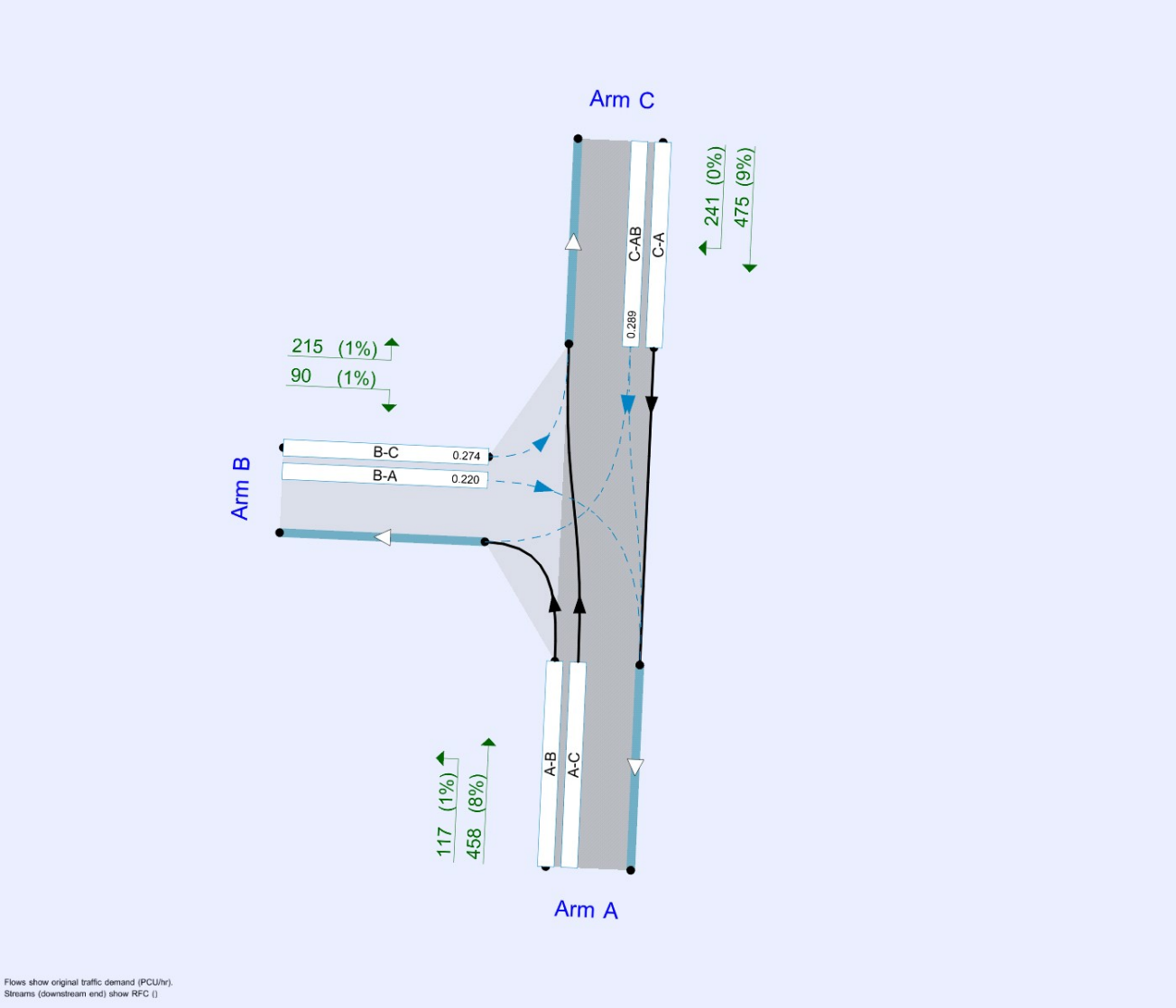


*The junction diagram reflects the last run of Junctions.*

## Analysis Options

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

## Demand Set Summary

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|---|---|---|---|---|---|---|---|
| D1 | 2029 With Dev | AM | ONE HOUR | 08:00 | 09:30 | 15 | ✓ |
| D2 | 2029 With Dev | PM | ONE HOUR | 17:00 | 18:30 | 15 | ✓ |

## Analysis Set Details

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

# 2029 With Dev, AM

### Data Errors and Warnings

*No errors or warnings*

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | untitled | T-Junction | Two-way | | 4.42 | A |

### Junction Network Options

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

## Arms

### Arms

| Arm | Name | Description | Arm type |
|---|---|---|---|
| A | untitled | | Major |
| B | untitled | | Minor |
| C | untitled | | Major |

### Major Arm Geometry

| Arm | Width of carriageway (m) | Has kerbed central reserve | Has right turn bay | Width for right turn (m) | Visibility for right turn (m) | Blocks? | Blocking queue (PCU) |
|---|---|---|---|---|---|---|---|
| C | 7.00 | | ✓ | 3.50 | 140.0 | ✓ | 7.00 |

*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 | Width at give-way (m) | Width at 5m (m) | Width at 10m (m) | Width at 15m (m) | Width at 20m (m) | Estimate flare length | Flare length (PCU) | Visibility to left (m) | Visibility to right (m) |
|---|---|---|---|---|---|---|---|---|---|---|
| B | One lane plus flare | 10.00 | 9.00 | 5.80 | 5.20 | 5.00 | ✓ | 3.00 | 48 | 35 |

### Slope / Intercept / Capacity

#### Priority Intersection Slopes and Intercepts

| Junction | Stream | Intercept (PCU/hr) | Slope for A-B | Slope for A-C | Slope for C-A | Slope for C-B |
|---|---|---|---|---|---|---|
| 1 | B-A | 503 | 0.088 | 0.221 | 0.139 | 0.316 |
| 1 | B-C | 720 | 0.106 | 0.267 | - | - |
| 1 | C-B | 748 | 0.277 | 0.277 | - | - |

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

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

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

# Traffic Demand

## Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|---|---|---|---|---|---|---|---|
| D1 | 2029 With Dev | AM | ONE HOUR | 08:00 | 09:30 | 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 (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|---|
| A | | ONE HOUR | ✓ | 567 | 100.000 |
| B | | ONE HOUR | ✓ | 283 | 100.000 |
| C | | ONE HOUR | ✓ | 641 | 100.000 |

# Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | A | B | C |
| From | A | 0 | 90 | 477 |
| | B | 93 | 0 | 190 |
| | C | 463 | 178 | 0 |

# Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | A | B | C |
| From | A | 0 | 1 | 10 |
| | B | 2 | 0 | 4 |
| | C | 12 | 2 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) |
|---|---|---|---|---|---|---|
| B-C | 0.42 | 12.75 | 0.7 | B | 174 | 262 |
| B-A | 0.42 | 26.21 | 0.7 | D | 85 | 128 |
| C-AB | 0.34 | 9.69 | 0.5 | A | 163 | 245 |
| C-A | | | | | 425 | 637 |
| A-B | | | | | 83 | 124 |
| A-C | | | | | 438 | 657 |

## Main Results for each time segment

### 08:00 - 08:15

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 143 | 36 | 584 | 0.245 | 142 | 0.0 | 0.3 | 8.442 | A |
| B-A | 70 | 18 | 326 | 0.215 | 69 | 0.0 | 0.3 | 14.213 | B |
| C-AB | 134 | 34 | 629 | 0.213 | 133 | 0.0 | 0.3 | 7.378 | A |
| C-A | 349 | 87 | | | 349 | | | | |
| A-B | 68 | 17 | | | 68 | | | | |
| A-C | 359 | 90 | | | 359 | | | | |

### 08:15 - 08:30

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 171 | 43 | 553 | 0.309 | 170 | 0.3 | 0.5 | 9.773 | A |
| B-A | 84 | 21 | 291 | 0.287 | 83 | 0.3 | 0.4 | 17.586 | C |
| C-AB | 160 | 40 | 607 | 0.264 | 160 | 0.3 | 0.4 | 8.211 | A |
| C-A | 416 | 104 | | | 416 | | | | |
| A-B | 81 | 20 | | | 81 | | | | |
| A-C | 429 | 107 | | | 429 | | | | |

### 08:30 - 08:45

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 209 | 52 | 504 | 0.415 | 208 | 0.5 | 0.7 | 12.611 | B |
| B-A | 102 | 26 | 242 | 0.422 | 101 | 0.4 | 0.7 | 25.765 | D |
| C-AB | 196 | 49 | 575 | 0.341 | 195 | 0.4 | 0.5 | 9.657 | A |
| C-A | 510 | 127 | | | 510 | | | | |
| A-B | 99 | 25 | | | 99 | | | | |
| A-C | 525 | 131 | | | 525 | | | | |

### 08:45 - 09:00

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 209 | 52 | 503 | 0.416 | 209 | 0.7 | 0.7 | 12.749 | B |
| B-A | 102 | 26 | 242 | 0.423 | 102 | 0.7 | 0.7 | 26.209 | D |
| C-AB | 196 | 49 | 575 | 0.341 | 196 | 0.5 | 0.5 | 9.689 | A |
| C-A | 510 | 127 | | | 510 | | | | |
| A-B | 99 | 25 | | | 99 | | | | |
| A-C | 525 | 131 | | | 525 | | | | |

### 09:00 - 09:15

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 171 | 43 | 551 | 0.310 | 172 | 0.7 | 0.5 | 9.891 | A |
| B-A | 84 | 21 | 291 | 0.287 | 85 | 0.7 | 0.4 | 17.890 | C |
| C-AB | 160 | 40 | 607 | 0.264 | 161 | 0.5 | 0.4 | 8.248 | A |
| C-A | 416 | 104 | | | 416 | | | | |
| A-B | 81 | 20 | | | 81 | | | | |
| A-C | 429 | 107 | | | 429 | | | | |

**09:15 - 09:30**

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 143 | 36 | 583 | 0.245 | 144 | 0.5 | 0.3 | 8.537 | A |
| B-A | 70 | 18 | 326 | 0.215 | 71 | 0.4 | 0.3 | 14.406 | B |
| C-AB | 134 | 34 | 629 | 0.213 | 134 | 0.4 | 0.3 | 7.421 | A |
| C-A | 349 | 87 | | | 349 | | | | |
| A-B | 68 | 17 | | | 68 | | | | |
| A-C | 359 | 90 | | | 359 | | | | |

# 2029 With Dev, PM

### Data Errors and Warnings

*No errors or warnings*

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | untitled | T-Junction | Two-way | | 5.34 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|---|---|---|---|---|---|---|---|
| D2 | 2029 With Dev | PM | ONE HOUR | 17:00 | 18:30 | 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 (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|---|
| A | | ONE HOUR | ✓ | 575 | 100.000 |
| B | | ONE HOUR | ✓ | 305 | 100.000 |
| C | | ONE HOUR | ✓ | 716 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | A | B | C |
| From | A | 0 | 117 | 458 |
| | B | 90 | 0 | 215 |
| | C | 475 | 241 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | A | B | C |
| From | A | 0 | 1 | 8 |
| | B | 1 | 0 | 1 |
| | C | 9 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) |
|---|---|---|---|---|---|---|
| B-C | 0.47 | 13.65 | 0.9 | B | 197 | 296 |
| B-A | 0.46 | 30.83 | 0.8 | D | 83 | 124 |
| C-AB | 0.46 | 11.68 | 0.9 | B | 222 | 332 |
| C-A | | | | | 435 | 653 |
| A-B | | | | | 107 | 161 |
| A-C | | | | | 420 | 630 |

## Main Results for each time segment

### 17:00 - 17:15

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 162 | 40 | 590 | 0.274 | 160 | 0.0 | 0.4 | 8.428 | A |
| B-A | 68 | 17 | 308 | 0.220 | 67 | 0.0 | 0.3 | 15.006 | C |
| C-AB | 181 | 45 | 628 | 0.289 | 180 | 0.0 | 0.4 | 8.008 | A |
| C-A | 358 | 89 | | | 358 | | | | |
| A-B | 88 | 22 | | | 88 | | | | |
| A-C | 345 | 86 | | | 345 | | | | |

### 17:15 - 17:30

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 193 | 48 | 558 | 0.346 | 193 | 0.4 | 0.5 | 9.934 | A |
| B-A | 81 | 20 | 270 | 0.299 | 80 | 0.3 | 0.4 | 19.094 | C |
| C-AB | 217 | 54 | 605 | 0.358 | 216 | 0.4 | 0.6 | 9.234 | A |
| C-A | 427 | 107 | | | 427 | | | | |
| A-B | 105 | 26 | | | 105 | | | | |
| A-C | 412 | 103 | | | 412 | | | | |

### 17:30 - 17:45

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 237 | 59 | 505 | 0.469 | 235 | 0.5 | 0.9 | 13.431 | B |
| B-A | 99 | 25 | 217 | 0.457 | 98 | 0.4 | 0.8 | 30.047 | D |
| C-AB | 266 | 67 | 575 | 0.464 | 265 | 0.6 | 0.8 | 11.593 | B |
| C-A | 522 | 130 | | | 522 | | | | |
| A-B | 129 | 32 | | | 129 | | | | |
| A-C | 504 | 126 | | | 504 | | | | |

### 17:45 - 18:00

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 237 | 59 | 503 | 0.471 | 237 | 0.9 | 0.9 | 13.652 | B |
| B-A | 99 | 25 | 217 | 0.457 | 99 | 0.8 | 0.8 | 30.829 | D |
| C-AB | 266 | 67 | 575 | 0.464 | 266 | 0.8 | 0.9 | 11.678 | B |
| C-A | 522 | 130 | | | 522 | | | | |
| A-B | 129 | 32 | | | 129 | | | | |
| A-C | 504 | 126 | | | 504 | | | | |

### 18:00 - 18:15

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 193 | 48 | 556 | 0.348 | 195 | 0.9 | 0.5 | 10.096 | B |
| B-A | 81 | 20 | 270 | 0.300 | 82 | 0.8 | 0.4 | 19.547 | C |
| C-AB | 217 | 54 | 605 | 0.358 | 218 | 0.9 | 0.6 | 9.333 | A |
| C-A | 427 | 107 | | | 427 | | | | |
| A-B | 105 | 26 | | | 105 | | | | |
| A-C | 412 | 103 | | | 412 | | | | |

### 18:15 - 18:30

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 162 | 40 | 589 | 0.275 | 162 | 0.5 | 0.4 | 8.541 | A |
| B-A | 68 | 17 | 307 | 0.220 | 68 | 0.4 | 0.3 | 15.249 | C |
| C-AB | 181 | 45 | 628 | 0.289 | 182 | 0.6 | 0.4 | 8.087 | A |
| C-A | 358 | 89 | | | 358 | | | | |
| A-B | 88 | 22 | | | 88 | | | | |
| A-C | 345 | 86 | | | 345 | | | | |

# Appendix F

Sensitivity Test Junction Modelling Results

# Junctions 9

## PICADY 9 - Priority Intersection Module

Version: 9.5.0.6896
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For sales and distribution information, program advice and maintenance, contact TRL:
+44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk

**The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution**

**Filename:** Plot 3 Tankersley Lane Access.j9
**Path:** X:\Jobs\3560 Hoyland Commercial Land\Junction Modelling\Plot 3 Sensitivity Test\Plot 3 Tankersley Lane Access
**Report generation date:** 28/08/2020 10:28:15

---

## »2029 With Dev, AM
## »2029 With Dev, PM

### Summary of junction performance

| | AM | | | | PM | | | |
|---|---|---|---|---|---|---|---|---|
| | Queue (PCU) | Delay (s) | RFC | LOS | Queue (PCU) | Delay (s) | RFC | LOS |
| | 2029 With Dev | | | | | | | |
| Stream B-C | 0.0 | 5.89 | 0.03 | A | 0.1 | 6.16 | 0.10 | A |
| Stream B-A | 0.0 | 9.43 | 0.00 | A | 0.0 | 9.55 | 0.02 | A |
| Stream C-AB | 0.1 | 6.36 | 0.12 | A | 0.0 | 5.66 | 0.03 | A |

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

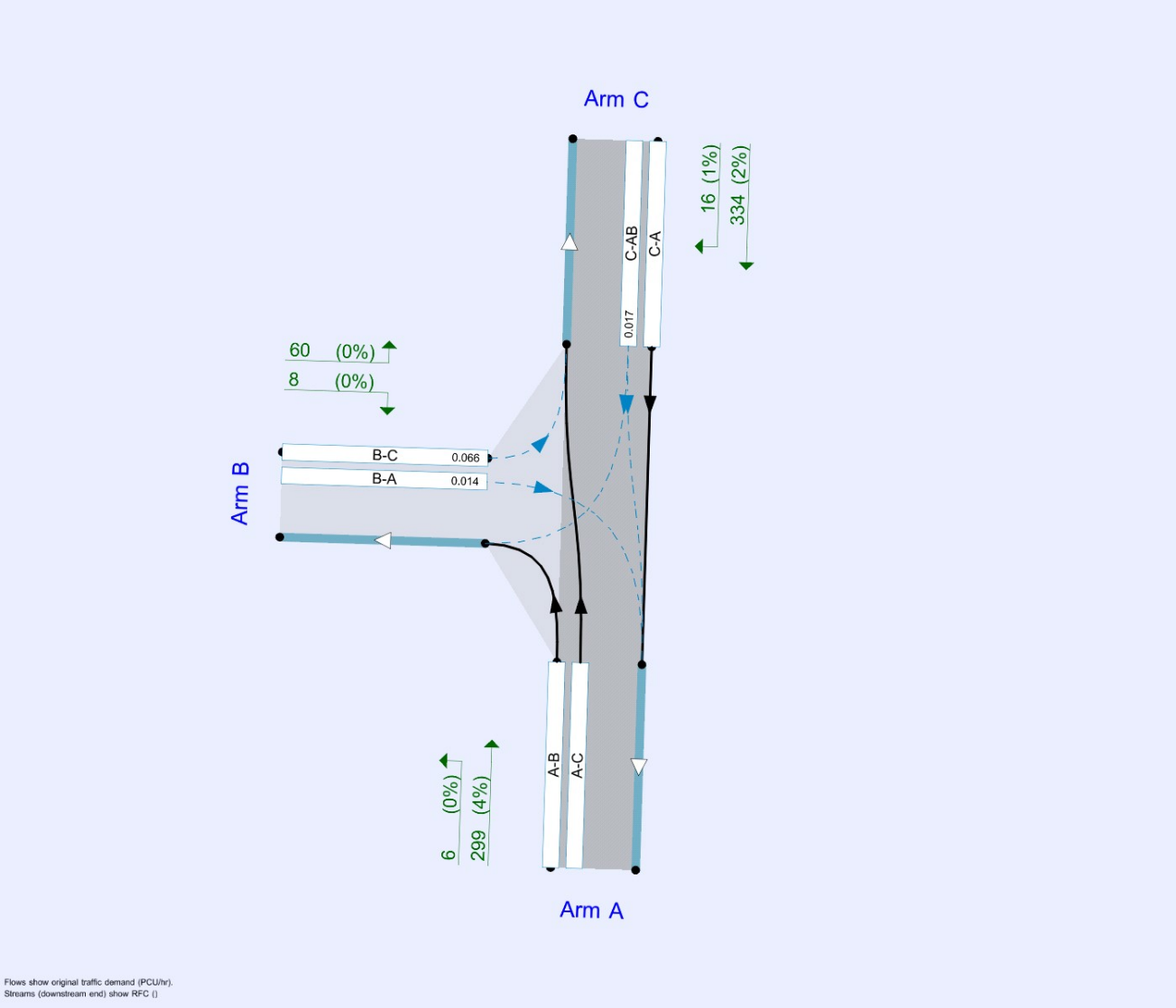
### File summary

#### File Description

| | |
|---|---|
| Title | |
| Location | |
| Site number | |
| Date | 28/04/2020 |
| Version | |
| Status | (new file) |
| Identifier | |
| Client | |
| Jobnumber | |
| Enumerator | WEEZY\Modelling |
| 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 | PCU | PCU | perHour | s | -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 | RFC Threshold | Average Delay threshold (s) | Queue threshold (PCU) |
|---|---|---|---|---|---|---|
| 5.75 | | | | 0.85 | 36.00 | 20.00 |

## Demand Set Summary

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|---|---|---|---|---|---|---|---|
| D1 | 2029 With Dev | AM | ONE HOUR | 08:00 | 09:30 | 15 | ✓ |
| D2 | 2029 With Dev | PM | ONE HOUR | 17:00 | 18:30 | 15 | ✓ |

## Analysis Set Details

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

# 2029 With Dev, AM

### Data Errors and Warnings

*No errors or warnings*

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | untitled | T-Junction | Two-way | | 0.93 | A |

### Junction Network Options

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

## Arms

### Arms

| Arm | Name | Description | Arm type |
|---|---|---|---|
| A | untitled | | Major |
| B | untitled | | Minor |
| C | untitled | | Major |

### Major Arm Geometry

| Arm | Width of carriageway (m) | Has kerbed central reserve | Has right turn bay | Width for right turn (m) | Visibility for right turn (m) | Blocks? | Blocking queue (PCU) |
|---|---|---|---|---|---|---|---|
| C | 7.00 | | ✓ | 3.50 | 150.0 | ✓ | 6.00 |

*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 | Width at give-way (m) | Width at 5m (m) | Width at 10m (m) | Width at 15m (m) | Width at 20m (m) | Estimate flare length | Flare length (PCU) | Visibility to left (m) | Visibility to right (m) |
|---|---|---|---|---|---|---|---|---|---|---|
| B | One lane plus flare | 10.00 | 8.40 | 4.70 | 3.60 | 3.60 | ✓ | 1.00 | 45 | 60 |

### Slope / Intercept / Capacity

#### Priority Intersection Slopes and Intercepts

| Junction | Stream | Intercept (PCU/hr) | Slope for A-B | Slope for A-C | Slope for C-A | Slope for C-B |
|---|---|---|---|---|---|---|
| 1 | B-A | 515 | 0.090 | 0.227 | 0.143 | 0.324 |
| 1 | B-C | 750 | 0.110 | 0.278 | - | - |
| 1 | C-B | 754 | 0.280 | 0.280 | - | - |

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

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

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

# Traffic Demand

## Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|---|---|---|---|---|---|---|---|
| D1 | 2029 With Dev | AM | ONE HOUR | 08:00 | 09:30 | 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 (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|---|
| A | | ONE HOUR | ✓ | 266 | 100.000 |
| B | | ONE HOUR | ✓ | 21 | 100.000 |
| C | | ONE HOUR | ✓ | 335 | 100.000 |

# Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | A | B | C |
| From | A | 0 | 8 | 258 |
| | B | 1 | 0 | 20 |
| | C | 264 | 71 | 0 |

# Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | A | B | C |
| From | A | 0 | 0 | 10 |
| | B | 0 | 0 | 6 |
| | C | 4 | 5 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) |
|---|---|---|---|---|---|---|
| B-C | 0.03 | 5.89 | 0.0 | A | 18 | 28 |
| B-A | 0.00 | 9.43 | 0.0 | A | 0.92 | 1 |
| C-AB | 0.12 | 6.36 | 0.1 | A | 65 | 98 |
| C-A | | | | | 242 | 363 |
| A-B | | | | | 7 | 11 |
| A-C | | | | | 237 | 355 |

## Main Results for each time segment

### 08:00 - 08:15

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 15 | 4 | 695 | 0.022 | 15 | 0.0 | 0.0 | 5.610 | A |
| B-A | 0.75 | 0.19 | 425 | 0.002 | 0.75 | 0.0 | 0.0 | 8.486 | A |
| C-AB | 53 | 13 | 698 | 0.077 | 53 | 0.0 | 0.1 | 5.856 | A |
| C-A | 199 | 50 | | | 199 | | | | |
| A-B | 6 | 2 | | | 6 | | | | |
| A-C | 194 | 49 | | | 194 | | | | |

### 08:15 - 08:30

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 18 | 4 | 685 | 0.026 | 18 | 0.0 | 0.0 | 5.724 | A |
| B-A | 0.90 | 0.22 | 407 | 0.002 | 0.90 | 0.0 | 0.0 | 8.857 | A |
| C-AB | 64 | 16 | 687 | 0.093 | 64 | 0.1 | 0.1 | 6.060 | A |
| C-A | 237 | 59 | | | 237 | | | | |
| A-B | 7 | 2 | | | 7 | | | | |
| A-C | 232 | 58 | | | 232 | | | | |

### 08:30 - 08:45

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 22 | 6 | 670 | 0.033 | 22 | 0.0 | 0.0 | 5.890 | A |
| B-A | 1 | 0.28 | 383 | 0.003 | 1 | 0.0 | 0.0 | 9.424 | A |
| C-AB | 78 | 20 | 672 | 0.116 | 78 | 0.1 | 0.1 | 6.357 | A |
| C-A | 291 | 73 | | | 291 | | | | |
| A-B | 9 | 2 | | | 9 | | | | |
| A-C | 284 | 71 | | | 284 | | | | |

### 08:45 - 09:00

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 22 | 6 | 670 | 0.033 | 22 | 0.0 | 0.0 | 5.890 | A |
| B-A | 1 | 0.28 | 383 | 0.003 | 1 | 0.0 | 0.0 | 9.425 | A |
| C-AB | 78 | 20 | 672 | 0.116 | 78 | 0.1 | 0.1 | 6.359 | A |
| C-A | 291 | 73 | | | 291 | | | | |
| A-B | 9 | 2 | | | 9 | | | | |
| A-C | 284 | 71 | | | 284 | | | | |

### 09:00 - 09:15

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 18 | 4 | 684 | 0.026 | 18 | 0.0 | 0.0 | 5.725 | A |
| B-A | 0.90 | 0.22 | 407 | 0.002 | 0.90 | 0.0 | 0.0 | 8.858 | A |
| C-AB | 64 | 16 | 687 | 0.093 | 64 | 0.1 | 0.1 | 6.062 | A |
| C-A | 237 | 59 | | | 237 | | | | |
| A-B | 7 | 2 | | | 7 | | | | |
| A-C | 232 | 58 | | | 232 | | | | |

**09:15 - 09:30**

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 15 | 4 | 695 | 0.022 | 15 | 0.0 | 0.0 | 5.610 | A |
| B-A | 0.75 | 0.19 | 425 | 0.002 | 0.75 | 0.0 | 0.0 | 8.488 | A |
| C-AB | 53 | 13 | 698 | 0.077 | 54 | 0.1 | 0.1 | 5.862 | A |
| C-A | 199 | 50 | | | 199 | | | | |
| A-B | 6 | 2 | | | 6 | | | | |
| A-C | 194 | 49 | | | 194 | | | | |

# 2029 With Dev, PM

### Data Errors and Warnings

*No errors or warnings*

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | untitled | T-Junction | Two-way | | 0.74 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|---|---|---|---|---|---|---|---|
| D2 | 2029 With Dev | PM | ONE HOUR | 17:00 | 18:30 | 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 (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|---|
| A | | ONE HOUR | ✓ | 305 | 100.000 |
| B | | ONE HOUR | ✓ | 68 | 100.000 |
| C | | ONE HOUR | ✓ | 350 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | A | B | C |
| From | A | 0 | 6 | 299 |
| | B | 8 | 0 | 60 |
| | C | 334 | 16 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | A | B | C |
| From | A | 0 | 0 | 4 |
| | B | 0 | 0 | 0 |
| | C | 2 | 1 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) |
|---|---|---|---|---|---|---|
| B-C | 0.10 | 6.16 | 0.1 | A | 55 | 83 |
| B-A | 0.02 | 9.55 | 0.0 | A | 7 | 11 |
| C-AB | 0.03 | 5.66 | 0.0 | A | 15 | 22 |
| C-A | | | | | 306 | 460 |
| A-B | | | | | 6 | 8 |
| A-C | | | | | 274 | 412 |

## Main Results for each time segment

### 17:00 - 17:15

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 45 | 11 | 681 | 0.066 | 45 | 0.0 | 0.1 | 5.659 | A |
| B-A | 6 | 2 | 429 | 0.014 | 6 | 0.0 | 0.0 | 8.517 | A |
| C-AB | 12 | 3 | 690 | 0.017 | 12 | 0.0 | 0.0 | 5.361 | A |
| C-A | 251 | 63 | | | 251 | | | | |
| A-B | 5 | 1 | | | 5 | | | | |
| A-C | 225 | 56 | | | 225 | | | | |

### 17:15 - 17:30

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 54 | 13 | 668 | 0.081 | 54 | 0.1 | 0.1 | 5.862 | A |
| B-A | 7 | 2 | 411 | 0.018 | 7 | 0.0 | 0.0 | 8.923 | A |
| C-AB | 14 | 4 | 678 | 0.021 | 14 | 0.0 | 0.0 | 5.481 | A |
| C-A | 300 | 75 | | | 300 | | | | |
| A-B | 5 | 1 | | | 5 | | | | |
| A-C | 269 | 67 | | | 269 | | | | |

### 17:30 - 17:45

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 66 | 17 | 650 | 0.102 | 66 | 0.1 | 0.1 | 6.161 | A |
| B-A | 9 | 2 | 386 | 0.023 | 9 | 0.0 | 0.0 | 9.552 | A |
| C-AB | 18 | 4 | 660 | 0.027 | 18 | 0.0 | 0.0 | 5.655 | A |
| C-A | 368 | 92 | | | 368 | | | | |
| A-B | 7 | 2 | | | 7 | | | | |
| A-C | 329 | 82 | | | 329 | | | | |

### 17:45 - 18:00

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 66 | 17 | 650 | 0.102 | 66 | 0.1 | 0.1 | 6.161 | A |
| B-A | 9 | 2 | 386 | 0.023 | 9 | 0.0 | 0.0 | 9.552 | A |
| C-AB | 18 | 4 | 660 | 0.027 | 18 | 0.0 | 0.0 | 5.655 | A |
| C-A | 368 | 92 | | | 368 | | | | |
| A-B | 7 | 2 | | | 7 | | | | |
| A-C | 329 | 82 | | | 329 | | | | |

### 18:00 - 18:15

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 54 | 13 | 668 | 0.081 | 54 | 0.1 | 0.1 | 5.864 | A |
| B-A | 7 | 2 | 411 | 0.018 | 7 | 0.0 | 0.0 | 8.926 | A |
| C-AB | 14 | 4 | 678 | 0.021 | 14 | 0.0 | 0.0 | 5.483 | A |
| C-A | 300 | 75 | | | 300 | | | | |
| A-B | 5 | 1 | | | 5 | | | | |
| A-C | 269 | 67 | | | 269 | | | | |

### 18:15 - 18:30

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 45 | 11 | 681 | 0.066 | 45 | 0.1 | 0.1 | 5.665 | A |
| B-A | 6 | 2 | 429 | 0.014 | 6 | 0.0 | 0.0 | 8.519 | A |
| C-AB | 12 | 3 | 690 | 0.017 | 12 | 0.0 | 0.0 | 5.361 | A |
| C-A | 251 | 63 | | | 251 | | | | |
| A-B | 5 | 1 | | | 5 | | | | |
| A-C | 225 | 56 | | | 225 | | | | |

# Junctions 9

## PICADY 9 - Priority Intersection Module

Version: 9.5.0.6896
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For sales and distribution information, program advice and maintenance, contact TRL:
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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:** Link Road_Tankersley Lane Plot3 Sensitivity.j9
**Path:** X:\Jobs\3560 Hoyland Commercial Land\Junction Modelling\Plot 3 Sensitivity Test\Link Road_Tankersley Lane
**Report generation date:** 04/06/2020 15:27:28

---

## »2029 With Dev, AM
## »2029 With Dev, PM

### Summary of junction performance

| | AM | | | | PM | | | |
|---|---|---|---|---|---|---|---|---|
| | Queue (PCU) | Delay (s) | RFC | LOS | Queue (PCU) | Delay (s) | RFC | LOS |
| | 2029 With Dev | | | | | | | |
| Stream B-C | 0.9 | 14.41 | 0.46 | B | 1.6 | 20.24 | 0.61 | C |
| Stream B-A | 0.9 | 31.01 | 0.47 | D | 1.5 | 44.60 | 0.61 | E |
| Stream C-AB | 0.8 | 11.65 | 0.44 | B | 1.0 | 12.35 | 0.49 | B |

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

### File summary

#### File Description

| | |
|---|---|
| Title | |
| Location | |
| Site number | |
| Date | 23/04/2020 |
| Version | |
| Status | (new file) |
| Identifier | |
| Client | |
| Jobnumber | |
| Enumerator | WEEZY\Modelling |
| 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 | PCU | PCU | perHour | s | -Min | perMin |

### Analysis Options

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

## Demand Set Summary

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|---|---|---|---|---|---|---|---|
| D1 | 2029 With Dev | AM | ONE HOUR | 08:00 | 09:30 | 15 | ✓ |
| D2 | 2029 With Dev | PM | ONE HOUR | 17:00 | 18:30 | 15 | ✓ |

## Analysis Set Details

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

# 2029 With Dev, AM

### Data Errors and Warnings

*No errors or warnings*

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | untitled | T-Junction | Two-way | | 5.55 | A |

### Junction Network Options

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

## Arms

### Arms

| Arm | Name | Description | Arm type |
|---|---|---|---|
| A | untitled | | Major |
| B | untitled | | Minor |
| C | untitled | | Major |

### Major Arm Geometry

| Arm | Width of carriageway (m) | Has kerbed central reserve | Has right turn bay | Width for right turn (m) | Visibility for right turn (m) | Blocks? | Blocking queue (PCU) |
|---|---|---|---|---|---|---|---|
| C | 7.00 | | ✓ | 3.50 | 140.0 | ✓ | 7.00 |

*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 | Width at give-way (m) | Width at 5m (m) | Width at 10m (m) | Width at 15m (m) | Width at 20m (m) | Estimate flare length | Flare length (PCU) | Visibility to left (m) | Visibility to right (m) |
|---|---|---|---|---|---|---|---|---|---|---|
| B | One lane plus flare | 10.00 | 9.00 | 5.80 | 5.20 | 5.00 | ✓ | 3.00 | 48 | 35 |

### Slope / Intercept / Capacity

#### Priority Intersection Slopes and Intercepts

| Junction | Stream | Intercept (PCU/hr) | Slope for A-B | Slope for A-C | Slope for C-A | Slope for C-B |
|---|---|---|---|---|---|---|
| 1 | B-A | 501 | 0.087 | 0.221 | 0.139 | 0.315 |
| 1 | B-C | 722 | 0.106 | 0.268 | - | - |
| 1 | C-B | 748 | 0.277 | 0.277 | - | - |

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

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

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

# Traffic Demand

## Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|---|---|---|---|---|---|---|---|
| D1 | 2029 With Dev | AM | ONE HOUR | 08:00 | 09:30 | 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 (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|---|
| A | | ONE HOUR | ✓ | 568 | 100.000 |
| B | | ONE HOUR | ✓ | 305 | 100.000 |
| C | | ONE HOUR | ✓ | 694 | 100.000 |

# Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | A | B | C |
| From | A | 0 | 116 | 452 |
| | B | 97 | 0 | 208 |
| | C | 463 | 231 | 0 |

# Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | A | B | C |
| From | A | 0 | 1 | 11 |
| | B | 2 | 0 | 7 |
| | C | 12 | 4 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) |
|---|---|---|---|---|---|---|
| B-C | 0.46 | 14.41 | 0.9 | B | 191 | 286 |
| B-A | 0.47 | 31.01 | 0.9 | D | 89 | 134 |
| C-AB | 0.44 | 11.65 | 0.8 | B | 212 | 318 |
| C-A | | | | | 425 | 637 |
| A-B | | | | | 106 | 160 |
| A-C | | | | | 415 | 622 |

## Main Results for each time segment

### 08:00 - 08:15

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 157 | 39 | 586 | 0.267 | 155 | 0.0 | 0.4 | 8.911 | A |
| B-A | 73 | 18 | 315 | 0.232 | 72 | 0.0 | 0.3 | 15.039 | C |
| C-AB | 174 | 43 | 629 | 0.276 | 172 | 0.0 | 0.4 | 8.167 | A |
| C-A | 349 | 87 | | | 349 | | | | |
| A-B | 87 | 22 | | | 87 | | | | |
| A-C | 340 | 85 | | | 340 | | | | |

### 08:15 - 08:30

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 187 | 47 | 553 | 0.338 | 186 | 0.4 | 0.5 | 10.484 | B |
| B-A | 87 | 22 | 278 | 0.314 | 87 | 0.3 | 0.5 | 19.148 | C |
| C-AB | 208 | 52 | 607 | 0.343 | 207 | 0.4 | 0.5 | 9.363 | A |
| C-A | 416 | 104 | | | 416 | | | | |
| A-B | 104 | 26 | | | 104 | | | | |
| A-C | 406 | 102 | | | 406 | | | | |

### 08:30 - 08:45

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 229 | 57 | 498 | 0.460 | 228 | 0.5 | 0.9 | 14.162 | B |
| B-A | 107 | 27 | 225 | 0.474 | 105 | 0.5 | 0.9 | 30.169 | D |
| C-AB | 255 | 64 | 576 | 0.443 | 254 | 0.5 | 0.8 | 11.576 | B |
| C-A | 509 | 127 | | | 509 | | | | |
| A-B | 128 | 32 | | | 128 | | | | |
| A-C | 498 | 124 | | | 498 | | | | |

### 08:45 - 09:00

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 229 | 57 | 496 | 0.462 | 229 | 0.9 | 0.9 | 14.408 | B |
| B-A | 107 | 27 | 225 | 0.475 | 107 | 0.9 | 0.9 | 31.006 | D |
| C-AB | 255 | 64 | 577 | 0.443 | 255 | 0.8 | 0.8 | 11.653 | B |
| C-A | 509 | 127 | | | 509 | | | | |
| A-B | 128 | 32 | | | 128 | | | | |
| A-C | 498 | 124 | | | 498 | | | | |

### 09:00 - 09:15

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 187 | 47 | 551 | 0.339 | 188 | 0.9 | 0.6 | 10.658 | B |
| B-A | 87 | 22 | 277 | 0.314 | 89 | 0.9 | 0.5 | 19.636 | C |
| C-AB | 208 | 52 | 607 | 0.343 | 209 | 0.8 | 0.6 | 9.441 | A |
| C-A | 416 | 104 | | | 416 | | | | |
| A-B | 104 | 26 | | | 104 | | | | |
| A-C | 406 | 102 | | | 406 | | | | |

**09:15 - 09:30**

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 157 | 39 | 584 | 0.268 | 157 | 0.6 | 0.4 | 9.035 | A |
| B-A | 73 | 18 | 314 | 0.232 | 74 | 0.5 | 0.3 | 15.300 | C |
| C-AB | 174 | 43 | 629 | 0.276 | 175 | 0.6 | 0.4 | 8.243 | A |
| C-A | 349 | 87 | | | 349 | | | | |
| A-B | 87 | 22 | | | 87 | | | | |
| A-C | 340 | 85 | | | 340 | | | | |

# 2029 With Dev, PM

### Data Errors and Warnings

*No errors or warnings*

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | untitled | T-Junction | Two-way | | 8.05 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|---|---|---|---|---|---|---|---|
| D2 | 2029 With Dev | PM | ONE HOUR | 17:00 | 18:30 | 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 (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|---|
| A | | ONE HOUR | ✓ | 575 | 100.000 |
| B | | ONE HOUR | ✓ | 373 | 100.000 |
| C | | ONE HOUR | ✓ | 729 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | A | B | C |
| From | A | 0 | 123 | 452 |
| | B | 115 | 0 | 258 |
| | C | 475 | 254 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | A | B | C |
| From | A | 0 | 1 | 8 |
| | B | 1 | 0 | 1 |
| | C | 9 | 1 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) |
|---|---|---|---|---|---|---|
| B-C | 0.61 | 20.24 | 1.6 | C | 237 | 355 |
| B-A | 0.61 | 44.60 | 1.5 | E | 106 | 158 |
| C-AB | 0.49 | 12.35 | 1.0 | B | 234 | 351 |
| C-A | | | | | 435 | 653 |
| A-B | | | | | 113 | 169 |
| A-C | | | | | 415 | 622 |

## Main Results for each time segment

### 17:00 - 17:15

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 194 | 49 | 579 | 0.336 | 192 | 0.0 | 0.5 | 9.363 | A |
| B-A | 87 | 22 | 306 | 0.283 | 85 | 0.0 | 0.4 | 16.327 | C |
| C-AB | 191 | 48 | 628 | 0.305 | 190 | 0.0 | 0.4 | 8.262 | A |
| C-A | 358 | 89 | | | 358 | | | | |
| A-B | 93 | 23 | | | 93 | | | | |
| A-C | 340 | 85 | | | 340 | | | | |

### 17:15 - 17:30

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 232 | 58 | 541 | 0.428 | 231 | 0.5 | 0.7 | 11.678 | B |
| B-A | 103 | 26 | 267 | 0.387 | 102 | 0.4 | 0.6 | 21.993 | C |
| C-AB | 229 | 57 | 605 | 0.378 | 228 | 0.4 | 0.6 | 9.624 | A |
| C-A | 427 | 107 | | | 427 | | | | |
| A-B | 111 | 28 | | | 111 | | | | |
| A-C | 406 | 102 | | | 406 | | | | |

### 17:30 - 17:45

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 284 | 71 | 468 | 0.607 | 281 | 0.7 | 1.5 | 19.134 | C |
| B-A | 127 | 32 | 208 | 0.609 | 123 | 0.6 | 1.4 | 41.518 | E |
| C-AB | 281 | 70 | 576 | 0.489 | 280 | 0.6 | 0.9 | 12.238 | B |
| C-A | 521 | 130 | | | 521 | | | | |
| A-B | 135 | 34 | | | 135 | | | | |
| A-C | 498 | 124 | | | 498 | | | | |

### 17:45 - 18:00

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 284 | 71 | 463 | 0.614 | 284 | 1.5 | 1.6 | 20.243 | C |
| B-A | 127 | 32 | 207 | 0.612 | 126 | 1.4 | 1.5 | 44.600 | E |
| C-AB | 281 | 70 | 576 | 0.489 | 281 | 0.9 | 1.0 | 12.346 | B |
| C-A | 521 | 130 | | | 521 | | | | |
| A-B | 135 | 34 | | | 135 | | | | |
| A-C | 498 | 124 | | | 498 | | | | |

### 18:00 - 18:15

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 232 | 58 | 537 | 0.432 | 235 | 1.6 | 0.8 | 12.146 | B |
| B-A | 103 | 26 | 266 | 0.388 | 107 | 1.5 | 0.7 | 23.212 | C |
| C-AB | 229 | 57 | 605 | 0.378 | 230 | 1.0 | 0.6 | 9.729 | A |
| C-A | 427 | 107 | | | 427 | | | | |
| A-B | 111 | 28 | | | 111 | | | | |
| A-C | 406 | 102 | | | 406 | | | | |

### 18:15 - 18:30

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 194 | 49 | 577 | 0.337 | 195 | 0.8 | 0.5 | 9.563 | A |
| B-A | 87 | 22 | 306 | 0.283 | 88 | 0.7 | 0.4 | 16.749 | C |
| C-AB | 191 | 48 | 628 | 0.305 | 192 | 0.6 | 0.4 | 8.356 | A |
| C-A | 358 | 89 | | | 358 | | | | |
| A-B | 93 | 23 | | | 93 | | | | |
| A-C | 340 | 85 | | | 340 | | | | |

# Junctions 9

## PICADY 9 - Priority Intersection Module

Version: 9.5.0.6896
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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:** Plot 3 Link Road Access inc P4,5,6.j9
**Path:** X:\Jobs\3560 Hoyland Commercial Land\Junction Modelling\Plot 3 Access
**Report generation date:** 27/08/2020 10:23:07

---

## »2029 With Dev, AM
## »2029 With Dev, PM

### Summary of junction performance

| | AM | | | | PM | | | |
|---|---|---|---|---|---|---|---|---|
| | Queue (PCU) | Delay (s) | RFC | LOS | Queue (PCU) | Delay (s) | RFC | LOS |
| | 2029 With Dev | | | | | | | |
| Stream B-C | 0.1 | 9.34 | 0.04 | A | 0.1 | 7.71 | 0.09 | A |
| Stream B-A | 0.0 | 15.36 | 0.02 | C | 0.1 | 16.61 | 0.11 | C |
| Stream C-AB | 0.1 | 7.52 | 0.10 | A | 0.0 | 6.95 | 0.02 | A |

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

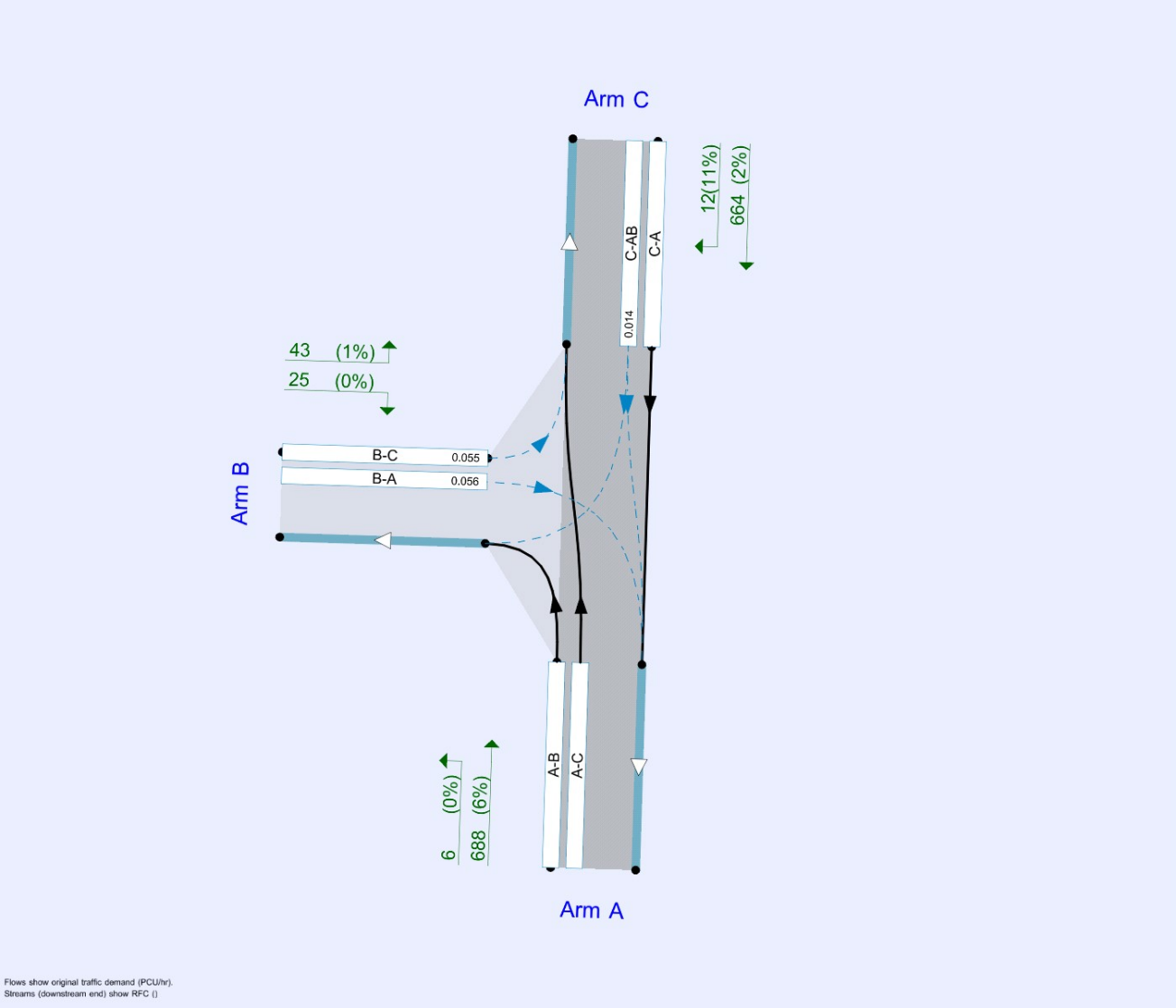
### File summary

#### File Description

| | |
|---|---|
| Title | |
| Location | |
| Site number | |
| Date | 28/04/2020 |
| Version | |
| Status | (new file) |
| Identifier | |
| Client | |
| Jobnumber | |
| Enumerator | WEEZY\Modelling |
| 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 | PCU | PCU | perHour | s | -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 | RFC Threshold | Average Delay threshold (s) | Queue threshold (PCU) |
|---|---|---|---|---|---|---|
| 5.75 | | | | 0.85 | 36.00 | 20.00 |

## Demand Set Summary

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|---|---|---|---|---|---|---|---|
| D1 | 2029 With Dev | AM | ONE HOUR | 08:00 | 09:30 | 15 | ✓ |
| D2 | 2029 With Dev | PM | ONE HOUR | 17:00 | 18:30 | 15 | ✓ |

## Analysis Set Details

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

# 2029 With Dev, AM

### Data Errors and Warnings

*No errors or warnings*

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | untitled | T-Junction | Two-way | | 0.47 | A |

### Junction Network Options

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

## Arms

### Arms

| Arm | Name | Description | Arm type |
|---|---|---|---|
| A | untitled | | Major |
| B | untitled | | Minor |
| C | untitled | | Major |

### Major Arm Geometry

| Arm | Width of carriageway (m) | Has kerbed central reserve | Has right turn bay | Width for right turn (m) | Visibility for right turn (m) | Blocks? | Blocking queue (PCU) |
|---|---|---|---|---|---|---|---|
| C | 7.00 | | ✓ | 3.50 | 250.0 | ✓ | 7.00 |

*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 | Width at give-way (m) | Width at 5m (m) | Width at 10m (m) | Width at 15m (m) | Width at 20m (m) | Estimate flare length | Flare length (PCU) | Visibility to left (m) | Visibility to right (m) |
|---|---|---|---|---|---|---|---|---|---|---|
| B | One lane plus flare | 10.00 | 8.40 | 4.70 | 3.60 | 3.60 | ✓ | 1.00 | 44 | 54 |

### Slope / Intercept / Capacity

#### Priority Intersection Slopes and Intercepts

| Junction | Stream | Intercept (PCU/hr) | Slope for A-B | Slope for A-C | Slope for C-A | Slope for C-B |
|---|---|---|---|---|---|---|
| 1 | B-A | 523 | 0.091 | 0.230 | 0.145 | 0.329 |
| 1 | B-C | 738 | 0.108 | 0.273 | - | - |
| 1 | C-B | 820 | 0.304 | 0.304 | - | - |

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

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

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

# Traffic Demand

## Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|---|---|---|---|---|---|---|---|
| D1 | 2029 With Dev | AM | ONE HOUR | 08:00 | 09:30 | 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 (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|---|
| A | | ONE HOUR | ✓ | 701 | 100.000 |
| B | | ONE HOUR | ✓ | 22 | 100.000 |
| C | | ONE HOUR | ✓ | 622 | 100.000 |

# Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | A | B | C |
| From | A | 0 | 25 | 676 |
| | B | 4 | 0 | 18 |
| | C | 568 | 54 | 0 |

# Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | A | B | C |
| From | A | 0 | 0 | 9 |
| | B | 0 | 0 | 32 |
| | C | 3 | 10 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) |
|---|---|---|---|---|---|---|
| B-C | 0.04 | 9.34 | 0.1 | A | 17 | 25 |
| B-A | 0.02 | 15.36 | 0.0 | C | 4 | 6 |
| C-AB | 0.10 | 7.52 | 0.1 | A | 50 | 74 |
| C-A | | | | | 521 | 782 |
| A-B | | | | | 23 | 34 |
| A-C | | | | | 620 | 930 |

## Main Results for each time segment

### 08:00 - 08:15

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 14 | 3 | 595 | 0.023 | 13 | 0.0 | 0.0 | 8.168 | A |
| B-A | 3 | 0.75 | 329 | 0.009 | 3 | 0.0 | 0.0 | 11.051 | B |
| C-AB | 41 | 10 | 660 | 0.062 | 40 | 0.0 | 0.1 | 6.388 | A |
| C-A | 428 | 107 | | | 428 | | | | |
| A-B | 19 | 5 | | | 19 | | | | |
| A-C | 509 | 127 | | | 509 | | | | |

### 08:15 - 08:30

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 16 | 4 | 567 | 0.029 | 16 | 0.0 | 0.0 | 8.623 | A |
| B-A | 4 | 0.90 | 291 | 0.012 | 4 | 0.0 | 0.0 | 12.529 | B |
| C-AB | 49 | 12 | 629 | 0.077 | 48 | 0.1 | 0.1 | 6.823 | A |
| C-A | 511 | 128 | | | 511 | | | | |
| A-B | 22 | 6 | | | 22 | | | | |
| A-C | 608 | 152 | | | 608 | | | | |

### 08:30 - 08:45

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 20 | 5 | 529 | 0.037 | 20 | 0.0 | 0.1 | 9.337 | A |
| B-A | 4 | 1 | 239 | 0.018 | 4 | 0.0 | 0.0 | 15.358 | C |
| C-AB | 59 | 15 | 586 | 0.102 | 59 | 0.1 | 0.1 | 7.520 | A |
| C-A | 625 | 156 | | | 625 | | | | |
| A-B | 28 | 7 | | | 28 | | | | |
| A-C | 744 | 186 | | | 744 | | | | |

### 08:45 - 09:00

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 20 | 5 | 529 | 0.037 | 20 | 0.1 | 0.1 | 9.339 | A |
| B-A | 4 | 1 | 239 | 0.018 | 4 | 0.0 | 0.0 | 15.363 | C |
| C-AB | 59 | 15 | 586 | 0.102 | 59 | 0.1 | 0.1 | 7.523 | A |
| C-A | 625 | 156 | | | 625 | | | | |
| A-B | 28 | 7 | | | 28 | | | | |
| A-C | 744 | 186 | | | 744 | | | | |

### 09:00 - 09:15

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 16 | 4 | 567 | 0.029 | 16 | 0.1 | 0.0 | 8.627 | A |
| B-A | 4 | 0.90 | 291 | 0.012 | 4 | 0.0 | 0.0 | 12.532 | B |
| C-AB | 49 | 12 | 629 | 0.077 | 49 | 0.1 | 0.1 | 6.826 | A |
| C-A | 511 | 128 | | | 511 | | | | |
| A-B | 22 | 6 | | | 22 | | | | |
| A-C | 608 | 152 | | | 608 | | | | |

**09:15 - 09:30**

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 14 | 3 | 595 | 0.023 | 14 | 0.0 | 0.0 | 8.174 | A |
| B-A | 3 | 0.75 | 329 | 0.009 | 3 | 0.0 | 0.0 | 11.057 | B |
| C-AB | 41 | 10 | 660 | 0.062 | 41 | 0.1 | 0.1 | 6.397 | A |
| C-A | 428 | 107 | | | 428 | | | | |
| A-B | 19 | 5 | | | 19 | | | | |
| A-C | 509 | 127 | | | 509 | | | | |

# 2029 With Dev, PM

### Data Errors and Warnings

*No errors or warnings*

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | untitled | T-Junction | Two-way | | 0.58 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|---|---|---|---|---|---|---|---|
| D2 | 2029 With Dev | PM | ONE HOUR | 17:00 | 18:30 | 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 (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|---|
| A | | ONE HOUR | ✓ | 694 | 100.000 |
| B | | ONE HOUR | ✓ | 68 | 100.000 |
| C | | ONE HOUR | ✓ | 676 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | A | B | C |
| From | A | 0 | 6 | 688 |
| | B | 25 | 0 | 43 |
| | C | 664 | 12 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | A | B | C |
| From | A | 0 | 0 | 6 |
| | B | 0 | 0 | 1 |
| | C | 2 | 11 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) |
|---|---|---|---|---|---|---|
| B-C | 0.09 | 7.71 | 0.1 | A | 39 | 59 |
| B-A | 0.11 | 16.61 | 0.1 | C | 23 | 34 |
| C-AB | 0.02 | 6.95 | 0.0 | A | 11 | 17 |
| C-A | | | | | 609 | 914 |
| A-B | | | | | 6 | 8 |
| A-C | | | | | 631 | 947 |

## Main Results for each time segment

### 17:00 - 17:15

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 32 | 8 | 593 | 0.055 | 32 | 0.0 | 0.1 | 6.478 | A |
| B-A | 19 | 5 | 337 | 0.056 | 19 | 0.0 | 0.1 | 11.289 | B |
| C-AB | 9 | 2 | 662 | 0.014 | 9 | 0.0 | 0.0 | 6.123 | A |
| C-A | 500 | 125 | | | 500 | | | | |
| A-B | 5 | 1 | | | 5 | | | | |
| A-C | 518 | 129 | | | 518 | | | | |

### 17:15 - 17:30

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 39 | 10 | 562 | 0.069 | 39 | 0.1 | 0.1 | 6.940 | A |
| B-A | 22 | 6 | 298 | 0.075 | 22 | 0.1 | 0.1 | 13.044 | B |
| C-AB | 11 | 3 | 631 | 0.017 | 11 | 0.0 | 0.0 | 6.444 | A |
| C-A | 597 | 149 | | | 597 | | | | |
| A-B | 5 | 1 | | | 5 | | | | |
| A-C | 618 | 155 | | | 618 | | | | |

### 17:30 - 17:45

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 47 | 12 | 519 | 0.091 | 47 | 0.1 | 0.1 | 7.704 | A |
| B-A | 28 | 7 | 244 | 0.113 | 27 | 0.1 | 0.1 | 16.582 | C |
| C-AB | 13 | 3 | 588 | 0.022 | 13 | 0.0 | 0.0 | 6.950 | A |
| C-A | 731 | 183 | | | 731 | | | | |
| A-B | 7 | 2 | | | 7 | | | | |
| A-C | 758 | 189 | | | 758 | | | | |

### 17:45 - 18:00

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 47 | 12 | 519 | 0.091 | 47 | 0.1 | 0.1 | 7.709 | A |
| B-A | 28 | 7 | 244 | 0.113 | 28 | 0.1 | 0.1 | 16.606 | C |
| C-AB | 13 | 3 | 588 | 0.022 | 13 | 0.0 | 0.0 | 6.950 | A |
| C-A | 731 | 183 | | | 731 | | | | |
| A-B | 7 | 2 | | | 7 | | | | |
| A-C | 758 | 189 | | | 758 | | | | |

### 18:00 - 18:15

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 39 | 10 | 562 | 0.069 | 39 | 0.1 | 0.1 | 6.946 | A |
| B-A | 22 | 6 | 298 | 0.075 | 23 | 0.1 | 0.1 | 13.068 | B |
| C-AB | 11 | 3 | 631 | 0.017 | 11 | 0.0 | 0.0 | 6.445 | A |
| C-A | 597 | 149 | | | 597 | | | | |
| A-B | 5 | 1 | | | 5 | | | | |
| A-C | 618 | 155 | | | 618 | | | | |

### 18:15 - 18:30

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 32 | 8 | 593 | 0.055 | 32 | 0.1 | 0.1 | 6.491 | A |
| B-A | 19 | 5 | 337 | 0.056 | 19 | 0.1 | 0.1 | 11.308 | B |
| C-AB | 9 | 2 | 662 | 0.014 | 9 | 0.0 | 0.0 | 6.123 | A |
| C-A | 500 | 125 | | | 500 | | | | |
| A-B | 5 | 1 | | | 5 | | | | |
| A-C | 518 | 129 | | | 518 | | | | |

# Junctions 9

## ARCADY 9 - Roundabout Module

Version: 9.5.0.6896
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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:** Hermes Access inc P4,5,6.j9
**Path:** X:\Jobs\3560 Hoyland Commercial Land\Junction Modelling\Hermes Access
**Report generation date:** 27/08/2020 09:54:24

---

### »2029 With Dev, AM
### »2029 With Dev, PM

### Summary of junction performance

| | AM | | | | PM | | | |
|---|---|---|---|---|---|---|---|---|
| | Queue (PCU) | Delay (s) | RFC | LOS | Queue (PCU) | Delay (s) | RFC | LOS |
| | 2029 With Dev | | | | | | | |
| Arm 1 | 0.6 | 3.33 | 0.35 | A | 0.5 | 3.03 | 0.32 | A |
| Arm 2 | 0.1 | 6.51 | 0.09 | A | 0.1 | 6.61 | 0.09 | A |
| Arm 3 | 0.5 | 3.01 | 0.32 | A | 0.5 | 2.99 | 0.34 | A |

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

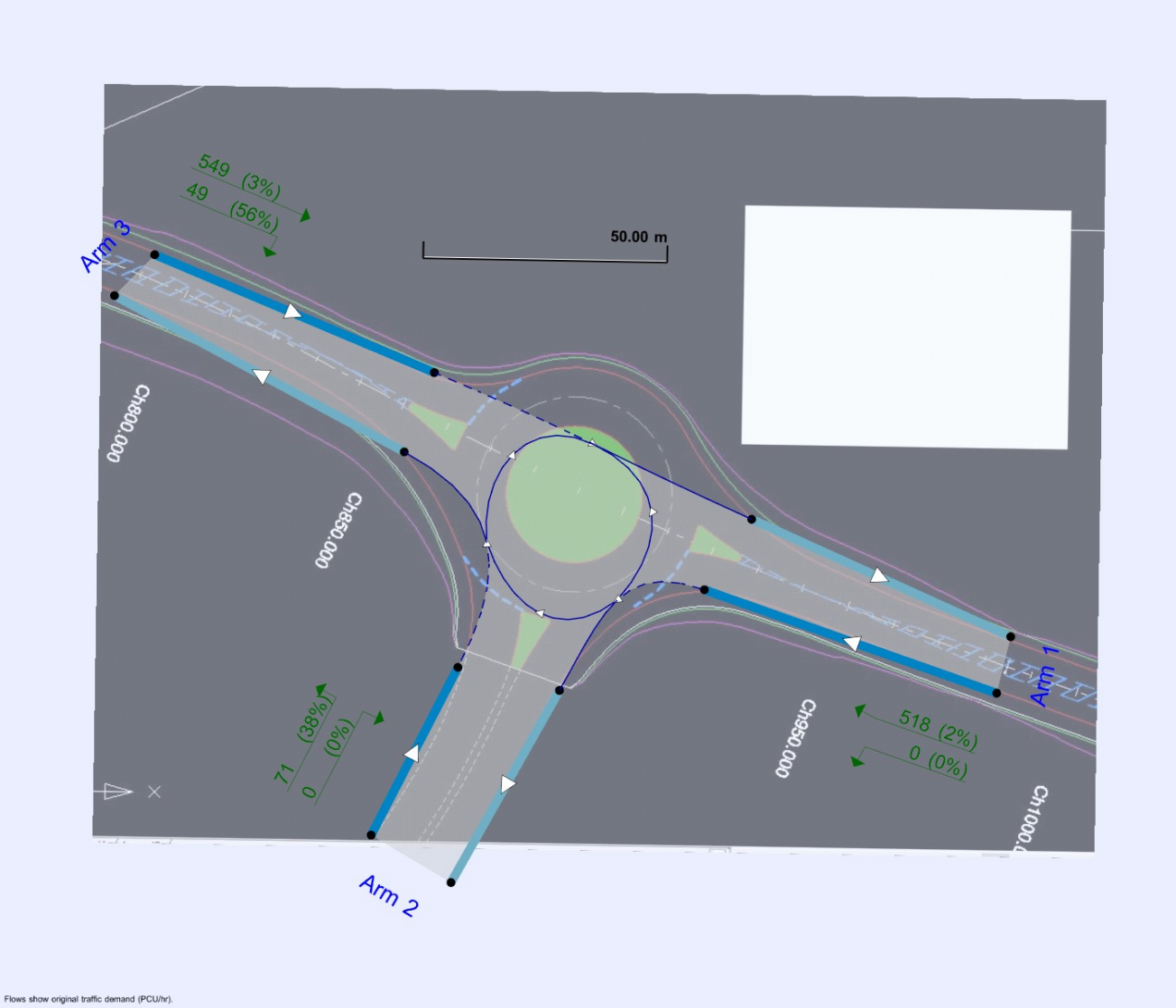
### File summary

#### File Description

| | |
|---|---|
| Title | |
| Location | |
| Site number | |
| Date | 28/04/2020 |
| Version | |
| Status | (new file) |
| Identifier | |
| Client | |
| Jobnumber | |
| Enumerator | WEEZY\Modelling |
| 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 | PCU | PCU | perHour | s | -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 | RFC Threshold | Average Delay threshold (s) | Queue threshold (PCU) |
|---|---|---|---|---|---|---|
| 5.75 | | | | 0.85 | 36.00 | 20.00 |

## Demand Set Summary

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|---|---|---|---|---|---|---|---|
| D1 | 2029 With Dev | AM | ONE HOUR | 08:00 | 09:30 | 15 | ✓ |
| D2 | 2029 With Dev | PM | ONE HOUR | 17:00 | 18:30 | 15 | ✓ |

## Analysis Set Details

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

# 2029 With Dev, AM

### Data Errors and Warnings

*No errors or warnings*

## Junction Network

### Junctions

| Junction | Name | Junction type | Use circulating lanes | Arm order | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | untitled | Standard Roundabout | | 1, 2, 3 | 3.35 | A |

### Junction Network Options

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

## Arms

### Arms

| Arm | Name | Description |
|---|---|---|
| 1 | untitled | |
| 2 | untitled | |
| 3 | untitled | |

### Roundabout Geometry

| Arm | V - Approach road half-width (m) | E - Entry width (m) | l' - Effective flare length (m) | R - Entry radius (m) | D - Inscribed circle diameter (m) | PHI - Conflict (entry) angle (deg) | Exit only |
|---|---|---|---|---|---|---|---|
| 1 | 3.36 | 8.41 | 14.2 | 30.7 | 51.7 | 21.3 | |
| 2 | 3.50 | 3.50 | 0.0 | 41.7 | 51.7 | 21.4 | |
| 3 | 4.19 | 8.15 | 11.6 | 34.1 | 52.0 | 21.5 | |

### Slope / Intercept / Capacity

#### Roundabout Slope and Intercept used in model

| Arm | Final slope | Final intercept (PCU/hr) |
|---|---|---|
| 1 | 0.636 | 1816 |
| 2 | 0.508 | 1119 |
| 3 | 0.657 | 1935 |

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|---|---|---|---|---|---|---|---|
| D1 | 2029 With Dev | AM | ONE HOUR | 08:00 | 09:30 | 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 (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|---|
| 1 | | ONE HOUR | ✓ | 560 | 100.000 |
| 2 | | ONE HOUR | ✓ | 64 | 100.000 |
| 3 | | ONE HOUR | ✓ | 568 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | 1 | 2 | 3 |
| From | 1 | 0 | 19 | 541 |
| | 2 | 0 | 0 | 64 |
| | 3 | 474 | 94 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | 1 | 2 | 3 |
| From | 1 | 0 | 0 | 5 |
| | 2 | 0 | 0 | 35 |
| | 3 | 6 | 31 | 0 |

## Results

### Results Summary for whole modelled period

| Arm | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) |
|---|---|---|---|---|---|---|
| 1 | 0.35 | 3.33 | 0.6 | A | 514 | 771 |
| 2 | 0.09 | 6.51 | 0.1 | A | 59 | 88 |
| 3 | 0.32 | 3.01 | 0.5 | A | 521 | 782 |

### Main Results for each time segment

#### 08:00 - 08:15

| Arm | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 422 | 105 | 71 | 1771 | 0.238 | 420 | 356 | 0.0 | 0.3 | 2.791 | A |
| 2 | 48 | 12 | 406 | 913 | 0.053 | 48 | 85 | 0.0 | 0.1 | 5.617 | A |
| 3 | 428 | 107 | 0 | 1935 | 0.221 | 426 | 454 | 0.0 | 0.3 | 2.608 | A |

#### 08:15 - 08:30

| Arm | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 503 | 126 | 84 | 1762 | 0.286 | 503 | 426 | 0.3 | 0.4 | 2.997 | A |
| 2 | 58 | 14 | 486 | 872 | 0.066 | 57 | 102 | 0.1 | 0.1 | 5.964 | A |
| 3 | 511 | 128 | 0 | 1935 | 0.264 | 510 | 543 | 0.3 | 0.4 | 2.765 | A |

### 08:30 - 08:45

| Arm | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 617 | 154 | 103 | 1750 | 0.352 | 616 | 521 | 0.4 | 0.6 | 3.325 | A |
| 2 | 70 | 18 | 595 | 817 | 0.086 | 70 | 124 | 0.1 | 0.1 | 6.511 | A |
| 3 | 625 | 156 | 0 | 1935 | 0.323 | 625 | 665 | 0.4 | 0.5 | 3.004 | A |

### 08:45 - 09:00

| Arm | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 617 | 154 | 103 | 1750 | 0.352 | 617 | 522 | 0.6 | 0.6 | 3.328 | A |
| 2 | 70 | 18 | 596 | 816 | 0.086 | 70 | 124 | 0.1 | 0.1 | 6.513 | A |
| 3 | 625 | 156 | 0 | 1935 | 0.323 | 625 | 666 | 0.5 | 0.5 | 3.007 | A |

### 09:00 - 09:15

| Arm | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 503 | 126 | 85 | 1762 | 0.286 | 504 | 427 | 0.6 | 0.4 | 3.000 | A |
| 2 | 58 | 14 | 487 | 872 | 0.066 | 58 | 102 | 0.1 | 0.1 | 5.970 | A |
| 3 | 511 | 128 | 0 | 1935 | 0.264 | 511 | 545 | 0.5 | 0.4 | 2.767 | A |

### 09:15 - 09:30

| Arm | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 422 | 105 | 71 | 1771 | 0.238 | 422 | 357 | 0.4 | 0.3 | 2.797 | A |
| 2 | 48 | 12 | 408 | 912 | 0.053 | 48 | 85 | 0.1 | 0.1 | 5.626 | A |
| 3 | 428 | 107 | 0 | 1935 | 0.221 | 428 | 456 | 0.4 | 0.3 | 2.616 | A |

# 2029 With Dev, PM

### Data Errors and Warnings

*No errors or warnings*

## Junction Network

### Junctions

| Junction | Name | Junction type | Use circulating lanes | Arm order | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | untitled | Standard Roundabout | | 1, 2, 3 | 3.22 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|---|---|---|---|---|---|---|---|
| D2 | 2029 With Dev | PM | ONE HOUR | 17:00 | 18:30 | 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 (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|---|
| 1 | | ONE HOUR | ✓ | 518 | 100.000 |
| 2 | | ONE HOUR | ✓ | 71 | 100.000 |
| 3 | | ONE HOUR | ✓ | 598 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | 1 | 2 | 3 |
| From | 1 | 0 | 0 | 518 |
| | 2 | 0 | 0 | 71 |
| | 3 | 549 | 49 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | 1 | 2 | 3 |
| From | 1 | 0 | 0 | 2 |
| | 2 | 0 | 0 | 38 |
| | 3 | 3 | 56 | 0 |

# Results

## Results Summary for whole modelled period

| Arm | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) |
|---|---|---|---|---|---|---|
| 1 | 0.32 | 3.03 | 0.5 | A | 475 | 713 |
| 2 | 0.09 | 6.61 | 0.1 | A | 65 | 98 |
| 3 | 0.34 | 2.99 | 0.5 | A | 549 | 823 |

## Main Results for each time segment

### 17:00 - 17:15

| Arm | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 390 | 97 | 37 | 1792 | 0.218 | 389 | 412 | 0.0 | 0.3 | 2.613 | A |
| 2 | 53 | 13 | 389 | 922 | 0.058 | 53 | 37 | 0.0 | 0.1 | 5.720 | A |
| 3 | 450 | 113 | 0 | 1935 | 0.233 | 449 | 442 | 0.0 | 0.3 | 2.563 | A |

### 17:15 - 17:30

| Arm | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 466 | 116 | 44 | 1788 | 0.260 | 465 | 493 | 0.3 | 0.4 | 2.776 | A |
| 2 | 64 | 16 | 465 | 883 | 0.072 | 64 | 44 | 0.1 | 0.1 | 6.066 | A |
| 3 | 538 | 134 | 0 | 1935 | 0.278 | 537 | 529 | 0.3 | 0.4 | 2.728 | A |

### 17:30 - 17:45

| Arm | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 570 | 143 | 54 | 1782 | 0.320 | 570 | 604 | 0.4 | 0.5 | 3.028 | A |
| 2 | 78 | 20 | 570 | 830 | 0.094 | 78 | 54 | 0.1 | 0.1 | 6.610 | A |
| 3 | 658 | 165 | 0 | 1935 | 0.340 | 658 | 648 | 0.4 | 0.5 | 2.983 | A |

### 17:45 - 18:00

| Arm | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 570 | 143 | 54 | 1782 | 0.320 | 570 | 604 | 0.5 | 0.5 | 3.030 | A |
| 2 | 78 | 20 | 570 | 829 | 0.094 | 78 | 54 | 0.1 | 0.1 | 6.612 | A |
| 3 | 658 | 165 | 0 | 1935 | 0.340 | 658 | 648 | 0.5 | 0.5 | 2.986 | A |

### 18:00 - 18:15

| Arm | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 466 | 116 | 44 | 1788 | 0.260 | 466 | 494 | 0.5 | 0.4 | 2.780 | A |
| 2 | 64 | 16 | 466 | 882 | 0.072 | 64 | 44 | 0.1 | 0.1 | 6.071 | A |
| 3 | 538 | 134 | 0 | 1935 | 0.278 | 538 | 530 | 0.5 | 0.4 | 2.730 | A |

**18:15 - 18:30**

| Arm | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **1** | 390 | 97 | 37 | 1792 | 0.218 | 390 | 414 | 0.4 | 0.3 | 2.620 | A |
| **2** | 53 | 13 | 390 | 921 | 0.058 | 54 | 37 | 0.1 | 0.1 | 5.728 | A |
| **3** | 450 | 113 | 0 | 1935 | 0.233 | 451 | 444 | 0.4 | 0.3 | 2.570 | A |

# Junctions 9

## ARCADY 9 - Roundabout Module

Version: 9.5.0.6896
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For sales and distribution information, program advice and maintenance, contact TRL:
+44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk

**The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution**

**Filename:** LInk Road South Rbt inc P4,5,6.j9
**Path:** X:\Jobs\3560 Hoyland Commercial Land\Junction Modelling\Link Road Southern Access rbt
**Report generation date:** 27/08/2020 09:36:37

---

## »2029 With Dev, AM
## »2029 With Dev, PM

### Summary of junction performance

| | AM | | | | PM | | | |
|---|---|---|---|---|---|---|---|---|
| | Queue (PCU) | Delay (s) | RFC | LOS | Queue (PCU) | Delay (s) | RFC | LOS |
| | 2029 With Dev | | | | | | | |
| Arm 1 | 0.6 | 3.37 | 0.36 | A | 0.5 | 3.13 | 0.34 | A |
| Arm 2 | 0.1 | 4.13 | 0.04 | A | 0.1 | 3.37 | 0.09 | A |
| Arm 3 | 0.5 | 2.72 | 0.31 | A | 0.5 | 2.75 | 0.33 | A |
| Arm 4 | 0.0 | 0.00 | 0.00 | A | 0.0 | 0.00 | 0.00 | A |

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

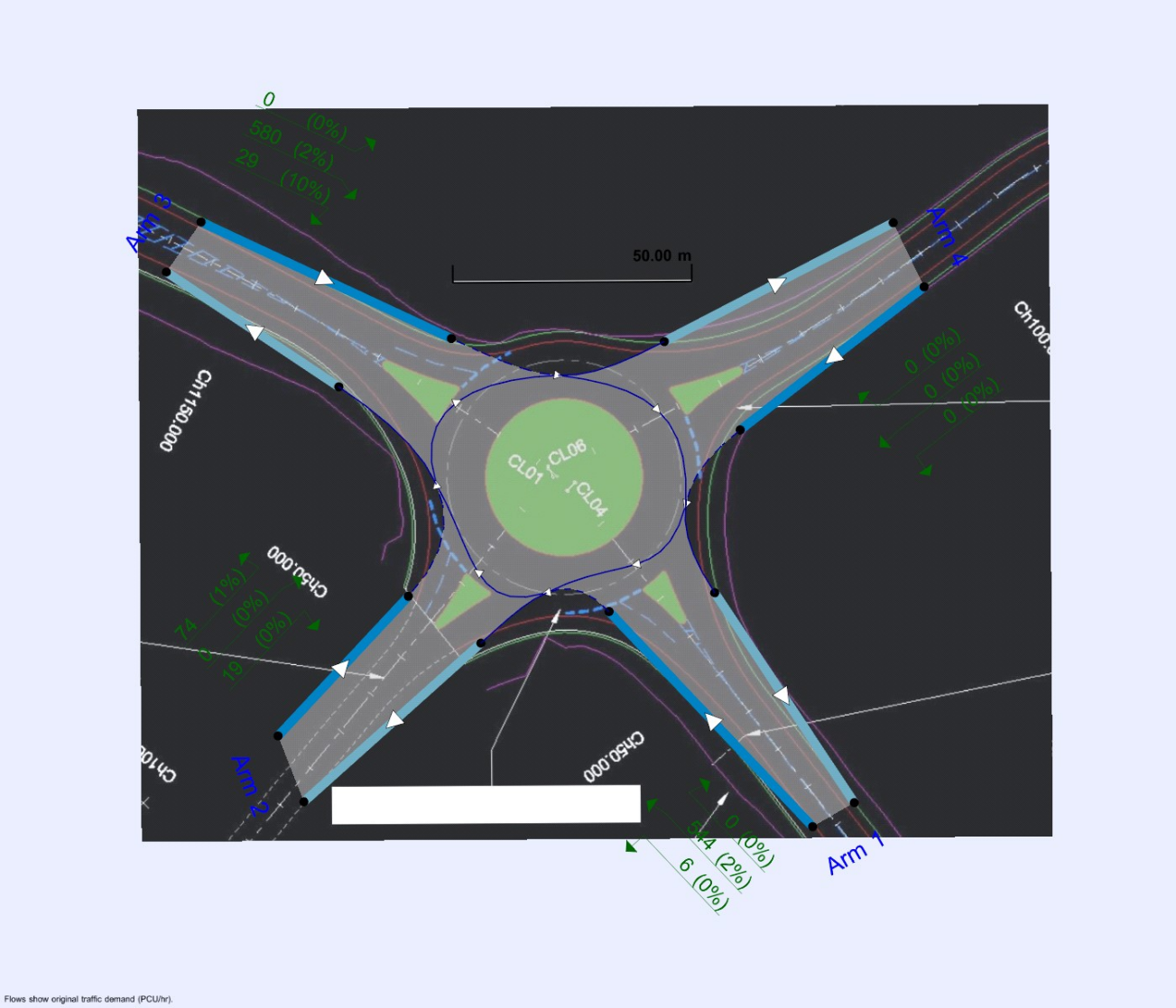
### File summary

#### File Description

| | |
|---|---|
| Title | |
| Location | |
| Site number | |
| Date | 28/04/2020 |
| Version | |
| Status | (new file) |
| Identifier | |
| Client | |
| Jobnumber | |
| Enumerator | WEEZY\Modelling |
| 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 | PCU | PCU | perHour | s | -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 | RFC Threshold | Average Delay threshold (s) | Queue threshold (PCU) |
|---|---|---|---|---|---|---|
| 5.75 | | | | 0.85 | 36.00 | 20.00 |

## Demand Set Summary

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|---|---|---|---|---|---|---|---|
| D1 | 2029 With Dev | AM | ONE HOUR | 08:00 | 09:30 | 15 | ✓ |
| D2 | 2029 With Dev | PM | ONE HOUR | 17:00 | 18:30 | 15 | ✓ |

## Analysis Set Details

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

# 2029 With Dev, AM

### Data Errors and Warnings

*No errors or warnings*

## Junction Network

### Junctions

| Junction | Name | Junction type | Use circulating lanes | Arm order | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | untitled | Standard Roundabout | | 1, 2, 3, 4 | 3.08 | A |

### Junction Network Options

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

## Arms

### Arms

| Arm | Name | Description |
|---|---|---|
| 1 | untitled | |
| 2 | untitled | |
| 3 | untitled | |
| 4 | untitled | |

### Roundabout Geometry

| Arm | V - Approach road half-width (m) | E - Entry width (m) | l' - Effective flare length (m) | R - Entry radius (m) | D - Inscribed circle diameter (m) | PHI - Conflict (entry) angle (deg) | Exit only |
|---|---|---|---|---|---|---|---|
| 1 | 3.69 | 8.54 | 11.8 | 31.8 | 56.7 | 28.0 | |
| 2 | 3.45 | 8.35 | 5.7 | 40.2 | 56.5 | 22.3 | |
| 3 | 4.81 | 6.90 | 23.4 | 36.2 | 56.7 | 25.4 | |
| 4 | 3.95 | 6.79 | 5.0 | 33.5 | 56.6 | 29.4 | |

### Slope / Intercept / Capacity

#### Roundabout Slope and Intercept used in model

| Arm | Final slope | Final intercept (PCU/hr) |
|---|---|---|
| 1 | 0.600 | 1798 |
| 2 | 0.557 | 1514 |
| 3 | 0.643 | 2023 |
| 4 | 0.552 | 1533 |

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|---|---|---|---|---|---|---|---|
| D1 | 2029 With Dev | AM | ONE HOUR | 08:00 | 09:30 | 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 (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|---|
| 1 | | ONE HOUR | ✓ | 570 | 100.000 |
| 2 | | ONE HOUR | ✓ | 40 | 100.000 |
| 3 | | ONE HOUR | ✓ | 570 | 100.000 |
| 4 | | ONE HOUR | ✓ | 0 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | | |
|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 |
| From | 1 | 0 | 18 | 552 | 0 |
| | 2 | 3 | 0 | 37 | 0 |
| | 3 | 476 | 94 | 0 | 0 |
| | 4 | 0 | 0 | 0 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | | |
|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 |
| From | 1 | 0 | 0 | 4 | 0 |
| | 2 | 0 | 0 | 33 | 0 |
| | 3 | 4 | 13 | 0 | 0 |
| | 4 | 0 | 0 | 0 | 0 |

## Results

### Results Summary for whole modelled period

| Arm | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) |
|---|---|---|---|---|---|---|
| 1 | 0.36 | 3.37 | 0.6 | A | 523 | 785 |
| 2 | 0.04 | 4.13 | 0.1 | A | 37 | 55 |
| 3 | 0.31 | 2.72 | 0.5 | A | 523 | 785 |
| 4 | 0.00 | 0.00 | 0.0 | A | 0 | 0 |

### Main Results for each time segment

#### 08:00 - 08:15

| Arm | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 429 | 107 | 71 | 1756 | 0.244 | 428 | 360 | 0.0 | 0.3 | 2.813 | A |
| 2 | 30 | 8 | 414 | 1283 | 0.023 | 30 | 84 | 0.0 | 0.0 | 3.728 | A |
| 3 | 429 | 107 | 2 | 2022 | 0.212 | 428 | 442 | 0.0 | 0.3 | 2.379 | A |
| 4 | 0 | 0 | 430 | 1296 | 0.000 | 0 | 0 | 0.0 | 0.0 | 0.000 | A |

### 08:15 - 08:30

| Arm | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 512 | 128 | 84 | 1747 | 0.293 | 512 | 430 | 0.3 | 0.4 | 3.027 | A |
| 2 | 36 | 9 | 496 | 1237 | 0.029 | 36 | 101 | 0.0 | 0.0 | 3.888 | A |
| 3 | 512 | 128 | 3 | 2022 | 0.253 | 512 | 529 | 0.3 | 0.4 | 2.513 | A |
| 4 | 0 | 0 | 515 | 1249 | 0.000 | 0 | 0 | 0.0 | 0.0 | 0.000 | A |

### 08:30 - 08:45

| Arm | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 628 | 157 | 103 | 1736 | 0.362 | 627 | 527 | 0.4 | 0.6 | 3.369 | A |
| 2 | 44 | 11 | 607 | 1175 | 0.037 | 44 | 123 | 0.0 | 0.1 | 4.129 | A |
| 3 | 628 | 157 | 3 | 2021 | 0.310 | 627 | 648 | 0.4 | 0.5 | 2.721 | A |
| 4 | 0 | 0 | 630 | 1185 | 0.000 | 0 | 0 | 0.0 | 0.0 | 0.000 | A |

### 08:45 - 09:00

| Arm | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 628 | 157 | 103 | 1736 | 0.362 | 628 | 527 | 0.6 | 0.6 | 3.372 | A |
| 2 | 44 | 11 | 608 | 1175 | 0.037 | 44 | 123 | 0.1 | 0.1 | 4.130 | A |
| 3 | 628 | 157 | 3 | 2021 | 0.310 | 628 | 648 | 0.5 | 0.5 | 2.721 | A |
| 4 | 0 | 0 | 631 | 1185 | 0.000 | 0 | 0 | 0.0 | 0.0 | 0.000 | A |

### 09:00 - 09:15

| Arm | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 512 | 128 | 85 | 1747 | 0.293 | 513 | 431 | 0.6 | 0.4 | 3.032 | A |
| 2 | 36 | 9 | 497 | 1237 | 0.029 | 36 | 101 | 0.1 | 0.0 | 3.892 | A |
| 3 | 512 | 128 | 3 | 2022 | 0.253 | 513 | 530 | 0.5 | 0.4 | 2.516 | A |
| 4 | 0 | 0 | 516 | 1249 | 0.000 | 0 | 0 | 0.0 | 0.0 | 0.000 | A |

### 09:15 - 09:30

| Arm | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 429 | 107 | 71 | 1756 | 0.244 | 430 | 361 | 0.4 | 0.3 | 2.822 | A |
| 2 | 30 | 8 | 416 | 1282 | 0.023 | 30 | 84 | 0.0 | 0.0 | 3.734 | A |
| 3 | 429 | 107 | 2 | 2022 | 0.212 | 429 | 444 | 0.4 | 0.3 | 2.384 | A |
| 4 | 0 | 0 | 432 | 1295 | 0.000 | 0 | 0 | 0.0 | 0.0 | 0.000 | A |

# 2029 With Dev, PM

### Data Errors and Warnings

*No errors or warnings*

## Junction Network

### Junctions

| Junction | Name | Junction type | Use circulating lanes | Arm order | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | untitled | Standard Roundabout | | 1, 2, 3, 4 | 2.96 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|---|---|---|---|---|---|---|---|
| D2 | 2029 With Dev | PM | ONE HOUR | 17:00 | 18:30 | 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 (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|---|
| 1 | | ONE HOUR | ✓ | 550 | 100.000 |
| 2 | | ONE HOUR | ✓ | 93 | 100.000 |
| 3 | | ONE HOUR | ✓ | 609 | 100.000 |
| 4 | | ONE HOUR | ✓ | 0 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | | |
|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 |
| From | 1 | 0 | 6 | 544 | 0 |
| | 2 | 19 | 0 | 74 | 0 |
| | 3 | 580 | 29 | 0 | 0 |
| | 4 | 0 | 0 | 0 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | | |
|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 |
| From | 1 | 0 | 0 | 2 | 0 |
| | 2 | 0 | 0 | 1 | 0 |
| | 3 | 2 | 10 | 0 | 0 |
| | 4 | 0 | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Arm | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) |
|---|---|---|---|---|---|---|
| 1 | 0.34 | 3.13 | 0.5 | A | 505 | 757 |
| 2 | 0.09 | 3.37 | 0.1 | A | 85 | 128 |
| 3 | 0.33 | 2.75 | 0.5 | A | 559 | 838 |
| 4 | 0.00 | 0.00 | 0.0 | A | 0 | 0 |

## Main Results for each time segment

### 17:00 - 17:15

| Arm | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 414 | 104 | 22 | 1785 | 0.232 | 413 | 450 | 0.0 | 0.3 | 2.673 | A |
| 2 | 70 | 18 | 408 | 1286 | 0.054 | 70 | 26 | 0.0 | 0.1 | 2.982 | A |
| 3 | 458 | 115 | 14 | 2014 | 0.228 | 457 | 464 | 0.0 | 0.3 | 2.366 | A |
| 4 | 0 | 0 | 472 | 1273 | 0.000 | 0 | 0 | 0.0 | 0.0 | 0.000 | A |

### 17:15 - 17:30

| Arm | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 494 | 124 | 26 | 1782 | 0.277 | 494 | 538 | 0.3 | 0.4 | 2.849 | A |
| 2 | 84 | 21 | 489 | 1241 | 0.067 | 84 | 31 | 0.1 | 0.1 | 3.133 | A |
| 3 | 547 | 137 | 17 | 2012 | 0.272 | 547 | 555 | 0.3 | 0.4 | 2.514 | A |
| 4 | 0 | 0 | 564 | 1222 | 0.000 | 0 | 0 | 0.0 | 0.0 | 0.000 | A |

### 17:30 - 17:45

| Arm | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 606 | 151 | 32 | 1779 | 0.340 | 605 | 659 | 0.4 | 0.5 | 3.125 | A |
| 2 | 102 | 26 | 598 | 1180 | 0.087 | 102 | 39 | 0.1 | 0.1 | 3.365 | A |
| 3 | 671 | 168 | 21 | 2010 | 0.334 | 670 | 680 | 0.4 | 0.5 | 2.750 | A |
| 4 | 0 | 0 | 691 | 1152 | 0.000 | 0 | 0 | 0.0 | 0.0 | 0.000 | A |

### 17:45 - 18:00

| Arm | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 606 | 151 | 32 | 1779 | 0.340 | 606 | 660 | 0.5 | 0.5 | 3.128 | A |
| 2 | 102 | 26 | 599 | 1180 | 0.087 | 102 | 39 | 0.1 | 0.1 | 3.366 | A |
| 3 | 671 | 168 | 21 | 2010 | 0.334 | 671 | 680 | 0.5 | 0.5 | 2.750 | A |
| 4 | 0 | 0 | 691 | 1152 | 0.000 | 0 | 0 | 0.0 | 0.0 | 0.000 | A |

### 18:00 - 18:15

| Arm | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 494 | 124 | 26 | 1782 | 0.277 | 495 | 539 | 0.5 | 0.4 | 2.854 | A |
| 2 | 84 | 21 | 490 | 1241 | 0.067 | 84 | 31 | 0.1 | 0.1 | 3.137 | A |
| 3 | 547 | 137 | 17 | 2012 | 0.272 | 548 | 556 | 0.5 | 0.4 | 2.518 | A |
| 4 | 0 | 0 | 565 | 1221 | 0.000 | 0 | 0 | 0.0 | 0.0 | 0.000 | A |

**18:15 - 18:30**

| Arm | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 414 | 104 | 22 | 1785 | 0.232 | 414 | 451 | 0.4 | 0.3 | 2.680 | A |
| 2 | 70 | 18 | 410 | 1285 | 0.054 | 70 | 26 | 0.1 | 0.1 | 2.985 | A |
| 3 | 458 | 115 | 14 | 2014 | 0.228 | 459 | 466 | 0.4 | 0.3 | 2.371 | A |
| 4 | 0 | 0 | 473 | 1272 | 0.000 | 0 | 0 | 0.0 | 0.0 | 0.000 | A |

# Junctions 9

## PICADY 9 - Priority Intersection Module

Version: 9.5.0.6896
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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:** Link Rd_Sheff Rd inc P4,5,6.j9
**Path:** X:\Jobs\3560 Hoyland Commercial Land\Junction Modelling\Link Road_Sheffield Road
**Report generation date:** 27/08/2020 09:39:37

---

## »2029 With Dev, AM
## »2029 With Dev, PM

### Summary of junction performance

| | AM | | | | PM | | | |
|---|---|---|---|---|---|---|---|---|
| | Queue (PCU) | Delay (s) | RFC | LOS | Queue (PCU) | Delay (s) | RFC | LOS |
| | 2029 With Dev | | | | | | | |
| Stream B-C | 0.2 | 7.94 | 0.20 | A | 0.2 | 7.42 | 0.15 | A |
| Stream B-A | 0.1 | 13.99 | 0.09 | B | 0.0 | 14.81 | 0.02 | B |
| Stream C-AB | 0.1 | 7.22 | 0.11 | A | 0.3 | 8.08 | 0.21 | A |

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

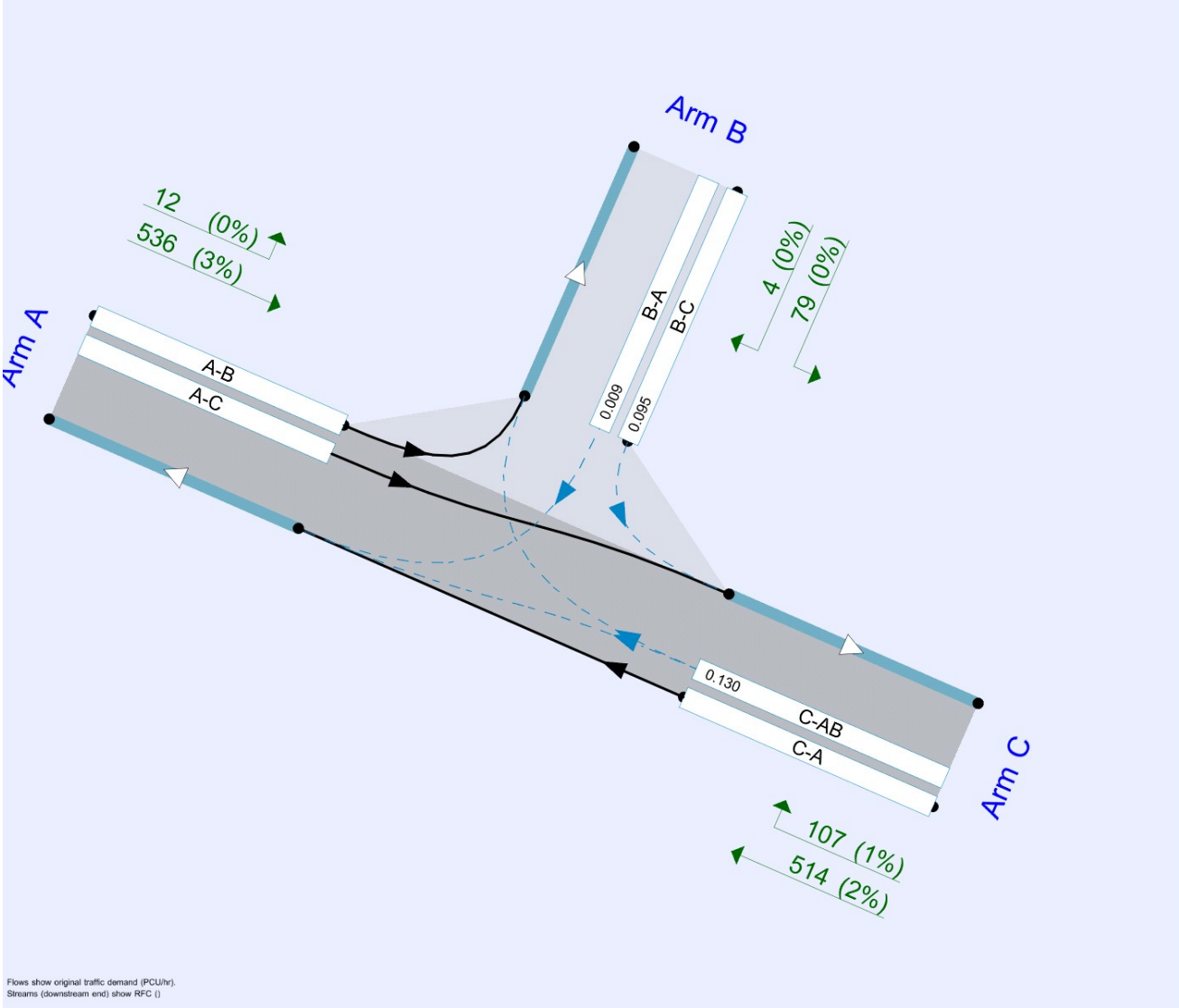
### File summary

#### File Description

| | |
|---|---|
| Title | |
| Location | |
| Site number | |
| Date | 28/04/2020 |
| Version | |
| Status | (new file) |
| Identifier | |
| Client | |
| Jobnumber | |
| Enumerator | WEEZY\Modelling |
| 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 | PCU | PCU | perHour | s | -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 | RFC Threshold | Average Delay threshold (s) | Queue threshold (PCU) |
|---|---|---|---|---|---|---|
| 5.75 | | | | 0.85 | 36.00 | 20.00 |

## Demand Set Summary

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|---|---|---|---|---|---|---|---|
| D1 | 2029 With Dev | AM | ONE HOUR | 08:00 | 09:30 | 15 | ✓ |
| D2 | 2029 With Dev | PM | ONE HOUR | 17:00 | 18:30 | 15 | ✓ |

## Analysis Set Details

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

# 2029 With Dev, AM

### Data Errors and Warnings

*No errors or warnings*

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | untitled | T-Junction | Two-way | | 1.31 | A |

### Junction Network Options

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

## Arms

### Arms

| Arm | Name | Description | Arm type |
|---|---|---|---|
| A | untitled | | Major |
| B | untitled | | Minor |
| C | untitled | | Major |

### Major Arm Geometry

| Arm | Width of carriageway (m) | Has kerbed central reserve | Has right turn bay | Width for right turn (m) | Visibility for right turn (m) | Blocks? | Blocking queue (PCU) |
|---|---|---|---|---|---|---|---|
| C | 7.00 | | ✓ | 3.50 | 115.0 | ✓ | 7.00 |

*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 | Width at give-way (m) | Width at 5m (m) | Width at 10m (m) | Width at 15m (m) | Width at 20m (m) | Estimate flare length | Flare length (PCU) | Visibility to left (m) | Visibility to right (m) |
|---|---|---|---|---|---|---|---|---|---|---|
| B | One lane plus flare | 10.00 | 7.80 | 4.90 | 3.80 | 3.80 | ✓ | 2.00 | 38 | 31 |

### Slope / Intercept / Capacity

#### Priority Intersection Slopes and Intercepts

| Junction | Stream | Intercept (PCU/hr) | Slope for A-B | Slope for A-C | Slope for C-A | Slope for C-B |
|---|---|---|---|---|---|---|
| 1 | B-A | 500 | 0.087 | 0.220 | 0.139 | 0.315 |
| 1 | B-C | 728 | 0.107 | 0.270 | - | - |
| 1 | C-B | 731 | 0.271 | 0.271 | - | - |

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

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

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

# Traffic Demand

## Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|---|---|---|---|---|---|---|---|
| D1 | 2029 With Dev | AM | ONE HOUR | 08:00 | 09:30 | 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 (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|---|
| A | | ONE HOUR | ✓ | 474 | 100.000 |
| B | | ONE HOUR | ✓ | 125 | 100.000 |
| C | | ONE HOUR | ✓ | 597 | 100.000 |

# Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | A | B | C |
| From | A | 0 | 4 | 470 |
| | B | 23 | 0 | 102 |
| | C | 537 | 60 | 0 |

# Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | A | B | C |
| From | A | 0 | 0 | 6 |
| | B | 0 | 0 | 2 |
| | C | 5 | 5 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) |
|---|---|---|---|---|---|---|
| B-C | 0.20 | 7.94 | 0.2 | A | 94 | 140 |
| B-A | 0.09 | 13.99 | 0.1 | B | 21 | 32 |
| C-AB | 0.11 | 7.22 | 0.1 | A | 55 | 83 |
| C-A | | | | | 493 | 739 |
| A-B | | | | | 4 | 6 |
| A-C | | | | | 431 | 647 |

## Main Results for each time segment

### 08:00 - 08:15

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 77 | 19 | 625 | 0.123 | 76 | 0.0 | 0.1 | 6.686 | A |
| B-A | 17 | 4 | 352 | 0.049 | 17 | 0.0 | 0.1 | 10.754 | B |
| C-AB | 45 | 11 | 634 | 0.071 | 45 | 0.0 | 0.1 | 6.408 | A |
| C-A | 404 | 101 | | | 404 | | | | |
| A-B | 3 | 0.75 | | | 3 | | | | |
| A-C | 354 | 88 | | | 354 | | | | |

### 08:15 - 08:30

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 92 | 23 | 604 | 0.152 | 92 | 0.1 | 0.2 | 7.163 | A |
| B-A | 21 | 5 | 323 | 0.064 | 21 | 0.1 | 0.1 | 11.914 | B |
| C-AB | 54 | 13 | 616 | 0.088 | 54 | 0.1 | 0.1 | 6.727 | A |
| C-A | 483 | 121 | | | 483 | | | | |
| A-B | 4 | 0.90 | | | 4 | | | | |
| A-C | 423 | 106 | | | 423 | | | | |

### 08:30 - 08:45

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 112 | 28 | 575 | 0.195 | 112 | 0.2 | 0.2 | 7.929 | A |
| B-A | 25 | 6 | 283 | 0.090 | 25 | 0.1 | 0.1 | 13.977 | B |
| C-AB | 66 | 17 | 590 | 0.112 | 66 | 0.1 | 0.1 | 7.213 | A |
| C-A | 591 | 148 | | | 591 | | | | |
| A-B | 4 | 1 | | | 4 | | | | |
| A-C | 517 | 129 | | | 517 | | | | |

### 08:45 - 09:00

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 112 | 28 | 575 | 0.195 | 112 | 0.2 | 0.2 | 7.939 | A |
| B-A | 25 | 6 | 283 | 0.090 | 25 | 0.1 | 0.1 | 13.990 | B |
| C-AB | 66 | 17 | 590 | 0.112 | 66 | 0.1 | 0.1 | 7.216 | A |
| C-A | 591 | 148 | | | 591 | | | | |
| A-B | 4 | 1 | | | 4 | | | | |
| A-C | 517 | 129 | | | 517 | | | | |

### 09:00 - 09:15

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 92 | 23 | 604 | 0.152 | 92 | 0.2 | 0.2 | 7.177 | A |
| B-A | 21 | 5 | 323 | 0.064 | 21 | 0.1 | 0.1 | 11.931 | B |
| C-AB | 54 | 13 | 616 | 0.088 | 54 | 0.1 | 0.1 | 6.733 | A |
| C-A | 483 | 121 | | | 483 | | | | |
| A-B | 4 | 0.90 | | | 4 | | | | |
| A-C | 423 | 106 | | | 423 | | | | |

**09:15 - 09:30**

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 77 | 19 | 625 | 0.123 | 77 | 0.2 | 0.1 | 6.708 | A |
| B-A | 17 | 4 | 352 | 0.049 | 17 | 0.1 | 0.1 | 10.776 | B |
| C-AB | 45 | 11 | 634 | 0.071 | 45 | 0.1 | 0.1 | 6.417 | A |
| C-A | 404 | 101 | | | 404 | | | | |
| A-B | 3 | 0.75 | | | 3 | | | | |
| A-C | 354 | 88 | | | 354 | | | | |

# 2029 With Dev, PM

### Data Errors and Warnings

*No errors or warnings*

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | untitled | T-Junction | Two-way | | 1.21 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|---|---|---|---|---|---|---|---|
| D2 | 2029 With Dev | PM | ONE HOUR | 17:00 | 18:30 | 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 (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|---|
| A | | ONE HOUR | ✓ | 548 | 100.000 |
| B | | ONE HOUR | ✓ | 83 | 100.000 |
| C | | ONE HOUR | ✓ | 621 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | A | B | C |
| From | A | 0 | 12 | 536 |
| | B | 4 | 0 | 79 |
| | C | 514 | 107 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | A | B | C |
| From | A | 0 | 0 | 3 |
| | B | 0 | 0 | 0 |
| | C | 2 | 1 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) |
|---|---|---|---|---|---|---|
| B-C | 0.15 | 7.42 | 0.2 | A | 72 | 109 |
| B-A | 0.02 | 14.81 | 0.0 | B | 4 | 6 |
| C-AB | 0.21 | 8.08 | 0.3 | A | 98 | 147 |
| C-A | | | | | 472 | 707 |
| A-B | | | | | 11 | 17 |
| A-C | | | | | 492 | 738 |

## Main Results for each time segment

### 17:00 - 17:15

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 59 | 15 | 624 | 0.095 | 59 | 0.0 | 0.1 | 6.364 | A |
| B-A | 3 | 0.75 | 324 | 0.009 | 3 | 0.0 | 0.0 | 11.210 | B |
| C-AB | 81 | 20 | 619 | 0.130 | 80 | 0.0 | 0.1 | 6.733 | A |
| C-A | 387 | 97 | | | 387 | | | | |
| A-B | 9 | 2 | | | 9 | | | | |
| A-C | 404 | 101 | | | 404 | | | | |

### 17:15 - 17:30

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 71 | 18 | 602 | 0.118 | 71 | 0.1 | 0.1 | 6.771 | A |
| B-A | 4 | 0.90 | 292 | 0.012 | 4 | 0.0 | 0.0 | 12.488 | B |
| C-AB | 96 | 24 | 598 | 0.161 | 96 | 0.1 | 0.2 | 7.246 | A |
| C-A | 462 | 116 | | | 462 | | | | |
| A-B | 11 | 3 | | | 11 | | | | |
| A-C | 482 | 120 | | | 482 | | | | |

### 17:30 - 17:45

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 87 | 22 | 572 | 0.152 | 87 | 0.1 | 0.2 | 7.421 | A |
| B-A | 4 | 1 | 247 | 0.018 | 4 | 0.0 | 0.0 | 14.808 | B |
| C-AB | 118 | 29 | 568 | 0.208 | 118 | 0.2 | 0.3 | 8.072 | A |
| C-A | 566 | 141 | | | 566 | | | | |
| A-B | 13 | 3 | | | 13 | | | | |
| A-C | 590 | 148 | | | 590 | | | | |

### 17:45 - 18:00

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 87 | 22 | 572 | 0.152 | 87 | 0.2 | 0.2 | 7.424 | A |
| B-A | 4 | 1 | 247 | 0.018 | 4 | 0.0 | 0.0 | 14.813 | B |
| C-AB | 118 | 29 | 568 | 0.208 | 118 | 0.3 | 0.3 | 8.081 | A |
| C-A | 566 | 141 | | | 566 | | | | |
| A-B | 13 | 3 | | | 13 | | | | |
| A-C | 590 | 148 | | | 590 | | | | |

### 18:00 - 18:15

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 71 | 18 | 602 | 0.118 | 71 | 0.2 | 0.1 | 6.781 | A |
| B-A | 4 | 0.90 | 292 | 0.012 | 4 | 0.0 | 0.0 | 12.498 | B |
| C-AB | 96 | 24 | 598 | 0.161 | 96 | 0.3 | 0.2 | 7.257 | A |
| C-A | 462 | 116 | | | 462 | | | | |
| A-B | 11 | 3 | | | 11 | | | | |
| A-C | 482 | 120 | | | 482 | | | | |

### 18:15 - 18:30

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 59 | 15 | 624 | 0.095 | 60 | 0.1 | 0.1 | 6.377 | A |
| B-A | 3 | 0.75 | 324 | 0.009 | 3 | 0.0 | 0.0 | 11.221 | B |
| C-AB | 81 | 20 | 619 | 0.130 | 81 | 0.2 | 0.2 | 6.751 | A |
| C-A | 387 | 97 | | | 387 | | | | |
| A-B | 9 | 2 | | | 9 | | | | |
| A-C | 404 | 101 | | | 404 | | | | |

# Junctions 9

## PICADY 9 - Priority Intersection Module

Version: 9.5.0.6896
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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:** Link Road_Tankersley Lane inc P4,5,6.j9
**Path:** X:\Jobs\3560 Hoyland Commercial Land\Junction Modelling\Link Road_Tankersley Lane
**Report generation date:** 27/08/2020 08:58:43

---

## »2029 With Dev, AM
## »2029 With Dev, PM

### Summary of junction performance

| | AM | | | | PM | | | |
|---|---|---|---|---|---|---|---|---|
| | Queue (PCU) | Delay (s) | RFC | LOS | Queue (PCU) | Delay (s) | RFC | LOS |
| | 2029 With Dev | | | | | | | |
| Stream B-C | 0.8 | 13.67 | 0.44 | B | 1.0 | 14.58 | 0.49 | B |
| Stream B-A | 0.8 | 29.24 | 0.46 | D | 0.9 | 34.43 | 0.49 | D |
| Stream C-AB | 0.5 | 9.98 | 0.35 | A | 0.9 | 11.92 | 0.47 | B |

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

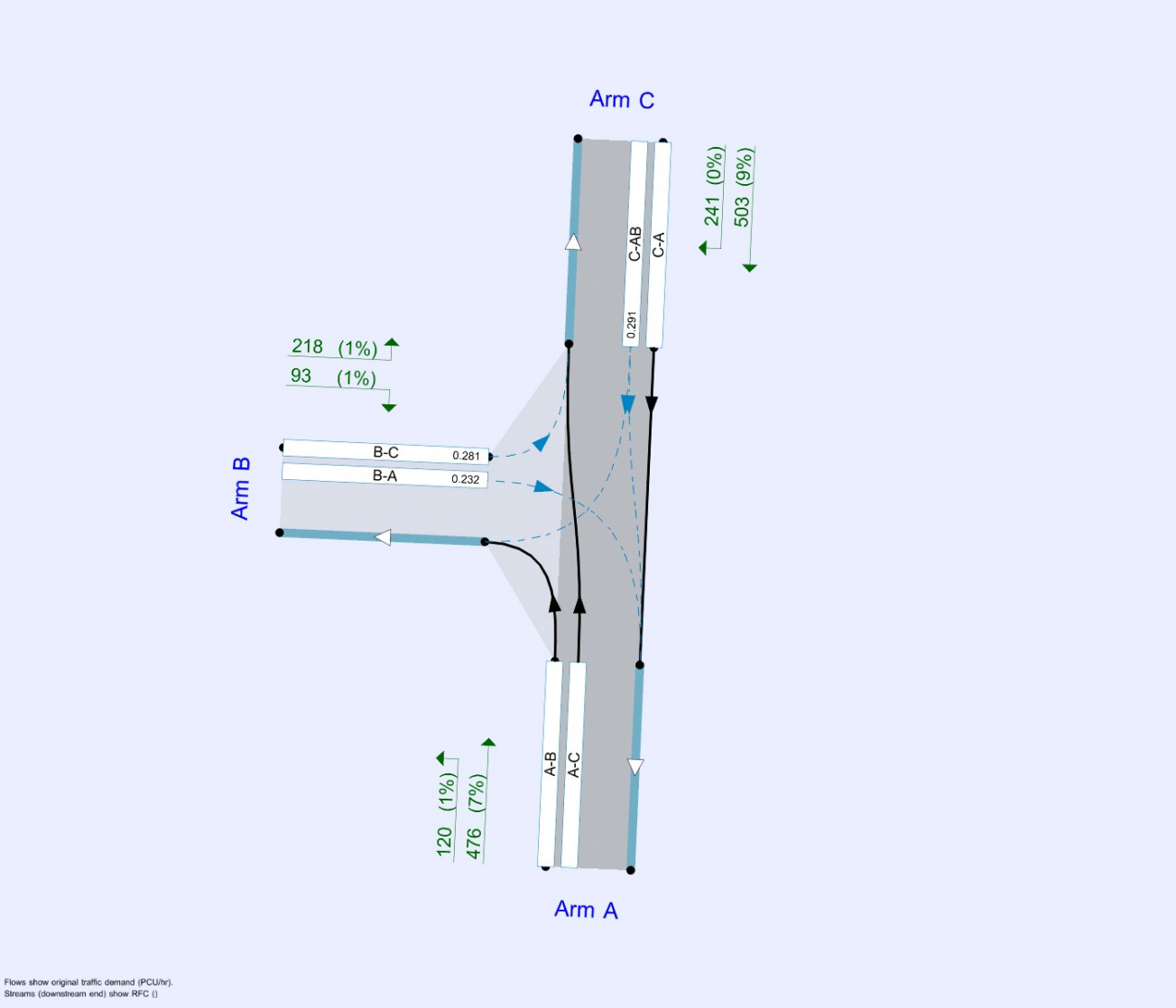
### File summary

#### File Description

| | |
|---|---|
| Title | |
| Location | |
| Site number | |
| Date | 23/04/2020 |
| Version | |
| Status | (new file) |
| Identifier | |
| Client | |
| Jobnumber | |
| Enumerator | WEEZY\Modelling |
| 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 | PCU | PCU | perHour | s | -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 | RFC Threshold | Average Delay threshold (s) | Queue threshold (PCU) |
|---|---|---|---|---|---|---|
| 5.75 | | | | 0.85 | 36.00 | 20.00 |

## Demand Set Summary

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|---|---|---|---|---|---|---|---|
| D1 | 2029 With Dev | AM | ONE HOUR | 08:00 | 09:30 | 15 | ✓ |
| D2 | 2029 With Dev | PM | ONE HOUR | 17:00 | 18:30 | 15 | ✓ |

## Analysis Set Details

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

# 2029 With Dev, AM

### Data Errors and Warnings

*No errors or warnings*

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | untitled | T-Junction | Two-way | | 4.65 | A |

### Junction Network Options

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

## Arms

### Arms

| Arm | Name | Description | Arm type |
|---|---|---|---|
| A | untitled | | Major |
| B | untitled | | Minor |
| C | untitled | | Major |

### Major Arm Geometry

| Arm | Width of carriageway (m) | Has kerbed central reserve | Has right turn bay | Width for right turn (m) | Visibility for right turn (m) | Blocks? | Blocking queue (PCU) |
|---|---|---|---|---|---|---|---|
| C | 7.00 | | ✓ | 3.50 | 140.0 | ✓ | 7.00 |

*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 | Width at give-way (m) | Width at 5m (m) | Width at 10m (m) | Width at 15m (m) | Width at 20m (m) | Estimate flare length | Flare length (PCU) | Visibility to left (m) | Visibility to right (m) |
|---|---|---|---|---|---|---|---|---|---|---|
| B | One lane plus flare | 10.00 | 9.00 | 5.80 | 5.20 | 5.00 | ✓ | 3.00 | 48 | 35 |

### Slope / Intercept / Capacity

#### Priority Intersection Slopes and Intercepts

| Junction | Stream | Intercept (PCU/hr) | Slope for A-B | Slope for A-C | Slope for C-A | Slope for C-B |
|---|---|---|---|---|---|---|
| 1 | B-A | 503 | 0.088 | 0.222 | 0.139 | 0.317 |
| 1 | B-C | 720 | 0.105 | 0.267 | - | - |
| 1 | C-B | 748 | 0.277 | 0.277 | - | - |

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

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

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

# Traffic Demand

## Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|---|---|---|---|---|---|---|---|
| D1 | 2029 With Dev | AM | ONE HOUR | 08:00 | 09:30 | 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 (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|---|
| A | | ONE HOUR | ✓ | 603 | 100.000 |
| B | | ONE HOUR | ✓ | 289 | 100.000 |
| C | | ONE HOUR | ✓ | 660 | 100.000 |

# Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | A | B | C |
| From | A | 0 | 94 | 509 |
| | B | 96 | 0 | 193 |
| | C | 482 | 178 | 0 |

# Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | A | B | C |
| From | A | 0 | 1 | 10 |
| | B | 2 | 0 | 4 |
| | C | 12 | 2 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) |
|---|---|---|---|---|---|---|
| B-C | 0.44 | 13.67 | 0.8 | B | 177 | 266 |
| B-A | 0.46 | 29.24 | 0.8 | D | 88 | 132 |
| C-AB | 0.35 | 9.98 | 0.5 | A | 163 | 245 |
| C-A | | | | | 442 | 663 |
| A-B | | | | | 86 | 129 |
| A-C | | | | | 467 | 701 |

## Main Results for each time segment

### 08:00 - 08:15

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 145 | 36 | 575 | 0.253 | 144 | 0.0 | 0.3 | 8.656 | A |
| B-A | 72 | 18 | 319 | 0.227 | 71 | 0.0 | 0.3 | 14.747 | B |
| C-AB | 134 | 34 | 622 | 0.215 | 133 | 0.0 | 0.3 | 7.492 | A |
| C-A | 363 | 91 | | | 363 | | | | |
| A-B | 71 | 18 | | | 71 | | | | |
| A-C | 383 | 96 | | | 383 | | | | |

### 08:15 - 08:30

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 174 | 43 | 542 | 0.320 | 173 | 0.3 | 0.5 | 10.134 | B |
| B-A | 86 | 22 | 283 | 0.305 | 86 | 0.3 | 0.4 | 18.601 | C |
| C-AB | 160 | 40 | 598 | 0.268 | 160 | 0.3 | 0.4 | 8.379 | A |
| C-A | 433 | 108 | | | 433 | | | | |
| A-B | 85 | 21 | | | 85 | | | | |
| A-C | 458 | 114 | | | 458 | | | | |

### 08:30 - 08:45

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 212 | 53 | 488 | 0.436 | 211 | 0.5 | 0.8 | 13.478 | B |
| B-A | 106 | 26 | 231 | 0.457 | 104 | 0.4 | 0.8 | 28.585 | D |
| C-AB | 196 | 49 | 564 | 0.348 | 195 | 0.4 | 0.5 | 9.943 | A |
| C-A | 531 | 133 | | | 531 | | | | |
| A-B | 103 | 26 | | | 103 | | | | |
| A-C | 560 | 140 | | | 560 | | | | |

### 08:45 - 09:00

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 212 | 53 | 486 | 0.437 | 212 | 0.8 | 0.8 | 13.669 | B |
| B-A | 106 | 26 | 231 | 0.458 | 106 | 0.8 | 0.8 | 29.239 | D |
| C-AB | 196 | 49 | 564 | 0.348 | 196 | 0.5 | 0.5 | 9.978 | A |
| C-A | 531 | 133 | | | 531 | | | | |
| A-B | 103 | 26 | | | 103 | | | | |
| A-C | 560 | 140 | | | 560 | | | | |

### 09:00 - 09:15

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 174 | 43 | 540 | 0.321 | 175 | 0.8 | 0.5 | 10.279 | B |
| B-A | 86 | 22 | 282 | 0.306 | 88 | 0.8 | 0.5 | 19.006 | C |
| C-AB | 160 | 40 | 598 | 0.268 | 161 | 0.5 | 0.4 | 8.417 | A |
| C-A | 433 | 108 | | | 433 | | | | |
| A-B | 85 | 21 | | | 85 | | | | |
| A-C | 458 | 114 | | | 458 | | | | |

**09:15 - 09:30**

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 145 | 36 | 574 | 0.253 | 146 | 0.5 | 0.4 | 8.764 | A |
| B-A | 72 | 18 | 319 | 0.227 | 73 | 0.5 | 0.3 | 14.973 | B |
| C-AB | 134 | 34 | 622 | 0.215 | 134 | 0.4 | 0.3 | 7.539 | A |
| C-A | 363 | 91 | | | 363 | | | | |
| A-B | 71 | 18 | | | 71 | | | | |
| A-C | 383 | 96 | | | 383 | | | | |

# 2029 With Dev, PM

### Data Errors and Warnings

*No errors or warnings*

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | untitled | T-Junction | Two-way | | 5.61 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|---|---|---|---|---|---|---|---|
| D2 | 2029 With Dev | PM | ONE HOUR | 17:00 | 18:30 | 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 (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|---|
| A | | ONE HOUR | ✓ | 596 | 100.000 |
| B | | ONE HOUR | ✓ | 311 | 100.000 |
| C | | ONE HOUR | ✓ | 744 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | A | B | C |
| From | A | 0 | 120 | 476 |
| | B | 93 | 0 | 218 |
| | C | 503 | 241 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | A | B | C |
| From | A | 0 | 1 | 7 |
| | B | 1 | 0 | 1 |
| | C | 9 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) |
|---|---|---|---|---|---|---|
| B-C | 0.49 | 14.58 | 1.0 | B | 200 | 300 |
| B-A | 0.49 | 34.43 | 0.9 | D | 85 | 128 |
| C-AB | 0.47 | 11.92 | 0.9 | B | 222 | 332 |
| C-A | | | | | 461 | 692 |
| A-B | | | | | 110 | 165 |
| A-C | | | | | 437 | 655 |

## Main Results for each time segment

### 17:00 - 17:15

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 164 | 41 | 584 | 0.281 | 163 | 0.0 | 0.4 | 8.594 | A |
| B-A | 70 | 18 | 302 | 0.232 | 69 | 0.0 | 0.3 | 15.508 | C |
| C-AB | 181 | 45 | 623 | 0.291 | 180 | 0.0 | 0.4 | 8.087 | A |
| C-A | 379 | 95 | | | 379 | | | | |
| A-B | 90 | 23 | | | 90 | | | | |
| A-C | 358 | 90 | | | 358 | | | | |

### 17:15 - 17:30

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 196 | 49 | 550 | 0.356 | 195 | 0.4 | 0.5 | 10.231 | B |
| B-A | 84 | 21 | 263 | 0.318 | 83 | 0.3 | 0.5 | 20.101 | C |
| C-AB | 217 | 54 | 600 | 0.362 | 216 | 0.4 | 0.6 | 9.374 | A |
| C-A | 452 | 113 | | | 452 | | | | |
| A-B | 108 | 27 | | | 108 | | | | |
| A-C | 428 | 107 | | | 428 | | | | |

### 17:30 - 17:45

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 240 | 60 | 492 | 0.488 | 238 | 0.5 | 0.9 | 14.280 | B |
| B-A | 102 | 26 | 208 | 0.492 | 101 | 0.5 | 0.9 | 33.295 | D |
| C-AB | 267 | 67 | 569 | 0.469 | 265 | 0.6 | 0.9 | 11.829 | B |
| C-A | 553 | 138 | | | 553 | | | | |
| A-B | 132 | 33 | | | 132 | | | | |
| A-C | 524 | 131 | | | 524 | | | | |

### 17:45 - 18:00

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 240 | 60 | 489 | 0.491 | 240 | 0.9 | 1.0 | 14.583 | B |
| B-A | 102 | 26 | 208 | 0.493 | 102 | 0.9 | 0.9 | 34.431 | D |
| C-AB | 267 | 67 | 569 | 0.469 | 267 | 0.9 | 0.9 | 11.919 | B |
| C-A | 553 | 138 | | | 553 | | | | |
| A-B | 132 | 33 | | | 132 | | | | |
| A-C | 524 | 131 | | | 524 | | | | |

### 18:00 - 18:15

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 196 | 49 | 548 | 0.358 | 198 | 1.0 | 0.6 | 10.426 | B |
| B-A | 84 | 21 | 263 | 0.318 | 85 | 0.9 | 0.5 | 20.695 | C |
| C-AB | 217 | 54 | 600 | 0.361 | 218 | 0.9 | 0.6 | 9.463 | A |
| C-A | 452 | 113 | | | 452 | | | | |
| A-B | 108 | 27 | | | 108 | | | | |
| A-C | 428 | 107 | | | 428 | | | | |

### 18:15 - 18:30

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 164 | 41 | 583 | 0.282 | 165 | 0.6 | 0.4 | 8.718 | A |
| B-A | 70 | 18 | 302 | 0.232 | 71 | 0.5 | 0.3 | 15.788 | C |
| C-AB | 181 | 45 | 623 | 0.291 | 182 | 0.6 | 0.4 | 8.170 | A |
| C-A | 379 | 95 | | | 379 | | | | |
| A-B | 90 | 23 | | | 90 | | | | |
| A-C | 358 | 90 | | | 358 | | | | |

# Junctions 9

## PICADY 9 - Priority Intersection Module

Version: 9.5.0.6896
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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:** Plot 5 Link Road Access inc P4,5,6.j9
**Path:** X:\Jobs\3560 Hoyland Commercial Land\Junction Modelling\Plot 5 Access
**Report generation date:** 27/08/2020 14:18:12

---

## »2029 With Dev, AM
## »2029 With Dev, PM

### Summary of junction performance

| | AM | | | | PM | | | |
|---|---|---|---|---|---|---|---|---|
| | Queue (PCU) | Delay (s) | RFC | LOS | Queue (PCU) | Delay (s) | RFC | LOS |
| | 2029 With Dev | | | | | | | |
| Stream B-C | 0.0 | 9.31 | 0.00 | A | 0.0 | 7.20 | 0.01 | A |
| Stream B-A | 0.0 | 11.53 | 0.02 | B | 0.0 | 11.97 | 0.04 | B |
| Stream C-AB | 0.0 | 6.55 | 0.01 | A | 0.0 | 6.61 | 0.00 | A |

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

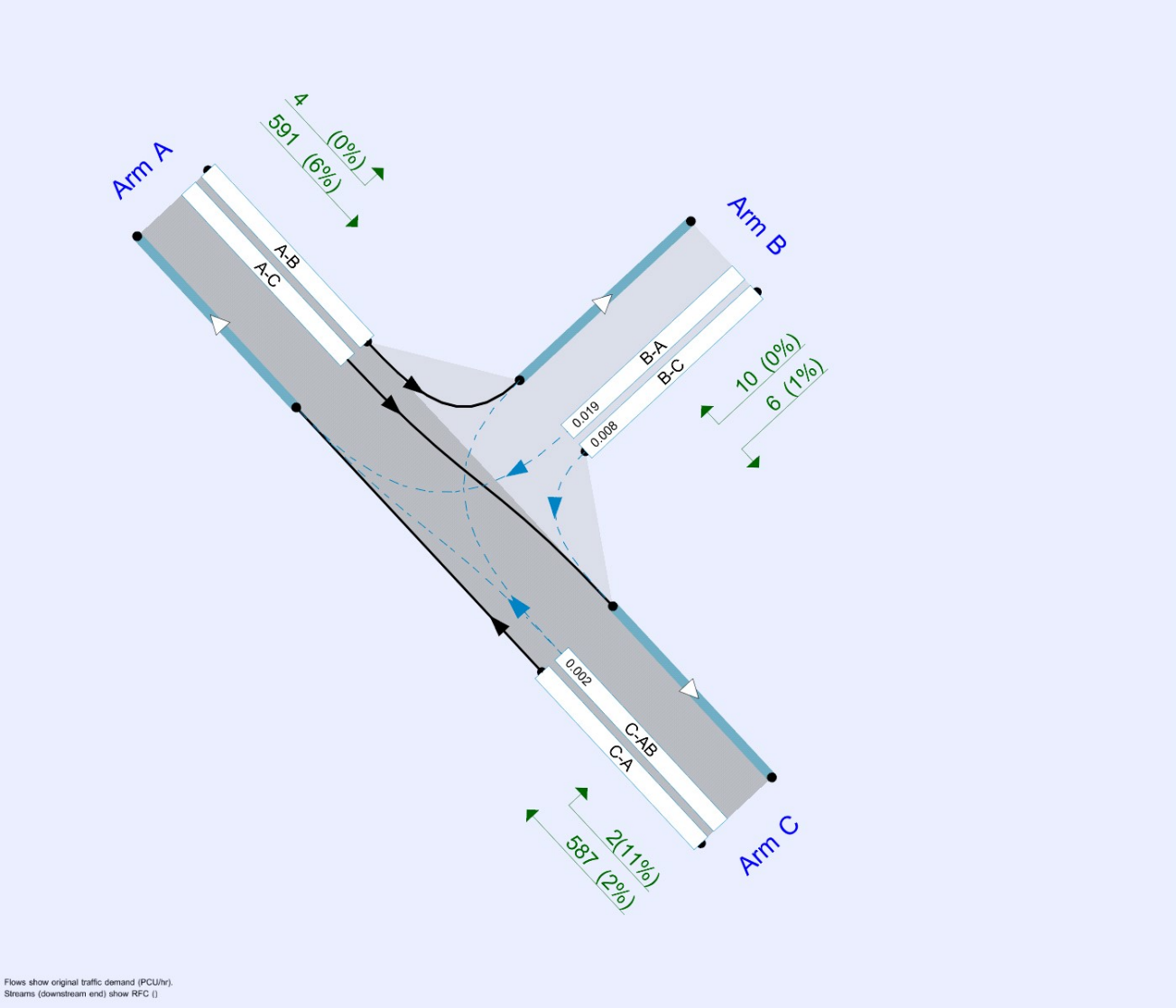
### File summary

#### File Description

| | |
|---|---|
| Title | |
| Location | |
| Site number | |
| Date | 28/04/2020 |
| Version | |
| Status | (new file) |
| Identifier | |
| Client | |
| Jobnumber | |
| Enumerator | WEEZY\Modelling |
| 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 | PCU | PCU | perHour | s | -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 | RFC Threshold | Average Delay threshold (s) | Queue threshold (PCU) |
|---|---|---|---|---|---|---|
| 5.75 | | | | 0.85 | 36.00 | 20.00 |

## Demand Set Summary

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|---|---|---|---|---|---|---|---|
| D1 | 2029 With Dev | AM | ONE HOUR | 08:00 | 09:30 | 15 | ✓ |
| D2 | 2029 With Dev | PM | ONE HOUR | 17:00 | 18:30 | 15 | ✓ |

## Analysis Set Details

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

# 2029 With Dev, AM

### Data Errors and Warnings

*No errors or warnings*

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | untitled | T-Junction | Two-way | | 0.10 | A |

### Junction Network Options

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

## Arms

### Arms

| Arm | Name | Description | Arm type |
|---|---|---|---|
| A | untitled | | Major |
| B | untitled | | Minor |
| C | untitled | | Major |

### Major Arm Geometry

| Arm | Width of carriageway (m) | Has kerbed central reserve | Has right turn bay | Width for right turn (m) | Visibility for right turn (m) | Blocks? | Blocking queue (PCU) |
|---|---|---|---|---|---|---|---|
| C | 7.00 | | ✓ | 3.50 | 220.0 | ✓ | 4.00 |

*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 | Width at give-way (m) | Width at 5m (m) | Width at 10m (m) | Width at 15m (m) | Width at 20m (m) | Estimate flare length | Flare length (PCU) | Visibility to left (m) | Visibility to right (m) |
|---|---|---|---|---|---|---|---|---|---|---|
| B | One lane plus flare | 10.00 | 8.30 | 4.60 | 3.60 | 3.60 | ✓ | 1.00 | 44 | 54 |

### Slope / Intercept / Capacity

#### Priority Intersection Slopes and Intercepts

| Junction | Stream | Intercept (PCU/hr) | Slope for A-B | Slope for A-C | Slope for C-A | Slope for C-B |
|---|---|---|---|---|---|---|
| 1 | B-A | 593 | 0.103 | 0.261 | 0.164 | 0.373 |
| 1 | B-C | 671 | 0.098 | 0.249 | - | - |
| 1 | C-B | 801 | 0.297 | 0.297 | - | - |

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

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

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

# Traffic Demand

## Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|---|---|---|---|---|---|---|---|
| D1 | 2029 With Dev | AM | ONE HOUR | 08:00 | 09:30 | 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 (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|---|
| A | | ONE HOUR | ✓ | 578 | 100.000 |
| B | | ONE HOUR | ✓ | 7 | 100.000 |
| C | | ONE HOUR | ✓ | 605 | 100.000 |

# Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | A | B | C |
| From | A | 0 | 12 | 566 |
| | B | 5 | 0 | 2 |
| | C | 598 | 7 | 0 |

# Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | A | B | C |
| From | A | 0 | 0 | 9 |
| | B | 0 | 0 | 32 |
| | C | 3 | 10 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) |
|---|---|---|---|---|---|---|
| B-C | 0.00 | 9.31 | 0.0 | A | 2 | 3 |
| B-A | 0.02 | 11.53 | 0.0 | B | 5 | 7 |
| C-AB | 0.01 | 6.55 | 0.0 | A | 6 | 10 |
| C-A | | | | | 549 | 823 |
| A-B | | | | | 11 | 17 |
| A-C | | | | | 519 | 779 |

## Main Results for each time segment

### 08:00 - 08:15

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 2 | 0.38 | 563 | 0.003 | 1 | 0.0 | 0.0 | 8.459 | A |
| B-A | 4 | 0.94 | 405 | 0.009 | 4 | 0.0 | 0.0 | 8.979 | A |
| C-AB | 5 | 1 | 671 | 0.008 | 5 | 0.0 | 0.0 | 5.943 | A |
| C-A | 450 | 113 | | | 450 | | | | |
| A-B | 9 | 2 | | | 9 | | | | |
| A-C | 426 | 107 | | | 426 | | | | |

### 08:15 - 08:30

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 2 | 0.45 | 542 | 0.003 | 2 | 0.0 | 0.0 | 8.795 | A |
| B-A | 4 | 1 | 368 | 0.012 | 4 | 0.0 | 0.0 | 9.899 | A |
| C-AB | 6 | 2 | 646 | 0.010 | 6 | 0.0 | 0.0 | 6.185 | A |
| C-A | 538 | 134 | | | 538 | | | | |
| A-B | 11 | 3 | | | 11 | | | | |
| A-C | 509 | 127 | | | 509 | | | | |

### 08:30 - 08:45

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 2 | 0.55 | 513 | 0.004 | 2 | 0.0 | 0.0 | 9.306 | A |
| B-A | 6 | 1 | 318 | 0.017 | 5 | 0.0 | 0.0 | 11.531 | B |
| C-AB | 8 | 2 | 612 | 0.013 | 8 | 0.0 | 0.0 | 6.554 | A |
| C-A | 658 | 165 | | | 658 | | | | |
| A-B | 13 | 3 | | | 13 | | | | |
| A-C | 623 | 156 | | | 623 | | | | |

### 08:45 - 09:00

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 2 | 0.55 | 513 | 0.004 | 2 | 0.0 | 0.0 | 9.307 | A |
| B-A | 6 | 1 | 318 | 0.017 | 6 | 0.0 | 0.0 | 11.530 | B |
| C-AB | 8 | 2 | 612 | 0.013 | 8 | 0.0 | 0.0 | 6.554 | A |
| C-A | 658 | 165 | | | 658 | | | | |
| A-B | 13 | 3 | | | 13 | | | | |
| A-C | 623 | 156 | | | 623 | | | | |

### 09:00 - 09:15

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 2 | 0.45 | 542 | 0.003 | 2 | 0.0 | 0.0 | 8.798 | A |
| B-A | 4 | 1 | 368 | 0.012 | 5 | 0.0 | 0.0 | 9.901 | A |
| C-AB | 6 | 2 | 646 | 0.010 | 6 | 0.0 | 0.0 | 6.185 | A |
| C-A | 538 | 134 | | | 538 | | | | |
| A-B | 11 | 3 | | | 11 | | | | |
| A-C | 509 | 127 | | | 509 | | | | |

**09:15 - 09:30**

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 2 | 0.38 | 563 | 0.003 | 2 | 0.0 | 0.0 | 8.462 | A |
| B-A | 4 | 0.94 | 405 | 0.009 | 4 | 0.0 | 0.0 | 8.982 | A |
| C-AB | 5 | 1 | 671 | 0.008 | 5 | 0.0 | 0.0 | 5.945 | A |
| C-A | 450 | 113 | | | 450 | | | | |
| A-B | 9 | 2 | | | 9 | | | | |
| A-C | 426 | 107 | | | 426 | | | | |

# 2029 With Dev, PM

### Data Errors and Warnings

*No errors or warnings*

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | untitled | T-Junction | Two-way | | 0.15 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|---|---|---|---|---|---|---|---|
| D2 | 2029 With Dev | PM | ONE HOUR | 17:00 | 18:30 | 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 (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|---|
| A | | ONE HOUR | ✓ | 595 | 100.000 |
| B | | ONE HOUR | ✓ | 16 | 100.000 |
| C | | ONE HOUR | ✓ | 589 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | A | B | C |
| From | A | 0 | 4 | 591 |
| | B | 10 | 0 | 6 |
| | C | 587 | 2 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | A | B | C |
| From | A | 0 | 0 | 6 |
| | B | 0 | 0 | 1 |
| | C | 2 | 11 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) |
|---|---|---|---|---|---|---|
| B-C | 0.01 | 7.20 | 0.0 | A | 6 | 8 |
| B-A | 0.04 | 11.97 | 0.0 | B | 9 | 14 |
| C-AB | 0.00 | 6.61 | 0.0 | A | 2 | 3 |
| C-A | | | | | 539 | 808 |
| A-B | | | | | 4 | 6 |
| A-C | | | | | 542 | 813 |

## Main Results for each time segment

### 17:00 - 17:15

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 5 | 1 | 565 | 0.008 | 4 | 0.0 | 0.0 | 6.483 | A |
| B-A | 8 | 2 | 398 | 0.019 | 7 | 0.0 | 0.0 | 9.211 | A |
| C-AB | 2 | 0.38 | 668 | 0.002 | 1 | 0.0 | 0.0 | 5.997 | A |
| C-A | 442 | 110 | | | 442 | | | | |
| A-B | 3 | 0.75 | | | 3 | | | | |
| A-C | 445 | 111 | | | 445 | | | | |

### 17:15 - 17:30

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 5 | 1 | 543 | 0.010 | 5 | 0.0 | 0.0 | 6.767 | A |
| B-A | 9 | 2 | 362 | 0.025 | 9 | 0.0 | 0.0 | 10.198 | B |
| C-AB | 2 | 0.45 | 642 | 0.003 | 2 | 0.0 | 0.0 | 6.242 | A |
| C-A | 528 | 132 | | | 528 | | | | |
| A-B | 4 | 0.90 | | | 4 | | | | |
| A-C | 531 | 133 | | | 531 | | | | |

### 17:30 - 17:45

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 7 | 2 | 511 | 0.013 | 7 | 0.0 | 0.0 | 7.204 | A |
| B-A | 11 | 3 | 312 | 0.035 | 11 | 0.0 | 0.0 | 11.969 | B |
| C-AB | 2 | 0.55 | 606 | 0.004 | 2 | 0.0 | 0.0 | 6.614 | A |
| C-A | 646 | 162 | | | 646 | | | | |
| A-B | 4 | 1 | | | 4 | | | | |
| A-C | 651 | 163 | | | 651 | | | | |

### 17:45 - 18:00

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 7 | 2 | 511 | 0.013 | 7 | 0.0 | 0.0 | 7.205 | A |
| B-A | 11 | 3 | 312 | 0.035 | 11 | 0.0 | 0.0 | 11.971 | B |
| C-AB | 2 | 0.55 | 606 | 0.004 | 2 | 0.0 | 0.0 | 6.614 | A |
| C-A | 646 | 162 | | | 646 | | | | |
| A-B | 4 | 1 | | | 4 | | | | |
| A-C | 651 | 163 | | | 651 | | | | |

### 18:00 - 18:15

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 5 | 1 | 543 | 0.010 | 5 | 0.0 | 0.0 | 6.771 | A |
| B-A | 9 | 2 | 362 | 0.025 | 9 | 0.0 | 0.0 | 10.199 | B |
| C-AB | 2 | 0.45 | 642 | 0.003 | 2 | 0.0 | 0.0 | 6.244 | A |
| C-A | 528 | 132 | | | 528 | | | | |
| A-B | 4 | 0.90 | | | 4 | | | | |
| A-C | 531 | 133 | | | 531 | | | | |

### 18:15 - 18:30

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 5 | 1 | 565 | 0.008 | 5 | 0.0 | 0.0 | 6.487 | A |
| B-A | 8 | 2 | 398 | 0.019 | 8 | 0.0 | 0.0 | 9.214 | A |
| C-AB | 2 | 0.38 | 668 | 0.002 | 2 | 0.0 | 0.0 | 5.997 | A |
| C-A | 442 | 110 | | | 442 | | | | |
| A-B | 3 | 0.75 | | | 3 | | | | |
| A-C | 445 | 111 | | | 445 | | | | |

# Junctions 9

## PICADY 9 - Priority Intersection Module

Version: 9.5.0.6896
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For sales and distribution information, program advice and maintenance, contact TRL:
+44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk

**The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution**

**Filename:** Plot 3 Tankersley Lane Access inc P4,5,6.j9
**Path:** X:\Jobs\3560 Hoyland Commercial Land\Junction Modelling\Plot 3 Sensitivity Test\Plot 3 Tankersley Lane Access
**Report generation date:** 27/08/2020 10:52:10

---

## »2029 With Dev, AM
## »2029 With Dev, PM

### Summary of junction performance

| | AM | | | | PM | | | |
|---|---|---|---|---|---|---|---|---|
| | Queue (PCU) | Delay (s) | RFC | LOS | Queue (PCU) | Delay (s) | RFC | LOS |
| | 2029 With Dev | | | | | | | |
| Stream B-C | 0.0 | 5.91 | 0.03 | A | 0.1 | 6.18 | 0.10 | A |
| Stream B-A | 0.0 | 9.48 | 0.00 | A | 0.0 | 9.59 | 0.02 | A |
| Stream C-AB | 0.1 | 6.38 | 0.12 | A | 0.0 | 5.66 | 0.03 | A |

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

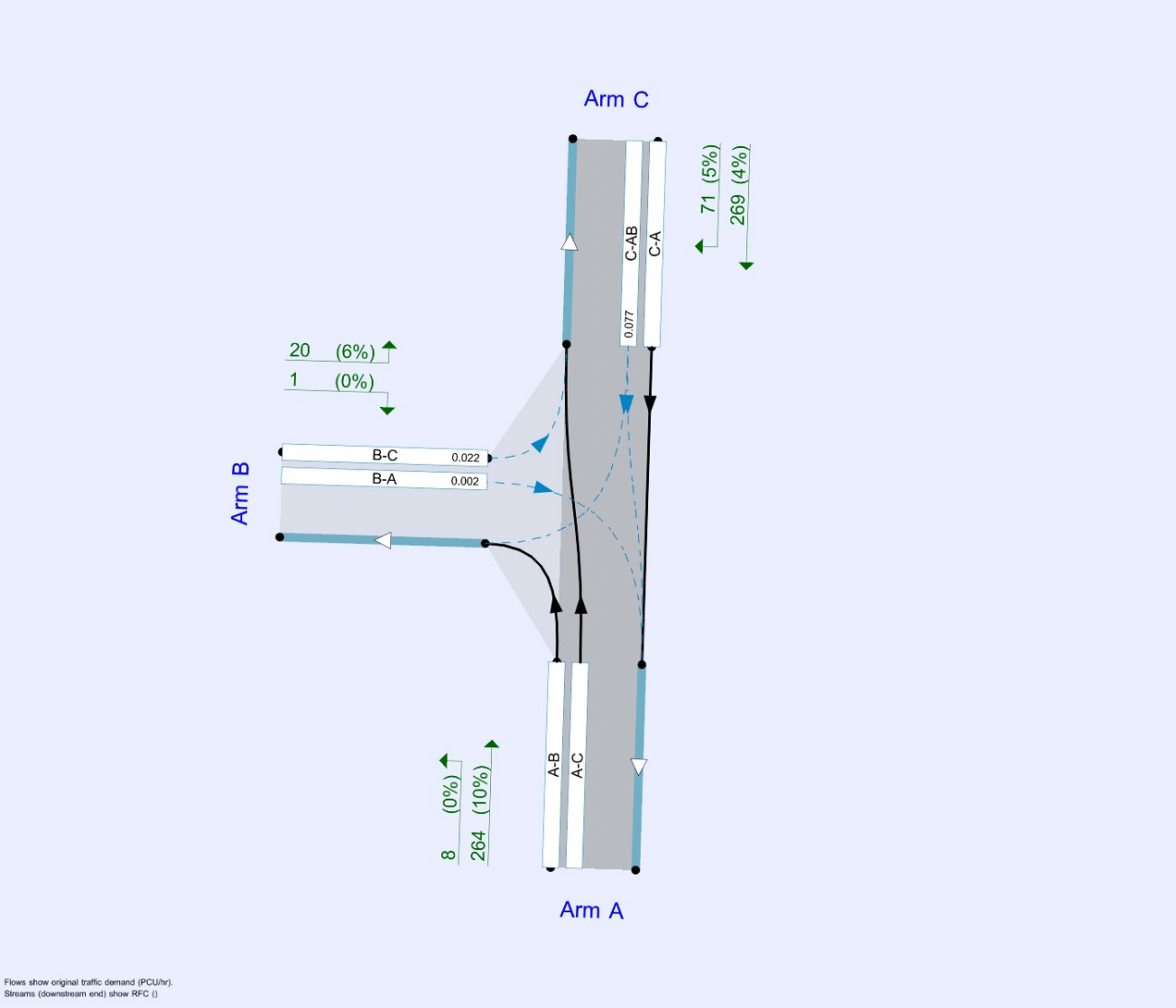
### File summary

#### File Description

| | |
|---|---|
| Title | |
| Location | |
| Site number | |
| Date | 28/04/2020 |
| Version | |
| Status | (new file) |
| Identifier | |
| Client | |
| Jobnumber | |
| Enumerator | WEEZY\Modelling |
| 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 | PCU | PCU | perHour | s | -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 | RFC Threshold | Average Delay threshold (s) | Queue threshold (PCU) |
|---|---|---|---|---|---|---|
| 5.75 | | | | 0.85 | 36.00 | 20.00 |

## Demand Set Summary

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|---|---|---|---|---|---|---|---|
| D1 | 2029 With Dev | AM | ONE HOUR | 08:00 | 09:30 | 15 | ✓ |
| D2 | 2029 With Dev | PM | ONE HOUR | 17:00 | 18:30 | 15 | ✓ |

## Analysis Set Details

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

# 2029 With Dev, AM

### Data Errors and Warnings

*No errors or warnings*

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | untitled | T-Junction | Two-way | | 0.92 | A |

### Junction Network Options

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

## Arms

### Arms

| Arm | Name | Description | Arm type |
|---|---|---|---|
| A | untitled | | Major |
| B | untitled | | Minor |
| C | untitled | | Major |

### Major Arm Geometry

| Arm | Width of carriageway (m) | Has kerbed central reserve | Has right turn bay | Width for right turn (m) | Visibility for right turn (m) | Blocks? | Blocking queue (PCU) |
|---|---|---|---|---|---|---|---|
| C | 7.00 | | ✓ | 3.50 | 150.0 | ✓ | 6.00 |

*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 | Width at give-way (m) | Width at 5m (m) | Width at 10m (m) | Width at 15m (m) | Width at 20m (m) | Estimate flare length | Flare length (PCU) | Visibility to left (m) | Visibility to right (m) |
|---|---|---|---|---|---|---|---|---|---|---|
| B | One lane plus flare | 10.00 | 8.40 | 4.70 | 3.60 | 3.60 | ✓ | 1.00 | 45 | 60 |

### Slope / Intercept / Capacity

#### Priority Intersection Slopes and Intercepts

| Junction | Stream | Intercept (PCU/hr) | Slope for A-B | Slope for A-C | Slope for C-A | Slope for C-B |
|---|---|---|---|---|---|---|
| 1 | B-A | 515 | 0.090 | 0.227 | 0.143 | 0.324 |
| 1 | B-C | 750 | 0.110 | 0.278 | - | - |
| 1 | C-B | 754 | 0.280 | 0.280 | - | - |

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

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

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

# Traffic Demand

## Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|---|---|---|---|---|---|---|---|
| D1 | 2029 With Dev | AM | ONE HOUR | 08:00 | 09:30 | 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 (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|---|
| A | | ONE HOUR | ✓ | 272 | 100.000 |
| B | | ONE HOUR | ✓ | 21 | 100.000 |
| C | | ONE HOUR | ✓ | 340 | 100.000 |

# Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | A | B | C |
| From | A | 0 | 8 | 264 |
| | B | 1 | 0 | 20 |
| | C | 269 | 71 | 0 |

# Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | A | B | C |
| From | A | 0 | 0 | 10 |
| | B | 0 | 0 | 6 |
| | C | 4 | 5 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) |
|---|---|---|---|---|---|---|
| B-C | 0.03 | 5.91 | 0.0 | A | 18 | 28 |
| B-A | 0.00 | 9.48 | 0.0 | A | 0.92 | 1 |
| C-AB | 0.12 | 6.38 | 0.1 | A | 65 | 98 |
| C-A | | | | | 247 | 370 |
| A-B | | | | | 7 | 11 |
| A-C | | | | | 242 | 363 |

## Main Results for each time segment

### 08:00 - 08:15

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 15 | 4 | 694 | 0.022 | 15 | 0.0 | 0.0 | 5.620 | A |
| B-A | 0.75 | 0.19 | 423 | 0.002 | 0.75 | 0.0 | 0.0 | 8.517 | A |
| C-AB | 53 | 13 | 697 | 0.077 | 53 | 0.0 | 0.1 | 5.867 | A |
| C-A | 203 | 51 | | | 203 | | | | |
| A-B | 6 | 2 | | | 6 | | | | |
| A-C | 199 | 50 | | | 199 | | | | |

### 08:15 - 08:30

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 18 | 4 | 683 | 0.026 | 18 | 0.0 | 0.0 | 5.737 | A |
| B-A | 0.90 | 0.22 | 405 | 0.002 | 0.90 | 0.0 | 0.0 | 8.898 | A |
| C-AB | 64 | 16 | 686 | 0.093 | 64 | 0.1 | 0.1 | 6.075 | A |
| C-A | 242 | 60 | | | 242 | | | | |
| A-B | 7 | 2 | | | 7 | | | | |
| A-C | 237 | 59 | | | 237 | | | | |

### 08:30 - 08:45

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 22 | 6 | 668 | 0.033 | 22 | 0.0 | 0.0 | 5.907 | A |
| B-A | 1 | 0.28 | 381 | 0.003 | 1 | 0.0 | 0.0 | 9.481 | A |
| C-AB | 78 | 20 | 671 | 0.117 | 78 | 0.1 | 0.1 | 6.377 | A |
| C-A | 296 | 74 | | | 296 | | | | |
| A-B | 9 | 2 | | | 9 | | | | |
| A-C | 291 | 73 | | | 291 | | | | |

### 08:45 - 09:00

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 22 | 6 | 668 | 0.033 | 22 | 0.0 | 0.0 | 5.907 | A |
| B-A | 1 | 0.28 | 381 | 0.003 | 1 | 0.0 | 0.0 | 9.482 | A |
| C-AB | 78 | 20 | 671 | 0.117 | 78 | 0.1 | 0.1 | 6.379 | A |
| C-A | 296 | 74 | | | 296 | | | | |
| A-B | 9 | 2 | | | 9 | | | | |
| A-C | 291 | 73 | | | 291 | | | | |

### 09:00 - 09:15

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 18 | 4 | 683 | 0.026 | 18 | 0.0 | 0.0 | 5.740 | A |
| B-A | 0.90 | 0.22 | 405 | 0.002 | 0.90 | 0.0 | 0.0 | 8.899 | A |
| C-AB | 64 | 16 | 686 | 0.093 | 64 | 0.1 | 0.1 | 6.079 | A |
| C-A | 242 | 60 | | | 242 | | | | |
| A-B | 7 | 2 | | | 7 | | | | |
| A-C | 237 | 59 | | | 237 | | | | |

**09:15 - 09:30**

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 15 | 4 | 694 | 0.022 | 15 | 0.0 | 0.0 | 5.623 | A |
| B-A | 0.75 | 0.19 | 423 | 0.002 | 0.75 | 0.0 | 0.0 | 8.521 | A |
| C-AB | 53 | 13 | 697 | 0.077 | 54 | 0.1 | 0.1 | 5.873 | A |
| C-A | 203 | 51 | | | 203 | | | | |
| A-B | 6 | 2 | | | 6 | | | | |
| A-C | 199 | 50 | | | 199 | | | | |

# 2029 With Dev, PM

### Data Errors and Warnings

*No errors or warnings*

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | untitled | T-Junction | Two-way | | 0.74 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|---|---|---|---|---|---|---|---|
| D2 | 2029 With Dev | PM | ONE HOUR | 17:00 | 18:30 | 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 (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|---|
| A | | ONE HOUR | ✓ | 307 | 100.000 |
| B | | ONE HOUR | ✓ | 68 | 100.000 |
| C | | ONE HOUR | ✓ | 352 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | A | B | C |
| From | A | 0 | 2 | 305 |
| | B | 8 | 0 | 60 |
| | C | 336 | 16 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | A | B | C |
| From | A | 0 | 0 | 4 |
| | B | 0 | 0 | 0 |
| | C | 2 | 1 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) |
|---|---|---|---|---|---|---|
| B-C | 0.10 | 6.18 | 0.1 | A | 55 | 83 |
| B-A | 0.02 | 9.59 | 0.0 | A | 7 | 11 |
| C-AB | 0.03 | 5.66 | 0.0 | A | 15 | 22 |
| C-A | | | | | 308 | 462 |
| A-B | | | | | 2 | 3 |
| A-C | | | | | 280 | 420 |

## Main Results for each time segment

### 17:00 - 17:15

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 45 | 11 | 680 | 0.066 | 45 | 0.0 | 0.1 | 5.667 | A |
| B-A | 6 | 2 | 428 | 0.014 | 6 | 0.0 | 0.0 | 8.537 | A |
| C-AB | 12 | 3 | 690 | 0.017 | 12 | 0.0 | 0.0 | 5.364 | A |
| C-A | 253 | 63 | | | 253 | | | | |
| A-B | 2 | 0.38 | | | 2 | | | | |
| A-C | 230 | 57 | | | 230 | | | | |

### 17:15 - 17:30

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 54 | 13 | 667 | 0.081 | 54 | 0.1 | 0.1 | 5.873 | A |
| B-A | 7 | 2 | 409 | 0.018 | 7 | 0.0 | 0.0 | 8.949 | A |
| C-AB | 14 | 4 | 677 | 0.021 | 14 | 0.0 | 0.0 | 5.485 | A |
| C-A | 302 | 76 | | | 302 | | | | |
| A-B | 2 | 0.45 | | | 2 | | | | |
| A-C | 274 | 69 | | | 274 | | | | |

### 17:30 - 17:45

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 66 | 17 | 649 | 0.102 | 66 | 0.1 | 0.1 | 6.175 | A |
| B-A | 9 | 2 | 384 | 0.023 | 9 | 0.0 | 0.0 | 9.589 | A |
| C-AB | 18 | 4 | 660 | 0.027 | 18 | 0.0 | 0.0 | 5.661 | A |
| C-A | 370 | 92 | | | 370 | | | | |
| A-B | 2 | 0.55 | | | 2 | | | | |
| A-C | 336 | 84 | | | 336 | | | | |

### 17:45 - 18:00

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 66 | 17 | 649 | 0.102 | 66 | 0.1 | 0.1 | 6.175 | A |
| B-A | 9 | 2 | 384 | 0.023 | 9 | 0.0 | 0.0 | 9.589 | A |
| C-AB | 18 | 4 | 660 | 0.027 | 18 | 0.0 | 0.0 | 5.661 | A |
| C-A | 370 | 92 | | | 370 | | | | |
| A-B | 2 | 0.55 | | | 2 | | | | |
| A-C | 336 | 84 | | | 336 | | | | |

**18:00 - 18:15**

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 54 | 13 | 667 | 0.081 | 54 | 0.1 | 0.1 | 5.877 | A |
| B-A | 7 | 2 | 409 | 0.018 | 7 | 0.0 | 0.0 | 8.950 | A |
| C-AB | 14 | 4 | 677 | 0.021 | 14 | 0.0 | 0.0 | 5.487 | A |
| C-A | 302 | 76 | | | 302 | | | | |
| A-B | 2 | 0.45 | | | 2 | | | | |
| A-C | 274 | 69 | | | 274 | | | | |

**18:15 - 18:30**

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 45 | 11 | 680 | 0.066 | 45 | 0.1 | 0.1 | 5.676 | A |
| B-A | 6 | 2 | 428 | 0.014 | 6 | 0.0 | 0.0 | 8.541 | A |
| C-AB | 12 | 3 | 690 | 0.017 | 12 | 0.0 | 0.0 | 5.367 | A |
| C-A | 253 | 63 | | | 253 | | | | |
| A-B | 2 | 0.38 | | | 2 | | | | |
| A-C | 230 | 57 | | | 230 | | | | |

# Junctions 9

## PICADY 9 - Priority Intersection Module

Version: 9.5.0.6896
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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:** Link Road_Tankersley Lane Plot3 Sensitivity inc P4,5,6.j9
**Path:** X:\Jobs\3560 Hoyland Commercial Land\Junction Modelling\Plot 3 Sensitivity Test\Link Road_Tankersley Lane
**Report generation date:** 28/08/2020 09:32:51

---

## »2029 With Dev, AM
## »2029 With Dev, PM

### Summary of junction performance

| | AM | | | | PM | | | |
|---|---|---|---|---|---|---|---|---|
| | Queue (PCU) | Delay (s) | RFC | LOS | Queue (PCU) | Delay (s) | RFC | LOS |
| | 2029 With Dev | | | | | | | |
| Stream B-C | 1.0 | 15.71 | 0.49 | C | 1.8 | 23.44 | 0.65 | C |
| Stream B-A | 1.0 | 35.41 | 0.52 | E | 1.8 | 53.23 | 0.66 | F |
| Stream C-AB | 0.9 | 12.07 | 0.45 | B | 1.0 | 12.58 | 0.49 | B |

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

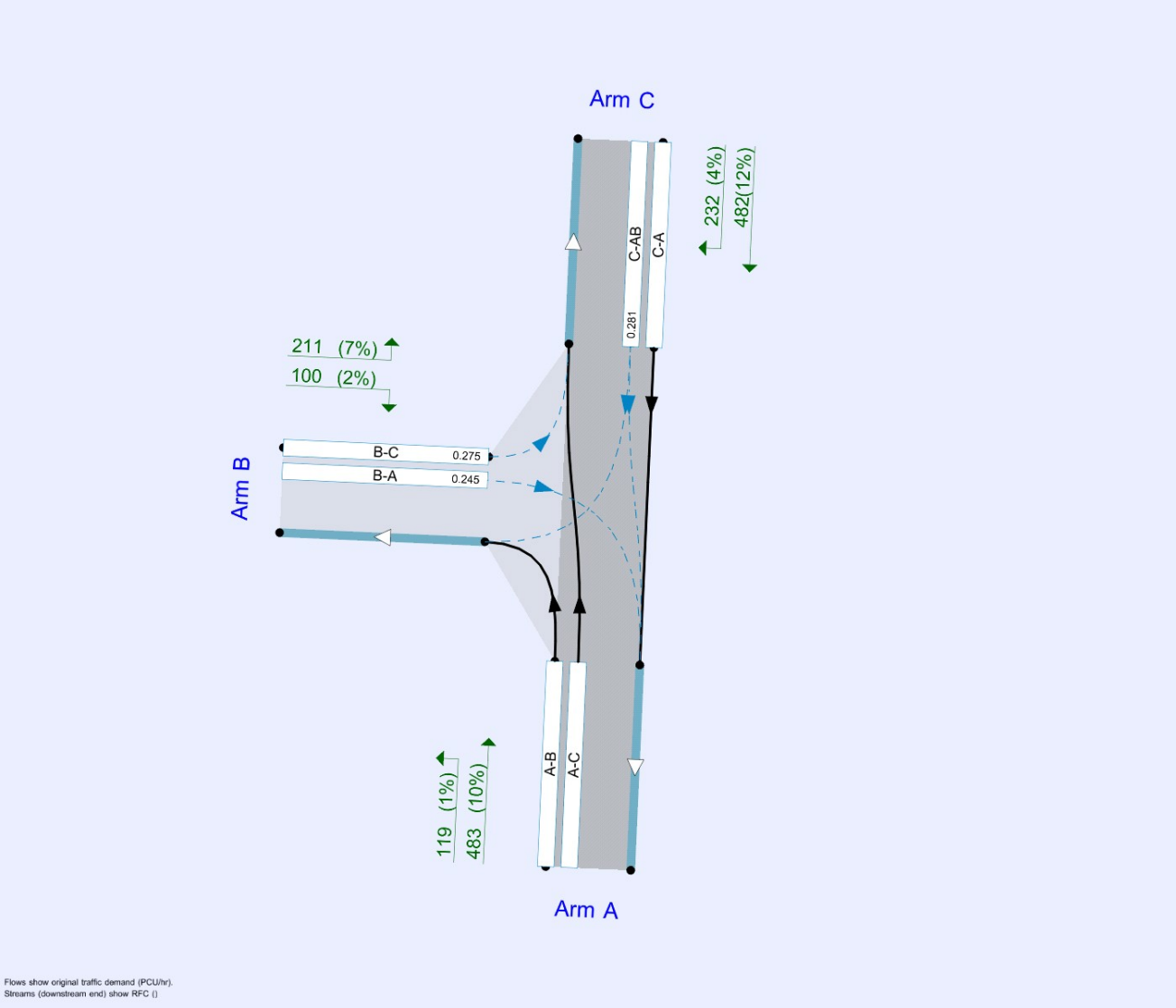
### File summary

#### File Description

| | |
|---|---|
| Title | |
| Location | |
| Site number | |
| Date | 23/04/2020 |
| Version | |
| Status | (new file) |
| Identifier | |
| Client | |
| Jobnumber | |
| Enumerator | WEEZY\Modelling |
| 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 | PCU | PCU | perHour | s | -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 | RFC Threshold | Average Delay threshold (s) | Queue threshold (PCU) |
|---|---|---|---|---|---|---|
| 5.75 | | | | 0.85 | 36.00 | 20.00 |

## Demand Set Summary

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|---|---|---|---|---|---|---|---|
| D1 | 2029 With Dev | AM | ONE HOUR | 08:00 | 09:30 | 15 | ✓ |
| D2 | 2029 With Dev | PM | ONE HOUR | 17:00 | 18:30 | 15 | ✓ |

## Analysis Set Details

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

# 2029 With Dev, AM

### Data Errors and Warnings

*No errors or warnings*

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | untitled | T-Junction | Two-way | | 5.94 | A |

### Junction Network Options

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

## Arms

### Arms

| Arm | Name | Description | Arm type |
|---|---|---|---|
| A | untitled | | Major |
| B | untitled | | Minor |
| C | untitled | | Major |

### Major Arm Geometry

| Arm | Width of carriageway (m) | Has kerbed central reserve | Has right turn bay | Width for right turn (m) | Visibility for right turn (m) | Blocks? | Blocking queue (PCU) |
|---|---|---|---|---|---|---|---|
| C | 7.00 | | ✓ | 3.50 | 140.0 | ✓ | 7.00 |

*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 | Width at give-way (m) | Width at 5m (m) | Width at 10m (m) | Width at 15m (m) | Width at 20m (m) | Estimate flare length | Flare length (PCU) | Visibility to left (m) | Visibility to right (m) |
|---|---|---|---|---|---|---|---|---|---|---|
| B | One lane plus flare | 10.00 | 9.00 | 5.80 | 5.20 | 5.00 | ✓ | 3.00 | 48 | 35 |

### Slope / Intercept / Capacity

#### Priority Intersection Slopes and Intercepts

| Junction | Stream | Intercept (PCU/hr) | Slope for A-B | Slope for A-C | Slope for C-A | Slope for C-B |
|---|---|---|---|---|---|---|
| 1 | B-A | 502 | 0.087 | 0.221 | 0.139 | 0.316 |
| 1 | B-C | 722 | 0.106 | 0.267 | - | - |
| 1 | C-B | 748 | 0.277 | 0.277 | - | - |

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

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

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

# Traffic Demand

## Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|---|---|---|---|---|---|---|---|
| D1 | 2029 With Dev | AM | ONE HOUR | 08:00 | 09:30 | 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 (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|---|
| A | | ONE HOUR | ✓ | 602 | 100.000 |
| B | | ONE HOUR | ✓ | 311 | 100.000 |
| C | | ONE HOUR | ✓ | 714 | 100.000 |

# Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | A | B | C |
| From | A | 0 | 119 | 483 |
| | B | 100 | 0 | 211 |
| | C | 482 | 232 | 0 |

# Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | A | B | C |
| From | A | 0 | 1 | 10 |
| | B | 2 | 0 | 7 |
| | C | 12 | 4 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) |
|---|---|---|---|---|---|---|
| B-C | 0.49 | 15.71 | 1.0 | C | 194 | 290 |
| B-A | 0.52 | 35.41 | 1.0 | E | 92 | 138 |
| C-AB | 0.45 | 12.07 | 0.9 | B | 213 | 320 |
| C-A | | | | | 442 | 663 |
| A-B | | | | | 109 | 164 |
| A-C | | | | | 443 | 665 |

## Main Results for each time segment

### 08:00 - 08:15

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 159 | 40 | 577 | 0.275 | 157 | 0.0 | 0.4 | 9.144 | A |
| B-A | 75 | 19 | 308 | 0.245 | 74 | 0.0 | 0.3 | 15.638 | C |
| C-AB | 175 | 44 | 622 | 0.281 | 173 | 0.0 | 0.4 | 8.311 | A |
| C-A | 363 | 91 | | | 363 | | | | |
| A-B | 90 | 22 | | | 90 | | | | |
| A-C | 364 | 91 | | | 364 | | | | |

### 08:15 - 08:30

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 190 | 47 | 542 | 0.350 | 189 | 0.4 | 0.6 | 10.894 | B |
| B-A | 90 | 22 | 269 | 0.334 | 89 | 0.3 | 0.5 | 20.360 | C |
| C-AB | 209 | 52 | 598 | 0.349 | 208 | 0.4 | 0.5 | 9.585 | A |
| C-A | 433 | 108 | | | 433 | | | | |
| A-B | 107 | 27 | | | 107 | | | | |
| A-C | 434 | 109 | | | 434 | | | | |

### 08:30 - 08:45

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 232 | 58 | 480 | 0.484 | 231 | 0.6 | 1.0 | 15.344 | C |
| B-A | 110 | 28 | 214 | 0.515 | 108 | 0.5 | 1.0 | 34.111 | D |
| C-AB | 257 | 64 | 567 | 0.453 | 255 | 0.5 | 0.8 | 11.987 | B |
| C-A | 530 | 132 | | | 530 | | | | |
| A-B | 131 | 33 | | | 131 | | | | |
| A-C | 532 | 133 | | | 532 | | | | |

### 08:45 - 09:00

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 232 | 58 | 477 | 0.487 | 232 | 1.0 | 1.0 | 15.707 | C |
| B-A | 110 | 28 | 213 | 0.516 | 110 | 1.0 | 1.0 | 35.409 | E |
| C-AB | 257 | 64 | 567 | 0.453 | 257 | 0.8 | 0.9 | 12.075 | B |
| C-A | 530 | 132 | | | 530 | | | | |
| A-B | 131 | 33 | | | 131 | | | | |
| A-C | 532 | 133 | | | 532 | | | | |

### 09:00 - 09:15

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 190 | 47 | 539 | 0.352 | 191 | 1.0 | 0.6 | 11.116 | B |
| B-A | 90 | 22 | 269 | 0.335 | 92 | 1.0 | 0.5 | 21.026 | C |
| C-AB | 209 | 52 | 598 | 0.349 | 210 | 0.9 | 0.6 | 9.671 | A |
| C-A | 433 | 108 | | | 433 | | | | |
| A-B | 107 | 27 | | | 107 | | | | |
| A-C | 434 | 109 | | | 434 | | | | |

**09:15 - 09:30**

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 159 | 40 | 575 | 0.276 | 160 | 0.6 | 0.4 | 9.283 | A |
| B-A | 75 | 19 | 307 | 0.245 | 76 | 0.5 | 0.3 | 15.944 | C |
| C-AB | 175 | 44 | 622 | 0.281 | 175 | 0.6 | 0.4 | 8.390 | A |
| C-A | 363 | 91 | | | 363 | | | | |
| A-B | 90 | 22 | | | 90 | | | | |
| A-C | 364 | 91 | | | 364 | | | | |

# 2029 With Dev, PM

### Data Errors and Warnings

*No errors or warnings*

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | untitled | T-Junction | Two-way | | 9.00 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|---|---|---|---|---|---|---|---|
| D2 | 2029 With Dev | PM | ONE HOUR | 17:00 | 18:30 | 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 (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|---|
| A | | ONE HOUR | ✓ | 597 | 100.000 |
| B | | ONE HOUR | ✓ | 379 | 100.000 |
| C | | ONE HOUR | ✓ | 756 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | A | B | C |
| From | A | 0 | 126 | 471 |
| | B | 118 | 0 | 261 |
| | C | 503 | 253 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | A | B | C |
| From | A | 0 | 1 | 8 |
| | B | 1 | 0 | 1 |
| | C | 9 | 1 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) |
|---|---|---|---|---|---|---|
| B-C | 0.65 | 23.44 | 1.8 | C | 239 | 359 |
| B-A | 0.66 | 53.23 | 1.8 | F | 108 | 162 |
| C-AB | 0.49 | 12.58 | 1.0 | B | 233 | 349 |
| C-A | | | | | 461 | 691 |
| A-B | | | | | 116 | 173 |
| A-C | | | | | 432 | 648 |

## Main Results for each time segment

### 17:00 - 17:15

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 196 | 49 | 572 | 0.343 | 194 | 0.0 | 0.5 | 9.575 | A |
| B-A | 89 | 22 | 300 | 0.296 | 87 | 0.0 | 0.4 | 16.926 | C |
| C-AB | 191 | 48 | 623 | 0.306 | 189 | 0.0 | 0.4 | 8.335 | A |
| C-A | 379 | 95 | | | 379 | | | | |
| A-B | 95 | 24 | | | 95 | | | | |
| A-C | 355 | 89 | | | 355 | | | | |

### 17:15 - 17:30

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 235 | 59 | 532 | 0.441 | 234 | 0.5 | 0.8 | 12.128 | B |
| B-A | 106 | 27 | 260 | 0.409 | 105 | 0.4 | 0.7 | 23.363 | C |
| C-AB | 228 | 57 | 600 | 0.380 | 227 | 0.4 | 0.6 | 9.740 | A |
| C-A | 452 | 113 | | | 452 | | | | |
| A-B | 113 | 28 | | | 113 | | | | |
| A-C | 423 | 106 | | | 423 | | | | |

### 17:30 - 17:45

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 287 | 72 | 449 | 0.640 | 284 | 0.8 | 1.7 | 21.537 | C |
| B-A | 130 | 32 | 198 | 0.657 | 126 | 0.7 | 1.7 | 48.077 | E |
| C-AB | 281 | 70 | 570 | 0.493 | 279 | 0.6 | 1.0 | 12.462 | B |
| C-A | 552 | 138 | | | 552 | | | | |
| A-B | 139 | 35 | | | 139 | | | | |
| A-C | 519 | 130 | | | 519 | | | | |

### 17:45 - 18:00

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 287 | 72 | 441 | 0.652 | 287 | 1.7 | 1.8 | 23.442 | C |
| B-A | 130 | 32 | 196 | 0.661 | 129 | 1.7 | 1.8 | 53.234 | F |
| C-AB | 281 | 70 | 570 | 0.493 | 281 | 1.0 | 1.0 | 12.578 | B |
| C-A | 552 | 138 | | | 552 | | | | |
| A-B | 139 | 35 | | | 139 | | | | |
| A-C | 519 | 130 | | | 519 | | | | |

### 18:00 - 18:15

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 235 | 59 | 527 | 0.445 | 239 | 1.8 | 0.8 | 12.757 | B |
| B-A | 106 | 27 | 259 | 0.410 | 110 | 1.8 | 0.7 | 25.102 | D |
| C-AB | 228 | 57 | 600 | 0.380 | 229 | 1.0 | 0.6 | 9.851 | A |
| C-A | 452 | 113 | | | 452 | | | | |
| A-B | 113 | 28 | | | 113 | | | | |
| A-C | 423 | 106 | | | 423 | | | | |

### 18:15 - 18:30

| Stream | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|
| B-C | 196 | 49 | 570 | 0.345 | 198 | 0.8 | 0.5 | 9.798 | A |
| B-A | 89 | 22 | 300 | 0.296 | 90 | 0.7 | 0.4 | 17.419 | C |
| C-AB | 191 | 48 | 623 | 0.306 | 191 | 0.6 | 0.5 | 8.429 | A |
| C-A | 379 | 95 | | | 379 | | | | |
| A-B | 95 | 24 | | | 95 | | | | |
| A-C | 355 | 89 | | | 355 | | | | |

# Junctions 9

## ARCADY 9 - Roundabout Module

Version: 9.5.0.6896
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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:** LInk Road South Rbt inc Hoy South.j9
**Path:** X:\Jobs\3560 Hoyland Commercial Land\Junction Modelling\Link Road Southern Access rbt
**Report generation date:** 27/08/2020 13:45:53

---

## »2029 With Dev, AM
## »2029 With Dev, PM

### Summary of junction performance

| | AM | | | | PM | | | |
|---|---|---|---|---|---|---|---|---|
| | Queue (PCU) | Delay (s) | RFC | LOS | Queue (PCU) | Delay (s) | RFC | LOS |
| | 2029 With Dev | | | | | | | |
| Arm 1 | 0.7 | 4.05 | 0.42 | A | 0.7 | 3.56 | 0.40 | A |
| Arm 2 | 0.1 | 4.82 | 0.04 | A | 0.1 | 3.73 | 0.10 | A |
| Arm 3 | 0.6 | 2.94 | 0.36 | A | 0.9 | 3.45 | 0.46 | A |
| Arm 4 | 0.4 | 4.32 | 0.30 | A | 0.1 | 3.59 | 0.13 | A |

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

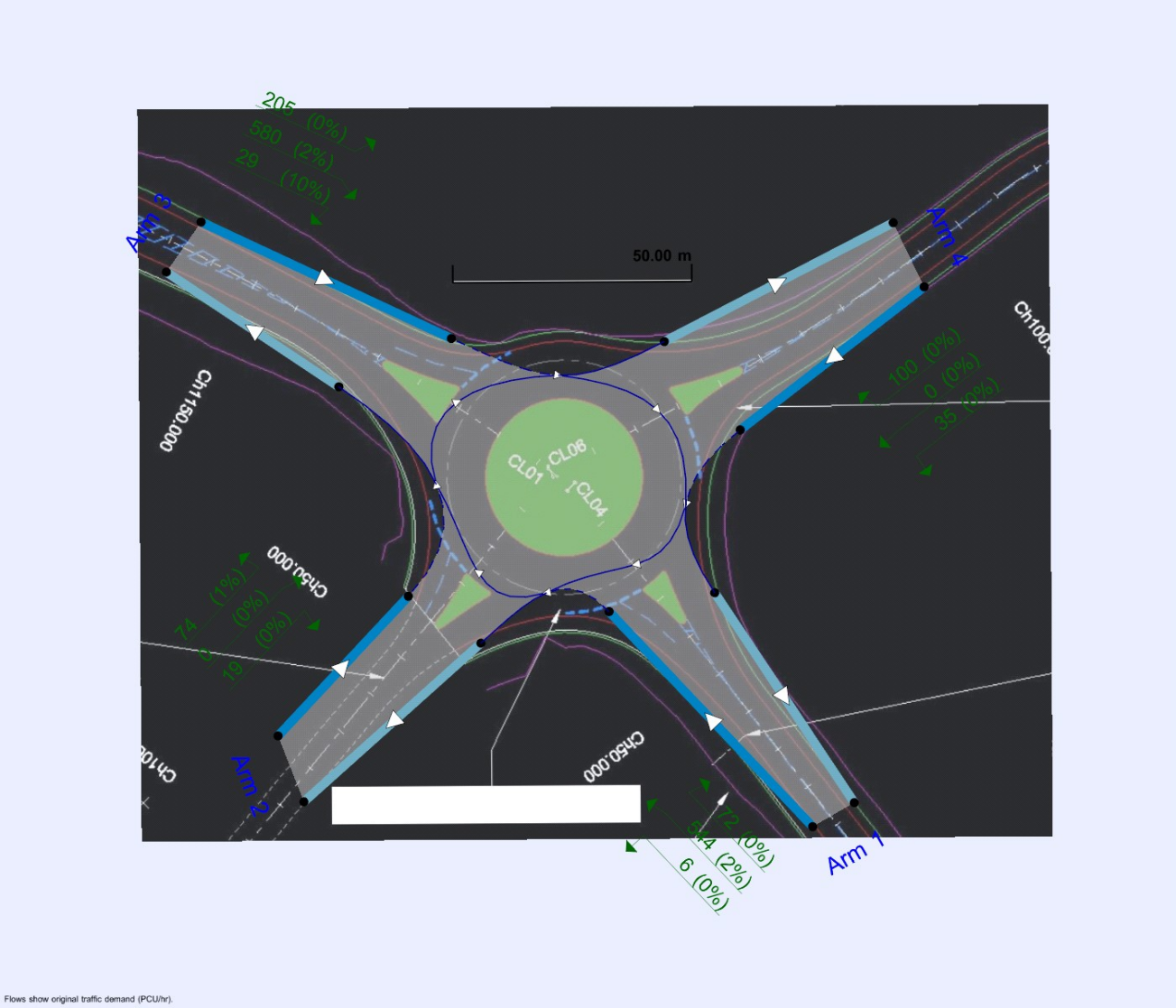
### File summary

#### File Description

| | |
|---|---|
| Title | |
| Location | |
| Site number | |
| Date | 28/04/2020 |
| Version | |
| Status | (new file) |
| Identifier | |
| Client | |
| Jobnumber | |
| Enumerator | WEEZY\Modelling |
| 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 | PCU | PCU | perHour | s | -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 | RFC Threshold | Average Delay threshold (s) | Queue threshold (PCU) |
|---|---|---|---|---|---|---|
| 5.75 | | | | 0.85 | 36.00 | 20.00 |

## Demand Set Summary

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|---|---|---|---|---|---|---|---|
| D1 | 2029 With Dev | AM | ONE HOUR | 08:00 | 09:30 | 15 | ✓ |
| D2 | 2029 With Dev | PM | ONE HOUR | 17:00 | 18:30 | 15 | ✓ |

## Analysis Set Details

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

# 2029 With Dev, AM

### Data Errors and Warnings

*No errors or warnings*

## Junction Network

### Junctions

| Junction | Name | Junction type | Use circulating lanes | Arm order | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | untitled | Standard Roundabout | | 1, 2, 3, 4 | 3.67 | A |

### Junction Network Options

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

## Arms

### Arms

| Arm | Name | Description |
|---|---|---|
| 1 | untitled | |
| 2 | untitled | |
| 3 | untitled | |
| 4 | untitled | |

### Roundabout Geometry

| Arm | V - Approach road half-width (m) | E - Entry width (m) | l' - Effective flare length (m) | R - Entry radius (m) | D - Inscribed circle diameter (m) | PHI - Conflict (entry) angle (deg) | Exit only |
|---|---|---|---|---|---|---|---|
| 1 | 3.69 | 8.54 | 11.8 | 31.8 | 56.7 | 28.0 | |
| 2 | 3.45 | 8.35 | 5.7 | 40.2 | 56.5 | 22.3 | |
| 3 | 4.81 | 6.90 | 23.4 | 36.2 | 56.7 | 25.4 | |
| 4 | 3.95 | 6.79 | 5.0 | 33.5 | 56.6 | 29.4 | |

### Slope / Intercept / Capacity

#### Roundabout Slope and Intercept used in model

| Arm | Final slope | Final intercept (PCU/hr) |
|---|---|---|
| 1 | 0.600 | 1798 |
| 2 | 0.557 | 1514 |
| 3 | 0.643 | 2023 |
| 4 | 0.552 | 1533 |

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|---|---|---|---|---|---|---|---|
| D1 | 2029 With Dev | AM | ONE HOUR | 08:00 | 09:30 | 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 (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|---|
| 1 | | ONE HOUR | ✓ | 599 | 100.000 |
| 2 | | ONE HOUR | ✓ | 40 | 100.000 |
| 3 | | ONE HOUR | ✓ | 653 | 100.000 |
| 4 | | ONE HOUR | ✓ | 319 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | | |
|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 |
| From | 1 | 0 | 18 | 552 | 29 |
| | 2 | 3 | 0 | 37 | 0 |
| | 3 | 476 | 94 | 0 | 83 |
| | 4 | 83 | 0 | 236 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | | |
|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 |
| From | 1 | 0 | 0 | 4 | 0 |
| | 2 | 0 | 0 | 33 | 0 |
| | 3 | 4 | 13 | 0 | 0 |
| | 4 | 0 | 0 | 0 | 0 |

## Results

### Results Summary for whole modelled period

| Arm | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) |
|---|---|---|---|---|---|---|
| 1 | 0.42 | 4.05 | 0.7 | A | 550 | 824 |
| 2 | 0.04 | 4.82 | 0.1 | A | 37 | 55 |
| 3 | 0.36 | 2.94 | 0.6 | A | 599 | 899 |
| 4 | 0.30 | 4.32 | 0.4 | A | 293 | 439 |

### Main Results for each time segment

#### 08:00 - 08:15

| Arm | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 451 | 113 | 248 | 1650 | 0.273 | 449 | 422 | 0.0 | 0.4 | 3.105 | A |
| 2 | 30 | 8 | 613 | 1172 | 0.026 | 30 | 84 | 0.0 | 0.0 | 4.090 | A |
| 3 | 492 | 123 | 24 | 2008 | 0.245 | 490 | 619 | 0.0 | 0.3 | 2.480 | A |
| 4 | 240 | 60 | 430 | 1296 | 0.185 | 239 | 84 | 0.0 | 0.2 | 3.404 | A |

### 08:15 - 08:30

| Arm | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 538 | 135 | 296 | 1620 | 0.332 | 538 | 505 | 0.4 | 0.5 | 3.446 | A |
| 2 | 36 | 9 | 734 | 1105 | 0.033 | 36 | 101 | 0.0 | 0.0 | 4.370 | A |
| 3 | 587 | 147 | 29 | 2005 | 0.293 | 587 | 741 | 0.3 | 0.4 | 2.657 | A |
| 4 | 287 | 72 | 515 | 1249 | 0.230 | 286 | 101 | 0.2 | 0.3 | 3.739 | A |

### 08:30 - 08:45

| Arm | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 660 | 165 | 363 | 1580 | 0.417 | 659 | 618 | 0.5 | 0.7 | 4.044 | A |
| 2 | 44 | 11 | 898 | 1013 | 0.043 | 44 | 123 | 0.0 | 0.1 | 4.820 | A |
| 3 | 719 | 180 | 35 | 2001 | 0.359 | 718 | 907 | 0.4 | 0.6 | 2.936 | A |
| 4 | 351 | 88 | 630 | 1185 | 0.296 | 351 | 123 | 0.3 | 0.4 | 4.310 | A |

### 08:45 - 09:00

| Arm | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 660 | 165 | 363 | 1580 | 0.417 | 659 | 619 | 0.7 | 0.7 | 4.053 | A |
| 2 | 44 | 11 | 900 | 1013 | 0.043 | 44 | 123 | 0.1 | 0.1 | 4.823 | A |
| 3 | 719 | 180 | 35 | 2001 | 0.359 | 719 | 908 | 0.6 | 0.6 | 2.939 | A |
| 4 | 351 | 88 | 631 | 1185 | 0.296 | 351 | 123 | 0.4 | 0.4 | 4.317 | A |

### 09:00 - 09:15

| Arm | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 538 | 135 | 297 | 1620 | 0.332 | 539 | 506 | 0.7 | 0.5 | 3.458 | A |
| 2 | 36 | 9 | 736 | 1104 | 0.033 | 36 | 101 | 0.1 | 0.0 | 4.375 | A |
| 3 | 587 | 147 | 29 | 2005 | 0.293 | 588 | 743 | 0.6 | 0.4 | 2.659 | A |
| 4 | 287 | 72 | 516 | 1249 | 0.230 | 287 | 101 | 0.4 | 0.3 | 3.745 | A |

### 09:15 - 09:30

| Arm | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 451 | 113 | 249 | 1649 | 0.273 | 451 | 423 | 0.5 | 0.4 | 3.119 | A |
| 2 | 30 | 8 | 616 | 1171 | 0.026 | 30 | 84 | 0.0 | 0.0 | 4.096 | A |
| 3 | 492 | 123 | 24 | 2008 | 0.245 | 492 | 622 | 0.4 | 0.3 | 2.487 | A |
| 4 | 240 | 60 | 432 | 1295 | 0.185 | 240 | 84 | 0.3 | 0.2 | 3.416 | A |

# 2029 With Dev, PM

### Data Errors and Warnings

*No errors or warnings*

## Junction Network

### Junctions

| Junction | Name | Junction type | Use circulating lanes | Arm order | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | untitled | Standard Roundabout | | 1, 2, 3, 4 | 3.52 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|---|---|---|---|---|---|---|---|
| D2 | 2029 With Dev | PM | ONE HOUR | 17:00 | 18:30 | 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 (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|---|
| 1 | | ONE HOUR | ✓ | 622 | 100.000 |
| 2 | | ONE HOUR | ✓ | 93 | 100.000 |
| 3 | | ONE HOUR | ✓ | 814 | 100.000 |
| 4 | | ONE HOUR | ✓ | 135 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | | |
|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 |
| From | 1 | 0 | 6 | 544 | 72 |
| | 2 | 19 | 0 | 74 | 0 |
| | 3 | 580 | 29 | 0 | 205 |
| | 4 | 35 | 0 | 100 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | | |
|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 |
| From | 1 | 0 | 0 | 2 | 0 |
| | 2 | 0 | 0 | 1 | 0 |
| | 3 | 2 | 10 | 0 | 0 |
| | 4 | 0 | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Arm | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) |
|---|---|---|---|---|---|---|
| 1 | 0.40 | 3.56 | 0.7 | A | 571 | 856 |
| 2 | 0.10 | 3.73 | 0.1 | A | 85 | 128 |
| 3 | 0.46 | 3.45 | 0.9 | A | 747 | 1120 |
| 4 | 0.13 | 3.59 | 0.1 | A | 124 | 186 |

## Main Results for each time segment

### 17:00 - 17:15

| Arm | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 468 | 117 | 97 | 1740 | 0.269 | 467 | 476 | 0.0 | 0.4 | 2.875 | A |
| 2 | 70 | 18 | 537 | 1214 | 0.058 | 70 | 26 | 0.0 | 0.1 | 3.170 | A |
| 3 | 613 | 153 | 68 | 1979 | 0.310 | 611 | 539 | 0.0 | 0.5 | 2.673 | A |
| 4 | 102 | 25 | 471 | 1273 | 0.080 | 101 | 208 | 0.0 | 0.1 | 3.072 | A |

### 17:15 - 17:30

| Arm | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 559 | 140 | 116 | 1729 | 0.323 | 559 | 570 | 0.4 | 0.5 | 3.131 | A |
| 2 | 84 | 21 | 643 | 1155 | 0.072 | 84 | 31 | 0.1 | 0.1 | 3.384 | A |
| 3 | 732 | 183 | 82 | 1971 | 0.371 | 731 | 645 | 0.5 | 0.6 | 2.953 | A |
| 4 | 121 | 30 | 564 | 1222 | 0.099 | 121 | 249 | 0.1 | 0.1 | 3.270 | A |

### 17:30 - 17:45

| Arm | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 685 | 171 | 142 | 1713 | 0.400 | 684 | 697 | 0.5 | 0.7 | 3.558 | A |
| 2 | 102 | 26 | 787 | 1075 | 0.095 | 102 | 38 | 0.1 | 0.1 | 3.729 | A |
| 3 | 896 | 224 | 100 | 1959 | 0.458 | 895 | 790 | 0.6 | 0.9 | 3.440 | A |
| 4 | 149 | 37 | 691 | 1152 | 0.129 | 148 | 305 | 0.1 | 0.1 | 3.586 | A |

### 17:45 - 18:00

| Arm | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 685 | 171 | 142 | 1713 | 0.400 | 685 | 698 | 0.7 | 0.7 | 3.561 | A |
| 2 | 102 | 26 | 788 | 1075 | 0.095 | 102 | 39 | 0.1 | 0.1 | 3.731 | A |
| 3 | 896 | 224 | 100 | 1959 | 0.458 | 896 | 791 | 0.9 | 0.9 | 3.446 | A |
| 4 | 149 | 37 | 691 | 1152 | 0.129 | 149 | 305 | 0.1 | 0.1 | 3.588 | A |

### 18:00 - 18:15

| Arm | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 559 | 140 | 116 | 1728 | 0.324 | 560 | 571 | 0.7 | 0.5 | 3.135 | A |
| 2 | 84 | 21 | 645 | 1155 | 0.072 | 84 | 32 | 0.1 | 0.1 | 3.390 | A |
| 3 | 732 | 183 | 82 | 1971 | 0.371 | 733 | 646 | 0.9 | 0.6 | 2.960 | A |
| 4 | 121 | 30 | 565 | 1221 | 0.099 | 122 | 249 | 0.1 | 0.1 | 3.275 | A |

**18:15 - 18:30**

| Arm | Total Demand (PCU/hr) | Junction Arrivals (PCU) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Throughput (exit side) (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 468 | 117 | 97 | 1740 | 0.269 | 469 | 478 | 0.5 | 0.4 | 2.884 | A |
| 2 | 70 | 18 | 540 | 1213 | 0.058 | 70 | 26 | 0.1 | 0.1 | 3.174 | A |
| 3 | 613 | 153 | 69 | 1979 | 0.310 | 613 | 541 | 0.6 | 0.5 | 2.684 | A |
| 4 | 102 | 25 | 473 | 1272 | 0.080 | 102 | 209 | 0.1 | 0.1 | 3.075 | A |

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