | 1245 | 311 | 58 | 2293 | 0.543 | 1244 | 972 | 0.8 | 1.2 | 0.057 | 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 67 | 17 | 1138 | 320 | 0.210 | 67 | 455 | 0.2 | 0.3 | 0.236 | B |
| 2 - A299 Hengist Way S | 1260 | 315 | 4 | 1998 | 0.630 | 1257 | 1201 | 1.1 | 1.7 | 0.081 | A |
| 3 - A299 Hengist Way W | 1525 | 381 | 71 | 2285 | 0.667 | 1522 | 1190 | 1.2 | 2.0 | 0.078 | 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 67 | 17 | 1141 | 320 | 0.210 | 67 | 456 | 0.3 | 0.3 | 0.238 | B |
| 2 - A299 Hengist Way S | 1260 | 315 | 4 | 1998 | 0.630 | 1260 | 1203 | 1.7 | 1.7 | 0.081 | A |
| 3 - A299 Hengist Way W | 1525 | 381 | 72 | 2285 | 0.667 | 1525 | 1192 | 2.0 | 2.0 | 0.079 | 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 55 | 14 | 934 | 369 | 0.149 | 55 | 373 | 0.3 | 0.2 | 0.191 | B |
| 2 - A299 Hengist Way S | 1028 | 257 | 4 | 1999 | 0.515 | 1031 | 985 | 1.7 | 1.1 | 0.062 | A |
| 3 - A299 Hengist Way W | 1245 | 311 | 59 | 2293 | 0.543 | 1248 | 976 | 2.0 | 1.2 | 0.058 | A |

17:45 - 18:00

| Am | 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 46 | 11 | 781 | 405 | 0.113 | 46 | 312 | 0.2 | 0.1 | 0.167 | B |
| 2 - A299 Hengist Way S | 861 | 215 | 3 | 1999 | 0.431 | 862 | 824 | 1.1 | 0.8 | 0.053 | A |
| 3 - A299 Hengist Way W | 1043 | 261 | 49 | 2299 | 0.454 | 1044 | 817 | 1.2 | 0.8 | 0.048 | A |

2017 Baseline Traffic, Airport Peak

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|-----------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3 | 0.05 | A |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | 137 | 2 - A299 Hengist Way S |

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 | 2017 Baseline Traffic | Airport Peak | ONE HOUR | 12:45 | 14:15 | 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 (%) |
|------------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - Canterbury Road | | ONE HOUR | ✓ | 38 | 100.000 |
| 2 - A299 Hengist Way S | | ONE HOUR | ✓ | 653 | 100.000 |
| 3 - A299 Hengist Way W | | ONE HOUR | ✓ | 709 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | |
|------|------------------------|---------------------|------------------------|------------------------|
| | | 1 - Canterbury Road | 2 - A299 Hengist Way S | 3 - A299 Hengist Way W |
| From | 1 - Canterbury Road | 0 | 4 | 34 |
| | 2 - A299 Hengist Way S | 5 | 0 | 648 |
| | 3 - A299 Hengist Way W | 212 | 497 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | |
|------|------------------------|---------------------|------------------------|------------------------|
| | | 1 - Canterbury Road | 2 - A299 Hengist Way S | 3 - A299 Hengist Way W |
| From | 1 - Canterbury Road | 0 | 0 | 3 |
| | 2 - A299 Hengist Way S | 0 | 0 | 12 |
| | 3 - A299 Hengist Way W | 4 | 15 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|------------------------|---------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - Canterbury Road | 0.09 | 0.14 | 0.1 | A | 35 | 52 |
| 2 - A299 Hengist Way S | 0.40 | 0.06 | 0.7 | A | 599 | 899 |
| 3 - A299 Hengist Way W | 0.36 | 0.04 | 0.6 | A | 651 | 976 |

Main Results for each time segment

12:45 - 13:00

| 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 29 | 7 | 373 | 512 | 0.056 | 28 | 163 | 0.0 | 0.1 | 0.124 | A |
| 2 - A299 Hengist Way S | 492 | 123 | 25 | 1809 | 0.272 | 490 | 376 | 0.0 | 0.4 | 0.045 | A |
| 3 - A299 Hengist Way W | 534 | 133 | 4 | 2151 | 0.248 | 532 | 512 | 0.0 | 0.3 | 0.037 | A |

13:00 - 13:15

| 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 34 | 9 | 447 | 492 | 0.069 | 34 | 195 | 0.1 | 0.1 | 0.131 | A |
| 2 - A299 Hengist Way S | 587 | 147 | 31 | 1806 | 0.325 | 587 | 450 | 0.4 | 0.5 | 0.049 | A |
| 3 - A299 Hengist Way W | 637 | 159 | 4 | 2150 | 0.296 | 637 | 613 | 0.3 | 0.4 | 0.040 | A |

13:15 - 13:30

| 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 42 | 10 | 547 | 464 | 0.090 | 42 | 239 | 0.1 | 0.1 | 0.142 | A |
| 2 - A299 Hengist Way S | 719 | 180 | 37 | 1803 | 0.399 | 718 | 551 | 0.5 | 0.7 | 0.055 | A |
| 3 - A299 Hengist Way W | 781 | 195 | 5 | 2150 | 0.363 | 780 | 750 | 0.4 | 0.6 | 0.044 | A |

13:30 - 13:45

| 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 42 | 10 | 547 | 464 | 0.090 | 42 | 239 | 0.1 | 0.1 | 0.142 | A |
| 2 - A299 Hengist Way S | 719 | 180 | 37 | 1802 | 0.399 | 719 | 552 | 0.7 | 0.7 | 0.055 | A |
| 3 - A299 Hengist Way W | 781 | 195 | 6 | 2150 | 0.363 | 781 | 751 | 0.6 | 0.6 | 0.044 | A |

13:45 - 14:00

| 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 34 | 9 | 447 | 492 | 0.069 | 34 | 195 | 0.1 | 0.1 | 0.131 | A |
| 2 - A299 Hengist Way S | 587 | 147 | 31 | 1806 | 0.325 | 588 | 451 | 0.7 | 0.5 | 0.049 | A |
| 3 - A299 Hengist Way W | 637 | 159 | 5 | 2150 | 0.296 | 638 | 614 | 0.6 | 0.4 | 0.040 | A |

14:00 - 14:15

| Am | 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 29 | 7 | 374 | 512 | 0.056 | 29 | 163 | 0.1 | 0.1 | 0.124 | A |
| 2 - A299 Hengist Way S | 492 | 123 | 26 | 1808 | 0.272 | 492 | 377 | 0.5 | 0.4 | 0.046 | A |
| 3 - A299 Hengist Way W | 534 | 133 | 4 | 2151 | 0.248 | 534 | 514 | 0.4 | 0.3 | 0.037 | A |

2039 Growthed Traffic, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|-----------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3 | 0.15 | A |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | 10 | 1 - Canterbury Road |

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 | 2039 Growthed Traffic | AM | ONE HOUR | 07:30 | 09:00 | 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 (%) |
|------------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - Canterbury Road | | ONE HOUR | ✓ | 113 | 100.000 |
| 2 - A299 Hengist Way S | | ONE HOUR | ✓ | 1382 | 100.000 |
| 3 - A299 Hengist Way W | | ONE HOUR | ✓ | 1464 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | |
|------|------------------------|---------------------|------------------------|------------------------|
| | | 1 - Canterbury Road | 2 - A299 Hengist Way S | 3 - A299 Hengist Way W |
| From | 1 - Canterbury Road | 0 | 11 | 102 |
| | 2 - A299 Hengist Way S | 23 | 0 | 1359 |
| | 3 - A299 Hengist Way W | 264 | 1200 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | |
|------|------------------------|---------------------|------------------------|------------------------|
| | | 1 - Canterbury Road | 2 - A299 Hengist Way S | 3 - A299 Hengist Way W |
| From | 1 - Canterbury Road | 0 | 12 | 0 |
| | 2 - A299 Hengist Way S | 6 | 0 | 8 |
| | 3 - A299 Hengist Way W | 4 | 9 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|------------------------|---------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - Canterbury Road | 0.45 | 0.40 | 0.8 | C | 104 | 156 |
| 2 - A299 Hengist Way S | 0.83 | 0.19 | 4.7 | B | 1268 | 1902 |
| 3 - A299 Hengist Way W | 0.73 | 0.10 | 2.7 | A | 1343 | 2015 |

Main Results for each time segment

07:30 - 07:45

| 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 85 | 21 | 900 | 386 | 0.220 | 84 | 215 | 0.0 | 0.3 | 0.198 | B |
| 2 - A299 Hengist Way S | 1040 | 260 | 76 | 1849 | 0.563 | 1035 | 908 | 0.0 | 1.3 | 0.073 | A |
| 3 - A299 Hengist Way W | 1102 | 276 | 17 | 2214 | 0.498 | 1098 | 1094 | 0.0 | 1.0 | 0.054 | A |

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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 102 | 25 | 1077 | 339 | 0.299 | 101 | 258 | 0.3 | 0.4 | 0.251 | C |
| 2 - A299 Hengist Way S | 1242 | 311 | 91 | 1842 | 0.675 | 1239 | 1087 | 1.3 | 2.0 | 0.099 | A |
| 3 - A299 Hengist Way W | 1316 | 329 | 21 | 2212 | 0.595 | 1314 | 1310 | 1.0 | 1.5 | 0.067 | 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 124 | 31 | 1317 | 276 | 0.450 | 123 | 315 | 0.4 | 0.8 | 0.388 | C |
| 2 - A299 Hengist Way S | 1522 | 380 | 111 | 1832 | 0.831 | 1511 | 1329 | 2.0 | 4.6 | 0.182 | B |
| 3 - A299 Hengist Way W | 1612 | 403 | 25 | 2209 | 0.730 | 1607 | 1597 | 1.5 | 2.6 | 0.099 | 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 124 | 31 | 1321 | 275 | 0.452 | 124 | 316 | 0.8 | 0.8 | 0.397 | C |
| 2 - A299 Hengist Way S | 1522 | 380 | 112 | 1831 | 0.831 | 1521 | 1333 | 4.6 | 4.7 | 0.193 | B |
| 3 - A299 Hengist Way W | 1612 | 403 | 25 | 2209 | 0.730 | 1612 | 1608 | 2.6 | 2.7 | 0.100 | 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 102 | 25 | 1083 | 338 | 0.300 | 103 | 259 | 0.8 | 0.4 | 0.257 | C |
| 2 - A299 Hengist Way S | 1242 | 311 | 93 | 1841 | 0.675 | 1253 | 1093 | 4.7 | 2.1 | 0.104 | A |
| 3 - A299 Hengist Way W | 1316 | 329 | 21 | 2212 | 0.595 | 1321 | 1325 | 2.7 | 1.5 | 0.068 | A |

08:45 - 09:00

| Am | 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 85 | 21 | 905 | 385 | 0.221 | 86 | 216 | 0.4 | 0.3 | 0.201 | B |
| 2 - A299 Hengist Way S | 1040 | 260 | 77 | 1849 | 0.563 | 1044 | 913 | 2.1 | 1.3 | 0.075 | A |
| 3 - A299 Hengist Way W | 1102 | 276 | 17 | 2214 | 0.498 | 1104 | 1104 | 1.5 | 1.0 | 0.054 | A |

2039 Growthed Traffic, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|-----------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3 | 0.17 | B |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | 14 | 3 - A299 Hengist Way W |

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 | 2039 Growthed Traffic | PM | ONE HOUR | 16:30 | 18:00 | 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 (%) |
|------------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - Canterbury Road | | ONE HOUR | ✓ | 77 | 100.000 |
| 2 - A299 Hengist Way S | | ONE HOUR | ✓ | 1442 | 100.000 |
| 3 - A299 Hengist Way W | | ONE HOUR | ✓ | 1747 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | |
|------|------------------------|---------------------|------------------------|------------------------|
| | | 1 - Canterbury Road | 2 - A299 Hengist Way S | 3 - A299 Hengist Way W |
| From | 1 - Canterbury Road | 0 | 5 | 72 |
| | 2 - A299 Hengist Way S | 82 | 0 | 1360 |
| | 3 - A299 Hengist Way W | 440 | 1307 | 0 |
| | | | | |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | |
|------|------------------------|---------------------|------------------------|------------------------|
| | | 1 - Canterbury Road | 2 - A299 Hengist Way S | 3 - A299 Hengist Way W |
| From | 1 - Canterbury Road | 0 | 0 | 7 |
| | 2 - A299 Hengist Way S | 0 | 0 | 2 |
| | 3 - A299 Hengist Way W | 2 | 4 | 0 |
| | | | | |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|------------------------|---------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - Canterbury Road | 0.34 | 0.37 | 0.5 | C | 71 | 106 |
| 2 - A299 Hengist Way S | 0.81 | 0.16 | 4.2 | A | 1323 | 1985 |
| 3 - A299 Hengist Way W | 0.85 | 0.17 | 5.4 | B | 1603 | 2405 |

Main Results for each time segment

16:30 - 16:45

| 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 58 | 14 | 980 | 358 | 0.162 | 57 | 391 | 0.0 | 0.2 | 0.199 | B |
| 2 - A299 Hengist Way S | 1086 | 271 | 53 | 1970 | 0.551 | 1081 | 984 | 0.0 | 1.2 | 0.067 | A |
| 3 - A299 Hengist Way W | 1315 | 329 | 61 | 2285 | 0.576 | 1310 | 1073 | 0.0 | 1.3 | 0.061 | A |

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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 69 | 17 | 1172 | 312 | 0.222 | 69 | 468 | 0.2 | 0.3 | 0.246 | B |
| 2 - A299 Hengist Way S | 1296 | 324 | 64 | 1964 | 0.660 | 1294 | 1177 | 1.2 | 1.9 | 0.089 | A |
| 3 - A299 Hengist Way W | 1571 | 393 | 74 | 2278 | 0.690 | 1567 | 1284 | 1.3 | 2.2 | 0.084 | 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 85 | 21 | 1430 | 251 | 0.338 | 84 | 571 | 0.3 | 0.5 | 0.358 | C |
| 2 - A299 Hengist Way S | 1588 | 397 | 78 | 1955 | 0.812 | 1579 | 1435 | 1.9 | 4.1 | 0.156 | A |
| 3 - A299 Hengist Way W | 1923 | 481 | 90 | 2268 | 0.848 | 1911 | 1568 | 2.2 | 5.2 | 0.163 | 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 85 | 21 | 1439 | 248 | 0.341 | 85 | 575 | 0.5 | 0.5 | 0.366 | C |
| 2 - A299 Hengist Way S | 1588 | 397 | 79 | 1955 | 0.812 | 1587 | 1444 | 4.1 | 4.2 | 0.163 | A |
| 3 - A299 Hengist Way W | 1923 | 481 | 90 | 2267 | 0.848 | 1923 | 1576 | 5.2 | 5.4 | 0.173 | B |

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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 69 | 17 | 1184 | 309 | 0.224 | 70 | 473 | 0.5 | 0.3 | 0.252 | C |
| 2 - A299 Hengist Way S | 1296 | 324 | 66 | 1963 | 0.660 | 1305 | 1189 | 4.2 | 2.0 | 0.092 | A |
| 3 - A299 Hengist Way W | 1571 | 393 | 74 | 2277 | 0.690 | 1583 | 1297 | 5.4 | 2.3 | 0.088 | A |

17:45 - 18:00

| Am | 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 58 | 14 | 987 | 356 | 0.163 | 58 | 394 | 0.3 | 0.2 | 0.202 | B |
| 2 - A299 Hengist Way S | 1086 | 271 | 55 | 1969 | 0.551 | 1089 | 990 | 2.0 | 1.2 | 0.068 | A |
| 3 - A299 Hengist Way W | 1315 | 329 | 62 | 2285 | 0.576 | 1319 | 1081 | 2.3 | 1.4 | 0.062 | A |

2039 Growthed Traffic, Airport Peak

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|-----------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3 | 0.07 | A |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | 75 | 2 - A299 Hengist Way S |

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 | 2039 Growthed Traffic | Airport Peak | ONE HOUR | 12:45 | 14:15 | 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 (%) |
|------------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - Canterbury Road | | ONE HOUR | ✓ | 50 | 100.000 |
| 2 - A299 Hengist Way S | | ONE HOUR | ✓ | 875 | 100.000 |
| 3 - A299 Hengist Way W | | ONE HOUR | ✓ | 950 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | |
|------|------------------------|---------------------|------------------------|------------------------|
| | | 1 - Canterbury Road | 2 - A299 Hengist Way S | 3 - A299 Hengist Way W |
| From | 1 - Canterbury Road | 0 | 5 | 45 |
| | 2 - A299 Hengist Way S | 7 | 0 | 868 |
| | 3 - A299 Hengist Way W | 283 | 667 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | |
|------|------------------------|---------------------|------------------------|------------------------|
| | | 1 - Canterbury Road | 2 - A299 Hengist Way S | 3 - A299 Hengist Way W |
| From | 1 - Canterbury Road | 0 | 0 | 3 |
| | 2 - A299 Hengist Way S | 0 | 0 | 13 |
| | 3 - A299 Hengist Way W | 4 | 15 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|------------------------|---------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - Canterbury Road | 0.13 | 0.17 | 0.2 | B | 46 | 69 |
| 2 - A299 Hengist Way S | 0.54 | 0.07 | 1.2 | A | 803 | 1204 |
| 3 - A299 Hengist Way W | 0.49 | 0.05 | 0.9 | A | 872 | 1308 |

Main Results for each time segment

12:45 - 13:00

| 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 38 | 9 | 501 | 477 | 0.079 | 37 | 218 | 0.0 | 0.1 | 0.136 | A |
| 2 - A299 Hengist Way S | 659 | 165 | 34 | 1789 | 0.368 | 656 | 504 | 0.0 | 0.6 | 0.053 | A |
| 3 - A299 Hengist Way W | 715 | 179 | 5 | 2150 | 0.333 | 713 | 685 | 0.0 | 0.5 | 0.042 | A |

13:00 - 13:15

| 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 45 | 11 | 599 | 450 | 0.100 | 45 | 261 | 0.1 | 0.1 | 0.148 | A |
| 2 - A299 Hengist Way S | 787 | 197 | 40 | 1785 | 0.441 | 786 | 604 | 0.6 | 0.8 | 0.060 | A |
| 3 - A299 Hengist Way W | 854 | 214 | 6 | 2149 | 0.397 | 853 | 820 | 0.5 | 0.7 | 0.046 | A |

13:15 - 13:30

| 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 55 | 14 | 734 | 413 | 0.133 | 55 | 319 | 0.1 | 0.2 | 0.167 | B |
| 2 - A299 Hengist Way S | 963 | 241 | 49 | 1781 | 0.541 | 962 | 739 | 0.8 | 1.2 | 0.073 | A |
| 3 - A299 Hengist Way W | 1046 | 261 | 8 | 2148 | 0.487 | 1045 | 1004 | 0.7 | 0.9 | 0.054 | A |

13:30 - 13:45

| 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 55 | 14 | 734 | 413 | 0.133 | 55 | 319 | 0.2 | 0.2 | 0.168 | B |
| 2 - A299 Hengist Way S | 963 | 241 | 50 | 1781 | 0.541 | 963 | 740 | 1.2 | 1.2 | 0.073 | A |
| 3 - A299 Hengist Way W | 1046 | 261 | 8 | 2148 | 0.487 | 1046 | 1005 | 0.9 | 0.9 | 0.054 | A |

13:45 - 14:00

| 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 45 | 11 | 600 | 450 | 0.100 | 45 | 261 | 0.2 | 0.1 | 0.148 | A |
| 2 - A299 Hengist Way S | 787 | 197 | 41 | 1785 | 0.441 | 788 | 605 | 1.2 | 0.8 | 0.060 | A |
| 3 - A299 Hengist Way W | 854 | 214 | 6 | 2149 | 0.397 | 855 | 822 | 0.9 | 0.7 | 0.046 | A |

14:00 - 14:15

| Am | 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 38 | 9 | 503 | 476 | 0.079 | 38 | 219 | 0.1 | 0.1 | 0.137 | A |
| 2 - A299 Hengist Way S | 659 | 165 | 34 | 1788 | 0.368 | 660 | 506 | 0.8 | 0.6 | 0.053 | A |
| 3 - A299 Hengist Way W | 715 | 179 | 5 | 2150 | 0.333 | 716 | 688 | 0.7 | 0.5 | 0.042 | A |

2039 + Dev Traffic, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|-----------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3 | 0.16 | A |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | 10 | 1 - Canterbury Road |

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 |
|----|--------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D9 | 2039 + Dev Traffic | AM | ONE HOUR | 07:30 | 09:00 | 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 (%) |
|------------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - Canterbury Road | | ONE HOUR | ✓ | 114 | 100.000 |
| 2 - A299 Hengist Way S | | ONE HOUR | ✓ | 1382 | 100.000 |
| 3 - A299 Hengist Way W | | ONE HOUR | ✓ | 1465 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | |
|------|------------------------|---------------------|------------------------|------------------------|
| | | 1 - Canterbury Road | 2 - A299 Hengist Way S | 3 - A299 Hengist Way W |
| From | 1 - Canterbury Road | 0 | 11 | 103 |
| | 2 - A299 Hengist Way S | 23 | 0 | 1359 |
| | 3 - A299 Hengist Way W | 265 | 1200 | 0 |
| | | | | |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | |
|------|------------------------|---------------------|------------------------|------------------------|
| | | 1 - Canterbury Road | 2 - A299 Hengist Way S | 3 - A299 Hengist Way W |
| From | 1 - Canterbury Road | 0 | 12 | 1 |
| | 2 - A299 Hengist Way S | 6 | 0 | 8 |
| | 3 - A299 Hengist Way W | 4 | 9 | 0 |
| | | | | |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|------------------------|---------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - Canterbury Road | 0.46 | 0.41 | 0.8 | C | 105 | 157 |
| 2 - A299 Hengist Way S | 0.83 | 0.19 | 4.8 | B | 1268 | 1902 |
| 3 - A299 Hengist Way W | 0.73 | 0.10 | 2.7 | A | 1344 | 2016 |

Main Results for each time segment

07:30 - 07:45

| 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 86 | 21 | 900 | 383 | 0.224 | 85 | 216 | 0.0 | 0.3 | 0.201 | B |
| 2 - A299 Hengist Way S | 1040 | 260 | 77 | 1849 | 0.563 | 1035 | 908 | 0.0 | 1.3 | 0.073 | A |
| 3 - A299 Hengist Way W | 1103 | 276 | 17 | 2214 | 0.498 | 1099 | 1095 | 0.0 | 1.0 | 0.054 | A |

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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 102 | 26 | 1077 | 337 | 0.305 | 102 | 259 | 0.3 | 0.4 | 0.255 | C |
| 2 - A299 Hengist Way S | 1242 | 311 | 92 | 1841 | 0.675 | 1239 | 1087 | 1.3 | 2.0 | 0.099 | A |
| 3 - A299 Hengist Way W | 1317 | 329 | 21 | 2212 | 0.595 | 1315 | 1311 | 1.0 | 1.5 | 0.067 | 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 126 | 31 | 1317 | 274 | 0.458 | 124 | 316 | 0.4 | 0.8 | 0.396 | C |
| 2 - A299 Hengist Way S | 1522 | 380 | 112 | 1831 | 0.831 | 1511 | 1329 | 2.0 | 4.6 | 0.182 | B |
| 3 - A299 Hengist Way W | 1613 | 403 | 25 | 2209 | 0.730 | 1608 | 1598 | 1.5 | 2.6 | 0.099 | 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 126 | 31 | 1321 | 273 | 0.460 | 125 | 317 | 0.8 | 0.8 | 0.406 | C |
| 2 - A299 Hengist Way S | 1522 | 380 | 113 | 1830 | 0.832 | 1521 | 1333 | 4.6 | 4.8 | 0.193 | B |
| 3 - A299 Hengist Way W | 1613 | 403 | 25 | 2209 | 0.730 | 1613 | 1609 | 2.6 | 2.7 | 0.101 | 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 102 | 26 | 1083 | 335 | 0.306 | 104 | 260 | 0.8 | 0.5 | 0.261 | C |
| 2 - A299 Hengist Way S | 1242 | 311 | 94 | 1840 | 0.675 | 1253 | 1093 | 4.8 | 2.1 | 0.104 | A |
| 3 - A299 Hengist Way W | 1317 | 329 | 21 | 2212 | 0.595 | 1322 | 1326 | 2.7 | 1.5 | 0.068 | A |

08:45 - 09:00

| Am | 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 86 | 21 | 905 | 382 | 0.225 | 86 | 217 | 0.5 | 0.3 | 0.204 | B |
| 2 - A299 Hengist Way S | 1040 | 260 | 78 | 1848 | 0.563 | 1044 | 913 | 2.1 | 1.3 | 0.075 | A |
| 3 - A299 Hengist Way W | 1103 | 276 | 17 | 2214 | 0.498 | 1105 | 1104 | 1.5 | 1.0 | 0.054 | A |

2039 + Dev Traffic, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|-----------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3 | 0.17 | B |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | 14 | 1 - Canterbury Road |

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 |
|-----|--------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D10 | 2039 + Dev Traffic | PM | ONE HOUR | 16:30 | 18:00 | 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 (%) |
|------------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - Canterbury Road | | ONE HOUR | ✓ | 78 | 100.000 |
| 2 - A299 Hengist Way S | | ONE HOUR | ✓ | 1442 | 100.000 |
| 3 - A299 Hengist Way W | | ONE HOUR | ✓ | 1748 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | |
|------|------------------------|---------------------|------------------------|------------------------|
| | | 1 - Canterbury Road | 2 - A299 Hengist Way S | 3 - A299 Hengist Way W |
| From | 1 - Canterbury Road | 0 | 5 | 73 |
| | 2 - A299 Hengist Way S | 82 | 0 | 1360 |
| | 3 - A299 Hengist Way W | 441 | 1307 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | |
|------|------------------------|---------------------|------------------------|------------------------|
| | | 1 - Canterbury Road | 2 - A299 Hengist Way S | 3 - A299 Hengist Way W |
| From | 1 - Canterbury Road | 0 | 0 | 9 |
| | 2 - A299 Hengist Way S | 0 | 0 | 2 |
| | 3 - A299 Hengist Way W | 2 | 4 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|------------------------|---------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - Canterbury Road | 0.35 | 0.38 | 0.5 | C | 72 | 107 |
| 2 - A299 Hengist Way S | 0.81 | 0.16 | 4.2 | A | 1323 | 1985 |
| 3 - A299 Hengist Way W | 0.85 | 0.17 | 5.4 | B | 1604 | 2406 |

Main Results for each time segment

16:30 - 16:45

| 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 59 | 15 | 980 | 352 | 0.167 | 58 | 392 | 0.0 | 0.2 | 0.204 | B |
| 2 - A299 Hengist Way S | 1086 | 271 | 54 | 1969 | 0.551 | 1081 | 984 | 0.0 | 1.2 | 0.067 | A |
| 3 - A299 Hengist Way W | 1316 | 329 | 61 | 2285 | 0.576 | 1311 | 1074 | 0.0 | 1.3 | 0.061 | A |

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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 70 | 18 | 1172 | 307 | 0.229 | 70 | 469 | 0.2 | 0.3 | 0.253 | C |
| 2 - A299 Hengist Way S | 1296 | 324 | 65 | 1962 | 0.661 | 1294 | 1177 | 1.2 | 1.9 | 0.089 | A |
| 3 - A299 Hengist Way W | 1571 | 393 | 74 | 2278 | 0.690 | 1568 | 1285 | 1.3 | 2.2 | 0.084 | 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 86 | 21 | 1430 | 246 | 0.349 | 85 | 572 | 0.3 | 0.5 | 0.370 | C |
| 2 - A299 Hengist Way S | 1588 | 397 | 80 | 1954 | 0.813 | 1579 | 1435 | 1.9 | 4.1 | 0.156 | A |
| 3 - A299 Hengist Way W | 1925 | 481 | 90 | 2268 | 0.849 | 1912 | 1569 | 2.2 | 5.2 | 0.163 | 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 86 | 21 | 1439 | 244 | 0.352 | 86 | 576 | 0.5 | 0.5 | 0.379 | C |
| 2 - A299 Hengist Way S | 1588 | 397 | 80 | 1954 | 0.813 | 1587 | 1444 | 4.1 | 4.2 | 0.163 | A |
| 3 - A299 Hengist Way W | 1925 | 481 | 90 | 2267 | 0.849 | 1924 | 1577 | 5.2 | 5.4 | 0.174 | B |

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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 70 | 18 | 1184 | 304 | 0.231 | 71 | 474 | 0.5 | 0.3 | 0.259 | C |
| 2 - A299 Hengist Way S | 1296 | 324 | 66 | 1962 | 0.661 | 1305 | 1189 | 4.2 | 2.0 | 0.093 | A |
| 3 - A299 Hengist Way W | 1571 | 393 | 74 | 2277 | 0.690 | 1584 | 1298 | 5.4 | 2.3 | 0.088 | A |

17:45 - 18:00

| Am | 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 59 | 15 | 987 | 350 | 0.168 | 59 | 395 | 0.3 | 0.2 | 0.206 | B |
| 2 - A299 Hengist Way S | 1086 | 271 | 55 | 1968 | 0.552 | 1089 | 990 | 2.0 | 1.2 | 0.068 | A |
| 3 - A299 Hengist Way W | 1316 | 329 | 62 | 2285 | 0.576 | 1320 | 1082 | 2.3 | 1.4 | 0.062 | A |

2039 + Dev Traffic, Airport Peak

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|-----------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3 | 0.07 | A |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | 75 | 2 - A299 Hengist Way S |

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 |
|-----|--------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D11 | 2039 + Dev Traffic | Airport Peak | ONE HOUR | 12:45 | 14:15 | 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 (%) |
|------------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - Canterbury Road | | ONE HOUR | ✓ | 51 | 100.000 |
| 2 - A299 Hengist Way S | | ONE HOUR | ✓ | 875 | 100.000 |
| 3 - A299 Hengist Way W | | ONE HOUR | ✓ | 951 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | |
|------|------------------------|---------------------|------------------------|------------------------|
| | | 1 - Canterbury Road | 2 - A299 Hengist Way S | 3 - A299 Hengist Way W |
| From | 1 - Canterbury Road | 0 | 5 | 46 |
| | 2 - A299 Hengist Way S | 7 | 0 | 868 |
| | 3 - A299 Hengist Way W | 284 | 667 | 0 |
| | | | | |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | |
|------|------------------------|---------------------|------------------------|------------------------|
| | | 1 - Canterbury Road | 2 - A299 Hengist Way S | 3 - A299 Hengist Way W |
| From | 1 - Canterbury Road | 0 | 0 | 5 |
| | 2 - A299 Hengist Way S | 0 | 0 | 13 |
| | 3 - A299 Hengist Way W | 4 | 15 | 0 |
| | | | | |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|------------------------|---------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - Canterbury Road | 0.14 | 0.17 | 0.2 | B | 47 | 70 |
| 2 - A299 Hengist Way S | 0.54 | 0.07 | 1.2 | A | 803 | 1204 |
| 3 - A299 Hengist Way W | 0.49 | 0.05 | 0.9 | A | 873 | 1309 |

Main Results for each time segment

12:45 - 13:00

| 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 38 | 10 | 501 | 469 | 0.082 | 38 | 218 | 0.0 | 0.1 | 0.139 | A |
| 2 - A299 Hengist Way S | 659 | 165 | 34 | 1788 | 0.368 | 656 | 504 | 0.0 | 0.6 | 0.053 | A |
| 3 - A299 Hengist Way W | 716 | 179 | 5 | 2150 | 0.333 | 714 | 685 | 0.0 | 0.5 | 0.042 | A |

13:00 - 13:15

| 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 46 | 11 | 599 | 442 | 0.104 | 46 | 261 | 0.1 | 0.1 | 0.151 | A |
| 2 - A299 Hengist Way S | 787 | 197 | 41 | 1784 | 0.441 | 786 | 604 | 0.6 | 0.8 | 0.060 | A |
| 3 - A299 Hengist Way W | 855 | 214 | 6 | 2149 | 0.398 | 854 | 821 | 0.5 | 0.7 | 0.046 | A |

13:15 - 13:30

| 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 56 | 14 | 734 | 406 | 0.138 | 56 | 320 | 0.1 | 0.2 | 0.171 | B |
| 2 - A299 Hengist Way S | 963 | 241 | 50 | 1780 | 0.541 | 962 | 739 | 0.8 | 1.2 | 0.073 | A |
| 3 - A299 Hengist Way W | 1047 | 262 | 8 | 2148 | 0.487 | 1046 | 1005 | 0.7 | 0.9 | 0.054 | A |

13:30 - 13:45

| 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 56 | 14 | 734 | 406 | 0.138 | 56 | 320 | 0.2 | 0.2 | 0.172 | B |
| 2 - A299 Hengist Way S | 963 | 241 | 51 | 1780 | 0.541 | 963 | 740 | 1.2 | 1.2 | 0.073 | A |
| 3 - A299 Hengist Way W | 1047 | 262 | 8 | 2148 | 0.487 | 1047 | 1006 | 0.9 | 0.9 | 0.054 | A |

13:45 - 14:00

| 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 46 | 11 | 600 | 442 | 0.104 | 46 | 262 | 0.2 | 0.1 | 0.152 | A |
| 2 - A299 Hengist Way S | 787 | 197 | 42 | 1784 | 0.441 | 788 | 605 | 1.2 | 0.8 | 0.060 | A |
| 3 - A299 Hengist Way W | 855 | 214 | 6 | 2149 | 0.398 | 856 | 823 | 0.9 | 0.7 | 0.046 | A |

14:00 - 14:15

| Am | 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 38 | 10 | 503 | 468 | 0.082 | 39 | 219 | 0.1 | 0.1 | 0.140 | A |
| 2 - A299 Hengist Way S | 659 | 165 | 35 | 1788 | 0.368 | 660 | 506 | 0.8 | 0.6 | 0.053 | A |
| 3 - A299 Hengist Way W | 716 | 179 | 5 | 2150 | 0.333 | 717 | 689 | 0.7 | 0.5 | 0.042 | A |

2039 B+Dev Net Change, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|-----------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3 | 0.12 | A |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | 16 | 1 - Canterbury Road |

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 |
|-----|-----------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D12 | 2039 B+Dev Net Change | AM | ONE HOUR | 07:30 | 09:00 | 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)

| Am | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|------------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - Canterbury Road | | ONE HOUR | ✓ | 114 | 100.000 |
| 2 - A299 Hengist Way S | | ONE HOUR | ✓ | 1259 | 100.000 |
| 3 - A299 Hengist Way W | | ONE HOUR | ✓ | 1382 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | |
|------|------------------------|---------------------|------------------------|------------------------|
| | | 1 - Canterbury Road | 2 - A299 Hengist Way S | 3 - A299 Hengist Way W |
| From | 1 - Canterbury Road | 0 | 11 | 103 |
| | 2 - A299 Hengist Way S | 23 | 0 | 1236 |
| | 3 - A299 Hengist Way W | 265 | 1117 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | |
|------|------------------------|---------------------|------------------------|------------------------|
| | | 1 - Canterbury Road | 2 - A299 Hengist Way S | 3 - A299 Hengist Way W |
| From | 1 - Canterbury Road | 0 | 12 | 1 |
| | 2 - A299 Hengist Way S | 6 | 0 | 8 |
| | 3 - A299 Hengist Way W | 4 | 9 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|------------------------|---------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - Canterbury Road | 0.42 | 0.35 | 0.7 | C | 105 | 157 |
| 2 - A299 Hengist Way S | 0.76 | 0.13 | 3.1 | A | 1155 | 1733 |
| 3 - A299 Hengist Way W | 0.69 | 0.09 | 2.2 | A | 1268 | 1902 |

Main Results for each time segment

07:30 - 07:45

| 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 86 | 21 | 838 | 399 | 0.215 | 85 | 216 | 0.0 | 0.3 | 0.190 | B |
| 2 - A299 Hengist Way S | 948 | 237 | 77 | 1849 | 0.513 | 944 | 846 | 0.0 | 1.0 | 0.066 | A |
| 3 - A299 Hengist Way W | 1040 | 260 | 17 | 2215 | 0.470 | 1037 | 1003 | 0.0 | 0.9 | 0.051 | A |

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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 102 | 26 | 1003 | 356 | 0.288 | 102 | 259 | 0.3 | 0.4 | 0.236 | B |
| 2 - A299 Hengist Way S | 1132 | 283 | 92 | 1841 | 0.615 | 1130 | 1013 | 1.0 | 1.6 | 0.084 | A |
| 3 - A299 Hengist Way W | 1242 | 311 | 21 | 2213 | 0.561 | 1241 | 1201 | 0.9 | 1.3 | 0.062 | 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 126 | 31 | 1227 | 297 | 0.422 | 124 | 316 | 0.4 | 0.7 | 0.344 | C |
| 2 - A299 Hengist Way S | 1386 | 347 | 112 | 1830 | 0.757 | 1380 | 1239 | 1.6 | 3.0 | 0.132 | A |
| 3 - A299 Hengist Way W | 1522 | 380 | 25 | 2210 | 0.689 | 1518 | 1468 | 1.3 | 2.2 | 0.086 | 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 126 | 31 | 1230 | 297 | 0.423 | 125 | 317 | 0.7 | 0.7 | 0.350 | C |
| 2 - A299 Hengist Way S | 1386 | 347 | 113 | 1830 | 0.758 | 1386 | 1242 | 3.0 | 3.1 | 0.135 | A |
| 3 - A299 Hengist Way W | 1522 | 380 | 25 | 2210 | 0.689 | 1522 | 1474 | 2.2 | 2.2 | 0.087 | 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 102 | 26 | 1007 | 355 | 0.289 | 104 | 260 | 0.7 | 0.4 | 0.240 | B |
| 2 - A299 Hengist Way S | 1132 | 283 | 94 | 1840 | 0.615 | 1138 | 1017 | 3.1 | 1.6 | 0.086 | A |
| 3 - A299 Hengist Way W | 1242 | 311 | 21 | 2213 | 0.561 | 1246 | 1211 | 2.2 | 1.3 | 0.062 | A |

08:45 - 09:00

| Am | 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 86 | 21 | 842 | 398 | 0.216 | 86 | 217 | 0.4 | 0.3 | 0.193 | B |
| 2 - A299 Hengist Way S | 948 | 237 | 78 | 1848 | 0.513 | 950 | 851 | 1.6 | 1.1 | 0.067 | A |
| 3 - A299 Hengist Way W | 1040 | 260 | 17 | 2215 | 0.470 | 1042 | 1011 | 1.3 | 0.9 | 0.051 | A |

2039 B+Dev Net Change, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|-----------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3 | 0.13 | A |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | 22 | 3 - A299 Hengist Way W |

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 |
|-----|-----------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D13 | 2039 B+Dev Net Change | PM | ONE HOUR | 16:30 | 18:00 | 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)

| Am | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|------------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - Canterbury Road | | ONE HOUR | ✓ | 78 | 100.000 |
| 2 - A299 Hengist Way S | | ONE HOUR | ✓ | 1330 | 100.000 |
| 3 - A299 Hengist Way W | | ONE HOUR | ✓ | 1621 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | |
|------|------------------------|---------------------|------------------------|------------------------|
| | | 1 - Canterbury Road | 2 - A299 Hengist Way S | 3 - A299 Hengist Way W |
| From | 1 - Canterbury Road | 0 | 5 | 73 |
| | 2 - A299 Hengist Way S | 82 | 0 | 1248 |
| | 3 - A299 Hengist Way W | 441 | 1180 | 0 |
| | | | | |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | |
|------|------------------------|---------------------|------------------------|------------------------|
| | | 1 - Canterbury Road | 2 - A299 Hengist Way S | 3 - A299 Hengist Way W |
| From | 1 - Canterbury Road | 0 | 0 | 9 |
| | 2 - A299 Hengist Way S | 0 | 0 | 2 |
| | 3 - A299 Hengist Way W | 2 | 4 | 0 |
| | | | | |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|------------------------|---------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - Canterbury Road | 0.31 | 0.31 | 0.4 | C | 72 | 107 |
| 2 - A299 Hengist Way S | 0.75 | 0.12 | 2.9 | A | 1220 | 1831 |
| 3 - A299 Hengist Way W | 0.79 | 0.12 | 3.6 | A | 1487 | 2231 |

Main Results for each time segment

16:30 - 16:45

| 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 59 | 15 | 885 | 374 | 0.157 | 58 | 392 | 0.0 | 0.2 | 0.189 | B |
| 2 - A299 Hengist Way S | 1001 | 250 | 54 | 1969 | 0.509 | 997 | 889 | 0.0 | 1.0 | 0.062 | A |
| 3 - A299 Hengist Way W | 1220 | 305 | 61 | 2286 | 0.534 | 1216 | 990 | 0.0 | 1.1 | 0.056 | A |

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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 70 | 18 | 1059 | 333 | 0.210 | 70 | 469 | 0.2 | 0.3 | 0.228 | B |
| 2 - A299 Hengist Way S | 1196 | 299 | 65 | 1962 | 0.609 | 1194 | 1063 | 1.0 | 1.5 | 0.078 | A |
| 3 - A299 Hengist Way W | 1457 | 364 | 74 | 2279 | 0.640 | 1455 | 1185 | 1.1 | 1.8 | 0.073 | 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 86 | 21 | 1294 | 278 | 0.309 | 85 | 574 | 0.3 | 0.4 | 0.310 | C |
| 2 - A299 Hengist Way S | 1464 | 366 | 80 | 1954 | 0.749 | 1459 | 1299 | 1.5 | 2.9 | 0.120 | A |
| 3 - A299 Hengist Way W | 1785 | 446 | 90 | 2268 | 0.787 | 1778 | 1449 | 1.8 | 3.6 | 0.120 | 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 86 | 21 | 1299 | 277 | 0.310 | 86 | 576 | 0.4 | 0.4 | 0.314 | C |
| 2 - A299 Hengist Way S | 1464 | 366 | 80 | 1954 | 0.750 | 1464 | 1305 | 2.9 | 2.9 | 0.122 | A |
| 3 - A299 Hengist Way W | 1785 | 446 | 90 | 2268 | 0.787 | 1784 | 1454 | 3.6 | 3.6 | 0.124 | 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 70 | 18 | 1066 | 332 | 0.212 | 71 | 472 | 0.4 | 0.3 | 0.231 | B |
| 2 - A299 Hengist Way S | 1196 | 299 | 66 | 1962 | 0.609 | 1201 | 1071 | 2.9 | 1.6 | 0.079 | A |
| 3 - A299 Hengist Way W | 1457 | 364 | 74 | 2278 | 0.640 | 1465 | 1193 | 3.6 | 1.8 | 0.074 | A |

17:45 - 18:00

| Am | 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 59 | 15 | 890 | 373 | 0.158 | 59 | 395 | 0.3 | 0.2 | 0.191 | B |
| 2 - A299 Hengist Way S | 1001 | 250 | 55 | 1968 | 0.509 | 1003 | 894 | 1.6 | 1.0 | 0.062 | A |
| 3 - A299 Hengist Way W | 1220 | 305 | 62 | 2286 | 0.534 | 1223 | 997 | 1.8 | 1.2 | 0.057 | A |

2039 B+Dev Net Change, Airport Peak

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|-----------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3 | 0.06 | A |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | 99 | 2 - A299 Hengist Way S |

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 |
|-----|-----------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D14 | 2039 B+Dev Net Change | Airport Peak | ONE HOUR | 12:45 | 14:15 | 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 (%) |
|------------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - Canterbury Road | | ONE HOUR | ✓ | 51 | 100.000 |
| 2 - A299 Hengist Way S | | ONE HOUR | ✓ | 773 | 100.000 |
| 3 - A299 Hengist Way W | | ONE HOUR | ✓ | 915 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | |
|------|------------------------|---------------------|------------------------|------------------------|
| | | 1 - Canterbury Road | 2 - A299 Hengist Way S | 3 - A299 Hengist Way W |
| From | 1 - Canterbury Road | 0 | 5 | 46 |
| | 2 - A299 Hengist Way S | 7 | 0 | 766 |
| | 3 - A299 Hengist Way W | 284 | 631 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | |
|------|------------------------|---------------------|------------------------|------------------------|
| | | 1 - Canterbury Road | 2 - A299 Hengist Way S | 3 - A299 Hengist Way W |
| From | 1 - Canterbury Road | 0 | 0 | 5 |
| | 2 - A299 Hengist Way S | 0 | 0 | 12 |
| | 3 - A299 Hengist Way W | 4 | 15 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|------------------------|---------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - Canterbury Road | 0.13 | 0.17 | 0.2 | A | 47 | 70 |
| 2 - A299 Hengist Way S | 0.47 | 0.06 | 0.9 | A | 709 | 1064 |
| 3 - A299 Hengist Way W | 0.47 | 0.05 | 0.9 | A | 840 | 1259 |

Main Results for each time segment

12:45 - 13:00

| 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 38 | 10 | 474 | 476 | 0.081 | 38 | 218 | 0.0 | 0.1 | 0.137 | A |
| 2 - A299 Hengist Way S | 582 | 145 | 34 | 1804 | 0.323 | 580 | 477 | 0.0 | 0.5 | 0.049 | A |
| 3 - A299 Hengist Way W | 689 | 172 | 5 | 2152 | 0.320 | 687 | 609 | 0.0 | 0.5 | 0.041 | A |

13:00 - 13:15

| 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 46 | 11 | 567 | 451 | 0.102 | 46 | 261 | 0.1 | 0.1 | 0.148 | A |
| 2 - A299 Hengist Way S | 695 | 174 | 41 | 1800 | 0.386 | 694 | 571 | 0.5 | 0.6 | 0.054 | A |
| 3 - A299 Hengist Way W | 823 | 206 | 6 | 2152 | 0.382 | 822 | 729 | 0.5 | 0.6 | 0.045 | A |

13:15 - 13:30

| 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 56 | 14 | 694 | 417 | 0.135 | 56 | 320 | 0.1 | 0.2 | 0.166 | A |
| 2 - A299 Hengist Way S | 851 | 213 | 50 | 1796 | 0.474 | 850 | 700 | 0.6 | 0.9 | 0.063 | A |
| 3 - A299 Hengist Way W | 1007 | 252 | 8 | 2151 | 0.468 | 1006 | 893 | 0.6 | 0.9 | 0.052 | A |

13:30 - 13:45

| 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 56 | 14 | 695 | 416 | 0.135 | 56 | 320 | 0.2 | 0.2 | 0.167 | A |
| 2 - A299 Hengist Way S | 851 | 213 | 51 | 1796 | 0.474 | 851 | 700 | 0.9 | 0.9 | 0.064 | A |
| 3 - A299 Hengist Way W | 1007 | 252 | 8 | 2151 | 0.468 | 1007 | 894 | 0.9 | 0.9 | 0.052 | A |

13:45 - 14:00

| 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 46 | 11 | 568 | 451 | 0.102 | 46 | 262 | 0.2 | 0.1 | 0.148 | A |
| 2 - A299 Hengist Way S | 695 | 174 | 41 | 1800 | 0.386 | 696 | 572 | 0.9 | 0.6 | 0.054 | A |
| 3 - A299 Hengist Way W | 823 | 206 | 6 | 2152 | 0.382 | 824 | 731 | 0.9 | 0.6 | 0.045 | A |

14:00 - 14:15

| Am | 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 (min) | LOS |
|------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Canterbury Road | 38 | 10 | 475 | 476 | 0.081 | 38 | 219 | 0.1 | 0.1 | 0.137 | A |
| 2 - A299 Hengist Way S | 582 | 145 | 35 | 1804 | 0.323 | 583 | 479 | 0.6 | 0.5 | 0.049 | A |
| 3 - A299 Hengist Way W | 689 | 172 | 5 | 2152 | 0.320 | 689 | 612 | 0.6 | 0.5 | 0.041 | A |

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.0.2.5947
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Path: R:\Projects\38199 Manston Airport DCO EIA\4 Design\Transport\Junction Modelling\Base Models\Validated\Jct 4_A256_B2190

Report generation date: 26/01/2018 16:47:51

-
- »2017 Baseline Traffic, AM
 - »2017 Baseline Traffic, PM
 - »2017 Baseline Traffic, Airport Peak
 - »2039 Growthed Traffic, AM
 - »2039 Growthed Traffic, PM
 - »2039 Growthed Traffic, Airport Peak
 - »2039 + Dev Traffic, AM
 - »2039 + Dev Traffic, PM
 - »2039 + Dev Traffic, Airport Peak
 - »2039 B+Dev Net Change, AM

Summary of junction performance

| | AM | | | | | PM | | | | | Airport Peak | | | | | |
|------------------------------|-------------|-------------|------|-----|-------------------------------|-------------|-------------|------|-----|---------------------------|--------------|-------------|------|-----|------------------------------|--|
| | Queue (Veh) | Delay (min) | RFC | LOS | Network Residual Capacity | Queue (Veh) | Delay (min) | RFC | LOS | Network Residual Capacity | Queue (Veh) | Delay (min) | RFC | LOS | Network Residual Capacity | |
| 2017 Baseline Traffic | | | | | | | | | | | | | | | | |
| 1 - Hengist way E | 8.8 | 0.42 | 0.91 | D | -6 % [2 - Tothill Street] | 4.4 | 0.23 | 0.82 | B | -12 % [4 - B2190 N] | 1.2 | 0.09 | 0.54 | A | 33 % [2 - Tothill Street] | |
| 2 - Tothill Street | 8.8 | 1.16 | 0.94 | F | | 3.4 | 0.44 | 0.79 | D | | 1.0 | 0.15 | 0.51 | A | | |
| 3 - A299 W | 11.6 | 0.51 | 0.94 | D | | 28.0 | 1.01 | 1.00 | F | | 1.4 | 0.10 | 0.59 | A | | |
| 4 - B2190 N | 12.5 | 0.92 | 0.96 | F | | 46.7 | 2.74 | 1.09 | F | | 0.7 | 0.10 | 0.43 | A | | |
| 2039 Growthed Traffic | | | | | | | | | | | | | | | | |
| 1 - Hengist way E | 119.2 | 4.60 | 1.15 | F | -25 % [2 - Tothill Street] | 48.3 | 1.76 | 1.04 | F | -30 % [4 - B2190 N] | 3.2 | 0.19 | 0.77 | B | -1 % [2 - Tothill Street] | |
| 2 - Tothill Street | 94.4 | 12.00 | 1.34 | F | | 60.9 | 6.56 | 1.23 | F | | 5.7 | 0.67 | 0.87 | E | | |
| 3 - A299 W | 152.4 | 5.69 | 1.18 | F | | 292.3 | 10.49 | 1.29 | F | | 3.6 | 0.19 | 0.79 | B | | |
| 4 - B2190 N | 118.5 | 8.24 | 1.24 | F | | 224.3 | 15.91 | 1.38 | F | | 1.8 | 0.17 | 0.64 | B | | |
| 2039 + Dev Traffic | | | | | | | | | | | | | | | | |
| 1 - Hengist way E | 128.2 | 5.11 | 1.16 | F | -26 % [2 - Tothill Street] | 58.5 | 2.09 | 1.06 | F | -35 % [4 - B2190 N] | 3.5 | 0.21 | 0.78 | B | -5 % [2 - Tothill Street] | |
| 2 - Tothill Street | 110.5 | 14.44 | 1.39 | F | | 80.7 | 9.05 | 1.30 | F | | 9.5 | 1.08 | 0.94 | F | | |
| 3 - A299 W | 172.5 | 6.67 | 1.20 | F | | 327.0 | 11.65 | 1.32 | F | | 5.9 | 0.28 | 0.86 | C | | |
| 4 - B2190 N | 134.8 | 9.27 | 1.26 | F | | 357.6 | 25.20 | 1.53 | F | | 2.3 | 0.21 | 0.71 | B | | |
| 2039 B+Dev Net Change | | | | | | | | | | | | | | | | |
| 1 - Hengist way E | 70.9 | 2.53 | 1.08 | F | -29 % [4 - B2190 N] | | | | | | | | | | | |
| 2 - Tothill Street | 124.1 | 14.49 | 1.46 | F | | | | | | | | | | | | |
| 3 - A299 W | 172.9 | 6.71 | 1.20 | F | | | | | | | | | | | | |
| 4 - B2190 N | 224.9 | 15.00 | 1.37 | F | | | | | | | | | | | | |

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

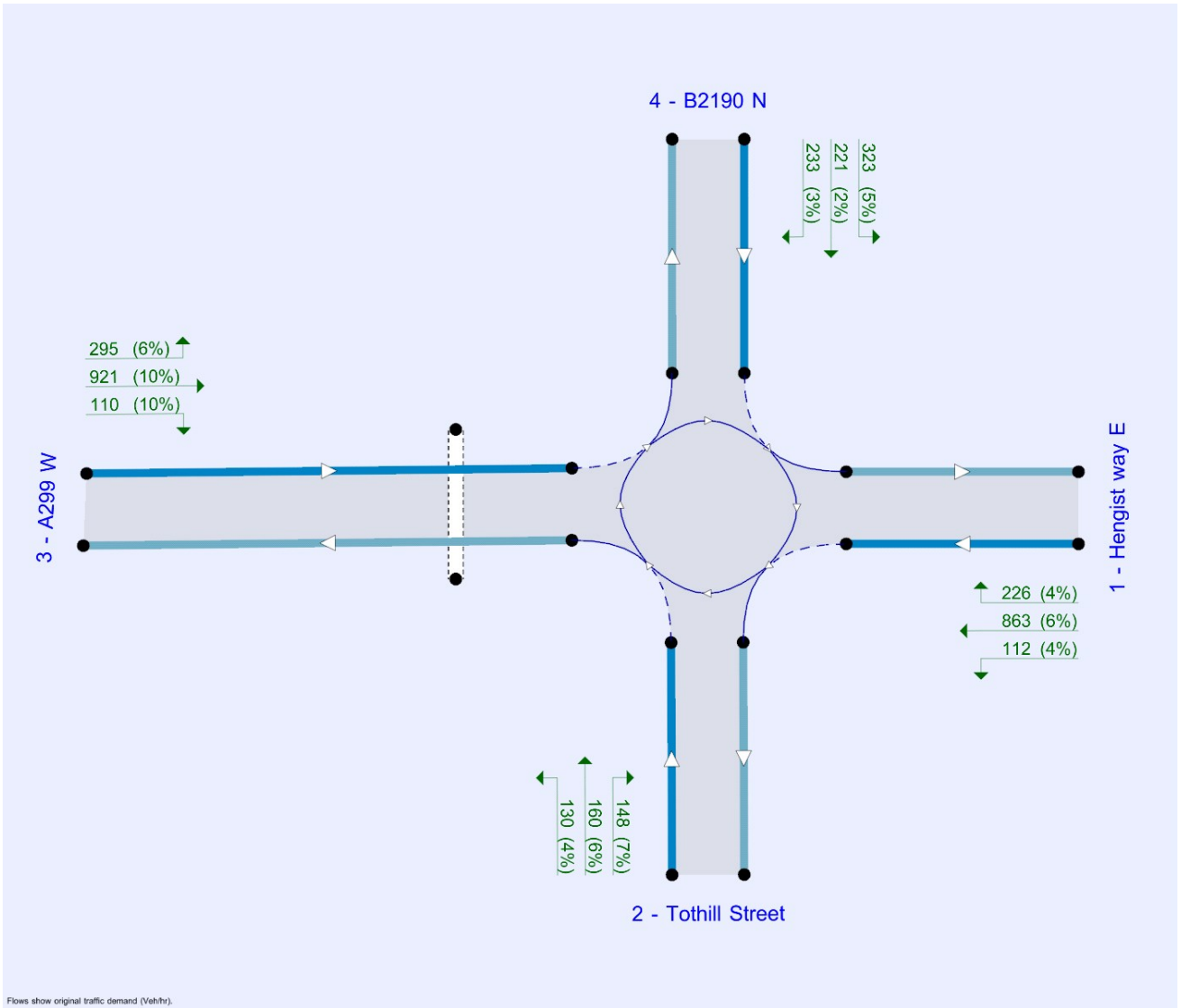
File summary

File Description

| | |
|-------------|----------------|
| Title | (untitled) |
| Location | |
| Site number | |
| Date | 29/09/2017 |
| Version | |
| Status | (new file) |
| Identifier | |
| Client | |
| Jobnumber | |
| Enumerator | GLOBALadam.guy |
| 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 | mph | Veh | Veh | perHour | min | -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 | Residual capacity criteria type | RFC Threshold | Average Delay threshold (min) | Queue threshold (PCU) |
|--------------------|-----------------------------|-----------------------------------|-----------------------------|---------------------------------|---------------|-------------------------------|-----------------------|
| 5.75 | | | ✓ | Delay | 0.85 | 0.60 | 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 |
|-----|-----------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D3 | 2017 Baseline Traffic | AM | ONE HOUR | 07:30 | 09:00 | 15 | ✓ |
| D4 | 2017 Baseline Traffic | PM | ONE HOUR | 16:30 | 18:00 | 15 | ✓ |
| D5 | 2017 Baseline Traffic | Airport Peak | ONE HOUR | 12:45 | 14:15 | 15 | ✓ |
| D6 | 2039 Growthed Traffic | AM | ONE HOUR | 07:30 | 09:00 | 15 | ✓ |
| D7 | 2039 Growthed Traffic | PM | ONE HOUR | 16:30 | 18:00 | 15 | ✓ |
| D8 | 2039 Growthed Traffic | Airport Peak | ONE HOUR | 12:45 | 14:15 | 15 | ✓ |
| D9 | 2039 + Dev Traffic | AM | ONE HOUR | 07:30 | 09:00 | 15 | ✓ |
| D10 | 2039 + Dev Traffic | PM | ONE HOUR | 16:30 | 18:00 | 15 | ✓ |
| D11 | 2039 + Dev Traffic | Airport Peak | ONE HOUR | 12:45 | 14:15 | 15 | ✓ |
| D12 | 2039 B+Dev Net Change | AM | ONE HOUR | 07:30 | 09:00 | 15 | ✓ |

Analysis Set Details

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

2017 Baseline Traffic, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|------------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3, 4 | 0.64 | E |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | -6 | 2 - Tothill Street |

Arms

Arms

| Arm | Name | Description |
|-----|----------------|-------------|
| 1 | Hengist way E | |
| 2 | Tothill Street | |
| 3 | A299 W | |
| 4 | B2190 N | |

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 |
|--------------------|----------------------------------|---------------------|---------------------------------|----------------------|-----------------------------------|------------------------------------|-----------|
| 1 - Hengist way E | 7.50 | 8.80 | 15.6 | 39.0 | 65.0 | 14.5 | |
| 2 - Tothill Street | 3.20 | 4.01 | 2.3 | 22.0 | 65.0 | 31.5 | |
| 3 - A299 W | 7.47 | 7.47 | 0.0 | 34.0 | 65.0 | 28.0 | |
| 4 - B2190 N | 7.33 | 7.33 | 0.0 | 20.0 | 65.0 | 23.0 | |

Pelican/Puffin Crossings

| Arm | Space between crossing and junction entry (Signalised) (PCU) | Amber time preceding red (s) | Amber time regarded as green (s) | Time from traffic red start to green man start (s) | Time period green man shown (s) | Clearance Period (s) | Traffic minimum green (s) |
|------------|--|------------------------------|----------------------------------|--|---------------------------------|----------------------|---------------------------|
| 3 - A299 W | 7.00 | 3.00 | 2.90 | 1.00 | 6.00 | 6.00 | 7.00 |

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

| Arm | Final slope | Final intercept (PCU/hr) |
|--------------------|-------------|--------------------------|
| 1 - Hengist way E | 0.728 | 2784 |
| 2 - Tothill Street | 0.428 | 1084 |
| 3 - A299 W | 0.639 | 2325 |
| 4 - B2190 N | 0.631 | 2275 |

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

Arm Capacity Adjustments

| Arm | Type | Reason | Percentage capacity adjustment (%) |
|--------------------|------------|--------|------------------------------------|
| 1 - Hengist way E | Percentage | | 66.00 |
| 2 - Tothill Street | Percentage | | 126.00 |
| 3 - A299 W | Percentage | | 88.00 |
| 4 - B2190 N | Percentage | | 67.00 |

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 | 2017 Baseline Traffic | AM | ONE HOUR | 07:30 | 09:00 | 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 (%) |
|--------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - Hengist way E | | ONE HOUR | ✓ | 1201 | 100.000 |
| 2 - Tothill Street | | ONE HOUR | ✓ | 438 | 100.000 |
| 3 - A299 W | | ONE HOUR | ✓ | 1326 | 100.000 |
| 4 - B2190 N | | ONE HOUR | ✓ | 777 | 100.000 |

Demand overview (Pedestrians)

| Arm | Profile type | Average pedestrian flow (Ped/hr) |
|--------------------|--------------|----------------------------------|
| 1 - Hengist way E | | |
| 2 - Tothill Street | | |
| 3 - A299 W | [ONEHOUR] | 60.00 |
| 4 - B2190 N | | |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | |
|------|--------------------|-------------------|--------------------|------------|-------------|
| | | 1 - Hengist way E | 2 - Tothill Street | 3 - A299 W | 4 - B2190 N |
| From | 1 - Hengist way E | 0 | 112 | 863 | 226 |
| | 2 - Tothill Street | 148 | 0 | 130 | 160 |
| | 3 - A299 W | 921 | 110 | 0 | 295 |
| | 4 - B2190 N | 323 | 221 | 233 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | |
|------|--------------------|-------------------|--------------------|------------|-------------|
| | | 1 - Hengist way E | 2 - Tothill Street | 3 - A299 W | 4 - B2190 N |
| From | 1 - Hengist way E | 0 | 4 | 6 | 4 |
| | 2 - Tothill Street | 7 | 0 | 4 | 6 |
| | 3 - A299 W | 10 | 10 | 0 | 6 |
| | 4 - B2190 N | 5 | 2 | 3 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|--------------------|---------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - Hengist way E | 0.91 | 0.42 | 8.8 | D | 1102 | 1653 |
| 2 - Tothill Street | 0.94 | 1.16 | 8.8 | F | 402 | 603 |
| 3 - A299 W | 0.94 | 0.51 | 11.6 | D | 1217 | 1825 |
| 4 - B2190 N | 0.96 | 0.92 | 12.5 | F | 713 | 1069 |

Main Results for each time segment

07:30 - 07:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 904 | 226 | 421 | | 1543 | 0.586 | 899 | 1040 | 0.0 | 1.4 | 0.092 | A |
| 2 - Tothill Street | 330 | 82 | 989 | | 761 | 0.433 | 327 | 331 | 0.0 | 0.8 | 0.137 | A |
| 3 - A299 W | 998 | 250 | 399 | 45.17 | 1555 | 0.642 | 991 | 917 | 0.0 | 1.8 | 0.105 | A |
| 4 - B2190 N | 585 | 146 | 881 | | 1078 | 0.543 | 580 | 509 | 0.0 | 1.2 | 0.120 | A |

07:45 - 08:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1080 | 270 | 504 | | 1504 | 0.718 | 1075 | 1245 | 1.4 | 2.5 | 0.139 | A |
| 2 - Tothill Street | 394 | 98 | 1183 | | 657 | 0.599 | 391 | 396 | 0.8 | 1.4 | 0.223 | B |
| 3 - A299 W | 1192 | 298 | 477 | 53.94 | 1561 | 0.763 | 1187 | 1097 | 1.8 | 3.1 | 0.158 | A |
| 4 - B2190 N | 699 | 175 | 1055 | | 1000 | 0.698 | 694 | 609 | 1.2 | 2.2 | 0.193 | B |

08:00 - 08:15

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1322 | 331 | 602 | | 1458 | 0.907 | 1301 | 1494 | 2.5 | 7.8 | 0.344 | C |
| 2 - Tothill Street | 482 | 121 | 1427 | | 526 | 0.917 | 462 | 475 | 1.4 | 6.6 | 0.768 | E |
| 3 - A299 W | 1460 | 365 | 569 | 66.06 | 1565 | 0.933 | 1433 | 1320 | 3.1 | 9.9 | 0.390 | C |
| 4 - B2190 N | 855 | 214 | 1270 | | 904 | 0.946 | 826 | 732 | 2.2 | 9.6 | 0.618 | E |

08:15 - 08:30

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1322 | 331 | 614 | | 1452 | 0.911 | 1318 | 1520 | 7.8 | 8.8 | 0.424 | D |
| 2 - Tothill Street | 482 | 121 | 1449 | | 515 | 0.937 | 473 | 484 | 6.6 | 8.8 | 1.162 | F |
| 3 - A299 W | 1460 | 365 | 581 | 66.06 | 1559 | 0.936 | 1453 | 1341 | 9.9 | 11.6 | 0.510 | D |
| 4 - B2190 N | 855 | 214 | 1290 | | 895 | 0.956 | 844 | 744 | 9.6 | 12.5 | 0.921 | F |

08:30 - 08:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1080 | 270 | 533 | | 1490 | 0.724 | 1104 | 1301 | 8.8 | 2.7 | 0.164 | A |
| 2 - Tothill Street | 394 | 98 | 1222 | | 636 | 0.619 | 422 | 415 | 8.8 | 1.7 | 0.314 | C |
| 3 - A299 W | 1192 | 298 | 505 | 53.94 | 1601 | 0.745 | 1226 | 1140 | 11.6 | 3.0 | 0.174 | B |
| 4 - B2190 N | 699 | 175 | 1096 | | 982 | 0.711 | 738 | 635 | 12.5 | 2.6 | 0.282 | C |

08:45 - 09:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 904 | 226 | 428 | | 1540 | 0.587 | 909 | 1055 | 2.7 | 1.4 | 0.096 | A |
| 2 - Tothill Street | 330 | 82 | 1002 | | 754 | 0.437 | 333 | 336 | 1.7 | 0.8 | 0.144 | A |
| 3 - A299 W | 998 | 250 | 406 | 45.17 | 1603 | 0.623 | 1004 | 929 | 3.0 | 1.7 | 0.101 | A |
| 4 - B2190 N | 585 | 146 | 893 | | 1073 | 0.545 | 590 | 516 | 2.6 | 1.2 | 0.126 | A |

2017 Baseline Traffic, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|------------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3, 4 | 1.09 | F |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | -12 | 4 - B2190 N |

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 | 2017 Baseline Traffic | PM | ONE HOUR | 16:30 | 18:00 | 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 (%) |
|--------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - Hengist way E | | ONE HOUR | ✓ | 1103 | 100.000 |
| 2 - Tothill Street | | ONE HOUR | ✓ | 444 | 100.000 |
| 3 - A299 W | | ONE HOUR | ✓ | 1510 | 100.000 |
| 4 - B2190 N | | ONE HOUR | ✓ | 845 | 100.000 |

Demand overview (Pedestrians)

| Arm | Profile type | Average pedestrian flow (Ped/hr) |
|--------------------|--------------|----------------------------------|
| 1 - Hengist way E | | |
| 2 - Tothill Street | | |
| 3 - A299 W | [ONEHOUR] | 60.00 |
| 4 - B2190 N | | |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | |
|------|--------------------|-------------------|--------------------|------------|-------------|
| | | 1 - Hengist way E | 2 - Tothill Street | 3 - A299 W | 4 - B2190 N |
| From | 1 - Hengist way E | 0 | 150 | 733 | 220 |
| | 2 - Tothill Street | 142 | 0 | 134 | 168 |
| | 3 - A299 W | 1104 | 149 | 0 | 257 |
| | 4 - B2190 N | 379 | 227 | 239 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | |
|------|--------------------|-------------------|--------------------|------------|-------------|
| | | 1 - Hengist way E | 2 - Tothill Street | 3 - A299 W | 4 - B2190 N |
| From | 1 - Hengist way E | 0 | 3 | 4 | 3 |
| | 2 - Tothill Street | 2 | 0 | 10 | 1 |
| | 3 - A299 W | 3 | 3 | 0 | 2 |
| | 4 - B2190 N | 3 | 0 | 2 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|--------------------|---------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - Hengist way E | 0.82 | 0.23 | 4.4 | B | 1012 | 1518 |
| 2 - Tothill Street | 0.79 | 0.44 | 3.4 | D | 407 | 611 |
| 3 - A299 W | 1.00 | 1.01 | 28.0 | F | 1386 | 2078 |
| 4 - B2190 N | 1.09 | 2.74 | 46.7 | F | 775 | 1163 |

Main Results for each time segment

16:30 - 16:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 830 | 208 | 459 | | 1557 | 0.533 | 826 | 1214 | 0.0 | 1.1 | 0.082 | A |
| 2 - Tothill Street | 334 | 84 | 892 | | 835 | 0.401 | 332 | 393 | 0.0 | 0.7 | 0.119 | A |
| 3 - A299 W | 1137 | 284 | 396 | 45.17 | 1662 | 0.684 | 1128 | 827 | 0.0 | 2.1 | 0.111 | A |
| 4 - B2190 N | 636 | 159 | 1042 | | 1051 | 0.605 | 630 | 482 | 0.0 | 1.5 | 0.141 | A |

16:45 - 17:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 992 | 248 | 548 | | 1515 | 0.655 | 989 | 1451 | 1.1 | 1.9 | 0.113 | A |
| 2 - Tothill Street | 399 | 100 | 1067 | | 741 | 0.539 | 397 | 470 | 0.7 | 1.1 | 0.174 | B |
| 3 - A299 W | 1357 | 339 | 475 | 53.94 | 1684 | 0.806 | 1350 | 990 | 2.1 | 3.9 | 0.176 | B |
| 4 - B2190 N | 760 | 190 | 1247 | | 964 | 0.788 | 752 | 577 | 1.5 | 3.4 | 0.274 | C |

17:00 - 17:15

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1214 | 304 | 621 | | 1480 | 0.820 | 1205 | 1700 | 1.9 | 4.2 | 0.211 | B |
| 2 - Tothill Street | 489 | 122 | 1279 | | 627 | 0.780 | 481 | 547 | 1.1 | 3.2 | 0.390 | C |
| 3 - A299 W | 1663 | 416 | 576 | 66.06 | 1668 | 0.997 | 1599 | 1183 | 3.9 | 19.7 | 0.602 | E |
| 4 - B2190 N | 930 | 233 | 1481 | | 864 | 1.077 | 840 | 694 | 3.4 | 25.9 | 1.291 | F |

17:15 - 17:30

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1214 | 304 | 628 | | 1477 | 0.822 | 1214 | 1727 | 4.2 | 4.4 | 0.226 | B |
| 2 - Tothill Street | 489 | 122 | 1288 | | 622 | 0.786 | 488 | 553 | 3.2 | 3.4 | 0.441 | D |
| 3 - A299 W | 1663 | 416 | 583 | 66.06 | 1664 | 0.999 | 1629 | 1193 | 19.7 | 28.0 | 1.008 | F |
| 4 - B2190 N | 930 | 233 | 1508 | | 852 | 1.092 | 847 | 704 | 25.9 | 46.7 | 2.743 | F |

17:30 - 17:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 992 | 248 | 643 | | 1470 | 0.674 | 1001 | 1599 | 4.4 | 2.1 | 0.130 | A |
| 2 - Tothill Street | 399 | 100 | 1121 | | 712 | 0.561 | 408 | 523 | 3.4 | 1.3 | 0.202 | B |
| 3 - A299 W | 1357 | 339 | 484 | 53.94 | 1719 | 0.790 | 1454 | 1044 | 28.0 | 4.0 | 0.302 | C |
| 4 - B2190 N | 760 | 190 | 1336 | | 925 | 0.821 | 906 | 601 | 46.7 | 10.0 | 1.987 | F |

17:45 - 18:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 830 | 208 | 482 | | 1546 | 0.537 | 834 | 1245 | 2.1 | 1.2 | 0.085 | A |
| 2 - Tothill Street | 334 | 84 | 910 | | 825 | 0.405 | 337 | 406 | 1.3 | 0.7 | 0.124 | A |
| 3 - A299 W | 1137 | 284 | 402 | 45.17 | 1727 | 0.658 | 1145 | 845 | 4.0 | 2.0 | 0.105 | A |
| 4 - B2190 N | 636 | 159 | 1058 | | 1044 | 0.609 | 670 | 489 | 10.0 | 1.6 | 0.174 | B |

2017 Baseline Traffic, Airport Peak

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|------------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3, 4 | 0.10 | A |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | 33 | 2 - Tothill Street |

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 | 2017 Baseline Traffic | Airport Peak | ONE HOUR | 12:45 | 14:15 | 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 (%) |
|--------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - Hengist way E | | ONE HOUR | ✓ | 708 | 100.000 |
| 2 - Tothill Street | | ONE HOUR | ✓ | 372 | 100.000 |
| 3 - A299 W | | ONE HOUR | ✓ | 789 | 100.000 |
| 4 - B2190 N | | ONE HOUR | ✓ | 426 | 100.000 |

Demand overview (Pedestrians)

| Arm | Profile type | Average pedestrian flow (Ped/hr) |
|--------------------|--------------|----------------------------------|
| 1 - Hengist way E | | |
| 2 - Tothill Street | | |
| 3 - A299 W | [ONEHOUR] | 60.00 |
| 4 - B2190 N | | |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | |
|------|--------------------|-------------------|--------------------|------------|-------------|
| | | 1 - Hengist way E | 2 - Tothill Street | 3 - A299 W | 4 - B2190 N |
| From | 1 - Hengist way E | 0 | 106 | 484 | 118 |
| | 2 - Tothill Street | 96 | 0 | 117 | 159 |
| | 3 - A299 W | 508 | 99 | 0 | 182 |
| | 4 - B2190 N | 94 | 139 | 193 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | |
|------|--------------------|-------------------|--------------------|------------|-------------|
| | | 1 - Hengist way E | 2 - Tothill Street | 3 - A299 W | 4 - B2190 N |
| From | 1 - Hengist way E | 0 | 5 | 12 | 11 |
| | 2 - Tothill Street | 2 | 0 | 12 | 3 |
| | 3 - A299 W | 15 | 8 | 0 | 10 |
| | 4 - B2190 N | 13 | 2 | 5 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|--------------------|---------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - Hengist way E | 0.54 | 0.09 | 1.2 | A | 650 | 975 |
| 2 - Tothill Street | 0.51 | 0.15 | 1.0 | A | 341 | 512 |
| 3 - A299 W | 0.59 | 0.10 | 1.4 | A | 724 | 1086 |
| 4 - B2190 N | 0.43 | 0.10 | 0.7 | A | 391 | 586 |

Main Results for each time segment

12:45 - 13:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 533 | 133 | 323 | | 1512 | 0.353 | 531 | 523 | 0.0 | 0.5 | 0.061 | A |
| 2 - Tothill Street | 280 | 70 | 596 | | 958 | 0.292 | 278 | 258 | 0.0 | 0.4 | 0.088 | A |
| 3 - A299 W | 594 | 149 | 279 | 45.17 | 1541 | 0.385 | 592 | 595 | 0.0 | 0.6 | 0.063 | A |
| 4 - B2190 N | 321 | 80 | 527 | | 1205 | 0.266 | 319 | 344 | 0.0 | 0.4 | 0.068 | A |

13:00 - 13:15

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 636 | 159 | 387 | | 1483 | 0.429 | 636 | 627 | 0.5 | 0.7 | 0.071 | A |
| 2 - Tothill Street | 334 | 84 | 714 | | 892 | 0.375 | 334 | 309 | 0.4 | 0.6 | 0.107 | A |
| 3 - A299 W | 709 | 177 | 335 | 53.94 | 1511 | 0.469 | 708 | 713 | 0.6 | 0.9 | 0.075 | A |
| 4 - B2190 N | 383 | 96 | 631 | | 1158 | 0.331 | 382 | 412 | 0.4 | 0.5 | 0.077 | A |

13:15 - 13:30

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 780 | 195 | 473 | | 1444 | 0.540 | 778 | 766 | 0.7 | 1.2 | 0.090 | A |
| 2 - Tothill Street | 410 | 102 | 873 | | 802 | 0.511 | 408 | 378 | 0.6 | 1.0 | 0.152 | A |
| 3 - A299 W | 869 | 217 | 409 | 66.06 | 1472 | 0.590 | 867 | 872 | 0.9 | 1.4 | 0.099 | A |
| 4 - B2190 N | 469 | 117 | 772 | | 1095 | 0.428 | 468 | 504 | 0.5 | 0.7 | 0.096 | A |

13:30 - 13:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 780 | 195 | 475 | | 1443 | 0.540 | 779 | 768 | 1.2 | 1.2 | 0.090 | A |
| 2 - Tothill Street | 410 | 102 | 875 | | 801 | 0.511 | 410 | 379 | 1.0 | 1.0 | 0.153 | A |
| 3 - A299 W | 869 | 217 | 411 | 66.06 | 1484 | 0.585 | 869 | 874 | 1.4 | 1.4 | 0.097 | A |
| 4 - B2190 N | 469 | 117 | 774 | | 1094 | 0.429 | 469 | 505 | 0.7 | 0.7 | 0.096 | A |

13:45 - 14:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 636 | 159 | 389 | | 1482 | 0.429 | 638 | 630 | 1.2 | 0.8 | 0.071 | A |
| 2 - Tothill Street | 334 | 84 | 717 | | 890 | 0.376 | 336 | 310 | 1.0 | 0.6 | 0.109 | A |
| 3 - A299 W | 709 | 177 | 337 | 53.94 | 1527 | 0.465 | 711 | 716 | 1.4 | 0.9 | 0.074 | A |
| 4 - B2190 N | 383 | 96 | 634 | | 1157 | 0.331 | 384 | 414 | 0.7 | 0.5 | 0.078 | A |

14:00 - 14:15

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 533 | 133 | 325 | | 1511 | 0.353 | 534 | 526 | 0.8 | 0.5 | 0.061 | A |
| 2 - Tothill Street | 280 | 70 | 599 | | 956 | 0.293 | 281 | 259 | 0.6 | 0.4 | 0.089 | A |
| 3 - A299 W | 594 | 149 | 281 | 45.17 | 1555 | 0.382 | 595 | 599 | 0.9 | 0.6 | 0.063 | A |
| 4 - B2190 N | 321 | 80 | 530 | | 1203 | 0.267 | 321 | 346 | 0.5 | 0.4 | 0.068 | A |

2039 Growthed Traffic, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|------------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3, 4 | 6.59 | F |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | -25 | 2 - Tothill Street |

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 | 2039 Growthed Traffic | AM | ONE HOUR | 07:30 | 09:00 | 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 (%) |
|--------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - Hengist way E | | ONE HOUR | ✓ | 1504 | 100.000 |
| 2 - Tothill Street | | ONE HOUR | ✓ | 548 | 100.000 |
| 3 - A299 W | | ONE HOUR | ✓ | 1663 | 100.000 |
| 4 - B2190 N | | ONE HOUR | ✓ | 971 | 100.000 |

Demand overview (Pedestrians)

| Arm | Profile type | Average pedestrian flow (Ped/hr) |
|--------------------|--------------|----------------------------------|
| 1 - Hengist way E | | |
| 2 - Tothill Street | | |
| 3 - A299 W | [ONEHOUR] | 60.00 |
| 4 - B2190 N | | |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | |
|------|--------------------|-------------------|--------------------|------------|-------------|
| | | 1 - Hengist way E | 2 - Tothill Street | 3 - A299 W | 4 - B2190 N |
| From | 1 - Hengist way E | 0 | 140 | 1081 | 283 |
| | 2 - Tothill Street | 185 | 0 | 163 | 200 |
| | 3 - A299 W | 1156 | 138 | 0 | 369 |
| | 4 - B2190 N | 404 | 276 | 291 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | |
|------|--------------------|-------------------|--------------------|------------|-------------|
| | | 1 - Hengist way E | 2 - Tothill Street | 3 - A299 W | 4 - B2190 N |
| From | 1 - Hengist way E | 0 | 5 | 6 | 4 |
| | 2 - Tothill Street | 7 | 0 | 4 | 7 |
| | 3 - A299 W | 10 | 10 | 0 | 6 |
| | 4 - B2190 N | 5 | 2 | 3 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|--------------------|---------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - Hengist way E | 1.15 | 4.60 | 119.2 | F | 1380 | 2070 |
| 2 - Tothill Street | 1.34 | 12.00 | 94.4 | F | 503 | 754 |
| 3 - A299 W | 1.18 | 5.69 | 152.4 | F | 1526 | 2289 |
| 4 - B2190 N | 1.24 | 8.24 | 118.5 | F | 891 | 1337 |

Main Results for each time segment

07:30 - 07:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1132 | 283 | 523 | | 1494 | 0.758 | 1120 | 1296 | 0.0 | 3.0 | 0.156 | A |
| 2 - Tothill Street | 413 | 103 | 1232 | | 629 | 0.656 | 405 | 411 | 0.0 | 1.8 | 0.261 | C |
| 3 - A299 W | 1252 | 313 | 496 | 45.17 | 1545 | 0.810 | 1236 | 1142 | 0.0 | 4.0 | 0.186 | B |
| 4 - B2190 N | 731 | 183 | 1099 | | 981 | 0.745 | 720 | 633 | 0.0 | 2.8 | 0.222 | B |

07:45 - 08:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1352 | 338 | 609 | | 1453 | 0.931 | 1326 | 1519 | 3.0 | 9.6 | 0.406 | C |
| 2 - Tothill Street | 493 | 123 | 1453 | | 511 | 0.964 | 465 | 482 | 1.8 | 8.8 | 0.971 | F |
| 3 - A299 W | 1495 | 374 | 576 | 53.94 | 1561 | 0.958 | 1460 | 1341 | 4.0 | 12.7 | 0.478 | D |
| 4 - B2190 N | 873 | 218 | 1293 | | 894 | 0.977 | 835 | 743 | 2.8 | 12.3 | 0.750 | E |

08:00 - 08:15

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1656 | 414 | 631 | | 1442 | 1.148 | 1433 | 1587 | 9.6 | 65.3 | 1.731 | F |
| 2 - Tothill Street | 603 | 151 | 1558 | | 455 | 1.327 | 452 | 507 | 8.8 | 46.8 | 4.010 | F |
| 3 - A299 W | 1831 | 458 | 587 | 66.06 | 1555 | 1.177 | 1549 | 1422 | 12.7 | 83.2 | 2.004 | F |
| 4 - B2190 N | 1069 | 267 | 1358 | | 864 | 1.237 | 861 | 778 | 12.3 | 64.4 | 2.878 | F |

08:15 - 08:30

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1656 | 414 | 633 | | 1442 | 1.149 | 1440 | 1591 | 65.3 | 119.2 | 3.953 | F |
| 2 - Tothill Street | 603 | 151 | 1565 | | 451 | 1.339 | 450 | 508 | 46.8 | 85.0 | 8.972 | F |
| 3 - A299 W | 1831 | 458 | 587 | 66.06 | 1555 | 1.178 | 1554 | 1428 | 83.2 | 152.4 | 4.643 | F |
| 4 - B2190 N | 1069 | 267 | 1361 | | 863 | 1.239 | 862 | 780 | 64.4 | 116.1 | 6.413 | F |

08:30 - 08:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1352 | 338 | 632 | | 1442 | 0.938 | 1430 | 1586 | 119.2 | 99.7 | 4.601 | F |
| 2 - Tothill Street | 493 | 123 | 1555 | | 456 | 1.081 | 455 | 507 | 85.0 | 94.4 | 12.002 | F |
| 3 - A299 W | 1495 | 374 | 589 | 53.94 | 1554 | 0.962 | 1544 | 1422 | 152.4 | 140.2 | 5.687 | F |
| 4 - B2190 N | 873 | 218 | 1355 | | 866 | 1.008 | 863 | 778 | 116.1 | 118.5 | 8.238 | F |

08:45 - 09:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1132 | 283 | 630 | | 1443 | 0.785 | 1429 | 1583 | 99.7 | 25.6 | 2.690 | F |
| 2 - Tothill Street | 413 | 103 | 1553 | | 457 | 0.903 | 452 | 505 | 94.4 | 84.5 | 11.879 | F |
| 3 - A299 W | 1252 | 313 | 587 | 45.17 | 1555 | 0.805 | 1544 | 1419 | 140.2 | 67.1 | 4.053 | F |
| 4 - B2190 N | 731 | 183 | 1354 | | 866 | 0.844 | 859 | 777 | 118.5 | 86.5 | 7.181 | F |

2039 Growthed Traffic, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|------------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3, 4 | 8.70 | F |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | -30 | 4 - B2190 N |

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 | 2039 Growthed Traffic | PM | ONE HOUR | 16:30 | 18:00 | 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 (%) |
|--------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - Hengist way E | | ONE HOUR | ✓ | 1391 | 100.000 |
| 2 - Tothill Street | | ONE HOUR | ✓ | 561 | 100.000 |
| 3 - A299 W | | ONE HOUR | ✓ | 1904 | 100.000 |
| 4 - B2190 N | | ONE HOUR | ✓ | 1065 | 100.000 |

Demand overview (Pedestrians)

| Arm | Profile type | Average pedestrian flow (Ped/hr) |
|--------------------|--------------|----------------------------------|
| 1 - Hengist way E | | |
| 2 - Tothill Street | | |
| 3 - A299 W | [ONEHOUR] | 60.00 |
| 4 - B2190 N | | |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | |
|------|--------------------|-------------------|--------------------|------------|-------------|
| | | 1 - Hengist way E | 2 - Tothill Street | 3 - A299 W | 4 - B2190 N |
| From | 1 - Hengist way E | 0 | 189 | 925 | 277 |
| | 2 - Tothill Street | 179 | 0 | 170 | 212 |
| | 3 - A299 W | 1392 | 188 | 0 | 324 |
| | 4 - B2190 N | 478 | 286 | 301 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | |
|------|--------------------|-------------------|--------------------|------------|-------------|
| | | 1 - Hengist way E | 2 - Tothill Street | 3 - A299 W | 4 - B2190 N |
| From | 1 - Hengist way E | 0 | 3 | 5 | 3 |
| | 2 - Tothill Street | 2 | 0 | 10 | 1 |
| | 3 - A299 W | 4 | 3 | 0 | 2 |
| | 4 - B2190 N | 3 | 0 | 2 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|--------------------|---------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - Hengist way E | 1.04 | 1.76 | 48.3 | F | 1276 | 1915 |
| 2 - Tothill Street | 1.23 | 6.56 | 60.9 | F | 515 | 772 |
| 3 - A299 W | 1.29 | 10.49 | 292.3 | F | 1747 | 2621 |
| 4 - B2190 N | 1.38 | 15.91 | 224.3 | F | 977 | 1466 |

Main Results for each time segment

16:30 - 16:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1047 | 262 | 570 | | 1495 | 0.701 | 1038 | 1515 | 0.0 | 2.3 | 0.129 | A |
| 2 - Tothill Street | 422 | 106 | 1118 | | 710 | 0.595 | 417 | 490 | 0.0 | 1.4 | 0.201 | B |
| 3 - A299 W | 1433 | 358 | 497 | 45.17 | 1661 | 0.863 | 1411 | 1037 | 0.0 | 5.6 | 0.223 | B |
| 4 - B2190 N | 802 | 200 | 1304 | | 935 | 0.857 | 781 | 604 | 0.0 | 5.1 | 0.354 | C |

16:45 - 17:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1250 | 313 | 622 | | 1471 | 0.850 | 1239 | 1711 | 2.3 | 5.1 | 0.247 | B |
| 2 - Tothill Street | 504 | 126 | 1308 | | 607 | 0.831 | 494 | 553 | 1.4 | 4.1 | 0.489 | D |
| 3 - A299 W | 1712 | 428 | 591 | 53.94 | 1648 | 1.039 | 1610 | 1211 | 5.6 | 31.0 | 0.854 | F |
| 4 - B2190 N | 957 | 239 | 1494 | | 854 | 1.122 | 839 | 707 | 5.1 | 34.6 | 1.659 | F |

17:00 - 17:15

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1532 | 383 | 627 | | 1468 | 1.043 | 1433 | 1726 | 5.1 | 29.7 | 0.912 | F |
| 2 - Tothill Street | 618 | 154 | 1478 | | 515 | 1.200 | 506 | 582 | 4.1 | 32.0 | 2.462 | F |
| 3 - A299 W | 2096 | 524 | 638 | 66.06 | 1621 | 1.293 | 1620 | 1346 | 31.0 | 150.1 | 3.462 | F |
| 4 - B2190 N | 1173 | 293 | 1506 | | 848 | 1.382 | 848 | 752 | 34.6 | 115.8 | 5.480 | F |

17:15 - 17:30

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1532 | 383 | 628 | | 1468 | 1.043 | 1457 | 1725 | 29.7 | 48.3 | 1.756 | F |
| 2 - Tothill Street | 618 | 154 | 1499 | | 503 | 1.227 | 502 | 586 | 32.0 | 60.9 | 5.733 | F |
| 3 - A299 W | 2096 | 524 | 640 | 66.06 | 1620 | 1.294 | 1620 | 1361 | 150.1 | 269.2 | 7.837 | F |
| 4 - B2190 N | 1173 | 293 | 1504 | | 849 | 1.381 | 849 | 756 | 115.8 | 196.8 | 11.171 | F |

17:30 - 17:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1250 | 313 | 627 | | 1468 | 0.852 | 1414 | 1729 | 48.3 | 7.5 | 1.166 | F |
| 2 - Tothill Street | 504 | 126 | 1461 | | 524 | 0.963 | 515 | 580 | 60.9 | 58.1 | 6.561 | F |
| 3 - A299 W | 1712 | 428 | 641 | 53.94 | 1620 | 1.057 | 1619 | 1336 | 269.2 | 292.3 | 10.489 | F |
| 4 - B2190 N | 957 | 239 | 1508 | | 847 | 1.130 | 847 | 752 | 196.8 | 224.3 | 15.117 | F |

17:45 - 18:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1047 | 262 | 617 | | 1473 | 0.711 | 1067 | 1751 | 7.5 | 2.5 | 0.155 | A |
| 2 - Tothill Street | 422 | 106 | 1157 | | 689 | 0.613 | 647 | 527 | 58.1 | 1.9 | 2.508 | F |
| 3 - A299 W | 1433 | 358 | 663 | 45.17 | 1608 | 0.892 | 1602 | 1141 | 292.3 | 250.0 | 10.158 | F |
| 4 - B2190 N | 802 | 200 | 1536 | | 836 | 0.959 | 832 | 730 | 224.3 | 216.8 | 15.906 | F |

2039 Growthed Traffic, Airport Peak

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|------------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3, 4 | 0.26 | C |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | -1 | 2 - Tothill Street |

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 | 2039 Growthed Traffic | Airport Peak | ONE HOUR | 12:45 | 14:15 | 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 (%) |
|--------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - Hengist way E | | ONE HOUR | ✓ | 949 | 100.000 |
| 2 - Tothill Street | | ONE HOUR | ✓ | 497 | 100.000 |
| 3 - A299 W | | ONE HOUR | ✓ | 1058 | 100.000 |
| 4 - B2190 N | | ONE HOUR | ✓ | 569 | 100.000 |

Demand overview (Pedestrians)

| Arm | Profile type | Average pedestrian flow (Ped/hr) |
|--------------------|--------------|----------------------------------|
| 1 - Hengist way E | | |
| 2 - Tothill Street | | |
| 3 - A299 W | [ONEHOUR] | 60.00 |
| 4 - B2190 N | | |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | |
|------|--------------------|-------------------|--------------------|------------|-------------|
| | | 1 - Hengist way E | 2 - Tothill Street | 3 - A299 W | 4 - B2190 N |
| From | 1 - Hengist way E | 0 | 142 | 649 | 158 |
| | 2 - Tothill Street | 128 | 0 | 157 | 212 |
| | 3 - A299 W | 682 | 132 | 0 | 244 |
| | 4 - B2190 N | 126 | 185 | 258 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | |
|------|--------------------|-------------------|--------------------|------------|-------------|
| | | 1 - Hengist way E | 2 - Tothill Street | 3 - A299 W | 4 - B2190 N |
| From | 1 - Hengist way E | 0 | 5 | 13 | 12 |
| | 2 - Tothill Street | 2 | 0 | 12 | 3 |
| | 3 - A299 W | 16 | 8 | 0 | 11 |
| | 4 - B2190 N | 13 | 2 | 5 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|--------------------|---------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - Hengist way E | 0.77 | 0.19 | 3.2 | B | 871 | 1306 |
| 2 - Tothill Street | 0.87 | 0.67 | 5.7 | E | 456 | 684 |
| 3 - A299 W | 0.79 | 0.19 | 3.6 | B | 971 | 1456 |
| 4 - B2190 N | 0.64 | 0.17 | 1.8 | B | 522 | 783 |

Main Results for each time segment

12:45 - 13:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 714 | 179 | 430 | | 1452 | 0.492 | 711 | 700 | 0.0 | 1.0 | 0.081 | A |
| 2 - Tothill Street | 374 | 94 | 797 | | 842 | 0.445 | 371 | 344 | 0.0 | 0.8 | 0.127 | A |
| 3 - A299 W | 797 | 199 | 372 | 45.17 | 1493 | 0.533 | 792 | 796 | 0.0 | 1.1 | 0.085 | A |
| 4 - B2190 N | 428 | 107 | 705 | | 1123 | 0.382 | 426 | 459 | 0.0 | 0.6 | 0.086 | A |

13:00 - 13:15

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 853 | 213 | 516 | | 1414 | 0.604 | 851 | 839 | 1.0 | 1.5 | 0.106 | A |
| 2 - Tothill Street | 447 | 112 | 955 | | 752 | 0.594 | 444 | 412 | 0.8 | 1.4 | 0.193 | B |
| 3 - A299 W | 951 | 238 | 446 | 53.94 | 1476 | 0.645 | 949 | 954 | 1.1 | 1.8 | 0.113 | A |
| 4 - B2190 N | 512 | 128 | 844 | | 1060 | 0.483 | 510 | 550 | 0.6 | 0.9 | 0.109 | A |

13:15 - 13:30

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1045 | 261 | 630 | | 1362 | 0.767 | 1038 | 1022 | 1.5 | 3.1 | 0.182 | B |
| 2 - Tothill Street | 547 | 137 | 1166 | | 633 | 0.864 | 533 | 502 | 1.4 | 5.0 | 0.536 | D |
| 3 - A299 W | 1165 | 291 | 537 | 66.06 | 1474 | 0.790 | 1158 | 1161 | 1.8 | 3.6 | 0.186 | B |
| 4 - B2190 N | 626 | 157 | 1028 | | 977 | 0.641 | 623 | 667 | 0.9 | 1.7 | 0.168 | B |

13:30 - 13:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1045 | 261 | 633 | | 1361 | 0.768 | 1045 | 1030 | 3.1 | 3.2 | 0.189 | B |
| 2 - Tothill Street | 547 | 137 | 1172 | | 629 | 0.870 | 545 | 505 | 5.0 | 5.7 | 0.667 | E |
| 3 - A299 W | 1165 | 291 | 546 | 66.06 | 1510 | 0.771 | 1165 | 1170 | 3.6 | 3.5 | 0.174 | B |
| 4 - B2190 N | 626 | 157 | 1037 | | 973 | 0.644 | 626 | 675 | 1.7 | 1.8 | 0.173 | B |

13:45 - 14:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 853 | 213 | 520 | | 1411 | 0.604 | 860 | 851 | 3.2 | 1.6 | 0.110 | A |
| 2 - Tothill Street | 447 | 112 | 965 | | 747 | 0.598 | 463 | 416 | 5.7 | 1.5 | 0.223 | B |
| 3 - A299 W | 951 | 238 | 460 | 53.94 | 1515 | 0.628 | 958 | 968 | 3.5 | 1.7 | 0.109 | A |
| 4 - B2190 N | 512 | 128 | 856 | | 1054 | 0.485 | 515 | 562 | 1.8 | 1.0 | 0.112 | A |

14:00 - 14:15

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 714 | 179 | 434 | | 1450 | 0.493 | 717 | 707 | 1.6 | 1.0 | 0.082 | A |
| 2 - Tothill Street | 374 | 94 | 804 | | 838 | 0.447 | 377 | 347 | 1.5 | 0.8 | 0.131 | A |
| 3 - A299 W | 797 | 199 | 377 | 45.17 | 1520 | 0.524 | 799 | 804 | 1.7 | 1.1 | 0.083 | A |
| 4 - B2190 N | 428 | 107 | 712 | | 1120 | 0.383 | 430 | 464 | 1.0 | 0.6 | 0.087 | A |

2039 + Dev Traffic, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|------------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3, 4 | 7.62 | F |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | -26 | 2 - Tothill Street |

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 |
|----|--------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D9 | 2039 + Dev Traffic | AM | ONE HOUR | 07:30 | 09:00 | 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 (%) |
|--------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - Hengist way E | | ONE HOUR | ✓ | 1505 | 100.000 |
| 2 - Tothill Street | | ONE HOUR | ✓ | 560 | 100.000 |
| 3 - A299 W | | ONE HOUR | ✓ | 1680 | 100.000 |
| 4 - B2190 N | | ONE HOUR | ✓ | 987 | 100.000 |

Demand overview (Pedestrians)

| Arm | Profile type | Average pedestrian flow (Ped/hr) |
|--------------------|--------------|----------------------------------|
| 1 - Hengist way E | | |
| 2 - Tothill Street | | |
| 3 - A299 W | [ONEHOUR] | 60.00 |
| 4 - B2190 N | | |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | |
|------|--------------------|-------------------|--------------------|------------|-------------|
| | | 1 - Hengist way E | 2 - Tothill Street | 3 - A299 W | 4 - B2190 N |
| From | 1 - Hengist way E | 0 | 140 | 1082 | 283 |
| | 2 - Tothill Street | 185 | 0 | 163 | 212 |
| | 3 - A299 W | 1157 | 138 | 0 | 385 |
| | 4 - B2190 N | 404 | 278 | 305 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | |
|------|--------------------|-------------------|--------------------|------------|-------------|
| | | 1 - Hengist way E | 2 - Tothill Street | 3 - A299 W | 4 - B2190 N |
| From | 1 - Hengist way E | 0 | 5 | 7 | 4 |
| | 2 - Tothill Street | 7 | 0 | 4 | 6 |
| | 3 - A299 W | 11 | 10 | 0 | 9 |
| | 4 - B2190 N | 5 | 2 | 7 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|--------------------|---------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - Hengist way E | 1.16 | 5.11 | 128.2 | F | 1381 | 2072 |
| 2 - Tothill Street | 1.39 | 14.44 | 110.5 | F | 514 | 771 |
| 3 - A299 W | 1.20 | 6.67 | 172.5 | F | 1542 | 2312 |
| 4 - B2190 N | 1.26 | 9.27 | 134.8 | F | 906 | 1359 |

Main Results for each time segment

07:30 - 07:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1133 | 283 | 534 | | 1474 | 0.769 | 1120 | 1295 | 0.0 | 3.2 | 0.164 | A |
| 2 - Tothill Street | 422 | 105 | 1242 | | 617 | 0.683 | 413 | 412 | 0.0 | 2.0 | 0.285 | C |
| 3 - A299 W | 1265 | 316 | 504 | 45.17 | 1531 | 0.826 | 1247 | 1152 | 0.0 | 4.4 | 0.201 | B |
| 4 - B2190 N | 743 | 186 | 1098 | | 966 | 0.769 | 731 | 653 | 0.0 | 3.1 | 0.244 | B |

07:45 - 08:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1353 | 338 | 616 | | 1435 | 0.943 | 1323 | 1505 | 3.2 | 10.7 | 0.446 | D |
| 2 - Tothill Street | 503 | 126 | 1459 | | 499 | 1.009 | 465 | 480 | 2.0 | 11.6 | 1.197 | F |
| 3 - A299 W | 1510 | 378 | 579 | 53.94 | 1541 | 0.980 | 1464 | 1346 | 4.4 | 16.0 | 0.571 | D |
| 4 - B2190 N | 887 | 222 | 1282 | | 884 | 1.004 | 839 | 760 | 3.1 | 15.3 | 0.885 | F |

08:00 - 08:15

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1657 | 414 | 634 | | 1427 | 1.162 | 1419 | 1556 | 10.7 | 70.2 | 1.871 | F |
| 2 - Tothill Street | 617 | 154 | 1552 | | 448 | 1.375 | 446 | 500 | 11.6 | 54.1 | 4.719 | F |
| 3 - A299 W | 1850 | 462 | 583 | 66.06 | 1539 | 1.202 | 1535 | 1416 | 16.0 | 94.7 | 2.303 | F |
| 4 - B2190 N | 1087 | 272 | 1331 | | 862 | 1.261 | 859 | 788 | 15.3 | 72.1 | 3.248 | F |

08:15 - 08:30

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1657 | 414 | 635 | | 1426 | 1.162 | 1425 | 1559 | 70.2 | 128.2 | 4.284 | F |
| 2 - Tothill Street | 617 | 154 | 1558 | | 445 | 1.385 | 445 | 501 | 54.1 | 97.0 | 10.371 | F |
| 3 - A299 W | 1850 | 462 | 583 | 66.06 | 1539 | 1.202 | 1539 | 1420 | 94.7 | 172.5 | 5.301 | F |
| 4 - B2190 N | 1087 | 272 | 1333 | | 861 | 1.262 | 861 | 789 | 72.1 | 128.6 | 7.126 | F |

08:30 - 08:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1353 | 338 | 635 | | 1426 | 0.949 | 1415 | 1555 | 128.2 | 112.7 | 5.113 | F |
| 2 - Tothill Street | 503 | 126 | 1550 | | 450 | 1.119 | 449 | 500 | 97.0 | 110.5 | 14.033 | F |
| 3 - A299 W | 1510 | 378 | 585 | 53.94 | 1538 | 0.982 | 1529 | 1415 | 172.5 | 167.7 | 6.674 | F |
| 4 - B2190 N | 887 | 222 | 1327 | | 864 | 1.027 | 862 | 787 | 128.6 | 134.8 | 9.267 | F |

08:45 - 09:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1133 | 283 | 632 | | 1427 | 0.794 | 1415 | 1552 | 112.7 | 42.3 | 3.328 | F |
| 2 - Tothill Street | 422 | 105 | 1548 | | 451 | 0.935 | 447 | 499 | 110.5 | 104.3 | 14.436 | F |
| 3 - A299 W | 1265 | 316 | 583 | 45.17 | 1539 | 0.822 | 1530 | 1412 | 167.7 | 101.4 | 5.295 | F |
| 4 - B2190 N | 743 | 186 | 1327 | | 864 | 0.860 | 857 | 786 | 134.8 | 106.3 | 8.451 | F |

2039 + Dev Traffic, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|------------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3, 4 | 11.86 | F |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | -35 | 4 - B2190 N |

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 |
|-----|--------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D10 | 2039 + Dev Traffic | PM | ONE HOUR | 16:30 | 18:00 | 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 (%) |
|--------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - Hengist way E | | ONE HOUR | ✓ | 1393 | 100.000 |
| 2 - Tothill Street | | ONE HOUR | ✓ | 563 | 100.000 |
| 3 - A299 W | | ONE HOUR | ✓ | 1941 | 100.000 |
| 4 - B2190 N | | ONE HOUR | ✓ | 1183 | 100.000 |

Demand overview (Pedestrians)

| Arm | Profile type | Average pedestrian flow (Ped/hr) |
|--------------------|--------------|----------------------------------|
| 1 - Hengist way E | | |
| 2 - Tothill Street | | |
| 3 - A299 W | [ONEHOUR] | 60.00 |
| 4 - B2190 N | | |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | |
|------|--------------------|-------------------|--------------------|------------|-------------|
| | | 1 - Hengist way E | 2 - Tothill Street | 3 - A299 W | 4 - B2190 N |
| From | 1 - Hengist way E | 0 | 189 | 927 | 277 |
| | 2 - Tothill Street | 179 | 0 | 170 | 214 |
| | 3 - A299 W | 1394 | 188 | 0 | 359 |
| | 4 - B2190 N | 478 | 298 | 407 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | |
|------|--------------------|-------------------|--------------------|------------|-------------|
| | | 1 - Hengist way E | 2 - Tothill Street | 3 - A299 W | 4 - B2190 N |
| From | 1 - Hengist way E | 0 | 3 | 5 | 3 |
| | 2 - Tothill Street | 2 | 0 | 10 | 1 |
| | 3 - A299 W | 4 | 3 | 0 | 5 |
| | 4 - B2190 N | 3 | 0 | 6 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|--------------------|---------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - Hengist way E | 1.06 | 2.09 | 58.5 | F | 1278 | 1917 |
| 2 - Tothill Street | 1.30 | 9.05 | 80.7 | F | 517 | 775 |
| 3 - A299 W | 1.32 | 11.65 | 327.0 | F | 1781 | 2672 |
| 4 - B2190 N | 1.53 | 25.20 | 357.6 | F | 1086 | 1628 |

Main Results for each time segment

16:30 - 16:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1049 | 262 | 644 | | 1455 | 0.721 | 1039 | 1506 | 0.0 | 2.5 | 0.141 | A |
| 2 - Tothill Street | 424 | 106 | 1189 | | 666 | 0.636 | 417 | 493 | 0.0 | 1.7 | 0.235 | B |
| 3 - A299 W | 1461 | 365 | 498 | 45.17 | 1664 | 0.878 | 1436 | 1108 | 0.0 | 6.3 | 0.241 | B |
| 4 - B2190 N | 891 | 223 | 1303 | | 923 | 0.965 | 846 | 631 | 0.0 | 11.0 | 0.606 | E |

16:45 - 17:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1252 | 313 | 662 | | 1446 | 0.866 | 1239 | 1657 | 2.5 | 5.7 | 0.274 | C |
| 2 - Tothill Street | 506 | 127 | 1363 | | 572 | 0.885 | 491 | 538 | 1.7 | 5.6 | 0.643 | E |
| 3 - A299 W | 1745 | 436 | 589 | 53.94 | 1640 | 1.064 | 1614 | 1265 | 6.3 | 39.1 | 1.016 | F |
| 4 - B2190 N | 1063 | 266 | 1471 | | 852 | 1.248 | 848 | 731 | 11.0 | 64.9 | 2.895 | F |

17:00 - 17:15

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1534 | 383 | 663 | | 1445 | 1.061 | 1418 | 1662 | 5.7 | 34.6 | 1.037 | F |
| 2 - Tothill Street | 620 | 155 | 1518 | | 488 | 1.271 | 483 | 564 | 5.6 | 39.9 | 3.146 | F |
| 3 - A299 W | 2137 | 534 | 619 | 66.06 | 1624 | 1.316 | 1623 | 1382 | 39.1 | 167.7 | 3.926 | F |
| 4 - B2190 N | 1303 | 326 | 1476 | | 850 | 1.533 | 850 | 766 | 64.9 | 178.1 | 8.707 | F |

17:15 - 17:30

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1534 | 383 | 664 | | 1445 | 1.061 | 1438 | 1661 | 34.6 | 58.5 | 2.087 | F |
| 2 - Tothill Street | 620 | 155 | 1536 | | 478 | 1.296 | 478 | 567 | 39.9 | 75.4 | 7.436 | F |
| 3 - A299 W | 2137 | 534 | 619 | 66.06 | 1623 | 1.317 | 1623 | 1394 | 167.7 | 296.2 | 8.645 | F |
| 4 - B2190 N | 1303 | 326 | 1475 | | 850 | 1.532 | 850 | 768 | 178.1 | 291.2 | 16.676 | F |

17:30 - 17:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1252 | 313 | 663 | | 1445 | 0.866 | 1421 | 1662 | 58.5 | 16.2 | 1.654 | F |
| 2 - Tothill Street | 506 | 127 | 1521 | | 486 | 1.041 | 485 | 564 | 75.4 | 80.7 | 9.051 | F |
| 3 - A299 W | 1745 | 436 | 621 | 53.94 | 1622 | 1.076 | 1622 | 1385 | 296.2 | 327.0 | 11.642 | F |
| 4 - B2190 N | 1063 | 266 | 1476 | | 850 | 1.252 | 850 | 767 | 291.2 | 344.7 | 22.639 | F |

17:45 - 18:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1049 | 262 | 655 | | 1450 | 0.723 | 1103 | 1686 | 16.2 | 2.7 | 0.199 | B |
| 2 - Tothill Street | 424 | 106 | 1242 | | 638 | 0.665 | 630 | 516 | 80.7 | 29.2 | 5.308 | F |
| 3 - A299 W | 1461 | 365 | 659 | 45.17 | 1602 | 0.912 | 1597 | 1213 | 327.0 | 293.0 | 11.646 | F |
| 4 - B2190 N | 891 | 223 | 1502 | | 839 | 1.061 | 839 | 754 | 344.7 | 357.6 | 25.199 | F |

2039 + Dev Traffic, Airport Peak

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|------------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3, 4 | 0.37 | C |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | -5 | 2 - Tothill Street |

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 |
|-----|--------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D11 | 2039 + Dev Traffic | Airport Peak | ONE HOUR | 12:45 | 14:15 | 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 (%) |
|--------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - Hengist way E | | ONE HOUR | ✓ | 950 | 100.000 |
| 2 - Tothill Street | | ONE HOUR | ✓ | 509 | 100.000 |
| 3 - A299 W | | ONE HOUR | ✓ | 1178 | 100.000 |
| 4 - B2190 N | | ONE HOUR | ✓ | 611 | 100.000 |

Demand overview (Pedestrians)

| Arm | Profile type | Average pedestrian flow (Ped/hr) |
|--------------------|--------------|----------------------------------|
| 1 - Hengist way E | | |
| 2 - Tothill Street | | |
| 3 - A299 W | [ONEHOUR] | 60.00 |
| 4 - B2190 N | | |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | |
|------|--------------------|-------------------|--------------------|------------|-------------|
| | | 1 - Hengist way E | 2 - Tothill Street | 3 - A299 W | 4 - B2190 N |
| From | 1 - Hengist way E | 0 | 142 | 650 | 158 |
| | 2 - Tothill Street | 128 | 0 | 157 | 224 |
| | 3 - A299 W | 683 | 132 | 0 | 363 |
| | 4 - B2190 N | 126 | 188 | 297 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | |
|------|--------------------|-------------------|--------------------|------------|-------------|
| | | 1 - Hengist way E | 2 - Tothill Street | 3 - A299 W | 4 - B2190 N |
| From | 1 - Hengist way E | 0 | 5 | 13 | 12 |
| | 2 - Tothill Street | 2 | 0 | 12 | 3 |
| | 3 - A299 W | 16 | 8 | 0 | 13 |
| | 4 - B2190 N | 13 | 2 | 10 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|--------------------|---------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - Hengist way E | 0.78 | 0.21 | 3.5 | B | 872 | 1308 |
| 2 - Tothill Street | 0.94 | 1.08 | 9.5 | F | 467 | 701 |
| 3 - A299 W | 0.86 | 0.28 | 5.9 | C | 1081 | 1621 |
| 4 - B2190 N | 0.71 | 0.21 | 2.3 | B | 561 | 841 |

Main Results for each time segment

12:45 - 13:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 715 | 179 | 462 | | 1433 | 0.499 | 711 | 701 | 0.0 | 1.0 | 0.083 | A |
| 2 - Tothill Street | 383 | 96 | 827 | | 820 | 0.467 | 380 | 346 | 0.0 | 0.9 | 0.135 | A |
| 3 - A299 W | 887 | 222 | 381 | 45.17 | 1490 | 0.595 | 881 | 826 | 0.0 | 1.4 | 0.098 | A |
| 4 - B2190 N | 460 | 115 | 705 | | 1098 | 0.419 | 457 | 557 | 0.0 | 0.7 | 0.093 | A |

13:00 - 13:15

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 854 | 214 | 553 | | 1391 | 0.614 | 852 | 839 | 1.0 | 1.6 | 0.111 | A |
| 2 - Tothill Street | 458 | 114 | 991 | | 727 | 0.630 | 454 | 414 | 0.9 | 1.6 | 0.218 | B |
| 3 - A299 W | 1059 | 265 | 456 | 53.94 | 1486 | 0.713 | 1055 | 989 | 1.4 | 2.4 | 0.138 | A |
| 4 - B2190 N | 549 | 137 | 844 | | 1037 | 0.530 | 548 | 667 | 0.7 | 1.1 | 0.122 | A |

13:15 - 13:30

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1046 | 261 | 674 | | 1335 | 0.783 | 1039 | 1018 | 1.6 | 3.4 | 0.198 | B |
| 2 - Tothill Street | 560 | 140 | 1208 | | 602 | 0.930 | 537 | 505 | 1.6 | 7.5 | 0.744 | E |
| 3 - A299 W | 1297 | 324 | 544 | 66.06 | 1509 | 0.860 | 1285 | 1201 | 2.4 | 5.5 | 0.255 | C |
| 4 - B2190 N | 673 | 168 | 1024 | | 957 | 0.703 | 668 | 805 | 1.1 | 2.3 | 0.204 | B |

13:30 - 13:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1046 | 261 | 679 | | 1333 | 0.785 | 1046 | 1029 | 3.4 | 3.5 | 0.208 | B |
| 2 - Tothill Street | 560 | 140 | 1216 | | 598 | 0.938 | 553 | 508 | 7.5 | 9.5 | 1.081 | F |
| 3 - A299 W | 1297 | 324 | 556 | 66.06 | 1502 | 0.863 | 1295 | 1213 | 5.5 | 5.9 | 0.285 | C |
| 4 - B2190 N | 673 | 168 | 1035 | | 952 | 0.706 | 672 | 816 | 2.3 | 2.3 | 0.214 | B |

13:45 - 14:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 854 | 214 | 560 | | 1388 | 0.615 | 862 | 859 | 3.5 | 1.6 | 0.116 | A |
| 2 - Tothill Street | 458 | 114 | 1002 | | 720 | 0.635 | 488 | 420 | 9.5 | 1.8 | 0.290 | C |
| 3 - A299 W | 1059 | 265 | 481 | 53.94 | 1542 | 0.687 | 1074 | 1009 | 5.9 | 2.3 | 0.132 | A |
| 4 - B2190 N | 549 | 137 | 865 | | 1028 | 0.535 | 554 | 689 | 2.3 | 1.2 | 0.128 | A |

14:00 - 14:15

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 715 | 179 | 466 | | 1431 | 0.500 | 718 | 709 | 1.6 | 1.0 | 0.084 | A |
| 2 - Tothill Street | 383 | 96 | 835 | | 816 | 0.470 | 387 | 349 | 1.8 | 0.9 | 0.141 | A |
| 3 - A299 W | 887 | 222 | 387 | 45.17 | 1526 | 0.581 | 890 | 835 | 2.3 | 1.4 | 0.095 | A |
| 4 - B2190 N | 460 | 115 | 713 | | 1095 | 0.420 | 462 | 564 | 1.2 | 0.7 | 0.095 | A |

2039 B+Dev Net Change, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|------------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3, 4 | 8.34 | F |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | -29 | 4 - B2190 N |

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 |
|-----|-----------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D12 | 2039 B+Dev Net Change | AM | ONE HOUR | 07:30 | 09:00 | 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 (%) |
|--------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - Hengist way E | | ONE HOUR | ✓ | 1382 | 100.000 |
| 2 - Tothill Street | | ONE HOUR | ✓ | 560 | 100.000 |
| 3 - A299 W | | ONE HOUR | ✓ | 1680 | 100.000 |
| 4 - B2190 N | | ONE HOUR | ✓ | 1110 | 100.000 |

Demand overview (Pedestrians)

| Arm | Profile type | Average pedestrian flow (Ped/hr) |
|--------------------|--------------|----------------------------------|
| 1 - Hengist way E | | |
| 2 - Tothill Street | | |
| 3 - A299 W | [ONEHOUR] | 60.00 |
| 4 - B2190 N | | |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | |
|------|--------------------|-------------------|--------------------|------------|-------------|
| | | 1 - Hengist way E | 2 - Tothill Street | 3 - A299 W | 4 - B2190 N |
| From | 1 - Hengist way E | 0 | 140 | 959 | 283 |
| | 2 - Tothill Street | 185 | 0 | 163 | 212 |
| | 3 - A299 W | 1074 | 138 | 0 | 468 |
| | 4 - B2190 N | 404 | 278 | 428 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | |
|------|--------------------|-------------------|--------------------|------------|-------------|
| | | 1 - Hengist way E | 2 - Tothill Street | 3 - A299 W | 4 - B2190 N |
| From | 1 - Hengist way E | 0 | 5 | 6 | 4 |
| | 2 - Tothill Street | 7 | 0 | 4 | 6 |
| | 3 - A299 W | 11 | 10 | 0 | 9 |
| | 4 - B2190 N | 5 | 2 | 9 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|--------------------|---------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - Hengist way E | 1.08 | 2.53 | 70.9 | F | 1268 | 1902 |
| 2 - Tothill Street | 1.46 | 14.49 | 124.1 | F | 514 | 771 |
| 3 - A299 W | 1.20 | 6.71 | 172.9 | F | 1542 | 2312 |
| 4 - B2190 N | 1.37 | 15.00 | 224.9 | F | 1019 | 1528 |

Main Results for each time segment

07:30 - 07:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1040 | 260 | 622 | | 1439 | 0.723 | 1030 | 1231 | 0.0 | 2.5 | 0.143 | A |
| 2 - Tothill Street | 422 | 105 | 1241 | | 618 | 0.682 | 414 | 411 | 0.0 | 2.0 | 0.283 | C |
| 3 - A299 W | 1265 | 316 | 504 | 45.17 | 1532 | 0.826 | 1247 | 1150 | 0.0 | 4.4 | 0.200 | B |
| 4 - B2190 N | 836 | 209 | 1036 | | 984 | 0.849 | 816 | 715 | 0.0 | 4.9 | 0.327 | C |

07:45 - 08:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1242 | 311 | 686 | | 1408 | 0.882 | 1227 | 1414 | 2.5 | 6.4 | 0.308 | C |
| 2 - Tothill Street | 503 | 126 | 1446 | | 507 | 0.992 | 469 | 467 | 2.0 | 10.5 | 1.115 | F |
| 3 - A299 W | 1510 | 378 | 584 | 53.94 | 1540 | 0.981 | 1463 | 1331 | 4.4 | 16.1 | 0.575 | D |
| 4 - B2190 N | 998 | 249 | 1211 | | 907 | 1.100 | 890 | 837 | 4.9 | 31.9 | 1.478 | F |

08:00 - 08:15

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1522 | 380 | 692 | | 1405 | 1.083 | 1384 | 1446 | 6.4 | 40.7 | 1.204 | F |
| 2 - Tothill Street | 617 | 154 | 1587 | | 431 | 1.430 | 429 | 489 | 10.5 | 57.3 | 5.069 | F |
| 3 - A299 W | 1850 | 462 | 588 | 66.06 | 1538 | 1.203 | 1534 | 1429 | 16.1 | 95.1 | 2.314 | F |
| 4 - B2190 N | 1222 | 306 | 1248 | | 890 | 1.373 | 889 | 873 | 31.9 | 115.1 | 5.118 | F |

08:15 - 08:30

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1522 | 380 | 692 | | 1405 | 1.083 | 1401 | 1447 | 40.7 | 70.9 | 2.531 | F |
| 2 - Tothill Street | 617 | 154 | 1602 | | 423 | 1.457 | 423 | 491 | 57.3 | 105.7 | 11.701 | F |
| 3 - A299 W | 1850 | 462 | 587 | 66.06 | 1539 | 1.202 | 1538 | 1438 | 95.1 | 172.9 | 5.317 | F |
| 4 - B2190 N | 1222 | 306 | 1249 | | 890 | 1.374 | 889 | 875 | 115.1 | 198.3 | 10.674 | F |

08:30 - 08:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1242 | 311 | 693 | | 1405 | 0.885 | 1385 | 1444 | 70.9 | 35.3 | 2.343 | F |
| 2 - Tothill Street | 503 | 126 | 1589 | | 430 | 1.170 | 430 | 489 | 105.7 | 124.1 | 14.490 | F |
| 3 - A299 W | 1510 | 378 | 589 | 53.94 | 1538 | 0.982 | 1529 | 1430 | 172.9 | 168.3 | 6.712 | F |
| 4 - B2190 N | 998 | 249 | 1245 | | 892 | 1.119 | 891 | 872 | 198.3 | 224.9 | 14.413 | F |

08:45 - 09:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1040 | 260 | 683 | | 1409 | 0.738 | 1170 | 1463 | 35.3 | 3.0 | 0.393 | C |
| 2 - Tothill Street | 422 | 105 | 1390 | | 537 | 0.785 | 533 | 463 | 124.1 | 96.2 | 12.416 | F |
| 3 - A299 W | 1265 | 316 | 617 | 45.17 | 1522 | 0.831 | 1513 | 1305 | 168.3 | 106.3 | 5.464 | F |
| 4 - B2190 N | 836 | 209 | 1267 | | 882 | 0.947 | 878 | 863 | 224.9 | 214.2 | 15.000 | F |

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.0.2.5947
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Filename: Jct 4_A256_B2190_R1_PM_validated.j9

Path: R:\Projects\38199 Manston Airport DCO EIA\4 Design\Transport\Junction Modelling\Base Models\Validated\Jct 4_A256_B2190

Report generation date: 26/01/2018 16:45:39

-
- »2017 Baseline Traffic, AM
 - »2017 Baseline Traffic, PM
 - »2017 Baseline Traffic, Airport Peak
 - »2039 Growthed Traffic, AM
 - »2039 Growthed Traffic, PM
 - »2039 Growthed Traffic, Airport Peak
 - »2039 + Dev Traffic, AM
 - »2039 + Dev Traffic, PM
 - »2039 + Dev Traffic, Airport Peak
 - »2039 B+Dev Net Change, PM
 - »2039 B+Dev Net Change, Airport Peak

Summary of junction performance

| | AM | | | | | PM | | | | | Airport Peak | | | | |
|------------------------------|-------------|-------------|------|-----|-------------------------------|-------------|-------------|------|-----|-------------------------------|--------------|-------------|------|-----|-------------------------------|
| | Queue (Veh) | Delay (min) | RFC | LOS | Network Residual Capacity | Queue (Veh) | Delay (min) | RFC | LOS | Network Residual Capacity | Queue (Veh) | Delay (min) | RFC | LOS | Network Residual Capacity |
| 2017 Baseline Traffic | | | | | | | | | | | | | | | |
| 1 - Hengist way E | 105.3 | 4.32 | 1.15 | F | -20 % [2 - Tothill Street] | 8.8 | 0.48 | 0.91 | D | -7 % [2 - Tothill Street] | 1.6 | 0.12 | 0.61 | A | 16 % [2 - Tothill Street] |
| 2 - Tothill Street | 37.2 | 4.63 | 1.14 | F | | 8.6 | 1.17 | 0.93 | F | | 1.8 | 0.26 | 0.64 | C | |
| 3 - A299 W | 16.7 | 0.66 | 0.96 | E | | 12.0 | 0.48 | 0.94 | D | | 1.3 | 0.09 | 0.57 | A | |
| 4 - B2190 N | 13.0 | 0.92 | 0.96 | F | | 17.7 | 1.18 | 0.99 | F | | 0.7 | 0.08 | 0.40 | A | |
| 2039 Growthed Traffic | | | | | | | | | | | | | | | |
| 1 - Hengist way E | 336.8 | 15.73 | 1.39 | F | -37 % [2 - Tothill Street] | 143.4 | 7.07 | 1.21 | F | -30 % [2 - Tothill Street] | 6.3 | 0.38 | 0.87 | C | -14 % [2 - Tothill Street] |
| 2 - Tothill Street | 163.6 | 23.00 | 1.50 | F | | 112.7 | 15.47 | 1.39 | F | | 31.1 | 3.20 | 1.09 | F | |
| 3 - A299 W | 192.6 | 7.00 | 1.21 | F | | 167.9 | 5.63 | 1.18 | F | | 3.1 | 0.16 | 0.76 | A | |
| 4 - B2190 N | 121.3 | 8.14 | 1.24 | F | | 163.2 | 10.69 | 1.30 | F | | 1.5 | 0.14 | 0.60 | A | |
| 2039 + Dev Traffic | | | | | | | | | | | | | | | |
| 1 - Hengist way E | 346.0 | 16.30 | 1.40 | F | -38 % [2 - Tothill Street] | 154.9 | 7.77 | 1.22 | F | -33 % [2 - Tothill Street] | 7.4 | 0.45 | 0.89 | D | -17 % [2 - Tothill Street] |
| 2 - Tothill Street | 187.5 | 26.50 | 1.56 | F | | 131.1 | 19.08 | 1.45 | F | | 47.6 | 4.75 | 1.18 | F | |
| 3 - A299 W | 222.4 | 8.14 | 1.24 | F | | 188.2 | 6.47 | 1.20 | F | | 4.4 | 0.21 | 0.83 | B | |
| 4 - B2190 N | 142.4 | 9.40 | 1.26 | F | | 269.5 | 18.09 | 1.44 | F | | 1.8 | 0.17 | 0.65 | B | |
| 2039 B+Dev Net Change | | | | | | | | | | | | | | | |
| 1 - Hengist way E | | | | | | 98.8 | 4.69 | 1.15 | F | -33 % [2 - Tothill Street] | 4.5 | 0.30 | 0.83 | C | -17 % [2 - Tothill Street] |
| 2 - Tothill Street | | | | | | 140.8 | 21.10 | 1.49 | F | | 47.9 | 4.77 | 1.18 | F | |
| 3 - A299 W | | | | | | 189.3 | 6.53 | 1.20 | F | | 4.4 | 0.21 | 0.83 | B | |
| 4 - B2190 N | | | | | | 330.6 | 20.97 | 1.48 | F | | 3.0 | 0.24 | 0.76 | B | |

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

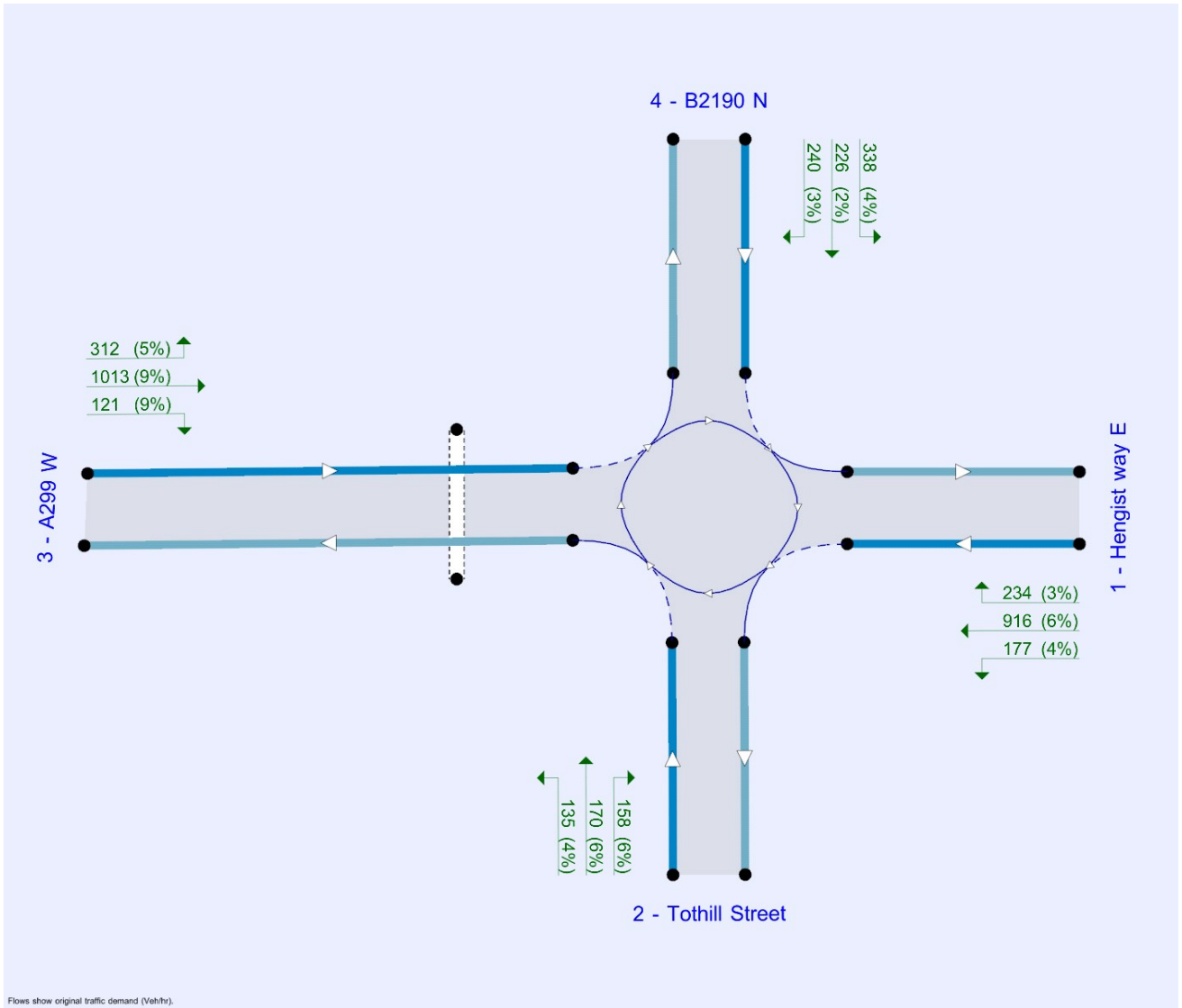
File summary

File Description

| | |
|-------------|----------------|
| Title | (untitled) |
| Location | |
| Site number | |
| Date | 29/09/2017 |
| Version | |
| Status | (new file) |
| Identifier | |
| Client | |
| Jobnumber | |
| Enumerator | GLOBALadam.guy |
| 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 | mph | Veh | Veh | perHour | min | -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 | Residual capacity criteria type | RFC Threshold | Average Delay threshold (min) | Queue threshold (PCU) |
|--------------------|-----------------------------|-----------------------------------|-----------------------------|---------------------------------|---------------|-------------------------------|-----------------------|
| 5.75 | | | ✓ | Delay | 0.85 | 0.60 | 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 |
|-----|-----------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D3 | 2017 Baseline Traffic | AM | ONE HOUR | 07:30 | 09:00 | 15 | ✓ |
| D4 | 2017 Baseline Traffic | PM | ONE HOUR | 16:30 | 18:00 | 15 | ✓ |
| D5 | 2017 Baseline Traffic | Airport Peak | ONE HOUR | 12:45 | 14:15 | 15 | ✓ |
| D6 | 2039 Growthed Traffic | AM | ONE HOUR | 07:30 | 09:00 | 15 | ✓ |
| D7 | 2039 Growthed Traffic | PM | ONE HOUR | 16:30 | 18:00 | 15 | ✓ |
| D8 | 2039 Growthed Traffic | Airport Peak | ONE HOUR | 12:45 | 14:15 | 15 | ✓ |
| D9 | 2039 + Dev Traffic | AM | ONE HOUR | 07:30 | 09:00 | 15 | ✓ |
| D10 | 2039 + Dev Traffic | PM | ONE HOUR | 16:30 | 18:00 | 15 | ✓ |
| D11 | 2039 + Dev Traffic | Airport Peak | ONE HOUR | 12:45 | 14:15 | 15 | ✓ |
| D12 | 2039 B+Dev Net Change | PM | ONE HOUR | 16:30 | 18:00 | 15 | ✓ |
| D13 | 2039 B+Dev Net Change | Airport Peak | ONE HOUR | 12:45 | 14:15 | 15 | ✓ |

Analysis Set Details

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

2017 Baseline Traffic, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|------------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3, 4 | 2.36 | F |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | -20 | 2 - Tothill Street |

Arms

Arms

| Arm | Name | Description |
|-----|----------------|-------------|
| 1 | Hengist way E | |
| 2 | Tothill Street | |
| 3 | A299 W | |
| 4 | B2190 N | |

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 |
|--------------------|----------------------------------|---------------------|---------------------------------|----------------------|-----------------------------------|------------------------------------|-----------|
| 1 - Hengist way E | 7.50 | 8.80 | 15.6 | 39.0 | 65.0 | 14.5 | |
| 2 - Tothill Street | 3.20 | 4.01 | 2.3 | 22.0 | 65.0 | 31.5 | |
| 3 - A299 W | 7.47 | 7.47 | 0.0 | 34.0 | 65.0 | 28.0 | |
| 4 - B2190 N | 7.33 | 7.33 | 0.0 | 20.0 | 65.0 | 23.0 | |

Pelican/Puffin Crossings

| Arm | Space between crossing and junction entry (Signalised) (PCU) | Amber time preceding red (s) | Amber time regarded as green (s) | Time from traffic red start to green man start (s) | Time period green man shown (s) | Clearance Period (s) | Traffic minimum green (s) |
|------------|--|------------------------------|----------------------------------|--|---------------------------------|----------------------|---------------------------|
| 3 - A299 W | 7.00 | 3.00 | 2.90 | 1.00 | 6.00 | 6.00 | 7.00 |

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

| Arm | Final slope | Final intercept (PCU/hr) |
|--------------------|-------------|--------------------------|
| 1 - Hengist way E | 0.728 | 2784 |
| 2 - Tothill Street | 0.428 | 1084 |
| 3 - A299 W | 0.639 | 2325 |
| 4 - B2190 N | 0.631 | 2275 |

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

Arm Capacity Adjustments

| Arm | Type | Reason | Percentage capacity adjustment (%) |
|--------------------|------------|--------|------------------------------------|
| 1 - Hengist way E | Percentage | | 58.00 |
| 2 - Tothill Street | Percentage | | 100.00 |
| 3 - A299 W | Percentage | | 91.00 |
| 4 - B2190 N | Percentage | | 72.00 |

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 | 2017 Baseline Traffic | AM | ONE HOUR | 07:30 | 09:00 | 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 (%) |
|--------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - Hengist way E | | ONE HOUR | ✓ | 1327 | 100.000 |
| 2 - Tothill Street | | ONE HOUR | ✓ | 463 | 100.000 |
| 3 - A299 W | | ONE HOUR | ✓ | 1446 | 100.000 |
| 4 - B2190 N | | ONE HOUR | ✓ | 804 | 100.000 |

Demand overview (Pedestrians)

| Arm | Profile type | Average pedestrian flow (Ped/hr) |
|--------------------|--------------|----------------------------------|
| 1 - Hengist way E | | |
| 2 - Tothill Street | | |
| 3 - A299 W | [ONEHOUR] | 60.00 |
| 4 - B2190 N | | |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | |
|------|--------------------|-------------------|--------------------|------------|-------------|
| | | 1 - Hengist way E | 2 - Tothill Street | 3 - A299 W | 4 - B2190 N |
| From | 1 - Hengist way E | 0 | 177 | 916 | 234 |
| | 2 - Tothill Street | 158 | 0 | 135 | 170 |
| | 3 - A299 W | 1013 | 121 | 0 | 312 |
| | 4 - B2190 N | 338 | 226 | 240 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | |
|------|--------------------|-------------------|--------------------|------------|-------------|
| | | 1 - Hengist way E | 2 - Tothill Street | 3 - A299 W | 4 - B2190 N |
| From | 1 - Hengist way E | 0 | 4 | 6 | 3 |
| | 2 - Tothill Street | 6 | 0 | 4 | 6 |
| | 3 - A299 W | 9 | 9 | 0 | 5 |
| | 4 - B2190 N | 4 | 2 | 3 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|--------------------|---------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - Hengist way E | 1.15 | 4.32 | 105.3 | F | 1218 | 1827 |
| 2 - Tothill Street | 1.14 | 4.63 | 37.2 | F | 425 | 637 |
| 3 - A299 W | 0.96 | 0.66 | 16.7 | E | 1327 | 1990 |
| 4 - B2190 N | 0.96 | 0.92 | 13.0 | F | 738 | 1107 |

Main Results for each time segment

07:30 - 07:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 999 | 250 | 439 | | 1352 | 0.739 | 988 | 1127 | 0.0 | 2.7 | 0.160 | A |
| 2 - Tothill Street | 349 | 87 | 1036 | | 587 | 0.594 | 343 | 391 | 0.0 | 1.4 | 0.241 | B |
| 3 - A299 W | 1089 | 272 | 417 | 45.17 | 1618 | 0.673 | 1081 | 961 | 0.0 | 2.0 | 0.110 | A |
| 4 - B2190 N | 605 | 151 | 964 | | 1127 | 0.537 | 601 | 533 | 0.0 | 1.1 | 0.113 | A |

07:45 - 08:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1193 | 298 | 525 | | 1316 | 0.906 | 1173 | 1347 | 2.7 | 7.6 | 0.376 | C |
| 2 - Tothill Street | 416 | 104 | 1231 | | 503 | 0.827 | 406 | 467 | 1.4 | 3.9 | 0.566 | D |
| 3 - A299 W | 1300 | 325 | 495 | 53.94 | 1638 | 0.794 | 1293 | 1143 | 2.0 | 3.7 | 0.171 | B |
| 4 - B2190 N | 723 | 181 | 1153 | | 1037 | 0.697 | 718 | 635 | 1.1 | 2.2 | 0.186 | B |

08:00 - 08:15

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1461 | 365 | 625 | | 1274 | 1.147 | 1264 | 1597 | 7.6 | 57.0 | 1.713 | F |
| 2 - Tothill Street | 510 | 127 | 1350 | | 453 | 1.126 | 440 | 539 | 3.9 | 21.3 | 2.078 | F |
| 3 - A299 W | 1592 | 398 | 535 | 66.06 | 1655 | 0.962 | 1553 | 1256 | 3.7 | 13.5 | 0.467 | D |
| 4 - B2190 N | 885 | 221 | 1368 | | 934 | 0.948 | 855 | 719 | 2.2 | 9.8 | 0.609 | E |

08:15 - 08:30

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1461 | 365 | 638 | | 1269 | 1.151 | 1268 | 1625 | 57.0 | 105.3 | 3.946 | F |
| 2 - Tothill Street | 510 | 127 | 1359 | | 449 | 1.135 | 446 | 547 | 21.3 | 37.2 | 4.226 | F |
| 3 - A299 W | 1592 | 398 | 540 | 66.06 | 1652 | 0.964 | 1579 | 1266 | 13.5 | 16.7 | 0.664 | E |
| 4 - B2190 N | 885 | 221 | 1391 | | 923 | 0.959 | 873 | 728 | 9.8 | 13.0 | 0.922 | F |

08:30 - 08:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1193 | 298 | 556 | | 1303 | 0.915 | 1291 | 1419 | 105.3 | 80.8 | 4.322 | F |
| 2 - Tothill Street | 416 | 104 | 1347 | | 454 | 0.917 | 442 | 500 | 37.2 | 30.8 | 4.625 | F |
| 3 - A299 W | 1300 | 325 | 541 | 53.94 | 1651 | 0.787 | 1351 | 1248 | 16.7 | 3.9 | 0.230 | B |
| 4 - B2190 N | 723 | 181 | 1210 | | 1009 | 0.716 | 764 | 682 | 13.0 | 2.7 | 0.282 | C |

08:45 - 09:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 999 | 250 | 446 | | 1349 | 0.741 | 1308 | 1179 | 80.8 | 3.6 | 1.871 | F |
| 2 - Tothill Street | 349 | 87 | 1316 | | 467 | 0.747 | 452 | 438 | 30.8 | 4.8 | 2.557 | F |
| 3 - A299 W | 1089 | 272 | 551 | 45.17 | 1621 | 0.672 | 1096 | 1217 | 3.9 | 2.1 | 0.116 | A |
| 4 - B2190 N | 605 | 151 | 1014 | | 1104 | 0.548 | 611 | 633 | 2.7 | 1.2 | 0.123 | A |

2017 Baseline Traffic, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|------------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3, 4 | 0.71 | E |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | -7 | 2 - Tothill Street |

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 | 2017 Baseline Traffic | PM | ONE HOUR | 16:30 | 18:00 | 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 (%) |
|--------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - Hengist way E | | ONE HOUR | ✓ | 1060 | 100.000 |
| 2 - Tothill Street | | ONE HOUR | ✓ | 427 | 100.000 |
| 3 - A299 W | | ONE HOUR | ✓ | 1463 | 100.000 |
| 4 - B2190 N | | ONE HOUR | ✓ | 829 | 100.000 |

Demand overview (Pedestrians)

| Arm | Profile type | Average pedestrian flow (Ped/hr) |
|--------------------|--------------|----------------------------------|
| 1 - Hengist way E | | |
| 2 - Tothill Street | | |
| 3 - A299 W | [ONEHOUR] | 60.00 |
| 4 - B2190 N | | |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | |
|------|--------------------|-------------------|--------------------|------------|-------------|
| | | 1 - Hengist way E | 2 - Tothill Street | 3 - A299 W | 4 - B2190 N |
| From | 1 - Hengist way E | 0 | 145 | 701 | 214 |
| | 2 - Tothill Street | 139 | 0 | 121 | 167 |
| | 3 - A299 W | 1066 | 145 | 0 | 252 |
| | 4 - B2190 N | 369 | 226 | 234 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | |
|------|--------------------|-------------------|--------------------|------------|-------------|
| | | 1 - Hengist way E | 2 - Tothill Street | 3 - A299 W | 4 - B2190 N |
| From | 1 - Hengist way E | 0 | 3 | 5 | 3 |
| | 2 - Tothill Street | 2 | 0 | 11 | 1 |
| | 3 - A299 W | 4 | 3 | 0 | 2 |
| | 4 - B2190 N | 3 | 0 | 2 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|--------------------|---------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - Hengist way E | 0.91 | 0.48 | 8.8 | D | 973 | 1459 |
| 2 - Tothill Street | 0.93 | 1.17 | 8.6 | F | 392 | 588 |
| 3 - A299 W | 0.94 | 0.48 | 12.0 | D | 1342 | 2014 |
| 4 - B2190 N | 0.99 | 1.18 | 17.7 | F | 761 | 1141 |

Main Results for each time segment

16:30 - 16:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 798 | 200 | 452 | | 1362 | 0.586 | 792 | 1176 | 0.0 | 1.4 | 0.104 | A |
| 2 - Tothill Street | 321 | 80 | 859 | | 673 | 0.477 | 318 | 386 | 0.0 | 0.9 | 0.167 | B |
| 3 - A299 W | 1101 | 275 | 388 | 45.17 | 1706 | 0.646 | 1094 | 789 | 0.0 | 1.8 | 0.097 | A |
| 4 - B2190 N | 624 | 156 | 1009 | | 1141 | 0.547 | 619 | 473 | 0.0 | 1.2 | 0.114 | A |

16:45 - 17:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 953 | 238 | 541 | | 1326 | 0.719 | 949 | 1408 | 1.4 | 2.5 | 0.157 | A |
| 2 - Tothill Street | 384 | 96 | 1028 | | 601 | 0.638 | 381 | 461 | 0.9 | 1.7 | 0.268 | C |
| 3 - A299 W | 1315 | 329 | 464 | 53.94 | 1713 | 0.768 | 1310 | 944 | 1.8 | 3.2 | 0.147 | A |
| 4 - B2190 N | 745 | 186 | 1208 | | 1049 | 0.710 | 741 | 566 | 1.2 | 2.3 | 0.191 | B |

17:00 - 17:15

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1167 | 292 | 641 | | 1285 | 0.909 | 1146 | 1688 | 2.5 | 7.7 | 0.385 | C |
| 2 - Tothill Street | 470 | 118 | 1236 | | 512 | 0.918 | 451 | 551 | 1.7 | 6.6 | 0.797 | E |
| 3 - A299 W | 1611 | 403 | 554 | 66.06 | 1725 | 0.934 | 1583 | 1132 | 3.2 | 10.2 | 0.365 | C |
| 4 - B2190 N | 913 | 228 | 1457 | | 934 | 0.977 | 872 | 680 | 2.3 | 12.4 | 0.715 | E |

17:15 - 17:30

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1167 | 292 | 654 | | 1279 | 0.912 | 1163 | 1716 | 7.7 | 8.8 | 0.482 | D |
| 2 - Tothill Street | 470 | 118 | 1255 | | 504 | 0.933 | 462 | 561 | 6.6 | 8.6 | 1.167 | F |
| 3 - A299 W | 1611 | 403 | 566 | 66.06 | 1718 | 0.938 | 1604 | 1152 | 10.2 | 12.0 | 0.475 | D |
| 4 - B2190 N | 913 | 228 | 1478 | | 925 | 0.987 | 892 | 692 | 12.4 | 17.7 | 1.180 | F |

17:30 - 17:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 953 | 238 | 580 | | 1309 | 0.728 | 977 | 1476 | 8.8 | 2.8 | 0.192 | B |
| 2 - Tothill Street | 384 | 96 | 1070 | | 583 | 0.658 | 410 | 487 | 8.6 | 2.0 | 0.392 | C |
| 3 - A299 W | 1315 | 329 | 491 | 53.94 | 1761 | 0.747 | 1351 | 989 | 12.0 | 3.1 | 0.158 | A |
| 4 - B2190 N | 745 | 186 | 1252 | | 1029 | 0.724 | 805 | 590 | 17.7 | 2.8 | 0.333 | C |

17:45 - 18:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 798 | 200 | 459 | | 1359 | 0.587 | 803 | 1193 | 2.8 | 1.4 | 0.109 | A |
| 2 - Tothill Street | 321 | 80 | 871 | | 668 | 0.481 | 326 | 391 | 2.0 | 0.9 | 0.177 | B |
| 3 - A299 W | 1101 | 275 | 396 | 45.17 | 1755 | 0.627 | 1107 | 802 | 3.1 | 1.7 | 0.093 | A |
| 4 - B2190 N | 624 | 156 | 1022 | | 1135 | 0.550 | 630 | 480 | 2.8 | 1.2 | 0.120 | A |

2017 Baseline Traffic, Airport Peak

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|------------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3, 4 | 0.13 | A |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | 16 | 2 - Tothill Street |

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 | 2017 Baseline Traffic | Airport Peak | ONE HOUR | 12:45 | 14:15 | 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 (%) |
|--------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - Hengist way E | | ONE HOUR | ✓ | 708 | 100.000 |
| 2 - Tothill Street | | ONE HOUR | ✓ | 372 | 100.000 |
| 3 - A299 W | | ONE HOUR | ✓ | 789 | 100.000 |
| 4 - B2190 N | | ONE HOUR | ✓ | 426 | 100.000 |

Demand overview (Pedestrians)

| Arm | Profile type | Average pedestrian flow (Ped/hr) |
|--------------------|--------------|----------------------------------|
| 1 - Hengist way E | | |
| 2 - Tothill Street | | |
| 3 - A299 W | [ONEHOUR] | 60.00 |
| 4 - B2190 N | | |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | |
|------|--------------------|-------------------|--------------------|------------|-------------|
| | | 1 - Hengist way E | 2 - Tothill Street | 3 - A299 W | 4 - B2190 N |
| From | 1 - Hengist way E | 0 | 106 | 484 | 118 |
| | 2 - Tothill Street | 96 | 0 | 117 | 159 |
| | 3 - A299 W | 508 | 99 | 0 | 182 |
| | 4 - B2190 N | 94 | 139 | 193 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | |
|------|--------------------|-------------------|--------------------|------------|-------------|
| | | 1 - Hengist way E | 2 - Tothill Street | 3 - A299 W | 4 - B2190 N |
| From | 1 - Hengist way E | 0 | 5 | 12 | 11 |
| | 2 - Tothill Street | 2 | 0 | 12 | 3 |
| | 3 - A299 W | 15 | 8 | 0 | 10 |
| | 4 - B2190 N | 13 | 2 | 5 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|--------------------|---------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - Hengist way E | 0.61 | 0.12 | 1.6 | A | 650 | 975 |
| 2 - Tothill Street | 0.64 | 0.26 | 1.8 | C | 341 | 512 |
| 3 - A299 W | 0.57 | 0.09 | 1.3 | A | 724 | 1086 |
| 4 - B2190 N | 0.40 | 0.08 | 0.7 | A | 391 | 586 |

Main Results for each time segment

12:45 - 13:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 533 | 133 | 323 | | 1329 | 0.401 | 530 | 523 | 0.0 | 0.7 | 0.075 | A |
| 2 - Tothill Street | 280 | 70 | 596 | | 761 | 0.368 | 278 | 258 | 0.0 | 0.6 | 0.124 | A |
| 3 - A299 W | 594 | 149 | 279 | 45.17 | 1593 | 0.373 | 592 | 595 | 0.0 | 0.6 | 0.060 | A |
| 4 - B2190 N | 321 | 80 | 527 | | 1295 | 0.248 | 319 | 344 | 0.0 | 0.3 | 0.061 | A |

13:00 - 13:15

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 636 | 159 | 387 | | 1303 | 0.488 | 635 | 626 | 0.7 | 0.9 | 0.090 | A |
| 2 - Tothill Street | 334 | 84 | 714 | | 708 | 0.472 | 333 | 309 | 0.6 | 0.9 | 0.160 | A |
| 3 - A299 W | 709 | 177 | 334 | 53.94 | 1561 | 0.454 | 708 | 712 | 0.6 | 0.8 | 0.070 | A |
| 4 - B2190 N | 383 | 96 | 631 | | 1244 | 0.308 | 383 | 412 | 0.3 | 0.4 | 0.070 | A |

13:15 - 13:30

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 780 | 195 | 474 | | 1269 | 0.615 | 777 | 766 | 0.9 | 1.6 | 0.121 | A |
| 2 - Tothill Street | 410 | 102 | 873 | | 637 | 0.643 | 406 | 378 | 0.9 | 1.7 | 0.256 | C |
| 3 - A299 W | 869 | 217 | 408 | 66.06 | 1519 | 0.572 | 867 | 871 | 0.8 | 1.3 | 0.092 | A |
| 4 - B2190 N | 469 | 117 | 772 | | 1177 | 0.399 | 468 | 503 | 0.4 | 0.7 | 0.085 | A |

13:30 - 13:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 780 | 195 | 475 | | 1268 | 0.615 | 779 | 768 | 1.6 | 1.6 | 0.123 | A |
| 2 - Tothill Street | 410 | 102 | 875 | | 636 | 0.644 | 409 | 379 | 1.7 | 1.8 | 0.264 | C |
| 3 - A299 W | 869 | 217 | 411 | 66.06 | 1530 | 0.568 | 869 | 874 | 1.3 | 1.3 | 0.091 | A |
| 4 - B2190 N | 469 | 117 | 774 | | 1176 | 0.399 | 469 | 505 | 0.7 | 0.7 | 0.085 | A |

13:45 - 14:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 636 | 159 | 388 | | 1303 | 0.489 | 639 | 630 | 1.6 | 1.0 | 0.091 | A |
| 2 - Tothill Street | 334 | 84 | 717 | | 706 | 0.473 | 338 | 310 | 1.8 | 0.9 | 0.164 | A |
| 3 - A299 W | 709 | 177 | 338 | 53.94 | 1575 | 0.450 | 711 | 717 | 1.3 | 0.8 | 0.070 | A |
| 4 - B2190 N | 383 | 96 | 634 | | 1243 | 0.308 | 384 | 415 | 0.7 | 0.4 | 0.070 | A |

14:00 - 14:15

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 533 | 133 | 325 | | 1328 | 0.401 | 534 | 527 | 1.0 | 0.7 | 0.076 | A |
| 2 - Tothill Street | 280 | 70 | 600 | | 759 | 0.369 | 281 | 259 | 0.9 | 0.6 | 0.126 | A |
| 3 - A299 W | 594 | 149 | 282 | 45.17 | 1607 | 0.370 | 595 | 599 | 0.8 | 0.6 | 0.059 | A |
| 4 - B2190 N | 321 | 80 | 530 | | 1293 | 0.248 | 321 | 347 | 0.4 | 0.3 | 0.062 | A |

2039 Growthed Traffic, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|------------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3, 4 | 11.84 | F |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | -37 | 2 - Tothill Street |

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 | 2039 Growthed Traffic | AM | ONE HOUR | 07:30 | 09:00 | 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 (%) |
|--------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - Hengist way E | | ONE HOUR | ✓ | 1586 | 100.000 |
| 2 - Tothill Street | | ONE HOUR | ✓ | 580 | 100.000 |
| 3 - A299 W | | ONE HOUR | ✓ | 1813 | 100.000 |
| 4 - B2190 N | | ONE HOUR | ✓ | 1005 | 100.000 |

Demand overview (Pedestrians)

| Arm | Profile type | Average pedestrian flow (Ped/hr) |
|--------------------|--------------|----------------------------------|
| 1 - Hengist way E | | |
| 2 - Tothill Street | | |
| 3 - A299 W | [ONEHOUR] | 60.00 |
| 4 - B2190 N | | |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | |
|------|--------------------|-------------------|--------------------|------------|-------------|
| | | 1 - Hengist way E | 2 - Tothill Street | 3 - A299 W | 4 - B2190 N |
| From | 1 - Hengist way E | 0 | 146 | 1147 | 293 |
| | 2 - Tothill Street | 198 | 0 | 169 | 213 |
| | 3 - A299 W | 1270 | 152 | 0 | 391 |
| | 4 - B2190 N | 423 | 282 | 300 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | |
|------|--------------------|-------------------|--------------------|------------|-------------|
| | | 1 - Hengist way E | 2 - Tothill Street | 3 - A299 W | 4 - B2190 N |
| From | 1 - Hengist way E | 0 | 4 | 6 | 4 |
| | 2 - Tothill Street | 7 | 0 | 4 | 6 |
| | 3 - A299 W | 9 | 10 | 0 | 6 |
| | 4 - B2190 N | 5 | 2 | 3 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|--------------------|---------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - Hengist way E | 1.39 | 15.73 | 336.8 | F | 1455 | 2183 |
| 2 - Tothill Street | 1.50 | 23.00 | 163.6 | F | 532 | 798 |
| 3 - A299 W | 1.21 | 7.00 | 192.6 | F | 1664 | 2495 |
| 4 - B2190 N | 1.24 | 8.14 | 121.3 | F | 922 | 1383 |

Main Results for each time segment

07:30 - 07:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1194 | 299 | 544 | | 1305 | 0.915 | 1162 | 1397 | 0.0 | 8.1 | 0.362 | C |
| 2 - Tothill Street | 437 | 109 | 1277 | | 481 | 0.907 | 413 | 429 | 0.0 | 6.0 | 0.722 | E |
| 3 - A299 W | 1365 | 341 | 507 | 45.17 | 1619 | 0.843 | 1345 | 1183 | 0.0 | 4.9 | 0.207 | B |
| 4 - B2190 N | 757 | 189 | 1196 | | 1011 | 0.748 | 745 | 656 | 0.0 | 2.8 | 0.218 | B |

07:45 - 08:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1426 | 356 | 632 | | 1268 | 1.125 | 1256 | 1613 | 8.1 | 50.6 | 1.591 | F |
| 2 - Tothill Street | 521 | 130 | 1398 | | 430 | 1.212 | 424 | 490 | 6.0 | 30.4 | 2.932 | F |
| 3 - A299 W | 1630 | 407 | 532 | 53.94 | 1650 | 0.988 | 1578 | 1290 | 4.9 | 18.0 | 0.588 | E |
| 4 - B2190 N | 903 | 226 | 1382 | | 922 | 0.980 | 864 | 728 | 2.8 | 12.8 | 0.749 | E |

08:00 - 08:15

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1746 | 437 | 655 | | 1258 | 1.388 | 1258 | 1673 | 50.6 | 172.7 | 5.435 | F |
| 2 - Tothill Street | 639 | 160 | 1409 | | 426 | 1.500 | 425 | 504 | 30.4 | 83.7 | 8.304 | F |
| 3 - A299 W | 1996 | 499 | 534 | 66.06 | 1649 | 1.211 | 1645 | 1300 | 18.0 | 105.7 | 2.385 | F |
| 4 - B2190 N | 1107 | 277 | 1436 | | 896 | 1.235 | 893 | 743 | 12.8 | 66.3 | 2.857 | F |

08:15 - 08:30

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1746 | 437 | 656 | | 1258 | 1.388 | 1258 | 1677 | 172.7 | 294.8 | 11.228 | F |
| 2 - Tothill Street | 639 | 160 | 1409 | | 425 | 1.501 | 425 | 505 | 83.7 | 137.0 | 15.772 | F |
| 3 - A299 W | 1996 | 499 | 534 | 66.06 | 1649 | 1.211 | 1649 | 1301 | 105.7 | 192.6 | 5.511 | F |
| 4 - B2190 N | 1107 | 277 | 1438 | | 895 | 1.236 | 895 | 744 | 66.3 | 119.3 | 6.354 | F |

08:30 - 08:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1426 | 356 | 656 | | 1258 | 1.133 | 1258 | 1671 | 294.8 | 336.8 | 15.126 | F |
| 2 - Tothill Street | 521 | 130 | 1409 | | 425 | 1.226 | 425 | 505 | 137.0 | 161.1 | 21.191 | F |
| 3 - A299 W | 1630 | 407 | 534 | 53.94 | 1649 | 0.988 | 1640 | 1301 | 192.6 | 189.9 | 6.996 | F |
| 4 - B2190 N | 903 | 226 | 1432 | | 898 | 1.006 | 895 | 742 | 119.3 | 121.3 | 8.141 | F |

08:45 - 09:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1194 | 299 | 653 | | 1259 | 0.948 | 1255 | 1669 | 336.8 | 321.4 | 15.731 | F |
| 2 - Tothill Street | 437 | 109 | 1406 | | 427 | 1.023 | 426 | 503 | 161.1 | 163.6 | 22.995 | F |
| 3 - A299 W | 1365 | 341 | 534 | 45.17 | 1649 | 0.828 | 1640 | 1298 | 189.9 | 121.1 | 5.705 | F |
| 4 - B2190 N | 757 | 189 | 1432 | | 898 | 0.843 | 891 | 742 | 121.3 | 87.8 | 7.061 | F |

2039 Growthed Traffic, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|------------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3, 4 | 8.24 | F |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | -30 | 2 - Tothill Street |

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 | 2039 Growthed Traffic | PM | ONE HOUR | 16:30 | 18:00 | 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 (%) |
|--------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - Hengist way E | | ONE HOUR | ✓ | 1338 | 100.000 |
| 2 - Tothill Street | | ONE HOUR | ✓ | 538 | 100.000 |
| 3 - A299 W | | ONE HOUR | ✓ | 1846 | 100.000 |
| 4 - B2190 N | | ONE HOUR | ✓ | 1046 | 100.000 |

Demand overview (Pedestrians)

| Arm | Profile type | Average pedestrian flow (Ped/hr) |
|--------------------|--------------|----------------------------------|
| 1 - Hengist way E | | |
| 2 - Tothill Street | | |
| 3 - A299 W | [ONEHOUR] | 60.00 |
| 4 - B2190 N | | |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | |
|------|--------------------|-------------------|--------------------|------------|-------------|
| | | 1 - Hengist way E | 2 - Tothill Street | 3 - A299 W | 4 - B2190 N |
| From | 1 - Hengist way E | 0 | 183 | 885 | 270 |
| | 2 - Tothill Street | 175 | 0 | 153 | 210 |
| | 3 - A299 W | 1345 | 183 | 0 | 318 |
| | 4 - B2190 N | 302 | 285 | 459 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | |
|------|--------------------|-------------------|--------------------|------------|-------------|
| | | 1 - Hengist way E | 2 - Tothill Street | 3 - A299 W | 4 - B2190 N |
| From | 1 - Hengist way E | 0 | 4 | 5 | 3 |
| | 2 - Tothill Street | 2 | 0 | 11 | 1 |
| | 3 - A299 W | 4 | 3 | 0 | 2 |
| | 4 - B2190 N | 4 | 0 | 1 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|--------------------|---------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - Hengist way E | 1.21 | 7.07 | 143.4 | F | 1228 | 1842 |
| 2 - Tothill Street | 1.39 | 15.47 | 112.7 | F | 494 | 741 |
| 3 - A299 W | 1.18 | 5.63 | 167.9 | F | 1694 | 2541 |
| 4 - B2190 N | 1.30 | 10.69 | 163.2 | F | 960 | 1440 |

Main Results for each time segment

16:30 - 16:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1007 | 252 | 687 | | 1265 | 0.796 | 993 | 1352 | 0.0 | 3.6 | 0.210 | B |
| 2 - Tothill Street | 405 | 101 | 1197 | | 531 | 0.762 | 394 | 483 | 0.0 | 2.9 | 0.408 | C |
| 3 - A299 W | 1390 | 347 | 482 | 45.17 | 1700 | 0.818 | 1373 | 1109 | 0.0 | 4.2 | 0.176 | B |
| 4 - B2190 N | 787 | 197 | 1264 | | 1026 | 0.767 | 775 | 590 | 0.0 | 3.1 | 0.229 | B |

16:45 - 17:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1203 | 301 | 789 | | 1223 | 0.983 | 1158 | 1578 | 3.6 | 14.9 | 0.660 | E |
| 2 - Tothill Street | 484 | 121 | 1387 | | 450 | 1.074 | 431 | 560 | 2.9 | 16.1 | 1.676 | F |
| 3 - A299 W | 1660 | 415 | 542 | 53.94 | 1732 | 0.958 | 1624 | 1276 | 4.2 | 13.2 | 0.448 | D |
| 4 - B2190 N | 940 | 235 | 1484 | | 925 | 1.017 | 883 | 681 | 3.1 | 17.4 | 0.924 | F |

17:00 - 17:15

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1473 | 368 | 801 | | 1219 | 1.209 | 1215 | 1648 | 14.9 | 79.6 | 2.498 | F |
| 2 - Tothill Street | 592 | 148 | 1437 | | 429 | 1.381 | 428 | 578 | 16.1 | 57.3 | 5.444 | F |
| 3 - A299 W | 2032 | 508 | 551 | 66.06 | 1727 | 1.177 | 1721 | 1314 | 13.2 | 91.2 | 1.956 | F |
| 4 - B2190 N | 1152 | 288 | 1563 | | 888 | 1.297 | 886 | 708 | 17.4 | 83.9 | 3.614 | F |

17:15 - 17:30

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1473 | 368 | 801 | | 1218 | 1.209 | 1218 | 1652 | 79.6 | 143.4 | 5.601 | F |
| 2 - Tothill Street | 592 | 148 | 1440 | | 428 | 1.385 | 427 | 579 | 57.3 | 98.5 | 11.165 | F |
| 3 - A299 W | 2032 | 508 | 552 | 66.06 | 1726 | 1.177 | 1726 | 1316 | 91.2 | 167.9 | 4.592 | F |
| 4 - B2190 N | 1152 | 288 | 1567 | | 886 | 1.300 | 886 | 710 | 83.9 | 150.4 | 8.050 | F |

17:30 - 17:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1203 | 301 | 802 | | 1218 | 0.988 | 1218 | 1646 | 143.4 | 139.6 | 7.070 | F |
| 2 - Tothill Street | 484 | 121 | 1441 | | 427 | 1.133 | 427 | 579 | 98.5 | 112.7 | 14.983 | F |
| 3 - A299 W | 1660 | 415 | 551 | 53.94 | 1726 | 0.961 | 1716 | 1317 | 167.9 | 153.7 | 5.626 | F |
| 4 - B2190 N | 940 | 235 | 1559 | | 889 | 1.057 | 889 | 708 | 150.4 | 163.2 | 10.688 | F |

17:45 - 18:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1007 | 252 | 799 | | 1219 | 0.826 | 1211 | 1644 | 139.6 | 88.8 | 5.681 | F |
| 2 - Tothill Street | 405 | 101 | 1433 | | 431 | 0.941 | 427 | 577 | 112.7 | 107.3 | 15.470 | F |
| 3 - A299 W | 1390 | 347 | 550 | 45.17 | 1727 | 0.805 | 1716 | 1310 | 153.7 | 72.2 | 3.975 | F |
| 4 - B2190 N | 787 | 197 | 1559 | | 890 | 0.885 | 884 | 707 | 163.2 | 139.1 | 10.267 | F |

2039 Growthed Traffic, Airport Peak

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|------------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3, 4 | 0.70 | E |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | -14 | 2 - Tothill Street |

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 | 2039 Growthed Traffic | Airport Peak | ONE HOUR | 12:45 | 14:15 | 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 (%) |
|--------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - Hengist way E | | ONE HOUR | ✓ | 949 | 100.000 |
| 2 - Tothill Street | | ONE HOUR | ✓ | 497 | 100.000 |
| 3 - A299 W | | ONE HOUR | ✓ | 1058 | 100.000 |
| 4 - B2190 N | | ONE HOUR | ✓ | 569 | 100.000 |

Demand overview (Pedestrians)

| Arm | Profile type | Average pedestrian flow (Ped/hr) |
|--------------------|--------------|----------------------------------|
| 1 - Hengist way E | | |
| 2 - Tothill Street | | |
| 3 - A299 W | [ONEHOUR] | 60.00 |
| 4 - B2190 N | | |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | |
|------|--------------------|-------------------|--------------------|------------|-------------|
| | | 1 - Hengist way E | 2 - Tothill Street | 3 - A299 W | 4 - B2190 N |
| From | 1 - Hengist way E | 0 | 142 | 649 | 158 |
| | 2 - Tothill Street | 128 | 0 | 157 | 212 |
| | 3 - A299 W | 682 | 132 | 0 | 244 |
| | 4 - B2190 N | 126 | 185 | 258 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | |
|------|--------------------|-------------------|--------------------|------------|-------------|
| | | 1 - Hengist way E | 2 - Tothill Street | 3 - A299 W | 4 - B2190 N |
| From | 1 - Hengist way E | 0 | 5 | 13 | 12 |
| | 2 - Tothill Street | 2 | 0 | 12 | 3 |
| | 3 - A299 W | 16 | 8 | 0 | 11 |
| | 4 - B2190 N | 13 | 2 | 5 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|--------------------|---------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - Hengist way E | 0.87 | 0.38 | 6.3 | C | 871 | 1306 |
| 2 - Tothill Street | 1.09 | 3.20 | 31.1 | F | 456 | 684 |
| 3 - A299 W | 0.76 | 0.16 | 3.1 | A | 971 | 1456 |
| 4 - B2190 N | 0.60 | 0.14 | 1.5 | A | 522 | 783 |

Main Results for each time segment

12:45 - 13:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 714 | 179 | 431 | | 1276 | 0.560 | 709 | 700 | 0.0 | 1.3 | 0.105 | A |
| 2 - Tothill Street | 374 | 94 | 797 | | 668 | 0.560 | 369 | 344 | 0.0 | 1.2 | 0.197 | B |
| 3 - A299 W | 797 | 199 | 371 | 45.17 | 1543 | 0.516 | 792 | 795 | 0.0 | 1.1 | 0.079 | A |
| 4 - B2190 N | 428 | 107 | 705 | | 1207 | 0.355 | 426 | 458 | 0.0 | 0.5 | 0.077 | A |

13:00 - 13:15

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 853 | 213 | 516 | | 1242 | 0.687 | 850 | 838 | 1.3 | 2.1 | 0.151 | A |
| 2 - Tothill Street | 447 | 112 | 954 | | 598 | 0.748 | 441 | 411 | 1.2 | 2.7 | 0.369 | C |
| 3 - A299 W | 951 | 238 | 443 | 53.94 | 1523 | 0.625 | 949 | 952 | 1.1 | 1.6 | 0.104 | A |
| 4 - B2190 N | 512 | 128 | 844 | | 1139 | 0.449 | 510 | 548 | 0.5 | 0.8 | 0.095 | A |

13:15 - 13:30

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1045 | 261 | 630 | | 1197 | 0.873 | 1030 | 1010 | 2.1 | 5.9 | 0.333 | C |
| 2 - Tothill Street | 547 | 137 | 1159 | | 506 | 1.082 | 486 | 502 | 2.7 | 18.1 | 1.612 | F |
| 3 - A299 W | 1165 | 291 | 504 | 66.06 | 1525 | 0.764 | 1159 | 1141 | 1.6 | 3.1 | 0.161 | A |
| 4 - B2190 N | 626 | 157 | 1017 | | 1055 | 0.594 | 624 | 646 | 0.8 | 1.4 | 0.139 | A |

13:30 - 13:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1045 | 261 | 633 | | 1196 | 0.874 | 1043 | 1017 | 5.9 | 6.3 | 0.382 | C |
| 2 - Tothill Street | 547 | 137 | 1171 | | 500 | 1.094 | 495 | 505 | 18.1 | 31.1 | 3.196 | F |
| 3 - A299 W | 1165 | 291 | 512 | 66.06 | 1556 | 0.749 | 1165 | 1154 | 3.1 | 3.0 | 0.154 | A |
| 4 - B2190 N | 626 | 157 | 1024 | | 1051 | 0.596 | 626 | 653 | 1.4 | 1.5 | 0.141 | A |

13:45 - 14:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 853 | 213 | 519 | | 1241 | 0.688 | 869 | 873 | 6.3 | 2.3 | 0.168 | B |
| 2 - Tothill Street | 447 | 112 | 972 | | 589 | 0.758 | 555 | 417 | 31.1 | 4.1 | 1.867 | F |
| 3 - A299 W | 951 | 238 | 524 | 53.94 | 1527 | 0.623 | 957 | 1003 | 3.0 | 1.7 | 0.106 | A |
| 4 - B2190 N | 512 | 128 | 879 | | 1123 | 0.455 | 514 | 602 | 1.5 | 0.8 | 0.099 | A |

14:00 - 14:15

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 714 | 179 | 434 | | 1275 | 0.561 | 718 | 709 | 2.3 | 1.3 | 0.109 | A |
| 2 - Tothill Street | 374 | 94 | 806 | | 664 | 0.563 | 385 | 347 | 4.1 | 1.3 | 0.223 | B |
| 3 - A299 W | 797 | 199 | 383 | 45.17 | 1567 | 0.508 | 799 | 808 | 1.7 | 1.0 | 0.078 | A |
| 4 - B2190 N | 428 | 107 | 714 | | 1202 | 0.356 | 430 | 468 | 0.8 | 0.6 | 0.078 | A |

2039 + Dev Traffic, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|------------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3, 4 | 13.06 | F |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | -38 | 2 - Tothill Street |

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 |
|----|--------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D9 | 2039 + Dev Traffic | AM | ONE HOUR | 07:30 | 09:00 | 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 (%) |
|--------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - Hengist way E | | ONE HOUR | ✓ | 1588 | 100.000 |
| 2 - Tothill Street | | ONE HOUR | ✓ | 592 | 100.000 |
| 3 - A299 W | | ONE HOUR | ✓ | 1837 | 100.000 |
| 4 - B2190 N | | ONE HOUR | ✓ | 1027 | 100.000 |

Demand overview (Pedestrians)

| Arm | Profile type | Average pedestrian flow (Ped/hr) |
|--------------------|--------------|----------------------------------|
| 1 - Hengist way E | | |
| 2 - Tothill Street | | |
| 3 - A299 W | [ONEHOUR] | 60.00 |
| 4 - B2190 N | | |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | |
|------|--------------------|-------------------|--------------------|------------|-------------|
| | | 1 - Hengist way E | 2 - Tothill Street | 3 - A299 W | 4 - B2190 N |
| From | 1 - Hengist way E | 0 | 146 | 1149 | 293 |
| | 2 - Tothill Street | 198 | 0 | 169 | 225 |
| | 3 - A299 W | 1272 | 152 | 0 | 413 |
| | 4 - B2190 N | 423 | 284 | 320 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | |
|------|--------------------|-------------------|--------------------|------------|-------------|
| | | 1 - Hengist way E | 2 - Tothill Street | 3 - A299 W | 4 - B2190 N |
| From | 1 - Hengist way E | 0 | 4 | 6 | 4 |
| | 2 - Tothill Street | 7 | 0 | 4 | 6 |
| | 3 - A299 W | 10 | 10 | 0 | 8 |
| | 4 - B2190 N | 5 | 2 | 7 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|--------------------|---------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - Hengist way E | 1.40 | 16.30 | 346.0 | F | 1457 | 2186 |
| 2 - Tothill Street | 1.56 | 26.50 | 187.5 | F | 543 | 815 |
| 3 - A299 W | 1.24 | 8.14 | 222.4 | F | 1686 | 2529 |
| 4 - B2190 N | 1.26 | 9.40 | 142.4 | F | 942 | 1414 |

Main Results for each time segment

07:30 - 07:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1196 | 299 | 560 | | 1294 | 0.924 | 1161 | 1395 | 0.0 | 8.7 | 0.382 | C |
| 2 - Tothill Street | 446 | 111 | 1291 | | 472 | 0.945 | 416 | 430 | 0.0 | 7.4 | 0.843 | F |
| 3 - A299 W | 1383 | 346 | 511 | 45.17 | 1611 | 0.859 | 1361 | 1195 | 0.0 | 5.5 | 0.224 | B |
| 4 - B2190 N | 773 | 193 | 1194 | | 996 | 0.777 | 760 | 678 | 0.0 | 3.2 | 0.243 | B |

07:45 - 08:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1428 | 357 | 643 | | 1259 | 1.134 | 1248 | 1594 | 8.7 | 53.5 | 1.679 | F |
| 2 - Tothill Street | 532 | 133 | 1405 | | 423 | 1.259 | 419 | 486 | 7.4 | 35.9 | 3.455 | F |
| 3 - A299 W | 1651 | 413 | 529 | 53.94 | 1635 | 1.010 | 1581 | 1294 | 5.5 | 23.0 | 0.705 | E |
| 4 - B2190 N | 923 | 231 | 1366 | | 914 | 1.010 | 871 | 745 | 3.2 | 16.4 | 0.902 | F |

08:00 - 08:15

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1748 | 437 | 660 | | 1252 | 1.397 | 1251 | 1638 | 53.5 | 177.7 | 5.649 | F |
| 2 - Tothill Street | 652 | 163 | 1415 | | 419 | 1.557 | 418 | 497 | 35.9 | 94.2 | 9.570 | F |
| 3 - A299 W | 2023 | 506 | 530 | 66.06 | 1634 | 1.237 | 1632 | 1303 | 23.0 | 120.6 | 2.761 | F |
| 4 - B2190 N | 1131 | 283 | 1405 | | 895 | 1.263 | 893 | 757 | 16.4 | 75.9 | 3.290 | F |

08:15 - 08:30

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1748 | 437 | 661 | | 1251 | 1.397 | 1251 | 1640 | 177.7 | 302.0 | 11.576 | F |
| 2 - Tothill Street | 652 | 163 | 1415 | | 419 | 1.557 | 418 | 498 | 94.2 | 152.5 | 17.885 | F |
| 3 - A299 W | 2023 | 506 | 530 | 66.06 | 1634 | 1.238 | 1634 | 1304 | 120.6 | 217.7 | 6.289 | F |
| 4 - B2190 N | 1131 | 283 | 1407 | | 894 | 1.264 | 894 | 757 | 75.9 | 135.0 | 7.206 | F |

08:30 - 08:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1428 | 357 | 661 | | 1252 | 1.141 | 1251 | 1639 | 302.0 | 346.0 | 15.595 | F |
| 2 - Tothill Street | 532 | 133 | 1415 | | 419 | 1.272 | 418 | 497 | 152.5 | 181.0 | 24.062 | F |
| 3 - A299 W | 1651 | 413 | 530 | 53.94 | 1634 | 1.010 | 1633 | 1304 | 217.7 | 222.4 | 8.142 | F |
| 4 - B2190 N | 923 | 231 | 1406 | | 895 | 1.032 | 894 | 757 | 135.0 | 142.4 | 9.404 | F |

08:45 - 09:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1196 | 299 | 658 | | 1253 | 0.954 | 1249 | 1634 | 346.0 | 332.6 | 16.301 | F |
| 2 - Tothill Street | 446 | 111 | 1412 | | 420 | 1.061 | 420 | 496 | 181.0 | 187.5 | 26.500 | F |
| 3 - A299 W | 1383 | 346 | 530 | 45.17 | 1634 | 0.846 | 1627 | 1301 | 222.4 | 161.5 | 7.090 | F |
| 4 - B2190 N | 773 | 193 | 1401 | | 897 | 0.862 | 891 | 756 | 142.4 | 113.0 | 8.613 | F |

2039 + Dev Traffic, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|------------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3, 4 | 10.92 | F |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | -33 | 2 - Tothill Street |

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 |
|-----|--------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D10 | 2039 + Dev Traffic | PM | ONE HOUR | 16:30 | 18:00 | 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 (%) |
|--------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - Hengist way E | | ONE HOUR | ✓ | 1339 | 100.000 |
| 2 - Tothill Street | | ONE HOUR | ✓ | 540 | 100.000 |
| 3 - A299 W | | ONE HOUR | ✓ | 1875 | 100.000 |
| 4 - B2190 N | | ONE HOUR | ✓ | 1157 | 100.000 |

Demand overview (Pedestrians)

| Arm | Profile type | Average pedestrian flow (Ped/hr) |
|--------------------|--------------|----------------------------------|
| 1 - Hengist way E | | |
| 2 - Tothill Street | | |
| 3 - A299 W | [ONEHOUR] | 60.00 |
| 4 - B2190 N | | |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | |
|------|--------------------|-------------------|--------------------|------------|-------------|
| | | 1 - Hengist way E | 2 - Tothill Street | 3 - A299 W | 4 - B2190 N |
| From | 1 - Hengist way E | 0 | 183 | 886 | 270 |
| | 2 - Tothill Street | 175 | 0 | 153 | 212 |
| | 3 - A299 W | 1346 | 183 | 0 | 346 |
| | 4 - B2190 N | 302 | 297 | 558 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | |
|------|--------------------|-------------------|--------------------|------------|-------------|
| | | 1 - Hengist way E | 2 - Tothill Street | 3 - A299 W | 4 - B2190 N |
| From | 1 - Hengist way E | 0 | 4 | 5 | 3 |
| | 2 - Tothill Street | 2 | 0 | 11 | 1 |
| | 3 - A299 W | 4 | 3 | 0 | 6 |
| | 4 - B2190 N | 4 | 0 | 4 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|--------------------|---------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - Hengist way E | 1.22 | 7.77 | 154.9 | F | 1229 | 1843 |
| 2 - Tothill Street | 1.45 | 19.08 | 131.1 | F | 496 | 743 |
| 3 - A299 W | 1.20 | 6.47 | 188.2 | F | 1721 | 2581 |
| 4 - B2190 N | 1.44 | 18.09 | 269.5 | F | 1062 | 1593 |

Main Results for each time segment

16:30 - 16:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1008 | 252 | 764 | | 1229 | 0.820 | 991 | 1349 | 0.0 | 4.2 | 0.238 | B |
| 2 - Tothill Street | 407 | 102 | 1266 | | 498 | 0.817 | 392 | 490 | 0.0 | 3.7 | 0.512 | D |
| 3 - A299 W | 1412 | 353 | 481 | 45.17 | 1696 | 0.832 | 1393 | 1177 | 0.0 | 4.6 | 0.188 | B |
| 4 - B2190 N | 871 | 218 | 1263 | | 1013 | 0.860 | 850 | 611 | 0.0 | 5.2 | 0.335 | C |

16:45 - 17:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1204 | 301 | 828 | | 1202 | 1.001 | 1150 | 1548 | 4.2 | 17.7 | 0.761 | E |
| 2 - Tothill Street | 485 | 121 | 1429 | | 428 | 1.135 | 416 | 549 | 3.7 | 21.2 | 2.169 | F |
| 3 - A299 W | 1686 | 421 | 530 | 53.94 | 1727 | 0.976 | 1640 | 1315 | 4.6 | 16.0 | 0.518 | D |
| 4 - B2190 N | 1040 | 260 | 1472 | | 918 | 1.133 | 904 | 698 | 5.2 | 39.1 | 1.704 | F |

17:00 - 17:15

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1474 | 369 | 824 | | 1204 | 1.225 | 1201 | 1599 | 17.7 | 86.1 | 2.753 | F |
| 2 - Tothill Street | 595 | 149 | 1465 | | 412 | 1.442 | 411 | 560 | 21.2 | 66.9 | 6.710 | F |
| 3 - A299 W | 2064 | 516 | 537 | 66.06 | 1723 | 1.198 | 1718 | 1339 | 16.0 | 102.6 | 2.200 | F |
| 4 - B2190 N | 1274 | 318 | 1535 | | 889 | 1.433 | 888 | 721 | 39.1 | 135.5 | 6.044 | F |

17:15 - 17:30

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1474 | 369 | 824 | | 1204 | 1.225 | 1203 | 1601 | 86.1 | 153.8 | 6.088 | F |
| 2 - Tothill Street | 595 | 149 | 1467 | | 411 | 1.445 | 411 | 560 | 66.9 | 112.8 | 13.318 | F |
| 3 - A299 W | 2064 | 516 | 537 | 66.06 | 1722 | 1.199 | 1722 | 1341 | 102.6 | 188.2 | 5.147 | F |
| 4 - B2190 N | 1274 | 318 | 1537 | | 888 | 1.435 | 887 | 722 | 135.5 | 232.1 | 12.513 | F |

17:30 - 17:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1204 | 301 | 825 | | 1203 | 1.000 | 1200 | 1596 | 153.8 | 154.9 | 7.768 | F |
| 2 - Tothill Street | 485 | 121 | 1465 | | 412 | 1.178 | 412 | 560 | 112.8 | 131.1 | 17.944 | F |
| 3 - A299 W | 1686 | 421 | 537 | 53.94 | 1723 | 0.979 | 1714 | 1340 | 188.2 | 181.2 | 6.468 | F |
| 4 - B2190 N | 1040 | 260 | 1531 | | 891 | 1.168 | 891 | 720 | 232.1 | 269.5 | 16.992 | F |

17:45 - 18:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1008 | 252 | 823 | | 1204 | 0.837 | 1197 | 1595 | 154.9 | 107.7 | 6.600 | F |
| 2 - Tothill Street | 407 | 102 | 1461 | | 414 | 0.982 | 411 | 559 | 131.1 | 130.1 | 19.076 | F |
| 3 - A299 W | 1412 | 353 | 536 | 45.17 | 1723 | 0.819 | 1714 | 1336 | 181.2 | 105.6 | 5.038 | F |
| 4 - B2190 N | 871 | 218 | 1531 | | 891 | 0.978 | 887 | 719 | 269.5 | 265.4 | 18.086 | F |

2039 + Dev Traffic, Airport Peak

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|------------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3, 4 | 0.95 | F |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | -17 | 2 - Tothill Street |

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 |
|-----|--------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D11 | 2039 + Dev Traffic | Airport Peak | ONE HOUR | 12:45 | 14:15 | 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 (%) |
|--------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - Hengist way E | | ONE HOUR | ✓ | 950 | 100.000 |
| 2 - Tothill Street | | ONE HOUR | ✓ | 509 | 100.000 |
| 3 - A299 W | | ONE HOUR | ✓ | 1178 | 100.000 |
| 4 - B2190 N | | ONE HOUR | ✓ | 611 | 100.000 |

Demand overview (Pedestrians)

| Arm | Profile type | Average pedestrian flow (Ped/hr) |
|--------------------|--------------|----------------------------------|
| 1 - Hengist way E | | |
| 2 - Tothill Street | | |
| 3 - A299 W | [ONEHOUR] | 60.00 |
| 4 - B2190 N | | |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | |
|------|--------------------|-------------------|--------------------|------------|-------------|
| | | 1 - Hengist way E | 2 - Tothill Street | 3 - A299 W | 4 - B2190 N |
| From | 1 - Hengist way E | 0 | 142 | 650 | 158 |
| | 2 - Tothill Street | 128 | 0 | 157 | 224 |
| | 3 - A299 W | 683 | 132 | 0 | 363 |
| | 4 - B2190 N | 126 | 188 | 297 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | |
|------|--------------------|-------------------|--------------------|------------|-------------|
| | | 1 - Hengist way E | 2 - Tothill Street | 3 - A299 W | 4 - B2190 N |
| From | 1 - Hengist way E | 0 | 5 | 13 | 12 |
| | 2 - Tothill Street | 2 | 0 | 12 | 3 |
| | 3 - A299 W | 16 | 8 | 0 | 13 |
| | 4 - B2190 N | 13 | 2 | 10 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|--------------------|---------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - Hengist way E | 0.89 | 0.45 | 7.4 | D | 872 | 1308 |
| 2 - Tothill Street | 1.18 | 4.75 | 47.6 | F | 467 | 701 |
| 3 - A299 W | 0.83 | 0.21 | 4.4 | B | 1081 | 1621 |
| 4 - B2190 N | 0.65 | 0.17 | 1.8 | B | 561 | 841 |

Main Results for each time segment

12:45 - 13:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 715 | 179 | 462 | | 1259 | 0.568 | 710 | 700 | 0.0 | 1.3 | 0.108 | A |
| 2 - Tothill Street | 383 | 96 | 826 | | 652 | 0.588 | 378 | 346 | 0.0 | 1.4 | 0.215 | B |
| 3 - A299 W | 887 | 222 | 379 | 45.17 | 1540 | 0.576 | 882 | 825 | 0.0 | 1.3 | 0.090 | A |
| 4 - B2190 N | 460 | 115 | 705 | | 1180 | 0.390 | 457 | 556 | 0.0 | 0.6 | 0.083 | A |

13:00 - 13:15

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 854 | 214 | 553 | | 1222 | 0.699 | 850 | 838 | 1.3 | 2.2 | 0.160 | A |
| 2 - Tothill Street | 458 | 114 | 990 | | 577 | 0.792 | 450 | 414 | 1.4 | 3.4 | 0.444 | D |
| 3 - A299 W | 1059 | 265 | 452 | 53.94 | 1531 | 0.692 | 1056 | 987 | 1.3 | 2.2 | 0.125 | A |
| 4 - B2190 N | 549 | 137 | 843 | | 1114 | 0.493 | 548 | 665 | 0.6 | 1.0 | 0.106 | A |

13:15 - 13:30

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1046 | 261 | 676 | | 1173 | 0.892 | 1028 | 1003 | 2.2 | 6.7 | 0.376 | C |
| 2 - Tothill Street | 560 | 140 | 1200 | | 482 | 1.163 | 470 | 504 | 3.4 | 25.8 | 2.196 | F |
| 3 - A299 W | 1297 | 324 | 496 | 66.06 | 1570 | 0.826 | 1288 | 1174 | 2.2 | 4.4 | 0.206 | B |
| 4 - B2190 N | 673 | 168 | 1009 | | 1035 | 0.650 | 669 | 775 | 1.0 | 1.8 | 0.163 | A |

13:30 - 13:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1046 | 261 | 679 | | 1171 | 0.893 | 1043 | 1010 | 6.7 | 7.4 | 0.448 | D |
| 2 - Tothill Street | 560 | 140 | 1214 | | 475 | 1.179 | 473 | 508 | 25.8 | 47.6 | 4.745 | F |
| 3 - A299 W | 1297 | 324 | 501 | 66.06 | 1582 | 0.820 | 1297 | 1187 | 4.4 | 4.4 | 0.210 | B |
| 4 - B2190 N | 673 | 168 | 1016 | | 1031 | 0.652 | 673 | 781 | 1.8 | 1.8 | 0.167 | B |

13:45 - 14:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 854 | 214 | 558 | | 1220 | 0.700 | 874 | 873 | 7.4 | 2.4 | 0.182 | B |
| 2 - Tothill Street | 458 | 114 | 1012 | | 567 | 0.807 | 556 | 420 | 47.6 | 23.1 | 3.862 | F |
| 3 - A299 W | 1059 | 265 | 530 | 53.94 | 1560 | 0.679 | 1068 | 1038 | 4.4 | 2.2 | 0.124 | A |
| 4 - B2190 N | 549 | 137 | 879 | | 1099 | 0.500 | 553 | 719 | 1.8 | 1.0 | 0.111 | A |

14:00 - 14:15

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 715 | 179 | 466 | | 1258 | 0.569 | 720 | 729 | 2.4 | 1.3 | 0.112 | A |
| 2 - Tothill Street | 383 | 96 | 836 | | 647 | 0.592 | 470 | 349 | 23.1 | 1.5 | 0.519 | D |
| 3 - A299 W | 887 | 222 | 444 | 45.17 | 1548 | 0.573 | 890 | 861 | 2.2 | 1.4 | 0.092 | A |
| 4 - B2190 N | 460 | 115 | 734 | | 1167 | 0.394 | 461 | 601 | 1.0 | 0.7 | 0.085 | A |

2039 B+Dev Net Change, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|------------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3, 4 | 11.37 | F |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | -33 | 2 - Tothill Street |

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 |
|-----|-----------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D12 | 2039 B+Dev Net Change | PM | ONE HOUR | 16:30 | 18:00 | 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 (%) |
|--------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - Hengist way E | | ONE HOUR | ✓ | 1227 | 100.000 |
| 2 - Tothill Street | | ONE HOUR | ✓ | 540 | 100.000 |
| 3 - A299 W | | ONE HOUR | ✓ | 1875 | 100.000 |
| 4 - B2190 N | | ONE HOUR | ✓ | 1269 | 100.000 |

Demand overview (Pedestrians)

| Arm | Profile type | Average pedestrian flow (Ped/hr) |
|--------------------|--------------|----------------------------------|
| 1 - Hengist way E | | |
| 2 - Tothill Street | | |
| 3 - A299 W | [ONEHOUR] | 60.00 |
| 4 - B2190 N | | |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | |
|------|--------------------|-------------------|--------------------|------------|-------------|
| | | 1 - Hengist way E | 2 - Tothill Street | 3 - A299 W | 4 - B2190 N |
| From | 1 - Hengist way E | 0 | 183 | 774 | 270 |
| | 2 - Tothill Street | 175 | 0 | 153 | 212 |
| | 3 - A299 W | 1218 | 183 | 0 | 474 |
| | 4 - B2190 N | 302 | 297 | 670 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | |
|------|--------------------|-------------------|--------------------|------------|-------------|
| | | 1 - Hengist way E | 2 - Tothill Street | 3 - A299 W | 4 - B2190 N |
| From | 1 - Hengist way E | 0 | 4 | 5 | 3 |
| | 2 - Tothill Street | 2 | 0 | 11 | 1 |
| | 3 - A299 W | 4 | 3 | 0 | 5 |
| | 4 - B2190 N | 4 | 0 | 4 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|--------------------|---------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - Hengist way E | 1.15 | 4.69 | 98.8 | F | 1126 | 1689 |
| 2 - Tothill Street | 1.49 | 21.10 | 140.8 | F | 496 | 743 |
| 3 - A299 W | 1.20 | 6.53 | 189.3 | F | 1721 | 2581 |
| 4 - B2190 N | 1.48 | 20.97 | 330.6 | F | 1164 | 1747 |

Main Results for each time segment

16:30 - 16:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 924 | 231 | 842 | | 1196 | 0.772 | 911 | 1253 | 0.0 | 3.2 | 0.202 | B |
| 2 - Tothill Street | 407 | 102 | 1264 | | 499 | 0.815 | 392 | 489 | 0.0 | 3.7 | 0.509 | D |
| 3 - A299 W | 1412 | 353 | 481 | 45.17 | 1697 | 0.832 | 1393 | 1175 | 0.0 | 4.6 | 0.187 | B |
| 4 - B2190 N | 955 | 239 | 1168 | | 1056 | 0.905 | 927 | 707 | 0.0 | 7.2 | 0.402 | C |

16:45 - 17:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1103 | 276 | 891 | | 1176 | 0.938 | 1077 | 1429 | 3.2 | 9.7 | 0.506 | D |
| 2 - Tothill Street | 485 | 121 | 1423 | | 431 | 1.127 | 418 | 545 | 3.7 | 20.6 | 2.124 | F |
| 3 - A299 W | 1686 | 421 | 536 | 53.94 | 1725 | 0.977 | 1639 | 1304 | 4.6 | 16.2 | 0.522 | D |
| 4 - B2190 N | 1141 | 285 | 1360 | | 968 | 1.178 | 960 | 815 | 7.2 | 52.4 | 2.078 | F |

17:00 - 17:15

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1351 | 338 | 887 | | 1178 | 1.147 | 1169 | 1469 | 9.7 | 55.2 | 1.854 | F |
| 2 - Tothill Street | 595 | 149 | 1493 | | 400 | 1.485 | 400 | 563 | 20.6 | 69.3 | 7.043 | F |
| 3 - A299 W | 2064 | 516 | 544 | 66.06 | 1721 | 1.200 | 1716 | 1349 | 16.2 | 103.2 | 2.217 | F |
| 4 - B2190 N | 1397 | 349 | 1412 | | 944 | 1.480 | 944 | 848 | 52.4 | 165.7 | 7.062 | F |

17:15 - 17:30

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1351 | 338 | 887 | | 1178 | 1.147 | 1177 | 1471 | 55.2 | 98.8 | 4.057 | F |
| 2 - Tothill Street | 595 | 149 | 1499 | | 398 | 1.494 | 398 | 564 | 69.3 | 118.5 | 14.319 | F |
| 3 - A299 W | 2064 | 516 | 544 | 66.06 | 1721 | 1.200 | 1720 | 1353 | 103.2 | 189.3 | 5.185 | F |
| 4 - B2190 N | 1397 | 349 | 1414 | | 943 | 1.481 | 943 | 850 | 165.7 | 279.2 | 14.229 | F |

17:30 - 17:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 1103 | 276 | 888 | | 1178 | 0.937 | 1166 | 1467 | 98.8 | 83.1 | 4.691 | F |
| 2 - Tothill Street | 485 | 121 | 1491 | | 401 | 1.210 | 401 | 562 | 118.5 | 139.5 | 19.481 | F |
| 3 - A299 W | 1686 | 421 | 544 | 53.94 | 1720 | 0.980 | 1711 | 1348 | 189.3 | 182.9 | 6.526 | F |
| 4 - B2190 N | 1141 | 285 | 1409 | | 946 | 1.206 | 946 | 847 | 279.2 | 328.0 | 19.350 | F |

17:45 - 18:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 924 | 231 | 887 | | 1178 | 0.784 | 1164 | 1467 | 83.1 | 23.1 | 2.804 | F |
| 2 - Tothill Street | 407 | 102 | 1489 | | 402 | 1.011 | 401 | 562 | 139.5 | 140.8 | 21.099 | F |
| 3 - A299 W | 1412 | 353 | 544 | 45.17 | 1721 | 0.820 | 1711 | 1347 | 182.9 | 107.9 | 5.116 | F |
| 4 - B2190 N | 955 | 239 | 1409 | | 946 | 1.010 | 945 | 846 | 328.0 | 330.6 | 20.972 | F |

2039 B+Dev Net Change, Airport Peak

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|------------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3, 4 | 0.92 | F |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | -17 | 2 - Tothill Street |

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 |
|-----|-----------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D13 | 2039 B+Dev Net Change | Airport Peak | ONE HOUR | 12:45 | 14:15 | 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 (%) |
|--------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - Hengist way E | | ONE HOUR | ✓ | 847 | 100.000 |
| 2 - Tothill Street | | ONE HOUR | ✓ | 509 | 100.000 |
| 3 - A299 W | | ONE HOUR | ✓ | 1178 | 100.000 |
| 4 - B2190 N | | ONE HOUR | ✓ | 713 | 100.000 |

Demand overview (Pedestrians)

| Arm | Profile type | Average pedestrian flow (Ped/hr) |
|--------------------|--------------|----------------------------------|
| 1 - Hengist way E | | |
| 2 - Tothill Street | | |
| 3 - A299 W | [ONEHOUR] | 60.00 |
| 4 - B2190 N | | |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | |
|------|--------------------|-------------------|--------------------|------------|-------------|
| | | 1 - Hengist way E | 2 - Tothill Street | 3 - A299 W | 4 - B2190 N |
| From | 1 - Hengist way E | 0 | 142 | 547 | 158 |
| | 2 - Tothill Street | 128 | 0 | 157 | 224 |
| | 3 - A299 W | 647 | 132 | 0 | 399 |
| | 4 - B2190 N | 126 | 188 | 399 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | |
|------|--------------------|-------------------|--------------------|------------|-------------|
| | | 1 - Hengist way E | 2 - Tothill Street | 3 - A299 W | 4 - B2190 N |
| From | 1 - Hengist way E | 0 | 5 | 12 | 12 |
| | 2 - Tothill Street | 2 | 0 | 12 | 3 |
| | 3 - A299 W | 16 | 8 | 0 | 13 |
| | 4 - B2190 N | 13 | 2 | 12 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|--------------------|---------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - Hengist way E | 0.83 | 0.30 | 4.5 | C | 777 | 1166 |
| 2 - Tothill Street | 1.18 | 4.77 | 47.9 | F | 467 | 701 |
| 3 - A299 W | 0.83 | 0.21 | 4.4 | B | 1081 | 1621 |
| 4 - B2190 N | 0.76 | 0.24 | 3.0 | B | 654 | 981 |

Main Results for each time segment

12:45 - 13:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 638 | 159 | 538 | | 1234 | 0.517 | 633 | 673 | 0.0 | 1.1 | 0.099 | A |
| 2 - Tothill Street | 383 | 96 | 826 | | 652 | 0.588 | 378 | 346 | 0.0 | 1.4 | 0.215 | B |
| 3 - A299 W | 887 | 222 | 379 | 45.17 | 1541 | 0.576 | 882 | 824 | 0.0 | 1.3 | 0.090 | A |
| 4 - B2190 N | 537 | 134 | 678 | | 1178 | 0.456 | 533 | 583 | 0.0 | 0.8 | 0.093 | A |

13:00 - 13:15

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 761 | 190 | 644 | | 1190 | 0.640 | 759 | 806 | 1.1 | 1.7 | 0.138 | A |
| 2 - Tothill Street | 458 | 114 | 989 | | 578 | 0.792 | 450 | 414 | 1.4 | 3.3 | 0.443 | D |
| 3 - A299 W | 1059 | 265 | 453 | 53.94 | 1532 | 0.691 | 1056 | 986 | 1.3 | 2.2 | 0.125 | A |
| 4 - B2190 N | 641 | 160 | 811 | | 1116 | 0.574 | 639 | 697 | 0.8 | 1.3 | 0.125 | A |

13:15 - 13:30

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 933 | 233 | 785 | | 1132 | 0.824 | 923 | 963 | 1.7 | 4.2 | 0.274 | C |
| 2 - Tothill Street | 560 | 140 | 1204 | | 480 | 1.167 | 469 | 504 | 3.3 | 26.2 | 2.220 | F |
| 3 - A299 W | 1297 | 324 | 497 | 66.06 | 1571 | 0.826 | 1288 | 1176 | 2.2 | 4.4 | 0.206 | B |
| 4 - B2190 N | 785 | 196 | 970 | | 1041 | 0.754 | 779 | 815 | 1.3 | 2.9 | 0.224 | B |

13:30 - 13:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 933 | 233 | 791 | | 1130 | 0.826 | 932 | 970 | 4.2 | 4.5 | 0.300 | C |
| 2 - Tothill Street | 560 | 140 | 1215 | | 475 | 1.179 | 474 | 508 | 26.2 | 47.9 | 4.773 | F |
| 3 - A299 W | 1297 | 324 | 501 | 66.06 | 1584 | 0.819 | 1297 | 1187 | 4.4 | 4.4 | 0.209 | B |
| 4 - B2190 N | 785 | 196 | 977 | | 1037 | 0.757 | 785 | 821 | 2.9 | 3.0 | 0.236 | B |

13:45 - 14:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 761 | 190 | 653 | | 1187 | 0.642 | 772 | 842 | 4.5 | 1.8 | 0.148 | A |
| 2 - Tothill Street | 458 | 114 | 1005 | | 571 | 0.802 | 559 | 420 | 47.9 | 22.5 | 3.827 | F |
| 3 - A299 W | 1059 | 265 | 531 | 53.94 | 1560 | 0.679 | 1068 | 1033 | 4.4 | 2.2 | 0.124 | A |
| 4 - B2190 N | 641 | 160 | 847 | | 1100 | 0.583 | 647 | 752 | 3.0 | 1.4 | 0.134 | A |

14:00 - 14:15

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - Hengist way E | 638 | 159 | 544 | | 1232 | 0.518 | 641 | 702 | 1.8 | 1.1 | 0.102 | A |
| 2 - Tothill Street | 383 | 96 | 835 | | 648 | 0.592 | 467 | 349 | 22.5 | 1.5 | 0.501 | D |
| 3 - A299 W | 887 | 222 | 443 | 45.17 | 1550 | 0.572 | 890 | 860 | 2.2 | 1.4 | 0.091 | A |
| 4 - B2190 N | 537 | 134 | 706 | | 1166 | 0.460 | 539 | 627 | 1.4 | 0.9 | 0.096 | A |

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.0.2.5947
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Filename: Jct 5_R1.j9

Path: R:\Projects\38199 Manston Airport DCO EIA\4 Design\Transport\Junction Modelling\Base Models\Validated\Jct 5_B2190_Minster Rd

Report generation date: 29/01/2018 09:46:09

-
- »2017, AM
 - »2017, PM
 - »2017 Baseline Traffic, AM
 - »2017 Baseline Traffic, PM
 - »2017 Baseline Traffic, Airport Peak
 - »2039 Growthed Traffic, AM
 - »2039 Growthed Traffic, PM
 - »2039 Growthed Traffic, Airport Peak
 - »2039 + Dev Traffic, AM
 - »2039 + Dev Traffic, PM
 - »2039 + Dev Traffic, Airport Peak
 - »2039 B+Dev Net Change, AM
 - »2039 B+Dev Net Change, PM
 - »2039 B+Dev Net Change, Airport Peak

Summary of junction performance

| | AM | | | | | PM | | | | | Airport Peak | | | | | |
|------------------------------|-------------|-------------|------|-----|----------------------------|-------------|-------------|------|-----|---------------------------|--------------|-------------|------|-----|---------------------------|--|
| | Queue (Veh) | Delay (min) | RFC | LOS | Network Residual Capacity | Queue (Veh) | Delay (min) | RFC | LOS | Network Residual Capacity | Queue (Veh) | Delay (min) | RFC | LOS | Network Residual Capacity | |
| 2017 | | | | | | | | | | | | | | | | |
| 1 - B2190 E | 0.3 | 0.04 | 0.26 | A | 95 % [3 - Minster Road] | 0.5 | 0.04 | 0.35 | A | 143 % [1 - B2190 E] | | | | | | |
| 2 - B2190 S | 0.6 | 0.05 | 0.37 | A | | 0.5 | 0.04 | 0.34 | A | | | | | | | |
| 3 - Minster Road | 0.5 | 0.08 | 0.33 | A | | 0.3 | 0.07 | 0.24 | A | | | | | | | |
| 2017 Baseline Traffic | | | | | | | | | | | | | | | | |
| 1 - B2190 E | 0.3 | 0.04 | 0.26 | A | 95 % [3 - Minster Road] | 0.5 | 0.04 | 0.35 | A | 143 % [1 - B2190 E] | 0.2 | 0.03 | 0.18 | A | 264 % [2 - B2190 S] | |
| 2 - B2190 S | 0.6 | 0.05 | 0.37 | A | | 0.5 | 0.04 | 0.34 | A | | 0.3 | 0.04 | 0.26 | A | | |
| 3 - Minster Road | 0.5 | 0.08 | 0.33 | A | | 0.3 | 0.07 | 0.24 | A | | 0.1 | 0.06 | 0.12 | A | | |
| 2039 Growthed Traffic | | | | | | | | | | | | | | | | |
| 1 - B2190 E | 0.5 | 0.04 | 0.33 | A | 55 % [3 - Minster Road] | 0.8 | 0.05 | 0.45 | A | 93 % [1 - B2190 E] | 0.3 | 0.04 | 0.24 | A | 170 % [2 - B2190 S] | |
| 2 - B2190 S | 0.9 | 0.05 | 0.46 | A | | 0.8 | 0.05 | 0.43 | A | | 0.5 | 0.05 | 0.35 | A | | |
| 3 - Minster Road | 0.8 | 0.11 | 0.45 | A | | 0.5 | 0.08 | 0.32 | A | | 0.2 | 0.06 | 0.17 | A | | |
| 2039 + Dev Traffic | | | | | | | | | | | | | | | | |
| 1 - B2190 E | 0.5 | 0.05 | 0.34 | A | 50 % [3 - Minster Road] | 1.0 | 0.06 | 0.51 | A | 73 % [1 - B2190 E] | 0.4 | 0.04 | 0.27 | A | 122 % [2 - B2190 S] | |
| 2 - B2190 S | 0.9 | 0.06 | 0.48 | A | | 0.8 | 0.06 | 0.46 | A | | 0.7 | 0.05 | 0.42 | A | | |
| 3 - Minster Road | 0.8 | 0.11 | 0.46 | A | | 0.5 | 0.08 | 0.33 | A | | 0.2 | 0.07 | 0.19 | A | | |
| 2039 B+Dev Net Change | | | | | | | | | | | | | | | | |
| 1 - B2190 E | 0.9 | 0.05 | 0.46 | A | 56 % [3 - Minster Road] | 1.4 | 0.07 | 0.58 | A | 58 % [1 - B2190 E] | 0.5 | 0.04 | 0.33 | A | 112 % [2 - B2190 S] | |
| 2 - B2190 S | 1.1 | 0.06 | 0.53 | A | | 1.1 | 0.06 | 0.53 | A | | 0.8 | 0.06 | 0.44 | A | | |
| 3 - Minster Road | 0.5 | 0.10 | 0.35 | A | | 0.5 | 0.09 | 0.34 | A | | 0.2 | 0.08 | 0.17 | A | | |

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

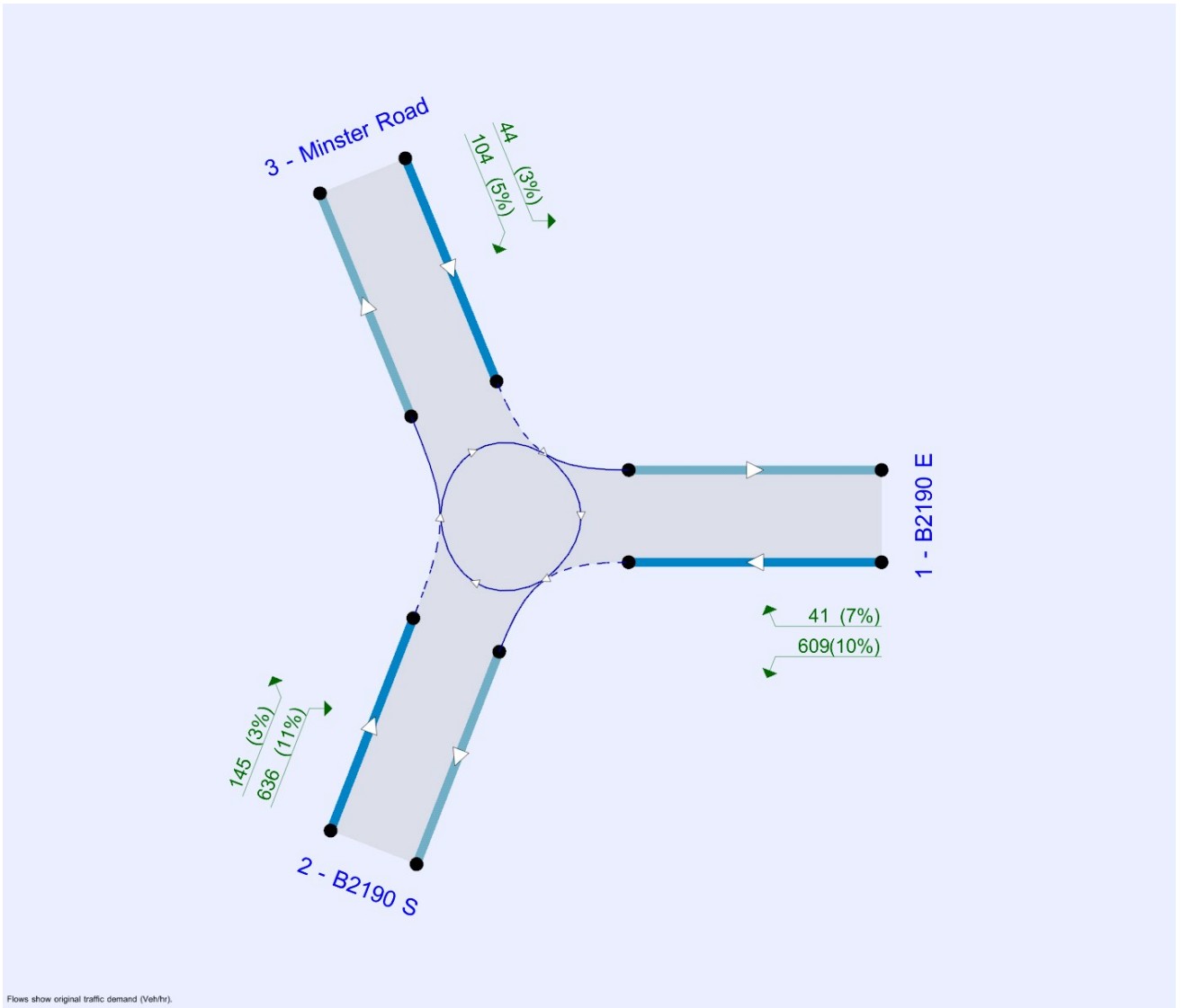
File summary

File Description

| | |
|-------------|-----------------|
| Title | (untitled) |
| Location | |
| Site number | |
| Date | 29/09/2017 |
| Version | |
| Status | (new file) |
| Identifier | |
| Client | |
| Jobnumber | |
| Enumerator | GLOBAL\adam.guy |
| 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 | mph | Veh | Veh | perHour | min | -Min | perMin |



Flows show original traffic demand (Veh/hr).

The junction diagram reflects the last run of Junctions.

Analysis Options

| Calculate Queue Percentiles | Calculate residual capacity | Residual capacity criteria type | RFC Threshold | Average Delay threshold (min) | Queue threshold (PCU) |
|-----------------------------|-----------------------------|---------------------------------|---------------|-------------------------------|-----------------------|
| | ✓ | Delay | 0.85 | 0.60 | 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) |
|-----|-----------------------|------------------|----------------------|--------------------|---------------------|---------------------------|
| D1 | 2017 | AM | ONE HOUR | 07:30 | 09:00 | 15 |
| D2 | 2017 | PM | ONE HOUR | 16:30 | 18:00 | 15 |
| D3 | 2017 Baseline Traffic | AM | ONE HOUR | 07:30 | 09:00 | 15 |
| D4 | 2017 Baseline Traffic | PM | ONE HOUR | 16:30 | 18:00 | 15 |
| D5 | 2017 Baseline Traffic | Airport Peak | ONE HOUR | 12:45 | 14:15 | 15 |
| D6 | 2039 Growthed Traffic | AM | ONE HOUR | 07:30 | 09:00 | 15 |
| D7 | 2039 Growthed Traffic | PM | ONE HOUR | 16:30 | 18:00 | 15 |
| D8 | 2039 Growthed Traffic | Airport Peak | ONE HOUR | 12:45 | 14:15 | 15 |
| D9 | 2039 + Dev Traffic | AM | ONE HOUR | 07:30 | 09:00 | 15 |
| D10 | 2039 + Dev Traffic | PM | ONE HOUR | 16:30 | 18:00 | 15 |
| D11 | 2039 + Dev Traffic | Airport Peak | ONE HOUR | 12:45 | 14:15 | 15 |
| D12 | 2039 B+Dev Net Change | AM | ONE HOUR | 07:30 | 09:00 | 15 |
| D13 | 2039 B+Dev Net Change | PM | ONE HOUR | 16:30 | 18:00 | 15 |
| D14 | 2039 B+Dev Net Change | Airport Peak | ONE HOUR | 12:45 | 14:15 | 15 |

Analysis Set Details

| ID | Network flow scaling factor (%) |
|----|---------------------------------|
| A1 | 100.000 |

2017, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|-----------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3 | 0.05 | A |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | 95 | 3 - Minster Road |

Arms

Arms

| Arm | Name | Description |
|-----|--------------|-------------|
| 1 | B2190 E | |
| 2 | B2190 S | |
| 3 | Minster Road | |

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 |
|------------------|----------------------------------|---------------------|---------------------------------|----------------------|-----------------------------------|------------------------------------|-----------|
| 1 - B2190 E | 7.49 | 7.49 | 0.0 | 25.0 | 47.0 | 8.5 | |
| 2 - B2190 S | 7.00 | 7.00 | 0.0 | 26.0 | 47.0 | 29.0 | |
| 3 - Minster Road | 2.44 | 6.54 | 16.9 | 17.0 | 47.0 | 25.5 | |

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

| Arm | Final slope | Final intercept (PCU/hr) |
|------------------|-------------|--------------------------|
| 1 - B2190 E | 0.792 | 2461 |
| 2 - B2190 S | 0.712 | 2152 |
| 3 - Minster Road | 0.574 | 1448 |

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) |
|----|---------------|------------------|----------------------|--------------------|---------------------|---------------------------|
| D1 | 2017 | AM | ONE HOUR | 07:30 | 09:00 | 15 |

| Vehicle mix source | PCU Factor for a HV (PCU) |
|--------------------|---------------------------|
| HV Percentages | 2.00 |

Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|------------------|------------|--------------|-------------------------|--------------------|
| 1 - B2190 E | | ✓ | 486 | 100.000 |
| 2 - B2190 S | | ✓ | 681 | 100.000 |
| 3 - Minster Road | | ✓ | 336 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | |
|------|------------------|-------------|-------------|------------------|
| | | 1 - B2190 E | 2 - B2190 S | 3 - Minster Road |
| From | 1 - B2190 E | 0 | 480 | 6 |
| | 2 - B2190 S | 480 | 0 | 201 |
| | 3 - Minster Road | 39 | 297 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | |
|------|------------------|-------------|-------------|------------------|
| | | 1 - B2190 E | 2 - B2190 S | 3 - Minster Road |
| From | 1 - B2190 E | 0 | 5 | 0 |
| | 2 - B2190 S | 6 | 0 | 2 |
| | 3 - Minster Road | 0 | 1 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS |
|------------------|---------|-----------------|-----------------|---------|
| 1 - B2190 E | 0.26 | 0.04 | 0.3 | A |
| 2 - B2190 S | 0.37 | 0.05 | 0.6 | A |
| 3 - Minster Road | 0.33 | 0.08 | 0.5 | A |

Main Results for each time segment

07:30 - 07:45

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 366 | 223 | 2175 | 0.168 | 365 | 0.2 | 0.033 | A |
| 2 - B2190 S | 513 | 5 | 2050 | 0.250 | 511 | 0.3 | 0.039 | A |
| 3 - Minster Road | 253 | 360 | 1218 | 0.208 | 252 | 0.3 | 0.062 | A |

07:45 - 08:00

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 437 | 267 | 2142 | 0.204 | 437 | 0.3 | 0.035 | A |
| 2 - B2190 S | 612 | 5 | 2050 | 0.299 | 612 | 0.4 | 0.042 | A |
| 3 - Minster Road | 302 | 431 | 1175 | 0.257 | 302 | 0.3 | 0.069 | A |

08:00 - 08:15

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 535 | 326 | 2096 | 0.255 | 535 | 0.3 | 0.038 | A |
| 2 - B2190 S | 750 | 7 | 2049 | 0.366 | 749 | 0.6 | 0.046 | A |
| 3 - Minster Road | 370 | 528 | 1117 | 0.331 | 369 | 0.5 | 0.080 | A |

08:15 - 08:30

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 535 | 327 | 2096 | 0.255 | 535 | 0.3 | 0.038 | A |
| 2 - B2190 S | 750 | 7 | 2049 | 0.366 | 750 | 0.6 | 0.046 | A |
| 3 - Minster Road | 370 | 528 | 1117 | 0.331 | 370 | 0.5 | 0.080 | A |

08:30 - 08:45

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 437 | 268 | 2141 | 0.204 | 437 | 0.3 | 0.035 | A |
| 2 - B2190 S | 612 | 5 | 2050 | 0.299 | 613 | 0.4 | 0.042 | A |
| 3 - Minster Road | 302 | 432 | 1175 | 0.257 | 303 | 0.3 | 0.069 | A |

08:45 - 09:00

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 366 | 224 | 2174 | 0.168 | 366 | 0.2 | 0.033 | A |
| 2 - B2190 S | 513 | 5 | 2050 | 0.250 | 513 | 0.3 | 0.039 | A |
| 3 - Minster Road | 253 | 362 | 1217 | 0.208 | 253 | 0.3 | 0.062 | A |

2017, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|-----------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3 | 0.05 | A |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | 143 | 1 - B2190 E |

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) |
|----|---------------|------------------|----------------------|--------------------|---------------------|---------------------------|
| D2 | 2017 | PM | ONE HOUR | 16:30 | 18:00 | 15 |

| Vehicle mix source | PCU Factor for a HV (PCU) |
|--------------------|---------------------------|
| HV Percentages | 2.00 |

Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|------------------|------------|--------------|-------------------------|--------------------|
| 1 - B2190 E | | ✓ | 699 | 100.000 |
| 2 - B2190 S | | ✓ | 633 | 100.000 |
| 3 - Minster Road | | ✓ | 266 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | |
|------|------------------|-------------|-------------|------------------|
| | | 1 - B2190 E | 2 - B2190 S | 3 - Minster Road |
| From | 1 - B2190 E | 0 | 607 | 92 |
| | 2 - B2190 S | 335 | 0 | 298 |
| | 3 - Minster Road | 44 | 222 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | |
|------|------------------|-------------|-------------|------------------|
| | | 1 - B2190 E | 2 - B2190 S | 3 - Minster Road |
| From | 1 - B2190 E | 0 | 3 | 0 |
| | 2 - B2190 S | 3 | 0 | 1 |
| | 3 - Minster Road | 7 | 0 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS |
|------------------|---------|-----------------|-----------------|---------|
| 1 - B2190 E | 0.35 | 0.04 | 0.5 | A |
| 2 - B2190 S | 0.34 | 0.04 | 0.5 | A |
| 3 - Minster Road | 0.24 | 0.07 | 0.3 | A |

Main Results for each time segment

16:30 - 16:45

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 526 | 167 | 2270 | 0.232 | 525 | 0.3 | 0.034 | A |
| 2 - B2190 S | 477 | 69 | 2061 | 0.231 | 475 | 0.3 | 0.038 | A |
| 3 - Minster Road | 200 | 252 | 1284 | 0.156 | 200 | 0.2 | 0.055 | A |

16:45 - 17:00

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 628 | 199 | 2245 | 0.280 | 628 | 0.4 | 0.037 | A |
| 2 - B2190 S | 569 | 83 | 2051 | 0.277 | 569 | 0.4 | 0.040 | A |
| 3 - Minster Road | 239 | 301 | 1255 | 0.190 | 239 | 0.2 | 0.059 | A |

17:00 - 17:15

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 770 | 244 | 2210 | 0.348 | 769 | 0.5 | 0.042 | A |
| 2 - B2190 S | 697 | 101 | 2038 | 0.342 | 696 | 0.5 | 0.045 | A |
| 3 - Minster Road | 293 | 369 | 1216 | 0.241 | 293 | 0.3 | 0.065 | A |

17:15 - 17:30

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 770 | 244 | 2210 | 0.348 | 770 | 0.5 | 0.042 | A |
| 2 - B2190 S | 697 | 101 | 2038 | 0.342 | 697 | 0.5 | 0.045 | A |
| 3 - Minster Road | 293 | 369 | 1216 | 0.241 | 293 | 0.3 | 0.065 | A |

17:30 - 17:45

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 628 | 200 | 2244 | 0.280 | 629 | 0.4 | 0.037 | A |
| 2 - B2190 S | 569 | 83 | 2051 | 0.277 | 570 | 0.4 | 0.041 | A |
| 3 - Minster Road | 239 | 301 | 1255 | 0.191 | 239 | 0.2 | 0.059 | A |

17:45 - 18:00

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 526 | 167 | 2269 | 0.232 | 527 | 0.3 | 0.034 | A |
| 2 - B2190 S | 477 | 69 | 2061 | 0.231 | 477 | 0.3 | 0.038 | A |
| 3 - Minster Road | 200 | 252 | 1284 | 0.156 | 200 | 0.2 | 0.055 | A |

2017 Baseline Traffic, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|-----------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3 | 0.05 | A |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | 95 | 3 - Minster Road |

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) |
|----|-----------------------|------------------|----------------------|--------------------|---------------------|---------------------------|
| D3 | 2017 Baseline Traffic | AM | ONE HOUR | 07:30 | 09:00 | 15 |

| Vehicle mix source | PCU Factor for a HV (PCU) |
|--------------------|---------------------------|
| HV Percentages | 2.00 |

Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|------------------|------------|--------------|-------------------------|--------------------|
| 1 - B2190 E | | ✓ | 486 | 100.000 |
| 2 - B2190 S | | ✓ | 681 | 100.000 |
| 3 - Minster Road | | ✓ | 336 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | |
|------|------------------|-------------|-------------|------------------|
| | | 1 - B2190 E | 2 - B2190 S | 3 - Minster Road |
| From | 1 - B2190 E | 0 | 480 | 6 |
| | 2 - B2190 S | 480 | 0 | 201 |
| | 3 - Minster Road | 39 | 297 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | |
|------|------------------|-------------|-------------|------------------|
| | | 1 - B2190 E | 2 - B2190 S | 3 - Minster Road |
| From | 1 - B2190 E | 0 | 5 | 0 |
| | 2 - B2190 S | 6 | 0 | 2 |
| | 3 - Minster Road | 0 | 1 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS |
|------------------|---------|-----------------|-----------------|---------|
| 1 - B2190 E | 0.26 | 0.04 | 0.3 | A |
| 2 - B2190 S | 0.37 | 0.05 | 0.6 | A |
| 3 - Minster Road | 0.33 | 0.08 | 0.5 | A |

Main Results for each time segment

07:30 - 07:45

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 366 | 223 | 2175 | 0.168 | 365 | 0.2 | 0.033 | A |
| 2 - B2190 S | 513 | 5 | 2050 | 0.250 | 511 | 0.3 | 0.039 | A |
| 3 - Minster Road | 253 | 360 | 1218 | 0.208 | 252 | 0.3 | 0.062 | A |

07:45 - 08:00

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 437 | 267 | 2142 | 0.204 | 437 | 0.3 | 0.035 | A |
| 2 - B2190 S | 612 | 5 | 2050 | 0.299 | 612 | 0.4 | 0.042 | A |
| 3 - Minster Road | 302 | 431 | 1175 | 0.257 | 302 | 0.3 | 0.069 | A |

08:00 - 08:15

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 535 | 326 | 2096 | 0.255 | 535 | 0.3 | 0.038 | A |
| 2 - B2190 S | 750 | 7 | 2049 | 0.366 | 749 | 0.6 | 0.046 | A |
| 3 - Minster Road | 370 | 528 | 1117 | 0.331 | 369 | 0.5 | 0.080 | A |

08:15 - 08:30

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 535 | 327 | 2096 | 0.255 | 535 | 0.3 | 0.038 | A |
| 2 - B2190 S | 750 | 7 | 2049 | 0.366 | 750 | 0.6 | 0.046 | A |
| 3 - Minster Road | 370 | 528 | 1117 | 0.331 | 370 | 0.5 | 0.080 | A |

08:30 - 08:45

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 437 | 268 | 2141 | 0.204 | 437 | 0.3 | 0.035 | A |
| 2 - B2190 S | 612 | 5 | 2050 | 0.299 | 613 | 0.4 | 0.042 | A |
| 3 - Minster Road | 302 | 432 | 1175 | 0.257 | 303 | 0.3 | 0.069 | A |

08:45 - 09:00

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 366 | 224 | 2174 | 0.168 | 366 | 0.2 | 0.033 | A |
| 2 - B2190 S | 513 | 5 | 2050 | 0.250 | 513 | 0.3 | 0.039 | A |
| 3 - Minster Road | 253 | 362 | 1217 | 0.208 | 253 | 0.3 | 0.062 | A |

2017 Baseline Traffic, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|-----------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3 | 0.05 | A |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | 143 | 1 - B2190 E |

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) |
|----|-----------------------|------------------|----------------------|--------------------|---------------------|---------------------------|
| D4 | 2017 Baseline Traffic | PM | ONE HOUR | 16:30 | 18:00 | 15 |

| Vehicle mix source | PCU Factor for a HV (PCU) |
|--------------------|---------------------------|
| HV Percentages | 2.00 |

Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|------------------|------------|--------------|-------------------------|--------------------|
| 1 - B2190 E | | ✓ | 699 | 100.000 |
| 2 - B2190 S | | ✓ | 633 | 100.000 |
| 3 - Minster Road | | ✓ | 266 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | |
|------|------------------|-------------|-------------|------------------|
| | | 1 - B2190 E | 2 - B2190 S | 3 - Minster Road |
| From | 1 - B2190 E | 0 | 607 | 92 |
| | 2 - B2190 S | 335 | 0 | 298 |
| | 3 - Minster Road | 44 | 222 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | |
|------|------------------|-------------|-------------|------------------|
| | | 1 - B2190 E | 2 - B2190 S | 3 - Minster Road |
| From | 1 - B2190 E | 0 | 3 | 0 |
| | 2 - B2190 S | 3 | 0 | 1 |
| | 3 - Minster Road | 7 | 0 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS |
|------------------|---------|-----------------|-----------------|---------|
| 1 - B2190 E | 0.35 | 0.04 | 0.5 | A |
| 2 - B2190 S | 0.34 | 0.04 | 0.5 | A |
| 3 - Minster Road | 0.24 | 0.07 | 0.3 | A |

Main Results for each time segment

16:30 - 16:45

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 526 | 167 | 2270 | 0.232 | 525 | 0.3 | 0.034 | A |
| 2 - B2190 S | 477 | 69 | 2061 | 0.231 | 475 | 0.3 | 0.038 | A |
| 3 - Minster Road | 200 | 252 | 1284 | 0.156 | 200 | 0.2 | 0.055 | A |

16:45 - 17:00

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 628 | 199 | 2245 | 0.280 | 628 | 0.4 | 0.037 | A |
| 2 - B2190 S | 569 | 83 | 2051 | 0.277 | 569 | 0.4 | 0.040 | A |
| 3 - Minster Road | 239 | 301 | 1255 | 0.190 | 239 | 0.2 | 0.059 | A |

17:00 - 17:15

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 770 | 244 | 2210 | 0.348 | 769 | 0.5 | 0.042 | A |
| 2 - B2190 S | 697 | 101 | 2038 | 0.342 | 696 | 0.5 | 0.045 | A |
| 3 - Minster Road | 293 | 369 | 1216 | 0.241 | 293 | 0.3 | 0.065 | A |

17:15 - 17:30

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 770 | 244 | 2210 | 0.348 | 770 | 0.5 | 0.042 | A |
| 2 - B2190 S | 697 | 101 | 2038 | 0.342 | 697 | 0.5 | 0.045 | A |
| 3 - Minster Road | 293 | 369 | 1216 | 0.241 | 293 | 0.3 | 0.065 | A |

17:30 - 17:45

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 628 | 200 | 2244 | 0.280 | 629 | 0.4 | 0.037 | A |
| 2 - B2190 S | 569 | 83 | 2051 | 0.277 | 570 | 0.4 | 0.041 | A |
| 3 - Minster Road | 239 | 301 | 1255 | 0.191 | 239 | 0.2 | 0.059 | A |

17:45 - 18:00

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 526 | 167 | 2269 | 0.232 | 527 | 0.3 | 0.034 | A |
| 2 - B2190 S | 477 | 69 | 2061 | 0.231 | 477 | 0.3 | 0.038 | A |
| 3 - Minster Road | 200 | 252 | 1284 | 0.156 | 200 | 0.2 | 0.055 | A |

2017 Baseline Traffic, Airport Peak

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|-----------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3 | 0.04 | A |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | 264 | 2 - B2190 S |

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) |
|----|-----------------------|------------------|----------------------|--------------------|---------------------|---------------------------|
| D5 | 2017 Baseline Traffic | Airport Peak | ONE HOUR | 12:45 | 14:15 | 15 |

| Vehicle mix source | PCU Factor for a HV (PCU) |
|--------------------|---------------------------|
| HV Percentages | 2.00 |

Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|------------------|------------|--------------|-------------------------|--------------------|
| 1 - B2190 E | | ✓ | 360 | 100.000 |
| 2 - B2190 S | | ✓ | 459 | 100.000 |
| 3 - Minster Road | | ✓ | 129 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | |
|------|------------------|-------------|-------------|------------------|
| | | 1 - B2190 E | 2 - B2190 S | 3 - Minster Road |
| From | 1 - B2190 E | 0 | 329 | 31 |
| | 2 - B2190 S | 307 | 0 | 152 |
| | 3 - Minster Road | 32 | 97 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | |
|------|------------------|-------------|-------------|------------------|
| | | 1 - B2190 E | 2 - B2190 S | 3 - Minster Road |
| From | 1 - B2190 E | 0 | 6 | 6 |
| | 2 - B2190 S | 10 | 0 | 3 |
| | 3 - Minster Road | 3 | 4 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS |
|------------------|---------|-----------------|-----------------|---------|
| 1 - B2190 E | 0.18 | 0.03 | 0.2 | A |
| 2 - B2190 S | 0.26 | 0.04 | 0.3 | A |
| 3 - Minster Road | 0.12 | 0.06 | 0.1 | A |

Main Results for each time segment

12:45 - 13:00

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 271 | 73 | 2265 | 0.120 | 270 | 0.1 | 0.030 | A |
| 2 - B2190 S | 346 | 23 | 1982 | 0.174 | 345 | 0.2 | 0.037 | A |
| 3 - Minster Road | 97 | 231 | 1255 | 0.077 | 97 | 0.1 | 0.052 | A |

13:00 - 13:15

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 324 | 87 | 2254 | 0.144 | 324 | 0.2 | 0.031 | A |
| 2 - B2190 S | 413 | 28 | 1979 | 0.208 | 412 | 0.3 | 0.038 | A |
| 3 - Minster Road | 116 | 276 | 1228 | 0.094 | 116 | 0.1 | 0.054 | A |

13:15 - 13:30

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 396 | 107 | 2239 | 0.177 | 396 | 0.2 | 0.033 | A |
| 2 - B2190 S | 505 | 34 | 1975 | 0.256 | 505 | 0.3 | 0.041 | A |
| 3 - Minster Road | 142 | 338 | 1190 | 0.119 | 142 | 0.1 | 0.057 | A |

13:30 - 13:45

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 396 | 107 | 2239 | 0.177 | 396 | 0.2 | 0.033 | A |
| 2 - B2190 S | 505 | 34 | 1975 | 0.256 | 505 | 0.3 | 0.041 | A |
| 3 - Minster Road | 142 | 338 | 1190 | 0.119 | 142 | 0.1 | 0.057 | A |

13:45 - 14:00

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 324 | 87 | 2254 | 0.144 | 324 | 0.2 | 0.031 | A |
| 2 - B2190 S | 413 | 28 | 1979 | 0.208 | 413 | 0.3 | 0.038 | A |
| 3 - Minster Road | 116 | 276 | 1228 | 0.094 | 116 | 0.1 | 0.054 | A |

14:00 - 14:15

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 271 | 73 | 2265 | 0.120 | 271 | 0.1 | 0.030 | A |
| 2 - B2190 S | 346 | 23 | 1982 | 0.174 | 346 | 0.2 | 0.037 | A |
| 3 - Minster Road | 97 | 231 | 1255 | 0.077 | 97 | 0.1 | 0.052 | A |

2039 Growthed Traffic, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|-----------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3 | 0.06 | A |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | 55 | 3 - Minster Road |

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) |
|----|-----------------------|------------------|----------------------|--------------------|---------------------|---------------------------|
| D6 | 2039 Growthed Traffic | AM | ONE HOUR | 07:30 | 09:00 | 15 |

| Vehicle mix source | PCU Factor for a HV (PCU) |
|--------------------|---------------------------|
| HV Percentages | 2.00 |

Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|------------------|------------|--------------|-------------------------|--------------------|
| 1 - B2190 E | | ✓ | 608 | 100.000 |
| 2 - B2190 S | | ✓ | 852 | 100.000 |
| 3 - Minster Road | | ✓ | 420 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | |
|------|------------------|-------------|-------------|------------------|
| | | 1 - B2190 E | 2 - B2190 S | 3 - Minster Road |
| From | 1 - B2190 E | 0 | 601 | 7 |
| | 2 - B2190 S | 601 | 0 | 251 |
| | 3 - Minster Road | 49 | 371 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | |
|------|------------------|-------------|-------------|------------------|
| | | 1 - B2190 E | 2 - B2190 S | 3 - Minster Road |
| From | 1 - B2190 E | 0 | 5 | 0 |
| | 2 - B2190 S | 7 | 0 | 2 |
| | 3 - Minster Road | 0 | 1 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS |
|------------------|---------|-----------------|-----------------|---------|
| 1 - B2190 E | 0.33 | 0.04 | 0.5 | A |
| 2 - B2190 S | 0.46 | 0.05 | 0.9 | A |
| 3 - Minster Road | 0.45 | 0.11 | 0.8 | A |

Main Results for each time segment

07:30 - 07:45

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 458 | 278 | 2133 | 0.215 | 457 | 0.3 | 0.036 | A |
| 2 - B2190 S | 641 | 5 | 2036 | 0.315 | 640 | 0.5 | 0.043 | A |
| 3 - Minster Road | 316 | 451 | 1161 | 0.272 | 315 | 0.4 | 0.071 | A |

07:45 - 08:00

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 547 | 333 | 2091 | 0.261 | 546 | 0.4 | 0.039 | A |
| 2 - B2190 S | 766 | 6 | 2035 | 0.376 | 765 | 0.6 | 0.047 | A |
| 3 - Minster Road | 378 | 540 | 1107 | 0.341 | 377 | 0.5 | 0.082 | A |

08:00 - 08:15

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 669 | 407 | 2034 | 0.329 | 669 | 0.5 | 0.044 | A |
| 2 - B2190 S | 938 | 8 | 2034 | 0.461 | 937 | 0.9 | 0.055 | A |
| 3 - Minster Road | 462 | 661 | 1033 | 0.448 | 461 | 0.8 | 0.105 | A |

08:15 - 08:30

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 669 | 408 | 2034 | 0.329 | 669 | 0.5 | 0.044 | A |
| 2 - B2190 S | 938 | 8 | 2034 | 0.461 | 938 | 0.9 | 0.055 | A |
| 3 - Minster Road | 462 | 662 | 1032 | 0.448 | 462 | 0.8 | 0.105 | A |

08:30 - 08:45

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 547 | 335 | 2090 | 0.262 | 547 | 0.4 | 0.039 | A |
| 2 - B2190 S | 766 | 6 | 2035 | 0.376 | 767 | 0.6 | 0.047 | A |
| 3 - Minster Road | 378 | 541 | 1106 | 0.341 | 379 | 0.5 | 0.083 | A |

08:45 - 09:00

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 458 | 280 | 2132 | 0.215 | 458 | 0.3 | 0.036 | A |
| 2 - B2190 S | 641 | 5 | 2036 | 0.315 | 642 | 0.5 | 0.043 | A |
| 3 - Minster Road | 316 | 453 | 1160 | 0.273 | 317 | 0.4 | 0.071 | A |

2039 Growthed Traffic, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|-----------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3 | 0.06 | A |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | 93 | 1 - B2190 E |

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) |
|----|-----------------------|------------------|----------------------|--------------------|---------------------|---------------------------|
| D7 | 2039 Growthed Traffic | PM | ONE HOUR | 16:30 | 18:00 | 15 |

| Vehicle mix source | PCU Factor for a HV (PCU) |
|--------------------|---------------------------|
| HV Percentages | 2.00 |

Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|------------------|------------|--------------|-------------------------|--------------------|
| 1 - B2190 E | | ✓ | 881 | 100.000 |
| 2 - B2190 S | | ✓ | 797 | 100.000 |
| 3 - Minster Road | | ✓ | 336 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | |
|------|------------------|-------------|-------------|------------------|
| | | 1 - B2190 E | 2 - B2190 S | 3 - Minster Road |
| From | 1 - B2190 E | 0 | 765 | 116 |
| | 2 - B2190 S | 422 | 0 | 375 |
| | 3 - Minster Road | 56 | 280 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | |
|------|------------------|-------------|-------------|------------------|
| | | 1 - B2190 E | 2 - B2190 S | 3 - Minster Road |
| From | 1 - B2190 E | 0 | 3 | 0 |
| | 2 - B2190 S | 3 | 0 | 1 |
| | 3 - Minster Road | 7 | 0 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS |
|------------------|---------|-----------------|-----------------|---------|
| 1 - B2190 E | 0.45 | 0.05 | 0.8 | A |
| 2 - B2190 S | 0.43 | 0.05 | 0.8 | A |
| 3 - Minster Road | 0.32 | 0.08 | 0.5 | A |

Main Results for each time segment

16:30 - 16:45

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 663 | 210 | 2236 | 0.297 | 662 | 0.4 | 0.038 | A |
| 2 - B2190 S | 600 | 87 | 2048 | 0.293 | 598 | 0.4 | 0.041 | A |
| 3 - Minster Road | 253 | 317 | 1246 | 0.203 | 252 | 0.3 | 0.060 | A |

16:45 - 17:00

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 792 | 251 | 2204 | 0.359 | 791 | 0.6 | 0.042 | A |
| 2 - B2190 S | 716 | 104 | 2036 | 0.352 | 716 | 0.5 | 0.045 | A |
| 3 - Minster Road | 302 | 379 | 1210 | 0.250 | 302 | 0.3 | 0.066 | A |

17:00 - 17:15

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 970 | 308 | 2161 | 0.449 | 969 | 0.8 | 0.050 | A |
| 2 - B2190 S | 878 | 128 | 2020 | 0.434 | 877 | 0.8 | 0.052 | A |
| 3 - Minster Road | 370 | 464 | 1160 | 0.319 | 369 | 0.5 | 0.076 | A |

17:15 - 17:30

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 970 | 308 | 2160 | 0.449 | 970 | 0.8 | 0.050 | A |
| 2 - B2190 S | 878 | 128 | 2020 | 0.434 | 878 | 0.8 | 0.053 | A |
| 3 - Minster Road | 370 | 465 | 1160 | 0.319 | 370 | 0.5 | 0.076 | A |

17:30 - 17:45

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 792 | 252 | 2204 | 0.359 | 793 | 0.6 | 0.043 | A |
| 2 - B2190 S | 716 | 104 | 2036 | 0.352 | 717 | 0.5 | 0.046 | A |
| 3 - Minster Road | 302 | 380 | 1209 | 0.250 | 303 | 0.3 | 0.066 | A |

17:45 - 18:00

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 663 | 211 | 2236 | 0.297 | 664 | 0.4 | 0.038 | A |
| 2 - B2190 S | 600 | 87 | 2048 | 0.293 | 601 | 0.4 | 0.041 | A |
| 3 - Minster Road | 253 | 318 | 1245 | 0.203 | 253 | 0.3 | 0.060 | A |

2039 Growthed Traffic, Airport Peak

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|-----------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3 | 0.05 | A |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | 170 | 2 - B2190 S |

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) |
|----|-----------------------|------------------|----------------------|--------------------|---------------------|---------------------------|
| D8 | 2039 Growthed Traffic | Airport Peak | ONE HOUR | 12:45 | 14:15 | 15 |

| Vehicle mix source | PCU Factor for a HV (PCU) |
|--------------------|---------------------------|
| HV Percentages | 2.00 |

Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|------------------|------------|--------------|-------------------------|--------------------|
| 1 - B2190 E | | ✓ | 481 | 100.000 |
| 2 - B2190 S | | ✓ | 614 | 100.000 |
| 3 - Minster Road | | ✓ | 172 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | |
|------|------------------|-------------|-------------|------------------|
| | | 1 - B2190 E | 2 - B2190 S | 3 - Minster Road |
| From | 1 - B2190 E | 0 | 440 | 41 |
| | 2 - B2190 S | 411 | 0 | 203 |
| | 3 - Minster Road | 43 | 129 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | |
|------|------------------|-------------|-------------|------------------|
| | | 1 - B2190 E | 2 - B2190 S | 3 - Minster Road |
| From | 1 - B2190 E | 0 | 7 | 7 |
| | 2 - B2190 S | 11 | 0 | 3 |
| | 3 - Minster Road | 3 | 4 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS |
|------------------|---------|-----------------|-----------------|---------|
| 1 - B2190 E | 0.24 | 0.04 | 0.3 | A |
| 2 - B2190 S | 0.35 | 0.05 | 0.5 | A |
| 3 - Minster Road | 0.17 | 0.06 | 0.2 | A |

Main Results for each time segment

12:45 - 13:00

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 362 | 97 | 2225 | 0.163 | 361 | 0.2 | 0.032 | A |
| 2 - B2190 S | 462 | 31 | 1965 | 0.235 | 461 | 0.3 | 0.040 | A |
| 3 - Minster Road | 129 | 309 | 1206 | 0.107 | 129 | 0.1 | 0.056 | A |

13:00 - 13:15

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 432 | 116 | 2211 | 0.196 | 432 | 0.2 | 0.034 | A |
| 2 - B2190 S | 552 | 37 | 1960 | 0.282 | 552 | 0.4 | 0.043 | A |
| 3 - Minster Road | 155 | 369 | 1169 | 0.132 | 154 | 0.2 | 0.059 | A |

13:15 - 13:30

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 530 | 142 | 2191 | 0.242 | 529 | 0.3 | 0.036 | A |
| 2 - B2190 S | 676 | 45 | 1955 | 0.346 | 675 | 0.5 | 0.047 | A |
| 3 - Minster Road | 189 | 452 | 1118 | 0.169 | 189 | 0.2 | 0.065 | A |

13:30 - 13:45

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 530 | 142 | 2191 | 0.242 | 530 | 0.3 | 0.036 | A |
| 2 - B2190 S | 676 | 45 | 1955 | 0.346 | 676 | 0.5 | 0.047 | A |
| 3 - Minster Road | 189 | 453 | 1118 | 0.169 | 189 | 0.2 | 0.065 | A |

13:45 - 14:00

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 432 | 116 | 2211 | 0.196 | 433 | 0.2 | 0.034 | A |
| 2 - B2190 S | 552 | 37 | 1960 | 0.282 | 553 | 0.4 | 0.043 | A |
| 3 - Minster Road | 155 | 370 | 1168 | 0.132 | 155 | 0.2 | 0.059 | A |

14:00 - 14:15

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 362 | 97 | 2225 | 0.163 | 362 | 0.2 | 0.032 | A |
| 2 - B2190 S | 462 | 31 | 1965 | 0.235 | 463 | 0.3 | 0.040 | A |
| 3 - Minster Road | 129 | 310 | 1205 | 0.107 | 130 | 0.1 | 0.056 | A |

2039 + Dev Traffic, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|-----------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3 | 0.06 | A |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | 50 | 3 - Minster Road |

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) |
|----|--------------------|------------------|----------------------|--------------------|---------------------|---------------------------|
| D9 | 2039 + Dev Traffic | AM | ONE HOUR | 07:30 | 09:00 | 15 |

| Vehicle mix source | PCU Factor for a HV (PCU) |
|--------------------|---------------------------|
| HV Percentages | 2.00 |

Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|------------------|------------|--------------|-------------------------|--------------------|
| 1 - B2190 E | | ✓ | 623 | 100.000 |
| 2 - B2190 S | | ✓ | 880 | 100.000 |
| 3 - Minster Road | | ✓ | 422 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | |
|------|------------------|-------------|-------------|------------------|
| | | 1 - B2190 E | 2 - B2190 S | 3 - Minster Road |
| From | 1 - B2190 E | 0 | 616 | 7 |
| | 2 - B2190 S | 629 | 0 | 251 |
| | 3 - Minster Road | 51 | 371 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | |
|------|------------------|-------------|-------------|------------------|
| | | 1 - B2190 E | 2 - B2190 S | 3 - Minster Road |
| From | 1 - B2190 E | 0 | 7 | 0 |
| | 2 - B2190 S | 8 | 0 | 2 |
| | 3 - Minster Road | 0 | 1 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS |
|------------------|---------|-----------------|-----------------|---------|
| 1 - B2190 E | 0.34 | 0.05 | 0.5 | A |
| 2 - B2190 S | 0.48 | 0.06 | 0.9 | A |
| 3 - Minster Road | 0.46 | 0.11 | 0.8 | A |

Main Results for each time segment

07:30 - 07:45

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 469 | 278 | 2094 | 0.224 | 468 | 0.3 | 0.037 | A |
| 2 - B2190 S | 663 | 5 | 2021 | 0.328 | 661 | 0.5 | 0.044 | A |
| 3 - Minster Road | 318 | 472 | 1145 | 0.277 | 316 | 0.4 | 0.072 | A |

07:45 - 08:00

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 560 | 333 | 2052 | 0.273 | 560 | 0.4 | 0.040 | A |
| 2 - B2190 S | 791 | 6 | 2021 | 0.391 | 790 | 0.6 | 0.049 | A |
| 3 - Minster Road | 379 | 565 | 1088 | 0.349 | 379 | 0.5 | 0.085 | A |

08:00 - 08:15

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 686 | 407 | 1997 | 0.344 | 685 | 0.5 | 0.046 | A |
| 2 - B2190 S | 969 | 8 | 2020 | 0.480 | 968 | 0.9 | 0.057 | A |
| 3 - Minster Road | 465 | 692 | 1010 | 0.460 | 463 | 0.8 | 0.109 | A |

08:15 - 08:30

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 686 | 408 | 1996 | 0.344 | 686 | 0.5 | 0.046 | A |
| 2 - B2190 S | 969 | 8 | 2020 | 0.480 | 969 | 0.9 | 0.057 | A |
| 3 - Minster Road | 465 | 693 | 1010 | 0.460 | 465 | 0.8 | 0.110 | A |

08:30 - 08:45

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 560 | 335 | 2051 | 0.273 | 561 | 0.4 | 0.040 | A |
| 2 - B2190 S | 791 | 6 | 2021 | 0.391 | 792 | 0.6 | 0.049 | A |
| 3 - Minster Road | 379 | 566 | 1087 | 0.349 | 381 | 0.5 | 0.085 | A |

08:45 - 09:00

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 469 | 280 | 2092 | 0.224 | 469 | 0.3 | 0.037 | A |
| 2 - B2190 S | 663 | 5 | 2021 | 0.328 | 663 | 0.5 | 0.044 | A |
| 3 - Minster Road | 318 | 474 | 1144 | 0.278 | 318 | 0.4 | 0.073 | A |

2039 + Dev Traffic, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|-----------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3 | 0.06 | A |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | 73 | 1 - B2190 E |

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) |
|-----|--------------------|------------------|----------------------|--------------------|---------------------|---------------------------|
| D10 | 2039 + Dev Traffic | PM | ONE HOUR | 16:30 | 18:00 | 15 |

| Vehicle mix source | PCU Factor for a HV (PCU) |
|--------------------|---------------------------|
| HV Percentages | 2.00 |

Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|------------------|------------|--------------|-------------------------|--------------------|
| 1 - B2190 E | | ✓ | 994 | 100.000 |
| 2 - B2190 S | | ✓ | 828 | 100.000 |
| 3 - Minster Road | | ✓ | 336 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | |
|------|------------------|-------------|-------------|------------------|
| | | 1 - B2190 E | 2 - B2190 S | 3 - Minster Road |
| From | 1 - B2190 E | 0 | 876 | 118 |
| | 2 - B2190 S | 453 | 0 | 375 |
| | 3 - Minster Road | 56 | 280 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | |
|------|------------------|-------------|-------------|------------------|
| | | 1 - B2190 E | 2 - B2190 S | 3 - Minster Road |
| From | 1 - B2190 E | 0 | 4 | 0 |
| | 2 - B2190 S | 6 | 0 | 1 |
| | 3 - Minster Road | 7 | 0 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS |
|------------------|---------|-----------------|-----------------|---------|
| 1 - B2190 E | 0.51 | 0.06 | 1.0 | A |
| 2 - B2190 S | 0.46 | 0.06 | 0.8 | A |
| 3 - Minster Road | 0.33 | 0.08 | 0.5 | A |

Main Results for each time segment

16:30 - 16:45

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 748 | 210 | 2217 | 0.338 | 746 | 0.5 | 0.041 | A |
| 2 - B2190 S | 623 | 89 | 2014 | 0.310 | 622 | 0.4 | 0.043 | A |
| 3 - Minster Road | 253 | 340 | 1227 | 0.206 | 252 | 0.3 | 0.062 | A |

16:45 - 17:00

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 894 | 251 | 2185 | 0.409 | 893 | 0.7 | 0.046 | A |
| 2 - B2190 S | 744 | 106 | 2002 | 0.372 | 744 | 0.6 | 0.048 | A |
| 3 - Minster Road | 302 | 407 | 1187 | 0.255 | 302 | 0.3 | 0.068 | A |

17:00 - 17:15

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 1094 | 308 | 2142 | 0.511 | 1093 | 1.0 | 0.057 | A |
| 2 - B2190 S | 912 | 130 | 1986 | 0.459 | 911 | 0.8 | 0.056 | A |
| 3 - Minster Road | 370 | 498 | 1132 | 0.327 | 369 | 0.5 | 0.079 | A |

17:15 - 17:30

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 1094 | 308 | 2141 | 0.511 | 1094 | 1.0 | 0.057 | A |
| 2 - B2190 S | 912 | 130 | 1986 | 0.459 | 912 | 0.8 | 0.056 | A |
| 3 - Minster Road | 370 | 499 | 1131 | 0.327 | 370 | 0.5 | 0.079 | A |

17:30 - 17:45

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 894 | 252 | 2184 | 0.409 | 895 | 0.7 | 0.047 | A |
| 2 - B2190 S | 744 | 106 | 2002 | 0.372 | 745 | 0.6 | 0.048 | A |
| 3 - Minster Road | 302 | 408 | 1186 | 0.255 | 303 | 0.3 | 0.068 | A |

17:45 - 18:00

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 748 | 211 | 2216 | 0.338 | 749 | 0.5 | 0.041 | A |
| 2 - B2190 S | 623 | 89 | 2014 | 0.310 | 624 | 0.5 | 0.043 | A |
| 3 - Minster Road | 253 | 341 | 1226 | 0.206 | 253 | 0.3 | 0.062 | A |

2039 + Dev Traffic, Airport Peak

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|-----------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3 | 0.05 | A |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | 122 | 2 - B2190 S |

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) |
|-----|--------------------|------------------|----------------------|--------------------|---------------------|---------------------------|
| D11 | 2039 + Dev Traffic | Airport Peak | ONE HOUR | 12:45 | 14:15 | 15 |

| Vehicle mix source | PCU Factor for a HV (PCU) |
|--------------------|---------------------------|
| HV Percentages | 2.00 |

Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|------------------|------------|--------------|-------------------------|--------------------|
| 1 - B2190 E | | ✓ | 522 | 100.000 |
| 2 - B2190 S | | ✓ | 745 | 100.000 |
| 3 - Minster Road | | ✓ | 173 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | |
|------|------------------|-------------|-------------|------------------|
| | | 1 - B2190 E | 2 - B2190 S | 3 - Minster Road |
| From | 1 - B2190 E | 0 | 481 | 41 |
| | 2 - B2190 S | 542 | 0 | 203 |
| | 3 - Minster Road | 44 | 129 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | |
|------|------------------|-------------|-------------|------------------|
| | | 1 - B2190 E | 2 - B2190 S | 3 - Minster Road |
| From | 1 - B2190 E | 0 | 9 | 7 |
| | 2 - B2190 S | 12 | 0 | 3 |
| | 3 - Minster Road | 3 | 4 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS |
|------------------|---------|-----------------|-----------------|---------|
| 1 - B2190 E | 0.27 | 0.04 | 0.4 | A |
| 2 - B2190 S | 0.42 | 0.05 | 0.7 | A |
| 3 - Minster Road | 0.19 | 0.07 | 0.2 | A |

Main Results for each time segment

12:45 - 13:00

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 393 | 97 | 2188 | 0.180 | 392 | 0.2 | 0.033 | A |
| 2 - B2190 S | 561 | 31 | 1943 | 0.289 | 559 | 0.4 | 0.043 | A |
| 3 - Minster Road | 130 | 407 | 1144 | 0.114 | 130 | 0.1 | 0.059 | A |

13:00 - 13:15

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 469 | 116 | 2173 | 0.216 | 469 | 0.3 | 0.035 | A |
| 2 - B2190 S | 670 | 37 | 1939 | 0.345 | 669 | 0.5 | 0.047 | A |
| 3 - Minster Road | 156 | 487 | 1094 | 0.142 | 155 | 0.2 | 0.064 | A |

13:15 - 13:30

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 575 | 142 | 2154 | 0.267 | 574 | 0.4 | 0.038 | A |
| 2 - B2190 S | 820 | 45 | 1933 | 0.424 | 819 | 0.7 | 0.054 | A |
| 3 - Minster Road | 190 | 596 | 1026 | 0.186 | 190 | 0.2 | 0.072 | A |

13:30 - 13:45

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 575 | 142 | 2154 | 0.267 | 575 | 0.4 | 0.038 | A |
| 2 - B2190 S | 820 | 45 | 1933 | 0.424 | 820 | 0.7 | 0.054 | A |
| 3 - Minster Road | 190 | 597 | 1026 | 0.186 | 190 | 0.2 | 0.072 | A |

13:45 - 14:00

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 469 | 116 | 2173 | 0.216 | 470 | 0.3 | 0.035 | A |
| 2 - B2190 S | 670 | 37 | 1939 | 0.345 | 671 | 0.5 | 0.047 | A |
| 3 - Minster Road | 156 | 488 | 1093 | 0.142 | 156 | 0.2 | 0.064 | A |

14:00 - 14:15

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 393 | 97 | 2187 | 0.180 | 393 | 0.2 | 0.033 | A |
| 2 - B2190 S | 561 | 31 | 1943 | 0.289 | 561 | 0.4 | 0.043 | A |
| 3 - Minster Road | 130 | 408 | 1143 | 0.114 | 130 | 0.1 | 0.059 | A |

2039 B+Dev Net Change, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|-----------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3 | 0.06 | A |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | 56 | 3 - Minster Road |

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) |
|-----|-----------------------|------------------|----------------------|--------------------|---------------------|---------------------------|
| D12 | 2039 B+Dev Net Change | AM | ONE HOUR | 07:30 | 09:00 | 15 |

| Vehicle mix source | PCU Factor for a HV (PCU) |
|--------------------|---------------------------|
| HV Percentages | 2.00 |

Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|------------------|------------|--------------|-------------------------|--------------------|
| 1 - B2190 E | | ✓ | 883 | 100.000 |
| 2 - B2190 S | | ✓ | 962 | 100.000 |
| 3 - Minster Road | | ✓ | 286 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | |
|------|------------------|-------------|-------------|------------------|
| | | 1 - B2190 E | 2 - B2190 S | 3 - Minster Road |
| From | 1 - B2190 E | 0 | 876 | 7 |
| | 2 - B2190 S | 795 | 0 | 167 |
| | 3 - Minster Road | 51 | 235 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | |
|------|------------------|-------------|-------------|------------------|
| | | 1 - B2190 E | 2 - B2190 S | 3 - Minster Road |
| From | 1 - B2190 E | 0 | 7 | 0 |
| | 2 - B2190 S | 8 | 0 | 2 |
| | 3 - Minster Road | 0 | 2 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS |
|------------------|---------|-----------------|-----------------|---------|
| 1 - B2190 E | 0.46 | 0.05 | 0.9 | A |
| 2 - B2190 S | 0.53 | 0.06 | 1.1 | A |
| 3 - Minster Road | 0.35 | 0.10 | 0.5 | A |

Main Results for each time segment

07:30 - 07:45

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 665 | 176 | 2168 | 0.307 | 663 | 0.4 | 0.040 | A |
| 2 - B2190 S | 724 | 5 | 2009 | 0.361 | 722 | 0.6 | 0.047 | A |
| 3 - Minster Road | 215 | 597 | 1061 | 0.203 | 214 | 0.3 | 0.071 | A |

07:45 - 08:00

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 794 | 211 | 2142 | 0.371 | 793 | 0.6 | 0.044 | A |
| 2 - B2190 S | 865 | 6 | 2008 | 0.431 | 864 | 0.8 | 0.052 | A |
| 3 - Minster Road | 257 | 714 | 989 | 0.260 | 257 | 0.3 | 0.082 | A |

08:00 - 08:15

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 972 | 258 | 2106 | 0.462 | 971 | 0.9 | 0.053 | A |
| 2 - B2190 S | 1059 | 8 | 2007 | 0.528 | 1058 | 1.1 | 0.063 | A |
| 3 - Minster Road | 315 | 874 | 891 | 0.353 | 314 | 0.5 | 0.104 | A |

08:15 - 08:30

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 972 | 259 | 2106 | 0.462 | 972 | 0.9 | 0.053 | A |
| 2 - B2190 S | 1059 | 8 | 2007 | 0.528 | 1059 | 1.1 | 0.063 | A |
| 3 - Minster Road | 315 | 875 | 891 | 0.354 | 315 | 0.5 | 0.104 | A |

08:30 - 08:45

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 794 | 212 | 2141 | 0.371 | 795 | 0.6 | 0.045 | A |
| 2 - B2190 S | 865 | 6 | 2008 | 0.431 | 866 | 0.8 | 0.053 | A |
| 3 - Minster Road | 257 | 716 | 988 | 0.260 | 258 | 0.4 | 0.082 | A |

08:45 - 09:00

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 665 | 177 | 2167 | 0.307 | 665 | 0.4 | 0.040 | A |
| 2 - B2190 S | 724 | 5 | 2009 | 0.361 | 725 | 0.6 | 0.047 | A |
| 3 - Minster Road | 215 | 599 | 1059 | 0.203 | 216 | 0.3 | 0.071 | A |

2039 B+Dev Net Change, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|-----------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3 | 0.07 | A |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | 58 | 1 - B2190 E |

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) |
|-----|-----------------------|------------------|----------------------|--------------------|---------------------|---------------------------|
| D13 | 2039 B+Dev Net Change | PM | ONE HOUR | 16:30 | 18:00 | 15 |

| Vehicle mix source | PCU Factor for a HV (PCU) |
|--------------------|---------------------------|
| HV Percentages | 2.00 |

Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|------------------|------------|--------------|-------------------------|--------------------|
| 1 - B2190 E | | ✓ | 1144 | 100.000 |
| 2 - B2190 S | | ✓ | 956 | 100.000 |
| 3 - Minster Road | | ✓ | 297 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | |
|------|------------------|-------------|-------------|------------------|
| | | 1 - B2190 E | 2 - B2190 S | 3 - Minster Road |
| From | 1 - B2190 E | 0 | 1026 | 118 |
| | 2 - B2190 S | 709 | 0 | 247 |
| | 3 - Minster Road | 56 | 241 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | |
|------|------------------|-------------|-------------|------------------|
| | | 1 - B2190 E | 2 - B2190 S | 3 - Minster Road |
| From | 1 - B2190 E | 0 | 4 | 0 |
| | 2 - B2190 S | 4 | 0 | 1 |
| | 3 - Minster Road | 7 | 0 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS |
|------------------|---------|-----------------|-----------------|---------|
| 1 - B2190 E | 0.58 | 0.07 | 1.4 | A |
| 2 - B2190 S | 0.53 | 0.06 | 1.1 | A |
| 3 - Minster Road | 0.34 | 0.09 | 0.5 | A |

Main Results for each time segment

16:30 - 16:45

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 861 | 181 | 2238 | 0.385 | 859 | 0.6 | 0.043 | A |
| 2 - B2190 S | 720 | 89 | 2024 | 0.356 | 718 | 0.5 | 0.046 | A |
| 3 - Minster Road | 224 | 532 | 1116 | 0.200 | 223 | 0.2 | 0.067 | A |

16:45 - 17:00

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 1028 | 216 | 2210 | 0.465 | 1027 | 0.9 | 0.051 | A |
| 2 - B2190 S | 859 | 106 | 2012 | 0.427 | 859 | 0.7 | 0.052 | A |
| 3 - Minster Road | 267 | 637 | 1054 | 0.253 | 267 | 0.3 | 0.076 | A |

17:00 - 17:15

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 1260 | 265 | 2173 | 0.580 | 1258 | 1.4 | 0.065 | A |
| 2 - B2190 S | 1053 | 130 | 1996 | 0.527 | 1051 | 1.1 | 0.064 | A |
| 3 - Minster Road | 327 | 780 | 970 | 0.337 | 326 | 0.5 | 0.093 | A |

17:15 - 17:30

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 1260 | 265 | 2173 | 0.580 | 1260 | 1.4 | 0.066 | A |
| 2 - B2190 S | 1053 | 130 | 1995 | 0.528 | 1053 | 1.1 | 0.064 | A |
| 3 - Minster Road | 327 | 781 | 969 | 0.337 | 327 | 0.5 | 0.093 | A |

17:30 - 17:45

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 1028 | 217 | 2210 | 0.465 | 1030 | 0.9 | 0.051 | A |
| 2 - B2190 S | 859 | 106 | 2012 | 0.427 | 861 | 0.8 | 0.052 | A |
| 3 - Minster Road | 267 | 638 | 1053 | 0.254 | 268 | 0.3 | 0.076 | A |

17:45 - 18:00

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 861 | 182 | 2237 | 0.385 | 862 | 0.6 | 0.044 | A |
| 2 - B2190 S | 720 | 89 | 2024 | 0.356 | 721 | 0.6 | 0.046 | A |
| 3 - Minster Road | 224 | 534 | 1114 | 0.201 | 224 | 0.3 | 0.067 | A |

2039 B+Dev Net Change, Airport Peak

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|-----------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3 | 0.05 | A |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | 112 | 2 - B2190 S |

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) |
|-----|-----------------------|------------------|----------------------|--------------------|---------------------|---------------------------|
| D14 | 2039 B+Dev Net Change | Airport Peak | ONE HOUR | 12:45 | 14:15 | 15 |

| Vehicle mix source | PCU Factor for a HV (PCU) |
|--------------------|---------------------------|
| HV Percentages | 2.00 |

Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|------------------|------------|--------------|-------------------------|--------------------|
| 1 - B2190 E | | ✓ | 650 | 100.000 |
| 2 - B2190 S | | ✓ | 781 | 100.000 |
| 3 - Minster Road | | ✓ | 148 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | |
|------|------------------|-------------|-------------|------------------|
| | | 1 - B2190 E | 2 - B2190 S | 3 - Minster Road |
| From | 1 - B2190 E | 0 | 609 | 41 |
| | 2 - B2190 S | 636 | 0 | 145 |
| | 3 - Minster Road | 44 | 104 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | |
|------|------------------|-------------|-------------|------------------|
| | | 1 - B2190 E | 2 - B2190 S | 3 - Minster Road |
| From | 1 - B2190 E | 0 | 10 | 7 |
| | 2 - B2190 S | 11 | 0 | 3 |
| | 3 - Minster Road | 3 | 5 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS |
|------------------|---------|-----------------|-----------------|---------|
| 1 - B2190 E | 0.33 | 0.04 | 0.5 | A |
| 2 - B2190 S | 0.44 | 0.06 | 0.8 | A |
| 3 - Minster Road | 0.17 | 0.08 | 0.2 | A |

Main Results for each time segment

12:45 - 13:00

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 489 | 78 | 2182 | 0.224 | 488 | 0.3 | 0.035 | A |
| 2 - B2190 S | 588 | 31 | 1944 | 0.302 | 586 | 0.4 | 0.044 | A |
| 3 - Minster Road | 111 | 477 | 1096 | 0.102 | 111 | 0.1 | 0.061 | A |

13:00 - 13:15

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 584 | 93 | 2170 | 0.269 | 584 | 0.4 | 0.038 | A |
| 2 - B2190 S | 702 | 37 | 1940 | 0.362 | 702 | 0.6 | 0.048 | A |
| 3 - Minster Road | 133 | 571 | 1038 | 0.128 | 133 | 0.1 | 0.066 | A |

13:15 - 13:30

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 716 | 114 | 2154 | 0.332 | 715 | 0.5 | 0.042 | A |
| 2 - B2190 S | 860 | 45 | 1934 | 0.445 | 859 | 0.8 | 0.056 | A |
| 3 - Minster Road | 163 | 699 | 960 | 0.170 | 163 | 0.2 | 0.075 | A |

13:30 - 13:45

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 716 | 115 | 2154 | 0.332 | 716 | 0.5 | 0.042 | A |
| 2 - B2190 S | 860 | 45 | 1934 | 0.445 | 860 | 0.8 | 0.056 | A |
| 3 - Minster Road | 163 | 700 | 959 | 0.170 | 163 | 0.2 | 0.075 | A |

13:45 - 14:00

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 584 | 94 | 2170 | 0.269 | 585 | 0.4 | 0.038 | A |
| 2 - B2190 S | 702 | 37 | 1940 | 0.362 | 703 | 0.6 | 0.049 | A |
| 3 - Minster Road | 133 | 572 | 1037 | 0.128 | 133 | 0.1 | 0.066 | A |

14:00 - 14:15

| Arm | Total Demand (Veh/hr) | Circulating flow (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | End queue (Veh) | Delay (min) | LOS |
|------------------|-----------------------|---------------------------|-------------------|-------|---------------------|-----------------|-------------|-----|
| 1 - B2190 E | 489 | 78 | 2182 | 0.224 | 490 | 0.3 | 0.035 | A |
| 2 - B2190 S | 588 | 31 | 1944 | 0.302 | 589 | 0.4 | 0.044 | A |
| 3 - Minster Road | 111 | 479 | 1094 | 0.102 | 112 | 0.1 | 0.061 | A |

| |
|--|
| Junctions 9 |
| ARCADY 9 - Roundabout Module |
| Version: 9.0.2.5947 © Copyright TRL Limited, 2017 |
| For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 770558 software@trl.co.uk www.trlsoftware.co.uk |
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Filename: Jct_6_A253_Willetts_Hill_R1_AM_validated.j9

Path: R:\Projects\38199 Manston Airport DCO EIA\4 Design\Transport\Junction Modelling\Base Models\Validated\Jct_6_A253_A299

Report generation date: 26/01/2018 17:15:19

- »2017 Baseline Traffic, AM
- »2017 Baseline Traffic, PM
- »2017 Baseline Traffic, Airport Peak
- »2039 Growthed Traffic, AM
- »2039 Growthed Traffic, PM
- »2039 Growthed Traffic, Airport Peak
- »2039 + Dev Traffic, AM
- »2039 + Dev Traffic, PM
- »2039 + Dev Traffic, Airport Peak

Summary of junction performance

| | AM | | | | | PM | | | | | Airport Peak | | | | |
|------------------------------|-------------|-------------|------|-----|---|-------------|-------------|------|-----|---|--------------|-------------|------|-----|---|
| | Queue (Veh) | Delay (min) | RFC | LOS | Network Residual Capacity | Queue (Veh) | Delay (min) | RFC | LOS | Network Residual Capacity | Queue (Veh) | Delay (min) | RFC | LOS | Network Residual Capacity |
| 2017 Baseline Traffic | | | | | | | | | | | | | | | |
| 1 - A299 E | 3.7 | 0.17 | 0.79 | A | -7 % [3 - A253 Canterbury Road (W)] | 3.7 | 0.16 | 0.79 | A | -35 % [3 - A253 Canterbury Road (W)] | 1.0 | 0.07 | 0.51 | A | 14 % [3 - A253 Canterbury Road (W)] |
| 2 - Willetts Hill S | 0.2 | 0.07 | 0.13 | A | | 0.1 | 0.06 | 0.08 | A | | 0.1 | 0.05 | 0.06 | A | |
| 3 - A253 Canterbury Road (W) | 3.7 | 0.82 | 0.81 | E | | 80.6 | 12.00 | 1.36 | F | | 1.7 | 0.40 | 0.63 | C | |
| 4 - A299 (N) | 7.7 | 0.46 | 0.90 | D | | 16.2 | 0.87 | 0.97 | F | | 1.1 | 0.11 | 0.52 | A | |
| 5 - Seamark Road | 0.1 | 0.08 | 0.09 | A | | 0.1 | 0.09 | 0.10 | A | | 0.0 | 0.06 | 0.04 | A | |
| 2039 Growthed Traffic | | | | | | | | | | | | | | | |
| 1 - A299 E | 31.5 | 1.09 | 1.01 | F | -27 % [3 - A253 Canterbury Road (W)] | 30.3 | 1.01 | 1.00 | F | -49 % [3 - A253 Canterbury Road (W)] | 2.2 | 0.12 | 0.69 | A | -15 % [3 - A253 Canterbury Road (W)] |
| 2 - Willetts Hill S | 0.2 | 0.09 | 0.20 | A | | 0.1 | 0.07 | 0.11 | A | | 0.1 | 0.06 | 0.10 | A | |
| 3 - A253 Canterbury Road (W) | 29.0 | 4.67 | 1.14 | F | | 250.4 | 38.28 | 1.90 | F | | 7.8 | 1.45 | 0.93 | F | |
| 4 - A299 (N) | 101.4 | 4.87 | 1.15 | F | | 151.1 | 7.51 | 1.22 | F | | 2.5 | 0.19 | 0.72 | B | |
| 5 - Seamark Road | 0.1 | 0.09 | 0.12 | A | | 0.1 | 0.09 | 0.13 | A | | 0.1 | 0.07 | 0.07 | A | |
| 2039 + Dev Traffic | | | | | | | | | | | | | | | |
| 1 - A299 E | 39.4 | 1.31 | 1.02 | F | -27 % [3 - A253 Canterbury Road (W)] | 75.9 | 2.15 | 1.07 | F | -50 % [3 - A253 Canterbury Road (W)] | 2.7 | 0.14 | 0.73 | A | -17 % [3 - A253 Canterbury Road (W)] |
| 2 - Willetts Hill S | 0.3 | 0.09 | 0.20 | A | | 0.1 | 0.08 | 0.12 | A | | 0.1 | 0.06 | 0.10 | A | |
| 3 - A253 Canterbury Road (W) | 30.0 | 4.93 | 1.15 | F | | 269.9 | 43.05 | 1.94 | F | | 9.1 | 1.69 | 0.95 | F | |
| 4 - A299 (N) | 114.9 | 5.74 | 1.18 | F | | 181.8 | 8.93 | 1.25 | F | | 4.8 | 0.32 | 0.84 | C | |
| 5 - Seamark Road | 0.1 | 0.09 | 0.12 | A | | 0.1 | 0.09 | 0.13 | A | | 0.1 | 0.08 | 0.07 | A | |

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

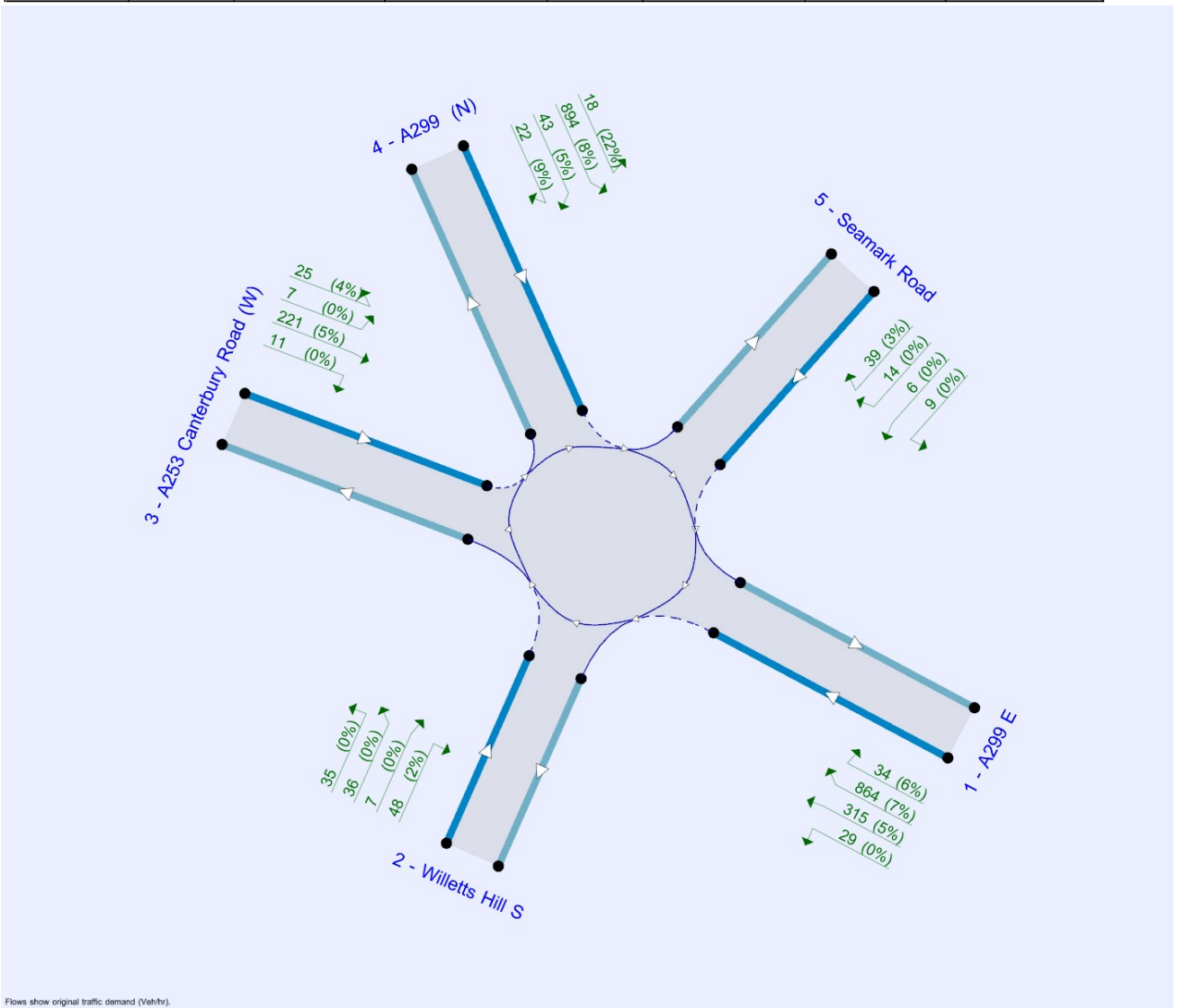
File summary

File Description

| | |
|-------------|----------------|
| Title | (untitled) |
| Location | |
| Site number | |
| Date | 29/09/2017 |
| Version | |
| Status | (new file) |
| Identifier | |
| Client | |
| Jobnumber | |
| Enumerator | GLOBALadam.guy |
| 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 | mph | Veh | Veh | perHour | min | -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 | Residual capacity criteria type | RFC Threshold | Average Delay threshold (min) | Queue threshold (PCU) |
|--------------------|-----------------------------|-----------------------------------|-----------------------------|---------------------------------|---------------|-------------------------------|-----------------------|
| 5.75 | | | ✓ | Delay | 0.85 | 0.60 | 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 |
|-----|-----------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D3 | 2017 Baseline Traffic | AM | ONE HOUR | 07:30 | 09:00 | 15 | ✓ |
| D4 | 2017 Baseline Traffic | PM | ONE HOUR | 16:30 | 18:00 | 15 | ✓ |
| D5 | 2017 Baseline Traffic | Airport Peak | ONE HOUR | 12:45 | 14:15 | 15 | ✓ |
| D6 | 2039 Growthed Traffic | AM | ONE HOUR | 07:30 | 09:00 | 15 | ✓ |
| D7 | 2039 Growthed Traffic | PM | ONE HOUR | 16:30 | 18:00 | 15 | ✓ |
| D8 | 2039 Growthed Traffic | Airport Peak | ONE HOUR | 12:45 | 14:15 | 15 | ✓ |
| D9 | 2039 + Dev Traffic | AM | ONE HOUR | 07:30 | 09:00 | 15 | ✓ |
| D10 | 2039 + Dev Traffic | PM | ONE HOUR | 16:30 | 18:00 | 15 | ✓ |
| D11 | 2039 + Dev Traffic | Airport Peak | ONE HOUR | 12:45 | 14:15 | 15 | ✓ |

Analysis Set Details

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

2017 Baseline Traffic, AM

Data Errors and Warnings

| Severity | Area | Item | Description |
|----------|----------|--|--|
| Warning | Geometry | 3 - A253 Canterbury Road (W) - Roundabout Geometry | Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution. |

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|---------------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3, 4, 5 | 0.33 | C |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | -7 | 3 - A253 Canterbury Road (W) |

Arms

Arms

| Arm | Name | Description |
|-----|--------------------------|-------------|
| 1 | A299 E | |
| 2 | Willets Hill S | |
| 3 | A253 Canterbury Road (W) | |
| 4 | A299 (N) | |
| 5 | Seamark Road | |

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 |
|------------------------------|----------------------------------|---------------------|---------------------------------|----------------------|-----------------------------------|------------------------------------|-----------|
| 1 - A299 E | 7.10 | 7.41 | 13.0 | 43.9 | 75.0 | 18.5 | |
| 2 - Willets Hill S | 2.49 | 8.24 | 27.5 | 19.7 | 76.0 | 30.0 | |
| 3 - A253 Canterbury Road (W) | 4.70 | 8.79 | 31.2 | 16.8 | 76.0 | 35.0 | |
| 4 - A299 (N) | 7.36 | 7.36 | 0.0 | 17.6 | 76.8 | 44.5 | |
| 5 - Seamark Road | 3.16 | 7.58 | 11.2 | 29.1 | 75.0 | 31.5 | |

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

| Arm | Final slope | Final intercept (PCU/hr) |
|------------------------------|-------------|--------------------------|
| 1 - A299 E | 0.606 | 2387 |
| 2 - Willets Hill S | 0.497 | 1797 |
| 3 - A253 Canterbury Road (W) | 0.557 | 2236 |
| 4 - A299 (N) | 0.528 | 2103 |
| 5 - Seamark Road | 0.468 | 1565 |

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

Arm Capacity Adjustments

| Arm | Type | Reason | Percentage capacity adjustment (%) |
|------------------------------|------------|--------|------------------------------------|
| 1 - A299 E | Percentage | | 80.00 |
| 2 - Willetts Hill S | Percentage | | 100.00 |
| 3 - A253 Canterbury Road (W) | Percentage | | 24.00 |
| 4 - A299 (N) | Percentage | | 68.00 |

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 | 2017 Baseline Traffic | AM | ONE HOUR | 07:30 | 09:00 | 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 (%) |
|------------------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - A299 E | | ONE HOUR | ✓ | 1242 | 100.000 |
| 2 - Willetts Hill S | | ONE HOUR | ✓ | 126 | 100.000 |
| 3 - A253 Canterbury Road (W) | | ONE HOUR | ✓ | 264 | 100.000 |
| 4 - A299 (N) | | ONE HOUR | ✓ | 977 | 100.000 |
| 5 - Seamark Road | | ONE HOUR | ✓ | 68 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | | |
|------|------------------------------|------------|---------------------|------------------------------|--------------|------------------|
| | | 1 - A299 E | 2 - Willetts Hill S | 3 - A253 Canterbury Road (W) | 4 - A299 (N) | 5 - Seamark Road |
| From | 1 - A299 E | 0 | 29 | 315 | 864 | 34 |
| | 2 - Willetts Hill S | 48 | 0 | 35 | 36 | 7 |
| | 3 - A253 Canterbury Road (W) | 221 | 11 | 0 | 25 | 7 |
| | 4 - A299 (N) | 894 | 43 | 22 | 0 | 18 |
| | 5 - Seamark Road | 9 | 6 | 14 | 39 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | | |
|------|------------------------------|------------|---------------------|------------------------------|--------------|------------------|
| | | 1 - A299 E | 2 - Willetts Hill S | 3 - A253 Canterbury Road (W) | 4 - A299 (N) | 5 - Seamark Road |
| From | 1 - A299 E | 0 | 0 | 5 | 7 | 6 |
| | 2 - Willetts Hill S | 2 | 0 | 0 | 0 | 0 |
| | 3 - A253 Canterbury Road (W) | 5 | 0 | 0 | 4 | 0 |
| | 4 - A299 (N) | 8 | 5 | 9 | 0 | 22 |
| | 5 - Seamark Road | 0 | 0 | 0 | 3 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|------------------------------|---------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - A299 E | 0.79 | 0.17 | 3.7 | A | 1140 | 1710 |
| 2 - Willetts Hill S | 0.13 | 0.07 | 0.2 | A | 116 | 173 |
| 3 - A253 Canterbury Road (W) | 0.81 | 0.82 | 3.7 | E | 242 | 363 |
| 4 - A299 (N) | 0.90 | 0.46 | 7.7 | D | 897 | 1345 |
| 5 - Seamark Road | 0.09 | 0.08 | 0.1 | A | 62 | 94 |

Main Results for each time segment

07:30 - 07:45

| 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 935 | 234 | 101 | 1749 | 0.535 | 930 | 874 | 0.0 | 1.1 | 0.073 | A |
| 2 - Willetts Hill S | 95 | 24 | 965 | 1277 | 0.074 | 95 | 66 | 0.0 | 0.1 | 0.051 | A |
| 3 - A253 Canterbury Road (W) | 199 | 50 | 770 | 408 | 0.487 | 195 | 289 | 0.0 | 0.9 | 0.277 | C |
| 4 - A299 (N) | 736 | 184 | 243 | 1238 | 0.594 | 730 | 722 | 0.0 | 1.4 | 0.117 | A |
| 5 - Seamark Road | 51 | 13 | 924 | 1083 | 0.047 | 51 | 49 | 0.0 | 0.0 | 0.058 | A |

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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1117 | 279 | 121 | 1739 | 0.642 | 1114 | 1048 | 1.1 | 1.8 | 0.096 | A |
| 2 - Willetts Hill S | 113 | 28 | 1155 | 1177 | 0.096 | 113 | 80 | 0.1 | 0.1 | 0.056 | A |
| 3 - A253 Canterbury Road (W) | 237 | 59 | 922 | 388 | 0.612 | 235 | 346 | 0.9 | 1.5 | 0.387 | C |
| 4 - A299 (N) | 878 | 220 | 293 | 1221 | 0.719 | 874 | 865 | 1.4 | 2.5 | 0.171 | B |
| 5 - Seamark Road | 61 | 15 | 1108 | 993 | 0.062 | 61 | 59 | 0.0 | 0.1 | 0.064 | 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1367 | 342 | 147 | 1727 | 0.792 | 1360 | 1267 | 1.8 | 3.6 | 0.160 | A |
| 2 - Willetts Hill S | 139 | 35 | 1410 | 1043 | 0.133 | 139 | 97 | 0.1 | 0.2 | 0.066 | A |
| 3 - A253 Canterbury Road (W) | 291 | 73 | 1126 | 360 | 0.808 | 283 | 423 | 1.5 | 3.4 | 0.716 | E |
| 4 - A299 (N) | 1076 | 269 | 354 | 1200 | 0.897 | 1058 | 1055 | 2.5 | 7.0 | 0.381 | C |
| 5 - Seamark Road | 75 | 19 | 1340 | 878 | 0.085 | 75 | 72 | 0.1 | 0.1 | 0.075 | 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1367 | 342 | 148 | 1726 | 0.792 | 1367 | 1287 | 3.6 | 3.7 | 0.167 | A |
| 2 - Willetts Hill S | 139 | 35 | 1418 | 1039 | 0.133 | 139 | 98 | 0.2 | 0.2 | 0.067 | A |
| 3 - A253 Canterbury Road (W) | 291 | 73 | 1132 | 359 | 0.809 | 289 | 425 | 3.4 | 3.7 | 0.824 | E |
| 4 - A299 (N) | 1076 | 269 | 360 | 1198 | 0.898 | 1073 | 1061 | 7.0 | 7.7 | 0.457 | D |
| 5 - Seamark Road | 75 | 19 | 1360 | 868 | 0.086 | 75 | 73 | 0.1 | 0.1 | 0.076 | 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1117 | 279 | 123 | 1738 | 0.642 | 1124 | 1079 | 3.7 | 1.8 | 0.099 | A |
| 2 - Willetts Hill S | 113 | 28 | 1166 | 1171 | 0.097 | 113 | 81 | 0.2 | 0.1 | 0.057 | A |
| 3 - A253 Canterbury Road (W) | 237 | 59 | 930 | 387 | 0.614 | 245 | 349 | 3.7 | 1.7 | 0.446 | D |
| 4 - A299 (N) | 878 | 220 | 303 | 1218 | 0.721 | 898 | 873 | 7.7 | 2.7 | 0.199 | B |
| 5 - Seamark Road | 61 | 15 | 1141 | 976 | 0.063 | 61 | 60 | 0.1 | 0.1 | 0.066 | 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 935 | 234 | 102 | 1748 | 0.535 | 938 | 889 | 1.8 | 1.2 | 0.074 | A |
| 2 - Willetts Hill S | 95 | 24 | 972 | 1273 | 0.075 | 95 | 67 | 0.1 | 0.1 | 0.051 | A |
| 3 - A253 Canterbury Road (W) | 199 | 50 | 776 | 408 | 0.488 | 202 | 291 | 1.7 | 1.0 | 0.295 | C |
| 4 - A299 (N) | 736 | 184 | 250 | 1236 | 0.595 | 740 | 728 | 2.7 | 1.5 | 0.122 | A |
| 5 - Seamark Road | 51 | 13 | 940 | 1075 | 0.048 | 51 | 50 | 0.1 | 0.1 | 0.059 | A |

2017 Baseline Traffic, PM

Data Errors and Warnings

| Severity | Area | Item | Description |
|----------|----------|--|--|
| Warning | Geometry | 3 - A253 Canterbury Road (W) - Roundabout Geometry | Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution. |

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|---------------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3, 4, 5 | 2.21 | F |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | -35 | 3 - A253 Canterbury Road (W) |

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 | 2017 Baseline Traffic | PM | ONE HOUR | 16:30 | 18:00 | 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 (%) |
|------------------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - A299 E | | ONE HOUR | ✓ | 1285 | 100.000 |
| 2 - Willetts Hill S | | ONE HOUR | ✓ | 75 | 100.000 |
| 3 - A253 Canterbury Road (W) | | ONE HOUR | ✓ | 451 | 100.000 |
| 4 - A299 (N) | | ONE HOUR | ✓ | 1068 | 100.000 |
| 5 - Seamark Road | | ONE HOUR | ✓ | 70 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | | |
|------|------------------------------|------------|---------------------|------------------------------|--------------|------------------|
| | | 1 - A299 E | 2 - Willetts Hill S | 3 - A253 Canterbury Road (W) | 4 - A299 (N) | 5 - Seamark Road |
| From | 1 - A299 E | 0 | 79 | 262 | 890 | 54 |
| | 2 - Willetts Hill S | 32 | 0 | 13 | 27 | 3 |
| | 3 - A253 Canterbury Road (W) | 395 | 17 | 0 | 23 | 16 |
| | 4 - A299 (N) | 1009 | 39 | 11 | 0 | 9 |
| | 5 - Seamark Road | 23 | 7 | 5 | 35 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | | |
|------|------------------------------|------------|---------------------|------------------------------|--------------|------------------|
| | | 1 - A299 E | 2 - Willetts Hill S | 3 - A253 Canterbury Road (W) | 4 - A299 (N) | 5 - Seamark Road |
| From | 1 - A299 E | 0 | 1 | 2 | 4 | 4 |
| | 2 - Willetts Hill S | 0 | 0 | 0 | 0 | 0 |
| | 3 - A253 Canterbury Road (W) | 3 | 6 | 0 | 4 | 0 |
| | 4 - A299 (N) | 4 | 0 | 9 | 0 | 33 |
| | 5 - Seamark Road | 13 | 0 | 0 | 3 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|------------------------------|---------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - A299 E | 0.79 | 0.16 | 3.7 | A | 1179 | 1769 |
| 2 - Willetts Hill S | 0.08 | 0.06 | 0.1 | A | 69 | 103 |
| 3 - A253 Canterbury Road (W) | 1.36 | 12.00 | 80.6 | F | 414 | 621 |
| 4 - A299 (N) | 0.97 | 0.87 | 16.2 | F | 980 | 1470 |
| 5 - Seamark Road | 0.10 | 0.09 | 0.1 | A | 64 | 96 |

Main Results for each time segment

16:30 - 16:45

| 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 967 | 242 | 85 | 1806 | 0.536 | 963 | 1079 | 0.0 | 1.1 | 0.071 | A |
| 2 - Willetts Hill S | 56 | 14 | 942 | 1312 | 0.043 | 56 | 106 | 0.0 | 0.0 | 0.048 | A |
| 3 - A253 Canterbury Road (W) | 340 | 85 | 780 | 416 | 0.817 | 325 | 218 | 0.0 | 3.6 | 0.594 | E |
| 4 - A299 (N) | 804 | 201 | 375 | 1240 | 0.648 | 797 | 730 | 0.0 | 1.8 | 0.133 | A |
| 5 - Seamark Road | 53 | 13 | 1111 | 970 | 0.054 | 52 | 61 | 0.0 | 0.1 | 0.065 | A |

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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1155 | 289 | 101 | 1799 | 0.642 | 1153 | 1276 | 1.1 | 1.8 | 0.093 | A |
| 2 - Willetts Hill S | 67 | 17 | 1128 | 1216 | 0.055 | 67 | 126 | 0.0 | 0.1 | 0.052 | A |
| 3 - A253 Canterbury Road (W) | 405 | 101 | 934 | 395 | 1.027 | 372 | 261 | 3.6 | 11.9 | 1.618 | F |
| 4 - A299 (N) | 960 | 240 | 433 | 1219 | 0.787 | 953 | 873 | 1.8 | 3.5 | 0.220 | B |
| 5 - Seamark Road | 63 | 16 | 1314 | 877 | 0.072 | 63 | 72 | 0.1 | 0.1 | 0.074 | 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1415 | 354 | 119 | 1790 | 0.790 | 1407 | 1456 | 1.8 | 3.6 | 0.154 | A |
| 2 - Willetts Hill S | 83 | 21 | 1377 | 1088 | 0.076 | 82 | 150 | 0.1 | 0.1 | 0.060 | A |
| 3 - A253 Canterbury Road (W) | 497 | 124 | 1141 | 367 | 1.353 | 365 | 318 | 11.9 | 44.7 | 4.997 | F |
| 4 - A299 (N) | 1176 | 294 | 444 | 1216 | 0.967 | 1139 | 1062 | 3.5 | 12.8 | 0.597 | E |
| 5 - Seamark Road | 77 | 19 | 1498 | 793 | 0.097 | 77 | 85 | 0.1 | 0.1 | 0.084 | 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1415 | 354 | 120 | 1789 | 0.791 | 1414 | 1479 | 3.6 | 3.7 | 0.160 | A |
| 2 - Willetts Hill S | 83 | 21 | 1384 | 1084 | 0.076 | 83 | 151 | 0.1 | 0.1 | 0.060 | A |
| 3 - A253 Canterbury Road (W) | 497 | 124 | 1146 | 366 | 1.356 | 366 | 320 | 44.7 | 77.4 | 9.987 | F |
| 4 - A299 (N) | 1176 | 294 | 445 | 1215 | 0.968 | 1162 | 1067 | 12.8 | 16.2 | 0.867 | F |
| 5 - Seamark Road | 77 | 19 | 1522 | 781 | 0.099 | 77 | 86 | 0.1 | 0.1 | 0.085 | 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1155 | 289 | 104 | 1797 | 0.643 | 1163 | 1346 | 3.7 | 1.8 | 0.096 | A |
| 2 - Willetts Hill S | 67 | 17 | 1138 | 1211 | 0.056 | 68 | 129 | 0.1 | 0.1 | 0.052 | A |
| 3 - A253 Canterbury Road (W) | 405 | 101 | 941 | 394 | 1.029 | 393 | 264 | 77.4 | 80.6 | 11.998 | F |
| 4 - A299 (N) | 960 | 240 | 453 | 1212 | 0.792 | 1008 | 881 | 16.2 | 4.1 | 0.350 | C |
| 5 - Seamark Road | 63 | 16 | 1387 | 843 | 0.075 | 63 | 74 | 0.1 | 0.1 | 0.077 | 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 967 | 242 | 89 | 1804 | 0.536 | 970 | 1168 | 1.8 | 1.2 | 0.072 | A |
| 2 - Willetts Hill S | 56 | 14 | 949 | 1308 | 0.043 | 57 | 110 | 0.1 | 0.0 | 0.048 | A |
| 3 - A253 Canterbury Road (W) | 340 | 85 | 786 | 415 | 0.819 | 410 | 220 | 80.6 | 63.0 | 10.538 | F |
| 4 - A299 (N) | 804 | 201 | 456 | 1211 | 0.664 | 812 | 740 | 4.1 | 2.0 | 0.153 | A |
| 5 - Seamark Road | 53 | 13 | 1204 | 928 | 0.057 | 53 | 64 | 0.1 | 0.1 | 0.069 | A |

2017 Baseline Traffic, Airport Peak

Data Errors and Warnings

| Severity | Area | Item | Description |
|----------|----------|--|--|
| Warning | Geometry | 3 - A253 Canterbury Road (W) - Roundabout Geometry | Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution. |

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|---------------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3, 4, 5 | 0.13 | A |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | 14 | 3 - A253 Canterbury Road (W) |

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 | 2017 Baseline Traffic | Airport Peak | ONE HOUR | 12:45 | 14:15 | 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 (%) |
|------------------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - A299 E | | ONE HOUR | ✓ | 776 | 100.000 |
| 2 - Willetts Hill S | | ONE HOUR | ✓ | 74 | 100.000 |
| 3 - A253 Canterbury Road (W) | | ONE HOUR | ✓ | 235 | 100.000 |
| 4 - A299 (N) | | ONE HOUR | ✓ | 556 | 100.000 |
| 5 - Seamark Road | | ONE HOUR | ✓ | 42 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | | |
|------|------------------------------|------------|---------------------|------------------------------|--------------|------------------|
| | | 1 - A299 E | 2 - Willetts Hill S | 3 - A253 Canterbury Road (W) | 4 - A299 (N) | 5 - Seamark Road |
| From | 1 - A299 E | 0 | 19 | 169 | 570 | 18 |
| | 2 - Willetts Hill S | 31 | 0 | 12 | 27 | 4 |
| | 3 - A253 Canterbury Road (W) | 198 | 10 | 0 | 18 | 9 |
| | 4 - A299 (N) | 509 | 28 | 15 | 0 | 4 |
| | 5 - Seamark Road | 13 | 6 | 2 | 21 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | | |
|------|------------------------------|------------|---------------------|------------------------------|--------------|------------------|
| | | 1 - A299 E | 2 - Willetts Hill S | 3 - A253 Canterbury Road (W) | 4 - A299 (N) | 5 - Seamark Road |
| From | 1 - A299 E | 0 | 0 | 7 | 14 | 6 |
| | 2 - Willetts Hill S | 0 | 0 | 8 | 4 | 0 |
| | 3 - A253 Canterbury Road (W) | 4 | 10 | 0 | 6 | 0 |
| | 4 - A299 (N) | 13 | 0 | 13 | 0 | 0 |
| | 5 - Seamark Road | 8 | 0 | 0 | 5 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|------------------------------|---------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - A299 E | 0.51 | 0.07 | 1.0 | A | 712 | 1068 |
| 2 - Willetts Hill S | 0.06 | 0.05 | 0.1 | A | 68 | 102 |
| 3 - A253 Canterbury Road (W) | 0.63 | 0.40 | 1.7 | C | 216 | 323 |
| 4 - A299 (N) | 0.52 | 0.11 | 1.1 | A | 510 | 765 |
| 5 - Seamark Road | 0.04 | 0.06 | 0.0 | A | 39 | 58 |

Main Results for each time segment

12:45 - 13:00

| 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 584 | 146 | 61 | 1678 | 0.348 | 582 | 561 | 0.0 | 0.5 | 0.055 | A |
| 2 - Willetts Hill S | 56 | 14 | 596 | 1425 | 0.039 | 56 | 47 | 0.0 | 0.0 | 0.044 | A |
| 3 - A253 Canterbury Road (W) | 177 | 44 | 503 | 442 | 0.400 | 174 | 149 | 0.0 | 0.7 | 0.222 | B |
| 4 - A299 (N) | 419 | 105 | 201 | 1207 | 0.347 | 416 | 477 | 0.0 | 0.5 | 0.076 | A |
| 5 - Seamark Road | 32 | 8 | 591 | 1201 | 0.026 | 32 | 26 | 0.0 | 0.0 | 0.051 | A |

13:00 - 13:15

| 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 698 | 174 | 74 | 1673 | 0.417 | 697 | 673 | 0.5 | 0.7 | 0.061 | A |
| 2 - Willetts Hill S | 67 | 17 | 714 | 1361 | 0.049 | 66 | 57 | 0.0 | 0.1 | 0.046 | A |
| 3 - A253 Canterbury Road (W) | 211 | 53 | 603 | 428 | 0.494 | 210 | 178 | 0.7 | 0.9 | 0.274 | C |
| 4 - A299 (N) | 500 | 125 | 242 | 1194 | 0.419 | 499 | 571 | 0.5 | 0.7 | 0.086 | A |
| 5 - Seamark Road | 38 | 9 | 709 | 1144 | 0.033 | 38 | 31 | 0.0 | 0.0 | 0.054 | A |

13:15 - 13:30

| 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 854 | 214 | 90 | 1665 | 0.513 | 853 | 823 | 0.7 | 1.0 | 0.074 | A |
| 2 - Willetts Hill S | 81 | 20 | 874 | 1275 | 0.064 | 81 | 69 | 0.1 | 0.1 | 0.050 | A |
| 3 - A253 Canterbury Road (W) | 259 | 65 | 738 | 408 | 0.634 | 256 | 218 | 0.9 | 1.6 | 0.387 | C |
| 4 - A299 (N) | 612 | 153 | 295 | 1176 | 0.520 | 611 | 699 | 0.7 | 1.1 | 0.106 | A |
| 5 - Seamark Road | 46 | 12 | 867 | 1066 | 0.043 | 46 | 38 | 0.0 | 0.0 | 0.059 | A |

13:30 - 13:45

| 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 854 | 214 | 90 | 1665 | 0.513 | 854 | 827 | 1.0 | 1.0 | 0.074 | A |
| 2 - Willetts Hill S | 81 | 20 | 875 | 1274 | 0.064 | 81 | 69 | 0.1 | 0.1 | 0.050 | A |
| 3 - A253 Canterbury Road (W) | 259 | 65 | 739 | 408 | 0.634 | 259 | 218 | 1.6 | 1.7 | 0.400 | C |
| 4 - A299 (N) | 612 | 153 | 297 | 1175 | 0.521 | 612 | 700 | 1.1 | 1.1 | 0.107 | A |
| 5 - Seamark Road | 46 | 12 | 871 | 1065 | 0.043 | 46 | 39 | 0.0 | 0.0 | 0.059 | A |

13:45 - 14:00

| 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 698 | 174 | 74 | 1673 | 0.417 | 699 | 679 | 1.0 | 0.7 | 0.062 | A |
| 2 - Willetts Hill S | 67 | 17 | 716 | 1360 | 0.049 | 67 | 57 | 0.1 | 0.1 | 0.046 | A |
| 3 - A253 Canterbury Road (W) | 211 | 53 | 604 | 427 | 0.494 | 214 | 178 | 1.7 | 1.0 | 0.284 | C |
| 4 - A299 (N) | 500 | 125 | 245 | 1193 | 0.419 | 501 | 573 | 1.1 | 0.7 | 0.087 | A |
| 5 - Seamark Road | 38 | 9 | 715 | 1141 | 0.033 | 38 | 32 | 0.0 | 0.0 | 0.054 | A |

14:00 - 14:15

| 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 584 | 146 | 62 | 1678 | 0.348 | 585 | 567 | 0.7 | 0.5 | 0.055 | A |
| 2 - Willetts Hill S | 56 | 14 | 599 | 1424 | 0.039 | 56 | 48 | 0.1 | 0.0 | 0.044 | A |
| 3 - A253 Canterbury Road (W) | 177 | 44 | 506 | 442 | 0.401 | 178 | 149 | 1.0 | 0.7 | 0.229 | B |
| 4 - A299 (N) | 419 | 105 | 205 | 1206 | 0.347 | 419 | 479 | 0.7 | 0.5 | 0.076 | A |
| 5 - Seamark Road | 32 | 8 | 597 | 1198 | 0.026 | 32 | 26 | 0.0 | 0.0 | 0.051 | A |

2039 Growthed Traffic, AM

Data Errors and Warnings

| Severity | Area | Item | Description |
|----------|----------|--|--|
| Warning | Geometry | 3 - A253 Canterbury Road (W) - Roundabout Geometry | Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution. |

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|---------------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3, 4, 5 | 2.78 | F |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | -27 | 3 - A253 Canterbury Road (W) |

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 | 2039 Growthed Traffic | AM | ONE HOUR | 07:30 | 09:00 | 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 (%) |
|------------------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - A299 E | | ONE HOUR | ✓ | 1556 | 100.000 |
| 2 - Willetts Hill S | | ONE HOUR | ✓ | 158 | 100.000 |
| 3 - A253 Canterbury Road (W) | | ONE HOUR | ✓ | 331 | 100.000 |
| 4 - A299 (N) | | ONE HOUR | ✓ | 1226 | 100.000 |
| 5 - Seamark Road | | ONE HOUR | ✓ | 84 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | | |
|------|------------------------------|------------|---------------------|------------------------------|--------------|------------------|
| | | 1 - A299 E | 2 - Willetts Hill S | 3 - A253 Canterbury Road (W) | 4 - A299 (N) | 5 - Seamark Road |
| From | 1 - A299 E | 0 | 36 | 394 | 1083 | 43 |
| | 2 - Willetts Hill S | 60 | 0 | 44 | 45 | 9 |
| | 3 - A253 Canterbury Road (W) | 277 | 14 | 0 | 31 | 9 |
| | 4 - A299 (N) | 1121 | 54 | 28 | 0 | 23 |
| | 5 - Seamark Road | 11 | 7 | 17 | 49 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | | |
|------|------------------------------|------------|---------------------|------------------------------|--------------|------------------|
| | | 1 - A299 E | 2 - Willetts Hill S | 3 - A253 Canterbury Road (W) | 4 - A299 (N) | 5 - Seamark Road |
| From | 1 - A299 E | 0 | 0 | 5 | 8 | 6 |
| | 2 - Willetts Hill S | 2 | 0 | 0 | 0 | 0 |
| | 3 - A253 Canterbury Road (W) | 6 | 0 | 0 | 4 | 0 |
| | 4 - A299 (N) | 9 | 5 | 10 | 0 | 23 |
| | 5 - Seamark Road | 0 | 0 | 0 | 3 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|------------------------------|---------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - A299 E | 1.01 | 1.09 | 31.5 | F | 1428 | 2142 |
| 2 - Willetts Hill S | 0.20 | 0.09 | 0.2 | A | 145 | 217 |
| 3 - A253 Canterbury Road (W) | 1.14 | 4.67 | 29.0 | F | 304 | 456 |
| 4 - A299 (N) | 1.15 | 4.87 | 101.4 | F | 1125 | 1688 |
| 5 - Seamark Road | 0.12 | 0.09 | 0.1 | A | 77 | 116 |

Main Results for each time segment

07:30 - 07:45

| 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1171 | 293 | 126 | 1726 | 0.679 | 1163 | 1088 | 0.0 | 2.1 | 0.105 | A |
| 2 - Willetts Hill S | 119 | 30 | 1207 | 1146 | 0.104 | 118 | 83 | 0.0 | 0.1 | 0.058 | A |
| 3 - A253 Canterbury Road (W) | 249 | 62 | 964 | 378 | 0.659 | 242 | 361 | 0.0 | 1.8 | 0.422 | D |
| 4 - A299 (N) | 923 | 231 | 303 | 1206 | 0.765 | 911 | 903 | 0.0 | 3.1 | 0.196 | B |
| 5 - Seamark Road | 63 | 16 | 1151 | 966 | 0.065 | 63 | 63 | 0.0 | 0.1 | 0.066 | A |

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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1399 | 350 | 150 | 1714 | 0.816 | 1390 | 1291 | 2.1 | 4.2 | 0.181 | B |
| 2 - Willetts Hill S | 142 | 36 | 1442 | 1022 | 0.139 | 142 | 98 | 0.1 | 0.2 | 0.068 | A |
| 3 - A253 Canterbury Road (W) | 298 | 74 | 1153 | 352 | 0.845 | 288 | 431 | 1.8 | 4.1 | 0.836 | F |
| 4 - A299 (N) | 1102 | 276 | 362 | 1186 | 0.930 | 1078 | 1079 | 3.1 | 9.1 | 0.476 | D |
| 5 - Seamark Road | 76 | 19 | 1365 | 860 | 0.088 | 75 | 75 | 0.1 | 0.1 | 0.077 | 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1713 | 428 | 171 | 1704 | 1.005 | 1642 | 1402 | 4.2 | 21.9 | 0.636 | E |
| 2 - Willetts Hill S | 174 | 43 | 1704 | 883 | 0.197 | 174 | 110 | 0.2 | 0.2 | 0.084 | A |
| 3 - A253 Canterbury Road (W) | 364 | 91 | 1368 | 323 | 1.128 | 312 | 509 | 4.1 | 17.1 | 2.468 | F |
| 4 - A299 (N) | 1350 | 337 | 404 | 1171 | 1.153 | 1162 | 1276 | 9.1 | 55.9 | 1.867 | F |
| 5 - Seamark Road | 92 | 23 | 1481 | 802 | 0.115 | 92 | 86 | 0.1 | 0.1 | 0.085 | 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1713 | 428 | 172 | 1704 | 1.005 | 1675 | 1411 | 21.9 | 31.5 | 1.088 | F |
| 2 - Willetts Hill S | 174 | 43 | 1735 | 867 | 0.201 | 174 | 111 | 0.2 | 0.2 | 0.087 | A |
| 3 - A253 Canterbury Road (W) | 364 | 91 | 1391 | 320 | 1.139 | 317 | 518 | 17.1 | 29.0 | 4.672 | F |
| 4 - A299 (N) | 1350 | 337 | 409 | 1169 | 1.154 | 1168 | 1299 | 55.9 | 101.4 | 4.171 | F |
| 5 - Seamark Road | 92 | 23 | 1491 | 798 | 0.116 | 92 | 87 | 0.1 | 0.1 | 0.085 | 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1399 | 350 | 157 | 1711 | 0.818 | 1505 | 1401 | 31.5 | 4.9 | 0.411 | C |
| 2 - Willetts Hill S | 142 | 36 | 1556 | 961 | 0.148 | 142 | 106 | 0.2 | 0.2 | 0.073 | A |
| 3 - A253 Canterbury Road (W) | 298 | 74 | 1236 | 341 | 0.873 | 330 | 463 | 29.0 | 21.0 | 4.556 | F |
| 4 - A299 (N) | 1102 | 276 | 402 | 1172 | 0.941 | 1160 | 1163 | 101.4 | 86.9 | 4.873 | F |
| 5 - Seamark Road | 76 | 19 | 1482 | 802 | 0.094 | 76 | 80 | 0.1 | 0.1 | 0.083 | 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1171 | 293 | 147 | 1716 | 0.683 | 1182 | 1391 | 4.9 | 2.2 | 0.115 | A |
| 2 - Willetts Hill S | 119 | 30 | 1231 | 1133 | 0.105 | 119 | 98 | 0.2 | 0.1 | 0.059 | A |
| 3 - A253 Canterbury Road (W) | 249 | 62 | 978 | 376 | 0.663 | 324 | 372 | 21.0 | 2.3 | 1.686 | F |
| 4 - A299 (N) | 923 | 231 | 378 | 1180 | 0.782 | 1166 | 924 | 86.9 | 26.0 | 2.965 | F |
| 5 - Seamark Road | 63 | 16 | 1475 | 805 | 0.079 | 63 | 70 | 0.1 | 0.1 | 0.081 | A |

2039 Growthed Traffic, PM

Data Errors and Warnings

| Severity | Area | Item | Description |
|----------|----------|--|--|
| Warning | Geometry | 3 - A253 Canterbury Road (W) - Roundabout Geometry | Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution. |

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|---------------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3, 4, 5 | 9.00 | F |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | -49 | 3 - A253 Canterbury Road (W) |

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 | 2039 Growthed Traffic | PM | ONE HOUR | 16:30 | 18:00 | 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 (%) |
|------------------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - A299 E | | ONE HOUR | ✓ | 1621 | 100.000 |
| 2 - Willetts Hill S | | ONE HOUR | ✓ | 94 | 100.000 |
| 3 - A253 Canterbury Road (W) | | ONE HOUR | ✓ | 568 | 100.000 |
| 4 - A299 (N) | | ONE HOUR | ✓ | 1348 | 100.000 |
| 5 - Seamark Road | | ONE HOUR | ✓ | 88 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | | |
|------|------------------------------|------------|---------------------|------------------------------|--------------|------------------|
| | | 1 - A299 E | 2 - Willetts Hill S | 3 - A253 Canterbury Road (W) | 4 - A299 (N) | 5 - Seamark Road |
| From | 1 - A299 E | 0 | 100 | 330 | 1123 | 68 |
| | 2 - Willetts Hill S | 40 | 0 | 16 | 34 | 4 |
| | 3 - A253 Canterbury Road (W) | 498 | 21 | 0 | 29 | 20 |
| | 4 - A299 (N) | 1273 | 49 | 14 | 0 | 12 |
| | 5 - Seamark Road | 29 | 9 | 6 | 44 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | | |
|------|------------------------------|------------|---------------------|------------------------------|--------------|------------------|
| | | 1 - A299 E | 2 - Willetts Hill S | 3 - A253 Canterbury Road (W) | 4 - A299 (N) | 5 - Seamark Road |
| From | 1 - A299 E | 0 | 1 | 2 | 4 | 4 |
| | 2 - Willetts Hill S | 0 | 0 | 0 | 0 | 0 |
| | 3 - A253 Canterbury Road (W) | 3 | 6 | 0 | 5 | 0 |
| | 4 - A299 (N) | 4 | 0 | 10 | 0 | 34 |
| | 5 - Seamark Road | 14 | 0 | 0 | 3 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|------------------------------|---------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - A299 E | 1.00 | 1.01 | 30.3 | F | 1487 | 2231 |
| 2 - Willetts Hill S | 0.11 | 0.07 | 0.1 | A | 86 | 129 |
| 3 - A253 Canterbury Road (W) | 1.90 | 38.28 | 250.4 | F | 521 | 782 |
| 4 - A299 (N) | 1.22 | 7.51 | 151.1 | F | 1237 | 1855 |
| 5 - Seamark Road | 0.13 | 0.09 | 0.1 | A | 81 | 121 |

Main Results for each time segment

16:30 - 16:45

| 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1220 | 305 | 104 | 1797 | 0.679 | 1212 | 1313 | 0.0 | 2.1 | 0.101 | A |
| 2 - Willetts Hill S | 71 | 18 | 1185 | 1186 | 0.060 | 71 | 131 | 0.0 | 0.1 | 0.054 | A |
| 3 - A253 Canterbury Road (W) | 428 | 107 | 982 | 388 | 1.102 | 365 | 274 | 0.0 | 15.7 | 1.641 | F |
| 4 - A299 (N) | 1015 | 254 | 430 | 1220 | 0.832 | 997 | 917 | 0.0 | 4.5 | 0.252 | C |
| 5 - Seamark Road | 66 | 17 | 1352 | 857 | 0.077 | 66 | 76 | 0.0 | 0.1 | 0.076 | A |

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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1457 | 364 | 121 | 1789 | 0.815 | 1449 | 1475 | 2.1 | 4.1 | 0.172 | B |
| 2 - Willetts Hill S | 85 | 21 | 1417 | 1067 | 0.079 | 84 | 153 | 0.1 | 0.1 | 0.061 | A |
| 3 - A253 Canterbury Road (W) | 511 | 128 | 1174 | 362 | 1.409 | 361 | 327 | 15.7 | 53.0 | 6.210 | F |
| 4 - A299 (N) | 1212 | 303 | 443 | 1216 | 0.997 | 1161 | 1092 | 4.5 | 17.1 | 0.744 | E |
| 5 - Seamark Road | 79 | 20 | 1517 | 781 | 0.101 | 79 | 87 | 0.1 | 0.1 | 0.085 | 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1785 | 446 | 134 | 1783 | 1.001 | 1716 | 1515 | 4.1 | 21.4 | 0.602 | E |
| 2 - Willetts Hill S | 103 | 26 | 1677 | 933 | 0.111 | 103 | 172 | 0.1 | 0.1 | 0.072 | A |
| 3 - A253 Canterbury Road (W) | 625 | 156 | 1395 | 333 | 1.880 | 333 | 386 | 53.0 | 126.2 | 16.447 | F |
| 4 - A299 (N) | 1484 | 371 | 436 | 1218 | 1.218 | 1215 | 1291 | 17.1 | 84.5 | 2.669 | F |
| 5 - Seamark Road | 97 | 24 | 1552 | 765 | 0.127 | 97 | 99 | 0.1 | 0.1 | 0.090 | 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1785 | 446 | 134 | 1783 | 1.001 | 1749 | 1515 | 21.4 | 30.3 | 1.012 | F |
| 2 - Willetts Hill S | 103 | 26 | 1709 | 916 | 0.113 | 103 | 174 | 0.1 | 0.1 | 0.074 | A |
| 3 - A253 Canterbury Road (W) | 625 | 156 | 1420 | 329 | 1.899 | 329 | 393 | 126.2 | 200.3 | 29.971 | F |
| 4 - A299 (N) | 1484 | 371 | 434 | 1219 | 1.218 | 1218 | 1315 | 84.5 | 151.0 | 5.907 | F |
| 5 - Seamark Road | 97 | 24 | 1552 | 765 | 0.127 | 97 | 100 | 0.1 | 0.1 | 0.090 | 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1457 | 364 | 123 | 1788 | 0.815 | 1559 | 1514 | 30.3 | 4.8 | 0.360 | C |
| 2 - Willetts Hill S | 85 | 21 | 1521 | 1013 | 0.083 | 85 | 161 | 0.1 | 0.1 | 0.065 | A |
| 3 - A253 Canterbury Road (W) | 511 | 128 | 1255 | 351 | 1.453 | 351 | 350 | 200.3 | 240.1 | 35.743 | F |
| 4 - A299 (N) | 1212 | 303 | 438 | 1217 | 0.996 | 1211 | 1168 | 151.0 | 151.1 | 7.515 | F |
| 5 - Seamark Road | 79 | 20 | 1557 | 762 | 0.104 | 79 | 92 | 0.1 | 0.1 | 0.088 | 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1220 | 305 | 115 | 1792 | 0.681 | 1231 | 1528 | 4.8 | 2.2 | 0.109 | A |
| 2 - Willetts Hill S | 71 | 18 | 1205 | 1176 | 0.060 | 71 | 141 | 0.1 | 0.1 | 0.054 | A |
| 3 - A253 Canterbury Road (W) | 428 | 107 | 996 | 386 | 1.107 | 386 | 280 | 240.1 | 250.4 | 38.280 | F |
| 4 - A299 (N) | 1015 | 254 | 451 | 1213 | 0.837 | 1205 | 931 | 151.1 | 103.7 | 6.363 | F |
| 5 - Seamark Road | 66 | 17 | 1577 | 754 | 0.088 | 66 | 79 | 0.1 | 0.1 | 0.087 | A |

2039 Growthed Traffic, Airport Peak

Data Errors and Warnings

| Severity | Area | Item | Description |
|----------|----------|--|--|
| Warning | Geometry | 3 - A253 Canterbury Road (W) - Roundabout Geometry | Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution. |

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|---------------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3, 4, 5 | 0.31 | C |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | -15 | 3 - A253 Canterbury Road (W) |

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 | 2039 Growthed Traffic | Airport Peak | ONE HOUR | 12:45 | 14:15 | 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 (%) |
|------------------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - A299 E | | ONE HOUR | ✓ | 1039 | 100.000 |
| 2 - Willetts Hill S | | ONE HOUR | ✓ | 98 | 100.000 |
| 3 - A253 Canterbury Road (W) | | ONE HOUR | ✓ | 313 | 100.000 |
| 4 - A299 (N) | | ONE HOUR | ✓ | 744 | 100.000 |
| 5 - Seamark Road | | ONE HOUR | ✓ | 56 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | | |
|------|------------------------------|------------|---------------------|------------------------------|--------------|------------------|
| | | 1 - A299 E | 2 - Willetts Hill S | 3 - A253 Canterbury Road (W) | 4 - A299 (N) | 5 - Seamark Road |
| From | 1 - A299 E | 0 | 25 | 226 | 764 | 24 |
| | 2 - Willetts Hill S | 41 | 0 | 16 | 36 | 5 |
| | 3 - A253 Canterbury Road (W) | 264 | 13 | 0 | 24 | 12 |
| | 4 - A299 (N) | 682 | 37 | 20 | 0 | 5 |
| | 5 - Seamark Road | 17 | 8 | 3 | 28 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| From | To | | | | | |
|------------------------------|------------|---------------------|------------------------------|--------------|------------------|--|
| | 1 - A299 E | 2 - Willetts Hill S | 3 - A253 Canterbury Road (W) | 4 - A299 (N) | 5 - Seamark Road | |
| 1 - A299 E | 0 | 0 | 7 | 14 | 6 | |
| 2 - Willetts Hill S | 0 | 0 | 9 | 4 | 0 | |
| 3 - A253 Canterbury Road (W) | 4 | 10 | 0 | 6 | 0 | |
| 4 - A299 (N) | 14 | 0 | 14 | 0 | 0 | |
| 5 - Seamark Road | 8 | 0 | 0 | 5 | 0 | |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|------------------------------|---------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - A299 E | 0.69 | 0.12 | 2.2 | A | 953 | 1430 |
| 2 - Willetts Hill S | 0.10 | 0.06 | 0.1 | A | 90 | 135 |
| 3 - A253 Canterbury Road (W) | 0.93 | 1.45 | 7.8 | F | 287 | 431 |
| 4 - A299 (N) | 0.72 | 0.19 | 2.5 | B | 683 | 1024 |
| 5 - Seamark Road | 0.07 | 0.07 | 0.1 | A | 51 | 77 |

Main Results for each time segment

12:45 - 13:00

| 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 782 | 196 | 81 | 1669 | 0.469 | 779 | 748 | 0.0 | 0.9 | 0.067 | A |
| 2 - Willetts Hill S | 74 | 18 | 798 | 1313 | 0.056 | 74 | 62 | 0.0 | 0.1 | 0.048 | A |
| 3 - A253 Canterbury Road (W) | 236 | 59 | 673 | 418 | 0.564 | 231 | 199 | 0.0 | 1.2 | 0.314 | C |
| 4 - A299 (N) | 560 | 140 | 266 | 1176 | 0.476 | 557 | 638 | 0.0 | 0.9 | 0.096 | A |
| 5 - Seamark Road | 42 | 11 | 788 | 1103 | 0.038 | 42 | 34 | 0.0 | 0.0 | 0.057 | A |

13:00 - 13:15

| 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 934 | 234 | 98 | 1662 | 0.562 | 932 | 898 | 0.9 | 1.3 | 0.082 | A |
| 2 - Willetts Hill S | 88 | 22 | 956 | 1228 | 0.072 | 88 | 74 | 0.1 | 0.1 | 0.053 | A |
| 3 - A253 Canterbury Road (W) | 281 | 70 | 806 | 398 | 0.706 | 278 | 238 | 1.2 | 2.2 | 0.481 | D |
| 4 - A299 (N) | 669 | 167 | 319 | 1158 | 0.577 | 667 | 764 | 0.9 | 1.3 | 0.122 | A |
| 5 - Seamark Road | 50 | 13 | 945 | 1026 | 0.049 | 50 | 41 | 0.0 | 0.1 | 0.061 | A |

13:15 - 13:30

| 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1144 | 286 | 119 | 1652 | 0.692 | 1140 | 1087 | 1.3 | 2.2 | 0.116 | A |
| 2 - Willetts Hill S | 108 | 27 | 1169 | 1113 | 0.097 | 108 | 90 | 0.1 | 0.1 | 0.060 | A |
| 3 - A253 Canterbury Road (W) | 345 | 86 | 986 | 372 | 0.925 | 328 | 291 | 2.2 | 6.3 | 1.075 | F |
| 4 - A299 (N) | 819 | 205 | 380 | 1138 | 0.720 | 815 | 934 | 1.3 | 2.5 | 0.183 | B |
| 5 - Seamark Road | 62 | 15 | 1145 | 927 | 0.067 | 62 | 50 | 0.1 | 0.1 | 0.069 | A |

13:30 - 13:45

| 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1144 | 286 | 120 | 1652 | 0.693 | 1144 | 1100 | 2.2 | 2.2 | 0.118 | A |
| 2 - Willetts Hill S | 108 | 27 | 1172 | 1111 | 0.097 | 108 | 91 | 0.1 | 0.1 | 0.060 | A |
| 3 - A253 Canterbury Road (W) | 345 | 86 | 989 | 372 | 0.926 | 339 | 292 | 6.3 | 7.8 | 1.453 | F |
| 4 - A299 (N) | 819 | 205 | 390 | 1135 | 0.722 | 819 | 938 | 2.5 | 2.5 | 0.189 | B |
| 5 - Seamark Road | 62 | 15 | 1158 | 921 | 0.067 | 62 | 50 | 0.1 | 0.1 | 0.070 | A |

13:45 - 14:00

| 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 934 | 234 | 99 | 1661 | 0.562 | 938 | 924 | 2.2 | 1.3 | 0.083 | A |
| 2 - Willetts Hill S | 88 | 22 | 961 | 1225 | 0.072 | 88 | 76 | 0.1 | 0.1 | 0.053 | A |
| 3 - A253 Canterbury Road (W) | 281 | 70 | 810 | 398 | 0.707 | 302 | 239 | 7.8 | 2.7 | 0.714 | E |
| 4 - A299 (N) | 669 | 167 | 342 | 1151 | 0.581 | 673 | 770 | 2.5 | 1.4 | 0.127 | A |
| 5 - Seamark Road | 50 | 13 | 973 | 1013 | 0.050 | 50 | 42 | 0.1 | 0.1 | 0.062 | A |

14:00 - 14:15

| 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 782 | 196 | 82 | 1668 | 0.469 | 784 | 762 | 1.3 | 0.9 | 0.068 | A |
| 2 - Willetts Hill S | 74 | 18 | 803 | 1311 | 0.056 | 74 | 63 | 0.1 | 0.1 | 0.049 | A |
| 3 - A253 Canterbury Road (W) | 236 | 59 | 677 | 417 | 0.565 | 241 | 200 | 2.7 | 1.4 | 0.350 | C |
| 4 - A299 (N) | 560 | 140 | 275 | 1173 | 0.478 | 562 | 643 | 1.4 | 0.9 | 0.099 | A |
| 5 - Seamark Road | 42 | 11 | 802 | 1096 | 0.038 | 42 | 35 | 0.1 | 0.0 | 0.057 | A |

2039 + Dev Traffic, AM

Data Errors and Warnings

| Severity | Area | Item | Description |
|----------|----------|--|--|
| Warning | Geometry | 3 - A253 Canterbury Road (W) - Roundabout Geometry | Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution. |

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|---------------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3, 4, 5 | 3.23 | F |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | -27 | 3 - A253 Canterbury Road (W) |

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 |
|----|--------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D9 | 2039 + Dev Traffic | AM | ONE HOUR | 07:30 | 09:00 | 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 (%) |
|------------------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - A299 E | | ONE HOUR | ✓ | 1570 | 100.000 |
| 2 - Willetts Hill S | | ONE HOUR | ✓ | 160 | 100.000 |
| 3 - A253 Canterbury Road (W) | | ONE HOUR | ✓ | 331 | 100.000 |
| 4 - A299 (N) | | ONE HOUR | ✓ | 1240 | 100.000 |
| 5 - Seamark Road | | ONE HOUR | ✓ | 84 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | | |
|------|------------------------------|------------|---------------------|------------------------------|--------------|------------------|
| | | 1 - A299 E | 2 - Willetts Hill S | 3 - A253 Canterbury Road (W) | 4 - A299 (N) | 5 - Seamark Road |
| From | 1 - A299 E | 0 | 36 | 394 | 1097 | 43 |
| | 2 - Willetts Hill S | 62 | 0 | 44 | 45 | 9 |
| | 3 - A253 Canterbury Road (W) | 277 | 14 | 0 | 31 | 9 |
| | 4 - A299 (N) | 1135 | 54 | 28 | 0 | 23 |
| | 5 - Seamark Road | 11 | 7 | 17 | 49 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | | |
|------|------------------------------|------------|---------------------|------------------------------|--------------|------------------|
| | | 1 - A299 E | 2 - Willetts Hill S | 3 - A253 Canterbury Road (W) | 4 - A299 (N) | 5 - Seamark Road |
| From | 1 - A299 E | 0 | 0 | 5 | 9 | 6 |
| | 2 - Willetts Hill S | 2 | 0 | 0 | 0 | 0 |
| | 3 - A253 Canterbury Road (W) | 6 | 0 | 0 | 4 | 0 |
| | 4 - A299 (N) | 10 | 5 | 10 | 0 | 23 |
| | 5 - Seamark Road | 0 | 0 | 0 | 3 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|------------------------------|---------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - A299 E | 1.02 | 1.31 | 39.4 | F | 1441 | 2161 |
| 2 - Willetts Hill S | 0.20 | 0.09 | 0.3 | A | 147 | 220 |
| 3 - A253 Canterbury Road (W) | 1.15 | 4.93 | 30.0 | F | 304 | 456 |
| 4 - A299 (N) | 1.18 | 5.74 | 114.9 | F | 1138 | 1707 |
| 5 - Seamark Road | 0.12 | 0.09 | 0.1 | A | 77 | 116 |

Main Results for each time segment

07:30 - 07:45

| 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1182 | 295 | 126 | 1714 | 0.689 | 1173 | 1099 | 0.0 | 2.2 | 0.109 | A |
| 2 - Willetts Hill S | 120 | 30 | 1217 | 1136 | 0.106 | 120 | 82 | 0.0 | 0.1 | 0.059 | A |
| 3 - A253 Canterbury Road (W) | 249 | 62 | 976 | 375 | 0.664 | 242 | 361 | 0.0 | 1.8 | 0.430 | D |
| 4 - A299 (N) | 934 | 233 | 305 | 1195 | 0.781 | 920 | 913 | 0.0 | 3.3 | 0.209 | B |
| 5 - Seamark Road | 63 | 16 | 1162 | 957 | 0.066 | 63 | 63 | 0.0 | 0.1 | 0.067 | A |

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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1411 | 353 | 149 | 1703 | 0.829 | 1402 | 1300 | 2.2 | 4.5 | 0.193 | B |
| 2 - Willetts Hill S | 144 | 36 | 1454 | 1010 | 0.142 | 144 | 98 | 0.1 | 0.2 | 0.069 | A |
| 3 - A253 Canterbury Road (W) | 298 | 74 | 1166 | 349 | 0.852 | 288 | 431 | 1.8 | 4.2 | 0.864 | F |
| 4 - A299 (N) | 1115 | 279 | 363 | 1175 | 0.948 | 1085 | 1091 | 3.3 | 10.7 | 0.541 | D |
| 5 - Seamark Road | 76 | 19 | 1374 | 851 | 0.089 | 75 | 74 | 0.1 | 0.1 | 0.077 | 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1729 | 432 | 170 | 1694 | 1.020 | 1644 | 1397 | 4.5 | 25.8 | 0.719 | E |
| 2 - Willetts Hill S | 176 | 44 | 1704 | 877 | 0.201 | 176 | 109 | 0.2 | 0.2 | 0.086 | A |
| 3 - A253 Canterbury Road (W) | 364 | 91 | 1375 | 321 | 1.136 | 311 | 506 | 4.2 | 17.7 | 2.552 | F |
| 4 - A299 (N) | 1365 | 341 | 405 | 1161 | 1.176 | 1155 | 1281 | 10.7 | 63.3 | 2.104 | F |
| 5 - Seamark Road | 92 | 23 | 1475 | 801 | 0.116 | 92 | 85 | 0.1 | 0.1 | 0.085 | 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1729 | 432 | 170 | 1694 | 1.021 | 1674 | 1405 | 25.8 | 39.4 | 1.307 | F |
| 2 - Willetts Hill S | 176 | 44 | 1735 | 861 | 0.205 | 176 | 110 | 0.2 | 0.3 | 0.088 | A |
| 3 - A253 Canterbury Road (W) | 364 | 91 | 1397 | 318 | 1.147 | 315 | 513 | 17.7 | 30.0 | 4.865 | F |
| 4 - A299 (N) | 1365 | 341 | 409 | 1160 | 1.177 | 1159 | 1303 | 63.3 | 114.9 | 4.736 | F |
| 5 - Seamark Road | 92 | 23 | 1482 | 797 | 0.116 | 92 | 86 | 0.1 | 0.1 | 0.085 | 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1411 | 353 | 156 | 1700 | 0.830 | 1547 | 1392 | 39.4 | 5.5 | 0.596 | E |
| 2 - Willetts Hill S | 144 | 36 | 1597 | 934 | 0.154 | 144 | 106 | 0.3 | 0.2 | 0.076 | A |
| 3 - A253 Canterbury Road (W) | 298 | 74 | 1272 | 335 | 0.889 | 324 | 469 | 30.0 | 23.5 | 4.935 | F |
| 4 - A299 (N) | 1115 | 279 | 400 | 1163 | 0.959 | 1153 | 1196 | 114.9 | 105.4 | 5.736 | F |
| 5 - Seamark Road | 76 | 19 | 1472 | 802 | 0.094 | 76 | 81 | 0.1 | 0.1 | 0.083 | 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1182 | 295 | 146 | 1705 | 0.693 | 1195 | 1392 | 5.5 | 2.3 | 0.120 | A |
| 2 - Willetts Hill S | 120 | 30 | 1243 | 1122 | 0.107 | 121 | 97 | 0.2 | 0.1 | 0.060 | A |
| 3 - A253 Canterbury Road (W) | 249 | 62 | 992 | 373 | 0.668 | 333 | 372 | 23.5 | 2.5 | 2.037 | F |
| 4 - A299 (N) | 934 | 233 | 388 | 1167 | 0.800 | 1156 | 937 | 105.4 | 49.9 | 4.070 | F |
| 5 - Seamark Road | 63 | 16 | 1474 | 801 | 0.079 | 63 | 70 | 0.1 | 0.1 | 0.081 | A |

2039 + Dev Traffic, PM

Data Errors and Warnings

| Severity | Area | Item | Description |
|----------|----------|--|--|
| Warning | Geometry | 3 - A253 Canterbury Road (W) - Roundabout Geometry | Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution. |

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|---------------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3, 4, 5 | 10.47 | F |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | -50 | 3 - A253 Canterbury Road (W) |

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 |
|-----|--------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D10 | 2039 + Dev Traffic | PM | ONE HOUR | 16:30 | 18:00 | 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 (%) |
|------------------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - A299 E | | ONE HOUR | ✓ | 1721 | 100.000 |
| 2 - Willetts Hill S | | ONE HOUR | ✓ | 94 | 100.000 |
| 3 - A253 Canterbury Road (W) | | ONE HOUR | ✓ | 568 | 100.000 |
| 4 - A299 (N) | | ONE HOUR | ✓ | 1377 | 100.000 |
| 5 - Seamark Road | | ONE HOUR | ✓ | 88 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | | |
|------|------------------------------|------------|---------------------|------------------------------|--------------|------------------|
| | | 1 - A299 E | 2 - Willetts Hill S | 3 - A253 Canterbury Road (W) | 4 - A299 (N) | 5 - Seamark Road |
| From | 1 - A299 E | 0 | 102 | 330 | 1221 | 68 |
| | 2 - Willetts Hill S | 40 | 0 | 16 | 34 | 4 |
| | 3 - A253 Canterbury Road (W) | 498 | 21 | 0 | 29 | 20 |
| | 4 - A299 (N) | 1302 | 49 | 14 | 0 | 12 |
| | 5 - Seamark Road | 29 | 9 | 6 | 44 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | | |
|------|------------------------------|------------|---------------------|------------------------------|--------------|------------------|
| | | 1 - A299 E | 2 - Willetts Hill S | 3 - A253 Canterbury Road (W) | 4 - A299 (N) | 5 - Seamark Road |
| From | 1 - A299 E | 0 | 1 | 2 | 5 | 4 |
| | 2 - Willetts Hill S | 0 | 0 | 0 | 0 | 0 |
| | 3 - A253 Canterbury Road (W) | 3 | 6 | 0 | 5 | 0 |
| | 4 - A299 (N) | 5 | 0 | 10 | 0 | 34 |
| | 5 - Seamark Road | 14 | 0 | 0 | 3 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|------------------------------|---------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - A299 E | 1.07 | 2.15 | 75.9 | F | 1579 | 2369 |
| 2 - Willetts Hill S | 0.12 | 0.08 | 0.1 | A | 86 | 129 |
| 3 - A253 Canterbury Road (W) | 1.94 | 43.05 | 269.9 | F | 521 | 782 |
| 4 - A299 (N) | 1.25 | 8.93 | 181.8 | F | 1264 | 1895 |
| 5 - Seamark Road | 0.13 | 0.09 | 0.1 | A | 81 | 121 |

Main Results for each time segment

16:30 - 16:45

| 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1296 | 324 | 104 | 1784 | 0.726 | 1285 | 1325 | 0.0 | 2.6 | 0.118 | A |
| 2 - Willetts Hill S | 71 | 18 | 1257 | 1145 | 0.062 | 71 | 132 | 0.0 | 0.1 | 0.056 | A |
| 3 - A253 Canterbury Road (W) | 428 | 107 | 1054 | 377 | 1.133 | 357 | 273 | 0.0 | 17.6 | 1.836 | F |
| 4 - A299 (N) | 1037 | 259 | 423 | 1212 | 0.855 | 1016 | 989 | 0.0 | 5.2 | 0.282 | C |
| 5 - Seamark Road | 66 | 17 | 1363 | 847 | 0.078 | 66 | 75 | 0.0 | 0.1 | 0.077 | A |

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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1547 | 387 | 119 | 1777 | 0.871 | 1533 | 1474 | 2.6 | 6.0 | 0.234 | B |
| 2 - Willetts Hill S | 85 | 21 | 1499 | 1019 | 0.083 | 84 | 153 | 0.1 | 0.1 | 0.064 | A |
| 3 - A253 Canterbury Road (W) | 511 | 128 | 1258 | 350 | 1.461 | 349 | 326 | 17.6 | 58.1 | 7.025 | F |
| 4 - A299 (N) | 1238 | 309 | 431 | 1209 | 1.024 | 1170 | 1176 | 5.2 | 22.2 | 0.900 | F |
| 5 - Seamark Road | 79 | 20 | 1514 | 777 | 0.102 | 79 | 87 | 0.1 | 0.1 | 0.086 | 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1895 | 474 | 132 | 1771 | 1.070 | 1745 | 1504 | 6.0 | 43.6 | 1.014 | F |
| 2 - Willetts Hill S | 103 | 26 | 1709 | 910 | 0.114 | 103 | 168 | 0.1 | 0.1 | 0.074 | A |
| 3 - A253 Canterbury Road (W) | 625 | 156 | 1441 | 325 | 1.925 | 325 | 371 | 58.1 | 133.3 | 17.983 | F |
| 4 - A299 (N) | 1516 | 379 | 425 | 1211 | 1.252 | 1209 | 1340 | 22.2 | 99.0 | 3.156 | F |
| 5 - Seamark Road | 97 | 24 | 1539 | 766 | 0.126 | 97 | 95 | 0.1 | 0.1 | 0.090 | 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1895 | 474 | 132 | 1771 | 1.070 | 1766 | 1504 | 43.6 | 75.9 | 2.153 | F |
| 2 - Willetts Hill S | 103 | 26 | 1728 | 900 | 0.115 | 103 | 170 | 0.1 | 0.1 | 0.075 | A |
| 3 - A253 Canterbury Road (W) | 625 | 156 | 1457 | 323 | 1.938 | 323 | 375 | 133.3 | 209.0 | 32.046 | F |
| 4 - A299 (N) | 1516 | 379 | 424 | 1211 | 1.252 | 1211 | 1355 | 99.0 | 175.3 | 6.892 | F |
| 5 - Seamark Road | 97 | 24 | 1539 | 766 | 0.127 | 97 | 96 | 0.1 | 0.1 | 0.090 | 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1547 | 387 | 121 | 1776 | 0.871 | 1753 | 1495 | 75.9 | 24.4 | 1.773 | F |
| 2 - Willetts Hill S | 85 | 21 | 1707 | 911 | 0.093 | 85 | 167 | 0.1 | 0.1 | 0.073 | A |
| 3 - A253 Canterbury Road (W) | 511 | 128 | 1423 | 327 | 1.561 | 327 | 368 | 209.0 | 254.8 | 39.711 | F |
| 4 - A299 (N) | 1238 | 309 | 419 | 1213 | 1.021 | 1212 | 1331 | 175.3 | 181.8 | 8.930 | F |
| 5 - Seamark Road | 79 | 20 | 1536 | 767 | 0.103 | 79 | 95 | 0.1 | 0.1 | 0.087 | 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1296 | 324 | 113 | 1780 | 0.728 | 1382 | 1509 | 24.4 | 2.8 | 0.185 | B |
| 2 - Willetts Hill S | 71 | 18 | 1350 | 1096 | 0.065 | 71 | 145 | 0.1 | 0.1 | 0.059 | A |
| 3 - A253 Canterbury Road (W) | 428 | 107 | 1127 | 367 | 1.164 | 367 | 294 | 254.8 | 269.9 | 43.045 | F |
| 4 - A299 (N) | 1037 | 259 | 436 | 1207 | 0.859 | 1200 | 1058 | 181.8 | 140.9 | 8.077 | F |
| 5 - Seamark Road | 66 | 17 | 1556 | 758 | 0.087 | 66 | 81 | 0.1 | 0.1 | 0.087 | A |

2039 + Dev Traffic, Airport Peak

Data Errors and Warnings

| Severity | Area | Item | Description |
|----------|----------|--|--|
| Warning | Geometry | 3 - A253 Canterbury Road (W) - Roundabout Geometry | Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution. |

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|---------------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3, 4, 5 | 0.39 | C |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | -17 | 3 - A253 Canterbury Road (W) |

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 |
|-----|--------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D11 | 2039 + Dev Traffic | Airport Peak | ONE HOUR | 12:45 | 14:15 | 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 (%) |
|------------------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - A299 E | | ONE HOUR | ✓ | 1079 | 100.000 |
| 2 - Willetts Hill S | | ONE HOUR | ✓ | 101 | 100.000 |
| 3 - A253 Canterbury Road (W) | | ONE HOUR | ✓ | 313 | 100.000 |
| 4 - A299 (N) | | ONE HOUR | ✓ | 861 | 100.000 |
| 5 - Seamark Road | | ONE HOUR | ✓ | 56 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | | |
|------|------------------------------|------------|---------------------|------------------------------|--------------|------------------|
| | | 1 - A299 E | 2 - Willetts Hill S | 3 - A253 Canterbury Road (W) | 4 - A299 (N) | 5 - Seamark Road |
| From | 1 - A299 E | 0 | 25 | 226 | 804 | 24 |
| | 2 - Willetts Hill S | 44 | 0 | 16 | 36 | 5 |
| | 3 - A253 Canterbury Road (W) | 264 | 13 | 0 | 24 | 12 |
| | 4 - A299 (N) | 799 | 37 | 20 | 0 | 5 |
| | 5 - Seamark Road | 17 | 8 | 3 | 28 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| From | To | | | | | |
|------------------------------|------------|---------------------|------------------------------|--------------|------------------|--|
| | 1 - A299 E | 2 - Willetts Hill S | 3 - A253 Canterbury Road (W) | 4 - A299 (N) | 5 - Seamark Road | |
| 1 - A299 E | 0 | 0 | 7 | 16 | 6 | |
| 2 - Willetts Hill S | 0 | 0 | 9 | 4 | 0 | |
| 3 - A253 Canterbury Road (W) | 4 | 10 | 0 | 6 | 0 | |
| 4 - A299 (N) | 14 | 0 | 14 | 0 | 0 | |
| 5 - Seamark Road | 8 | 0 | 0 | 5 | 0 | |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|------------------------------|---------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - A299 E | 0.73 | 0.14 | 2.7 | A | 990 | 1485 |
| 2 - Willetts Hill S | 0.10 | 0.06 | 0.1 | A | 93 | 139 |
| 3 - A253 Canterbury Road (W) | 0.95 | 1.69 | 9.1 | F | 287 | 431 |
| 4 - A299 (N) | 0.84 | 0.32 | 4.8 | C | 790 | 1185 |
| 5 - Seamark Road | 0.07 | 0.08 | 0.1 | A | 51 | 77 |

Main Results for each time segment

12:45 - 13:00

| 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 812 | 203 | 81 | 1646 | 0.494 | 808 | 837 | 0.0 | 1.0 | 0.071 | A |
| 2 - Willetts Hill S | 76 | 19 | 828 | 1292 | 0.059 | 76 | 62 | 0.0 | 0.1 | 0.049 | A |
| 3 - A253 Canterbury Road (W) | 236 | 59 | 705 | 411 | 0.573 | 231 | 199 | 0.0 | 1.3 | 0.323 | C |
| 4 - A299 (N) | 648 | 162 | 268 | 1174 | 0.552 | 643 | 668 | 0.0 | 1.2 | 0.112 | A |
| 5 - Seamark Road | 42 | 11 | 877 | 1058 | 0.040 | 42 | 34 | 0.0 | 0.0 | 0.059 | A |

13:00 - 13:15

| 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 970 | 242 | 98 | 1639 | 0.592 | 968 | 1004 | 1.0 | 1.4 | 0.089 | A |
| 2 - Willetts Hill S | 91 | 23 | 991 | 1202 | 0.076 | 91 | 74 | 0.1 | 0.1 | 0.054 | A |
| 3 - A253 Canterbury Road (W) | 281 | 70 | 844 | 391 | 0.720 | 277 | 238 | 1.3 | 2.3 | 0.509 | D |
| 4 - A299 (N) | 774 | 194 | 322 | 1156 | 0.669 | 771 | 800 | 1.2 | 2.0 | 0.154 | A |
| 5 - Seamark Road | 50 | 13 | 1051 | 972 | 0.052 | 50 | 41 | 0.0 | 0.1 | 0.065 | A |

13:15 - 13:30

| 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1188 | 297 | 118 | 1629 | 0.729 | 1183 | 1212 | 1.4 | 2.6 | 0.133 | A |
| 2 - Willetts Hill S | 111 | 28 | 1212 | 1081 | 0.103 | 111 | 90 | 0.1 | 0.1 | 0.062 | A |
| 3 - A253 Canterbury Road (W) | 345 | 86 | 1032 | 363 | 0.948 | 325 | 291 | 2.3 | 7.1 | 1.194 | F |
| 4 - A299 (N) | 948 | 237 | 381 | 1137 | 0.834 | 938 | 977 | 2.0 | 4.5 | 0.287 | C |
| 5 - Seamark Road | 62 | 15 | 1269 | 864 | 0.071 | 62 | 50 | 0.1 | 0.1 | 0.075 | A |

13:30 - 13:45

| 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1188 | 297 | 120 | 1629 | 0.729 | 1188 | 1230 | 2.6 | 2.7 | 0.136 | A |
| 2 - Willetts Hill S | 111 | 28 | 1216 | 1079 | 0.103 | 111 | 91 | 0.1 | 0.1 | 0.062 | A |
| 3 - A253 Canterbury Road (W) | 345 | 86 | 1036 | 363 | 0.950 | 337 | 292 | 7.1 | 9.1 | 1.689 | F |
| 4 - A299 (N) | 948 | 237 | 391 | 1133 | 0.836 | 947 | 981 | 4.5 | 4.8 | 0.317 | C |
| 5 - Seamark Road | 62 | 15 | 1288 | 855 | 0.072 | 62 | 50 | 0.1 | 0.1 | 0.076 | A |

13:45 - 14:00

| 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 970 | 242 | 100 | 1638 | 0.592 | 975 | 1041 | 2.7 | 1.5 | 0.091 | A |
| 2 - Willetts Hill S | 91 | 23 | 998 | 1199 | 0.076 | 91 | 76 | 0.1 | 0.1 | 0.054 | A |
| 3 - A253 Canterbury Road (W) | 281 | 70 | 850 | 390 | 0.721 | 306 | 239 | 9.1 | 2.9 | 0.839 | F |
| 4 - A299 (N) | 774 | 194 | 348 | 1147 | 0.675 | 785 | 807 | 4.8 | 2.1 | 0.170 | B |
| 5 - Seamark Road | 50 | 13 | 1091 | 953 | 0.053 | 50 | 42 | 0.1 | 0.1 | 0.066 | A |

14:00 - 14:15

| 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 812 | 203 | 83 | 1645 | 0.494 | 814 | 855 | 1.5 | 1.0 | 0.072 | A |
| 2 - Willetts Hill S | 76 | 19 | 834 | 1289 | 0.059 | 76 | 63 | 0.1 | 0.1 | 0.049 | A |
| 3 - A253 Canterbury Road (W) | 236 | 59 | 710 | 411 | 0.574 | 242 | 200 | 2.9 | 1.4 | 0.367 | C |
| 4 - A299 (N) | 648 | 162 | 278 | 1171 | 0.554 | 652 | 674 | 2.1 | 1.3 | 0.116 | A |
| 5 - Seamark Road | 42 | 11 | 895 | 1049 | 0.040 | 42 | 35 | 0.1 | 0.0 | 0.060 | A |

| |
|---|
| <h1>Junctions 9</h1> |
| <h2>ARCADY 9 - Roundabout Module</h2> |
| Version: 9.0.2.5947 © Copyright TRL Limited, 2017 |
| For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 770558 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: Jct_6_A253_Willetts_Hill_R1_PM_validated.j9

Path: R:\Projects\38199 Manston Airport DCO EIA\4 Design\Transport\Junction Modelling\Base Models\Validated\Jct_6_A253_A299

Report generation date: 26/01/2018 17:17:58

- »2017 Baseline Traffic, AM
- »2017 Baseline Traffic, PM
- »2017 Baseline Traffic, Airport Peak
- »2039 Growthed Traffic, AM
- »2039 Growthed Traffic, PM
- »2039 Growthed Traffic, Airport Peak
- »2039 + Dev Traffic, AM
- »2039 + Dev Traffic, PM
- »2039 + Dev Traffic, Airport Peak

Summary of junction performance

| | AM | | | | | PM | | | | | Airport Peak | | | | |
|------------------------------|-------------|-------------|------|-----|---------------------------|-------------|-------------|------|-----|---|--------------|-------------|------|-----|--|
| | Queue (Veh) | Delay (min) | RFC | LOS | Network Residual Capacity | Queue (Veh) | Delay (min) | RFC | LOS | Network Residual Capacity | Queue (Veh) | Delay (min) | RFC | LOS | Network Residual Capacity |
| 2017 Baseline Traffic | | | | | | | | | | | | | | | |
| 1 - A299 E | 5.2 | 0.22 | 0.84 | B | 5 % [4 - A299 (N)] | 3.7 | 0.16 | 0.79 | A | -4 % [3 - A253 Canterbury Road (W)] | 1.0 | 0.07 | 0.51 | A | 64 % [3 - A253 Canterbury Road (W)] |
| 2 - Willetts Hill S | 0.2 | 0.07 | 0.14 | A | | 0.1 | 0.06 | 0.08 | A | | 0.1 | 0.05 | 0.06 | A | |
| 3 - A253 Canterbury Road (W) | 1.3 | 0.26 | 0.57 | C | | 6.0 | 0.78 | 0.88 | E | | 0.7 | 0.16 | 0.41 | A | |
| 4 - A299 (N) | 7.1 | 0.39 | 0.89 | C | | 8.6 | 0.47 | 0.91 | D | | 0.9 | 0.09 | 0.47 | A | |
| 5 - Seamark Road | 0.1 | 0.08 | 0.09 | A | | 0.1 | 0.09 | 0.11 | A | | 0.0 | 0.06 | 0.04 | A | |
| 2039 Growthed Traffic | | | | | | | | | | | | | | | |
| 1 - A299 E | 69.5 | 2.06 | 1.06 | F | -17 % [4 - A299 (N)] | 31.5 | 1.05 | 1.00 | F | -24 % [3 - A253 Canterbury Road (W)] | 2.2 | 0.12 | 0.69 | A | 23 % [3 - A253 Canterbury Road (W)] |
| 2 - Willetts Hill S | 0.3 | 0.09 | 0.21 | A | | 0.1 | 0.07 | 0.11 | A | | 0.1 | 0.06 | 0.10 | A | |
| 3 - A253 Canterbury Road (W) | 3.2 | 0.53 | 0.78 | D | | 65.8 | 6.95 | 1.23 | F | | 1.5 | 0.26 | 0.60 | C | |
| 4 - A299 (N) | 101.8 | 4.14 | 1.14 | F | | 115.1 | 5.17 | 1.16 | F | | 1.9 | 0.14 | 0.66 | A | |
| 5 - Seamark Road | 0.1 | 0.10 | 0.13 | A | | 0.2 | 0.11 | 0.15 | A | | 0.1 | 0.07 | 0.07 | A | |
| 2039 + Dev Traffic | | | | | | | | | | | | | | | |
| 1 - A299 E | 85.4 | 2.48 | 1.09 | F | -19 % [4 - A299 (N)] | 77.9 | 2.21 | 1.07 | F | -26 % [3 - A253 Canterbury Road (W)] | 2.7 | 0.14 | 0.73 | A | 19 % [4 - A299 (N)] |
| 2 - Willetts Hill S | 0.3 | 0.09 | 0.21 | A | | 0.1 | 0.08 | 0.11 | A | | 0.1 | 0.06 | 0.10 | A | |
| 3 - A253 Canterbury Road (W) | 3.3 | 0.55 | 0.78 | D | | 74.3 | 8.61 | 1.26 | F | | 1.6 | 0.28 | 0.62 | C | |
| 4 - A299 (N) | 120.8 | 5.23 | 1.17 | F | | 136.4 | 6.33 | 1.19 | F | | 3.1 | 0.20 | 0.76 | B | |
| 5 - Seamark Road | 0.1 | 0.10 | 0.13 | A | | 0.2 | 0.11 | 0.15 | A | | 0.1 | 0.08 | 0.07 | A | |

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

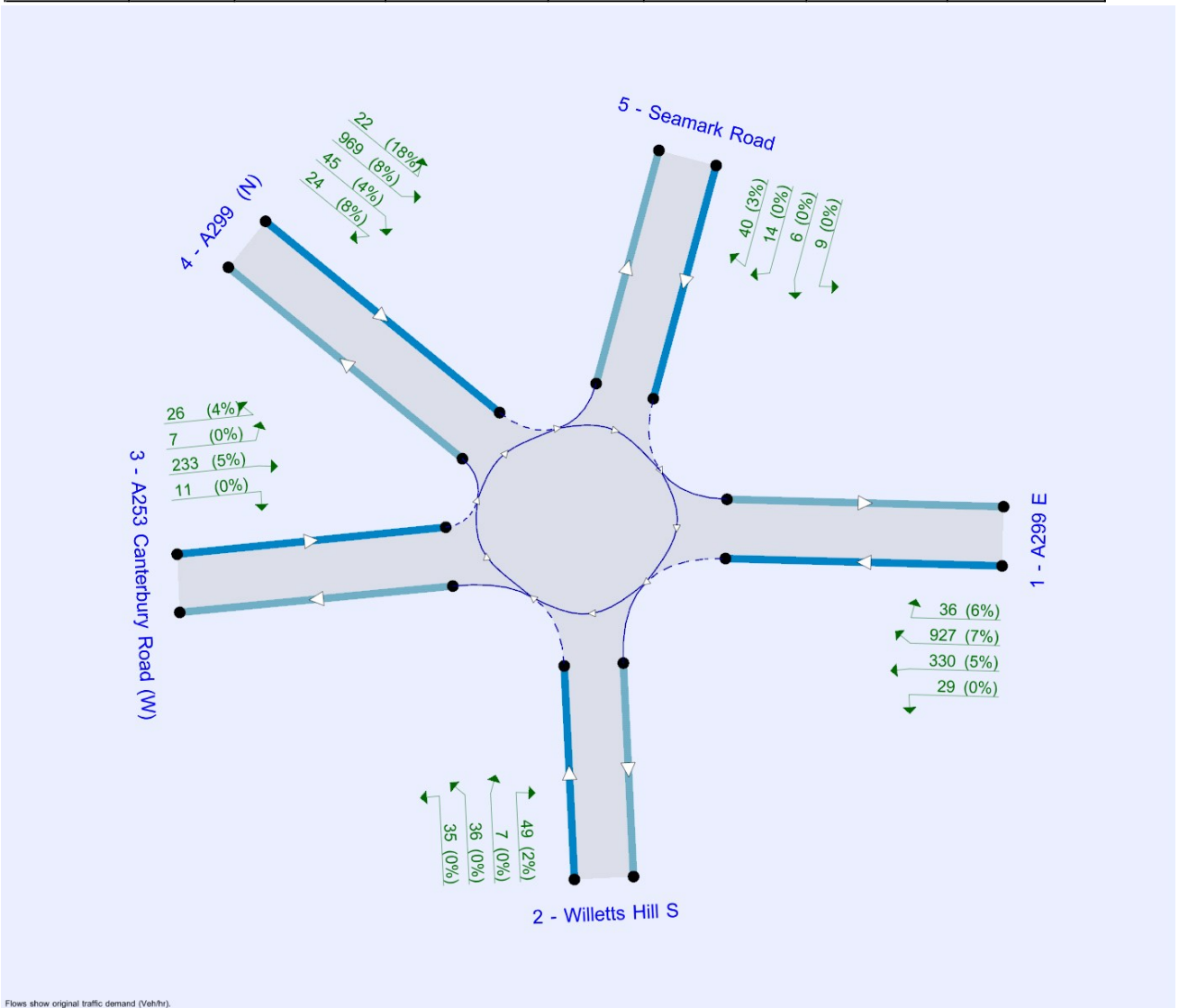
File summary

File Description

| | |
|-------------|----------------|
| Title | (untitled) |
| Location | |
| Site number | |
| Date | 29/09/2017 |
| Version | |
| Status | (new file) |
| Identifier | |
| Client | |
| Jobnumber | |
| Enumerator | GLOBALadam.guy |
| 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 | mph | Veh | Veh | perHour | min | -Min | perMin |



Analysis Options

| Vehicle length (m) | Calculate Queue Percentiles | Calculate detailed queueing delay | Calculate residual capacity | Residual capacity criteria type | RFC Threshold | Average Delay threshold (min) | Queue threshold (PCU) |
|--------------------|-----------------------------|-----------------------------------|-----------------------------|---------------------------------|---------------|-------------------------------|-----------------------|
| 5.75 | | | ✓ | Delay | 0.85 | 0.60 | 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 |
|-----|-----------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D3 | 2017 Baseline Traffic | AM | ONE HOUR | 07:30 | 09:00 | 15 | ✓ |
| D4 | 2017 Baseline Traffic | PM | ONE HOUR | 16:30 | 18:00 | 15 | ✓ |
| D5 | 2017 Baseline Traffic | Airport Peak | ONE HOUR | 12:45 | 14:15 | 15 | ✓ |
| D6 | 2039 Growthed Traffic | AM | ONE HOUR | 07:30 | 09:00 | 15 | ✓ |
| D7 | 2039 Growthed Traffic | PM | ONE HOUR | 16:30 | 18:00 | 15 | ✓ |
| D8 | 2039 Growthed Traffic | Airport Peak | ONE HOUR | 12:45 | 14:15 | 15 | ✓ |
| D9 | 2039 + Dev Traffic | AM | ONE HOUR | 07:30 | 09:00 | 15 | ✓ |
| D10 | 2039 + Dev Traffic | PM | ONE HOUR | 16:30 | 18:00 | 15 | ✓ |
| D11 | 2039 + Dev Traffic | Airport Peak | ONE HOUR | 12:45 | 14:15 | 15 | ✓ |

Analysis Set Details

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

2017 Baseline Traffic, AM

Data Errors and Warnings

| Severity | Area | Item | Description |
|----------|----------|--|--|
| Warning | Geometry | 3 - A253 Canterbury Road (W) - Roundabout Geometry | Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution. |

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|---------------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3, 4, 5 | 0.28 | C |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | 5 | 4 - A299 (N) |

Arms

Arms

| Arm | Name | Description |
|-----|--------------------------|-------------|
| 1 | A299 E | |
| 2 | Willets Hill S | |
| 3 | A253 Canterbury Road (W) | |
| 4 | A299 (N) | |
| 5 | Seamark Road | |

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 |
|------------------------------|----------------------------------|---------------------|---------------------------------|----------------------|-----------------------------------|------------------------------------|-----------|
| 1 - A299 E | 7.10 | 7.41 | 13.0 | 43.9 | 75.0 | 18.5 | |
| 2 - Willets Hill S | 2.49 | 8.24 | 27.5 | 19.7 | 76.0 | 30.0 | |
| 3 - A253 Canterbury Road (W) | 4.70 | 8.79 | 31.2 | 16.8 | 76.0 | 35.0 | |
| 4 - A299 (N) | 7.36 | 7.36 | 0.0 | 17.6 | 76.8 | 44.5 | |
| 5 - Seamark Road | 3.16 | 7.58 | 11.2 | 29.1 | 75.0 | 31.5 | |

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

| Arm | Final slope | Final intercept (PCU/hr) |
|------------------------------|-------------|--------------------------|
| 1 - A299 E | 0.606 | 2387 |
| 2 - Willets Hill S | 0.497 | 1797 |
| 3 - A253 Canterbury Road (W) | 0.557 | 2236 |
| 4 - A299 (N) | 0.528 | 2103 |
| 5 - Seamark Road | 0.468 | 1565 |

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

Arm Capacity Adjustments

| Arm | Type | Reason | Percentage capacity adjustment (%) |
|------------------------------|------------|--------|------------------------------------|
| 1 - A299 E | Percentage | | 80.00 |
| 2 - Willetts Hill S | Percentage | | 100.00 |
| 3 - A253 Canterbury Road (W) | Percentage | | 37.00 |
| 4 - A299 (N) | Percentage | | 75.00 |

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 | 2017 Baseline Traffic | AM | ONE HOUR | 07:30 | 09:00 | 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 (%) |
|------------------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - A299 E | | ONE HOUR | ✓ | 1322 | 100.000 |
| 2 - Willetts Hill S | | ONE HOUR | ✓ | 127 | 100.000 |
| 3 - A253 Canterbury Road (W) | | ONE HOUR | ✓ | 277 | 100.000 |
| 4 - A299 (N) | | ONE HOUR | ✓ | 1060 | 100.000 |
| 5 - Seamark Road | | ONE HOUR | ✓ | 69 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | | |
|------|------------------------------|------------|---------------------|------------------------------|--------------|------------------|
| | | 1 - A299 E | 2 - Willetts Hill S | 3 - A253 Canterbury Road (W) | 4 - A299 (N) | 5 - Seamark Road |
| From | 1 - A299 E | 0 | 29 | 330 | 927 | 36 |
| | 2 - Willetts Hill S | 49 | 0 | 35 | 36 | 7 |
| | 3 - A253 Canterbury Road (W) | 233 | 11 | 0 | 26 | 7 |
| | 4 - A299 (N) | 969 | 45 | 24 | 0 | 22 |
| | 5 - Seamark Road | 9 | 6 | 14 | 40 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | | |
|------|------------------------------|------------|---------------------|------------------------------|--------------|------------------|
| | | 1 - A299 E | 2 - Willetts Hill S | 3 - A253 Canterbury Road (W) | 4 - A299 (N) | 5 - Seamark Road |
| From | 1 - A299 E | 0 | 0 | 5 | 7 | 6 |
| | 2 - Willetts Hill S | 2 | 0 | 0 | 0 | 0 |
| | 3 - A253 Canterbury Road (W) | 5 | 0 | 0 | 4 | 0 |
| | 4 - A299 (N) | 8 | 4 | 8 | 0 | 18 |
| | 5 - Seamark Road | 0 | 0 | 0 | 3 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|------------------------------|---------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - A299 E | 0.84 | 0.22 | 5.2 | B | 1213 | 1820 |
| 2 - Willetts Hill S | 0.14 | 0.07 | 0.2 | A | 117 | 175 |
| 3 - A253 Canterbury Road (W) | 0.57 | 0.26 | 1.3 | C | 254 | 381 |
| 4 - A299 (N) | 0.89 | 0.39 | 7.1 | C | 973 | 1459 |
| 5 - Seamark Road | 0.09 | 0.08 | 0.1 | A | 63 | 95 |

Main Results for each time segment

07:30 - 07:45

| 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 995 | 249 | 105 | 1747 | 0.570 | 990 | 942 | 0.0 | 1.3 | 0.079 | A |
| 2 - Willetts Hill S | 96 | 24 | 1027 | 1244 | 0.077 | 95 | 68 | 0.0 | 0.1 | 0.052 | A |
| 3 - A253 Canterbury Road (W) | 209 | 52 | 820 | 619 | 0.337 | 207 | 302 | 0.0 | 0.5 | 0.145 | A |
| 4 - A299 (N) | 798 | 200 | 256 | 1362 | 0.586 | 792 | 771 | 0.0 | 1.4 | 0.104 | A |
| 5 - Seamark Road | 52 | 13 | 995 | 1048 | 0.050 | 52 | 54 | 0.0 | 0.1 | 0.060 | A |

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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1188 | 297 | 126 | 1737 | 0.684 | 1185 | 1128 | 1.3 | 2.1 | 0.108 | A |
| 2 - Willetts Hill S | 114 | 29 | 1229 | 1138 | 0.100 | 114 | 82 | 0.1 | 0.1 | 0.059 | A |
| 3 - A253 Canterbury Road (W) | 249 | 62 | 982 | 585 | 0.426 | 248 | 361 | 0.5 | 0.7 | 0.178 | B |
| 4 - A299 (N) | 953 | 238 | 307 | 1342 | 0.710 | 949 | 923 | 1.4 | 2.4 | 0.151 | A |
| 5 - Seamark Road | 62 | 16 | 1192 | 951 | 0.065 | 62 | 65 | 0.1 | 0.1 | 0.067 | 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1456 | 364 | 153 | 1724 | 0.844 | 1444 | 1370 | 2.1 | 5.0 | 0.206 | B |
| 2 - Willetts Hill S | 140 | 35 | 1498 | 997 | 0.140 | 140 | 99 | 0.1 | 0.2 | 0.070 | A |
| 3 - A253 Canterbury Road (W) | 305 | 76 | 1197 | 540 | 0.565 | 303 | 440 | 0.7 | 1.3 | 0.251 | C |
| 4 - A299 (N) | 1167 | 292 | 375 | 1316 | 0.887 | 1150 | 1125 | 2.4 | 6.5 | 0.332 | C |
| 5 - Seamark Road | 76 | 19 | 1447 | 825 | 0.092 | 76 | 79 | 0.1 | 0.1 | 0.080 | 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1456 | 364 | 154 | 1724 | 0.844 | 1455 | 1385 | 5.0 | 5.2 | 0.221 | B |
| 2 - Willetts Hill S | 140 | 35 | 1509 | 991 | 0.141 | 140 | 100 | 0.2 | 0.2 | 0.070 | A |
| 3 - A253 Canterbury Road (W) | 305 | 76 | 1205 | 538 | 0.567 | 305 | 443 | 1.3 | 1.3 | 0.257 | C |
| 4 - A299 (N) | 1167 | 292 | 378 | 1316 | 0.887 | 1165 | 1132 | 6.5 | 7.1 | 0.385 | C |
| 5 - Seamark Road | 76 | 19 | 1463 | 817 | 0.093 | 76 | 79 | 0.1 | 0.1 | 0.081 | 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1188 | 297 | 127 | 1736 | 0.684 | 1200 | 1151 | 5.2 | 2.2 | 0.114 | A |
| 2 - Willetts Hill S | 114 | 29 | 1245 | 1130 | 0.101 | 114 | 83 | 0.2 | 0.1 | 0.059 | A |
| 3 - A253 Canterbury Road (W) | 249 | 62 | 993 | 583 | 0.427 | 251 | 366 | 1.3 | 0.8 | 0.182 | B |
| 4 - A299 (N) | 953 | 238 | 311 | 1341 | 0.711 | 971 | 934 | 7.1 | 2.5 | 0.170 | B |
| 5 - Seamark Road | 62 | 16 | 1216 | 939 | 0.066 | 62 | 65 | 0.1 | 0.1 | 0.068 | 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 995 | 249 | 106 | 1747 | 0.570 | 999 | 953 | 2.2 | 1.3 | 0.081 | A |
| 2 - Willetts Hill S | 96 | 24 | 1036 | 1240 | 0.077 | 96 | 69 | 0.1 | 0.1 | 0.052 | A |
| 3 - A253 Canterbury Road (W) | 209 | 52 | 827 | 618 | 0.338 | 210 | 304 | 0.8 | 0.5 | 0.147 | A |
| 4 - A299 (N) | 798 | 200 | 259 | 1361 | 0.586 | 802 | 777 | 2.5 | 1.4 | 0.108 | A |
| 5 - Seamark Road | 52 | 13 | 1007 | 1042 | 0.050 | 52 | 54 | 0.1 | 0.1 | 0.061 | A |

2017 Baseline Traffic, PM

Data Errors and Warnings

| Severity | Area | Item | Description |
|----------|----------|--|--|
| Warning | Geometry | 3 - A253 Canterbury Road (W) - Roundabout Geometry | Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution. |

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|---------------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3, 4, 5 | 0.36 | C |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | -4 | 3 - A253 Canterbury Road (W) |

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 | 2017 Baseline Traffic | PM | ONE HOUR | 16:30 | 18:00 | 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 (%) |
|------------------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - A299 E | | ONE HOUR | ✓ | 1285 | 100.000 |
| 2 - Willetts Hill S | | ONE HOUR | ✓ | 75 | 100.000 |
| 3 - A253 Canterbury Road (W) | | ONE HOUR | ✓ | 451 | 100.000 |
| 4 - A299 (N) | | ONE HOUR | ✓ | 1068 | 100.000 |
| 5 - Seamark Road | | ONE HOUR | ✓ | 70 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | | |
|------|------------------------------|------------|---------------------|------------------------------|--------------|------------------|
| | | 1 - A299 E | 2 - Willetts Hill S | 3 - A253 Canterbury Road (W) | 4 - A299 (N) | 5 - Seamark Road |
| From | 1 - A299 E | 0 | 79 | 262 | 890 | 54 |
| | 2 - Willetts Hill S | 32 | 0 | 13 | 27 | 3 |
| | 3 - A253 Canterbury Road (W) | 395 | 17 | 0 | 23 | 16 |
| | 4 - A299 (N) | 1009 | 39 | 11 | 0 | 9 |
| | 5 - Seamark Road | 23 | 7 | 5 | 35 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | | |
|------|------------------------------|------------|---------------------|------------------------------|--------------|------------------|
| | | 1 - A299 E | 2 - Willetts Hill S | 3 - A253 Canterbury Road (W) | 4 - A299 (N) | 5 - Seamark Road |
| From | 1 - A299 E | 0 | 1 | 2 | 4 | 4 |
| | 2 - Willetts Hill S | 0 | 0 | 0 | 0 | 0 |
| | 3 - A253 Canterbury Road (W) | 3 | 6 | 0 | 4 | 0 |
| | 4 - A299 (N) | 4 | 0 | 9 | 0 | 33 |
| | 5 - Seamark Road | 13 | 0 | 0 | 3 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|------------------------------|---------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - A299 E | 0.79 | 0.16 | 3.7 | A | 1179 | 1769 |
| 2 - Willetts Hill S | 0.08 | 0.06 | 0.1 | A | 69 | 103 |
| 3 - A253 Canterbury Road (W) | 0.88 | 0.78 | 6.0 | E | 414 | 621 |
| 4 - A299 (N) | 0.91 | 0.47 | 8.6 | D | 980 | 1470 |
| 5 - Seamark Road | 0.11 | 0.09 | 0.1 | A | 64 | 96 |

Main Results for each time segment

16:30 - 16:45

| 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 967 | 242 | 85 | 1806 | 0.536 | 963 | 1089 | 0.0 | 1.1 | 0.071 | A |
| 2 - Willetts Hill S | 56 | 14 | 942 | 1312 | 0.043 | 56 | 106 | 0.0 | 0.0 | 0.048 | A |
| 3 - A253 Canterbury Road (W) | 340 | 85 | 780 | 641 | 0.530 | 335 | 218 | 0.0 | 1.1 | 0.194 | B |
| 4 - A299 (N) | 804 | 201 | 385 | 1364 | 0.590 | 798 | 730 | 0.0 | 1.4 | 0.105 | A |
| 5 - Seamark Road | 53 | 13 | 1122 | 965 | 0.055 | 52 | 61 | 0.0 | 0.1 | 0.066 | A |

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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1155 | 289 | 102 | 1798 | 0.643 | 1153 | 1305 | 1.1 | 1.8 | 0.093 | A |
| 2 - Willetts Hill S | 67 | 17 | 1128 | 1216 | 0.055 | 67 | 127 | 0.0 | 0.1 | 0.052 | A |
| 3 - A253 Canterbury Road (W) | 405 | 101 | 934 | 609 | 0.666 | 402 | 261 | 1.1 | 1.9 | 0.286 | C |
| 4 - A299 (N) | 960 | 240 | 462 | 1334 | 0.720 | 956 | 875 | 1.4 | 2.5 | 0.157 | A |
| 5 - Seamark Road | 63 | 16 | 1344 | 863 | 0.073 | 63 | 73 | 0.1 | 0.1 | 0.075 | 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1415 | 354 | 124 | 1787 | 0.792 | 1407 | 1575 | 1.8 | 3.6 | 0.155 | A |
| 2 - Willetts Hill S | 83 | 21 | 1377 | 1088 | 0.076 | 82 | 155 | 0.1 | 0.1 | 0.060 | A |
| 3 - A253 Canterbury Road (W) | 497 | 124 | 1141 | 566 | 0.878 | 483 | 319 | 1.9 | 5.3 | 0.637 | E |
| 4 - A299 (N) | 1176 | 294 | 556 | 1297 | 0.907 | 1155 | 1068 | 2.5 | 7.6 | 0.378 | C |
| 5 - Seamark Road | 77 | 19 | 1622 | 736 | 0.105 | 77 | 89 | 0.1 | 0.1 | 0.091 | 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1415 | 354 | 125 | 1787 | 0.792 | 1414 | 1600 | 3.6 | 3.7 | 0.161 | A |
| 2 - Willetts Hill S | 83 | 21 | 1384 | 1084 | 0.076 | 83 | 156 | 0.1 | 0.1 | 0.060 | A |
| 3 - A253 Canterbury Road (W) | 497 | 124 | 1146 | 565 | 0.879 | 494 | 320 | 5.3 | 6.0 | 0.784 | E |
| 4 - A299 (N) | 1176 | 294 | 567 | 1293 | 0.910 | 1172 | 1073 | 7.6 | 8.6 | 0.467 | D |
| 5 - Seamark Road | 77 | 19 | 1648 | 724 | 0.107 | 77 | 90 | 0.1 | 0.1 | 0.093 | 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1155 | 289 | 104 | 1797 | 0.643 | 1163 | 1348 | 3.7 | 1.8 | 0.096 | A |
| 2 - Willetts Hill S | 67 | 17 | 1137 | 1211 | 0.056 | 68 | 130 | 0.1 | 0.1 | 0.052 | A |
| 3 - A253 Canterbury Road (W) | 405 | 101 | 942 | 607 | 0.668 | 421 | 263 | 6.0 | 2.1 | 0.346 | C |
| 4 - A299 (N) | 960 | 240 | 480 | 1327 | 0.724 | 984 | 883 | 8.6 | 2.7 | 0.186 | B |
| 5 - Seamark Road | 63 | 16 | 1389 | 843 | 0.075 | 63 | 75 | 0.1 | 0.1 | 0.077 | 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 967 | 242 | 86 | 1806 | 0.536 | 970 | 1107 | 1.8 | 1.2 | 0.072 | A |
| 2 - Willetts Hill S | 56 | 14 | 949 | 1308 | 0.043 | 57 | 107 | 0.1 | 0.0 | 0.048 | A |
| 3 - A253 Canterbury Road (W) | 340 | 85 | 786 | 639 | 0.531 | 343 | 220 | 2.1 | 1.2 | 0.205 | B |
| 4 - A299 (N) | 804 | 201 | 393 | 1361 | 0.591 | 809 | 736 | 2.7 | 1.5 | 0.110 | A |
| 5 - Seamark Road | 53 | 13 | 1140 | 957 | 0.055 | 53 | 62 | 0.1 | 0.1 | 0.066 | A |

2017 Baseline Traffic, Airport Peak

Data Errors and Warnings

| Severity | Area | Item | Description |
|----------|----------|--|--|
| Warning | Geometry | 3 - A253 Canterbury Road (W) - Roundabout Geometry | Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution. |

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|---------------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3, 4, 5 | 0.09 | A |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | 64 | 3 - A253 Canterbury Road (W) |

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 | 2017 Baseline Traffic | Airport Peak | ONE HOUR | 12:45 | 14:15 | 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 (%) |
|------------------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - A299 E | | ONE HOUR | ✓ | 776 | 100.000 |
| 2 - Willetts Hill S | | ONE HOUR | ✓ | 74 | 100.000 |
| 3 - A253 Canterbury Road (W) | | ONE HOUR | ✓ | 235 | 100.000 |
| 4 - A299 (N) | | ONE HOUR | ✓ | 556 | 100.000 |
| 5 - Seamark Road | | ONE HOUR | ✓ | 42 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | | |
|------|------------------------------|------------|---------------------|------------------------------|--------------|------------------|
| | | 1 - A299 E | 2 - Willetts Hill S | 3 - A253 Canterbury Road (W) | 4 - A299 (N) | 5 - Seamark Road |
| From | 1 - A299 E | 0 | 19 | 169 | 570 | 18 |
| | 2 - Willetts Hill S | 31 | 0 | 12 | 27 | 4 |
| | 3 - A253 Canterbury Road (W) | 198 | 10 | 0 | 18 | 9 |
| | 4 - A299 (N) | 509 | 28 | 15 | 0 | 4 |
| | 5 - Seamark Road | 13 | 6 | 2 | 21 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | | |
|------|------------------------------|------------|---------------------|------------------------------|--------------|------------------|
| | | 1 - A299 E | 2 - Willetts Hill S | 3 - A253 Canterbury Road (W) | 4 - A299 (N) | 5 - Seamark Road |
| From | 1 - A299 E | 0 | 0 | 7 | 14 | 6 |
| | 2 - Willetts Hill S | 0 | 0 | 8 | 4 | 0 |
| | 3 - A253 Canterbury Road (W) | 4 | 10 | 0 | 6 | 0 |
| | 4 - A299 (N) | 13 | 0 | 13 | 0 | 0 |
| | 5 - Seamark Road | 8 | 0 | 0 | 5 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|------------------------------|---------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - A299 E | 0.51 | 0.07 | 1.0 | A | 712 | 1068 |
| 2 - Willetts Hill S | 0.06 | 0.05 | 0.1 | A | 68 | 102 |
| 3 - A253 Canterbury Road (W) | 0.41 | 0.16 | 0.7 | A | 216 | 323 |
| 4 - A299 (N) | 0.47 | 0.09 | 0.9 | A | 510 | 765 |
| 5 - Seamark Road | 0.04 | 0.06 | 0.0 | A | 39 | 58 |

Main Results for each time segment

12:45 - 13:00

| 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 584 | 146 | 61 | 1678 | 0.348 | 582 | 562 | 0.0 | 0.5 | 0.055 | A |
| 2 - Willetts Hill S | 56 | 14 | 596 | 1425 | 0.039 | 56 | 47 | 0.0 | 0.0 | 0.044 | A |
| 3 - A253 Canterbury Road (W) | 177 | 44 | 503 | 681 | 0.260 | 176 | 149 | 0.0 | 0.3 | 0.118 | A |
| 4 - A299 (N) | 419 | 105 | 202 | 1331 | 0.314 | 417 | 477 | 0.0 | 0.5 | 0.065 | A |
| 5 - Seamark Road | 32 | 8 | 592 | 1201 | 0.026 | 32 | 26 | 0.0 | 0.0 | 0.051 | A |

13:00 - 13:15

| 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 698 | 174 | 74 | 1673 | 0.417 | 697 | 674 | 0.5 | 0.7 | 0.061 | A |
| 2 - Willetts Hill S | 67 | 17 | 714 | 1361 | 0.049 | 66 | 57 | 0.0 | 0.1 | 0.046 | A |
| 3 - A253 Canterbury Road (W) | 211 | 53 | 603 | 659 | 0.320 | 211 | 178 | 0.3 | 0.5 | 0.134 | A |
| 4 - A299 (N) | 500 | 125 | 242 | 1316 | 0.380 | 499 | 571 | 0.5 | 0.6 | 0.073 | A |
| 5 - Seamark Road | 38 | 9 | 710 | 1143 | 0.033 | 38 | 31 | 0.0 | 0.0 | 0.054 | A |

13:15 - 13:30

| 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 854 | 214 | 90 | 1665 | 0.513 | 853 | 825 | 0.7 | 1.0 | 0.074 | A |
| 2 - Willetts Hill S | 81 | 20 | 874 | 1275 | 0.064 | 81 | 69 | 0.1 | 0.1 | 0.050 | A |
| 3 - A253 Canterbury Road (W) | 259 | 65 | 738 | 629 | 0.411 | 258 | 218 | 0.5 | 0.7 | 0.161 | A |
| 4 - A299 (N) | 612 | 153 | 296 | 1297 | 0.472 | 611 | 699 | 0.6 | 0.9 | 0.087 | A |
| 5 - Seamark Road | 46 | 12 | 869 | 1065 | 0.043 | 46 | 38 | 0.0 | 0.0 | 0.059 | A |

13:30 - 13:45

| 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 854 | 214 | 90 | 1665 | 0.513 | 854 | 827 | 1.0 | 1.0 | 0.074 | A |
| 2 - Willetts Hill S | 81 | 20 | 875 | 1274 | 0.064 | 81 | 69 | 0.1 | 0.1 | 0.050 | A |
| 3 - A253 Canterbury Road (W) | 259 | 65 | 739 | 629 | 0.411 | 259 | 218 | 0.7 | 0.7 | 0.162 | A |
| 4 - A299 (N) | 612 | 153 | 297 | 1296 | 0.472 | 612 | 700 | 0.9 | 0.9 | 0.088 | A |
| 5 - Seamark Road | 46 | 12 | 871 | 1065 | 0.043 | 46 | 39 | 0.0 | 0.0 | 0.059 | A |

13:45 - 14:00

| 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 698 | 174 | 74 | 1673 | 0.417 | 699 | 677 | 1.0 | 0.7 | 0.062 | A |
| 2 - Willetts Hill S | 67 | 17 | 716 | 1360 | 0.049 | 67 | 57 | 0.1 | 0.1 | 0.046 | A |
| 3 - A253 Canterbury Road (W) | 211 | 53 | 604 | 659 | 0.321 | 212 | 178 | 0.7 | 0.5 | 0.135 | A |
| 4 - A299 (N) | 500 | 125 | 244 | 1316 | 0.380 | 501 | 573 | 0.9 | 0.6 | 0.074 | A |
| 5 - Seamark Road | 38 | 9 | 713 | 1142 | 0.033 | 38 | 32 | 0.0 | 0.0 | 0.054 | A |

14:00 - 14:15

| 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 584 | 146 | 62 | 1678 | 0.348 | 585 | 566 | 0.7 | 0.5 | 0.055 | A |
| 2 - Willetts Hill S | 56 | 14 | 599 | 1424 | 0.039 | 56 | 48 | 0.1 | 0.0 | 0.044 | A |
| 3 - A253 Canterbury Road (W) | 177 | 44 | 506 | 681 | 0.260 | 177 | 149 | 0.5 | 0.4 | 0.119 | A |
| 4 - A299 (N) | 419 | 105 | 204 | 1331 | 0.315 | 419 | 479 | 0.6 | 0.5 | 0.066 | A |
| 5 - Seamark Road | 32 | 8 | 597 | 1199 | 0.026 | 32 | 26 | 0.0 | 0.0 | 0.051 | A |

2039 Growthed Traffic, AM

Data Errors and Warnings

| Severity | Area | Item | Description |
|----------|----------|--|--|
| Warning | Geometry | 3 - A253 Canterbury Road (W) - Roundabout Geometry | Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution. |

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|---------------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3, 4, 5 | 2.57 | F |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | -17 | 4 - A299 (N) |

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 | 2039 Growthed Traffic | AM | ONE HOUR | 07:30 | 09:00 | 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 (%) |
|------------------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - A299 E | | ONE HOUR | ✓ | 1655 | 100.000 |
| 2 - Willetts Hill S | | ONE HOUR | ✓ | 159 | 100.000 |
| 3 - A253 Canterbury Road (W) | | ONE HOUR | ✓ | 348 | 100.000 |
| 4 - A299 (N) | | ONE HOUR | ✓ | 1328 | 100.000 |
| 5 - Seamark Road | | ONE HOUR | ✓ | 85 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | | |
|------|------------------------------|------------|---------------------|------------------------------|--------------|------------------|
| | | 1 - A299 E | 2 - Willetts Hill S | 3 - A253 Canterbury Road (W) | 4 - A299 (N) | 5 - Seamark Road |
| From | 1 - A299 E | 0 | 36 | 413 | 1161 | 45 |
| | 2 - Willetts Hill S | 61 | 0 | 44 | 45 | 9 |
| | 3 - A253 Canterbury Road (W) | 292 | 14 | 0 | 33 | 9 |
| | 4 - A299 (N) | 1214 | 56 | 30 | 0 | 28 |
| | 5 - Seamark Road | 11 | 7 | 17 | 50 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | | |
|------|------------------------------|------------|---------------------|------------------------------|--------------|------------------|
| | | 1 - A299 E | 2 - Willetts Hill S | 3 - A253 Canterbury Road (W) | 4 - A299 (N) | 5 - Seamark Road |
| From | 1 - A299 E | 0 | 0 | 5 | 7 | 6 |
| | 2 - Willetts Hill S | 2 | 0 | 0 | 0 | 0 |
| | 3 - A253 Canterbury Road (W) | 5 | 0 | 0 | 4 | 0 |
| | 4 - A299 (N) | 8 | 5 | 9 | 0 | 19 |
| | 5 - Seamark Road | 0 | 0 | 0 | 3 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|------------------------------|---------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - A299 E | 1.06 | 2.06 | 69.5 | F | 1519 | 2278 |
| 2 - Willetts Hill S | 0.21 | 0.09 | 0.3 | A | 146 | 219 |
| 3 - A253 Canterbury Road (W) | 0.78 | 0.53 | 3.2 | D | 319 | 479 |
| 4 - A299 (N) | 1.14 | 4.14 | 101.8 | F | 1219 | 1828 |
| 5 - Seamark Road | 0.13 | 0.10 | 0.1 | A | 78 | 117 |

Main Results for each time segment

07:30 - 07:45

| 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1246 | 311 | 130 | 1735 | 0.718 | 1236 | 1175 | 0.0 | 2.5 | 0.118 | A |
| 2 - Willetts Hill S | 120 | 30 | 1282 | 1110 | 0.108 | 119 | 84 | 0.0 | 0.1 | 0.060 | A |
| 3 - A253 Canterbury Road (W) | 262 | 65 | 1024 | 576 | 0.455 | 259 | 377 | 0.0 | 0.8 | 0.187 | B |
| 4 - A299 (N) | 1000 | 250 | 320 | 1336 | 0.748 | 988 | 963 | 0.0 | 2.8 | 0.167 | B |
| 5 - Seamark Road | 64 | 16 | 1241 | 926 | 0.069 | 64 | 68 | 0.0 | 0.1 | 0.070 | A |

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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1488 | 372 | 155 | 1723 | 0.864 | 1475 | 1398 | 2.5 | 5.7 | 0.231 | B |
| 2 - Willetts Hill S | 143 | 36 | 1529 | 980 | 0.146 | 143 | 100 | 0.1 | 0.2 | 0.072 | A |
| 3 - A253 Canterbury Road (W) | 313 | 78 | 1223 | 535 | 0.585 | 311 | 449 | 0.8 | 1.4 | 0.265 | C |
| 4 - A299 (N) | 1194 | 298 | 384 | 1312 | 0.910 | 1174 | 1149 | 2.8 | 7.9 | 0.387 | C |
| 5 - Seamark Road | 76 | 19 | 1477 | 810 | 0.094 | 76 | 81 | 0.1 | 0.1 | 0.082 | 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1822 | 456 | 179 | 1712 | 1.064 | 1684 | 1557 | 5.7 | 40.3 | 0.985 | F |
| 2 - Willetts Hill S | 175 | 44 | 1749 | 865 | 0.202 | 175 | 113 | 0.2 | 0.3 | 0.087 | A |
| 3 - A253 Canterbury Road (W) | 383 | 96 | 1408 | 496 | 0.773 | 377 | 516 | 1.4 | 3.0 | 0.478 | D |
| 4 - A299 (N) | 1462 | 366 | 464 | 1282 | 1.141 | 1271 | 1321 | 7.9 | 55.7 | 1.681 | F |
| 5 - Seamark Road | 94 | 23 | 1642 | 729 | 0.128 | 93 | 92 | 0.1 | 0.1 | 0.094 | 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1822 | 456 | 180 | 1711 | 1.065 | 1705 | 1568 | 40.3 | 69.5 | 2.061 | F |
| 2 - Willetts Hill S | 175 | 44 | 1771 | 854 | 0.205 | 175 | 114 | 0.3 | 0.3 | 0.088 | A |
| 3 - A253 Canterbury Road (W) | 383 | 96 | 1424 | 492 | 0.778 | 382 | 522 | 3.0 | 3.2 | 0.534 | D |
| 4 - A299 (N) | 1462 | 366 | 469 | 1279 | 1.143 | 1278 | 1337 | 55.7 | 101.8 | 3.807 | F |
| 5 - Seamark Road | 94 | 23 | 1654 | 723 | 0.129 | 94 | 93 | 0.1 | 0.1 | 0.095 | 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1488 | 372 | 163 | 1719 | 0.866 | 1695 | 1515 | 69.5 | 17.8 | 1.616 | F |
| 2 - Willetts Hill S | 143 | 36 | 1747 | 866 | 0.165 | 143 | 111 | 0.3 | 0.2 | 0.083 | A |
| 3 - A253 Canterbury Road (W) | 313 | 78 | 1383 | 501 | 0.625 | 319 | 507 | 3.2 | 1.8 | 0.340 | C |
| 4 - A299 (N) | 1194 | 298 | 398 | 1307 | 0.914 | 1294 | 1305 | 101.8 | 76.7 | 4.144 | F |
| 5 - Seamark Road | 76 | 19 | 1602 | 748 | 0.102 | 77 | 90 | 0.1 | 0.1 | 0.089 | 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1246 | 311 | 150 | 1725 | 0.722 | 1307 | 1458 | 17.8 | 2.7 | 0.164 | A |
| 2 - Willetts Hill S | 120 | 30 | 1358 | 1070 | 0.112 | 120 | 99 | 0.2 | 0.1 | 0.063 | A |
| 3 - A253 Canterbury Road (W) | 262 | 65 | 1077 | 565 | 0.464 | 265 | 401 | 1.8 | 0.9 | 0.202 | B |
| 4 - A299 (N) | 1000 | 250 | 329 | 1333 | 0.750 | 1291 | 1013 | 76.7 | 3.8 | 1.809 | F |
| 5 - Seamark Road | 64 | 16 | 1544 | 776 | 0.082 | 64 | 76 | 0.1 | 0.1 | 0.084 | A |

2039 Growthed Traffic, PM

Data Errors and Warnings

| Severity | Area | Item | Description |
|----------|----------|--|--|
| Warning | Geometry | 3 - A253 Canterbury Road (W) - Roundabout Geometry | Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution. |

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|---------------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3, 4, 5 | 3.40 | F |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | -24 | 3 - A253 Canterbury Road (W) |

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 | 2039 Growthed Traffic | PM | ONE HOUR | 16:30 | 18:00 | 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 (%) |
|------------------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - A299 E | | ONE HOUR | ✓ | 1621 | 100.000 |
| 2 - Willetts Hill S | | ONE HOUR | ✓ | 94 | 100.000 |
| 3 - A253 Canterbury Road (W) | | ONE HOUR | ✓ | 568 | 100.000 |
| 4 - A299 (N) | | ONE HOUR | ✓ | 1348 | 100.000 |
| 5 - Seamark Road | | ONE HOUR | ✓ | 88 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | | |
|------|------------------------------|------------|---------------------|------------------------------|--------------|------------------|
| | | 1 - A299 E | 2 - Willetts Hill S | 3 - A253 Canterbury Road (W) | 4 - A299 (N) | 5 - Seamark Road |
| From | 1 - A299 E | 0 | 100 | 330 | 1123 | 68 |
| | 2 - Willetts Hill S | 40 | 0 | 16 | 34 | 4 |
| | 3 - A253 Canterbury Road (W) | 498 | 21 | 0 | 29 | 20 |
| | 4 - A299 (N) | 1273 | 49 | 14 | 0 | 12 |
| | 5 - Seamark Road | 29 | 9 | 6 | 44 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | | |
|------|------------------------------|------------|---------------------|------------------------------|--------------|------------------|
| | | 1 - A299 E | 2 - Willetts Hill S | 3 - A253 Canterbury Road (W) | 4 - A299 (N) | 5 - Seamark Road |
| From | 1 - A299 E | 0 | 1 | 2 | 4 | 4 |
| | 2 - Willetts Hill S | 0 | 0 | 0 | 0 | 0 |
| | 3 - A253 Canterbury Road (W) | 3 | 6 | 0 | 5 | 0 |
| | 4 - A299 (N) | 4 | 0 | 10 | 0 | 34 |
| | 5 - Seamark Road | 14 | 0 | 0 | 3 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|------------------------------|---------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - A299 E | 1.00 | 1.05 | 31.5 | F | 1487 | 2231 |
| 2 - Willetts Hill S | 0.11 | 0.07 | 0.1 | A | 86 | 129 |
| 3 - A253 Canterbury Road (W) | 1.23 | 6.95 | 65.8 | F | 521 | 782 |
| 4 - A299 (N) | 1.16 | 5.17 | 115.1 | F | 1237 | 1855 |
| 5 - Seamark Road | 0.15 | 0.11 | 0.2 | A | 81 | 121 |

Main Results for each time segment

16:30 - 16:45

| 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1220 | 305 | 107 | 1796 | 0.680 | 1212 | 1365 | 0.0 | 2.1 | 0.101 | A |
| 2 - Willetts Hill S | 71 | 18 | 1185 | 1186 | 0.060 | 71 | 133 | 0.0 | 0.1 | 0.054 | A |
| 3 - A253 Canterbury Road (W) | 428 | 107 | 982 | 598 | 0.715 | 418 | 274 | 0.0 | 2.3 | 0.319 | C |
| 4 - A299 (N) | 1015 | 254 | 481 | 1326 | 0.765 | 1002 | 920 | 0.0 | 3.1 | 0.179 | B |
| 5 - Seamark Road | 66 | 17 | 1406 | 832 | 0.080 | 66 | 78 | 0.0 | 0.1 | 0.078 | A |

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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1457 | 364 | 127 | 1786 | 0.816 | 1449 | 1613 | 2.1 | 4.2 | 0.174 | B |
| 2 - Willetts Hill S | 85 | 21 | 1417 | 1067 | 0.079 | 84 | 159 | 0.1 | 0.1 | 0.061 | A |
| 3 - A253 Canterbury Road (W) | 511 | 128 | 1174 | 559 | 0.914 | 493 | 327 | 2.3 | 6.7 | 0.765 | E |
| 4 - A299 (N) | 1212 | 303 | 568 | 1292 | 0.938 | 1184 | 1099 | 3.1 | 10.0 | 0.469 | D |
| 5 - Seamark Road | 79 | 20 | 1660 | 716 | 0.111 | 79 | 92 | 0.1 | 0.1 | 0.094 | 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1785 | 446 | 143 | 1778 | 1.004 | 1714 | 1721 | 4.2 | 22.0 | 0.614 | E |
| 2 - Willetts Hill S | 103 | 26 | 1676 | 933 | 0.111 | 103 | 181 | 0.1 | 0.1 | 0.072 | A |
| 3 - A253 Canterbury Road (W) | 625 | 156 | 1393 | 513 | 1.219 | 507 | 386 | 6.7 | 36.2 | 2.850 | F |
| 4 - A299 (N) | 1484 | 371 | 602 | 1279 | 1.161 | 1271 | 1299 | 10.0 | 63.3 | 1.905 | F |
| 5 - Seamark Road | 97 | 24 | 1767 | 667 | 0.145 | 97 | 105 | 0.1 | 0.2 | 0.105 | 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1785 | 446 | 143 | 1778 | 1.004 | 1747 | 1727 | 22.0 | 31.5 | 1.046 | F |
| 2 - Willetts Hill S | 103 | 26 | 1707 | 917 | 0.113 | 103 | 183 | 0.1 | 0.1 | 0.074 | A |
| 3 - A253 Canterbury Road (W) | 625 | 156 | 1418 | 508 | 1.231 | 507 | 393 | 36.2 | 65.8 | 6.160 | F |
| 4 - A299 (N) | 1484 | 371 | 603 | 1278 | 1.161 | 1277 | 1322 | 63.3 | 115.1 | 4.313 | F |
| 5 - Seamark Road | 97 | 24 | 1773 | 664 | 0.146 | 97 | 107 | 0.2 | 0.2 | 0.106 | 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1457 | 364 | 132 | 1783 | 0.817 | 1564 | 1723 | 31.5 | 4.8 | 0.381 | C |
| 2 - Willetts Hill S | 85 | 21 | 1525 | 1011 | 0.084 | 85 | 170 | 0.1 | 0.1 | 0.065 | A |
| 3 - A253 Canterbury Road (W) | 511 | 128 | 1259 | 541 | 0.944 | 533 | 351 | 65.8 | 60.2 | 6.955 | F |
| 4 - A299 (N) | 1212 | 303 | 611 | 1275 | 0.951 | 1264 | 1181 | 115.1 | 102.1 | 5.169 | F |
| 5 - Seamark Road | 79 | 20 | 1776 | 663 | 0.119 | 79 | 99 | 0.2 | 0.1 | 0.103 | 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1220 | 305 | 125 | 1787 | 0.683 | 1231 | 1747 | 4.8 | 2.2 | 0.110 | A |
| 2 - Willetts Hill S | 71 | 18 | 1206 | 1176 | 0.060 | 71 | 150 | 0.1 | 0.1 | 0.054 | A |
| 3 - A253 Canterbury Road (W) | 428 | 107 | 996 | 595 | 0.718 | 586 | 280 | 60.2 | 20.7 | 4.229 | F |
| 4 - A299 (N) | 1015 | 254 | 641 | 1263 | 0.803 | 1251 | 941 | 102.1 | 43.0 | 3.522 | F |
| 5 - Seamark Road | 66 | 17 | 1805 | 650 | 0.102 | 66 | 86 | 0.1 | 0.1 | 0.103 | A |

2039 Growthed Traffic, Airport Peak

Data Errors and Warnings

| Severity | Area | Item | Description |
|----------|----------|--|--|
| Warning | Geometry | 3 - A253 Canterbury Road (W) - Roundabout Geometry | Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution. |

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|---------------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3, 4, 5 | 0.14 | A |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | 23 | 3 - A253 Canterbury Road (W) |

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 | 2039 Growthed Traffic | Airport Peak | ONE HOUR | 12:45 | 14:15 | 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 (%) |
|------------------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - A299 E | | ONE HOUR | ✓ | 1039 | 100.000 |
| 2 - Willetts Hill S | | ONE HOUR | ✓ | 98 | 100.000 |
| 3 - A253 Canterbury Road (W) | | ONE HOUR | ✓ | 313 | 100.000 |
| 4 - A299 (N) | | ONE HOUR | ✓ | 744 | 100.000 |
| 5 - Seamark Road | | ONE HOUR | ✓ | 56 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | | |
|------|------------------------------|------------|---------------------|------------------------------|--------------|------------------|
| | | 1 - A299 E | 2 - Willetts Hill S | 3 - A253 Canterbury Road (W) | 4 - A299 (N) | 5 - Seamark Road |
| From | 1 - A299 E | 0 | 25 | 226 | 764 | 24 |
| | 2 - Willetts Hill S | 41 | 0 | 16 | 36 | 5 |
| | 3 - A253 Canterbury Road (W) | 264 | 13 | 0 | 24 | 12 |
| | 4 - A299 (N) | 682 | 37 | 20 | 0 | 5 |
| | 5 - Seamark Road | 17 | 8 | 3 | 28 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | | |
|------|------------------------------|------------|---------------------|------------------------------|--------------|------------------|
| | | 1 - A299 E | 2 - Willetts Hill S | 3 - A253 Canterbury Road (W) | 4 - A299 (N) | 5 - Seamark Road |
| From | 1 - A299 E | 0 | 0 | 7 | 14 | 6 |
| | 2 - Willetts Hill S | 0 | 0 | 9 | 4 | 0 |
| | 3 - A253 Canterbury Road (W) | 4 | 10 | 0 | 6 | 0 |
| | 4 - A299 (N) | 14 | 0 | 14 | 0 | 0 |
| | 5 - Seamark Road | 8 | 0 | 0 | 5 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|------------------------------|---------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - A299 E | 0.69 | 0.12 | 2.2 | A | 953 | 1430 |
| 2 - Willetts Hill S | 0.10 | 0.06 | 0.1 | A | 90 | 135 |
| 3 - A253 Canterbury Road (W) | 0.60 | 0.26 | 1.5 | C | 287 | 431 |
| 4 - A299 (N) | 0.66 | 0.14 | 1.9 | A | 683 | 1024 |
| 5 - Seamark Road | 0.07 | 0.07 | 0.1 | A | 51 | 77 |

Main Results for each time segment

12:45 - 13:00

| 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 782 | 196 | 82 | 1669 | 0.469 | 779 | 751 | 0.0 | 0.9 | 0.067 | A |
| 2 - Willetts Hill S | 74 | 18 | 798 | 1313 | 0.056 | 74 | 62 | 0.0 | 0.1 | 0.048 | A |
| 3 - A253 Canterbury Road (W) | 236 | 59 | 673 | 644 | 0.366 | 233 | 199 | 0.0 | 0.6 | 0.145 | A |
| 4 - A299 (N) | 560 | 140 | 268 | 1296 | 0.432 | 557 | 639 | 0.0 | 0.8 | 0.081 | A |
| 5 - Seamark Road | 42 | 11 | 791 | 1102 | 0.038 | 42 | 34 | 0.0 | 0.0 | 0.057 | A |

13:00 - 13:15

| 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 934 | 234 | 98 | 1662 | 0.562 | 932 | 900 | 0.9 | 1.3 | 0.082 | A |
| 2 - Willetts Hill S | 88 | 22 | 956 | 1228 | 0.072 | 88 | 74 | 0.1 | 0.1 | 0.053 | A |
| 3 - A253 Canterbury Road (W) | 281 | 70 | 806 | 614 | 0.458 | 280 | 238 | 0.6 | 0.8 | 0.179 | B |
| 4 - A299 (N) | 669 | 167 | 322 | 1277 | 0.524 | 668 | 765 | 0.8 | 1.1 | 0.098 | A |
| 5 - Seamark Road | 50 | 13 | 948 | 1024 | 0.049 | 50 | 41 | 0.0 | 0.1 | 0.062 | A |

13:15 - 13:30

| 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1144 | 286 | 120 | 1652 | 0.693 | 1140 | 1100 | 1.3 | 2.2 | 0.116 | A |
| 2 - Willetts Hill S | 108 | 27 | 1169 | 1113 | 0.097 | 108 | 91 | 0.1 | 0.1 | 0.060 | A |
| 3 - A253 Canterbury Road (W) | 345 | 86 | 986 | 574 | 0.600 | 342 | 291 | 0.8 | 1.4 | 0.256 | C |
| 4 - A299 (N) | 819 | 205 | 393 | 1251 | 0.655 | 816 | 935 | 1.1 | 1.9 | 0.137 | A |
| 5 - Seamark Road | 62 | 15 | 1159 | 921 | 0.067 | 62 | 50 | 0.1 | 0.1 | 0.070 | A |

13:30 - 13:45

| 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1144 | 286 | 120 | 1651 | 0.693 | 1144 | 1105 | 2.2 | 2.2 | 0.118 | A |
| 2 - Willetts Hill S | 108 | 27 | 1172 | 1111 | 0.097 | 108 | 91 | 0.1 | 0.1 | 0.060 | A |
| 3 - A253 Canterbury Road (W) | 345 | 86 | 989 | 574 | 0.601 | 344 | 292 | 1.4 | 1.5 | 0.261 | C |
| 4 - A299 (N) | 819 | 205 | 395 | 1250 | 0.655 | 819 | 938 | 1.9 | 1.9 | 0.139 | A |
| 5 - Seamark Road | 62 | 15 | 1164 | 918 | 0.067 | 62 | 51 | 0.1 | 0.1 | 0.070 | A |

13:45 - 14:00

| 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 934 | 234 | 98 | 1661 | 0.562 | 938 | 907 | 2.2 | 1.3 | 0.083 | A |
| 2 - Willetts Hill S | 88 | 22 | 961 | 1225 | 0.072 | 88 | 75 | 0.1 | 0.1 | 0.053 | A |
| 3 - A253 Canterbury Road (W) | 281 | 70 | 810 | 613 | 0.459 | 284 | 239 | 1.5 | 0.9 | 0.183 | B |
| 4 - A299 (N) | 669 | 167 | 325 | 1275 | 0.524 | 672 | 769 | 1.9 | 1.1 | 0.100 | A |
| 5 - Seamark Road | 50 | 13 | 955 | 1021 | 0.049 | 50 | 42 | 0.1 | 0.1 | 0.062 | A |

14:00 - 14:15

| 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 782 | 196 | 82 | 1669 | 0.469 | 784 | 758 | 1.3 | 0.9 | 0.068 | A |
| 2 - Willetts Hill S | 74 | 18 | 803 | 1311 | 0.056 | 74 | 63 | 0.1 | 0.1 | 0.049 | A |
| 3 - A253 Canterbury Road (W) | 236 | 59 | 677 | 643 | 0.367 | 237 | 200 | 0.9 | 0.6 | 0.148 | A |
| 4 - A299 (N) | 560 | 140 | 271 | 1295 | 0.433 | 562 | 643 | 1.1 | 0.8 | 0.082 | A |
| 5 - Seamark Road | 42 | 11 | 798 | 1098 | 0.038 | 42 | 35 | 0.1 | 0.0 | 0.057 | A |

2039 + Dev Traffic, AM

Data Errors and Warnings

| Severity | Area | Item | Description |
|----------|----------|--|--|
| Warning | Geometry | 3 - A253 Canterbury Road (W) - Roundabout Geometry | Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution. |

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|---------------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3, 4, 5 | 3.19 | F |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | -19 | 4 - A299 (N) |

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 |
|----|--------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D9 | 2039 + Dev Traffic | AM | ONE HOUR | 07:30 | 09:00 | 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 (%) |
|------------------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - A299 E | | ONE HOUR | ✓ | 1677 | 100.000 |
| 2 - Willetts Hill S | | ONE HOUR | ✓ | 161 | 100.000 |
| 3 - A253 Canterbury Road (W) | | ONE HOUR | ✓ | 348 | 100.000 |
| 4 - A299 (N) | | ONE HOUR | ✓ | 1351 | 100.000 |
| 5 - Seamark Road | | ONE HOUR | ✓ | 85 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | | |
|------|------------------------------|------------|---------------------|------------------------------|--------------|------------------|
| | | 1 - A299 E | 2 - Willetts Hill S | 3 - A253 Canterbury Road (W) | 4 - A299 (N) | 5 - Seamark Road |
| From | 1 - A299 E | 0 | 36 | 413 | 1183 | 45 |
| | 2 - Willetts Hill S | 63 | 0 | 44 | 45 | 9 |
| | 3 - A253 Canterbury Road (W) | 292 | 14 | 0 | 33 | 9 |
| | 4 - A299 (N) | 1237 | 56 | 30 | 0 | 28 |
| | 5 - Seamark Road | 11 | 7 | 17 | 50 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | | |
|------|------------------------------|------------|---------------------|------------------------------|--------------|------------------|
| From | | 1 - A299 E | 2 - Willetts Hill S | 3 - A253 Canterbury Road (W) | 4 - A299 (N) | 5 - Seamark Road |
| | 1 - A299 E | 0 | 0 | 5 | 8 | 6 |
| | 2 - Willetts Hill S | 2 | 0 | 0 | 0 | 0 |
| | 3 - A253 Canterbury Road (W) | 5 | 0 | 0 | 4 | 0 |
| | 4 - A299 (N) | 9 | 5 | 9 | 0 | 19 |
| | 5 - Seamark Road | 0 | 0 | 0 | 3 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|------------------------------|---------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - A299 E | 1.09 | 2.48 | 85.4 | F | 1539 | 2308 |
| 2 - Willetts Hill S | 0.21 | 0.09 | 0.3 | A | 148 | 222 |
| 3 - A253 Canterbury Road (W) | 0.78 | 0.55 | 3.3 | D | 319 | 479 |
| 4 - A299 (N) | 1.17 | 5.23 | 120.8 | F | 1240 | 1860 |
| 5 - Seamark Road | 0.13 | 0.10 | 0.1 | A | 78 | 117 |

Main Results for each time segment

07:30 - 07:45

| 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1263 | 316 | 130 | 1723 | 0.733 | 1252 | 1192 | 0.0 | 2.7 | 0.125 | A |
| 2 - Willetts Hill S | 121 | 30 | 1298 | 1098 | 0.110 | 121 | 84 | 0.0 | 0.1 | 0.061 | A |
| 3 - A253 Canterbury Road (W) | 262 | 65 | 1042 | 571 | 0.459 | 259 | 376 | 0.0 | 0.8 | 0.190 | B |
| 4 - A299 (N) | 1017 | 254 | 322 | 1325 | 0.768 | 1005 | 979 | 0.0 | 3.1 | 0.181 | B |
| 5 - Seamark Road | 64 | 16 | 1258 | 913 | 0.070 | 64 | 68 | 0.0 | 0.1 | 0.071 | A |

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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1508 | 377 | 155 | 1712 | 0.881 | 1492 | 1415 | 2.7 | 6.5 | 0.257 | C |
| 2 - Willetts Hill S | 145 | 36 | 1547 | 966 | 0.150 | 145 | 100 | 0.1 | 0.2 | 0.073 | A |
| 3 - A253 Canterbury Road (W) | 313 | 78 | 1243 | 528 | 0.592 | 311 | 449 | 0.8 | 1.4 | 0.273 | C |
| 4 - A299 (N) | 1215 | 304 | 386 | 1300 | 0.934 | 1189 | 1167 | 3.1 | 9.6 | 0.456 | D |
| 5 - Seamark Road | 76 | 19 | 1494 | 797 | 0.096 | 76 | 81 | 0.1 | 0.1 | 0.083 | 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1846 | 462 | 177 | 1701 | 1.085 | 1680 | 1553 | 6.5 | 48.1 | 1.136 | F |
| 2 - Willetts Hill S | 177 | 44 | 1746 | 861 | 0.206 | 177 | 111 | 0.2 | 0.3 | 0.088 | A |
| 3 - A253 Canterbury Road (W) | 383 | 96 | 1414 | 492 | 0.778 | 376 | 509 | 1.4 | 3.1 | 0.491 | D |
| 4 - A299 (N) | 1487 | 372 | 465 | 1270 | 1.171 | 1263 | 1325 | 9.6 | 65.8 | 1.964 | F |
| 5 - Seamark Road | 94 | 23 | 1637 | 727 | 0.129 | 93 | 91 | 0.1 | 0.1 | 0.095 | 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1846 | 462 | 178 | 1701 | 1.086 | 1697 | 1562 | 48.1 | 85.4 | 2.478 | F |
| 2 - Willetts Hill S | 177 | 44 | 1763 | 852 | 0.208 | 177 | 112 | 0.3 | 0.3 | 0.089 | A |
| 3 - A253 Canterbury Road (W) | 383 | 96 | 1427 | 490 | 0.783 | 382 | 513 | 3.1 | 3.3 | 0.548 | D |
| 4 - A299 (N) | 1487 | 372 | 471 | 1268 | 1.173 | 1267 | 1338 | 65.8 | 120.8 | 4.514 | F |
| 5 - Seamark Road | 94 | 23 | 1646 | 722 | 0.130 | 94 | 92 | 0.1 | 0.1 | 0.095 | 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1508 | 377 | 161 | 1708 | 0.882 | 1689 | 1511 | 85.4 | 40.1 | 2.267 | F |
| 2 - Willetts Hill S | 145 | 36 | 1741 | 863 | 0.168 | 145 | 109 | 0.3 | 0.2 | 0.084 | A |
| 3 - A253 Canterbury Road (W) | 313 | 78 | 1387 | 498 | 0.629 | 319 | 499 | 3.3 | 1.8 | 0.346 | C |
| 4 - A299 (N) | 1215 | 304 | 399 | 1295 | 0.938 | 1285 | 1307 | 120.8 | 103.3 | 5.226 | F |
| 5 - Seamark Road | 76 | 19 | 1595 | 746 | 0.102 | 77 | 88 | 0.1 | 0.1 | 0.090 | 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1263 | 316 | 150 | 1714 | 0.737 | 1411 | 1476 | 40.1 | 2.9 | 0.310 | C |
| 2 - Willetts Hill S | 121 | 30 | 1460 | 1011 | 0.120 | 121 | 100 | 0.2 | 0.1 | 0.067 | A |
| 3 - A253 Canterbury Road (W) | 262 | 65 | 1159 | 546 | 0.480 | 265 | 423 | 1.8 | 0.9 | 0.216 | B |
| 4 - A299 (N) | 1017 | 254 | 332 | 1321 | 0.770 | 1308 | 1092 | 103.3 | 30.6 | 3.124 | F |
| 5 - Seamark Road | 64 | 16 | 1562 | 762 | 0.084 | 64 | 79 | 0.1 | 0.1 | 0.086 | A |

2039 + Dev Traffic, PM

Data Errors and Warnings

| Severity | Area | Item | Description |
|----------|----------|--|--|
| Warning | Geometry | 3 - A253 Canterbury Road (W) - Roundabout Geometry | Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution. |

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|---------------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3, 4, 5 | 4.53 | F |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | -26 | 3 - A253 Canterbury Road (W) |

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 |
|-----|--------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D10 | 2039 + Dev Traffic | PM | ONE HOUR | 16:30 | 18:00 | 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 (%) |
|------------------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - A299 E | | ONE HOUR | ✓ | 1721 | 100.000 |
| 2 - Willetts Hill S | | ONE HOUR | ✓ | 94 | 100.000 |
| 3 - A253 Canterbury Road (W) | | ONE HOUR | ✓ | 568 | 100.000 |
| 4 - A299 (N) | | ONE HOUR | ✓ | 1377 | 100.000 |
| 5 - Seamark Road | | ONE HOUR | ✓ | 88 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | | |
|------|------------------------------|------------|---------------------|------------------------------|--------------|------------------|
| | | 1 - A299 E | 2 - Willetts Hill S | 3 - A253 Canterbury Road (W) | 4 - A299 (N) | 5 - Seamark Road |
| From | 1 - A299 E | 0 | 102 | 330 | 1221 | 68 |
| | 2 - Willetts Hill S | 40 | 0 | 16 | 34 | 4 |
| | 3 - A253 Canterbury Road (W) | 498 | 21 | 0 | 29 | 20 |
| | 4 - A299 (N) | 1302 | 49 | 14 | 0 | 12 |
| | 5 - Seamark Road | 29 | 9 | 6 | 44 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | | |
|------|------------------------------|------------|---------------------|------------------------------|--------------|------------------|
| | | 1 - A299 E | 2 - Willetts Hill S | 3 - A253 Canterbury Road (W) | 4 - A299 (N) | 5 - Seamark Road |
| From | 1 - A299 E | 0 | 1 | 2 | 5 | 4 |
| | 2 - Willetts Hill S | 0 | 0 | 0 | 0 | 0 |
| | 3 - A253 Canterbury Road (W) | 3 | 6 | 0 | 5 | 0 |
| | 4 - A299 (N) | 5 | 0 | 10 | 0 | 34 |
| | 5 - Seamark Road | 14 | 0 | 0 | 3 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|------------------------------|---------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - A299 E | 1.07 | 2.21 | 77.9 | F | 1579 | 2369 |
| 2 - Willetts Hill S | 0.11 | 0.08 | 0.1 | A | 86 | 129 |
| 3 - A253 Canterbury Road (W) | 1.26 | 8.61 | 74.3 | F | 521 | 782 |
| 4 - A299 (N) | 1.19 | 6.33 | 136.4 | F | 1264 | 1895 |
| 5 - Seamark Road | 0.15 | 0.11 | 0.2 | A | 81 | 121 |

Main Results for each time segment

16:30 - 16:45

| 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1296 | 324 | 106 | 1783 | 0.727 | 1285 | 1385 | 0.0 | 2.6 | 0.118 | A |
| 2 - Willetts Hill S | 71 | 18 | 1257 | 1144 | 0.062 | 71 | 135 | 0.0 | 0.1 | 0.056 | A |
| 3 - A253 Canterbury Road (W) | 428 | 107 | 1054 | 582 | 0.735 | 417 | 273 | 0.0 | 2.5 | 0.347 | C |
| 4 - A299 (N) | 1037 | 259 | 480 | 1314 | 0.789 | 1023 | 992 | 0.0 | 3.5 | 0.197 | B |
| 5 - Seamark Road | 66 | 17 | 1425 | 819 | 0.081 | 66 | 77 | 0.0 | 0.1 | 0.080 | A |

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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1547 | 387 | 126 | 1774 | 0.872 | 1533 | 1625 | 2.6 | 6.1 | 0.236 | B |
| 2 - Willetts Hill S | 85 | 21 | 1499 | 1019 | 0.083 | 84 | 160 | 0.1 | 0.1 | 0.064 | A |
| 3 - A253 Canterbury Road (W) | 511 | 128 | 1258 | 539 | 0.947 | 488 | 326 | 2.5 | 8.2 | 0.913 | F |
| 4 - A299 (N) | 1238 | 309 | 563 | 1282 | 0.966 | 1201 | 1183 | 3.5 | 12.8 | 0.569 | D |
| 5 - Seamark Road | 79 | 20 | 1672 | 705 | 0.112 | 79 | 92 | 0.1 | 0.1 | 0.096 | 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1895 | 474 | 141 | 1766 | 1.073 | 1741 | 1710 | 6.1 | 44.5 | 1.033 | F |
| 2 - Willetts Hill S | 103 | 26 | 1706 | 912 | 0.114 | 103 | 177 | 0.1 | 0.1 | 0.074 | A |
| 3 - A253 Canterbury Road (W) | 625 | 156 | 1438 | 501 | 1.247 | 497 | 371 | 8.2 | 40.3 | 3.237 | F |
| 4 - A299 (N) | 1516 | 379 | 589 | 1272 | 1.192 | 1267 | 1346 | 12.8 | 75.1 | 2.248 | F |
| 5 - Seamark Road | 97 | 24 | 1754 | 668 | 0.145 | 97 | 102 | 0.1 | 0.2 | 0.105 | 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1895 | 474 | 141 | 1766 | 1.073 | 1761 | 1714 | 44.5 | 77.9 | 2.207 | F |
| 2 - Willetts Hill S | 103 | 26 | 1725 | 902 | 0.115 | 103 | 178 | 0.1 | 0.1 | 0.075 | A |
| 3 - A253 Canterbury Road (W) | 625 | 156 | 1454 | 498 | 1.255 | 497 | 375 | 40.3 | 72.3 | 6.990 | F |
| 4 - A299 (N) | 1516 | 379 | 590 | 1272 | 1.192 | 1271 | 1361 | 75.1 | 136.4 | 5.101 | F |
| 5 - Seamark Road | 97 | 24 | 1758 | 666 | 0.146 | 97 | 103 | 0.2 | 0.2 | 0.105 | 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1547 | 387 | 130 | 1772 | 0.873 | 1749 | 1698 | 77.9 | 27.3 | 1.856 | F |
| 2 - Willetts Hill S | 85 | 21 | 1704 | 913 | 0.093 | 85 | 175 | 0.1 | 0.1 | 0.072 | A |
| 3 - A253 Canterbury Road (W) | 511 | 128 | 1420 | 505 | 1.011 | 503 | 368 | 72.3 | 74.3 | 8.612 | F |
| 4 - A299 (N) | 1238 | 309 | 586 | 1273 | 0.972 | 1264 | 1337 | 136.4 | 129.8 | 6.333 | F |
| 5 - Seamark Road | 79 | 20 | 1748 | 670 | 0.118 | 79 | 101 | 0.2 | 0.1 | 0.102 | 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1296 | 324 | 122 | 1775 | 0.730 | 1394 | 1724 | 27.3 | 2.8 | 0.200 | B |
| 2 - Willetts Hill S | 71 | 18 | 1361 | 1090 | 0.065 | 71 | 155 | 0.1 | 0.1 | 0.059 | A |
| 3 - A253 Canterbury Road (W) | 428 | 107 | 1136 | 564 | 0.758 | 557 | 297 | 74.3 | 42.0 | 6.312 | F |
| 4 - A299 (N) | 1037 | 259 | 617 | 1261 | 0.822 | 1252 | 1076 | 129.8 | 76.1 | 4.962 | F |
| 5 - Seamark Road | 66 | 17 | 1780 | 656 | 0.101 | 66 | 89 | 0.1 | 0.1 | 0.102 | A |

2039 + Dev Traffic, Airport Peak

Data Errors and Warnings

| Severity | Area | Item | Description |
|----------|----------|--|--|
| Warning | Geometry | 3 - A253 Canterbury Road (W) - Roundabout Geometry | Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution. |

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|---------------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3, 4, 5 | 0.17 | B |

Junction Network Options

| Driving side | Lighting | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|-------------------------------|------------------------------|
| Left | Normal/unknown | 19 | 4 - A299 (N) |

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 |
|-----|--------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D11 | 2039 + Dev Traffic | Airport Peak | ONE HOUR | 12:45 | 14:15 | 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 (%) |
|------------------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - A299 E | | ONE HOUR | ✓ | 1079 | 100.000 |
| 2 - Willetts Hill S | | ONE HOUR | ✓ | 101 | 100.000 |
| 3 - A253 Canterbury Road (W) | | ONE HOUR | ✓ | 313 | 100.000 |
| 4 - A299 (N) | | ONE HOUR | ✓ | 861 | 100.000 |
| 5 - Seamark Road | | ONE HOUR | ✓ | 56 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | | |
|------|------------------------------|------------|---------------------|------------------------------|--------------|------------------|
| | | 1 - A299 E | 2 - Willetts Hill S | 3 - A253 Canterbury Road (W) | 4 - A299 (N) | 5 - Seamark Road |
| From | 1 - A299 E | 0 | 25 | 226 | 804 | 24 |
| | 2 - Willetts Hill S | 44 | 0 | 16 | 36 | 5 |
| | 3 - A253 Canterbury Road (W) | 264 | 13 | 0 | 24 | 12 |
| | 4 - A299 (N) | 799 | 37 | 20 | 0 | 5 |
| | 5 - Seamark Road | 17 | 8 | 3 | 28 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | | |
|------|------------------------------|------------|---------------------|------------------------------|--------------|------------------|
| | | 1 - A299 E | 2 - Willetts Hill S | 3 - A253 Canterbury Road (W) | 4 - A299 (N) | 5 - Seamark Road |
| From | 1 - A299 E | 0 | 0 | 7 | 16 | 6 |
| | 2 - Willetts Hill S | 0 | 0 | 9 | 4 | 0 |
| | 3 - A253 Canterbury Road (W) | 4 | 10 | 0 | 6 | 0 |
| | 4 - A299 (N) | 14 | 0 | 14 | 0 | 0 |
| | 5 - Seamark Road | 8 | 0 | 0 | 5 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max RFC | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|------------------------------|---------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - A299 E | 0.73 | 0.14 | 2.7 | A | 990 | 1485 |
| 2 - Willetts Hill S | 0.10 | 0.06 | 0.1 | A | 93 | 139 |
| 3 - A253 Canterbury Road (W) | 0.62 | 0.28 | 1.6 | C | 287 | 431 |
| 4 - A299 (N) | 0.76 | 0.20 | 3.1 | B | 790 | 1185 |
| 5 - Seamark Road | 0.07 | 0.08 | 0.1 | A | 51 | 77 |

Main Results for each time segment

12:45 - 13:00

| 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 812 | 203 | 82 | 1646 | 0.494 | 808 | 840 | 0.0 | 1.0 | 0.071 | A |
| 2 - Willetts Hill S | 76 | 19 | 828 | 1292 | 0.059 | 76 | 62 | 0.0 | 0.1 | 0.049 | A |
| 3 - A253 Canterbury Road (W) | 236 | 59 | 705 | 634 | 0.372 | 233 | 199 | 0.0 | 0.6 | 0.149 | A |
| 4 - A299 (N) | 648 | 162 | 270 | 1294 | 0.501 | 644 | 668 | 0.0 | 1.0 | 0.092 | A |
| 5 - Seamark Road | 42 | 11 | 880 | 1057 | 0.040 | 42 | 34 | 0.0 | 0.0 | 0.059 | A |

13:00 - 13:15

| 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 970 | 242 | 98 | 1639 | 0.592 | 968 | 1008 | 1.0 | 1.4 | 0.089 | A |
| 2 - Willetts Hill S | 91 | 23 | 991 | 1202 | 0.076 | 91 | 74 | 0.1 | 0.1 | 0.054 | A |
| 3 - A253 Canterbury Road (W) | 281 | 70 | 844 | 603 | 0.467 | 280 | 238 | 0.6 | 0.9 | 0.185 | B |
| 4 - A299 (N) | 774 | 194 | 324 | 1274 | 0.607 | 772 | 800 | 1.0 | 1.5 | 0.119 | A |
| 5 - Seamark Road | 50 | 13 | 1055 | 970 | 0.052 | 50 | 41 | 0.0 | 0.1 | 0.065 | A |

13:15 - 13:30

| 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1188 | 297 | 119 | 1629 | 0.729 | 1183 | 1230 | 1.4 | 2.6 | 0.133 | A |
| 2 - Willetts Hill S | 111 | 28 | 1212 | 1081 | 0.103 | 111 | 91 | 0.1 | 0.1 | 0.062 | A |
| 3 - A253 Canterbury Road (W) | 345 | 86 | 1032 | 560 | 0.615 | 342 | 291 | 0.9 | 1.5 | 0.271 | C |
| 4 - A299 (N) | 948 | 237 | 396 | 1248 | 0.759 | 942 | 978 | 1.5 | 3.0 | 0.192 | B |
| 5 - Seamark Road | 62 | 15 | 1288 | 855 | 0.072 | 62 | 50 | 0.1 | 0.1 | 0.076 | A |

13:30 - 13:45

| 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 1188 | 297 | 120 | 1629 | 0.729 | 1188 | 1237 | 2.6 | 2.7 | 0.136 | A |
| 2 - Willetts Hill S | 111 | 28 | 1216 | 1079 | 0.103 | 111 | 91 | 0.1 | 0.1 | 0.062 | A |
| 3 - A253 Canterbury Road (W) | 345 | 86 | 1036 | 560 | 0.616 | 344 | 292 | 1.5 | 1.6 | 0.278 | C |
| 4 - A299 (N) | 948 | 237 | 398 | 1248 | 0.760 | 948 | 982 | 3.0 | 3.1 | 0.199 | B |
| 5 - Seamark Road | 62 | 15 | 1295 | 851 | 0.072 | 62 | 51 | 0.1 | 0.1 | 0.076 | A |

13:45 - 14:00

| 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 970 | 242 | 99 | 1638 | 0.592 | 975 | 1018 | 2.7 | 1.5 | 0.091 | A |
| 2 - Willetts Hill S | 91 | 23 | 998 | 1199 | 0.076 | 91 | 75 | 0.1 | 0.1 | 0.054 | A |
| 3 - A253 Canterbury Road (W) | 281 | 70 | 850 | 602 | 0.468 | 284 | 239 | 1.6 | 0.9 | 0.191 | B |
| 4 - A299 (N) | 774 | 194 | 328 | 1273 | 0.608 | 780 | 806 | 3.1 | 1.6 | 0.123 | A |
| 5 - Seamark Road | 50 | 13 | 1066 | 964 | 0.052 | 50 | 42 | 0.1 | 0.1 | 0.066 | A |

14:00 - 14:15

| 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 (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A299 E | 812 | 203 | 82 | 1646 | 0.494 | 814 | 849 | 1.5 | 1.0 | 0.072 | A |
| 2 - Willetts Hill S | 76 | 19 | 834 | 1289 | 0.059 | 76 | 63 | 0.1 | 0.1 | 0.049 | A |
| 3 - A253 Canterbury Road (W) | 236 | 59 | 710 | 633 | 0.372 | 237 | 200 | 0.9 | 0.6 | 0.152 | A |
| 4 - A299 (N) | 648 | 162 | 274 | 1293 | 0.501 | 650 | 673 | 1.6 | 1.0 | 0.094 | A |
| 5 - Seamark Road | 42 | 11 | 889 | 1052 | 0.040 | 42 | 35 | 0.1 | 0.0 | 0.059 | A |

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.0.2.5947
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Filename: Jct 7_A299_A28_R1_Validated.j9

Path: R:\Projects\38199 Manston Airport DCO EIA\4 Design\Transport\Junction Modelling\Base Models\Validated\Jct 7_A299_A28

Report generation date: 05/02/2018 11:59:37

- »Lane Simulation - 2017 Baseline Traffic, AM
- »Lane Simulation - 2017 Baseline Traffic, PM
- »Lane Simulation - 2017 Baseline Traffic, Airport Peak
- »Lane Simulation - 2039 Growthed Traffic, AM
- »Lane Simulation - 2039 Growthed Traffic, PM
- »Lane Simulation - 2039 Growthed Traffic, Airport Peak
- »Lane Simulation - 2039 + Dev Traffic, AM
- »Lane Simulation - 2039 + Dev Traffic, PM
- »Lane Simulation - 2039 + Dev Traffic, Airport Peak

Summary of junction performance

| | AM | | | | | PM | | | | | Airport Peak | | | | |
|--|-------------|-------------|-----|-----|---------------------------|-------------|-------------|-----|-----|---------------------------|--------------|-------------|-----|-----|---------------------------|
| | Queue (Veh) | Delay (min) | RFC | LOS | Network Residual Capacity | Queue (Veh) | Delay (min) | RFC | LOS | Network Residual Capacity | Queue (Veh) | Delay (min) | RFC | LOS | Network Residual Capacity |
| Lane Simulation [Lane Simulation] - 2017 Baseline Traffic | | | | | | | | | | | | | | | |
| 1 - A28 (E) | 13.6 | 0.68 | | E | % | 2.3 | 0.19 | | B | % | 1.4 | 0.12 | | A | % |
| 2 - A299 (S) | 7.7 | 0.44 | | D | | 4.6 | 0.22 | | B | | 1.4 | 0.12 | | A | |
| 3 - Canterbury Road (A28 SW) | 1.3 | 0.47 | | D | | 13.6 | 2.10 | | F | | 0.9 | 0.27 | | C | |
| 4 - A299 (W) | 7.3 | 0.27 | | C | | 17.2 | 0.49 | | D | | 1.9 | 0.11 | | A | |
| 5 - Potten Street Road | 0.1 | 0.09 | | A | | 0.1 | 0.14 | | A | | 0.0 | 0.07 | | A | |
| Lane Simulation [Lane Simulation] - 2039 Growthed Traffic | | | | | | | | | | | | | | | |
| 1 - A28 (E) | 154.8 | 7.74 | | F | % | 4.8 | 0.31 | | C | % | 2.6 | 0.18 | | B | % |
| 2 - A299 (S) | 52.0 | 2.20 | | F | | 24.6 | 1.04 | | F | | 3.7 | 0.22 | | B | |
| 3 - Canterbury Road (A28 SW) | 4.0 | 1.15 | | F | | 100.4 | 15.76 | | F | | 2.9 | 0.61 | | E | |
| 4 - A299 (W) | 56.2 | 1.54 | | F | | 178.8 | 4.39 | | F | | 4.5 | 0.18 | | B | |
| 5 - Potten Street Road | 0.1 | 0.13 | | A | | 0.2 | 0.19 | | B | | 0.0 | 0.10 | | A | |
| Lane Simulation [Lane Simulation] - 2039 + Dev Traffic | | | | | | | | | | | | | | | |
| 1 - A28 (E) | 160.0 | 8.06 | | F | % | 5.3 | 0.34 | | C | % | 2.8 | 0.21 | | B | % |
| 2 - A299 (S) | 55.5 | 2.47 | | F | | 52.2 | 1.94 | | F | | 3.8 | 0.26 | | C | |
| 3 - Canterbury Road (A28 SW) | 4.3 | 1.23 | | F | | 113.0 | 18.36 | | F | | 3.6 | 0.74 | | E | |
| 4 - A299 (W) | 69.0 | 1.83 | | F | | 197.0 | 5.01 | | F | | 7.7 | 0.27 | | C | |
| 5 - Potten Street Road | 0.1 | 0.14 | | A | | 0.2 | 0.20 | | B | | 0.1 | 0.11 | | A | |

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Arm and junction delays are averages for all movements, including movements with zero delay. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

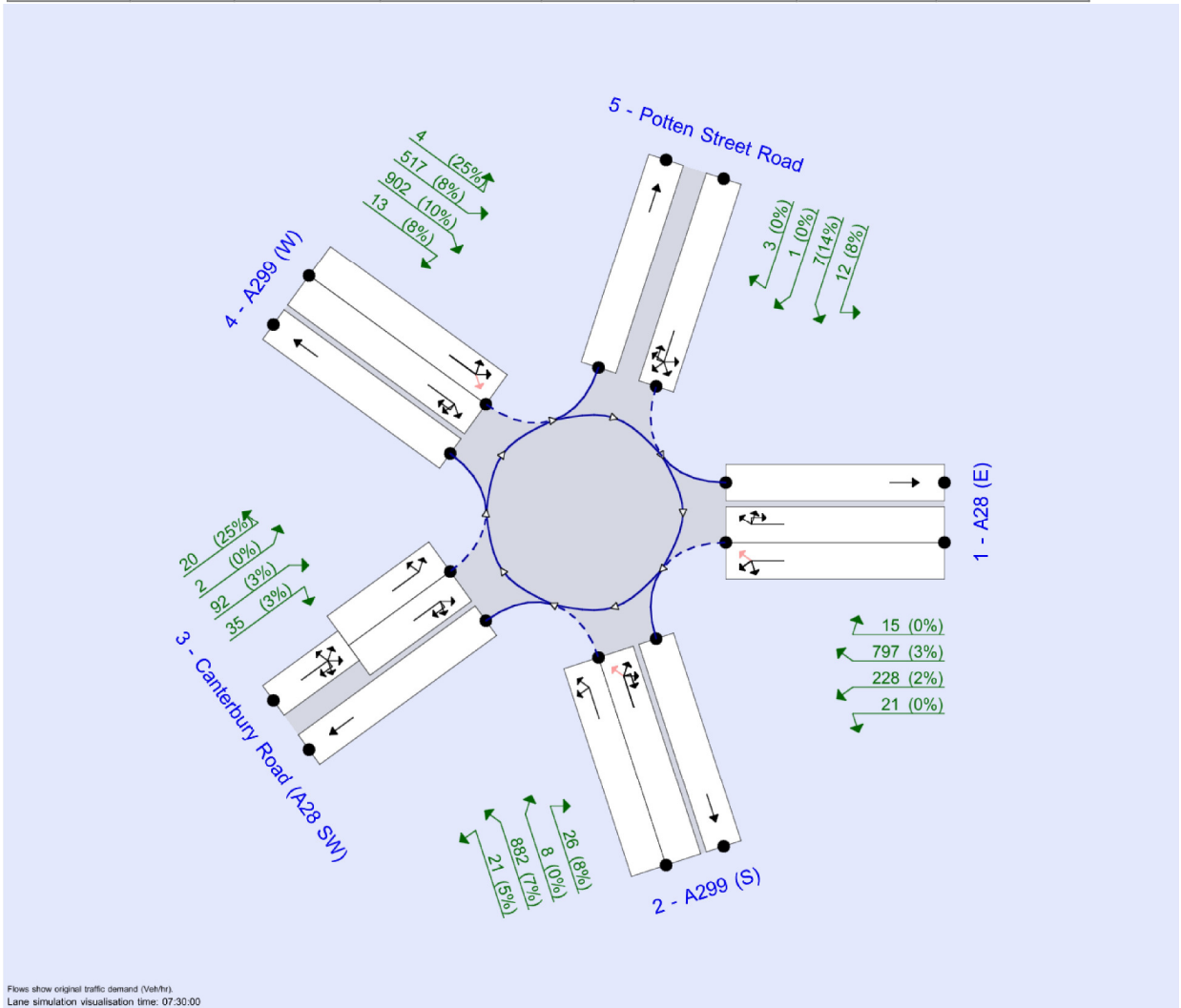
File Description

| | |
|-------------|------------|
| Title | (untitled) |
| Location | |
| Site number | |
| Date | 29/09/2017 |
| Version | |
| Status | (new file) |
| Identifier | |
| Client | |

| | |
|-------------|-----------------|
| Jobnumber | |
| Enumerator | GLOBAL\adam.guy |
| 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 | mph | Veh | Veh | perHour | min | -Min | perMin |



The junction diagram reflects the last run of Junctions.

Analysis Options

| Vehicle length (m) | Calculate Queue Percentiles | Calculate detailed queueing delay | Calculate residual capacity | Residual capacity criteria type | RFC Threshold | Average Delay threshold (min) | Queue threshold (PCU) |
|--------------------|-----------------------------|-----------------------------------|-----------------------------|---------------------------------|---------------|-------------------------------|-----------------------|
| 5.75 | | | ✓ | Delay | 0.85 | 0.60 | 20.00 |

Lane Simulation options

| Stop criteria (%) | Stop criteria time (s) | Stop criteria number of trials | Random seed | Results refresh speed (s) | Individual vehicle animation number of trials | Use crossings quick response | Last run random seed | Last run number of trials | Last run time taken (s) |
|-------------------|------------------------|--------------------------------|-------------|---------------------------|---|------------------------------|----------------------|---------------------------|-------------------------|
| 1.00 | 100000 | 100000 | 5 | 3 | 1 | ✓ | 5 | 590 | 139.84 |

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 |
|----|-----------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D3 | 2017 Baseline Traffic | AM | ONE HOUR | 07:30 | 09:00 | 15 | ✓ |
| D4 | 2017 Baseline Traffic | PM | ONE HOUR | 16:30 | 18:00 | 15 | ✓ |
| D5 | 2017 Baseline Traffic | Airport Peak | ONE HOUR | 12:45 | 14:15 | 15 | ✓ |
| D6 | 2039 Growthed Traffic | AM | ONE HOUR | 07:30 | 09:00 | 15 | ✓ |
| D7 | 2039 Growthed Traffic | PM | ONE HOUR | 16:30 | 18:00 | 15 | ✓ |
| D8 | 2039 Growthed Traffic | Airport Peak | ONE HOUR | 12:45 | 14:15 | 15 | ✓ |

| | | | | | | | |
|------------|--------------------|--------------|----------|-------|-------|----|---|
| D9 | 2039 + Dev Traffic | AM | ONE HOUR | 07:30 | 09:00 | 15 | ✓ |
| D10 | 2039 + Dev Traffic | PM | ONE HOUR | 16:30 | 18:00 | 15 | ✓ |
| D11 | 2039 + Dev Traffic | Airport Peak | ONE HOUR | 12:45 | 14:15 | 15 | ✓ |

Analysis Set Details

| ID | Name | Use Lane Simulation | Include in report | Network flow scaling factor (%) | Network capacity scaling factor (%) |
|-----------|-----------------|---------------------|-------------------|---------------------------------|-------------------------------------|
| A2 | Lane Simulation | ✓ | ✓ | 100.000 | 100.000 |

Lane Simulation - 2017 Baseline Traffic, AM

Data Errors and Warnings

| Severity | Area | Item | Description |
|----------|-----------------|--|---|
| Warning | Lane Simulation | A2 - Lane Simulation [Lane Simulation] | This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results. |

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|---------------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3, 4, 5 | 0.44 | D |

Junction Network Options

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

Arms

Arms

| Arm | Name | Description |
|-----|--------------------------|-------------|
| 1 | A28 (E) | |
| 2 | A299 (S) | |
| 3 | Canterbury Road (A28 SW) | |
| 4 | A299 (W) | |
| 5 | Potten Street Road | |

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 |
|------------------------------|----------------------------------|---------------------|---------------------------------|----------------------|-----------------------------------|------------------------------------|-----------|
| 1 - A28 (E) | 6.35 | 7.84 | 1.9 | 12.5 | 72.0 | 42.5 | |
| 2 - A299 (S) | 7.69 | 8.17 | 1.5 | 20.6 | 75.0 | 20.5 | |
| 3 - Canterbury Road (A28 SW) | 3.46 | 6.95 | 19.1 | 12.7 | 74.0 | 39.5 | |
| 4 - A299 (W) | 8.16 | 9.75 | 2.2 | 24.2 | 75.2 | 46.0 | |
| 5 - Potten Street Road | 3.09 | 7.25 | 15.8 | 46.0 | 73.6 | 23.0 | |

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

| Arm | Final slope | Final intercept (PCU/hr) |
|------------------------------|-------------|--------------------------|
| 1 - A28 (E) | 0.512 | 1903 |
| 2 - A299 (S) | 0.613 | 2484 |
| 3 - Canterbury Road (A28 SW) | 0.462 | 1611 |
| 4 - A299 (W) | 0.595 | 2495 |
| 5 - Potten Street Road | 0.504 | 1705 |

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

Arm Capacity Adjustments

| Arm | Type | Reason | Percentage capacity adjustment (%) |
|------------------------------|------------|--------|------------------------------------|
| 3 - Canterbury Road (A28 SW) | Percentage | | 80.00 |

Lane Simulation: Arm options

| Arm | Lane capacity source | Traffic Considering Secondary Lanes (%) |
|------------------------------|----------------------|---|
| 1 - A28 (E) | Evenly split | 50.00 |
| 2 - A299 (S) | Evenly split | 30.00 |
| 3 - Canterbury Road (A28 SW) | Evenly split | 20.00 |
| 4 - A299 (W) | Evenly split | 10.00 |
| 5 - Potten Street Road | Evenly split | 10.00 |

Lanes

| Arm | Lane level | Lane | Destination arms | Has limited storage | Storage (PCU) | Minimum capacity (PCU/hr) | Maximum capacity (PCU/hr) |
|-----|------------|------|------------------|---------------------|---------------|---------------------------|---------------------------|
|-----|------------|------|------------------|---------------------|---------------|---------------------------|---------------------------|

| | | | | | | | |
|------------------------------|-------------------|---|-----------------|---|----------|---|-------|
| 1 - A28 (E) | 1 [Give-way line] | 1 | 2, 3, (4) | | Infinity | 0 | 99999 |
| | | 2 | 1, 4, 5 | | Infinity | 0 | 99999 |
| 2 - A299 (S) | 1 [Give-way line] | 1 | 3, 4 | | Infinity | 0 | 99999 |
| | | 2 | 1, 2, (4), 5 | | Infinity | 0 | 99999 |
| 3 - Canterbury Road (A28 SW) | 1 [Give-way line] | 1 | 4, 5 | ✓ | 3.00 | 0 | 99999 |
| | | 2 | 1, 2, 3 | ✓ | 3.00 | 0 | 99999 |
| | 2 | 1 | (1, 2, 3, 4, 5) | | Infinity | | |
| 4 - A299 (W) | 1 [Give-way line] | 1 | 1, (2), 5 | | Infinity | 0 | 99999 |
| | | 2 | 2, 3, 4 | | Infinity | 0 | 99999 |
| 5 - Potten Street Road | 1 [Give-way line] | 1 | 1, 2, 3, 4, 5 | | Infinity | 0 | 99999 |

Entry Lane slope and intercept

| Arm | Lane level | Lane | Final slope | Final intercept (PCU/hr) |
|------------------------------|-------------------|------|-------------|--------------------------|
| 1 - A28 (E) | 1 [Give-way line] | 1 | 0.256 | 951 |
| | | 2 | 0.256 | 951 |
| 2 - A299 (S) | 1 [Give-way line] | 1 | 0.306 | 1242 |
| | | 2 | 0.306 | 1242 |
| 3 - Canterbury Road (A28 SW) | 1 [Give-way line] | 1 | 0.231 | 805 |
| | | 2 | 0.231 | 805 |
| 4 - A299 (W) | 1 [Give-way line] | 1 | 0.297 | 1247 |
| | | 2 | 0.297 | 1247 |
| 5 - Potten Street Road | 1 [Give-way line] | 1 | 0.504 | 1705 |

Lane Movements

| Arm | Lane Level | Lane | Destination arm | | | | |
|------------------------------|-------------------|------|-----------------|----------|--------------------------|----------|--------------------|
| | | | A28 (E) | A299 (S) | Canterbury Road (A28 SW) | A299 (W) | Potten Street Road |
| 1 - A28 (E) | 1 [Give-way line] | 1 | | ✓ | ✓ | | |
| | | 2 | ✓ | | | ✓ | ✓ |
| 2 - A299 (S) | 1 [Give-way line] | 1 | | | ✓ | ✓ | |
| | | 2 | ✓ | ✓ | | | ✓ |
| 3 - Canterbury Road (A28 SW) | 1 [Give-way line] | 1 | | | | ✓ | ✓ |
| | | 2 | ✓ | ✓ | ✓ | | |
| | 2 | 1 | ✓ | ✓ | ✓ | ✓ | ✓ |
| 4 - A299 (W) | 1 [Give-way line] | 1 | ✓ | | | | ✓ |
| | | 2 | | ✓ | ✓ | ✓ | |
| 5 - Potten Street Road | 1 [Give-way line] | 1 | ✓ | ✓ | ✓ | ✓ | ✓ |

Secondary Lane Movements

| Arm | Lane Level | Lane | Destination arm | | | | |
|------------------------------|-------------------|------|-----------------|----------|--------------------------|----------|--------------------|
| | | | A28 (E) | A299 (S) | Canterbury Road (A28 SW) | A299 (W) | Potten Street Road |
| 1 - A28 (E) | 1 [Give-way line] | 1 | | | | ✓ | |
| | | 2 | | | | | |
| 2 - A299 (S) | 1 [Give-way line] | 1 | | | | | |
| | | 2 | | | | ✓ | |
| 3 - Canterbury Road (A28 SW) | 1 [Give-way line] | 1 | | | | | |
| | | 2 | | | | | |
| | 2 | 1 | | | | | |
| 4 - A299 (W) | 1 [Give-way line] | 1 | | ✓ | | | |
| | | 2 | | | | | |
| 5 - Potten Street Road | 1 [Give-way line] | 1 | | | | | |

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 | 2017 Baseline Traffic | AM | ONE HOUR | 07:30 | 09:00 | 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 (%) |
|--------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - A28 (E) | | ONE HOUR | ✓ | 1061 | 100.000 |
| 2 - A299 (S) | | ONE HOUR | ✓ | 937 | 100.000 |

| | | | | |
|------------------------------|----------|---|------|---------|
| 3 - Canterbury Road (A28 SW) | ONE HOUR | ✓ | 149 | 100.000 |
| 4 - A299 (W) | ONE HOUR | ✓ | 1436 | 100.000 |
| 5 - Potten Street Road | ONE HOUR | ✓ | 23 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | | |
|------|------------------------------|-------------|--------------|------------------------------|--------------|------------------------|
| | | 1 - A28 (E) | 2 - A299 (S) | 3 - Canterbury Road (A28 SW) | 4 - A299 (W) | 5 - Potten Street Road |
| From | 1 - A28 (E) | 0 | 21 | 228 | 797 | 15 |
| | 2 - A299 (S) | 26 | 0 | 21 | 882 | 8 |
| | 3 - Canterbury Road (A28 SW) | 92 | 35 | 0 | 20 | 2 |
| | 4 - A299 (W) | 517 | 902 | 13 | 0 | 4 |
| | 5 - Potten Street Road | 12 | 7 | 1 | 3 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | | |
|------|------------------------------|-------------|--------------|------------------------------|--------------|------------------------|
| | | 1 - A28 (E) | 2 - A299 (S) | 3 - Canterbury Road (A28 SW) | 4 - A299 (W) | 5 - Potten Street Road |
| From | 1 - A28 (E) | 0 | 0 | 2 | 3 | 0 |
| | 2 - A299 (S) | 8 | 0 | 5 | 7 | 0 |
| | 3 - Canterbury Road (A28 SW) | 3 | 3 | 0 | 25 | 0 |
| | 4 - A299 (W) | 8 | 10 | 8 | 0 | 25 |
| | 5 - Potten Street Road | 8 | 14 | 0 | 0 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|------------------------------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - A28 (E) | 0.68 | 13.6 | E | 974 | 1462 |
| 2 - A299 (S) | 0.44 | 7.7 | D | 860 | 1291 |
| 3 - Canterbury Road (A28 SW) | 0.47 | 1.3 | D | 137 | 206 |
| 4 - A299 (W) | 0.27 | 7.3 | C | 1322 | 1983 |
| 5 - Potten Street Road | 0.09 | 0.1 | A | 21 | 32 |

Main Results for each time segment

07:30 - 07:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A28 (E) | 798 | 200 | 725 | 797 | 482 | 0.0 | 2.1 | 0.142 | A |
| 2 - A299 (S) | 707 | 177 | 793 | 707 | 729 | 0.0 | 1.4 | 0.115 | A |
| 3 - Canterbury Road (A28 SW) | 111 | 28 | 1302 | 111 | 198 | 0.0 | 0.4 | 0.187 | B |
| 4 - A299 (W) | 1081 | 270 | 132 | 1079 | 1281 | 0.0 | 2.1 | 0.112 | A |
| 5 - Potten Street Road | 17 | 4 | 1190 | 17 | 21 | 0.0 | 0.0 | 0.059 | A |

07:45 - 08:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A28 (E) | 948 | 237 | 872 | 947 | 579 | 2.1 | 3.5 | 0.211 | B |
| 2 - A299 (S) | 842 | 211 | 942 | 843 | 877 | 1.4 | 2.5 | 0.170 | B |
| 3 - Canterbury Road (A28 SW) | 134 | 34 | 1552 | 136 | 233 | 0.4 | 0.6 | 0.264 | C |
| 4 - A299 (W) | 1295 | 324 | 160 | 1296 | 1528 | 2.1 | 3.3 | 0.150 | A |
| 5 - Potten Street Road | 20 | 5 | 1431 | 20 | 25 | 0.0 | 0.0 | 0.071 | A |

08:00 - 08:15

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|-------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A28 (E) | 1172 | 293 | 1063 | 1149 | 714 | 3.5 | 12.3 | 0.493 | D |

| | | | | | | | | | |
|------------------------------|------|-----|------|------|------|-----|-----|-------|---|
| 2 - A299 (S) | 1029 | 257 | 1145 | 1018 | 1067 | 2.5 | 7.2 | 0.341 | C |
| 3 - Canterbury Road (A28 SW) | 165 | 41 | 1880 | 164 | 283 | 0.6 | 1.2 | 0.416 | C |
| 4 - A299 (W) | 1588 | 397 | 195 | 1589 | 1849 | 3.3 | 7.2 | 0.257 | C |
| 5 - Potten Street Road | 25 | 6 | 1752 | 25 | 32 | 0.0 | 0.0 | 0.092 | A |

08:15 - 08:30

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A28 (E) | 1171 | 293 | 1060 | 1167 | 722 | 12.3 | 13.6 | 0.682 | E |
| 2 - A299 (S) | 1032 | 258 | 1162 | 1031 | 1066 | 7.2 | 7.5 | 0.441 | D |
| 3 - Canterbury Road (A28 SW) | 165 | 41 | 1901 | 167 | 292 | 1.2 | 1.2 | 0.474 | D |
| 4 - A299 (W) | 1588 | 397 | 200 | 1591 | 1868 | 7.2 | 7.0 | 0.274 | C |
| 5 - Potten Street Road | 25 | 6 | 1757 | 25 | 33 | 0.0 | 0.1 | 0.093 | A |

08:30 - 08:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A28 (E) | 953 | 238 | 864 | 957 | 583 | 13.6 | 3.6 | 0.325 | C |
| 2 - A299 (S) | 842 | 211 | 953 | 842 | 867 | 7.5 | 2.6 | 0.226 | B |
| 3 - Canterbury Road (A28 SW) | 136 | 34 | 1561 | 137 | 235 | 1.2 | 0.6 | 0.315 | C |
| 4 - A299 (W) | 1291 | 323 | 164 | 1288 | 1534 | 7.0 | 3.4 | 0.163 | A |
| 5 - Potten Street Road | 21 | 5 | 1426 | 21 | 27 | 0.1 | 0.0 | 0.076 | A |

08:45 - 09:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A28 (E) | 803 | 201 | 728 | 802 | 492 | 3.6 | 2.1 | 0.158 | A |
| 2 - A299 (S) | 709 | 177 | 799 | 709 | 731 | 2.6 | 1.4 | 0.130 | A |
| 3 - Canterbury Road (A28 SW) | 111 | 28 | 1308 | 110 | 199 | 0.6 | 0.4 | 0.220 | B |
| 4 - A299 (W) | 1090 | 272 | 132 | 1091 | 1287 | 3.4 | 2.0 | 0.116 | A |
| 5 - Potten Street Road | 18 | 5 | 1202 | 18 | 21 | 0.0 | 0.0 | 0.064 | A |

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

07:30 - 07:45

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A28 (E) | Entry | 1 | 1 | 2, 3, (4) | 363 | 730 | 0.498 | 362 | 0.0 | 0.9 | 0.128 | A |
| | | | 2 | 1, 4, 5 | 435 | 726 | 0.600 | 435 | 0.0 | 1.2 | 0.154 | A |
| 2 - A299 (S) | Entry | 1 | 1 | 3, 4 | 537 | 929 | 0.578 | 536 | 0.0 | 1.2 | 0.129 | A |
| | | | 2 | 1, 2, (4), 5 | 170 | 928 | 0.184 | 171 | 0.0 | 0.2 | 0.071 | A |
| 3 - Canterbury Road (A28 SW) | Entry | 1 | 1 | 4, 5 | 16 | 326 | 0.049 | 17 | 0.0 | 0.0 | 0.189 | B |
| | | | 2 | 1, 2, 3 | 95 | 381 | 0.249 | 95 | 0.0 | 0.3 | 0.183 | B |
| 4 - A299 (W) | Entry | 1 | 1 | 1, (2), 5 | 433 | 1112 | 0.389 | 430 | 0.0 | 0.8 | 0.086 | A |
| | | | 2 | 2, 3, 4 | 648 | 1097 | 0.591 | 649 | 0.0 | 1.4 | 0.130 | A |
| 5 - Potten Street Road | Exit | 1 | 1 | 1, 2, 3, 4, 5 | 17 | 959 | 0.018 | 17 | 0.0 | 0.0 | 0.059 | A |
| | | | 1 | 1 | 21 | 21 | 0.0 | 0.0 | 0.000 | A | | |

07:45 - 08:00

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A28 (E) | Entry | 1 | 1 | 2, 3, (4) | 439 | 690 | 0.637 | 438 | 0.9 | 1.5 | 0.185 | B |
| | | | 2 | 1, 4, 5 | 508 | 687 | 0.740 | 509 | 1.2 | 2.0 | 0.233 | B |
| 2 - A299 (S) | Entry | 1 | 1 | 3, 4 | 627 | 883 | 0.710 | 629 | 1.2 | 2.2 | 0.199 | B |
| | | | 2 | 1, 2, (4), 5 | 215 | 881 | 0.244 | 214 | 0.2 | 0.3 | 0.085 | A |
| 3 - Canterbury Road (A28 SW) | Entry | 1 | 1 | 4, 5 | 20 | 283 | 0.071 | 20 | 0.0 | 0.1 | 0.223 | B |
| | | | 2 | 1, 2, 3 | 114 | 333 | 0.344 | 115 | 0.3 | 0.5 | 0.255 | C |

| | | | | | | | | | | | | |
|------------------------------|-------|---|---|-----------------|------|------|-------|------|-----|-----|-------|---|
| 3 - Canterbury Road (A28 SW) | | 2 | 1 | (1, 2, 3, 4, 5) | 134 | | | 134 | 0.0 | 0.0 | 0.013 | A |
| | Exit | 1 | 1 | | 233 | | | 233 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 (W) | Entry | 1 | | 1, (2), 5 | 523 | 1109 | 0.472 | 522 | 0.8 | 0.9 | 0.102 | A |
| | | 2 | | 2, 3, 4 | 772 | 1088 | 0.710 | 774 | 1.4 | 2.4 | 0.182 | B |
| | Exit | 1 | 1 | | 1528 | | | 1528 | 0.0 | 0.0 | 0.000 | A |
| 5 - Potten Street Road | Entry | 1 | 1 | 1, 2, 3, 4, 5 | 20 | 844 | 0.024 | 20 | 0.0 | 0.0 | 0.071 | A |
| | Exit | 1 | 1 | | 25 | | | 25 | 0.0 | 0.0 | 0.000 | A |

08:00 - 08:15

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A28 (E) | Entry | 1 | 1 | 2, 3, (4) | 567 | 637 | 0.891 | 558 | 1.5 | 5.2 | 0.431 | D |
| | | | 2 | 1, 4, 5 | 605 | 634 | 0.954 | 591 | 2.0 | 7.1 | 0.551 | D |
| | Exit | 1 | 1 | | 714 | | | 714 | 0.0 | 0.0 | 0.000 | A |
| 2 - A299 (S) | Entry | 1 | 1 | 3, 4 | 735 | 826 | 0.891 | 724 | 2.2 | 6.7 | 0.435 | D |
| | | | 2 | 1, 2, (4), 5 | 295 | 828 | 0.356 | 294 | 0.3 | 0.6 | 0.106 | A |
| | Exit | 1 | 1 | | 1067 | | | 1067 | 0.0 | 0.0 | 0.000 | A |
| 3 - Canterbury Road (A28 SW) | Entry | 1 | 1 | 4, 5 | 25 | 227 | 0.110 | 24 | 0.1 | 0.1 | 0.293 | C |
| | | | 2 | 1, 2, 3 | 140 | 271 | 0.516 | 139 | 0.5 | 0.9 | 0.368 | C |
| | Exit | 1 | 1 | (1, 2, 3, 4, 5) | 165 | | | 165 | 0.0 | 0.2 | 0.058 | A |
| 4 - A299 (W) | Entry | 1 | 1 | 1, (2), 5 | 654 | 1097 | 0.596 | 655 | 0.9 | 1.5 | 0.131 | A |
| | | | 2 | 2, 3, 4 | 934 | 1081 | 0.864 | 935 | 2.4 | 5.7 | 0.344 | C |
| | Exit | 1 | 1 | | 1849 | | | 1849 | 0.0 | 0.0 | 0.000 | A |
| 5 - Potten Street Road | Entry | 1 | 1 | 1, 2, 3, 4, 5 | 25 | 690 | 0.036 | 25 | 0.0 | 0.0 | 0.092 | A |
| | Exit | 1 | 1 | | 32 | | | 32 | 0.0 | 0.0 | 0.000 | A |

08:15 - 08:30

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A28 (E) | Entry | 1 | 1 | 2, 3, (4) | 570 | 639 | 0.892 | 568 | 5.2 | 6.0 | 0.613 | E |
| | | | 2 | 1, 4, 5 | 601 | 637 | 0.943 | 599 | 7.1 | 7.6 | 0.747 | E |
| | Exit | 1 | 1 | | 722 | | | 722 | 0.0 | 0.0 | 0.000 | A |
| 2 - A299 (S) | Entry | 1 | 1 | 3, 4 | 730 | 818 | 0.894 | 728 | 6.7 | 7.1 | 0.576 | D |
| | | | 2 | 1, 2, (4), 5 | 301 | 820 | 0.368 | 303 | 0.6 | 0.5 | 0.112 | A |
| | Exit | 1 | 1 | | 1066 | | | 1066 | 0.0 | 0.0 | 0.000 | A |
| 3 - Canterbury Road (A28 SW) | Entry | 1 | 1 | 4, 5 | 25 | 222 | 0.112 | 25 | 0.1 | 0.1 | 0.313 | C |
| | | | 2 | 1, 2, 3 | 141 | 268 | 0.527 | 142 | 0.9 | 0.9 | 0.404 | C |
| | Exit | 1 | 1 | (1, 2, 3, 4, 5) | 165 | | | 166 | 0.2 | 0.2 | 0.084 | A |
| 4 - A299 (W) | Entry | 1 | 1 | 1, (2), 5 | 660 | 1092 | 0.604 | 659 | 1.5 | 1.5 | 0.136 | A |
| | | | 2 | 2, 3, 4 | 927 | 1079 | 0.859 | 931 | 5.7 | 5.4 | 0.370 | C |
| | Exit | 1 | 1 | | 1868 | | | 1868 | 0.0 | 0.0 | 0.000 | A |
| 5 - Potten Street Road | Entry | 1 | 1 | 1, 2, 3, 4, 5 | 25 | 672 | 0.038 | 25 | 0.0 | 0.1 | 0.093 | A |
| | Exit | 1 | 1 | | 33 | | | 33 | 0.0 | 0.0 | 0.000 | A |

08:30 - 08:45

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A28 (E) | Entry | 1 | 1 | 2, 3, (4) | 439 | 692 | 0.635 | 441 | 6.0 | 1.5 | 0.287 | C |
| | | | 2 | 1, 4, 5 | 514 | 689 | 0.745 | 516 | 7.6 | 2.1 | 0.359 | C |
| | Exit | 1 | 1 | | 583 | | | 583 | 0.0 | 0.0 | 0.000 | A |
| 2 - A299 (S) | Entry | 1 | 1 | 3, 4 | 625 | 881 | 0.709 | 624 | 7.1 | 2.2 | 0.274 | C |
| | | | 2 | 1, 2, (4), 5 | 217 | 881 | 0.247 | 217 | 0.5 | 0.3 | 0.091 | A |
| | Exit | 1 | 1 | | 867 | | | 867 | 0.0 | 0.0 | 0.000 | A |
| 3 - Canterbury Road (A28 SW) | Entry | 1 | 1 | 4, 5 | 19 | 274 | 0.070 | 19 | 0.1 | 0.1 | 0.255 | C |
| | | | 2 | 1, 2, 3 | 117 | 333 | 0.352 | 118 | 0.9 | 0.5 | 0.300 | C |
| | Exit | 1 | 1 | (1, 2, 3, 4, 5) | 136 | | | 136 | 0.2 | 0.0 | 0.024 | A |
| 4 - A299 (W) | Entry | 1 | 1 | 1, (2), 5 | 522 | 1108 | 0.471 | 522 | 1.5 | 0.9 | 0.103 | A |
| | | | 2 | 2, 3, 4 | 769 | 1088 | 0.706 | 766 | 5.4 | 2.5 | 0.204 | B |
| | Exit | 1 | 1 | | 1534 | | | 1534 | 0.0 | 0.0 | 0.000 | A |
| 5 - Potten Street Road | Entry | 1 | 1 | 1, 2, 3, 4, 5 | 21 | 856 | 0.025 | 21 | 0.1 | 0.0 | 0.076 | A |
| | Exit | 1 | 1 | | 27 | | | 27 | 0.0 | 0.0 | 0.000 | A |

08:45 - 09:00

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|-----|------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| | | | 1 | 2, 3, (4) | 363 | 731 | 0.497 | 363 | 1.5 | 0.9 | 0.142 | A |

| | | | | | | | | | | | | |
|------------------------------|-------|---|---|-----------------|------|------|-------|------|-----|-----|-------|---|
| 1 - A28 (E) | Entry | 1 | 2 | 1, 4, 5 | 440 | 727 | 0.606 | 439 | 2.1 | 1.2 | 0.172 | B |
| | Exit | 1 | 1 | | 492 | | | 492 | 0.0 | 0.0 | 0.000 | A |
| 2 - A299 (S) | Entry | 1 | 1 | 3, 4 | 538 | 926 | 0.581 | 538 | 2.2 | 1.2 | 0.147 | A |
| | | 2 | 2 | 1, 2, (4), 5 | 171 | 928 | 0.184 | 170 | 0.3 | 0.2 | 0.076 | A |
| | Exit | 1 | 1 | | 731 | | | 731 | 0.0 | 0.0 | 0.000 | A |
| 3 - Canterbury Road (A28 SW) | Entry | 1 | 1 | 4, 5 | 16 | 313 | 0.050 | 16 | 0.1 | 0.1 | 0.209 | B |
| | | 2 | 2 | 1, 2, 3 | 95 | 378 | 0.251 | 95 | 0.5 | 0.3 | 0.216 | B |
| | | 2 | 1 | (1, 2, 3, 4, 5) | 111 | | | 111 | 0.0 | 0.0 | 0.006 | A |
| | Exit | 1 | 1 | | 199 | | | 199 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 (W) | Entry | 1 | 1 | 1, (2), 5 | 441 | 1115 | 0.396 | 441 | 0.9 | 0.7 | 0.088 | A |
| | | 2 | 2 | 2, 3, 4 | 649 | 1100 | 0.590 | 649 | 2.5 | 1.3 | 0.134 | A |
| | Exit | 1 | 1 | | 1287 | | | 1287 | 0.0 | 0.0 | 0.000 | A |
| 5 - Potten Street Road | Entry | 1 | 1 | 1, 2, 3, 4, 5 | 18 | 979 | 0.019 | 18 | 0.0 | 0.0 | 0.064 | A |
| | Exit | 1 | 1 | | 21 | | | 21 | 0.0 | 0.0 | 0.000 | A |

Lane Simulation - 2017 Baseline Traffic, PM

Data Errors and Warnings

| Severity | Area | Item | Description |
|----------|-----------------|--|---|
| Warning | Lane Simulation | A2 - Lane Simulation [Lane Simulation] | This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results. |

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|---------------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3, 4, 5 | 0.50 | D |

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 | 2017 Baseline Traffic | PM | ONE HOUR | 16:30 | 18:00 | 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 (%) |
|------------------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - A28 (E) | | ONE HOUR | ✓ | 638 | 100.000 |
| 2 - A299 (S) | | ONE HOUR | ✓ | 973 | 100.000 |
| 3 - Canterbury Road (A28 SW) | | ONE HOUR | ✓ | 322 | 100.000 |
| 4 - A299 (W) | | ONE HOUR | ✓ | 1820 | 100.000 |
| 5 - Potten Street Road | | ONE HOUR | ✓ | 40 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | | |
|------|------------------------------|-------------|--------------|------------------------------|--------------|------------------------|
| | | 1 - A28 (E) | 2 - A299 (S) | 3 - Canterbury Road (A28 SW) | 4 - A299 (W) | 5 - Potten Street Road |
| From | 1 - A28 (E) | 0 | 14 | 110 | 506 | 8 |
| | 2 - A299 (S) | 22 | 0 | 31 | 910 | 10 |
| | 3 - Canterbury Road (A28 SW) | 268 | 25 | 0 | 25 | 4 |
| | 4 - A299 (W) | 801 | 1004 | 10 | 0 | 5 |
| | 5 - Potten Street Road | 23 | 6 | 1 | 10 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | | |
|------|------------------------------|-------------|--------------|------------------------------|--------------|------------------------|
| | | 1 - A28 (E) | 2 - A299 (S) | 3 - Canterbury Road (A28 SW) | 4 - A299 (W) | 5 - Potten Street Road |
| From | 1 - A28 (E) | 0 | 7 | 6 | 4 | 0 |
| | 2 - A299 (S) | 9 | 0 | 0 | 3 | 10 |
| | 3 - Canterbury Road (A28 SW) | 1 | 8 | 0 | 8 | 0 |
| | 4 - A299 (W) | 2 | 3 | 20 | 0 | 0 |
| | 5 - Potten Street Road | 4 | 0 | 0 | 0 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max delay (min) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|------------------------------|-----------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - A28 (E) | 0.19 | 2.3 | B | 585 | 878 |
| 2 - A299 (S) | 0.22 | 4.6 | B | 896 | 1345 |
| 3 - Canterbury Road (A28 SW) | 2.10 | 13.6 | F | 296 | 444 |
| 4 - A299 (W) | 0.49 | 17.2 | D | 1670 | 2504 |
| 5 - Potten Street Road | 0.14 | 0.1 | A | 36 | 55 |

Main Results for each time segment

16:30 - 16:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A28 (E) | 481 | 120 | 810 | 482 | 851 | 0.0 | 0.9 | 0.110 | A |
| 2 - A299 (S) | 738 | 185 | 487 | 738 | 805 | 0.0 | 1.2 | 0.096 | A |
| 3 - Canterbury Road (A28 SW) | 245 | 61 | 1110 | 244 | 114 | 0.0 | 1.2 | 0.248 | B |
| 4 - A299 (W) | 1395 | 349 | 254 | 1397 | 1100 | 0.0 | 3.0 | 0.127 | A |
| 5 - Potten Street Road | 29 | 7 | 1632 | 28 | 20 | 0.0 | 0.1 | 0.064 | A |

16:45 - 17:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A28 (E) | 567 | 142 | 950 | 568 | 993 | 0.9 | 1.3 | 0.135 | A |
| 2 - A299 (S) | 880 | 220 | 574 | 881 | 943 | 1.2 | 1.8 | 0.127 | A |
| 3 - Canterbury Road (A28 SW) | 291 | 73 | 1317 | 290 | 138 | 1.2 | 2.2 | 0.417 | D |
| 4 - A299 (W) | 1637 | 409 | 302 | 1629 | 1305 | 3.0 | 5.6 | 0.178 | B |
| 5 - Potten Street Road | 36 | 9 | 1907 | 36 | 24 | 0.1 | 0.1 | 0.088 | A |

17:00 - 17:15

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A28 (E) | 710 | 177 | 1155 | 708 | 1210 | 1.3 | 2.2 | 0.179 | B |
| 2 - A299 (S) | 1080 | 270 | 716 | 1066 | 1147 | 1.8 | 4.6 | 0.200 | B |
| 3 - Canterbury Road (A28 SW) | 349 | 87 | 1616 | 328 | 166 | 2.2 | 9.4 | 1.237 | F |
| 4 - A299 (W) | 2004 | 501 | 346 | 2001 | 1598 | 5.6 | 14.9 | 0.401 | C |
| 5 - Potten Street Road | 45 | 11 | 2321 | 44 | 27 | 0.1 | 0.1 | 0.123 | A |

17:15 - 17:30

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A28 (E) | 708 | 177 | 1148 | 709 | 1215 | 2.2 | 2.3 | 0.192 | B |
| 2 - A299 (S) | 1074 | 269 | 716 | 1082 | 1141 | 4.6 | 3.4 | 0.220 | B |
| 3 - Canterbury Road (A28 SW) | 357 | 89 | 1633 | 342 | 165 | 9.4 | 13.6 | 2.103 | F |
| 4 - A299 (W) | 1993 | 498 | 360 | 1987 | 1615 | 14.9 | 17.2 | 0.490 | D |
| 5 - Potten Street Road | 45 | 11 | 2319 | 44 | 28 | 0.1 | 0.1 | 0.139 | A |

17:30 - 17:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A28 (E) | 574 | 144 | 953 | 574 | 1015 | 2.3 | 1.3 | 0.147 | A |
| 2 - A299 (S) | 876 | 219 | 582 | 877 | 944 | 3.4 | 1.8 | 0.131 | A |
| 3 - Canterbury Road (A28 SW) | 286 | 72 | 1320 | 309 | 139 | 13.6 | 4.1 | 1.323 | F |
| 4 - A299 (W) | 1630 | 407 | 318 | 1637 | 1311 | 17.2 | 5.0 | 0.247 | B |
| 5 - Potten Street Road | 34 | 9 | 1933 | 35 | 23 | 0.1 | 0.0 | 0.103 | A |

17:45 - 18:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------------|-----------------------|-------------------------|---------------------------|---------------------|---------------------------------|-------------------|-----------------|-------------|-----|
| 1 - A28 (E) | 473 | 118 | 785 | 475 | 845 | 1.3 | 0.8 | 0.116 | A |
| 2 - A299 (S) | 731 | 183 | 479 | 732 | 781 | 1.8 | 1.2 | 0.102 | A |
| 3 - Canterbury Road (A28 SW) | 246 | 61 | 1097 | 248 | 115 | 4.1 | 1.1 | 0.353 | C |
| 4 - A299 (W) | 1362 | 340 | 258 | 1363 | 1087 | 5.0 | 2.7 | 0.132 | A |
| 5 - Potten Street Road | 29 | 7 | 1600 | 29 | 21 | 0.0 | 0.0 | 0.081 | A |

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

16:30 - 16:45

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A28 (E) | Entry | 1 | 1 | 2, 3, (4) | 200 | 703 | 0.284 | 200 | 0.0 | 0.3 | 0.102 | A |
| | | | 2 | 1, 4, 5 | 281 | 711 | 0.395 | 281 | 0.0 | 0.6 | 0.115 | A |
| | Exit | 1 | 1 | | 851 | | | 851 | 0.0 | 0.0 | 0.000 | A |
| 2 - A299 (S) | Entry | 1 | 1 | 3, 4 | 567 | 1056 | 0.537 | 566 | 0.0 | 1.1 | 0.107 | A |
| | | | 2 | 1, 2, (4), 5 | 171 | 1047 | 0.163 | 172 | 0.0 | 0.2 | 0.063 | A |
| | Exit | 1 | 1 | | 805 | | | 805 | 0.0 | 0.0 | 0.000 | A |
| 3 - Canterbury Road (A28 SW) | Entry | 1 | 1 | 4, 5 | 22 | 404 | 0.055 | 22 | 0.0 | 0.0 | 0.142 | A |
| | | | 2 | 1, 2, 3 | 222 | 427 | 0.521 | 222 | 0.0 | 0.9 | 0.225 | B |
| | Exit | 1 | 1 | (1, 2, 3, 4, 5) | 245 | | | 244 | 0.0 | 0.2 | 0.030 | A |
| | Exit | 1 | 1 | | 114 | | | 114 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 (W) | Entry | 1 | 1 | 1, (2), 5 | 662 | 1149 | 0.576 | 661 | 0.0 | 1.4 | 0.116 | A |
| | | | 2 | 2, 3, 4 | 733 | 1134 | 0.646 | 737 | 0.0 | 1.6 | 0.137 | A |
| | Exit | 1 | 1 | | 1100 | | | 1100 | 0.0 | 0.0 | 0.000 | A |
| 5 - Potten Street Road | Entry | 1 | 1 | 1, 2, 3, 4, 5 | 29 | 847 | 0.034 | 28 | 0.0 | 0.1 | 0.064 | A |
| | | | Exit | 1 | 1 | | 20 | | | 20 | 0.0 | 0.0 |

16:45 - 17:00

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A28 (E) | Entry | 1 | 1 | 2, 3, (4) | 241 | 668 | 0.361 | 243 | 0.3 | 0.4 | 0.123 | A |
| | | | 2 | 1, 4, 5 | 326 | 675 | 0.483 | 325 | 0.6 | 0.9 | 0.144 | A |
| | Exit | 1 | 1 | | 993 | | | 993 | 0.0 | 0.0 | 0.000 | A |
| 2 - A299 (S) | Entry | 1 | 1 | 3, 4 | 670 | 1029 | 0.651 | 670 | 1.1 | 1.6 | 0.144 | A |
| | | | 2 | 1, 2, (4), 5 | 211 | 1021 | 0.206 | 211 | 0.2 | 0.3 | 0.072 | A |
| | Exit | 1 | 1 | | 943 | | | 943 | 0.0 | 0.0 | 0.000 | A |
| 3 - Canterbury Road (A28 SW) | Entry | 1 | 1 | 4, 5 | 26 | 365 | 0.071 | 26 | 0.0 | 0.1 | 0.174 | B |
| | | | 2 | 1, 2, 3 | 264 | 386 | 0.682 | 263 | 0.9 | 1.4 | 0.311 | C |
| | Exit | 1 | 1 | (1, 2, 3, 4, 5) | 291 | | | 290 | 0.2 | 0.7 | 0.117 | A |
| | Exit | 1 | 1 | | 138 | | | 138 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 (W) | Entry | 1 | 1 | 1, (2), 5 | 773 | 1130 | 0.683 | 769 | 1.4 | 2.3 | 0.155 | A |
| | | | 2 | 2, 3, 4 | 864 | 1124 | 0.769 | 859 | 1.6 | 3.3 | 0.199 | B |
| | Exit | 1 | 1 | | 1305 | | | 1305 | 0.0 | 0.0 | 0.000 | A |
| 5 - Potten Street Road | Entry | 1 | 1 | 1, 2, 3, 4, 5 | 36 | 699 | 0.052 | 36 | 0.1 | 0.1 | 0.088 | A |
| | | | Exit | 1 | 1 | | 24 | | | 24 | 0.0 | 0.0 |

17:00 - 17:15

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A28 (E) | Entry | 1 | 1 | 2, 3, (4) | 308 | 618 | 0.498 | 308 | 0.4 | 0.8 | 0.154 | A |
| | | | 2 | 1, 4, 5 | 402 | 624 | 0.645 | 400 | 0.9 | 1.4 | 0.198 | B |
| | Exit | 1 | 1 | | 1210 | | | 1210 | 0.0 | 0.0 | 0.000 | A |
| 2 - A299 (S) | Entry | 1 | 1 | 3, 4 | 795 | 984 | 0.807 | 781 | 1.6 | 4.2 | 0.243 | B |
| | | | 2 | 1, 2, (4), 5 | 285 | 975 | 0.293 | 285 | 0.3 | 0.4 | 0.082 | A |
| | Exit | 1 | 1 | | 1147 | | | 1147 | 0.0 | 0.0 | 0.000 | A |
| 3 - Canterbury Road (A28 SW) | Entry | 1 | 1 | 4, 5 | 29 | 310 | 0.093 | 29 | 0.1 | 0.1 | 0.216 | B |
| | | | 2 | 1, 2, 3 | 301 | 330 | 0.911 | 299 | 1.4 | 2.5 | 0.457 | D |
| | Exit | 1 | 1 | (1, 2, 3, 4, 5) | 349 | | | 330 | 0.7 | 6.7 | 0.795 | E |
| | Exit | 1 | 1 | | 166 | | | 166 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 (W) | Entry | 1 | 1 | 1, (2), 5 | 966 | 1118 | 0.864 | 964 | 2.3 | 5.4 | 0.312 | C |
| | | | 2 | 2, 3, 4 | 1038 | 1108 | 0.937 | 1038 | 3.3 | 9.5 | 0.483 | D |
| | Exit | 1 | 1 | | 1598 | | | 1598 | 0.0 | 0.0 | 0.000 | A |
| 5 - Potten Street Road | Entry | 1 | 1 | 1, 2, 3, 4, 5 | 45 | 492 | 0.091 | 44 | 0.1 | 0.1 | 0.123 | A |
| | | | Exit | 1 | 1 | | 27 | | | 27 | 0.0 | 0.0 |

17:15 - 17:30

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|-------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A28 (E) | Entry | 1 | 1 | 2, 3, (4) | 305 | 619 | 0.493 | 305 | 0.8 | 0.9 | 0.168 | B |
| | | | 2 | 1, 4, 5 | 403 | 624 | 0.645 | 404 | 1.4 | 1.4 | 0.211 | B |

| | | | | | | | | | | | | |
|------------------------------|-------|---|---|-----------------|------|------|-------|------|-----|------|-------|---|
| | Exit | 1 | 1 | | 1215 | | | 1215 | 0.0 | 0.0 | 0.000 | A |
| 2 - A299 (S) | Entry | 1 | 1 | 3, 4 | 786 | 986 | 0.797 | 793 | 4.2 | 3.1 | 0.270 | C |
| | | 2 | 2 | 1, 2, (4), 5 | 288 | 976 | 0.295 | 289 | 0.4 | 0.3 | 0.085 | A |
| | Exit | 1 | 1 | | 1141 | | | 1141 | 0.0 | 0.0 | 0.000 | A |
| 3 - Canterbury Road (A28 SW) | Entry | 1 | 1 | 4, 5 | 29 | 309 | 0.096 | 29 | 0.1 | 0.1 | 0.229 | B |
| | | 2 | 2 | 1, 2, 3 | 312 | 327 | 0.955 | 312 | 2.5 | 2.6 | 0.499 | D |
| | Exit | 2 | 1 | (1, 2, 3, 4, 5) | 357 | | | 342 | 6.7 | 10.9 | 1.630 | F |
| 4 - A299 (W) | Entry | 1 | 1 | 1, (2), 5 | 965 | 1113 | 0.867 | 961 | 5.4 | 6.0 | 0.363 | C |
| | | 2 | 2 | 2, 3, 4 | 1028 | 1104 | 0.930 | 1026 | 9.5 | 11.1 | 0.607 | E |
| | Exit | 1 | 1 | | 1615 | | | 1615 | 0.0 | 0.0 | 0.000 | A |
| 5 - Potten Street Road | Entry | 1 | 1 | 1, 2, 3, 4, 5 | 45 | 494 | 0.091 | 44 | 0.1 | 0.1 | 0.139 | A |
| | Exit | 1 | 1 | | 28 | | | 28 | 0.0 | 0.0 | 0.000 | A |

17:30 - 17:45

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A28 (E) | Entry | 1 | 1 | 2, 3, (4) | 243 | 667 | 0.365 | 243 | 0.9 | 0.5 | 0.133 | A |
| | | 2 | 2 | 1, 4, 5 | 331 | 673 | 0.492 | 331 | 1.4 | 0.8 | 0.157 | A |
| | Exit | 1 | 1 | | 1015 | | | 1015 | 0.0 | 0.0 | 0.000 | A |
| 2 - A299 (S) | Entry | 1 | 1 | 3, 4 | 664 | 1027 | 0.646 | 665 | 3.1 | 1.5 | 0.150 | A |
| | | 2 | 2 | 1, 2, (4), 5 | 212 | 1015 | 0.209 | 212 | 0.3 | 0.3 | 0.073 | A |
| | Exit | 1 | 1 | | 944 | | | 944 | 0.0 | 0.0 | 0.000 | A |
| 3 - Canterbury Road (A28 SW) | Entry | 1 | 1 | 4, 5 | 30 | 365 | 0.082 | 30 | 0.1 | 0.1 | 0.192 | B |
| | | 2 | 2 | 1, 2, 3 | 278 | 386 | 0.720 | 280 | 2.6 | 1.7 | 0.403 | C |
| | Exit | 2 | 1 | (1, 2, 3, 4, 5) | 286 | | | 308 | 10.9 | 2.3 | 0.953 | F |
| 4 - A299 (W) | Entry | 1 | 1 | 1, (2), 5 | 775 | 1127 | 0.687 | 776 | 6.0 | 2.0 | 0.189 | B |
| | | 2 | 2 | 2, 3, 4 | 855 | 1117 | 0.765 | 861 | 11.1 | 3.0 | 0.300 | C |
| | Exit | 1 | 1 | | 1311 | | | 1311 | 0.0 | 0.0 | 0.000 | A |
| 5 - Potten Street Road | Entry | 1 | 1 | 1, 2, 3, 4, 5 | 34 | 692 | 0.050 | 35 | 0.1 | 0.0 | 0.103 | A |
| | Exit | 1 | 1 | | 23 | | | 23 | 0.0 | 0.0 | 0.000 | A |

17:45 - 18:00

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A28 (E) | Entry | 1 | 1 | 2, 3, (4) | 202 | 708 | 0.285 | 202 | 0.5 | 0.3 | 0.107 | A |
| | | 2 | 2 | 1, 4, 5 | 272 | 717 | 0.379 | 273 | 0.8 | 0.5 | 0.123 | A |
| | Exit | 1 | 1 | | 845 | | | 845 | 0.0 | 0.0 | 0.000 | A |
| 2 - A299 (S) | Entry | 1 | 1 | 3, 4 | 561 | 1059 | 0.530 | 562 | 1.5 | 1.0 | 0.113 | A |
| | | 2 | 2 | 1, 2, (4), 5 | 170 | 1049 | 0.162 | 169 | 0.3 | 0.2 | 0.065 | A |
| | Exit | 1 | 1 | | 781 | | | 781 | 0.0 | 0.0 | 0.000 | A |
| 3 - Canterbury Road (A28 SW) | Entry | 1 | 1 | 4, 5 | 22 | 405 | 0.055 | 22 | 0.1 | 0.0 | 0.155 | A |
| | | 2 | 2 | 1, 2, 3 | 226 | 427 | 0.528 | 226 | 1.7 | 0.9 | 0.271 | C |
| | Exit | 2 | 1 | (1, 2, 3, 4, 5) | 246 | | | 248 | 2.3 | 0.1 | 0.098 | A |
| 4 - A299 (W) | Entry | 1 | 1 | 1, (2), 5 | 652 | 1144 | 0.570 | 653 | 2.0 | 1.2 | 0.120 | A |
| | | 2 | 2 | 2, 3, 4 | 710 | 1131 | 0.627 | 711 | 3.0 | 1.5 | 0.144 | A |
| | Exit | 1 | 1 | | 1087 | | | 1087 | 0.0 | 0.0 | 0.000 | A |
| 5 - Potten Street Road | Entry | 1 | 1 | 1, 2, 3, 4, 5 | 29 | 856 | 0.034 | 29 | 0.0 | 0.0 | 0.081 | A |
| | Exit | 1 | 1 | | 21 | | | 21 | 0.0 | 0.0 | 0.000 | A |

Lane Simulation - 2017 Baseline Traffic, Airport Peak

Data Errors and Warnings

| Severity | Area | Item | Description |
|----------|-----------------|--|---|
| Warning | Lane Simulation | A2 - Lane Simulation [Lane Simulation] | This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results. |

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|---------------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3, 4, 5 | 0.13 | 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 | 2017 Baseline Traffic | Airport Peak | ONE HOUR | 12:45 | 14:15 | 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 (%) |
|------------------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - A28 (E) | | ONE HOUR | ✓ | 538 | 100.000 |
| 2 - A299 (S) | | ONE HOUR | ✓ | 613 | 100.000 |
| 3 - Canterbury Road (A28 SW) | | ONE HOUR | ✓ | 190 | 100.000 |
| 4 - A299 (W) | | ONE HOUR | ✓ | 978 | 100.000 |
| 5 - Potten Street Road | | ONE HOUR | ✓ | 17 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | | |
|------|------------------------------|-------------|--------------|------------------------------|--------------|------------------------|
| | | 1 - A28 (E) | 2 - A299 (S) | 3 - Canterbury Road (A28 SW) | 4 - A299 (W) | 5 - Potten Street Road |
| From | 1 - A28 (E) | 0 | 31 | 136 | 364 | 7 |
| | 2 - A299 (S) | 13 | 0 | 18 | 580 | 2 |
| | 3 - Canterbury Road (A28 SW) | 150 | 22 | 0 | 15 | 3 |
| | 4 - A299 (W) | 431 | 526 | 16 | 0 | 5 |
| | 5 - Potten Street Road | 12 | 3 | 1 | 1 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | | |
|------|------------------------------|-------------|--------------|------------------------------|--------------|------------------------|
| | | 1 - A28 (E) | 2 - A299 (S) | 3 - Canterbury Road (A28 SW) | 4 - A299 (W) | 5 - Potten Street Road |
| From | 1 - A28 (E) | 0 | 13 | 9 | 3 | 0 |
| | 2 - A299 (S) | 15 | 0 | 6 | 13 | 0 |
| | 3 - Canterbury Road (A28 SW) | 3 | 5 | 0 | 13 | 0 |
| | 4 - A299 (W) | 4 | 12 | 13 | 0 | 0 |
| | 5 - Potten Street Road | 8 | 33 | 0 | 100 | 0 |

| | | | | | | | | | |
|------------------------------|-----|-----|-----|-----|-----|-----|-----|-------|---|
| 1 - A28 (E) | 402 | 101 | 421 | 405 | 457 | 1.2 | 0.6 | 0.097 | A |
| 2 - A299 (S) | 463 | 116 | 399 | 464 | 427 | 0.8 | 0.6 | 0.089 | A |
| 3 - Canterbury Road (A28 SW) | 147 | 37 | 732 | 150 | 130 | 0.5 | 0.3 | 0.172 | B |
| 4 - A299 (W) | 725 | 181 | 154 | 727 | 728 | 1.6 | 0.9 | 0.081 | A |
| 5 - Potten Street Road | 12 | 3 | 866 | 12 | 14 | 0.0 | 0.0 | 0.064 | A |

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

12:45 - 13:00

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-------|
| 1 - A28 (E) | Entry | 1 | 1 | 2, 3, (4) | 187 | 787 | 0.238 | 187 | 0.0 | 0.3 | 0.095 | A |
| | | | 2 | 1, 4, 5 | 204 | 809 | 0.252 | 204 | 0.0 | 0.3 | 0.092 | A |
| | Exit | 1 | 1 | | 458 | | | 458 | 0.0 | 0.0 | 0.000 | A |
| 2 - A299 (S) | Entry | 1 | 1 | 3, 4 | 371 | 996 | 0.373 | 370 | 0.0 | 0.6 | 0.094 | A |
| | | | 2 | 1, 2, (4), 5 | 102 | 1002 | 0.102 | 102 | 0.0 | 0.1 | 0.062 | A |
| 3 - Canterbury Road (A28 SW) | Entry | 1 | 1 | 4, 5 | 14 | 427 | 0.033 | 13 | 0.0 | 0.0 | 0.117 | A |
| | | | 2 | 1, 2, 3 | 131 | 482 | 0.272 | 133 | 0.0 | 0.3 | 0.165 | A |
| | | | 2 | 1 | (1, 2, 3, 4, 5) | 145 | | | 145 | 0.0 | 0.0 | 0.004 |
| | Exit | 1 | 1 | | 125 | | | 125 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 (W) | Entry | 1 | 1 | 1, (2), 5 | 348 | 1143 | 0.304 | 348 | 0.0 | 0.4 | 0.074 | A |
| | | | 2 | 2, 3, 4 | 376 | 1075 | 0.350 | 379 | 0.0 | 0.4 | 0.085 | A |
| 5 - Potten Street Road | Entry | 1 | 1 | 1, 2, 3, 4, 5 | 12 | 1010 | 0.012 | 12 | 0.0 | 0.0 | 0.054 | A |
| | Exit | 1 | 1 | | 13 | | | 13 | 0.0 | 0.0 | 0.000 | A |

13:00 - 13:15

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-------|
| 1 - A28 (E) | Entry | 1 | 1 | 2, 3, (4) | 230 | 754 | 0.304 | 232 | 0.3 | 0.3 | 0.103 | A |
| | | | 2 | 1, 4, 5 | 255 | 785 | 0.325 | 255 | 0.3 | 0.3 | 0.102 | A |
| | Exit | 1 | 1 | | 536 | | | 536 | 0.0 | 0.0 | 0.000 | A |
| 2 - A299 (S) | Entry | 1 | 1 | 3, 4 | 430 | 964 | 0.446 | 432 | 0.6 | 0.8 | 0.106 | A |
| | | | 2 | 1, 2, (4), 5 | 127 | 970 | 0.130 | 126 | 0.1 | 0.1 | 0.068 | A |
| 3 - Canterbury Road (A28 SW) | Entry | 1 | 1 | 4, 5 | 18 | 421 | 0.043 | 19 | 0.0 | 0.0 | 0.153 | A |
| | | | 2 | 1, 2, 3 | 161 | 451 | 0.356 | 158 | 0.3 | 0.7 | 0.186 | B |
| | | | 2 | 1 | (1, 2, 3, 4, 5) | 180 | | | 180 | 0.0 | 0.0 | 0.008 |
| | Exit | 1 | 1 | | 149 | | | 149 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 (W) | Entry | 1 | 1 | 1, (2), 5 | 407 | 1144 | 0.356 | 404 | 0.4 | 0.6 | 0.080 | A |
| | | | 2 | 2, 3, 4 | 459 | 1059 | 0.434 | 460 | 0.4 | 0.8 | 0.098 | A |
| 5 - Potten Street Road | Entry | 1 | 1 | 1, 2, 3, 4, 5 | 15 | 977 | 0.015 | 15 | 0.0 | 0.0 | 0.060 | A |
| | Exit | 1 | 1 | | 15 | | | 15 | 0.0 | 0.0 | 0.000 | A |

13:15 - 13:30

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-------|
| 1 - A28 (E) | Entry | 1 | 1 | 2, 3, (4) | 292 | 716 | 0.409 | 292 | 0.3 | 0.6 | 0.131 | A |
| | | | 2 | 1, 4, 5 | 311 | 750 | 0.415 | 312 | 0.3 | 0.7 | 0.118 | A |
| | Exit | 1 | 1 | | 658 | | | 658 | 0.0 | 0.0 | 0.000 | A |
| 2 - A299 (S) | Entry | 1 | 1 | 3, 4 | 516 | 931 | 0.554 | 518 | 0.8 | 1.2 | 0.136 | A |
| | | | 2 | 1, 2, (4), 5 | 157 | 919 | 0.171 | 157 | 0.1 | 0.1 | 0.070 | A |
| 3 - Canterbury Road (A28 SW) | Entry | 1 | 1 | 4, 5 | 21 | 383 | 0.056 | 21 | 0.0 | 0.0 | 0.162 | A |
| | | | 2 | 1, 2, 3 | 184 | 414 | 0.444 | 184 | 0.7 | 0.7 | 0.233 | B |
| | | | 2 | 1 | (1, 2, 3, 4, 5) | 205 | | | 205 | 0.0 | 0.1 | 0.024 |
| | Exit | 1 | 1 | | 192 | | | 192 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 (W) | Entry | 1 | 1 | 1, (2), 5 | 508 | 1130 | 0.449 | 510 | 0.6 | 0.6 | 0.096 | A |
| | | | 2 | 2, 3, 4 | 570 | 1055 | 0.540 | 573 | 0.8 | 1.0 | 0.126 | A |
| 5 - Potten Street Road | Entry | 1 | 1 | 1, 2, 3, 4, 5 | 21 | 849 | 0.024 | 21 | 0.0 | 0.0 | 0.066 | A |
| | Exit | 1 | 1 | | 17 | | | 17 | 0.0 | 0.0 | 0.000 | A |

13:30 - 13:45

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A28 (E) | Entry | 1 | 1 | 2, 3, (4) | 287 | 721 | 0.397 | 286 | 0.6 | 0.5 | 0.125 | A |
| | | | 2 | 1, 4, 5 | 303 | 755 | 0.402 | 302 | 0.7 | 0.8 | 0.119 | A |
| | Exit | 1 | 1 | | 670 | | | 670 | 0.0 | 0.0 | 0.000 | A |
| 2 - A299 (S) | Entry | 1 | 1 | 3, 4 | 519 | 936 | 0.555 | 523 | 1.2 | 1.1 | 0.139 | A |
| | | | 2 | 1, 2, (4), 5 | 153 | 952 | 0.161 | 153 | 0.1 | 0.2 | 0.075 | A |
| | Exit | 1 | 1 | | 628 | | | 628 | 0.0 | 0.0 | 0.000 | A |
| 3 - Canterbury Road (A28 SW) | Entry | 1 | 1 | 4, 5 | 21 | 395 | 0.054 | 21 | 0.0 | 0.1 | 0.170 | B |
| | | | 2 | 1, 2, 3 | 195 | 415 | 0.469 | 196 | 0.7 | 0.7 | 0.244 | B |
| | | 2 | 1 | (1, 2, 3, 4, 5) | 217 | | | 216 | 0.1 | 0.2 | 0.030 | A |
| | Exit | 1 | 1 | | 188 | | | 188 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 (W) | Entry | 1 | 1 | 1, (2), 5 | 504 | 1129 | 0.447 | 506 | 0.6 | 0.7 | 0.096 | A |
| | | | 2 | 2, 3, 4 | 556 | 1048 | 0.530 | 556 | 1.0 | 1.2 | 0.122 | A |
| | Exit | 1 | 1 | | 1059 | | | 1059 | 0.0 | 0.0 | 0.000 | A |
| 5 - Potten Street Road | Entry | 1 | 1 | 1, 2, 3, 4, 5 | 19 | 871 | 0.022 | 19 | 0.0 | 0.0 | 0.072 | A |
| | Exit | 1 | 1 | | 17 | | | 17 | 0.0 | 0.0 | 0.000 | A |

13:45 - 14:00

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A28 (E) | Entry | 1 | 1 | 2, 3, (4) | 237 | 752 | 0.316 | 234 | 0.5 | 0.6 | 0.106 | A |
| | | | 2 | 1, 4, 5 | 248 | 780 | 0.318 | 247 | 0.8 | 0.5 | 0.103 | A |
| | Exit | 1 | 1 | | 550 | | | 550 | 0.0 | 0.0 | 0.000 | A |
| 2 - A299 (S) | Entry | 1 | 1 | 3, 4 | 422 | 956 | 0.441 | 424 | 1.1 | 0.6 | 0.111 | A |
| | | | 2 | 1, 2, (4), 5 | 115 | 972 | 0.119 | 115 | 0.2 | 0.1 | 0.066 | A |
| | Exit | 1 | 1 | | 532 | | | 532 | 0.0 | 0.0 | 0.000 | A |
| 3 - Canterbury Road (A28 SW) | Entry | 1 | 1 | 4, 5 | 14 | 415 | 0.034 | 14 | 0.1 | 0.0 | 0.147 | A |
| | | | 2 | 1, 2, 3 | 160 | 457 | 0.351 | 161 | 0.7 | 0.5 | 0.198 | B |
| | | 2 | 1 | (1, 2, 3, 4, 5) | 174 | | | 174 | 0.2 | 0.0 | 0.010 | A |
| | Exit | 1 | 1 | | 157 | | | 157 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 (W) | Entry | 1 | 1 | 1, (2), 5 | 426 | 1138 | 0.374 | 421 | 0.7 | 0.7 | 0.084 | A |
| | | | 2 | 2, 3, 4 | 464 | 1063 | 0.437 | 465 | 1.2 | 0.9 | 0.104 | A |
| | Exit | 1 | 1 | | 847 | | | 847 | 0.0 | 0.0 | 0.000 | A |
| 5 - Potten Street Road | Entry | 1 | 1 | 1, 2, 3, 4, 5 | 17 | 972 | 0.017 | 17 | 0.0 | 0.0 | 0.065 | A |
| | Exit | 1 | 1 | | 14 | | | 14 | 0.0 | 0.0 | 0.000 | A |

14:00 - 14:15

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A28 (E) | Entry | 1 | 1 | 2, 3, (4) | 192 | 780 | 0.246 | 194 | 0.6 | 0.3 | 0.098 | A |
| | | | 2 | 1, 4, 5 | 210 | 804 | 0.261 | 211 | 0.5 | 0.3 | 0.097 | A |
| | Exit | 1 | 1 | | 457 | | | 457 | 0.0 | 0.0 | 0.000 | A |
| 2 - A299 (S) | Entry | 1 | 1 | 3, 4 | 370 | 992 | 0.372 | 371 | 0.6 | 0.5 | 0.095 | A |
| | | | 2 | 1, 2, (4), 5 | 93 | 979 | 0.095 | 93 | 0.1 | 0.1 | 0.064 | A |
| | Exit | 1 | 1 | | 427 | | | 427 | 0.0 | 0.0 | 0.000 | A |
| 3 - Canterbury Road (A28 SW) | Entry | 1 | 1 | 4, 5 | 15 | 443 | 0.034 | 16 | 0.0 | 0.0 | 0.135 | A |
| | | | 2 | 1, 2, 3 | 132 | 484 | 0.272 | 134 | 0.5 | 0.3 | 0.170 | B |
| | | 2 | 1 | (1, 2, 3, 4, 5) | 147 | | | 147 | 0.0 | 0.0 | 0.006 | A |
| | Exit | 1 | 1 | | 130 | | | 130 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 (W) | Entry | 1 | 1 | 1, (2), 5 | 343 | 1138 | 0.301 | 343 | 0.7 | 0.4 | 0.073 | A |
| | | | 2 | 2, 3, 4 | 383 | 1078 | 0.355 | 383 | 0.9 | 0.5 | 0.088 | A |
| | Exit | 1 | 1 | | 728 | | | 728 | 0.0 | 0.0 | 0.000 | A |
| 5 - Potten Street Road | Entry | 1 | 1 | 1, 2, 3, 4, 5 | 12 | 1058 | 0.012 | 12 | 0.0 | 0.0 | 0.064 | A |
| | Exit | 1 | 1 | | 14 | | | 14 | 0.0 | 0.0 | 0.000 | A |

Lane Simulation - 2039 Growthed Traffic, AM

Data Errors and Warnings

| Severity | Area | Item | Description |
|----------|-----------------|--|---|
| Warning | Lane Simulation | A2 - Lane Simulation [Lane Simulation] | This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results. |
| Last Run | Lane Simulation | 1 - A28 (E) - Lane Simulation | Arm 1: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated. |
| Last Run | Lane Simulation | 2 - A299 (S) - Lane Simulation | Arm 2: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated. |

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|---------------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3, 4, 5 | 3.45 | F |

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 | 2039 Growthed Traffic | AM | ONE HOUR | 07:30 | 09:00 | 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 (%) |
|------------------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - A28 (E) | | ONE HOUR | ✓ | 1326 | 100.000 |
| 2 - A299 (S) | | ONE HOUR | ✓ | 1174 | 100.000 |
| 3 - Canterbury Road (A28 SW) | | ONE HOUR | ✓ | 186 | 100.000 |
| 4 - A299 (W) | | ONE HOUR | ✓ | 1800 | 100.000 |
| 5 - Potten Street Road | | ONE HOUR | ✓ | 29 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | | |
|------|------------------------------|-------------|--------------|------------------------------|--------------|------------------------|
| | | 1 - A28 (E) | 2 - A299 (S) | 3 - Canterbury Road (A28 SW) | 4 - A299 (W) | 5 - Potten Street Road |
| From | 1 - A28 (E) | 0 | 26 | 285 | 996 | 19 |
| | 2 - A299 (S) | 33 | 0 | 26 | 1105 | 10 |
| | 3 - Canterbury Road (A28 SW) | 115 | 44 | 0 | 25 | 2 |
| | 4 - A299 (W) | 648 | 1131 | 16 | 0 | 5 |
| | 5 - Potten Street Road | 15 | 9 | 1 | 4 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | | |
|------|------------------------------|-------------|--------------|------------------------------|--------------|------------------------|
| | | 1 - A28 (E) | 2 - A299 (S) | 3 - Canterbury Road (A28 SW) | 4 - A299 (W) | 5 - Potten Street Road |
| From | 1 - A28 (E) | 0 | 0 | 2 | 3 | 0 |
| | 2 - A299 (S) | 8 | 0 | 5 | 7 | 0 |
| | 3 - Canterbury Road (A28 SW) | 3 | 3 | 0 | 26 | 0 |
| | 4 - A299 (W) | 8 | 10 | 8 | 0 | 26 |
| | 5 - Potten Street Road | 9 | 15 | 0 | 0 | 0 |

| | | | | | | | | | |
|------------------------------|------|-----|------|------|------|-------|------|-------|---|
| 1 - A28 (E) | 1000 | 250 | 935 | 1315 | 614 | 154.7 | 82.7 | 5.539 | F |
| 2 - A299 (S) | 882 | 220 | 1305 | 938 | 945 | 34.4 | 10.8 | 1.047 | F |
| 3 - Canterbury Road (A28 SW) | 141 | 35 | 1925 | 140 | 318 | 1.7 | 1.1 | 0.460 | D |
| 4 - A299 (W) | 1356 | 339 | 173 | 1388 | 1892 | 26.5 | 5.7 | 0.439 | D |
| 5 - Potten Street Road | 21 | 5 | 1528 | 21 | 33 | 0.0 | 0.0 | 0.088 | A |

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

07:30 - 07:45

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------|---------|-----------------|------|------------------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A28 (E) | Entry | 1 | 1 | 2, 3, (4) | 465 | 683 | 0.680 | 463 | 0.0 | 1.9 | 0.192 | B |
| | | | 2 | 1, 4, 5 | 531 | 682 | 0.778 | 530 | 0.0 | 2.5 | 0.242 | B |
| | Exit | 1 | 1 | | 614 | | | 614 | 0.0 | 0.0 | 0.000 | A |
| 2 - A299 (S) | Entry | 1 | 1 | 3, 4 | 650 | 868 | 0.749 | 653 | 0.0 | 2.6 | 0.206 | B |
| | | | 2 | 1, 2, (4), 5 | 232 | 870 | 0.266 | 231 | 0.0 | 0.4 | 0.084 | A |
| | Exit | 1 | 1 | | 898 | | | 898 | 0.0 | 0.0 | 0.000 | A |
| | | | | 3 - Canterbury Road (A28 SW) | Entry | 1 | 1 | 4, 5 | 20 | 260 | 0.078 | 20 |
| 2 | 1, 2, 3 | 122 | 318 | | | | 0.384 | 121 | 0.0 | 0.7 | 0.254 | C |
| 2 | 1 | (1, 2, 3, 4, 5) | 142 | | | | 142 | 0.0 | 0.1 | 0.017 | A | |
| | Exit | 1 | 1 | | 242 | | | 242 | 0.0 | 0.0 | 0.000 | A |
| | | | | 4 - A299 (W) | Entry | 1 | 1 | 1, (2), 5 | 551 | 1104 | 0.500 | 551 |
| 2 | 2, 3, 4 | 797 | 1089 | | | | 0.732 | 793 | 0.0 | 3.0 | 0.193 | B |
| | Exit | 1 | 1 | | 1605 | | | 1605 | 0.0 | 0.0 | 0.000 | A |
| | | | | 5 - Potten Street Road | Entry | 1 | 1 | 1, 2, 3, 4, 5 | 22 | 804 | 0.028 | 22 |
| Exit | 1 | 1 | | | | | | | | | | |

07:45 - 08:00

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------|---------|-----------------|------|------------------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A28 (E) | Entry | 1 | 1 | 2, 3, (4) | 582 | 633 | 0.918 | 572 | 1.9 | 6.6 | 0.517 | D |
| | | | 2 | 1, 4, 5 | 608 | 631 | 0.965 | 599 | 2.5 | 8.3 | 0.639 | E |
| | Exit | 1 | 1 | | 729 | | | 729 | 0.0 | 0.0 | 0.000 | A |
| 2 - A299 (S) | Entry | 1 | 1 | 3, 4 | 752 | 819 | 0.917 | 745 | 2.6 | 7.0 | 0.479 | D |
| | | | 2 | 1, 2, (4), 5 | 309 | 817 | 0.378 | 310 | 0.4 | 0.6 | 0.112 | A |
| | Exit | 1 | 1 | | 1084 | | | 1084 | 0.0 | 0.0 | 0.000 | A |
| | | | | 3 - Canterbury Road (A28 SW) | Entry | 1 | 1 | 4, 5 | 24 | 219 | 0.110 | 24 |
| 2 | 1, 2, 3 | 144 | 262 | | | | 0.549 | 145 | 0.7 | 1.0 | 0.395 | C |
| 2 | 1 | (1, 2, 3, 4, 5) | 168 | | | | 168 | 0.1 | 0.2 | 0.077 | A | |
| | Exit | 1 | 1 | | 292 | | | 292 | 0.0 | 0.0 | 0.000 | A |
| | | | | 4 - A299 (W) | Entry | 1 | 1 | 1, (2), 5 | 666 | 1095 | 0.607 | 666 |
| 2 | 2, 3, 4 | 947 | 1077 | | | | 0.880 | 947 | 3.0 | 6.8 | 0.381 | C |
| | Exit | 1 | 1 | | 1894 | | | 1894 | 0.0 | 0.0 | 0.000 | A |
| | | | | 5 - Potten Street Road | Entry | 1 | 1 | 1, 2, 3, 4, 5 | 26 | 664 | 0.039 | 25 |
| Exit | 1 | 1 | | | | | | | | | | |

08:00 - 08:15

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------|---------|-----------------|------|------------------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A28 (E) | Entry | 1 | 1 | 2, 3, (4) | 728 | 587 | 1.238 | 583 | 6.6 | 40.1 | 2.378 | F |
| | | | 2 | 1, 4, 5 | 733 | 585 | 1.251 | 590 | 8.3 | 42.4 | 2.576 | F |
| | Exit | 1 | 1 | | 895 | | | 895 | 0.0 | 0.0 | 0.000 | A |
| 2 - A299 (S) | Entry | 1 | 1 | 3, 4 | 880 | 817 | 1.079 | 814 | 7.0 | 30.8 | 1.596 | F |
| | | | 2 | 1, 2, (4), 5 | 404 | 816 | 0.494 | 404 | 0.6 | 1.0 | 0.148 | A |
| | Exit | 1 | 1 | | 1244 | | | 1244 | 0.0 | 0.0 | 0.000 | A |
| | | | | 3 - Canterbury Road (A28 SW) | Entry | 1 | 1 | 4, 5 | 29 | 190 | 0.153 | 30 |
| 2 | 1, 2, 3 | 175 | 230 | | | | 0.761 | 175 | 1.0 | 1.7 | 0.570 | D |
| 2 | 1 | (1, 2, 3, 4, 5) | 205 | | | | 204 | 0.2 | 1.8 | 0.394 | C | |
| | Exit | 1 | 1 | | 297 | | | 297 | 0.0 | 0.0 | 0.000 | A |
| | | | | 4 - A299 (W) | Entry | 1 | 1 | 1, (2), 5 | 843 | 1080 | 0.780 | 841 |
| 2 | 2, 3, 4 | 1140 | 1068 | | | | 1.068 | 1059 | 6.8 | 33.1 | 1.263 | F |
| | Exit | 1 | 1 | | 2056 | | | 2056 | 0.0 | 0.0 | 0.000 | A |
| | | | | 5 - Potten Street Road | Entry | 1 | 1 | 1, 2, 3, 4, 5 | 32 | 503 | 0.064 | 32 |
| Exit | 1 | 1 | | | | | | | | | | |

08:15 - 08:30

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A28 (E) | Entry | 1 | 1 | 2, 3, (4) | 735 | 585 | 1.257 | 584 | 40.1 | 76.2 | 5.991 | F |
| | | | 2 | 1, 4, 5 | 731 | 584 | 1.254 | 584 | 42.4 | 78.4 | 6.206 | F |
| | Exit | 1 | 1 | | 899 | | | 899 | 0.0 | 0.0 | 0.000 | A |
| 2 - A299 (S) | Entry | 1 | 1 | 3, 4 | 878 | 818 | 1.072 | 812 | 30.8 | 50.9 | 3.152 | F |
| | | | 2 | 1, 2, (4), 5 | 417 | 815 | 0.511 | 415 | 1.0 | 1.1 | 0.150 | A |
| | Exit | 1 | 1 | | 1257 | | | 1257 | 0.0 | 0.0 | 0.000 | A |
| 3 - Canterbury Road (A28 SW) | Entry | 1 | 1 | 4, 5 | 31 | 189 | 0.163 | 30 | 0.2 | 0.2 | 0.382 | C |
| | | | 2 | 1, 2, 3 | 176 | 229 | 0.767 | 176 | 1.7 | 1.8 | 0.613 | E |
| | | 2 | 1 | (1, 2, 3, 4, 5) | 207 | | | 207 | 1.8 | 1.9 | 0.565 | D |
| | Exit | 1 | 1 | | 298 | | | 298 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 (W) | Entry | 1 | 1 | 1, (2), 5 | 843 | 1084 | 0.778 | 846 | 3.6 | 3.5 | 0.259 | C |
| | | | 2 | 2, 3, 4 | 1133 | 1068 | 1.061 | 1071 | 33.1 | 52.3 | 2.490 | F |
| | Exit | 1 | 1 | | 2063 | | | 2063 | 0.0 | 0.0 | 0.000 | A |
| 5 - Potten Street Road | Entry | 1 | 1 | 1, 2, 3, 4, 5 | 32 | 498 | 0.065 | 33 | 0.1 | 0.1 | 0.133 | A |
| | Exit | 1 | 1 | | 34 | | | 34 | 0.0 | 0.0 | 0.000 | A |

08:30 - 08:45

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A28 (E) | Entry | 1 | 1 | 2, 3, (4) | 593 | 605 | 0.978 | 596 | 76.2 | 76.2 | 7.652 | F |
| | | | 2 | 1, 4, 5 | 604 | 604 | 1.001 | 608 | 78.4 | 78.5 | 7.834 | F |
| | Exit | 1 | 1 | | 726 | | | 726 | 0.0 | 0.0 | 0.000 | A |
| 2 - A299 (S) | Entry | 1 | 1 | 3, 4 | 730 | 809 | 0.902 | 787 | 50.9 | 33.7 | 3.126 | F |
| | | | 2 | 1, 2, (4), 5 | 330 | 809 | 0.408 | 331 | 1.1 | 0.7 | 0.130 | A |
| | Exit | 1 | 1 | | 1183 | | | 1183 | 0.0 | 0.0 | 0.000 | A |
| 3 - Canterbury Road (A28 SW) | Entry | 1 | 1 | 4, 5 | 24 | 204 | 0.115 | 24 | 0.2 | 0.1 | 0.367 | C |
| | | | 2 | 1, 2, 3 | 146 | 245 | 0.596 | 146 | 1.8 | 1.1 | 0.510 | D |
| | | 2 | 1 | (1, 2, 3, 4, 5) | 168 | | | 170 | 1.9 | 0.4 | 0.261 | C |
| | Exit | 1 | 1 | | 300 | | | 300 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 (W) | Entry | 1 | 1 | 1, (2), 5 | 672 | 1091 | 0.616 | 675 | 3.5 | 1.6 | 0.156 | A |
| | | | 2 | 2, 3, 4 | 939 | 1079 | 0.871 | 1033 | 52.3 | 24.9 | 2.150 | F |
| | Exit | 1 | 1 | | 1984 | | | 1984 | 0.0 | 0.0 | 0.000 | A |
| 5 - Potten Street Road | Entry | 1 | 1 | 1, 2, 3, 4, 5 | 25 | 608 | 0.042 | 25 | 0.1 | 0.0 | 0.111 | A |
| | Exit | 1 | 1 | | 32 | | | 32 | 0.0 | 0.0 | 0.000 | A |

08:45 - 09:00

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A28 (E) | Entry | 1 | 1 | 2, 3, (4) | 499 | 673 | 0.740 | 657 | 76.2 | 39.9 | 5.386 | F |
| | | | 2 | 1, 4, 5 | 501 | 670 | 0.749 | 658 | 78.5 | 42.8 | 5.696 | F |
| | Exit | 1 | 1 | | 614 | | | 614 | 0.0 | 0.0 | 0.000 | A |
| 2 - A299 (S) | Entry | 1 | 1 | 3, 4 | 625 | 779 | 0.803 | 681 | 33.7 | 10.3 | 1.455 | F |
| | | | 2 | 1, 2, (4), 5 | 257 | 776 | 0.331 | 257 | 0.7 | 0.5 | 0.110 | A |
| | Exit | 1 | 1 | | 945 | | | 945 | 0.0 | 0.0 | 0.000 | A |
| 3 - Canterbury Road (A28 SW) | Entry | 1 | 1 | 4, 5 | 20 | 216 | 0.090 | 20 | 0.1 | 0.1 | 0.324 | C |
| | | | 2 | 1, 2, 3 | 121 | 264 | 0.457 | 120 | 1.1 | 0.8 | 0.403 | C |
| | | 2 | 1 | (1, 2, 3, 4, 5) | 141 | | | 140 | 0.4 | 0.2 | 0.073 | A |
| | Exit | 1 | 1 | | 318 | | | 318 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 (W) | Entry | 1 | 1 | 1, (2), 5 | 557 | 1103 | 0.504 | 558 | 1.6 | 0.9 | 0.113 | A |
| | | | 2 | 2, 3, 4 | 799 | 1086 | 0.736 | 830 | 24.9 | 4.8 | 0.670 | E |
| | Exit | 1 | 1 | | 1892 | | | 1892 | 0.0 | 0.0 | 0.000 | A |
| 5 - Potten Street Road | Entry | 1 | 1 | 1, 2, 3, 4, 5 | 21 | 799 | 0.026 | 21 | 0.0 | 0.0 | 0.088 | A |
| | Exit | 1 | 1 | | 33 | | | 33 | 0.0 | 0.0 | 0.000 | A |

Lane Simulation - 2039 Growthed Traffic, PM

Data Errors and Warnings

| Severity | Area | Item | Description |
|----------|-----------------|--|---|
| Warning | Lane Simulation | A2 - Lane Simulation [Lane Simulation] | This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results. |
| Last Run | Lane Simulation | 3 - Canterbury Road (A28 SW) - Lane Simulation | Arm 3: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated. |
| Last Run | Lane Simulation | 4 - A299 (W) - Lane Simulation | Arm 4: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated. |

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|---------------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3, 4, 5 | 3.74 | F |

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 | 2039 Growthed Traffic | PM | ONE HOUR | 16:30 | 18:00 | 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 (%) |
|------------------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - A28 (E) | | ONE HOUR | ✓ | 805 | 100.000 |
| 2 - A299 (S) | | ONE HOUR | ✓ | 1228 | 100.000 |
| 3 - Canterbury Road (A28 SW) | | ONE HOUR | ✓ | 403 | 100.000 |
| 4 - A299 (W) | | ONE HOUR | ✓ | 2295 | 100.000 |
| 5 - Potten Street Road | | ONE HOUR | ✓ | 51 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | | |
|------|------------------------------|-------------|--------------|------------------------------|--------------|------------------------|
| | | 1 - A28 (E) | 2 - A299 (S) | 3 - Canterbury Road (A28 SW) | 4 - A299 (W) | 5 - Potten Street Road |
| From | 1 - A28 (E) | 0 | 18 | 139 | 638 | 10 |
| | 2 - A299 (S) | 28 | 0 | 39 | 1148 | 13 |
| | 3 - Canterbury Road (A28 SW) | 338 | 32 | 0 | 28 | 5 |
| | 4 - A299 (W) | 1010 | 1266 | 13 | 0 | 6 |
| | 5 - Potten Street Road | 29 | 8 | 1 | 13 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | | |
|------|------------------------------|-------------|--------------|------------------------------|--------------|------------------------|
| | | 1 - A28 (E) | 2 - A299 (S) | 3 - Canterbury Road (A28 SW) | 4 - A299 (W) | 5 - Potten Street Road |
| From | 1 - A28 (E) | 0 | 7 | 7 | 4 | 0 |
| | 2 - A299 (S) | 10 | 0 | 0 | 3 | 10 |
| | 3 - Canterbury Road (A28 SW) | 1 | 8 | 0 | 10 | 0 |
| | 4 - A299 (W) | 3 | 3 | 21 | 0 | 0 |

| Arm | Demand (Veh/hr) | Arrivals (Veh) | Circulating flow (Veh/hr) | Throughput (Veh/hr) | (exit side) (Veh/hr) | queue (Veh) | queue (Veh) | Delay (min) | LOS |
|------------------------------|-----------------|----------------|---------------------------|---------------------|----------------------|-------------|-------------|-------------|-----|
| 1 - A28 (E) | 614 | 153 | 1190 | 614 | 1219 | 2.5 | 1.8 | 0.179 | B |
| 2 - A299 (S) | 925 | 231 | 622 | 923 | 1182 | 5.6 | 2.3 | 0.160 | A |
| 3 - Canterbury Road (A28 SW) | 305 | 76 | 1398 | 403 | 146 | 100.6 | 78.2 | 11.116 | F |
| 4 - A299 (W) | 1724 | 431 | 412 | 1986 | 1389 | 142.4 | 57.5 | 2.554 | F |
| 5 - Potten Street Road | 37 | 9 | 2372 | 37 | 26 | 0.1 | 0.1 | 0.169 | B |

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

16:30 - 16:45

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------------|-------|------------|-----------------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-------|
| 1 - A28 (E) | Entry | 1 | 1 | 2, 3, (4) | 266 | 654 | 0.407 | 266 | 0.0 | 0.6 | 0.123 | A |
| | | | 2 | 1, 4, 5 | 353 | 662 | 0.534 | 354 | 0.0 | 0.9 | 0.148 | A |
| | Exit | 1 | 1 | | 1056 | | | 1056 | 0.0 | 0.0 | 0.000 | A |
| 2 - A299 (S) | Entry | 1 | 1 | 3, 4 | 695 | 1014 | 0.685 | 695 | 0.0 | 1.9 | 0.148 | A |
| | | | 2 | 1, 2, (4), 5 | 231 | 1004 | 0.230 | 231 | 0.0 | 0.3 | 0.070 | A |
| | Exit | 1 | 1 | | 993 | | | 993 | 0.0 | 0.0 | 0.000 | A |
| 3 - Canterbury Road (A28 SW) | Entry | 1 | 1 | 4, 5 | 26 | 345 | 0.076 | 26 | 0.0 | 0.1 | 0.167 | A |
| | | | 2 | 1, 2, 3 | 274 | 370 | 0.740 | 270 | 0.0 | 1.7 | 0.312 | C |
| | 2 | 1 | (1, 2, 3, 4, 5) | 302 | | | 300 | 0.0 | 1.2 | 0.165 | A | |
| | Exit | 1 | 1 | | 148 | | | 148 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 (W) | Entry | 1 | 1 | 1, (2), 5 | 829 | 1118 | 0.741 | 825 | 0.0 | 2.8 | 0.176 | B |
| | | | 2 | 2, 3, 4 | 910 | 1118 | 0.815 | 904 | 0.0 | 4.2 | 0.228 | B |
| | Exit | 1 | 1 | | 1389 | | | 1389 | 0.0 | 0.0 | 0.000 | A |
| 5 - Potten Street Road | Entry | 1 | 1 | 1, 2, 3, 4, 5 | 42 | 638 | 0.065 | 41 | 0.0 | 0.1 | 0.083 | A |
| | | | 1 | 1 | | 26 | | | 26 | 0.0 | 0.0 | 0.000 |
| | Exit | 1 | 1 | | | | | | 0.0 | 0.0 | 0.000 | A |

16:45 - 17:00

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------------|-------|------------|-----------------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-------|
| 1 - A28 (E) | Entry | 1 | 1 | 2, 3, (4) | 315 | 607 | 0.519 | 315 | 0.6 | 0.9 | 0.165 | A |
| | | | 2 | 1, 4, 5 | 404 | 616 | 0.656 | 404 | 0.9 | 1.6 | 0.211 | B |
| | Exit | 1 | 1 | | 1220 | | | 1220 | 0.0 | 0.0 | 0.000 | A |
| 2 - A299 (S) | Entry | 1 | 1 | 3, 4 | 799 | 981 | 0.814 | 797 | 1.9 | 4.0 | 0.265 | C |
| | | | 2 | 1, 2, (4), 5 | 297 | 967 | 0.308 | 298 | 0.3 | 0.4 | 0.086 | A |
| | Exit | 1 | 1 | | 1166 | | | 1166 | 0.0 | 0.0 | 0.000 | A |
| 3 - Canterbury Road (A28 SW) | Entry | 1 | 1 | 4, 5 | 27 | 298 | 0.091 | 27 | 0.1 | 0.1 | 0.221 | B |
| | | | 2 | 1, 2, 3 | 299 | 322 | 0.928 | 298 | 1.7 | 2.6 | 0.482 | D |
| | 2 | 1 | (1, 2, 3, 4, 5) | 361 | | | 326 | 1.2 | 9.4 | 1.019 | F | |
| | Exit | 1 | 1 | | 169 | | | 169 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 (W) | Entry | 1 | 1 | 1, (2), 5 | 985 | 1110 | 0.888 | 978 | 2.8 | 7.3 | 0.380 | C |
| | | | 2 | 2, 3, 4 | 1072 | 1107 | 0.968 | 1052 | 4.2 | 14.0 | 0.619 | E |
| | Exit | 1 | 1 | | 1631 | | | 1631 | 0.0 | 0.0 | 0.000 | A |
| 5 - Potten Street Road | Entry | 1 | 1 | 1, 2, 3, 4, 5 | 46 | 472 | 0.097 | 46 | 0.1 | 0.1 | 0.134 | A |
| | | | 1 | 1 | | 29 | | | 29 | 0.0 | 0.0 | 0.000 |
| | Exit | 1 | 1 | | | | | | 0.0 | 0.0 | 0.000 | A |

17:00 - 17:15

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------------|-------|------------|-----------------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A28 (E) | Entry | 1 | 1 | 2, 3, (4) | 406 | 587 | 0.690 | 406 | 0.9 | 1.7 | 0.253 | C |
| | | | 2 | 1, 4, 5 | 493 | 597 | 0.827 | 494 | 1.6 | 3.0 | 0.337 | C |
| | Exit | 1 | 1 | | 1311 | | | 1311 | 0.0 | 0.0 | 0.000 | A |
| 2 - A299 (S) | Entry | 1 | 1 | 3, 4 | 936 | 925 | 1.012 | 898 | 4.0 | 17.4 | 0.803 | E |
| | | | 2 | 1, 2, (4), 5 | 409 | 917 | 0.446 | 409 | 0.4 | 0.8 | 0.112 | A |
| | Exit | 1 | 1 | | 1255 | | | 1255 | 0.0 | 0.0 | 0.000 | A |
| 3 - Canterbury Road (A28 SW) | Entry | 1 | 1 | 4, 5 | 25 | 235 | 0.107 | 25 | 0.1 | 0.2 | 0.298 | C |
| | | | 2 | 1, 2, 3 | 264 | 256 | 1.030 | 264 | 2.6 | 3.0 | 0.647 | E |
| | 2 | 1 | (1, 2, 3, 4, 5) | 444 | | | 289 | 9.4 | 46.2 | 5.874 | F | |
| | Exit | 1 | 1 | | 206 | | | 206 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 (W) | Entry | 1 | 1 | 1, (2), 5 | 1242 | 1115 | 1.115 | 1120 | 7.3 | 39.5 | 1.328 | F |
| | | | 2 | 2, 3, 4 | 1303 | 1115 | 1.169 | 1111 | 14.0 | 64.1 | 2.175 | F |
| | Exit | 1 | 1 | | 1975 | | | 1975 | 0.0 | 0.0 | 0.000 | A |
| 5 - Potten Street Road | Entry | 1 | 1 | 1, 2, 3, 4, 5 | 57 | 388 | 0.147 | 57 | 0.1 | 0.2 | 0.181 | B |

| | | | | | | | | | | | | |
|--|------|---|---|--|----|--|--|----|-----|-----|-------|---|
| | Exit | 1 | 1 | | 36 | | | 36 | 0.0 | 0.0 | 0.000 | A |
|--|------|---|---|--|----|--|--|----|-----|-----|-------|---|

17:15 - 17:30

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A28 (E) | Entry | 1 | 1 | 2, 3, (4) | 395 | 586 | 0.673 | 396 | 1.7 | 1.6 | 0.262 | C |
| | | | 2 | 1, 4, 5 | 479 | 595 | 0.805 | 482 | 3.0 | 2.5 | 0.353 | C |
| | Exit | 1 | 1 | | 1296 | | | 1296 | 0.0 | 0.0 | 0.000 | A |
| 2 - A299 (S) | Entry | 1 | 1 | 3, 4 | 930 | 931 | 0.999 | 916 | 17.4 | 24.0 | 1.449 | F |
| | | | 2 | 1, 2, (4), 5 | 420 | 923 | 0.454 | 422 | 0.8 | 0.7 | 0.119 | A |
| | Exit | 1 | 1 | | 1262 | | | 1262 | 0.0 | 0.0 | 0.000 | A |
| 3 - Canterbury Road (A28 SW) | Entry | 1 | 1 | 4, 5 | 22 | 240 | 0.092 | 22 | 0.2 | 0.1 | 0.289 | C |
| | | | 2 | 1, 2, 3 | 257 | 254 | 1.011 | 257 | 3.0 | 3.0 | 0.689 | E |
| | Exit | 1 | 1 | | 449 | | | 279 | 46.2 | 86.8 | 13.588 | F |
| | | | | | 205 | | 205 | 0.0 | 0.0 | 0.000 | A | |
| 4 - A299 (W) | Entry | 1 | 1 | 1, (2), 5 | 1238 | 1115 | 1.110 | 1116 | 39.5 | 70.6 | 3.003 | F |
| | | | 2 | 2, 3, 4 | 1287 | 1116 | 1.153 | 1113 | 64.1 | 108.1 | 4.708 | F |
| | Exit | 1 | 1 | | 1981 | | | 1981 | 0.0 | 0.0 | 0.000 | A |
| 5 - Potten Street Road | Entry | 1 | 1 | 1, 2, 3, 4, 5 | 55 | 387 | 0.143 | 55 | 0.2 | 0.2 | 0.195 | B |
| | Exit | 1 | 1 | | 35 | | | 35 | 0.0 | 0.0 | 0.000 | A |

17:30 - 17:45

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A28 (E) | Entry | 1 | 1 | 2, 3, (4) | 318 | 591 | 0.537 | 319 | 1.6 | 1.0 | 0.194 | B |
| | | | 2 | 1, 4, 5 | 408 | 599 | 0.682 | 410 | 2.5 | 1.6 | 0.252 | C |
| | Exit | 1 | 1 | | 1301 | | | 1301 | 0.0 | 0.0 | 0.000 | A |
| 2 - A299 (S) | Entry | 1 | 1 | 3, 4 | 797 | 978 | 0.815 | 832 | 24.0 | 5.2 | 0.771 | E |
| | | | 2 | 1, 2, (4), 5 | 311 | 971 | 0.320 | 312 | 0.7 | 0.4 | 0.095 | A |
| | Exit | 1 | 1 | | 1240 | | | 1240 | 0.0 | 0.0 | 0.000 | A |
| 3 - Canterbury Road (A28 SW) | Entry | 1 | 1 | 4, 5 | 28 | 292 | 0.097 | 29 | 0.1 | 0.1 | 0.251 | C |
| | | | 2 | 1, 2, 3 | 309 | 313 | 0.987 | 309 | 3.0 | 3.0 | 0.594 | E |
| | Exit | 1 | 1 | | 364 | | | 338 | 86.8 | 97.5 | 15.354 | F |
| | | | | | 177 | | 177 | 0.0 | 0.0 | 0.000 | A | |
| 4 - A299 (W) | Entry | 1 | 1 | 1, (2), 5 | 1013 | 1107 | 0.915 | 1084 | 70.6 | 48.3 | 3.218 | F |
| | | | 2 | 2, 3, 4 | 1040 | 1103 | 0.942 | 1089 | 108.1 | 94.1 | 5.527 | F |
| | Exit | 1 | 1 | | 1684 | | | 1684 | 0.0 | 0.0 | 0.000 | A |
| 5 - Potten Street Road | Entry | 1 | 1 | 1, 2, 3, 4, 5 | 46 | 394 | 0.118 | 46 | 0.2 | 0.1 | 0.190 | B |
| | Exit | 1 | 1 | | 30 | | | 30 | 0.0 | 0.0 | 0.000 | A |

17:45 - 18:00

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A28 (E) | Entry | 1 | 1 | 2, 3, (4) | 261 | 607 | 0.430 | 261 | 1.0 | 0.6 | 0.158 | A |
| | | | 2 | 1, 4, 5 | 352 | 613 | 0.575 | 352 | 1.6 | 1.1 | 0.194 | B |
| | Exit | 1 | 1 | | 1219 | | | 1219 | 0.0 | 0.0 | 0.000 | A |
| 2 - A299 (S) | Entry | 1 | 1 | 3, 4 | 692 | 1012 | 0.684 | 691 | 5.2 | 2.0 | 0.190 | B |
| | | | 2 | 1, 2, (4), 5 | 232 | 1005 | 0.231 | 232 | 0.4 | 0.3 | 0.076 | A |
| | Exit | 1 | 1 | | 1182 | | | 1182 | 0.0 | 0.0 | 0.000 | A |
| 3 - Canterbury Road (A28 SW) | Entry | 1 | 1 | 4, 5 | 33 | 346 | 0.095 | 33 | 0.1 | 0.1 | 0.209 | B |
| | | | 2 | 1, 2, 3 | 370 | 371 | 0.997 | 370 | 3.0 | 2.9 | 0.485 | D |
| | Exit | 1 | 1 | | 305 | | | 403 | 97.5 | 75.1 | 10.805 | F |
| | | | | | 146 | | 146 | 0.0 | 0.0 | 0.000 | A | |
| 4 - A299 (W) | Entry | 1 | 1 | 1, (2), 5 | 845 | 1092 | 0.775 | 933 | 48.3 | 12.2 | 1.495 | F |
| | | | 2 | 2, 3, 4 | 879 | 1087 | 0.807 | 1053 | 94.1 | 45.3 | 3.680 | F |
| | Exit | 1 | 1 | | 1389 | | | 1389 | 0.0 | 0.0 | 0.000 | A |
| 5 - Potten Street Road | Entry | 1 | 1 | 1, 2, 3, 4, 5 | 37 | 461 | 0.081 | 37 | 0.1 | 0.1 | 0.169 | B |
| | Exit | 1 | 1 | | 26 | | | 26 | 0.0 | 0.0 | 0.000 | A |

Lane Simulation - 2039 Growthed Traffic, Airport Peak

Data Errors and Warnings

| Severity | Area | Item | Description |
|----------|-----------------|--|---|
| Warning | Lane Simulation | A2 - Lane Simulation [Lane Simulation] | This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results. |

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|---------------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3, 4, 5 | 0.22 | 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 | 2039 Growthed Traffic | Airport Peak | ONE HOUR | 12:45 | 14:15 | 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 (%) |
|------------------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - A28 (E) | | ONE HOUR | ✓ | 719 | 100.000 |
| 2 - A299 (S) | | ONE HOUR | ✓ | 821 | 100.000 |
| 3 - Canterbury Road (A28 SW) | | ONE HOUR | ✓ | 253 | 100.000 |
| 4 - A299 (W) | | ONE HOUR | ✓ | 1308 | 100.000 |
| 5 - Potten Street Road | | ONE HOUR | ✓ | 22 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | | |
|------|------------------------------|-------------|--------------|------------------------------|--------------|------------------------|
| | | 1 - A28 (E) | 2 - A299 (S) | 3 - Canterbury Road (A28 SW) | 4 - A299 (W) | 5 - Potten Street Road |
| From | 1 - A28 (E) | 0 | 42 | 182 | 486 | 9 |
| | 2 - A299 (S) | 17 | 0 | 24 | 777 | 3 |
| | 3 - Canterbury Road (A28 SW) | 200 | 29 | 0 | 20 | 4 |
| | 4 - A299 (W) | 575 | 705 | 21 | 0 | 7 |
| | 5 - Potten Street Road | 16 | 4 | 1 | 1 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | | |
|------|------------------------------|-------------|--------------|------------------------------|--------------|------------------------|
| | | 1 - A28 (E) | 2 - A299 (S) | 3 - Canterbury Road (A28 SW) | 4 - A299 (W) | 5 - Potten Street Road |
| From | 1 - A28 (E) | 0 | 13 | 9 | 3 | 0 |
| | 2 - A299 (S) | 16 | 0 | 6 | 13 | 0 |
| | 3 - Canterbury Road (A28 SW) | 3 | 5 | 0 | 14 | 0 |
| | 4 - A299 (W) | 4 | 13 | 13 | 0 | 0 |
| | 5 - Potten Street Road | 9 | 34 | 0 | 100 | 0 |

| | | | | | | | | | |
|------------------------------|-----|-----|------|------|-----|-----|-----|-------|---|
| 1 - A28 (E) | 540 | 135 | 582 | 541 | 618 | 1.5 | 1.0 | 0.113 | A |
| 2 - A299 (S) | 624 | 156 | 528 | 626 | 595 | 1.6 | 1.2 | 0.112 | A |
| 3 - Canterbury Road (A28 SW) | 191 | 48 | 984 | 191 | 170 | 1.2 | 0.7 | 0.238 | B |
| 4 - A299 (W) | 998 | 249 | 200 | 1000 | 975 | 2.5 | 1.7 | 0.106 | A |
| 5 - Potten Street Road | 17 | 4 | 1183 | 17 | 17 | 0.0 | 0.0 | 0.067 | A |

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

12:45 - 13:00

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A28 (E) | Entry | 1 | 1 | 2, 3, (4) | 265 | 730 | 0.363 | 264 | 0.0 | 0.6 | 0.109 | A |
| | | | 2 | 1, 4, 5 | 280 | 765 | 0.367 | 280 | 0.0 | 0.5 | 0.106 | A |
| | Exit | 1 | 1 | | 606 | | | 606 | 0.0 | 0.0 | 0.000 | A |
| 2 - A299 (S) | Entry | 1 | 1 | 3, 4 | 487 | 951 | 0.512 | 484 | 0.0 | 1.1 | 0.113 | A |
| | | | 2 | 1, 2, (4), 5 | 135 | 950 | 0.142 | 135 | 0.0 | 0.1 | 0.067 | A |
| | Exit | 1 | 1 | | 597 | | | 597 | 0.0 | 0.0 | 0.000 | A |
| 3 - Canterbury Road (A28 SW) | Entry | 1 | 1 | 4, 5 | 19 | 400 | 0.047 | 19 | 0.0 | 0.1 | 0.147 | A |
| | | | 2 | 1, 2, 3 | 176 | 435 | 0.405 | 177 | 0.0 | 0.6 | 0.196 | B |
| | | 2 | 1 | (1, 2, 3, 4, 5) | 195 | | | 195 | 0.0 | 0.1 | 0.016 | A |
| | Exit | 1 | 1 | | 175 | | | 175 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 (W) | Entry | 1 | 1 | 1, (2), 5 | 465 | 1137 | 0.409 | 464 | 0.0 | 0.7 | 0.085 | A |
| | | | 2 | 2, 3, 4 | 525 | 1054 | 0.498 | 524 | 0.0 | 1.0 | 0.112 | A |
| | Exit | 1 | 1 | | 967 | | | 967 | 0.0 | 0.0 | 0.000 | A |
| 5 - Potten Street Road | Entry | 1 | 1 | 1, 2, 3, 4, 5 | 17 | 915 | 0.018 | 16 | 0.0 | 0.0 | 0.064 | A |
| | Exit | 1 | 1 | | 18 | | | 18 | 0.0 | 0.0 | 0.000 | A |

13:00 - 13:15

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A28 (E) | Entry | 1 | 1 | 2, 3, (4) | 313 | 706 | 0.443 | 312 | 0.6 | 0.7 | 0.131 | A |
| | | | 2 | 1, 4, 5 | 329 | 736 | 0.448 | 331 | 0.5 | 0.7 | 0.131 | A |
| | Exit | 1 | 1 | | 728 | | | 728 | 0.0 | 0.0 | 0.000 | A |
| 2 - A299 (S) | Entry | 1 | 1 | 3, 4 | 565 | 920 | 0.614 | 563 | 1.1 | 1.5 | 0.152 | A |
| | | | 2 | 1, 2, (4), 5 | 172 | 918 | 0.187 | 172 | 0.1 | 0.2 | 0.076 | A |
| | Exit | 1 | 1 | | 692 | | | 692 | 0.0 | 0.0 | 0.000 | A |
| 3 - Canterbury Road (A28 SW) | Entry | 1 | 1 | 4, 5 | 20 | 371 | 0.054 | 20 | 0.1 | 0.1 | 0.168 | B |
| | | | 2 | 1, 2, 3 | 203 | 399 | 0.508 | 201 | 0.6 | 1.0 | 0.257 | C |
| | | 2 | 1 | (1, 2, 3, 4, 5) | 224 | | | 223 | 0.1 | 0.2 | 0.042 | A |
| | Exit | 1 | 1 | | 207 | | | 207 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 (W) | Entry | 1 | 1 | 1, (2), 5 | 564 | 1125 | 0.501 | 564 | 0.7 | 1.0 | 0.107 | A |
| | | | 2 | 2, 3, 4 | 608 | 1041 | 0.584 | 612 | 1.0 | 1.2 | 0.138 | A |
| | Exit | 1 | 1 | | 1146 | | | 1146 | 0.0 | 0.0 | 0.000 | A |
| 5 - Potten Street Road | Entry | 1 | 1 | 1, 2, 3, 4, 5 | 20 | 804 | 0.025 | 20 | 0.0 | 0.0 | 0.072 | A |
| | Exit | 1 | 1 | | 21 | | | 21 | 0.0 | 0.0 | 0.000 | A |

13:15 - 13:30

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A28 (E) | Entry | 1 | 1 | 2, 3, (4) | 386 | 658 | 0.587 | 385 | 0.7 | 1.2 | 0.174 | B |
| | | | 2 | 1, 4, 5 | 414 | 688 | 0.602 | 413 | 0.7 | 1.3 | 0.170 | B |
| | Exit | 1 | 1 | | 894 | | | 894 | 0.0 | 0.0 | 0.000 | A |
| 2 - A299 (S) | Entry | 1 | 1 | 3, 4 | 672 | 881 | 0.763 | 664 | 1.5 | 3.3 | 0.241 | B |
| | | | 2 | 1, 2, (4), 5 | 230 | 879 | 0.262 | 229 | 0.2 | 0.4 | 0.085 | A |
| | Exit | 1 | 1 | | 870 | | | 870 | 0.0 | 0.0 | 0.000 | A |
| 3 - Canterbury Road (A28 SW) | Entry | 1 | 1 | 4, 5 | 26 | 325 | 0.080 | 26 | 0.1 | 0.1 | 0.208 | B |
| | | | 2 | 1, 2, 3 | 248 | 347 | 0.713 | 248 | 1.0 | 1.5 | 0.354 | C |
| | | 2 | 1 | (1, 2, 3, 4, 5) | 275 | | | 274 | 0.2 | 1.1 | 0.188 | B |
| | Exit | 1 | 1 | | 251 | | | 251 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 (W) | Entry | 1 | 1 | 1, (2), 5 | 700 | 1109 | 0.630 | 699 | 1.0 | 1.7 | 0.134 | A |
| | | | 2 | 2, 3, 4 | 757 | 1029 | 0.736 | 760 | 1.2 | 2.7 | 0.211 | B |
| | Exit | 1 | 1 | | 1409 | | | 1409 | 0.0 | 0.0 | 0.000 | A |
| 5 - Potten Street Road | Entry | 1 | 1 | 1, 2, 3, 4, 5 | 25 | 667 | 0.037 | 25 | 0.0 | 0.0 | 0.095 | A |
| | Exit | 1 | 1 | | 26 | | | 26 | 0.0 | 0.0 | 0.000 | A |

13:30 - 13:45

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-------|
| 1 - A28 (E) | Entry | 1 | 1 | 2, 3, (4) | 380 | 662 | 0.573 | 380 | 1.2 | 1.2 | 0.181 | B |
| | | | 2 | 1, 4, 5 | 409 | 691 | 0.592 | 407 | 1.3 | 1.3 | 0.178 | B |
| | Exit | 1 | 1 | | 886 | | | 886 | 0.0 | 0.0 | 0.000 | A |
| 2 - A299 (S) | Entry | 1 | 1 | 3, 4 | 670 | 883 | 0.759 | 667 | 3.3 | 2.8 | 0.261 | C |
| | | | 2 | 1, 2, (4), 5 | 231 | 878 | 0.264 | 231 | 0.4 | 0.4 | 0.090 | A |
| 3 - Canterbury Road (A28 SW) | Entry | 1 | 1 | 4, 5 | 27 | 321 | 0.083 | 26 | 0.1 | 0.1 | 0.206 | B |
| | | | 2 | 1, 2, 3 | 250 | 348 | 0.718 | 250 | 1.5 | 1.6 | 0.383 | C |
| | | | 2 | 1 | (1, 2, 3, 4, 5) | 275 | | | 276 | 1.1 | 1.2 | 0.243 |
| | Exit | 1 | 1 | | 250 | | | 250 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 (W) | Entry | 1 | 1 | 1, (2), 5 | 689 | 1108 | 0.622 | 688 | 1.7 | 1.6 | 0.139 | A |
| | | | 2 | 2, 3, 4 | 745 | 1025 | 0.726 | 743 | 2.7 | 2.8 | 0.214 | B |
| 5 - Potten Street Road | Entry | 1 | 1 | 1, 2, 3, 4, 5 | 1404 | | | 1404 | 0.0 | 0.0 | 0.000 | A |
| | | | | | Exit | 1 | 1 | | 25 | | | 25 |

13:45 - 14:00

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-------|
| 1 - A28 (E) | Entry | 1 | 1 | 2, 3, (4) | 308 | 703 | 0.439 | 308 | 1.2 | 0.7 | 0.134 | A |
| | | | 2 | 1, 4, 5 | 336 | 729 | 0.462 | 335 | 1.3 | 0.8 | 0.135 | A |
| | Exit | 1 | 1 | | 718 | | | 718 | 0.0 | 0.0 | 0.000 | A |
| 2 - A299 (S) | Entry | 1 | 1 | 3, 4 | 568 | 924 | 0.615 | 568 | 2.8 | 1.4 | 0.168 | B |
| | | | 2 | 1, 2, (4), 5 | 175 | 921 | 0.190 | 175 | 0.4 | 0.2 | 0.078 | A |
| 3 - Canterbury Road (A28 SW) | Entry | 1 | 1 | 4, 5 | 21 | 370 | 0.056 | 21 | 0.1 | 0.1 | 0.184 | B |
| | | | 2 | 1, 2, 3 | 205 | 397 | 0.517 | 204 | 1.6 | 0.9 | 0.283 | C |
| | | | 2 | 1 | (1, 2, 3, 4, 5) | 226 | | | 226 | 1.2 | 0.2 | 0.090 |
| | Exit | 1 | 1 | | 205 | | | 205 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 (W) | Entry | 1 | 1 | 1, (2), 5 | 552 | 1129 | 0.489 | 552 | 1.6 | 0.9 | 0.108 | A |
| | | | 2 | 2, 3, 4 | 620 | 1039 | 0.598 | 619 | 2.8 | 1.6 | 0.146 | A |
| 5 - Potten Street Road | Entry | 1 | 1 | 1, 2, 3, 4, 5 | 1157 | | | 1157 | 0.0 | 0.0 | 0.000 | A |
| | | | | | Exit | 1 | 1 | | 20 | 803 | 0.025 | 20 |
| | | | | | 20 | | | 20 | 0.0 | 0.0 | 0.000 | A |

14:00 - 14:15

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-------|
| 1 - A28 (E) | Entry | 1 | 1 | 2, 3, (4) | 260 | 729 | 0.357 | 260 | 0.7 | 0.5 | 0.114 | A |
| | | | 2 | 1, 4, 5 | 281 | 762 | 0.368 | 281 | 0.8 | 0.5 | 0.112 | A |
| | Exit | 1 | 1 | | 618 | | | 618 | 0.0 | 0.0 | 0.000 | A |
| 2 - A299 (S) | Entry | 1 | 1 | 3, 4 | 484 | 957 | 0.507 | 487 | 1.4 | 1.0 | 0.124 | A |
| | | | 2 | 1, 2, (4), 5 | 139 | 950 | 0.147 | 140 | 0.2 | 0.2 | 0.071 | A |
| 3 - Canterbury Road (A28 SW) | Entry | 1 | 1 | 4, 5 | 17 | 403 | 0.044 | 17 | 0.1 | 0.1 | 0.157 | A |
| | | | 2 | 1, 2, 3 | 173 | 433 | 0.400 | 174 | 0.9 | 0.6 | 0.221 | B |
| | | | 2 | 1 | (1, 2, 3, 4, 5) | 191 | | | 191 | 0.2 | 0.0 | 0.023 |
| | Exit | 1 | 1 | | 170 | | | 170 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 (W) | Entry | 1 | 1 | 1, (2), 5 | 471 | 1134 | 0.416 | 473 | 0.9 | 0.7 | 0.092 | A |
| | | | 2 | 2, 3, 4 | 526 | 1048 | 0.502 | 527 | 1.6 | 1.0 | 0.119 | A |
| 5 - Potten Street Road | Entry | 1 | 1 | 1, 2, 3, 4, 5 | 975 | | | 975 | 0.0 | 0.0 | 0.000 | A |
| | | | | | Exit | 1 | 1 | | 17 | 929 | 0.018 | 17 |
| | | | | | 17 | | | 17 | 0.0 | 0.0 | 0.000 | A |

Lane Simulation - 2039 + Dev Traffic, AM

Data Errors and Warnings

| Severity | Area | Item | Description |
|----------|-----------------|--|---|
| Warning | Lane Simulation | A2 - Lane Simulation [Lane Simulation] | This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results. |
| Last Run | Lane Simulation | 1 - A28 (E) - Lane Simulation | Arm 1: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated. |
| Last Run | Lane Simulation | 2 - A299 (S) - Lane Simulation | Arm 2: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated. |

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|---------------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3, 4, 5 | 3.70 | F |

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 |
|----|--------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D9 | 2039 + Dev Traffic | AM | ONE HOUR | 07:30 | 09:00 | 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 (%) |
|------------------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - A28 (E) | | ONE HOUR | ✓ | 1326 | 100.000 |
| 2 - A299 (S) | | ONE HOUR | ✓ | 1188 | 100.000 |
| 3 - Canterbury Road (A28 SW) | | ONE HOUR | ✓ | 188 | 100.000 |
| 4 - A299 (W) | | ONE HOUR | ✓ | 1813 | 100.000 |
| 5 - Potten Street Road | | ONE HOUR | ✓ | 29 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | | |
|------|------------------------------|-------------|--------------|------------------------------|--------------|------------------------|
| | | 1 - A28 (E) | 2 - A299 (S) | 3 - Canterbury Road (A28 SW) | 4 - A299 (W) | 5 - Potten Street Road |
| From | 1 - A28 (E) | 0 | 26 | 285 | 996 | 19 |
| | 2 - A299 (S) | 33 | 0 | 26 | 1119 | 10 |
| | 3 - Canterbury Road (A28 SW) | 115 | 46 | 0 | 25 | 2 |
| | 4 - A299 (W) | 648 | 1144 | 16 | 0 | 5 |
| | 5 - Potten Street Road | 15 | 9 | 1 | 4 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | | |
|------|------------------------------|-------------|--------------|------------------------------|--------------|------------------------|
| | | 1 - A28 (E) | 2 - A299 (S) | 3 - Canterbury Road (A28 SW) | 4 - A299 (W) | 5 - Potten Street Road |
| From | 1 - A28 (E) | 0 | 0 | 2 | 3 | 0 |
| | 2 - A299 (S) | 8 | 0 | 5 | 8 | 0 |
| | 3 - Canterbury Road (A28 SW) | 3 | 3 | 0 | 26 | 0 |
| | 4 - A299 (W) | 8 | 11 | 8 | 0 | 26 |
| | 5 - Potten Street Road | 9 | 15 | 0 | 0 | 0 |

| | | | | | | | | | |
|------------------------------|------|-----|------|------|------|-------|------|-------|---|
| 1 - A28 (E) | 1001 | 250 | 988 | 1286 | 618 | 159.8 | 96.3 | 6.073 | F |
| 2 - A299 (S) | 894 | 223 | 1280 | 966 | 994 | 40.8 | 13.8 | 1.283 | F |
| 3 - Canterbury Road (A28 SW) | 141 | 35 | 1934 | 144 | 312 | 2.0 | 1.0 | 0.500 | D |
| 4 - A299 (W) | 1368 | 342 | 176 | 1439 | 1902 | 38.8 | 8.1 | 0.660 | E |
| 5 - Potten Street Road | 21 | 5 | 1584 | 21 | 31 | 0.0 | 0.0 | 0.090 | A |

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

07:30 - 07:45

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------|---------|-----------------|------|------------------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A28 (E) | Entry | 1 | 1 | 2, 3, (4) | 471 | 678 | 0.696 | 470 | 0.0 | 1.9 | 0.204 | B |
| | | | 2 | 1, 4, 5 | 537 | 675 | 0.795 | 535 | 0.0 | 2.8 | 0.264 | C |
| | Exit | 1 | 1 | | 604 | | | 604 | 0.0 | 0.0 | 0.000 | A |
| 2 - A299 (S) | Entry | 1 | 1 | 3, 4 | 650 | 856 | 0.760 | 653 | 0.0 | 2.7 | 0.223 | B |
| | | | 2 | 1, 2, (4), 5 | 237 | 860 | 0.276 | 238 | 0.0 | 0.3 | 0.086 | A |
| | Exit | 1 | 1 | | 910 | | | 910 | 0.0 | 0.0 | 0.000 | A |
| | | | | 3 - Canterbury Road (A28 SW) | Entry | 1 | 1 | 4, 5 | 20 | 259 | 0.078 | 20 |
| 2 | 1, 2, 3 | 121 | 314 | | | | 0.385 | 121 | 0.0 | 0.6 | 0.254 | C |
| 2 | 1 | (1, 2, 3, 4, 5) | 141 | | | | 141 | 0.0 | 0.0 | 0.014 | A | |
| | Exit | 1 | 1 | | 248 | | | 248 | 0.0 | 0.0 | 0.000 | A |
| | | | | 4 - A299 (W) | Entry | 1 | 1 | 1, (2), 5 | 544 | 1100 | 0.494 | 543 |
| 2 | 2, 3, 4 | 807 | 1081 | | | | 0.747 | 804 | 0.0 | 3.3 | 0.211 | B |
| | Exit | 1 | 1 | | 1616 | | | 1616 | 0.0 | 0.0 | 0.000 | A |
| | | | | 5 - Potten Street Road | Entry | 1 | 1 | 1, 2, 3, 4, 5 | 21 | 792 | 0.026 | 21 |
| Exit | 1 | 1 | | | | | | 26 | | | 26 | 0.0 |

07:45 - 08:00

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------|---------|-----------------|------|------------------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A28 (E) | Entry | 1 | 1 | 2, 3, (4) | 580 | 625 | 0.928 | 560 | 1.9 | 7.2 | 0.532 | D |
| | | | 2 | 1, 4, 5 | 608 | 623 | 0.975 | 588 | 2.8 | 9.0 | 0.666 | E |
| | Exit | 1 | 1 | | 739 | | | 739 | 0.0 | 0.0 | 0.000 | A |
| 2 - A299 (S) | Entry | 1 | 1 | 3, 4 | 753 | 815 | 0.926 | 750 | 2.7 | 8.1 | 0.524 | D |
| | | | 2 | 1, 2, (4), 5 | 318 | 820 | 0.388 | 318 | 0.3 | 0.7 | 0.115 | A |
| | Exit | 1 | 1 | | 1101 | | | 1101 | 0.0 | 0.0 | 0.000 | A |
| | | | | 3 - Canterbury Road (A28 SW) | Entry | 1 | 1 | 4, 5 | 25 | 216 | 0.115 | 25 |
| 2 | 1, 2, 3 | 145 | 260 | | | | 0.557 | 145 | 0.6 | 1.0 | 0.390 | C |
| 2 | 1 | (1, 2, 3, 4, 5) | 170 | | | | 170 | 0.0 | 0.2 | 0.071 | A | |
| | Exit | 1 | 1 | | 285 | | | 285 | 0.0 | 0.0 | 0.000 | A |
| | | | | 4 - A299 (W) | Entry | 1 | 1 | 1, (2), 5 | 679 | 1090 | 0.623 | 680 |
| 2 | 2, 3, 4 | 963 | 1069 | | | | 0.900 | 957 | 3.3 | 7.8 | 0.417 | C |
| | Exit | 1 | 1 | | 1894 | | | 1894 | 0.0 | 0.0 | 0.000 | A |
| | | | | 5 - Potten Street Road | Entry | 1 | 1 | 1, 2, 3, 4, 5 | 26 | 659 | 0.040 | 26 |
| Exit | 1 | 1 | | | | | | 31 | | | 31 | 0.0 |

08:00 - 08:15

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|--------------|---------|-----------------|------|------------------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A28 (E) | Entry | 1 | 1 | 2, 3, (4) | 734 | 588 | 1.251 | 592 | 7.2 | 41.8 | 2.507 | F |
| | | | 2 | 1, 4, 5 | 720 | 585 | 1.232 | 586 | 9.0 | 43.6 | 2.746 | F |
| | Exit | 1 | 1 | | 886 | | | 886 | 0.0 | 0.0 | 0.000 | A |
| 2 - A299 (S) | Entry | 1 | 1 | 3, 4 | 894 | 809 | 1.108 | 801 | 8.1 | 33.9 | 1.693 | F |
| | | | 2 | 1, 2, (4), 5 | 415 | 811 | 0.512 | 415 | 0.7 | 1.1 | 0.154 | A |
| | Exit | 1 | 1 | | 1237 | | | 1237 | 0.0 | 0.0 | 0.000 | A |
| | | | | 3 - Canterbury Road (A28 SW) | Entry | 1 | 1 | 4, 5 | 29 | 193 | 0.149 | 30 |
| 2 | 1, 2, 3 | 171 | 227 | | | | 0.753 | 170 | 1.0 | 1.8 | 0.577 | D |
| 2 | 1 | (1, 2, 3, 4, 5) | 205 | | | | 200 | 0.2 | 1.9 | 0.406 | C | |
| | Exit | 1 | 1 | | 293 | | | 293 | 0.0 | 0.0 | 0.000 | A |
| | | | | 4 - A299 (W) | Entry | 1 | 1 | 1, (2), 5 | 836 | 1082 | 0.773 | 840 |
| 2 | 2, 3, 4 | 1153 | 1057 | | | | 1.091 | 1047 | 7.8 | 38.3 | 1.435 | F |
| | Exit | 1 | 1 | | 2061 | | | 2061 | 0.0 | 0.0 | 0.000 | A |
| | | | | 5 - Potten Street Road | Entry | 1 | 1 | 1, 2, 3, 4, 5 | 31 | 505 | 0.061 | 31 |
| Exit | 1 | 1 | | | | | | 36 | | | 36 | 0.0 |

08:15 - 08:30

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A28 (E) | Entry | 1 | 1 | 2, 3, (4) | 726 | 586 | 1.242 | 591 | 41.8 | 78.0 | 6.201 | F |
| | | | 2 | 1, 4, 5 | 727 | 581 | 1.251 | 582 | 43.6 | 80.5 | 6.452 | F |
| | Exit | 1 | 1 | | 904 | | | 904 | 0.0 | 0.0 | 0.000 | A |
| 2 - A299 (S) | Entry | 1 | 1 | 3, 4 | 888 | 810 | 1.095 | 811 | 33.9 | 54.5 | 3.354 | F |
| | | | 2 | 1, 2, (4), 5 | 423 | 814 | 0.520 | 423 | 1.1 | 1.1 | 0.157 | A |
| | Exit | 1 | 1 | | 1249 | | | 1249 | 0.0 | 0.0 | 0.000 | A |
| 3 - Canterbury Road (A28 SW) | Entry | 1 | 1 | 4, 5 | 27 | 188 | 0.143 | 27 | 0.2 | 0.2 | 0.376 | C |
| | | | 2 | 1, 2, 3 | 181 | 225 | 0.803 | 182 | 1.8 | 1.9 | 0.626 | E |
| | | 2 | 1 | (1, 2, 3, 4, 5) | 208 | | | 208 | 1.9 | 2.3 | 0.639 | E |
| | Exit | 1 | 1 | | 295 | | | 295 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 (W) | Entry | 1 | 1 | 1, (2), 5 | 848 | 1081 | 0.785 | 849 | 3.4 | 3.7 | 0.276 | C |
| | | | 2 | 2, 3, 4 | 1163 | 1052 | 1.102 | 1053 | 38.3 | 64.6 | 2.950 | F |
| | Exit | 1 | 1 | | 2067 | | | 2067 | 0.0 | 0.0 | 0.000 | A |
| 5 - Potten Street Road | Entry | 1 | 1 | 1, 2, 3, 4, 5 | 31 | 492 | 0.064 | 32 | 0.1 | 0.1 | 0.138 | A |
| | Exit | 1 | 1 | | 35 | | | 35 | 0.0 | 0.0 | 0.000 | A |

08:30 - 08:45

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A28 (E) | Entry | 1 | 1 | 2, 3, (4) | 594 | 598 | 0.993 | 603 | 78.0 | 78.6 | 7.933 | F |
| | | | 2 | 1, 4, 5 | 593 | 595 | 0.997 | 600 | 80.5 | 81.2 | 8.188 | F |
| | Exit | 1 | 1 | | 720 | | | 720 | 0.0 | 0.0 | 0.000 | A |
| 2 - A299 (S) | Entry | 1 | 1 | 3, 4 | 735 | 801 | 0.919 | 772 | 54.5 | 40.1 | 3.540 | F |
| | | | 2 | 1, 2, (4), 5 | 332 | 798 | 0.416 | 335 | 1.1 | 0.7 | 0.135 | A |
| | Exit | 1 | 1 | | 1202 | | | 1202 | 0.0 | 0.0 | 0.000 | A |
| 3 - Canterbury Road (A28 SW) | Entry | 1 | 1 | 4, 5 | 26 | 201 | 0.128 | 26 | 0.2 | 0.1 | 0.342 | C |
| | | | 2 | 1, 2, 3 | 149 | 243 | 0.612 | 148 | 1.9 | 1.3 | 0.532 | D |
| | | 2 | 1 | (1, 2, 3, 4, 5) | 174 | | | 175 | 2.3 | 0.6 | 0.333 | C |
| | Exit | 1 | 1 | | 298 | | | 298 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 (W) | Entry | 1 | 1 | 1, (2), 5 | 678 | 1092 | 0.621 | 680 | 3.7 | 1.7 | 0.162 | A |
| | | | 2 | 2, 3, 4 | 940 | 1068 | 0.878 | 1041 | 64.6 | 37.1 | 2.865 | F |
| | Exit | 1 | 1 | | 1978 | | | 1978 | 0.0 | 0.0 | 0.000 | A |
| 5 - Potten Street Road | Entry | 1 | 1 | 1, 2, 3, 4, 5 | 24 | 603 | 0.040 | 24 | 0.1 | 0.0 | 0.111 | A |
| | Exit | 1 | 1 | | 32 | | | 32 | 0.0 | 0.0 | 0.000 | A |

08:45 - 09:00

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A28 (E) | Entry | 1 | 1 | 2, 3, (4) | 497 | 657 | 0.755 | 640 | 78.6 | 46.8 | 5.949 | F |
| | | | 2 | 1, 4, 5 | 505 | 653 | 0.773 | 647 | 81.2 | 49.5 | 6.198 | F |
| | Exit | 1 | 1 | | 618 | | | 618 | 0.0 | 0.0 | 0.000 | A |
| 2 - A299 (S) | Entry | 1 | 1 | 3, 4 | 626 | 779 | 0.802 | 698 | 40.1 | 13.3 | 1.805 | F |
| | | | 2 | 1, 2, (4), 5 | 268 | 778 | 0.344 | 268 | 0.7 | 0.5 | 0.116 | A |
| | Exit | 1 | 1 | | 994 | | | 994 | 0.0 | 0.0 | 0.000 | A |
| 3 - Canterbury Road (A28 SW) | Entry | 1 | 1 | 4, 5 | 20 | 214 | 0.096 | 20 | 0.1 | 0.1 | 0.314 | C |
| | | | 2 | 1, 2, 3 | 122 | 260 | 0.470 | 124 | 1.3 | 0.7 | 0.422 | D |
| | | 2 | 1 | (1, 2, 3, 4, 5) | 141 | | | 142 | 0.6 | 0.2 | 0.098 | A |
| | Exit | 1 | 1 | | 312 | | | 312 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 (W) | Entry | 1 | 1 | 1, (2), 5 | 560 | 1099 | 0.509 | 564 | 1.7 | 0.9 | 0.116 | A |
| | | | 2 | 2, 3, 4 | 808 | 1075 | 0.752 | 875 | 37.1 | 7.2 | 1.047 | F |
| | Exit | 1 | 1 | | 1902 | | | 1902 | 0.0 | 0.0 | 0.000 | A |
| 5 - Potten Street Road | Entry | 1 | 1 | 1, 2, 3, 4, 5 | 21 | 768 | 0.028 | 21 | 0.0 | 0.0 | 0.090 | A |
| | Exit | 1 | 1 | | 31 | | | 31 | 0.0 | 0.0 | 0.000 | A |

Lane Simulation - 2039 + Dev Traffic, PM

Data Errors and Warnings

| Severity | Area | Item | Description |
|----------|-----------------|--|---|
| Warning | Lane Simulation | A2 - Lane Simulation [Lane Simulation] | This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results. |
| Last Run | Lane Simulation | 3 - Canterbury Road (A28 SW) - Lane Simulation | Arm 3: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated. |
| Last Run | Lane Simulation | 4 - A299 (W) - Lane Simulation | Arm 4: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated. |

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|---------------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3, 4, 5 | 4.43 | F |

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 |
|-----|--------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D10 | 2039 + Dev Traffic | PM | ONE HOUR | 16:30 | 18:00 | 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 (%) |
|------------------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - A28 (E) | | ONE HOUR | ✓ | 805 | 100.000 |
| 2 - A299 (S) | | ONE HOUR | ✓ | 1325 | 100.000 |
| 3 - Canterbury Road (A28 SW) | | ONE HOUR | ✓ | 403 | 100.000 |
| 4 - A299 (W) | | ONE HOUR | ✓ | 2325 | 100.000 |
| 5 - Potten Street Road | | ONE HOUR | ✓ | 51 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | | |
|------|------------------------------|-------------|--------------|------------------------------|--------------|------------------------|
| | | 1 - A28 (E) | 2 - A299 (S) | 3 - Canterbury Road (A28 SW) | 4 - A299 (W) | 5 - Potten Street Road |
| From | 1 - A28 (E) | 0 | 18 | 139 | 638 | 10 |
| | 2 - A299 (S) | 28 | 0 | 41 | 1243 | 13 |
| | 3 - Canterbury Road (A28 SW) | 338 | 32 | 0 | 28 | 5 |
| | 4 - A299 (W) | 1010 | 1296 | 13 | 0 | 6 |
| | 5 - Potten Street Road | 29 | 8 | 1 | 13 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | | |
|------|------------------------------|-------------|--------------|------------------------------|--------------|------------------------|
| | | 1 - A28 (E) | 2 - A299 (S) | 3 - Canterbury Road (A28 SW) | 4 - A299 (W) | 5 - Potten Street Road |
| From | 1 - A28 (E) | 0 | 7 | 7 | 4 | 0 |
| | 2 - A299 (S) | 10 | 0 | 0 | 4 | 10 |
| | 3 - Canterbury Road (A28 SW) | 1 | 8 | 0 | 10 | 0 |
| | 4 - A299 (W) | 3 | 4 | 21 | 0 | 0 |
| | 5 - Potten Street Road | 5 | 0 | 0 | 0 | 0 |

| | | | | | | | | | |
|------------------------------|------|-----|------|------|------|-------|-------|--------|---|
| 1 - A28 (E) | 617 | 154 | 1217 | 618 | 1212 | 2.9 | 1.8 | 0.186 | B |
| 2 - A299 (S) | 997 | 249 | 628 | 1027 | 1207 | 26.9 | 3.8 | 0.499 | D |
| 3 - Canterbury Road (A28 SW) | 305 | 76 | 1502 | 379 | 153 | 113.0 | 100.5 | 13.009 | F |
| 4 - A299 (W) | 1748 | 437 | 394 | 2027 | 1487 | 166.1 | 79.4 | 3.125 | F |
| 5 - Potten Street Road | 36 | 9 | 2392 | 37 | 29 | 0.1 | 0.1 | 0.169 | B |

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

16:30 - 16:45

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A28 (E) | Entry | 1 | 1 | 2, 3, (4) | 260 | 645 | 0.404 | 260 | 0.0 | 0.6 | 0.127 | A |
| | | | 2 | 1, 4, 5 | 350 | 653 | 0.536 | 351 | 0.0 | 1.0 | 0.153 | A |
| | Exit | 1 | 1 | | 1060 | | | 1060 | 0.0 | 0.0 | 0.000 | A |
| 2 - A299 (S) | Entry | 1 | 1 | 3, 4 | 734 | 1006 | 0.729 | 731 | 0.0 | 2.3 | 0.171 | B |
| | | | 2 | 1, 2, (4), 5 | 256 | 994 | 0.257 | 256 | 0.0 | 0.3 | 0.072 | A |
| | Exit | 1 | 1 | | 1016 | | | 1016 | 0.0 | 0.0 | 0.000 | A |
| 3 - Canterbury Road (A28 SW) | Entry | 1 | 1 | 4, 5 | 23 | 333 | 0.070 | 24 | 0.0 | 0.1 | 0.176 | B |
| | | | 2 | 1, 2, 3 | 280 | 359 | 0.781 | 280 | 0.0 | 1.8 | 0.332 | C |
| | | 2 | 1 | (1, 2, 3, 4, 5) | 304 | | | 304 | 0.0 | 1.6 | 0.211 | B |
| | Exit | 1 | 1 | | 149 | | | 149 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 (W) | Entry | 1 | 1 | 1, (2), 5 | 826 | 1115 | 0.741 | 824 | 0.0 | 2.4 | 0.176 | B |
| | | | 2 | 2, 3, 4 | 924 | 1103 | 0.838 | 921 | 0.0 | 4.4 | 0.252 | C |
| | Exit | 1 | 1 | | 1437 | | | 1437 | 0.0 | 0.0 | 0.000 | A |
| 5 - Potten Street Road | Entry | 1 | 1 | 1, 2, 3, 4, 5 | 41 | 627 | 0.065 | 41 | 0.0 | 0.1 | 0.090 | A |
| | Exit | 1 | 1 | | 25 | | | 25 | 0.0 | 0.0 | 0.000 | A |

16:45 - 17:00

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A28 (E) | Entry | 1 | 1 | 2, 3, (4) | 314 | 599 | 0.524 | 311 | 0.6 | 1.1 | 0.167 | B |
| | | | 2 | 1, 4, 5 | 407 | 613 | 0.665 | 405 | 1.0 | 1.6 | 0.216 | B |
| | Exit | 1 | 1 | | 1221 | | | 1221 | 0.0 | 0.0 | 0.000 | A |
| 2 - A299 (S) | Entry | 1 | 1 | 3, 4 | 851 | 973 | 0.875 | 844 | 2.3 | 5.5 | 0.330 | C |
| | | | 2 | 1, 2, (4), 5 | 329 | 970 | 0.339 | 328 | 0.3 | 0.5 | 0.091 | A |
| | Exit | 1 | 1 | | 1183 | | | 1183 | 0.0 | 0.0 | 0.000 | A |
| 3 - Canterbury Road (A28 SW) | Entry | 1 | 1 | 4, 5 | 26 | 291 | 0.089 | 27 | 0.1 | 0.1 | 0.245 | B |
| | | | 2 | 1, 2, 3 | 296 | 309 | 0.959 | 296 | 1.8 | 2.6 | 0.517 | D |
| | | 2 | 1 | (1, 2, 3, 4, 5) | 363 | | | 322 | 1.6 | 12.1 | 1.414 | F |
| | Exit | 1 | 1 | | 171 | | | 171 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 (W) | Entry | 1 | 1 | 1, (2), 5 | 993 | 1108 | 0.896 | 986 | 2.4 | 7.3 | 0.374 | C |
| | | | 2 | 2, 3, 4 | 1093 | 1094 | 0.999 | 1060 | 4.4 | 16.6 | 0.698 | E |
| | Exit | 1 | 1 | | 1699 | | | 1699 | 0.0 | 0.0 | 0.000 | A |
| 5 - Potten Street Road | Entry | 1 | 1 | 1, 2, 3, 4, 5 | 48 | 458 | 0.105 | 48 | 0.1 | 0.1 | 0.144 | A |
| | Exit | 1 | 1 | | 29 | | | 29 | 0.0 | 0.0 | 0.000 | A |

17:00 - 17:15

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A28 (E) | Entry | 1 | 1 | 2, 3, (4) | 409 | 583 | 0.704 | 406 | 1.1 | 2.0 | 0.259 | C |
| | | | 2 | 1, 4, 5 | 483 | 593 | 0.814 | 477 | 1.6 | 3.3 | 0.350 | C |
| | Exit | 1 | 1 | | 1288 | | | 1288 | 0.0 | 0.0 | 0.000 | A |
| 2 - A299 (S) | Entry | 1 | 1 | 3, 4 | 1017 | 922 | 1.104 | 914 | 5.5 | 32.1 | 1.300 | F |
| | | | 2 | 1, 2, (4), 5 | 444 | 911 | 0.487 | 443 | 0.5 | 1.0 | 0.125 | A |
| | Exit | 1 | 1 | | 1258 | | | 1258 | 0.0 | 0.0 | 0.000 | A |
| 3 - Canterbury Road (A28 SW) | Entry | 1 | 1 | 4, 5 | 22 | 232 | 0.096 | 22 | 0.1 | 0.1 | 0.286 | C |
| | | | 2 | 1, 2, 3 | 241 | 248 | 0.973 | 241 | 2.6 | 3.0 | 0.685 | E |
| | | 2 | 1 | (1, 2, 3, 4, 5) | 436 | | | 264 | 12.1 | 51.5 | 6.975 | F |
| | Exit | 1 | 1 | | 207 | | | 207 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 (W) | Entry | 1 | 1 | 1, (2), 5 | 1251 | 1120 | 1.115 | 1121 | 7.3 | 42.0 | 1.406 | F |
| | | | 2 | 2, 3, 4 | 1318 | 1109 | 1.191 | 1111 | 16.6 | 70.4 | 2.446 | F |
| | Exit | 1 | 1 | | 2003 | | | 2003 | 0.0 | 0.0 | 0.000 | A |
| 5 - Potten Street Road | Entry | 1 | 1 | 1, 2, 3, 4, 5 | 56 | 389 | 0.143 | 56 | 0.1 | 0.1 | 0.181 | B |
| | Exit | 1 | 1 | | 35 | | | 35 | 0.0 | 0.0 | 0.000 | A |

17:15 - 17:30

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|--------|
| 1 - A28 (E) | Entry | 1 | 1 | 2, 3, (4) | 401 | 581 | 0.690 | 402 | 2.0 | 1.8 | 0.278 | C |
| | | | 2 | 1, 4, 5 | 484 | 590 | 0.820 | 486 | 3.3 | 3.0 | 0.385 | C |
| | Exit | 1 | 1 | | 1292 | | | 1292 | 0.0 | 0.0 | 0.000 | A |
| 2 - A299 (S) | Entry | 1 | 1 | 3, 4 | 1012 | 923 | 1.099 | 928 | 32.1 | 51.4 | 2.748 | F |
| | | | 2 | 1, 2, (4), 5 | 455 | 909 | 0.500 | 455 | 1.0 | 0.9 | 0.132 | A |
| 3 - Canterbury Road (A28 SW) | Entry | 1 | 1 | 4, 5 | 21 | 229 | 0.092 | 21 | 0.1 | 0.1 | 0.317 | C |
| | | | 2 | 1, 2, 3 | 248 | 243 | 1.024 | 249 | 3.0 | 3.0 | 0.714 | E |
| | | | 2 | 1 | (1, 2, 3, 4, 5) | 442 | | | 269 | 51.5 | 94.6 | 15.517 |
| | Exit | 1 | 1 | | 210 | | | 210 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 (W) | Entry | 1 | 1 | 1, (2), 5 | 1240 | 1118 | 1.110 | 1120 | 42.0 | 74.8 | 3.227 | F |
| | | | 2 | 2, 3, 4 | 1310 | 1106 | 1.185 | 1107 | 70.4 | 121.9 | 5.258 | F |
| | Exit | 1 | 1 | | 2029 | | | 2029 | 0.0 | 0.0 | 0.000 | A |
| 5 - Potten Street Road | Entry | 1 | 1 | 1, 2, 3, 4, 5 | 56 | 388 | 0.144 | 57 | 0.1 | 0.2 | 0.198 | B |
| | Exit | 1 | 1 | | 35 | | | 35 | 0.0 | 0.0 | 0.000 | A |

17:30 - 17:45

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|--------|
| 1 - A28 (E) | Entry | 1 | 1 | 2, 3, (4) | 320 | 584 | 0.548 | 322 | 1.8 | 1.1 | 0.201 | B |
| | | | 2 | 1, 4, 5 | 408 | 592 | 0.689 | 405 | 3.0 | 1.8 | 0.258 | C |
| | Exit | 1 | 1 | | 1295 | | | 1295 | 0.0 | 0.0 | 0.000 | A |
| 2 - A299 (S) | Entry | 1 | 1 | 3, 4 | 838 | 966 | 0.867 | 928 | 51.4 | 26.2 | 2.424 | F |
| | | | 2 | 1, 2, (4), 5 | 361 | 964 | 0.374 | 360 | 0.9 | 0.7 | 0.102 | A |
| 3 - Canterbury Road (A28 SW) | Entry | 1 | 1 | 4, 5 | 27 | 264 | 0.101 | 26 | 0.1 | 0.1 | 0.279 | C |
| | | | 2 | 1, 2, 3 | 286 | 285 | 1.007 | 286 | 3.0 | 3.0 | 0.641 | E |
| | | | 2 | 1 | (1, 2, 3, 4, 5) | 359 | | | 313 | 94.6 | 109.9 | 17.931 |
| | Exit | 1 | 1 | | 178 | | | 178 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 (W) | Entry | 1 | 1 | 1, (2), 5 | 1015 | 1111 | 0.914 | 1106 | 74.8 | 52.6 | 3.474 | F |
| | | | 2 | 2, 3, 4 | 1067 | 1098 | 0.971 | 1101 | 121.9 | 113.5 | 6.475 | F |
| | Exit | 1 | 1 | | 1820 | | | 1820 | 0.0 | 0.0 | 0.000 | A |
| 5 - Potten Street Road | Entry | 1 | 1 | 1, 2, 3, 4, 5 | 44 | 382 | 0.115 | 44 | 0.2 | 0.1 | 0.184 | B |
| | Exit | 1 | 1 | | 31 | | | 31 | 0.0 | 0.0 | 0.000 | A |

17:45 - 18:00

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|--------|
| 1 - A28 (E) | Entry | 1 | 1 | 2, 3, (4) | 268 | 596 | 0.450 | 269 | 1.1 | 0.7 | 0.165 | A |
| | | | 2 | 1, 4, 5 | 349 | 605 | 0.578 | 349 | 1.8 | 1.1 | 0.201 | B |
| | Exit | 1 | 1 | | 1212 | | | 1212 | 0.0 | 0.0 | 0.000 | A |
| 2 - A299 (S) | Entry | 1 | 1 | 3, 4 | 737 | 1004 | 0.734 | 767 | 26.2 | 3.5 | 0.659 | E |
| | | | 2 | 1, 2, (4), 5 | 260 | 996 | 0.261 | 261 | 0.7 | 0.3 | 0.081 | A |
| 3 - Canterbury Road (A28 SW) | Entry | 1 | 1 | 4, 5 | 31 | 330 | 0.095 | 31 | 0.1 | 0.1 | 0.231 | B |
| | | | 2 | 1, 2, 3 | 348 | 351 | 0.991 | 348 | 3.0 | 3.0 | 0.535 | D |
| | | | 2 | 1 | (1, 2, 3, 4, 5) | 305 | | | 379 | 109.9 | 97.4 | 12.783 |
| | Exit | 1 | 1 | | 153 | | | 153 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 (W) | Entry | 1 | 1 | 1, (2), 5 | 856 | 1096 | 0.782 | 957 | 52.6 | 14.0 | 1.664 | F |
| | | | 2 | 2, 3, 4 | 892 | 1083 | 0.823 | 1070 | 113.5 | 65.3 | 4.779 | F |
| 5 - Potten Street Road | Exit | 1 | 1 | | 1487 | | | 1487 | 0.0 | 0.0 | 0.000 | A |
| | Entry | 1 | 1 | 1, 2, 3, 4, 5 | 36 | 444 | 0.081 | 37 | 0.1 | 0.1 | 0.169 | B |
| 5 - Potten Street Road | Exit | 1 | 1 | | 29 | | | 29 | 0.0 | 0.0 | 0.000 | A |

Lane Simulation - 2039 + Dev Traffic, Airport Peak

Data Errors and Warnings

| Severity | Area | Item | Description |
|----------|-----------------|--|---|
| Warning | Lane Simulation | A2 - Lane Simulation [Lane Simulation] | This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results. |

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (min) | Junction LOS |
|----------|----------|---------------------|---------------|----------------------|--------------|
| 1 | untitled | Standard Roundabout | 1, 2, 3, 4, 5 | 0.29 | C |

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 |
|-----|--------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D11 | 2039 + Dev Traffic | Airport Peak | ONE HOUR | 12:45 | 14:15 | 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 (%) |
|------------------------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - A28 (E) | | ONE HOUR | ✓ | 719 | 100.000 |
| 2 - A299 (S) | | ONE HOUR | ✓ | 861 | 100.000 |
| 3 - Canterbury Road (A28 SW) | | ONE HOUR | ✓ | 255 | 100.000 |
| 4 - A299 (W) | | ONE HOUR | ✓ | 1423 | 100.000 |
| 5 - Potten Street Road | | ONE HOUR | ✓ | 22 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | | |
|------|------------------------------|-------------|--------------|------------------------------|--------------|------------------------|
| | | 1 - A28 (E) | 2 - A299 (S) | 3 - Canterbury Road (A28 SW) | 4 - A299 (W) | 5 - Potten Street Road |
| From | 1 - A28 (E) | 0 | 42 | 182 | 486 | 9 |
| | 2 - A299 (S) | 17 | 0 | 24 | 817 | 3 |
| | 3 - Canterbury Road (A28 SW) | 200 | 31 | 0 | 20 | 4 |
| | 4 - A299 (W) | 575 | 820 | 21 | 0 | 7 |
| | 5 - Potten Street Road | 16 | 4 | 1 | 1 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | | | |
|------|------------------------------|-------------|--------------|------------------------------|--------------|------------------------|
| | | 1 - A28 (E) | 2 - A299 (S) | 3 - Canterbury Road (A28 SW) | 4 - A299 (W) | 5 - Potten Street Road |
| From | 1 - A28 (E) | 0 | 13 | 9 | 3 | 0 |
| | 2 - A299 (S) | 16 | 0 | 6 | 14 | 0 |
| | 3 - Canterbury Road (A28 SW) | 3 | 4 | 0 | 14 | 0 |
| | 4 - A299 (W) | 4 | 14 | 13 | 0 | 0 |
| | 5 - Potten Street Road | 9 | 34 | 0 | 100 | 0 |

| | | | | | | | | | |
|------------------------------|------|-----|------|------|-----|-----|-----|-------|---|
| 1 - A28 (E) | 529 | 132 | 666 | 529 | 624 | 1.4 | 1.0 | 0.120 | A |
| 2 - A299 (S) | 642 | 161 | 514 | 642 | 681 | 1.8 | 1.3 | 0.116 | A |
| 3 - Canterbury Road (A28 SW) | 194 | 48 | 988 | 194 | 168 | 1.1 | 0.8 | 0.236 | B |
| 4 - A299 (W) | 1089 | 272 | 199 | 1089 | 982 | 3.5 | 2.2 | 0.119 | A |
| 5 - Potten Street Road | 17 | 4 | 1273 | 17 | 16 | 0.0 | 0.0 | 0.076 | A |

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

12:45 - 13:00

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A28 (E) | Entry | 1 | 1 | 2, 3, (4) | 257 | 706 | 0.364 | 256 | 0.0 | 0.5 | 0.110 | A |
| | | | 2 | 1, 4, 5 | 277 | 741 | 0.375 | 276 | 0.0 | 0.6 | 0.110 | A |
| | Exit | 1 | 1 | | 615 | | | 615 | 0.0 | 0.0 | 0.000 | A |
| 2 - A299 (S) | Entry | 1 | 1 | 3, 4 | 501 | 947 | 0.529 | 501 | 0.0 | 1.2 | 0.123 | A |
| | | | 2 | 1, 2, (4), 5 | 150 | 944 | 0.159 | 149 | 0.0 | 0.2 | 0.068 | A |
| | Exit | 1 | 1 | | 672 | | | 672 | 0.0 | 0.0 | 0.000 | A |
| 3 - Canterbury Road (A28 SW) | Entry | 1 | 1 | 4, 5 | 18 | 394 | 0.045 | 18 | 0.0 | 0.0 | 0.148 | A |
| | | | 2 | 1, 2, 3 | 175 | 429 | 0.407 | 175 | 0.0 | 0.6 | 0.196 | B |
| | | 2 | 1 | (1, 2, 3, 4, 5) | 192 | | | 193 | 0.0 | 0.0 | 0.012 | A |
| | Exit | 1 | 1 | | 166 | | | 166 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 (W) | Entry | 1 | 1 | 1, (2), 5 | 480 | 1130 | 0.425 | 481 | 0.0 | 0.7 | 0.089 | A |
| | | | 2 | 2, 3, 4 | 593 | 1039 | 0.571 | 593 | 0.0 | 1.2 | 0.129 | A |
| | Exit | 1 | 1 | | 992 | | | 992 | 0.0 | 0.0 | 0.000 | A |
| 5 - Potten Street Road | Entry | 1 | 1 | 1, 2, 3, 4, 5 | 16 | 867 | 0.019 | 16 | 0.0 | 0.0 | 0.058 | A |
| | Exit | 1 | 1 | | 19 | | | 19 | 0.0 | 0.0 | 0.000 | A |

13:00 - 13:15

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A28 (E) | Entry | 1 | 1 | 2, 3, (4) | 305 | 675 | 0.451 | 306 | 0.5 | 0.6 | 0.137 | A |
| | | | 2 | 1, 4, 5 | 332 | 703 | 0.473 | 333 | 0.6 | 0.7 | 0.136 | A |
| | Exit | 1 | 1 | | 732 | | | 732 | 0.0 | 0.0 | 0.000 | A |
| 2 - A299 (S) | Entry | 1 | 1 | 3, 4 | 593 | 914 | 0.648 | 596 | 1.2 | 1.5 | 0.165 | A |
| | | | 2 | 1, 2, (4), 5 | 187 | 909 | 0.205 | 186 | 0.2 | 0.3 | 0.077 | A |
| | Exit | 1 | 1 | | 799 | | | 799 | 0.0 | 0.0 | 0.000 | A |
| 3 - Canterbury Road (A28 SW) | Entry | 1 | 1 | 4, 5 | 21 | 361 | 0.058 | 21 | 0.0 | 0.1 | 0.179 | B |
| | | | 2 | 1, 2, 3 | 205 | 389 | 0.527 | 206 | 0.6 | 0.9 | 0.277 | C |
| | | 2 | 1 | (1, 2, 3, 4, 5) | 225 | | | 226 | 0.0 | 0.2 | 0.059 | A |
| | Exit | 1 | 1 | | 206 | | | 206 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 (W) | Entry | 1 | 1 | 1, (2), 5 | 576 | 1119 | 0.515 | 575 | 0.7 | 1.1 | 0.109 | A |
| | | | 2 | 2, 3, 4 | 709 | 1030 | 0.688 | 704 | 1.2 | 2.5 | 0.185 | B |
| | Exit | 1 | 1 | | 1190 | | | 1190 | 0.0 | 0.0 | 0.000 | A |
| 5 - Potten Street Road | Entry | 1 | 1 | 1, 2, 3, 4, 5 | 19 | 766 | 0.025 | 19 | 0.0 | 0.0 | 0.082 | A |
| | Exit | 1 | 1 | | 19 | | | 19 | 0.0 | 0.0 | 0.000 | A |

13:15 - 13:30

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-----|
| 1 - A28 (E) | Entry | 1 | 1 | 2, 3, (4) | 378 | 625 | 0.606 | 381 | 0.6 | 1.3 | 0.194 | B |
| | | | 2 | 1, 4, 5 | 411 | 653 | 0.630 | 412 | 0.7 | 1.5 | 0.199 | B |
| | Exit | 1 | 1 | | 888 | | | 888 | 0.0 | 0.0 | 0.000 | A |
| 2 - A299 (S) | Entry | 1 | 1 | 3, 4 | 703 | 875 | 0.803 | 702 | 1.5 | 3.3 | 0.279 | C |
| | | | 2 | 1, 2, (4), 5 | 249 | 876 | 0.285 | 249 | 0.3 | 0.4 | 0.094 | A |
| | Exit | 1 | 1 | | 984 | | | 984 | 0.0 | 0.0 | 0.000 | A |
| 3 - Canterbury Road (A28 SW) | Entry | 1 | 1 | 4, 5 | 25 | 305 | 0.083 | 26 | 0.1 | 0.1 | 0.210 | B |
| | | | 2 | 1, 2, 3 | 250 | 335 | 0.747 | 251 | 0.9 | 1.7 | 0.382 | C |
| | | 2 | 1 | (1, 2, 3, 4, 5) | 276 | | | 276 | 0.2 | 1.4 | 0.244 | B |
| | Exit | 1 | 1 | | 250 | | | 250 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 (W) | Entry | 1 | 1 | 1, (2), 5 | 709 | 1105 | 0.641 | 709 | 1.1 | 1.8 | 0.143 | A |
| | | | 2 | 2, 3, 4 | 858 | 1016 | 0.844 | 854 | 2.5 | 5.1 | 0.325 | C |
| | Exit | 1 | 1 | | 1462 | | | 1462 | 0.0 | 0.0 | 0.000 | A |
| 5 - Potten Street Road | Entry | 1 | 1 | 1, 2, 3, 4, 5 | 23 | 593 | 0.038 | 23 | 0.0 | 0.0 | 0.104 | A |
| | Exit | 1 | 1 | | 24 | | | 24 | 0.0 | 0.0 | 0.000 | A |

13:30 - 13:45

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-------|
| 1 - A28 (E) | Entry | 1 | 1 | 2, 3, (4) | 382 | 622 | 0.614 | 382 | 1.3 | 1.4 | 0.205 | B |
| | | | 2 | 1, 4, 5 | 415 | 651 | 0.637 | 416 | 1.5 | 1.4 | 0.209 | B |
| | Exit | 1 | 1 | | 893 | | | 893 | 0.0 | 0.0 | 0.000 | A |
| 2 - A299 (S) | Entry | 1 | 1 | 3, 4 | 702 | 876 | 0.802 | 706 | 3.3 | 3.3 | 0.318 | C |
| | | | 2 | 1, 2, (4), 5 | 254 | 870 | 0.292 | 255 | 0.4 | 0.4 | 0.096 | A |
| | Exit | 1 | 1 | | 991 | | | 991 | 0.0 | 0.0 | 0.000 | A |
| 3 - Canterbury Road (A28 SW) | Entry | 1 | 1 | 4, 5 | 27 | 300 | 0.088 | 27 | 0.1 | 0.1 | 0.208 | B |
| | | | 2 | 1, 2, 3 | 252 | 332 | 0.759 | 251 | 1.7 | 1.8 | 0.414 | C |
| | | | 2 | 1 | (1, 2, 3, 4, 5) | 278 | | | 278 | 1.4 | 1.7 | 0.342 |
| | Exit | 1 | 1 | | 251 | | | 251 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 (W) | Entry | 1 | 1 | 1, (2), 5 | 717 | 1103 | 0.650 | 715 | 1.8 | 1.9 | 0.147 | A |
| | | | 2 | 2, 3, 4 | 861 | 1014 | 0.849 | 860 | 5.1 | 5.6 | 0.372 | C |
| | Exit | 1 | 1 | | 1476 | | | 1476 | 0.0 | 0.0 | 0.000 | A |
| 5 - Potten Street Road | Entry | 1 | 1 | 1, 2, 3, 4, 5 | 26 | 607 | 0.042 | 25 | 0.0 | 0.1 | 0.107 | A |
| | Exit | 1 | 1 | | 25 | | | 25 | 0.0 | 0.0 | 0.000 | A |

13:45 - 14:00

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-------|
| 1 - A28 (E) | Entry | 1 | 1 | 2, 3, (4) | 311 | 674 | 0.462 | 312 | 1.4 | 0.7 | 0.150 | A |
| | | | 2 | 1, 4, 5 | 330 | 701 | 0.471 | 330 | 1.4 | 0.7 | 0.146 | A |
| | Exit | 1 | 1 | | 726 | | | 726 | 0.0 | 0.0 | 0.000 | A |
| 2 - A299 (S) | Entry | 1 | 1 | 3, 4 | 584 | 914 | 0.640 | 586 | 3.3 | 1.6 | 0.193 | B |
| | | | 2 | 1, 2, (4), 5 | 186 | 912 | 0.204 | 186 | 0.4 | 0.2 | 0.080 | A |
| | Exit | 1 | 1 | | 806 | | | 806 | 0.0 | 0.0 | 0.000 | A |
| 3 - Canterbury Road (A28 SW) | Entry | 1 | 1 | 4, 5 | 23 | 356 | 0.066 | 24 | 0.1 | 0.0 | 0.190 | B |
| | | | 2 | 1, 2, 3 | 209 | 388 | 0.537 | 211 | 1.8 | 0.9 | 0.317 | C |
| | | | 2 | 1 | (1, 2, 3, 4, 5) | 231 | | | 232 | 1.7 | 0.2 | 0.118 |
| | Exit | 1 | 1 | | 201 | | | 201 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 (W) | Entry | 1 | 1 | 1, (2), 5 | 566 | 1121 | 0.505 | 566 | 1.9 | 1.1 | 0.115 | A |
| | | | 2 | 2, 3, 4 | 708 | 1031 | 0.687 | 705 | 5.6 | 2.4 | 0.220 | B |
| | Exit | 1 | 1 | | 1187 | | | 1187 | 0.0 | 0.0 | 0.000 | A |
| 5 - Potten Street Road | Entry | 1 | 1 | 1, 2, 3, 4, 5 | 21 | 731 | 0.029 | 21 | 0.1 | 0.0 | 0.091 | A |
| | Exit | 1 | 1 | | 21 | | | 21 | 0.0 | 0.0 | 0.000 | A |

14:00 - 14:15

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (Veh/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (min) | LOS |
|------------------------------|-------|------------|------|------------------|-----------------------|-------------------|-------|---------------------|-------------------|-----------------|-------------|-------|
| 1 - A28 (E) | Entry | 1 | 1 | 2, 3, (4) | 253 | 707 | 0.357 | 254 | 0.7 | 0.5 | 0.121 | A |
| | | | 2 | 1, 4, 5 | 276 | 735 | 0.375 | 275 | 0.7 | 0.5 | 0.119 | A |
| | Exit | 1 | 1 | | 624 | | | 624 | 0.0 | 0.0 | 0.000 | A |
| 2 - A299 (S) | Entry | 1 | 1 | 3, 4 | 501 | 945 | 0.529 | 501 | 1.6 | 1.1 | 0.129 | A |
| | | | 2 | 1, 2, (4), 5 | 141 | 949 | 0.149 | 141 | 0.2 | 0.2 | 0.071 | A |
| | Exit | 1 | 1 | | 681 | | | 681 | 0.0 | 0.0 | 0.000 | A |
| 3 - Canterbury Road (A28 SW) | Entry | 1 | 1 | 4, 5 | 18 | 407 | 0.043 | 18 | 0.0 | 0.0 | 0.166 | A |
| | | | 2 | 1, 2, 3 | 176 | 430 | 0.410 | 176 | 0.9 | 0.7 | 0.222 | B |
| | | | 2 | 1 | (1, 2, 3, 4, 5) | 194 | | | 194 | 0.2 | 0.1 | 0.020 |
| | Exit | 1 | 1 | | 168 | | | 168 | 0.0 | 0.0 | 0.000 | A |
| 4 - A299 (W) | Entry | 1 | 1 | 1, (2), 5 | 489 | 1131 | 0.432 | 489 | 1.1 | 0.8 | 0.091 | A |
| | | | 2 | 2, 3, 4 | 600 | 1039 | 0.578 | 601 | 2.4 | 1.4 | 0.142 | A |
| | Exit | 1 | 1 | | 982 | | | 982 | 0.0 | 0.0 | 0.000 | A |
| 5 - Potten Street Road | Entry | 1 | 1 | 1, 2, 3, 4, 5 | 17 | 877 | 0.019 | 17 | 0.0 | 0.0 | 0.076 | A |
| | Exit | 1 | 1 | | 16 | | | 16 | 0.0 | 0.0 | 0.000 | A |

| |
|---|
| Junctions 9 |
| ARCADY 9 - Roundabout Module |
| Version: 9.0.2.5947 © Copyright TRL Limited, 2017 |
| For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 770558 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: Jct 8a_A28_Station Rd_R3_Val.j9

Path: R:\Projects\38199 Manston Airport DCO EIA\4 Design\Transport\Junction Modelling\Base Models\Validated\Jct 8 Manston Rd_Station Rd

Report generation date: 29/01/2018 10:09:53

«ARCADY and PICADY module - 2039 B+Dev_Net Change, Airport Peak

- »Junction Network
- »Arms
- »Traffic Demand
- »Origin-Destination Data
- »Vehicle Mix
- »Results

Summary of junction performance

| | AM | | | | | | | PM | | | | | | | Airport Peak | | | | | | | |
|---|-------------|-----------|------|-----|--------------------|--------------|---------------------------|-------------|-----------|------|-----|--------------------|--------------|---------------------------|--------------|-----------|------|-----|--------------------|--------------|---------------------------|---------------|
| | Queue (Veh) | Delay (s) | RFC | LOS | Junction Delay (s) | Junction LOS | Network Residual Capacity | Queue (Veh) | Delay (s) | RFC | LOS | Junction Delay (s) | Junction LOS | Network Residual Capacity | Queue (Veh) | Delay (s) | RFC | LOS | Junction Delay (s) | Junction LOS | Network Residual Capacity | |
| ARCADY and PICADY module - 2017 | | | | | | | | | | | | | | | | | | | | | | |
| 1 - A28 (E) | 13.9 | 60.96 | 0.97 | F | | | -12 % | 4.8 | 21.86 | 0.84 | C | | | -7 % | | | | | | | | |
| 2 - A28 (S) | 2.8 | 12.89 | 0.74 | B | 58.72 | F | [3 - Station Rd] | 9.1 | 35.73 | 0.92 | E | 34.08 | D | [2 - A28 (S)] | | | | | | | | |
| 3 - Station Rd | 18.9 | 126.78 | 1.02 | F | | | | 5.9 | 53.97 | 0.88 | F | | | | | | | | | | | |
| ARCADY and PICADY module - 2017 Baseline Traffic | | | | | | | | | | | | | | | | | | | | | | |
| 1 - A28 (E) | 13.8 | 60.48 | 0.96 | F | | | -12 % | 4.8 | 21.91 | 0.84 | C | | | -7 % | 2.6 | 13.57 | 0.72 | B | | | | 2 % |
| 2 - A28 (S) | 2.8 | 12.97 | 0.75 | B | 58.78 | F | [3 - Station Rd] | 9.1 | 35.84 | 0.92 | E | 34.15 | D | [2 - A28 (S)] | 4.2 | 22.68 | 0.82 | C | 18.40 | C | | [2 - A28 (S)] |
| 3 - Station Rd | 19.1 | 127.81 | 1.02 | F | | | | 5.9 | 53.99 | 0.88 | F | | | | 2.2 | 19.51 | 0.70 | C | | | | |
| ARCADY and PICADY module - 2039 Growthed Traffic | | | | | | | | | | | | | | | | | | | | | | |
| 1 - A28 (E) | 92.7 | 377.04 | 1.17 | F | | | -30 % | 48.9 | 157.47 | 1.08 | F | | | -26 % | 26.2 | 99.21 | 1.02 | F | | | | -23 % |
| 2 - A28 (S) | 11.3 | 42.90 | 0.94 | E | 391.07 | F | [3 - Station Rd] | 106.7 | 356.10 | 1.18 | F | 287.09 | F | [2 - A28 (S)] | 94.9 | 426.50 | 1.23 | F | 218.60 | F | | [2 - A28 (S)] |
| 3 - Station Rd | 138.0 | 956.93 | 1.50 | F | | | | 48.5 | 380.05 | 1.18 | F | | | | 11.7 | 79.30 | 0.96 | F | | | | |
| ARCADY and PICADY module - 2039 + Dev Traffic | | | | | | | | | | | | | | | | | | | | | | |
| 1 - A28 (E) | 94.4 | 385.40 | 1.18 | F | | | -30 % | 49.9 | 160.32 | 1.08 | F | | | -27 % | 28.3 | 106.22 | 1.03 | F | | | | -24 % |
| 2 - A28 (S) | 11.5 | 43.66 | 0.94 | E | 402.27 | F | [3 - Station Rd] | 115.6 | 391.37 | 1.20 | F | 303.37 | F | [2 - A28 (S)] | 96.3 | 437.49 | 1.24 | F | 228.71 | F | | [2 - A28 (S)] |
| 3 - Station Rd | 144.1 | 985.20 | 1.52 | F | | | | 48.4 | 375.42 | 1.17 | F | | | | 14.6 | 95.00 | 0.98 | F | | | | |
| ARCADY and PICADY module - 2039 B+Dev_Net Change | | | | | | | | | | | | | | | | | | | | | | |
| 1 - A28 (E) | 9.6 | 40.51 | 0.93 | E | | | -8 % | 5.7 | 23.91 | 0.86 | C | | | -3 % | 4.4 | 20.12 | 0.82 | C | | | | -3 % |
| 2 - A28 (S) | 2.5 | 12.07 | 0.72 | B | 29.65 | D | [1 - A28 (E)] | 6.2 | 26.17 | 0.87 | D | 30.73 | D | [2 - A28 (S)] | 6.2 | 36.41 | 0.88 | E | 26.89 | D | | [2 - A28 (S)] |
| 3 - Station Rd | 4.3 | 39.36 | 0.83 | E | | | | 5.7 | 57.01 | 0.88 | F | | | | 3.0 | 25.80 | 0.76 | D | | | | |

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

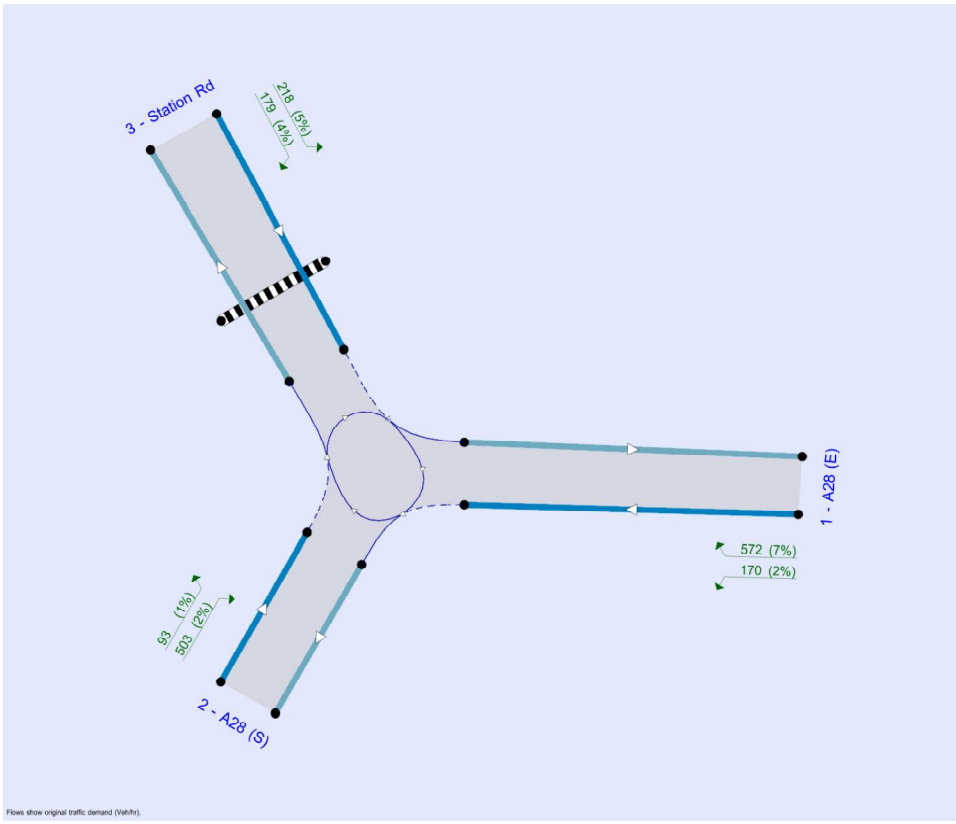
File summary

File Description

| | |
|-------------|------------------|
| Title | (untitled) |
| Location | |
| Site number | |
| Date | 02/10/2017 |
| Version | |
| Status | (new file) |
| Identifier | |
| Client | |
| Jobnumber | |
| Enumerator | GLOBAL\fuad.huda |
| 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

| Mini-roundabout model | Vehicle length (m) | Calculate Queue Percentiles | Calculate detailed queueing delay | Calculate residual capacity | Residual capacity criteria type | RFC Threshold | Average Delay threshold (s) | Queue threshold (PCU) |
|-----------------------|--------------------|-----------------------------|-----------------------------------|-----------------------------|---------------------------------|---------------|-----------------------------|-----------------------|
| JUNCTIONS 9 | 5.75 | | | ✓ | RFC | 0.85 | 36.00 | 20.00 |

Analysis Set Details

| ID | Name | Include in report | Network flow scaling factor (%) | Network capacity scaling factor (%) |
|----|--------------------------|-------------------|---------------------------------|-------------------------------------|
| A1 | ARCADY and PICADY module | ✓ | 100.000 | 100.000 |

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 |
|-----|-----------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D14 | 2039 B+Dev_Net Change | Airport Peak | ONE HOUR | 12:45 | 14:15 | 15 | ✓ |

ARCADY and PICADY module - 2039 B+Dev_Net Change, Airport Peak

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

| Junction | Name | Junction Type | Arm order | Junction Delay (s) | Junction LOS |
|----------|----------|-----------------|-----------|--------------------|--------------|
| 1 | untitled | Mini-roundabout | 1, 2, 3 | 26.89 | D |

Junction Network Options

| Driving side | Lighting | Road surface | In London | Network residual capacity (%) | First arm reaching threshold |
|--------------|----------------|----------------|-----------|-------------------------------|------------------------------|
| Left | Normal/unknown | Normal/unknown | | -3 | 2 - A28 (S) |

Arms

Arms

| Arm | Name | Description |
|-----|------------|-------------|
| 1 | A28 (E) | |
| 2 | A28 (S) | |
| 3 | Station Rd | |

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 |
|----------------|------------------------------|--------------------------------------|-----------------|----------------------------|--------------------------|-------------------------------------|-----------------------|-----------------------|
| 1 - A28 (E) | 3.08 | 3.08 | 6.11 | 45.0 | 14.56 | 8.18 | 0.0 | |
| 2 - A28 (S) | 3.82 | 3.82 | 7.20 | 17.2 | 13.47 | 7.36 | 0.0 | |
| 3 - Station Rd | 3.65 | 3.65 | 9.21 | 16.2 | 16.43 | 15.73 | 0.0 | |

Zebra Crossings

| Arm | Space between crossing and junction entry (Zebra) (PCU) | Vehicles queueing on exit (Zebra) (PCU) | Central Refuge | Crossing data type | Crossing length (m) | Crossing time (s) |
|----------------|---|---|----------------|--------------------|---------------------|-------------------|
| 3 - Station Rd | 7.00 | 6.00 | | Distance | 9.50 | 6.79 |

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

| Arm | Final slope | Final intercept (PCU/hr) |
|----------------|-------------|--------------------------|
| 1 - A28 (E) | 0.689 | 1283 |
| 2 - A28 (S) | 0.701 | 1232 |
| 3 - Station Rd | 0.751 | 1423 |

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

Arm Capacity Adjustments

| Arm | Type | Reason | Percentage capacity adjustment (%) |
|----------------|------------|--------|------------------------------------|
| 1 - A28 (E) | Percentage | | 92.00 |
| 2 - A28 (S) | Percentage | | 100.00 |
| 3 - Station Rd | Percentage | | 60.00 |

Traffic Demand

| 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 (%) |
|----------------|------------|--------------|--------------|-------------------------|--------------------|
| 1 - A28 (E) | | ONE HOUR | ✓ | 742 | 100.000 |
| 2 - A28 (S) | | ONE HOUR | ✓ | 596 | 100.000 |
| 3 - Station Rd | | ONE HOUR | ✓ | 397 | 100.000 |

Demand overview (Pedestrians)

| Arm | Profile type | Average pedestrian flow (Ped/hr) |
|----------------|--------------|----------------------------------|
| 1 - A28 (E) | | |
| 2 - A28 (S) | | |
| 3 - Station Rd | [ONEHOUR] | 10.00 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | |
|------|----------------|-------------|-------------|----------------|
| | | 1 - A28 (E) | 2 - A28 (S) | 3 - Station Rd |
| From | 1 - A28 (E) | 0 | 170 | 572 |
| | 2 - A28 (S) | 503 | 0 | 93 |
| | 3 - Station Rd | 218 | 179 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | |
|------|----------------|-------------|-------------|----------------|
| | | 1 - A28 (E) | 2 - A28 (S) | 3 - Station Rd |
| From | 1 - A28 (E) | 0 | 2 | 7 |
| | 2 - A28 (S) | 2 | 0 | 1 |
| | 3 - Station Rd | 5 | 4 | 0 |

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) |
|----------------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| 1 - A28 (E) | 0.82 | 20.12 | 4.4 | C | 681 | 1021 |
| 2 - A28 (S) | 0.88 | 36.41 | 6.2 | E | 547 | 820 |
| 3 - Station Rd | 0.76 | 25.80 | 3.0 | D | 364 | 546 |

Main Results for each time segment

12:45 - 13:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | LOS |
|----------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-----|
| 1 - A28 (E) | 559 | 140 | 133 | | 1032 | 0.541 | 554 | 538 | 0.0 | 1.2 | 7.458 | A |
| 2 - A28 (S) | 449 | 112 | 427 | | 896 | 0.501 | 445 | 260 | 0.0 | 1.0 | 7.915 | A |
| 3 - Station Rd | 299 | 75 | 375 | 7.53 | 652 | 0.459 | 296 | 496 | 0.0 | 0.8 | 10.024 | B |

13:00 - 13:15

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | LOS |
|----------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-----|
| 1 - A28 (E) | 667 | 167 | 160 | | 1016 | 0.657 | 664 | 645 | 1.2 | 1.9 | 10.163 | B |
| 2 - A28 (S) | 536 | 134 | 512 | | 833 | 0.643 | 533 | 312 | 1.0 | 1.7 | 11.867 | B |
| 3 - Station Rd | 357 | 89 | 450 | 8.99 | 619 | 0.577 | 355 | 595 | 0.8 | 1.3 | 13.537 | B |

13:15 - 13:30

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | LOS |
|----------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-----|
| 1 - A28 (E) | 817 | 204 | 194 | | 994 | 0.822 | 808 | 778 | 1.9 | 4.1 | 18.453 | C |
| 2 - A28 (S) | 656 | 164 | 623 | | 751 | 0.874 | 641 | 379 | 1.7 | 5.5 | 29.450 | D |
| 3 - Station Rd | 437 | 109 | 541 | 11.01 | 579 | 0.755 | 431 | 723 | 1.3 | 2.8 | 23.504 | C |

13:30 - 13:45

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | LOS |
|----------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-----|
| 1 - A28 (E) | 817 | 204 | 197 | | 993 | 0.823 | 816 | 791 | 4.1 | 4.4 | 20.121 | C |
| 2 - A28 (S) | 656 | 164 | 629 | | 746 | 0.879 | 653 | 384 | 5.5 | 6.2 | 36.408 | E |
| 3 - Station Rd | 437 | 109 | 551 | 11.01 | 574 | 0.761 | 436 | 731 | 2.8 | 3.0 | 25.798 | D |

13:45 - 14:00

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | LOS |
|----------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-----|
| 1 - A28 (E) | 667 | 167 | 164 | | 1013 | 0.658 | 677 | 666 | 4.4 | 2.0 | 10.978 | B |
| 2 - A28 (S) | 536 | 134 | 522 | | 826 | 0.649 | 553 | 319 | 6.2 | 1.9 | 13.943 | B |
| 3 - Station Rd | 357 | 89 | 467 | 8.99 | 611 | 0.584 | 363 | 608 | 3.0 | 1.5 | 14.834 | B |

14:00 - 14:15

| Arm | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Circulating flow (Veh/hr) | Pedestrian demand (Ped/hr) | Capacity (Veh/hr) | RFC | Throughput (Veh/hr) | Throughput (exit side) (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | LOS |
|----------------|-----------------------|-------------------------|---------------------------|----------------------------|-------------------|-------|---------------------|---------------------------------|-------------------|-----------------|-----------|-----|
| 1 - A28 (E) | 559 | 140 | 136 | | 1031 | 0.542 | 562 | 547 | 2.0 | 1.2 | 7.728 | A |
| 2 - A28 (S) | 449 | 112 | 433 | | 891 | 0.503 | 452 | 265 | 1.9 | 1.0 | 8.264 | A |
| 3 - Station Rd | 299 | 75 | 382 | 7.53 | 649 | 0.461 | 301 | 504 | 1.5 | 0.9 | 10.425 | B |

| |
|--|
| Junctions 9 |
| PICADY 9 - Priority Intersection Module |
| Version: 9.0.2.5947 © Copyright TRL Limited, 2017 |
| For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 770558 software@trl.co.uk www.trlsoftware.co.uk |
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File name: Jct 8b_A28_Park Ln_R3_Val.j9
 Path: R:\Projects\38199 Manston Airport DCO EIA\4 Design\Transport\Junction Modelling\Base Models\Validated\Jct 8 Manston Rd_Station Rd
 Report generation date: 05/02/2018 15:19:38

«Lane simulation - 2039 + Dev Traffic, Airport Peak

- »Junction Network
- »Arms
- »Traffic Demand
- »Origin-Destination Data
- »Vehicle Mix
- »Results
- »Lane Results

Summary of junction performance

| | AM | | | | | | PM | | | | | | Airport Peak | | | | | | | | |
|---|-------------|-----------|-----|-----|--------------------|--------------|---------------------------|-------------|-----------|-----|-----|--------------------|--------------|---------------------------|-------------|-----------|-----|-----|--------------------|--------------|---------------------------|
| | Queue (PCU) | Delay (s) | RFC | LOS | Junction Delay (s) | Junction LOS | Network Residual Capacity | Queue (PCU) | Delay (s) | RFC | LOS | Junction Delay (s) | Junction LOS | Network Residual Capacity | Queue (PCU) | Delay (s) | RFC | LOS | Junction Delay (s) | Junction LOS | Network Residual Capacity |
| Lane simulation [Lane Simulation] - 2017 Baseline Traffic | | | | | | | | | | | | | | | | | | | | | |
| A - A28 (N) | 0.0 | 0.00 | | A | 6.85 | A | % | 0.0 | 0.00 | | A | 13.17 | B | % | 0.0 | 0.00 | | A | 4.28 | A | % |
| B - Park Lane | 2.9 | 67.75 | | F | | | | 6.7 | 98.97 | | F | | | | 1.5 | 29.91 | | D | | | |
| C - A28 (S) | 1.5 | 6.06 | | A | | | | 0.9 | 3.40 | | A | | | | 0.5 | 2.52 | | A | | | |
| Lane simulation [Lane Simulation] - 2039 Growthed Traffic | | | | | | | | | | | | | | | | | | | | | |
| A - A28 (N) | 0.0 | 0.00 | | A | 75.40 | F | % | 0.0 | 0.00 | | A | 95.14 | F | % | 0.0 | 0.00 | | A | 24.30 | C | % |
| B - Park Lane | 50.2 | 853.71 | | F | | | | 56.9 | 781.19 | | F | | | | 14.5 | 202.46 | | F | | | |
| C - A28 (S) | 5.2 | 17.29 | | C | | | | 2.3 | 6.66 | | A | | | | 1.1 | 5.20 | | A | | | |
| Lane simulation [Lane Simulation] - 2039 + Dev Traffic | | | | | | | | | | | | | | | | | | | | | |
| A - A28 (N) | 0.0 | 0.00 | | A | 76.78 | F | % | 0.0 | 0.00 | | A | 115.90 | F | % | 0.0 | 0.00 | | A | 26.22 | D | % |
| B - Park Lane | 51.6 | 865.92 | | F | | | | 69.7 | 916.69 | | F | | | | 15.5 | 214.30 | | F | | | |
| C - A28 (S) | 5.5 | 18.72 | | C | | | | 2.0 | 7.04 | | A | | | | 1.2 | 4.96 | | A | | | |

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Am and junction delays are averages for all movements, including movements with zero delay. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

| | |
|-------------|------------------|
| Title | (untitled) |
| Location | |
| Site number | |
| Date | 02/10/2017 |
| Version | |
| Status | (new file) |
| Identifier | |
| Client | |
| Job number | |
| Enumerator | GLOBAL\fuad.huda |
| 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 | PCU | perHour | s | -Min | perMin |

Analysis Options

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

Lane Simulation options

| Stop criteria (%) | Stop criteria time (s) | Stop criteria number of trials | Random seed | Results refresh speed (s) | Individual vehicle animation number of trials | Use crossings quick response | Last run random seed | Last run number of trials | Last run time taken (s) |
|-------------------|------------------------|--------------------------------|-------------|---------------------------|---|------------------------------|----------------------|---------------------------|-------------------------|
| 1.00 | 100000 | 100000 | -1 | 3 | 1 | ✓ | 495651292 | 468 | 34.70 |

Analysis Set Details

| ID | Name | Use Lane Simulation | Include in report | Network flow scaling factor (%) | Network capacity scaling factor (%) |
|----|-----------------|---------------------|-------------------|---------------------------------|-------------------------------------|
| A2 | Lane simulation | ✓ | ✓ | 100.000 | 100.000 |

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 |
|-----|--------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D11 | 2039 + Dev Traffic | Airport Peak | ONE HOUR | 12:45 | 14:15 | 15 | ✓ |

Lane simulation - 2039 + Dev Traffic, Airport Peak

Data Errors and Warnings

| Severity | Area | Item | Description |
|----------|-----------------|--|---|
| Warning | Lane Simulation | A2 - Lane simulation [Lane Simulation] | This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results. |

Junction Network

Junctions

| Junction | Name | Junction Type | Major road direction | Junction Delay (s) | Junction LOS |
|----------|----------|---------------|----------------------|--------------------|--------------|
| 2 | untitled | T-Junction | Two-way | 26.22 | D |

Junction Network Options

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

Arms

Arms

| Arm | Name | Description | Arm type |
|-----|-----------|-------------|----------|
| A | A28 (N) | | Major |
| B | Park Lane | | Minor |
| C | A28 (S) | | Major |

Major Arm Geometry

| Arm | Width of carriageway (m) | Has kerbed central reserve | Has right turn bay | Visibility for right turn (m) | Blocks? | Blocking queue (PCU) |
|-------------|--------------------------|----------------------------|--------------------|-------------------------------|---------|----------------------|
| C - A28 (S) | 9.15 | | | 28.0 | ✓ | 0.00 |

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

Minor Arm Geometry

| Arm | Minor arm type | Lane width (m) | Visibility to left (m) | Visibility to right (m) |
|---------------|----------------|----------------|------------------------|-------------------------|
| B - Park Lane | One lane | 2.89 | 26 | 21 |

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

| Junction | Stream | Intercept (PCU/hr) | Slope for A-B | Slope for A-C | Slope for C-A | Slope for C-B |
|----------|--------|--------------------|---------------|---------------|---------------|---------------|
| 2 | B-A | 491 | 0.077 | 0.195 | 0.123 | 0.279 |
| 2 | B-C | 630 | 0.083 | 0.211 | - | - |
| 2 | C-B | 590 | 0.197 | 0.197 | - | - |

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.

Lanes

| Arm | Lane level | Lane | Destination arms | Has limited storage | Storage (PCU) | Minimum capacity (PCU/hr) | Maximum capacity (PCU/hr) |
|---------------|-------------------|------|------------------|---------------------|---------------|---------------------------|---------------------------|
| A - A28 (N) | 1 [Give-way line] | 1 | B, C | | Infinity | 0 | 99999 |
| B - Park Lane | 1 [Give-way line] | 1 | A, C | | Infinity | 0 | 99999 |
| C - A28 (S) | 1 [Give-way line] | 1 | A, B | | Infinity | 0 | 99999 |

Lane Movements

| Arm | Lane Level | Lane | Destination arm | | |
|---------------|-------------------|------|-----------------|-----------|---------|
| | | | A28 (N) | Park Lane | A28 (S) |
| A - A28 (N) | 1 [Give-way line] | 1 | | ✓ | |
| B - Park Lane | 1 [Give-way line] | 1 | ✓ | | ✓ |
| C - A28 (S) | 1 [Give-way line] | 1 | ✓ | ✓ | |

Traffic Demand

| 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 - A28 (N) | | ONE HOUR | ✓ | 971 | 100.000 |
| B - Park Lane | | ONE HOUR | ✓ | 216 | 100.000 |
| C - A28 (S) | | ONE HOUR | ✓ | 731 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| From | To | | |
|---------------|-------------|---------------|-------------|
| | A - A28 (N) | B - Park Lane | C - A28 (S) |
| A - A28 (N) | 0 | 230 | 741 |
| B - Park Lane | 141 | 0 | 75 |
| C - A28 (S) | 679 | 52 | 0 |

Vehicle Mix

Heavy Vehicle Percentages

| | | To | | |
|------|---------------|-------------|---------------|-------------|
| | | A - A28 (N) | B - Park Lane | C - A28 (S) |
| From | A - A28 (N) | 0 | 1 | 5 |
| | B - Park Lane | 3 | 0 | 6 |
| | C - A28 (S) | 4 | 0 | 0 |

Results

Results Summary for whole modelled period

| Arm | Max delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) |
|---------------|---------------|-----------------|---------|-------------------------|-------------------------------|
| A - A28 (N) | 0.00 | 0.0 | A | 929 | 1393 |
| B - Park Lane | 214.30 | 15.5 | F | 208 | 312 |
| C - A28 (S) | 4.96 | 1.2 | A | 698 | 1047 |

Main Results for each time segment

12:45 - 13:00

| Arm | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | LOS |
|---------------|-----------------------|-------------------------|---------------------|---------------------------------|-------------------|-----------------|-----------|-----|
| A - A28 (N) | 761 | 190 | 761 | 646 | 0.0 | 0.0 | 0.000 | A |
| B - Park Lane | 170 | 43 | 169 | 214 | 0.0 | 1.2 | 20.639 | C |
| C - A28 (S) | 574 | 144 | 574 | 644 | 0.0 | 0.3 | 1.911 | A |

13:00 - 13:15

| Arm | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | LOS |
|---------------|-----------------------|-------------------------|---------------------|---------------------------------|-------------------|-----------------|-----------|-----|
| A - A28 (N) | 909 | 227 | 909 | 771 | 0.0 | 0.0 | 0.000 | A |
| B - Park Lane | 208 | 52 | 206 | 258 | 1.2 | 2.5 | 40.597 | E |
| C - A28 (S) | 686 | 171 | 687 | 773 | 0.3 | 0.6 | 2.783 | A |

13:15 - 13:30

| Arm | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | LOS |
|---------------|-----------------------|-------------------------|---------------------|---------------------------------|-------------------|-----------------|-----------|-----|
| A - A28 (N) | 1122 | 281 | 1122 | 918 | 0.0 | 0.0 | 0.000 | A |
| B - Park Lane | 247 | 62 | 213 | 313 | 2.5 | 11.0 | 122.584 | F |
| C - A28 (S) | 836 | 209 | 836 | 939 | 0.6 | 1.2 | 4.883 | A |

13:30 - 13:45

| Arm | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | LOS |
|---------------|-----------------------|-------------------------|---------------------|---------------------------------|-------------------|-----------------|-----------|-----|
| A - A28 (N) | 1105 | 276 | 1105 | 929 | 0.0 | 0.0 | 0.000 | A |
| B - Park Lane | 247 | 62 | 227 | 311 | 11.0 | 15.5 | 214.298 | F |
| C - A28 (S) | 837 | 209 | 838 | 931 | 1.2 | 1.1 | 4.960 | A |

13:45 - 14:00

| Arm | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | LOS |
|---------------|-----------------------|-------------------------|---------------------|---------------------------------|-------------------|-----------------|-----------|-----|
| A - A28 (N) | 904 | 226 | 904 | 785 | 0.0 | 0.0 | 0.000 | A |
| B - Park Lane | 208 | 52 | 234 | 255 | 15.5 | 6.1 | 142.112 | F |
| C - A28 (S) | 684 | 171 | 683 | 781 | 1.1 | 0.6 | 3.124 | A |

14:00 - 14:15

| Arm | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | LOS |
|---------------|-----------------------|-------------------------|---------------------|---------------------------------|-------------------|-----------------|-----------|-----|
| A - A28 (N) | 771 | 193 | 771 | 644 | 0.0 | 0.0 | 0.000 | A |
| B - Park Lane | 171 | 43 | 174 | 217 | 6.1 | 1.2 | 39.205 | E |
| C - A28 (S) | 571 | 143 | 572 | 656 | 0.6 | 0.2 | 2.094 | A |

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

12:45 - 13:00

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (PCU/hr) | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | LOS |
|---------------|-------|------------|------|------------------|-----------------------|---------------------|-------------------|-----------------|-----------|-----|
| A - A28 (N) | Entry | 1 | 1 | B, C | 761 | 761 | 0.0 | 0.0 | 0.000 | A |
| | Exit | 1 | 1 | | 646 | 646 | 0.0 | 0.0 | 0.000 | A |
| B - Park Lane | Entry | 1 | 1 | A, C | 170 | 169 | 0.0 | 1.2 | 20.639 | C |
| | Exit | 1 | 1 | | 214 | 214 | 0.0 | 0.0 | 0.000 | A |
| C - A28 (S) | Entry | 1 | 1 | A, B | 574 | 574 | 0.0 | 0.3 | 1.911 | A |
| | Exit | 1 | 1 | | 644 | 644 | 0.0 | 0.0 | 0.000 | A |

13:00 - 13:15

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (PCU/hr) | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | LOS |
|---------------|-------|------------|------|------------------|-----------------------|---------------------|-------------------|-----------------|-----------|-----|
| A - A28 (N) | Entry | 1 | 1 | B, C | 909 | 909 | 0.0 | 0.0 | 0.000 | A |
| | Exit | 1 | 1 | | 771 | 771 | 0.0 | 0.0 | 0.000 | A |
| B - Park Lane | Entry | 1 | 1 | A, C | 208 | 206 | 1.2 | 2.5 | 40.597 | E |
| | Exit | 1 | 1 | | 258 | 258 | 0.0 | 0.0 | 0.000 | A |
| C - A28 (S) | Entry | 1 | 1 | A, B | 686 | 687 | 0.3 | 0.6 | 2.783 | A |

| | | | | | | | | | | |
|--|------|---|---|--|-----|-----|-----|-----|-------|---|
| | Exit | 1 | 1 | | 773 | 773 | 0.0 | 0.0 | 0.000 | A |
|--|------|---|---|--|-----|-----|-----|-----|-------|---|

13:15 - 13:30

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (PCU/hr) | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | LOS |
|---------------|-------|------------|------|------------------|-----------------------|---------------------|-------------------|-----------------|-----------|-----|
| A - A28 (N) | Entry | 1 | 1 | B, C | 1122 | 1122 | 0.0 | 0.0 | 0.000 | A |
| | Exit | 1 | 1 | | 918 | 918 | 0.0 | 0.0 | 0.000 | A |
| B - Park Lane | Entry | 1 | 1 | A, C | 247 | 213 | 2.5 | 11.0 | 122.584 | F |
| | Exit | 1 | 1 | | 313 | 313 | 0.0 | 0.0 | 0.000 | A |
| C - A28 (S) | Entry | 1 | 1 | A, B | 836 | 836 | 0.6 | 1.2 | 4.883 | A |
| | Exit | 1 | 1 | | 939 | 939 | 0.0 | 0.0 | 0.000 | A |

13:30 - 13:45

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (PCU/hr) | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | LOS |
|---------------|-------|------------|------|------------------|-----------------------|---------------------|-------------------|-----------------|-----------|-----|
| A - A28 (N) | Entry | 1 | 1 | B, C | 1105 | 1105 | 0.0 | 0.0 | 0.000 | A |
| | Exit | 1 | 1 | | 929 | 929 | 0.0 | 0.0 | 0.000 | A |
| B - Park Lane | Entry | 1 | 1 | A, C | 247 | 227 | 11.0 | 15.5 | 214.298 | F |
| | Exit | 1 | 1 | | 311 | 311 | 0.0 | 0.0 | 0.000 | A |
| C - A28 (S) | Entry | 1 | 1 | A, B | 837 | 838 | 1.2 | 1.1 | 4.960 | A |
| | Exit | 1 | 1 | | 931 | 931 | 0.0 | 0.0 | 0.000 | A |

13:45 - 14:00

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (PCU/hr) | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | LOS |
|---------------|-------|------------|------|------------------|-----------------------|---------------------|-------------------|-----------------|-----------|-----|
| A - A28 (N) | Entry | 1 | 1 | B, C | 904 | 904 | 0.0 | 0.0 | 0.000 | A |
| | Exit | 1 | 1 | | 785 | 785 | 0.0 | 0.0 | 0.000 | A |
| B - Park Lane | Entry | 1 | 1 | A, C | 208 | 234 | 15.5 | 6.1 | 142.112 | F |
| | Exit | 1 | 1 | | 255 | 255 | 0.0 | 0.0 | 0.000 | A |
| C - A28 (S) | Entry | 1 | 1 | A, B | 684 | 683 | 1.1 | 0.6 | 3.124 | A |
| | Exit | 1 | 1 | | 781 | 781 | 0.0 | 0.0 | 0.000 | A |

14:00 - 14:15

| Arm | Side | Lane level | Lane | Destination arms | Total Demand (PCU/hr) | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | LOS |
|---------------|-------|------------|------|------------------|-----------------------|---------------------|-------------------|-----------------|-----------|-----|
| A - A28 (N) | Entry | 1 | 1 | B, C | 771 | 771 | 0.0 | 0.0 | 0.000 | A |
| | Exit | 1 | 1 | | 644 | 644 | 0.0 | 0.0 | 0.000 | A |
| B - Park Lane | Entry | 1 | 1 | A, C | 171 | 174 | 6.1 | 1.2 | 39.205 | E |
| | Exit | 1 | 1 | | 217 | 217 | 0.0 | 0.0 | 0.000 | A |
| C - A28 (S) | Entry | 1 | 1 | A, B | 571 | 572 | 0.6 | 0.2 | 2.094 | A |
| | Exit | 1 | 1 | | 656 | 656 | 0.0 | 0.0 | 0.000 | A |

