

| Junctions 9                                                                                                                                                      |  |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|
| PICADY 9 - Priority Intersection Module                                                                                                                          |  |  |  |  |  |  |  |  |  |  |  |  |  |
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Filename: Site Access\_Challenge Way.j9

Path: Z:\Job Library\2020\200391 - High Street, Hanging Heaton, Dewsbury\Traffic Data\PICADY

Report generation date: 18/03/2021 16:50:12

»2026 Base plus development, AM

»2026 Base plus development, PM

### Summary of junction performance

|                            | AM     |             |           |      |     |                    |              | PM     |             |           |      |     |                    |              |
|----------------------------|--------|-------------|-----------|------|-----|--------------------|--------------|--------|-------------|-----------|------|-----|--------------------|--------------|
|                            | Set ID | Queue (PCU) | Delay (s) | RFC  | LOS | Junction Delay (s) | Junction LOS | Set ID | Queue (PCU) | Delay (s) | RFC  | LOS | Junction Delay (s) | Junction LOS |
| 2026 Base plus development |        |             |           |      |     |                    |              |        |             |           |      |     |                    |              |
| Stream B-AC                | D1     | 0.1         | 12.63     | 0.10 | B   | 0.37               | A            | D2     | 0.0         | 10.41     | 0.03 | B   | 0.20               | A            |
| Stream C-AB                |        | 0.0         | 4.51      | 0.01 | A   |                    |              |        | 0.0         | 4.35      | 0.03 | A   |                    |              |

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

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

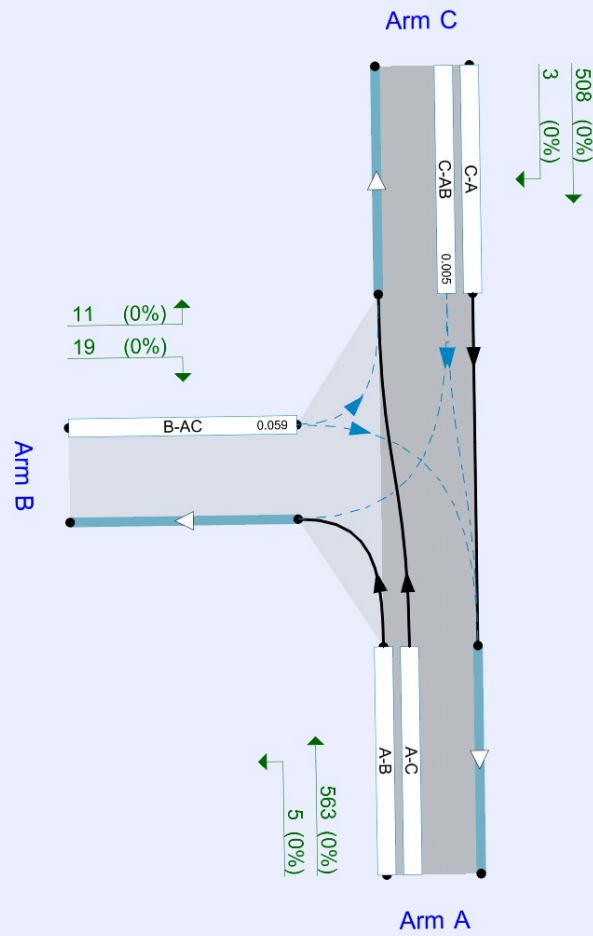
### File summary

#### File Description

|             |                                      |
|-------------|--------------------------------------|
| Title       | Site Access / Challenge Way Junction |
| Location    | Hanging Heaton                       |
| Site number |                                      |
| Date        | 18/03/2021                           |
| Version     |                                      |
| Status      | (new file)                           |
| Identifier  |                                      |
| Client      |                                      |
| Jobnumber   | 200391                               |
| Enumerator  | SCP\lucy.crann                       |
| 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

| Calculate Queue Percentiles | Calculate residual capacity | RFC Threshold | Average Delay threshold (s) | Queue threshold (PCU) |
|-----------------------------|-----------------------------|---------------|-----------------------------|-----------------------|
|                             |                             | 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) |
|----|----------------------------|------------------|----------------------|--------------------|---------------------|---------------------------|
| D1 | 2026 Base plus development | AM               | ONE HOUR             | 08:00              | 09:30               | 15                        |
| D2 | 2026 Base plus development | PM               | ONE HOUR             | 17:00              | 18:30               | 15                        |

### Analysis Set Details

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

# 2026 Base plus development, AM

## Data Errors and Warnings

| Severity | Area        | Item | Description                                                                                                                                                                                  |
|----------|-------------|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Warning  | Vehicle Mix |      | HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning. |

## Junction Network

### Junctions

| Junction | Name                        | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|----------|-----------------------------|---------------|----------------------|-----------------------|--------------------|--------------|
| 1        | Site Access / Challenge Way | T-Junction    | Two-way              |                       | 0.37               | A            |

### Junction Network Options

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

## Arms

### Arms

| Arm | Name                       | Description | Arm type |
|-----|----------------------------|-------------|----------|
| A   | Challenge Way Southern Arm |             | Major    |
| B   | Site Access                |             | Minor    |
| C   | Challenge Way Northern Arm |             | Major    |

### Major Arm Geometry

| Arm | Width of carriageway (m) | Has kerbed central reserve | Has right turn bay | Visibility for right turn (m) | Blocks? | Blocking queue (PCU) |
|-----|--------------------------|----------------------------|--------------------|-------------------------------|---------|----------------------|
| C   | 7.30                     |                            |                    | 100.0                         | ✓       | 0.00                 |

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

### Minor Arm Geometry

| Arm | Minor arm type | Lane width (m) | Visibility to left (m) | Visibility to right (m) |
|-----|----------------|----------------|------------------------|-------------------------|
| B   | One lane       | 2.75           | 0                      | 0                       |

### Slope / Intercept / Capacity

#### Priority Intersection Slopes and Intercepts

| Stream | Intercept (PCU/hr) | Slope for A-B | Slope for A-C | Slope for C-A | Slope for C-B |
|--------|--------------------|---------------|---------------|---------------|---------------|
| B-A    | 466                | 0.080         | 0.202         | 0.127         | 0.289         |
| B-C    | 608                | 0.088         | 0.222         | -             | -             |
| C-B    | 632                | 0.231         | 0.231         | -             | -             |

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) |
|----|----------------------------|------------------|----------------------|--------------------|---------------------|---------------------------|
| D1 | 2026 Base plus development | AM               | ONE HOUR             | 08:00              | 09:30               | 15                        |

| Vehicle mix source | PCU Factor for a HV (PCU) |
|--------------------|---------------------------|
| HV Percentages     | 2.00                      |

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|-----|------------|--------------|-------------------------|--------------------|
| A   |            | ✓            | 568                     | 100.000            |
| B   |            | ✓            | 30                      | 100.000            |
| C   |            | ✓            | 511                     | 100.000            |

## Origin-Destination Data

### Demand (PCU/hr)

|  | To |     |   |     |
|--|----|-----|---|-----|
|  |    | A   | B | C   |
|  | A  | 0   | 5 | 563 |
|  | B  | 19  | 0 | 11  |
|  | C  | 508 | 3 | 0   |

## Vehicle Mix

### Heavy Vehicle Percentages

|  | To |   |   |   |
|--|----|---|---|---|
|  |    | A | B | C |
|  | A  | 0 | 0 | 0 |
|  | B  | 0 | 0 | 0 |
|  | C  | 0 | 0 | 0 |

## Results

### Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|--------|---------|---------------|-----------------|---------|
| B-AC   | 0.10    | 12.63         | 0.1             | B       |
| C-AB   | 0.01    | 4.51          | 0.0             | A       |
| C-A    |         |               |                 |         |
| A-B    |         |               |                 |         |
| A-C    |         |               |                 |         |

## Main Results for each time segment

### 08:00 - 08:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------|-------|---------------------|-----------------|-----------|-------------------------------|
| B-AC   | 23                    | 380               | 0.059 | 22                  | 0.1             | 10.052    | B                             |
| C-AB   | 4                     | 802               | 0.005 | 4                   | 0.0             | 4.511     | A                             |
| C-A    | 380                   |                   |       | 380                 |                 |           |                               |
| A-B    | 4                     |                   |       | 4                   |                 |           |                               |
| A-C    | 424                   |                   |       | 424                 |                 |           |                               |

### 08:15 - 08:30

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------|-------|---------------------|-----------------|-----------|-------------------------------|
| B-AC   | 27                    | 354               | 0.076 | 27                  | 0.1             | 10.991    | B                             |
| C-AB   | 6                     | 840               | 0.007 | 6                   | 0.0             | 4.314     | A                             |
| C-A    | 453                   |                   |       | 453                 |                 |           |                               |
| A-B    | 4                     |                   |       | 4                   |                 |           |                               |
| A-C    | 506                   |                   |       | 506                 |                 |           |                               |

### 08:30 - 08:45

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------|-------|---------------------|-----------------|-----------|-------------------------------|
| B-AC   | 33                    | 318               | 0.104 | 33                  | 0.1             | 12.622    | B                             |
| C-AB   | 9                     | 895               | 0.010 | 9                   | 0.0             | 4.060     | A                             |
| C-A    | 554                   |                   |       | 554                 |                 |           |                               |
| A-B    | 6                     |                   |       | 6                   |                 |           |                               |
| A-C    | 620                   |                   |       | 620                 |                 |           |                               |

### 08:45 - 09:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------|-------|---------------------|-----------------|-----------|-------------------------------|
| B-AC   | 33                    | 318               | 0.104 | 33                  | 0.1             | 12.632    | B                             |
| C-AB   | 9                     | 895               | 0.010 | 9                   | 0.0             | 4.060     | A                             |
| C-A    | 554                   |                   |       | 554                 |                 |           |                               |
| A-B    | 6                     |                   |       | 6                   |                 |           |                               |
| A-C    | 620                   |                   |       | 620                 |                 |           |                               |

### 09:00 - 09:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------|-------|---------------------|-----------------|-----------|-------------------------------|
| B-AC   | 27                    | 354               | 0.076 | 27                  | 0.1             | 11.004    | B                             |
| C-AB   | 6                     | 840               | 0.007 | 6                   | 0.0             | 4.316     | A                             |
| C-A    | 453                   |                   |       | 453                 |                 |           |                               |
| A-B    | 4                     |                   |       | 4                   |                 |           |                               |
| A-C    | 506                   |                   |       | 506                 |                 |           |                               |

### 09:15 - 09:30

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------|-------|---------------------|-----------------|-----------|-------------------------------|
| B-AC   | 23                    | 380               | 0.059 | 23                  | 0.1             | 10.070    | B                             |
| C-AB   | 4                     | 802               | 0.005 | 4                   | 0.0             | 4.512     | A                             |
| C-A    | 380                   |                   |       | 380                 |                 |           |                               |
| A-B    | 4                     |                   |       | 4                   |                 |           |                               |
| A-C    | 424                   |                   |       | 424                 |                 |           |                               |

# 2026 Base plus development, PM

## Data Errors and Warnings

| Severity | Area        | Item | Description                                                                                                                                                                                  |
|----------|-------------|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Warning  | Vehicle Mix |      | HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning. |

## Junction Network

### Junctions

| Junction | Name                        | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|----------|-----------------------------|---------------|----------------------|-----------------------|--------------------|--------------|
| 1        | Site Access / Challenge Way | T-Junction    | Two-way              |                       | 0.20               | 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) |
|----|----------------------------|------------------|----------------------|--------------------|---------------------|---------------------------|
| D2 | 2026 Base plus development | PM               | ONE HOUR             | 17:00              | 18:30               | 15                        |

| Vehicle mix source | PCU Factor for a HV (PCU) |
|--------------------|---------------------------|
| HV Percentages     | 2.00                      |

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|-----|------------|--------------|-------------------------|--------------------|
| A   |            | ✓            | 411                     | 100.000            |
| B   |            | ✓            | 10                      | 100.000            |
| C   |            | ✓            | 550                     | 100.000            |

## Origin-Destination Data

### Demand (PCU/hr)

|      | To |     |    |     |
|------|----|-----|----|-----|
|      | A  | B   | C  |     |
| From | A  | 0   | 14 | 397 |
|      | B  | 6   | 0  | 4   |
|      | C  | 541 | 9  | 0   |

## Vehicle Mix

### Heavy Vehicle Percentages

|      | To |   |   |   |
|------|----|---|---|---|
|      | A  | B | C |   |
| From | A  | 0 | 0 | 0 |
|      | B  | 0 | 0 | 0 |
|      | C  | 0 | 0 | 0 |

## Results

### Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|--------|---------|---------------|-----------------|---------|
| B-AC   | 0.03    | 10.41         | 0.0             | B       |
| C-AB   | 0.03    | 4.35          | 0.0             | A       |
| C-A    |         |               |                 |         |
| A-B    |         |               |                 |         |
| A-C    |         |               |                 |         |

### Main Results for each time segment

#### 17:00 - 17:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------|-------|---------------------|-----------------|-----------|-------------------------------|
| B-AC   | 8                     | 408               | 0.018 | 7                   | 0.0             | 8.983     | A                             |
| C-AB   | 13                    | 841               | 0.016 | 13                  | 0.0             | 4.348     | A                             |
| C-A    | 401                   |                   |       | 401                 |                 |           |                               |
| A-B    | 11                    |                   |       | 11                  |                 |           |                               |
| A-C    | 299                   |                   |       | 299                 |                 |           |                               |

#### 17:15 - 17:30

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------|-------|---------------------|-----------------|-----------|-------------------------------|
| B-AC   | 9                     | 387               | 0.023 | 9                   | 0.0             | 9.526     | A                             |
| C-AB   | 18                    | 885               | 0.020 | 18                  | 0.0             | 4.150     | A                             |
| C-A    | 476                   |                   |       | 476                 |                 |           |                               |
| A-B    | 13                    |                   |       | 13                  |                 |           |                               |
| A-C    | 357                   |                   |       | 357                 |                 |           |                               |

#### 17:30 - 17:45

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------|-------|---------------------|-----------------|-----------|-------------------------------|
| B-AC   | 11                    | 357               | 0.031 | 11                  | 0.0             | 10.405    | B                             |
| C-AB   | 27                    | 949               | 0.028 | 27                  | 0.0             | 3.905     | A                             |
| C-A    | 579                   |                   |       | 579                 |                 |           |                               |
| A-B    | 15                    |                   |       | 15                  |                 |           |                               |
| A-C    | 437                   |                   |       | 437                 |                 |           |                               |

#### 17:45 - 18:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------|-------|---------------------|-----------------|-----------|-------------------------------|
| B-AC   | 11                    | 357               | 0.031 | 11                  | 0.0             | 10.406    | B                             |
| C-AB   | 27                    | 949               | 0.028 | 27                  | 0.0             | 3.906     | A                             |
| C-A    | 579                   |                   |       | 579                 |                 |           |                               |
| A-B    | 15                    |                   |       | 15                  |                 |           |                               |
| A-C    | 437                   |                   |       | 437                 |                 |           |                               |

**18:00 - 18:15**

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------|-------|---------------------|-----------------|-----------|-------------------------------|
| B-AC   | 9                     | 387               | 0.023 | 9                   | 0.0             | 9.530     | A                             |
| C-AB   | 18                    | 885               | 0.020 | 18                  | 0.0             | 4.151     | A                             |
| C-A    | 476                   |                   |       | 476                 |                 |           |                               |
| A-B    | 13                    |                   |       | 13                  |                 |           |                               |
| A-C    | 357                   |                   |       | 357                 |                 |           |                               |

**18:15 - 18:30**

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC   | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|--------|-----------------------|-------------------|-------|---------------------|-----------------|-----------|-------------------------------|
| B-AC   | 8                     | 408               | 0.018 | 8                   | 0.0             | 8.986     | A                             |
| C-AB   | 13                    | 841               | 0.016 | 13                  | 0.0             | 4.350     | A                             |
| C-A    | 401                   |                   |       | 401                 |                 |           |                               |
| A-B    | 11                    |                   |       | 11                  |                 |           |                               |
| A-C    | 299                   |                   |       | 299                 |                 |           |                               |