

| Junctions 9                                                                                                                                                      |  |  |  |  |  |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|--|
| PICADY 9 - Priority Intersection Module                                                                                                                          |  |  |  |  |  |  |  |
| Version: 9.5.1.7462                                                                                                                                              |  |  |  |  |  |  |  |
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Filename: A474 Neath Abbey Rd\_Site Access RTL.j9

Path: E:\clients\EnTran\ALDI Neath\Feb 2020

Report generation date: 10/02/2020 10:47:13

»2021 Base + Dev, AM

»2021 Base + Dev, PM

»2036 Base + Dev, AM

»2036 Base + Dev, PM

### Summary of junction performance

|             | AM              |           |      |                    | PM          |           |      |                    |
|-------------|-----------------|-----------|------|--------------------|-------------|-----------|------|--------------------|
|             | Queue (Veh)     | Delay (s) | RFC  | Junction Delay (s) | Queue (Veh) | Delay (s) | RFC  | Junction Delay (s) |
|             | 2021 Base + Dev |           |      |                    |             |           |      |                    |
| Stream B-AC | 0.3             | 23.04     | 0.24 | 0.69               | 0.6         | 20.04     | 0.37 | 1.37               |
| Stream C-AB | 0.1             | 9.80      | 0.10 |                    | 0.2         | 8.58      | 0.13 |                    |
|             | 2036 Base + Dev |           |      |                    |             |           |      |                    |
| Stream B-AC | 0.6             | 50.02     | 0.40 | 1.16               | 0.8         | 28.03     | 0.45 | 1.64               |
| Stream C-AB | 0.1             | 10.88     | 0.11 |                    | 0.2         | 9.19      | 0.14 |                    |

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages.

### File summary

#### File Description

|             |                                   |
|-------------|-----------------------------------|
| Title       | A474 Neath Abbey Rd / Site Access |
| Location    |                                   |
| Site number |                                   |
| Date        | 18/10/2017                        |
| Version     |                                   |
| Status      |                                   |
| Identifier  |                                   |
| Client      |                                   |
| Jobnumber   |                                   |
| Enumerator  | AL                                |
| Description |                                   |

### Units

| Distance units | Speed units | Traffic units input | Traffic units results | Flow units | Average delay units | Total delay units | Rate of delay units |
|----------------|-------------|---------------------|-----------------------|------------|---------------------|-------------------|---------------------|
| m              | kph         | Veh                 | Veh                   | perHour    | s                   | -Hour             | perHour             |

### 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 | 2021 Base + Dev | AM               | ONE HOUR             | 07:30              | 09:00               | 15                        | ✓                 |
| D2 | 2021 Base + Dev | PM               | ONE HOUR             | 16:45              | 18:15               | 15                        | ✓                 |
| D4 | 2036 Base + Dev | AM               | ONE HOUR             | 07:30              | 09:00               | 15                        | ✓                 |
| D5 | 2036 Base + Dev | PM               | ONE HOUR             | 16:45              | 18:15               | 15                        | ✓                 |

### Analysis Set Details

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

# 2021 Base + 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        | A474 Neath Abbey Rd / Site Access | T-Junction    | Two-way              |                       | 0.69               | A            |

### Junction Network Options

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

## Arms

### Arms

| Arm | Name                    | Description | Arm type |
|-----|-------------------------|-------------|----------|
| A   | A474 Neath Abbey Rd (E) |             | Major    |
| B   | Site Access             |             | Minor    |
| C   | A474 Neath Abbey Rd (W) |             | 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 - A474 Neath Abbey Rd (W) | 6.50                     |                            | ✓                  | 3.25                     | 120.0                         | ✓       | 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 | Lane width (m) | Visibility to left (m) | Visibility to right (m) |
|-----------------|----------------|----------------|------------------------|-------------------------|
| B - Site Access | One lane       | 3.84           | 23                     | 23                      |

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

| Stream | Intercept (Veh/hr) | Slope for A-B | Slope for A-C | Slope for C-A | Slope for C-B |
|--------|--------------------|---------------|---------------|---------------|---------------|
| B-A    | 538                | 0.096         | 0.242         | 0.152         | 0.346         |
| B-C    | 692                | 0.104         | 0.262         | -             | -             |
| C-B    | 717                | 0.272         | 0.272         | -             | -             |

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 | 2021 Base + Dev | AM               | ONE HOUR             | 07:30              | 09:00               | 15                        | ✓                 |

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

### Demand overview (Traffic)

| Arm                         | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|-----------------------------|------------|--------------|--------------|-------------------------|--------------------|
| A - A474 Neath Abbey Rd (E) |            | ONE HOUR     | ✓            | 990                     | 100.000            |
| B - Site Access             |            | ONE HOUR     | ✓            | 44                      | 100.000            |
| C - A474 Neath Abbey Rd (W) |            | ONE HOUR     | ✓            | 916                     | 100.000            |

## Origin-Destination Data

### Demand (Veh/hr)

| From | To                          |                             |                 |                             |
|------|-----------------------------|-----------------------------|-----------------|-----------------------------|
|      |                             | A - A474 Neath Abbey Rd (E) | B - Site Access | C - A474 Neath Abbey Rd (W) |
|      | A - A474 Neath Abbey Rd (E) | 0                           | 22              | 968                         |
|      | B - Site Access             | 14                          | 0               | 30                          |
|      | C - A474 Neath Abbey Rd (W) | 878                         | 38              | 0                           |

## Vehicle Mix

### Heavy Vehicle Percentages

| From | To                          |                             |                 |                             |
|------|-----------------------------|-----------------------------|-----------------|-----------------------------|
|      |                             | A - A474 Neath Abbey Rd (E) | B - Site Access | C - A474 Neath Abbey Rd (W) |
|      | A - A474 Neath Abbey Rd (E) | 0                           | 0               | 4                           |
|      | B - Site Access             | 0                           | 0               | 0                           |
|      | C - A474 Neath Abbey Rd (W) | 3                           | 0               | 0                           |

## Results

### Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|--------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| B-AC   | 0.24    | 23.04         | 0.3             | C       | 40                      | 61                            |
| C-AB   | 0.10    | 9.80          | 0.1             | A       | 35                      | 52                            |
| C-A    |         |               |                 |         | 806                     | 1208                          |
| A-B    |         |               |                 |         | 20                      | 30                            |
| A-C    |         |               |                 |         | 888                     | 1332                          |

### Main Results for each time segment

#### 07:30 - 07:45

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-AC   | 33                    | 8                       | 368               | 0.090 | 33                  | 0.0               | 0.1             | 10.738    | B                             |
| C-AB   | 29                    | 7                       | 506               | 0.057 | 28                  | 0.0               | 0.1             | 7.528     | A                             |
| C-A    | 661                   | 165                     |                   |       | 661                 |                   |                 |           |                               |
| A-B    | 17                    | 4                       |                   |       | 17                  |                   |                 |           |                               |
| A-C    | 729                   | 182                     |                   |       | 729                 |                   |                 |           |                               |

**07:45 - 08:00**

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-AC   | 40                    | 10                      | 306               | 0.129 | 39                  | 0.1               | 0.1             | 13.497    | B                             |
| C-AB   | 34                    | 9                       | 465               | 0.073 | 34                  | 0.1               | 0.1             | 8.345     | A                             |
| C-A    | 789                   | 197                     |                   |       | 789                 |                   |                 |           |                               |
| A-B    | 20                    | 5                       |                   |       | 20                  |                   |                 |           |                               |
| A-C    | 870                   | 218                     |                   |       | 870                 |                   |                 |           |                               |

**08:00 - 08:15**

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-AC   | 48                    | 12                      | 205               | 0.237 | 48                  | 0.1               | 0.3             | 22.880    | C                             |
| C-AB   | 42                    | 10                      | 409               | 0.102 | 42                  | 0.1               | 0.1             | 9.798     | A                             |
| C-A    | 967                   | 242                     |                   |       | 967                 |                   |                 |           |                               |
| A-B    | 24                    | 6                       |                   |       | 24                  |                   |                 |           |                               |
| A-C    | 1066                  | 266                     |                   |       | 1066                |                   |                 |           |                               |

**08:15 - 08:30**

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-AC   | 48                    | 12                      | 205               | 0.237 | 48                  | 0.3               | 0.3             | 23.041    | C                             |
| C-AB   | 42                    | 10                      | 409               | 0.102 | 42                  | 0.1               | 0.1             | 9.804     | A                             |
| C-A    | 967                   | 242                     |                   |       | 967                 |                   |                 |           |                               |
| A-B    | 24                    | 6                       |                   |       | 24                  |                   |                 |           |                               |
| A-C    | 1066                  | 266                     |                   |       | 1066                |                   |                 |           |                               |

**08:30 - 08:45**

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-AC   | 40                    | 10                      | 306               | 0.129 | 40                  | 0.3               | 0.2             | 13.580    | B                             |
| C-AB   | 34                    | 9                       | 465               | 0.073 | 34                  | 0.1               | 0.1             | 8.351     | A                             |
| C-A    | 789                   | 197                     |                   |       | 789                 |                   |                 |           |                               |
| A-B    | 20                    | 5                       |                   |       | 20                  |                   |                 |           |                               |
| A-C    | 870                   | 218                     |                   |       | 870                 |                   |                 |           |                               |

**08:45 - 09:00**

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-AC   | 33                    | 8                       | 368               | 0.090 | 33                  | 0.2               | 0.1             | 10.777    | B                             |
| C-AB   | 29                    | 7                       | 506               | 0.057 | 29                  | 0.1               | 0.1             | 7.537     | A                             |
| C-A    | 661                   | 165                     |                   |       | 661                 |                   |                 |           |                               |
| A-B    | 17                    | 4                       |                   |       | 17                  |                   |                 |           |                               |
| A-C    | 729                   | 182                     |                   |       | 729                 |                   |                 |           |                               |

# 2021 Base + 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        | A474 Neath Abbey Rd / Site Access | T-Junction    | Two-way              |                       | 1.37               | 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 | 2021 Base + Dev | PM               | ONE HOUR             | 16:45              | 18:15               | 15                        | ✓                 |

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

### Demand overview (Traffic)

| Arm                         | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|-----------------------------|------------|--------------|--------------|-------------------------|--------------------|
| A - A474 Neath Abbey Rd (E) |            | ONE HOUR     | ✓            | 776                     | 100.000            |
| B - Site Access             |            | ONE HOUR     | ✓            | 95                      | 100.000            |
| C - A474 Neath Abbey Rd (W) |            | ONE HOUR     | ✓            | 875                     | 100.000            |

## Origin-Destination Data

### Demand (Veh/hr)

|      | To                          |                             |                 |                             |
|------|-----------------------------|-----------------------------|-----------------|-----------------------------|
|      |                             | A - A474 Neath Abbey Rd (E) | B - Site Access | C - A474 Neath Abbey Rd (W) |
| From | A - A474 Neath Abbey Rd (E) | 0                           | 35              | 741                         |
|      | B - Site Access             | 37                          | 0               | 58                          |
|      | C - A474 Neath Abbey Rd (W) | 817                         | 58              | 0                           |

## Vehicle Mix

### Heavy Vehicle Percentages

|      | To                          |                             |                 |                             |
|------|-----------------------------|-----------------------------|-----------------|-----------------------------|
|      |                             | A - A474 Neath Abbey Rd (E) | B - Site Access | C - A474 Neath Abbey Rd (W) |
| From | A - A474 Neath Abbey Rd (E) | 0                           | 0               | 1                           |
|      | B - Site Access             | 0                           | 0               | 0                           |
|      | C - A474 Neath Abbey Rd (W) | 1                           | 0               | 0                           |

## Results

### Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|--------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| B-AC   | 0.37    | 20.04         | 0.6             | C       | 87                      | 131                           |
| C-AB   | 0.13    | 8.58          | 0.2             | A       | 53                      | 80                            |
| C-A    |         |               |                 |         | 750                     | 1125                          |
| A-B    |         |               |                 |         | 32                      | 48                            |
| A-C    |         |               |                 |         | 680                     | 1020                          |

### Main Results for each time segment

#### 16:45 - 17:00

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-AC   | 72                    | 18                      | 405               | 0.177 | 71                  | 0.0               | 0.2             | 10.748    | B                             |
| C-AB   | 44                    | 11                      | 557               | 0.078 | 43                  | 0.0               | 0.1             | 7.003     | A                             |
| C-A    | 615                   | 154                     |                   |       | 615                 |                   |                 |           |                               |
| A-B    | 26                    | 7                       |                   |       | 26                  |                   |                 |           |                               |
| A-C    | 558                   | 139                     |                   |       | 558                 |                   |                 |           |                               |

#### 17:00 - 17:15

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-AC   | 85                    | 21                      | 357               | 0.239 | 85                  | 0.2               | 0.3             | 13.231    | B                             |
| C-AB   | 52                    | 13                      | 526               | 0.099 | 52                  | 0.1               | 0.1             | 7.592     | A                             |
| C-A    | 734                   | 184                     |                   |       | 734                 |                   |                 |           |                               |
| A-B    | 31                    | 8                       |                   |       | 31                  |                   |                 |           |                               |
| A-C    | 666                   | 167                     |                   |       | 666                 |                   |                 |           |                               |

#### 17:15 - 17:30

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-AC   | 105                   | 26                      | 284               | 0.368 | 104                 | 0.3               | 0.6             | 19.825    | C                             |
| C-AB   | 64                    | 16                      | 483               | 0.132 | 64                  | 0.1               | 0.2             | 8.576     | A                             |
| C-A    | 899                   | 225                     |                   |       | 899                 |                   |                 |           |                               |
| A-B    | 39                    | 10                      |                   |       | 39                  |                   |                 |           |                               |
| A-C    | 816                   | 204                     |                   |       | 816                 |                   |                 |           |                               |

#### 17:30 - 17:45

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-AC   | 105                   | 26                      | 284               | 0.368 | 105                 | 0.6               | 0.6             | 20.041    | C                             |
| C-AB   | 64                    | 16                      | 483               | 0.132 | 64                  | 0.2               | 0.2             | 8.583     | A                             |
| C-A    | 899                   | 225                     |                   |       | 899                 |                   |                 |           |                               |
| A-B    | 39                    | 10                      |                   |       | 39                  |                   |                 |           |                               |
| A-C    | 816                   | 204                     |                   |       | 816                 |                   |                 |           |                               |

**17:45 - 18:00**

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-AC   | 85                    | 21                      | 357               | 0.239 | 86                  | 0.6               | 0.3             | 13.371    | B                             |
| C-AB   | 52                    | 13                      | 526               | 0.099 | 52                  | 0.2               | 0.1             | 7.604     | A                             |
| C-A    | 734                   | 184                     |                   |       | 734                 |                   |                 |           |                               |
| A-B    | 31                    | 8                       |                   |       | 31                  |                   |                 |           |                               |
| A-C    | 666                   | 167                     |                   |       | 666                 |                   |                 |           |                               |

**18:00 - 18:15**

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-AC   | 72                    | 18                      | 405               | 0.177 | 72                  | 0.3               | 0.2             | 10.832    | B                             |
| C-AB   | 44                    | 11                      | 557               | 0.078 | 44                  | 0.1               | 0.1             | 7.017     | A                             |
| C-A    | 615                   | 154                     |                   |       | 615                 |                   |                 |           |                               |
| A-B    | 26                    | 7                       |                   |       | 26                  |                   |                 |           |                               |
| A-C    | 558                   | 139                     |                   |       | 558                 |                   |                 |           |                               |

# 2036 Base + 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        | A474 Neath Abbey Rd / Site Access | T-Junction    | Two-way              |                       | 1.16               | A            |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name   | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|----|-----------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D4 | 2036 Base + Dev | AM               | ONE HOUR             | 07:30              | 09:00               | 15                        | ✓                 |

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

### Demand overview (Traffic)

| Arm                         | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|-----------------------------|------------|--------------|--------------|-------------------------|--------------------|
| A - A474 Neath Abbey Rd (E) |            | ONE HOUR     | ✓            | 1107                    | 100.000            |
| B - Site Access             |            | ONE HOUR     | ✓            | 44                      | 100.000            |
| C - A474 Neath Abbey Rd (W) |            | ONE HOUR     | ✓            | 1022                    | 100.000            |

## Origin-Destination Data

### Demand (Veh/hr)

|      | To                          |                             |                 |                             |
|------|-----------------------------|-----------------------------|-----------------|-----------------------------|
|      |                             | A - A474 Neath Abbey Rd (E) | B - Site Access | C - A474 Neath Abbey Rd (W) |
| From | A - A474 Neath Abbey Rd (E) | 0                           | 22              | 1085                        |
|      | B - Site Access             | 14                          | 0               | 30                          |
|      | C - A474 Neath Abbey Rd (W) | 984                         | 38              | 0                           |

## Vehicle Mix

### Heavy Vehicle Percentages

|      | To                          |                             |                 |                             |
|------|-----------------------------|-----------------------------|-----------------|-----------------------------|
|      |                             | A - A474 Neath Abbey Rd (E) | B - Site Access | C - A474 Neath Abbey Rd (W) |
| From | A - A474 Neath Abbey Rd (E) | 0                           | 0               | 4                           |
|      | B - Site Access             | 0                           | 0               | 0                           |
|      | C - A474 Neath Abbey Rd (W) | 3                           | 0               | 0                           |

## Results

### Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|--------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| B-AC   | 0.40    | 50.02         | 0.6             | F       | 40                      | 61                            |
| C-AB   | 0.11    | 10.88         | 0.1             | B       | 35                      | 52                            |
| C-A    |         |               |                 |         | 903                     | 1354                          |
| A-B    |         |               |                 |         | 20                      | 30                            |
| A-C    |         |               |                 |         | 996                     | 1493                          |

### Main Results for each time segment

#### 07:30 - 07:45

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-AC   | 33                    | 8                       | 331               | 0.100 | 33                  | 0.0               | 0.1             | 12.041    | B                             |
| C-AB   | 29                    | 7                       | 481               | 0.059 | 28                  | 0.0               | 0.1             | 7.942     | A                             |
| C-A    | 741                   | 185                     |                   |       | 741                 |                   |                 |           |                               |
| A-B    | 17                    | 4                       |                   |       | 17                  |                   |                 |           |                               |
| A-C    | 817                   | 204                     |                   |       | 817                 |                   |                 |           |                               |

#### 07:45 - 08:00

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-AC   | 40                    | 10                      | 257               | 0.154 | 39                  | 0.1               | 0.2             | 16.546    | C                             |
| C-AB   | 34                    | 9                       | 436               | 0.078 | 34                  | 0.1               | 0.1             | 8.961     | A                             |
| C-A    | 885                   | 221                     |                   |       | 885                 |                   |                 |           |                               |
| A-B    | 20                    | 5                       |                   |       | 20                  |                   |                 |           |                               |
| A-C    | 975                   | 244                     |                   |       | 975                 |                   |                 |           |                               |

#### 08:00 - 08:15

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-AC   | 48                    | 12                      | 120               | 0.403 | 47                  | 0.2               | 0.6             | 47.957    | E                             |
| C-AB   | 42                    | 10                      | 373               | 0.112 | 42                  | 0.1               | 0.1             | 10.872    | B                             |
| C-A    | 1083                  | 271                     |                   |       | 1083                |                   |                 |           |                               |
| A-B    | 24                    | 6                       |                   |       | 24                  |                   |                 |           |                               |
| A-C    | 1195                  | 299                     |                   |       | 1195                |                   |                 |           |                               |

#### 08:15 - 08:30

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-AC   | 48                    | 12                      | 120               | 0.404 | 48                  | 0.6               | 0.6             | 50.025    | F                             |
| C-AB   | 42                    | 10                      | 373               | 0.112 | 42                  | 0.1               | 0.1             | 10.883    | B                             |
| C-A    | 1083                  | 271                     |                   |       | 1083                |                   |                 |           |                               |
| A-B    | 24                    | 6                       |                   |       | 24                  |                   |                 |           |                               |
| A-C    | 1195                  | 299                     |                   |       | 1195                |                   |                 |           |                               |

**08:30 - 08:45**

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-AC   | 40                    | 10                      | 256               | 0.154 | 41                  | 0.6               | 0.2             | 16.872    | C                             |
| C-AB   | 34                    | 9                       | 436               | 0.078 | 34                  | 0.1               | 0.1             | 8.973     | A                             |
| C-A    | 885                   | 221                     |                   |       | 885                 |                   |                 |           |                               |
| A-B    | 20                    | 5                       |                   |       | 20                  |                   |                 |           |                               |
| A-C    | 975                   | 244                     |                   |       | 975                 |                   |                 |           |                               |

**08:45 - 09:00**

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-AC   | 33                    | 8                       | 331               | 0.100 | 33                  | 0.2               | 0.1             | 12.104    | B                             |
| C-AB   | 29                    | 7                       | 481               | 0.059 | 29                  | 0.1               | 0.1             | 7.954     | A                             |
| C-A    | 741                   | 185                     |                   |       | 741                 |                   |                 |           |                               |
| A-B    | 17                    | 4                       |                   |       | 17                  |                   |                 |           |                               |
| A-C    | 817                   | 204                     |                   |       | 817                 |                   |                 |           |                               |

# 2036 Base + 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        | A474 Neath Abbey Rd / Site Access | T-Junction    | Two-way              |                       | 1.64               | A            |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name   | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|----|-----------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D5 | 2036 Base + Dev | PM               | ONE HOUR             | 16:45              | 18:15               | 15                        | ✓                 |

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

### Demand overview (Traffic)

| Arm                         | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|-----------------------------|------------|--------------|--------------|-------------------------|--------------------|
| A - A474 Neath Abbey Rd (E) |            | ONE HOUR     | ✓            | 868                     | 100.000            |
| B - Site Access             |            | ONE HOUR     | ✓            | 95                      | 100.000            |
| C - A474 Neath Abbey Rd (W) |            | ONE HOUR     | ✓            | 976                     | 100.000            |

## Origin-Destination Data

### Demand (Veh/hr)

|      | To                          |                             |                 |                             |
|------|-----------------------------|-----------------------------|-----------------|-----------------------------|
|      |                             | A - A474 Neath Abbey Rd (E) | B - Site Access | C - A474 Neath Abbey Rd (W) |
| From | A - A474 Neath Abbey Rd (E) | 0                           | 35              | 833                         |
|      | B - Site Access             | 37                          | 0               | 58                          |
|      | C - A474 Neath Abbey Rd (W) | 918                         | 58              | 0                           |

## Vehicle Mix

### Heavy Vehicle Percentages

|      | To                          |                             |                 |                             |
|------|-----------------------------|-----------------------------|-----------------|-----------------------------|
|      |                             | A - A474 Neath Abbey Rd (E) | B - Site Access | C - A474 Neath Abbey Rd (W) |
| From | A - A474 Neath Abbey Rd (E) | 0                           | 0               | 1                           |
|      | B - Site Access             | 0                           | 0               | 0                           |
|      | C - A474 Neath Abbey Rd (W) | 1                           | 0               | 0                           |

## Results

### Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (Veh) | Max LOS | Average Demand (Veh/hr) | Total Junction Arrivals (Veh) |
|--------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| B-AC   | 0.45    | 28.03         | 0.8             | D       | 87                      | 131                           |
| C-AB   | 0.14    | 9.19          | 0.2             | A       | 53                      | 80                            |
| C-A    |         |               |                 |         | 842                     | 1264                          |
| A-B    |         |               |                 |         | 32                      | 48                            |
| A-C    |         |               |                 |         | 764                     | 1147                          |

### Main Results for each time segment

#### 16:45 - 17:00

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-AC   | 72                    | 18                      | 376               | 0.190 | 71                  | 0.0               | 0.2             | 11.738    | B                             |
| C-AB   | 44                    | 11                      | 538               | 0.081 | 43                  | 0.0               | 0.1             | 7.272     | A                             |
| C-A    | 691                   | 173                     |                   |       | 691                 |                   |                 |           |                               |
| A-B    | 26                    | 7                       |                   |       | 26                  |                   |                 |           |                               |
| A-C    | 627                   | 157                     |                   |       | 627                 |                   |                 |           |                               |

#### 17:00 - 17:15

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-AC   | 85                    | 21                      | 320               | 0.267 | 85                  | 0.2               | 0.4             | 15.254    | C                             |
| C-AB   | 52                    | 13                      | 503               | 0.104 | 52                  | 0.1               | 0.1             | 7.974     | A                             |
| C-A    | 825                   | 206                     |                   |       | 825                 |                   |                 |           |                               |
| A-B    | 31                    | 8                       |                   |       | 31                  |                   |                 |           |                               |
| A-C    | 749                   | 187                     |                   |       | 749                 |                   |                 |           |                               |

#### 17:15 - 17:30

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-AC   | 105                   | 26                      | 233               | 0.449 | 103                 | 0.4               | 0.8             | 27.385    | D                             |
| C-AB   | 64                    | 16                      | 456               | 0.140 | 64                  | 0.1               | 0.2             | 9.181     | A                             |
| C-A    | 1011                  | 253                     |                   |       | 1011                |                   |                 |           |                               |
| A-B    | 39                    | 10                      |                   |       | 39                  |                   |                 |           |                               |
| A-C    | 917                   | 229                     |                   |       | 917                 |                   |                 |           |                               |

#### 17:30 - 17:45

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-AC   | 105                   | 26                      | 233               | 0.450 | 105                 | 0.8               | 0.8             | 28.035    | D                             |
| C-AB   | 64                    | 16                      | 456               | 0.140 | 64                  | 0.2               | 0.2             | 9.188     | A                             |
| C-A    | 1011                  | 253                     |                   |       | 1011                |                   |                 |           |                               |
| A-B    | 39                    | 10                      |                   |       | 39                  |                   |                 |           |                               |
| A-C    | 917                   | 229                     |                   |       | 917                 |                   |                 |           |                               |

**17:45 - 18:00**

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-AC   | 85                    | 21                      | 320               | 0.267 | 87                  | 0.8               | 0.4             | 15.548    | C                             |
| C-AB   | 52                    | 13                      | 503               | 0.104 | 52                  | 0.2               | 0.1             | 7.984     | A                             |
| C-A    | 825                   | 206                     |                   |       | 825                 |                   |                 |           |                               |
| A-B    | 31                    | 8                       |                   |       | 31                  |                   |                 |           |                               |
| A-C    | 749                   | 187                     |                   |       | 749                 |                   |                 |           |                               |

**18:00 - 18:15**

| Stream | Total Demand (Veh/hr) | Junction Arrivals (Veh) | Capacity (Veh/hr) | RFC   | Throughput (Veh/hr) | Start queue (Veh) | End queue (Veh) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| B-AC   | 72                    | 18                      | 376               | 0.190 | 72                  | 0.4               | 0.2             | 11.854    | B                             |
| C-AB   | 44                    | 11                      | 538               | 0.081 | 44                  | 0.1               | 0.1             | 7.283     | A                             |
| C-A    | 691                   | 173                     |                   |       | 691                 |                   |                 |           |                               |
| A-B    | 26                    | 7                       |                   |       | 26                  |                   |                 |           |                               |
| A-C    | 627                   | 157                     |                   |       | 627                 |                   |                 |           |                               |