

**For: HRP Construction**

Proposed Residential Development,  
St. Ann's Road, Blarney, Co. Cork



Traffic and Transportation Assessment

**March 2026**



**MHL & Associates Ltd.**  
**Consulting Engineers**

**MHL & ASSOCIATES LTD.**



**Document Control Sheet**

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**M.H.L. & Associates Ltd.**

**Consulting Engineers**

Unit 1B,  
The Atrium,  
Blackpool,  
Cork.

Tel 021-4840214 Fax: 021-4840215

E-Mail: [info@mhl.ie](mailto:info@mhl.ie)

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## 1 NON-TECHNICAL SUMMARY

MHL Consulting Engineers have been engaged by HRP Construction to provide Traffic and Transport Engineering consultancy services for the Proposed Mixed-Use Development at Blarney, County Cork.

HRP Construction Limited are applying for planning permission for the construction of scheme comprising of 138 no. residential units, and a civic centre on a site spanning 3.7 ha.

The proposed development consists of the demolition/removal of existing hardstanding areas associated with the former use of the site and the construction of a number of residential units consisting of 119 no. 2,3 and 4 bed houses and 19 no. 1 and 2 bed apartments/later-living units.

This report has been prepared in accordance with the TII's 2014 publication "Traffic and Transport Assessment Guidelines" and the "Guidelines for Traffic Impact Assessments" as published by the Institution of Highways & Transportation U.K. in 1994.

The Opening Year is the year of expected completion for the development and is taken to be 2027. In accordance with the TII's "Traffic and Transport Assessment Guidelines", a traffic analysis is required to be undertaken for the **Opening Year (2027)**, **Opening Year +5 (2032)** and fifteen years from this date i.e., the **Opening Year+15 (2042)**.

- This:
- **Junction 1:** T-Junction – R617 / St Ann's Road
  - **Junction 2:** T-Junction- R617 / Waterloo Road
  - **Junction 3:** T-Junction- R617 / Station Road

As part of this assessment, 12-hour traffic flows were recorded by third-party traffic counters, Irish Traffic Surveys Ltd., for Junctions 1, 2 & 3 with these traffic counts recorded in April 2025. These counts have been factored up to the modelling year scenarios 2027 through to 2042 using TII expansion factors.

The overall impact of the development on the adjoining local road is to increase traffic flows entering/exiting the development by 69 trips in the morning peak and by 99 trips in the evening peak in the Opening Year 2027, assuming all traffic generated by the development is new to the network. This is a very minor increase in traffic flows.

This traffic impact translates to traffic flows at Junction 1 increasing by 4% in the Opening Year 2027. The AM peak Ratio of Flow to Capacity (RFC) rises from 88% to 90%, while the PM peak RFC increases from 64% to 74%. Delays increase slightly in the peak hours. The junction is

forecast to operate within its modelled capacity, with no significant operational issues anticipated.

Junction 2 also sees a 4% increase in traffic. The AM peak RFC increases from 86% to 90%, and the PM peak RFC rises from 70% to 78%. Associated delays increase modestly but remain within acceptable limits. The junction is expected to with minor impacts effectively manageable through routine mitigation measures

Junction 3 experiences a 2% increase in traffic in 2027. The AM peak RFC increases from 88% to 91%, and the PM peak RFC rises from 70% to 72%. Delays remain minimal, increasing by less than 1 second in the PM peak and approximately 10 seconds in the AM peak. The junction is forecast to operate within modelled capacity, with no operational concerns.

The traffic generation and associated traffic distribution shows that the increase in traffic flows will be below the threshold for assessment for each of the junctions 1 to 3, per TII document PE-PDV-02045, "Traffic and Transport Assessment Guidelines". This is the threshold for which Traffic and Transport Assessments are recommended. Given that the traffic impact is sub-threshold, it is submitted that the modelling outlined in this report is not strictly warranted but has been carried to ensure a robust analysis is undertaken.



**Figure 1-1: Junction Locations**

## 2 EXISTING SITE

The application site is located within the village of Blarney, approx. 10 km to the northwest of Cork City Centre. The applicant aims to deliver a high-quality, well-connected development that aligns with the existing amenities in the area. The location shown below in Figure 2-1 below.



**Figure 2-1: Site Location (Credit: Google)**

### 3 PROPOSED DEVELOPMENT

The proposed development consists of the the construction of 138 no. residential units, a civic centre and all ancillary works.



Figure 3-1 Proposed Site Layout Plan (Credit: Deady Gahan Architects)

## 4 TRAFFIC

### 4.1 Traffic Generation -TRICS

Trip generation for the proposed development, which includes residential units, a library, community café, and creche, was derived using the TRICS database. MHL & Associates Ltd., a licensed TRICS member, utilised this robust UK and Irish database, which contains over 2,100 site locations and 7,000 survey counts, to assess projected trip rates. The TRICS program was applied to the appropriate land-use sub-categories associated with the development proposal.

For the residential component, the trip rates derived from TRICS are presented in Figure 4.1. These rates were then compared with TRICS outputs from an adjacent residential development (Ringwood LRD Scheme), which were previously reviewed and approved by CCC Transportation Department, and are considered the Reference Project. (Figure 4.2)

|                         |   | AM PEAK  |            | PM PEAK  |            |
|-------------------------|---|----------|------------|----------|------------|
|                         |   | Arrivals | Departures | Arrivals | Departures |
| Based on TRICS database |   |          |            |          |            |
| <b>Residential Dev</b>  |   |          |            |          |            |
| 138                     | <i>Peak Trics Trip Rates<br/>Per unit</i> | 0.081    | 0.299      | 0.290    | 0.152      |
|                         | <i>Peak Trips</i>                         | 11       | 41         | 40       | 21         |
| Total                   |   | 52       |            | 61       |            |

Figure 4-1: Trip Rates derived from TRICS

| Hour starting | Private Houses - Person Trip Rate (1 Unit) |        |         | Private Flats- Person Trip Rate (1 Unit) |        |         |
|---------------|--|--------|---------|--|--------|---------|
|               | Arrive                                     | Depart | Two-way | Arrive                                   | Depart | Two-way |
| 08:00         | 0.23                                       | 0.94   | 1.17    | 0.10                                     | 0.56   | 0.66    |
| 17:00         | 0.79                                       | 0.44   | 1.23    | 0.40                                     | 0.14   | 0.54    |

Figure 4-2: TRICS outputs reviewed and agreed with CCC

In the reference project, person trip rates were adjusted using Census data on the proportion of journeys made as a car driver. With this percentage being 50.1%, the TRICS trip rates were multiplied by 50.1% to obtain the final vehicular trip estimates.

In calculating the trip generation for the proposed development, the reference project trip rates were adopted and similarly adjusted to reflect the 50.1% car-driver mode share, representing local travel behaviour. The final trip generation for the development is summarised in Figure 4.3.

For a robust analysis, the results were compared and found to be generally consistent, with the trip rates applied in the adjacent development showing slightly higher trip rates. To ensure a consistent and robust assessment, the TRICS-derived residential trip rates from the adjacent development, already approved by CCC, have been adopted for the analysis.

|                         |                                       | AM PEAK  |            | PM PEAK  |            |
|-------------------------|---------------------------------------|----------|------------|----------|------------|
|                         |                                       | Arrivals | Departures | Arrivals | Departures |
| Based on TRICS database |                                       |          |            |          |            |
| <b>HOUSES</b>           |                                       |          |            |          |            |
| 119                     | <i>Peak Trics Trip Rates X 50.10%</i> |          |            |          |            |
|                         | <i>Per unit</i>                       | 0.12     | 0.47       | 0.40     | 0.22       |
|                         | <i>Peak Trips</i>                     | 14       | 56         | 47       | 26         |
|                         |                                       | 70       |            | 73       |            |
| <b>APARTMENTS</b>       |                                       |          |            |          |            |
| 19                      | <i>Peak Trics Trip Rates X 50.10%</i> |          |            |          |            |
|                         | <i>Per unit</i>                       | 0.05     | 0.28       | 0.20     | 0.07       |
|                         | <i>Peak Trips</i>                     | 1        | 5          | 4        | 1          |
| Total                   |                                       | 6        |            | 5        |            |

**Figure 4-3: TRICS-derived residential trip rates of the adjacent development agreed with CCC and adjusted for vehicular mode share.**

For the purpose of calculating trip generation, the residential quantum comprises 119 private houses and 19 apartments. The TRICS trip rates have been applied to these dwelling totals to determine the forecast number of two-way trips during the weekday peak hours.

Analysis of the TRICS data confirms that the peak traffic periods for the residential element of the development occur during the weekday AM and PM peak hours, specifically 08:00–09:00 and 17:00–18:00. These peak hours have therefore been adopted for the traffic assessment and associated modelling.

Figure below shows Peak Hour TRICs Traffic Generation for the proposed commercial developments.

It should be noted that the library opens at 09:00; therefore, no trips are generated for this use during the 08:00–09:00 period. Similarly, the community café operates only until 16:00, so the trip rate for the 17:00–18:00 period is 0.00 for this use.

|                         |                                       | AM PEAK  |            | PM PEAK  |            |
|-------------------------|---------------------------------------|----------|------------|----------|------------|
|                         |                                       | Arrivals | Departures | Arrivals | Departures |
| Based on TRICS database |                                       |          |            |          |            |
| <b>HOUSES</b>           |                                       |          |            |          |            |
| 119                     | <i>Peak Trips Trip Rates X 50.10%</i> |          |            |          |            |
|                         | <i>Per unit</i>                       | 0.12     | 0.47       | 0.40     | 0.22       |
|                         | <i>Peak Trips</i>                     | 14       | 56         | 47       | 26         |
|                         |                                       | 70       |            | 73       |            |
| <b>APARTMENTS</b>       |                                       |          |            |          |            |
| 19                      | <i>Peak Trips Trip Rates X 50.10%</i> |          |            |          |            |
|                         | <i>Per unit</i>                       | 0.05     | 0.28       | 0.20     | 0.07       |
|                         | <i>Peak Trips</i>                     | 1        | 5          | 4        | 1          |
| <b>Total</b>            |                                       | 6        |            | 5        |            |
| <b>Library</b>          |                                       |          |            |          |            |
| 910 Sqm<br>9.10         | <i>Peak Trips Trip Rates</i>          |          |            |          |            |
|                         | <i>Per 100 Sqm</i>                    | 0.000    | 0.000      | 2.258    | 1.720      |
|                         | <i>Peak Trips</i>                     | 0        | 0          | 21       | 16         |
| <b>Total</b>            |                                       | 0        |            | 36       |            |
| <b>Café</b>             |                                       |          |            |          |            |
| 140 Sqm<br>1.40         | <i>Peak Trips Trip Rates</i>          |          |            |          |            |
|                         | <i>Per 100 Sqm</i>                    | 1.905    | 1.905      | 0.000    | 0.000      |
|                         | <i>Peak Trips</i>                     | 3        | 3          | 0        | 0          |
| <b>Total</b>            |                                       | 5        |            | 0        |            |
| <b>Creche</b>           |                                       |          |            |          |            |
| No. Pupil Creche<br>32  | <i>Peak Trips Trip Rates</i>          |          |            |          |            |
|                         | <i>Per 1 Pupil</i>                    | 0.260    | 0.214      | 0.196    | 0.271      |
|                         | <i>Peak Trips</i>                     | 8        | 7          | 6        | 9          |
| <b>Total</b>            |                                       | 15       |            | 15       |            |
| <b>Total</b>            |                                       | 26       | 71         | 78       | 52         |
|                         |                                       | 97       |            | 130      |            |

**Figure 4-4: Peak Hour TRICS Traffic Generation for the overall developments.**

## 4.2 Site Traffic Counts

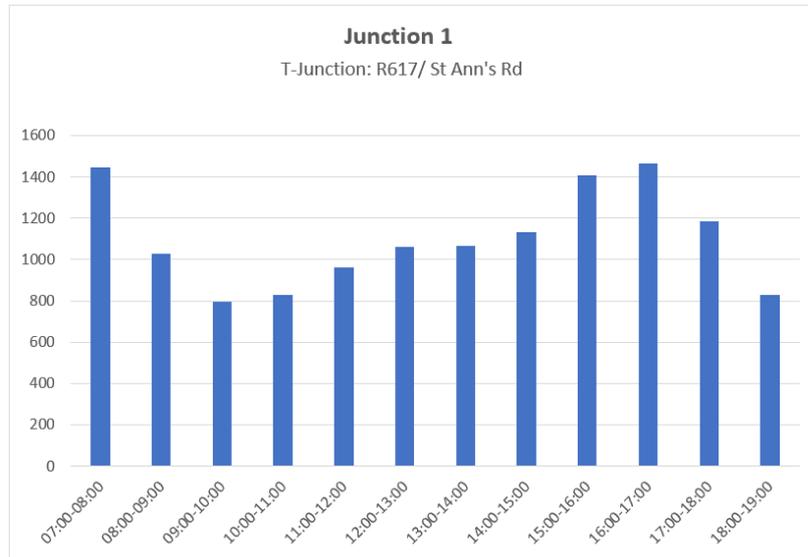
Traffic counts conducted on Tuesday 02/04/2025 by Irish Traffic Surveys Ltd. were utilised to establish the actual AM & PM Peak traffic hours for the local road network for the purposes of this assessment. These existing junction traffic counts were growth factored as described in Chapter 5. Based on the traffic counts and considering the recommendation of the Guidelines for Traffic and Transportation Assessments, the peak hours considered in this TTA are reflective of the demand case for the site.

## 4.3 Modal Choice

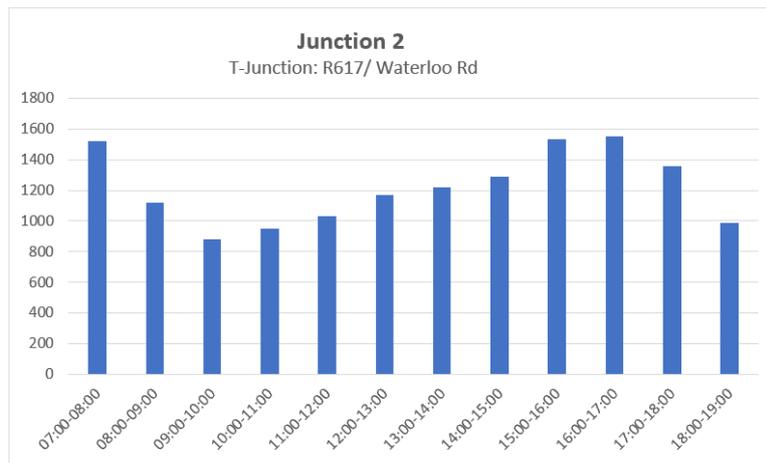
In predicting the level of traffic that will be generated by the proposed development, the means of transport (modal choice) and quantity of traffic generated (trip attraction) must be considered. It is assumed that there will be a combination of cars, public transport, and active travel, due to the nature of the development. The analysis assumes the cars will dominate the developments traffic movements. Further public transport improvements would encourage a greater modal shift in the future towards sustainable travel modes for those travelling to work or live at the facility, as encouraged by local and National Transport Authority Policy. This would reduce the modelled impact of this development on the surrounding road network.

#### 4.4 Existing Situation

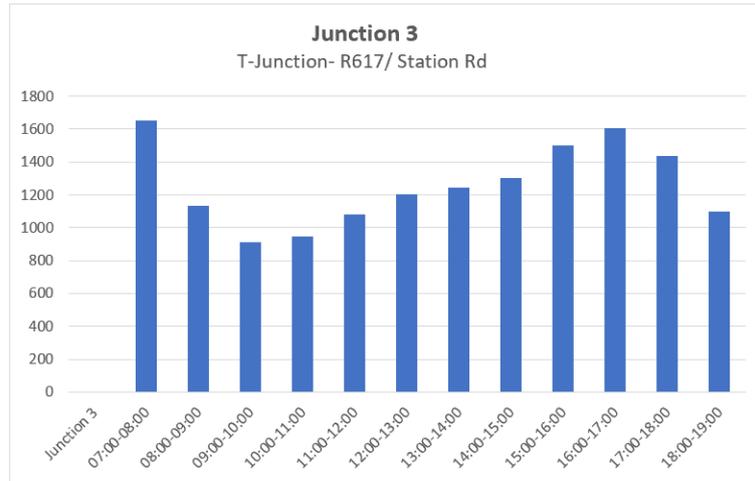
Traffic counts taken at each of the assessed junctions were used as the basis of the modelling, producing morning and evening O/D Matrices. The traffic flows through the junctions were assessed as shown in the following figures.



**Figure.4-5 Network Traffic Profile for Junction 1 Peak Flow**



**Figure.4-6 Network Traffic Profile for Junction 2 Peak Flow**



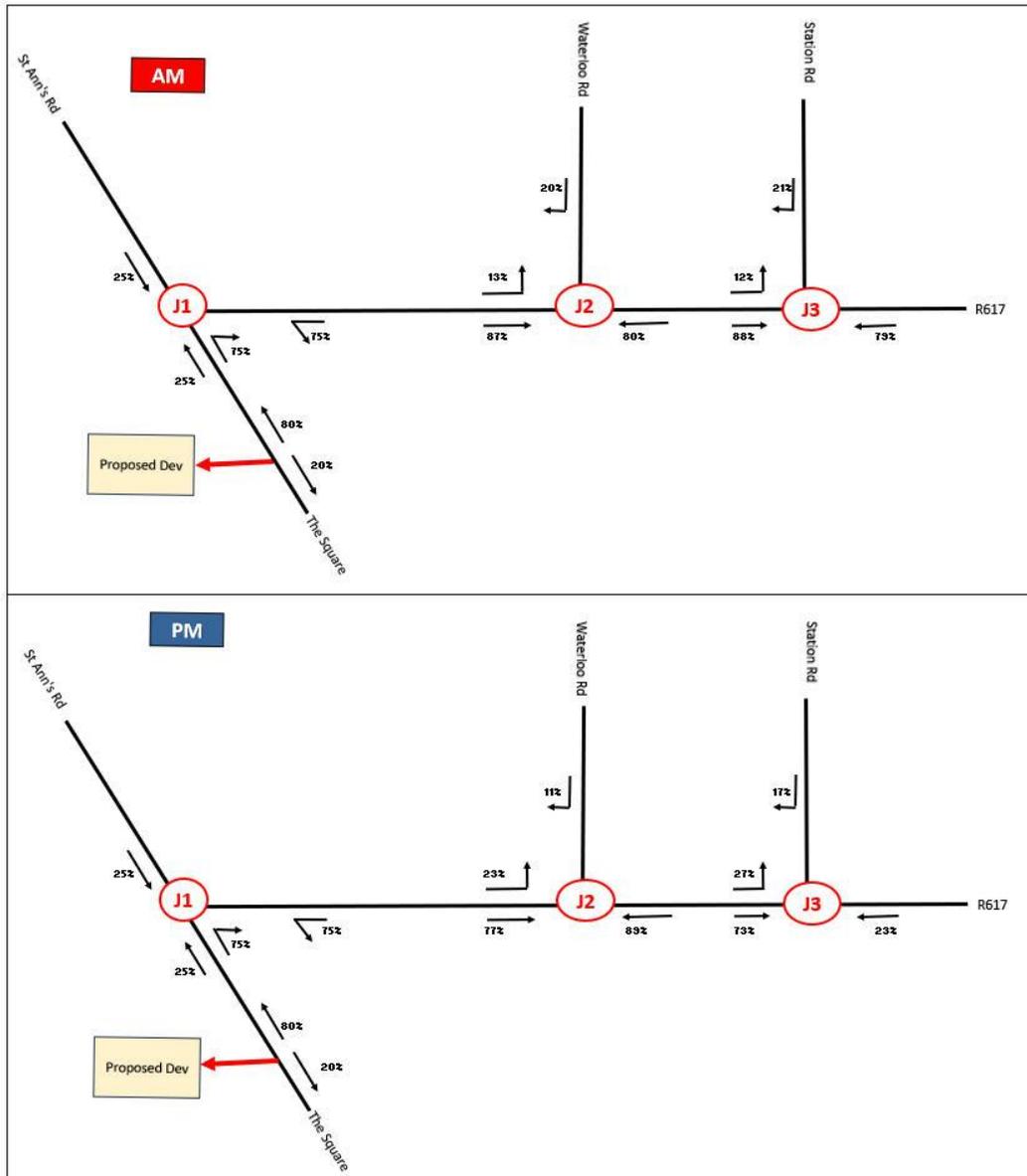
**Figure 4-7 Network Traffic Profile for Junction 3 Peak Flow**

#### 4.5 Trip Distribution

Considering the network traffic profiles assessed in the figures above, along with the surrounding context—residential development near the applicant site—and in accordance with the *Guidelines for Traffic and Transportation Assessments* regarding busiest hours, the current traffic distribution pattern was used to determine the directional split to and from the proposed development. This peak hour directional split is assumed to remain consistent over time.

Based on the recorded traffic flows at key junctions, it was determined that the most heavily trafficked period is between 08:00 and 09:00 in the morning and 17:00 and 18:00 in the evening.

Development traffic has been distributed proportionally throughout the network as per the observed 2025 survey results. The calculated trip distribution is shown in table and graphs below.



**Figure 4-8: Trip Distribution Graphs for AM and PM**

|                    |                   | O/D            | AM Peak     |             | PM Peak     |             |
|--------------------|-------------------|----------------|-------------|-------------|-------------|-------------|
|                    |                   |                | from Dev    | To Dev      | from Dev    | To Dev      |
| Analysed Junctions | Entrance Junction | St Ann's Rd    | 80%         | 80%         | 80%         | 80%         |
|                    |                   | The Square     | 20%         | 20%         | 20%         | 20%         |
|                    |                   | <b>TOTAL</b>   | <b>100%</b> | <b>100%</b> | <b>100%</b> | <b>100%</b> |
|                    | Junction 1        | R617           | 75%         | 75%         | 75%         | 75%         |
|                    |                   | St Ann's Rd -W | 25%         | 25%         | 25%         | 25%         |
|                    |                   | <b>TOTAL</b>   | <b>100%</b> | <b>100%</b> | <b>100%</b> | <b>100%</b> |
|                    | Junction 2        | R617           | 87%         | 80%         | 77%         | 89%         |
|                    |                   | Waterloo Rd    | 13%         | 20%         | 23%         | 11%         |
|                    |                   | <b>TOTAL</b>   | <b>100%</b> | <b>100%</b> | <b>100%</b> | <b>100%</b> |
|                    | Junction 3        | R617           | 88%         | 79%         | 73%         | 83%         |
|                    |                   | Station Rd     | 12%         | 21%         | 27%         | 17%         |
|                    |                   | <b>TOTAL</b>   | <b>100%</b> | <b>100%</b> | <b>100%</b> | <b>100%</b> |

**Figure 4-9: Trip Distribution**

Analysis indicates that the majority of traffic from the development is likely to travel via St Ann’s Road, with 80% of trips in both the AM and PM peaks using this route, while the remaining 20% are expected to travel via The Square.

At Junction 1, 75% of traffic heads east via the R617, while 25% diverts west along St Ann’s Road, a pattern consistent across both peak periods.

Junction 2 shows a slightly more variable pattern, with most trips remaining on the R617 (87% from the development in the AM, 77% in the PM), and the remainder using Waterloo Road.

Junction 3 demonstrates a similar distribution, with 88% of trips from the development in the AM peak continuing on the R617 and 12% turning onto Station Road; in the PM peak these proportions adjust slightly to 73% on the R617 and 27% on Station Road.

Overall, the observed split of arrivals and departures reflects the main traffic corridors serving the development, and the proportions are largely consistent between the AM and PM peaks, indicating predictable traffic patterns that can be accommodated by the existing network.

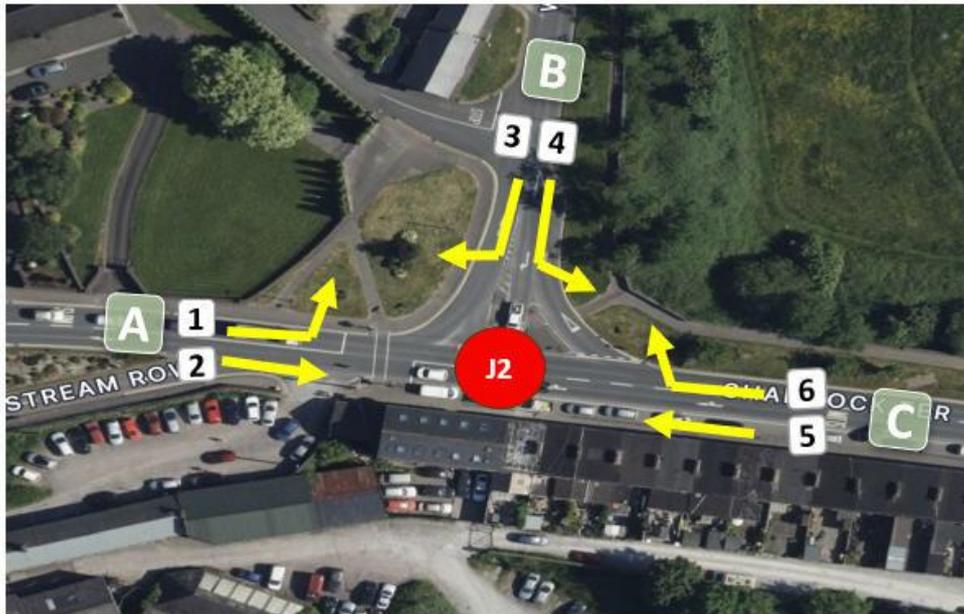
#### 4.6 Traffic Volumes

Traffic counts taken at the assessed junction was used as the basis of the modelling, producing morning and evening O/D Matrices. The traffic flows through Junctions 1 to 3 as recorded in the traffic counts are shown in the following figures.



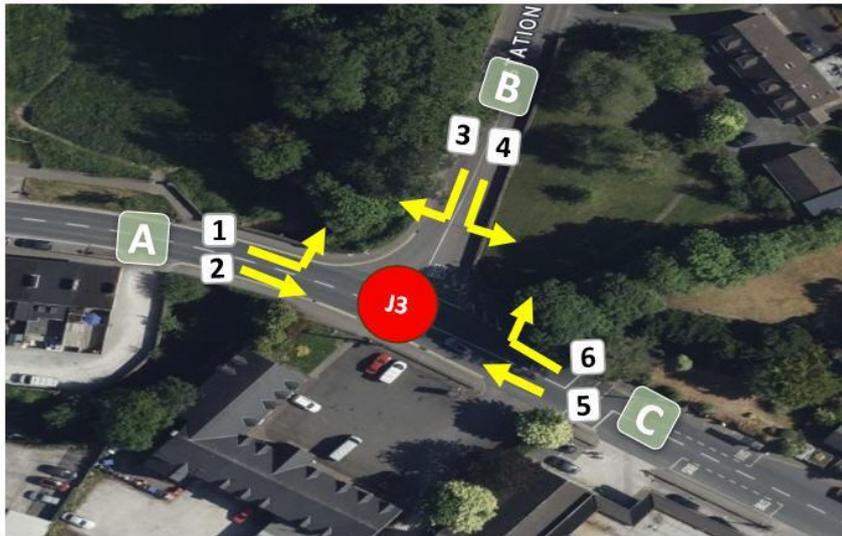
| AM PEAK HOUR TRAFFIC FLOWS |           |                     |    |     |    |     |     | PM PEAK HOUR TRAFFIC FLOWS |                  |                     |    |     |    |     |     |     |
|----------------------------|-----------|---------------------|----|-----|----|-----|-----|----------------------------|------------------|---------------------|----|-----|----|-----|-----|-----|
|                            |           | Movement            |    |     |    |     |     |                            |                  | Movement            |    |     |    |     |     |     |
|                            |           | 1                   | 2  | 3   | 4  | 5   | 6   |                            |                  | 1                   | 2  | 3   | 4  | 5   | 6   |     |
| SITE J1                    | Base Year | Measured Flows      | 41 | 513 | 14 | 135 | 495 | 247                        | Base Year        | Measured Flows      | 19 | 439 | 41 | 270 | 611 | 83  |
|                            |           | Development Traffic | 15 | 0   | 43 | 14  | 0   | 5                          |                  | Development Traffic | 47 | 0   | 31 | 10  | 0   | 16  |
|                            | 2027      | Opening Year        |    |     |    |     |     | 2027                       | Opening Year     |                     |    |     |    |     |     |     |
|                            |           | Do Nothing          | 42 | 531 | 14 | 140 | 513 |                            | 256              | Do Nothing          | 20 | 455 | 42 | 280 | 633 | 86  |
|                            |           | With Development    | 58 | 531 | 57 | 154 | 513 | 261                        |                  | With Development    | 66 | 455 | 74 | 290 | 633 | 101 |
|                            | 2032      | Opening Year +5     |    |     |    |     |     | 2032                       | Opening Year +5  |                     |    |     |    |     |     |     |
|                            |           | Do Nothing          | 46 | 570 | 16 | 150 | 550 |                            | 274              | Do Nothing          | 21 | 488 | 46 | 300 | 679 | 92  |
|                            |           | With Development    | 61 | 570 | 58 | 164 | 550 | 280                        |                  | With Development    | 68 | 488 | 77 | 310 | 679 | 108 |
|                            | 2042      | Opening Year +15    |    |     |    |     |     | 2042                       | Opening Year +15 |                     |    |     |    |     |     |     |
|                            |           | Do Nothing          | 50 | 625 | 17 | 164 | 603 |                            | 301              | Do Nothing          | 23 | 535 | 50 | 329 | 744 | 101 |
|                            |           | With Development    | 65 | 625 | 60 | 179 | 603 | 306                        |                  | With Development    | 70 | 535 | 81 | 339 | 744 | 117 |

Figure 4-10: Turning Counts for Junction 1



| AM PEAK HOUR TRAFFIC FLOWS |                  |                     |     |     |     |     | PM PEAK HOUR TRAFFIC FLOWS |                  |                  |                     |     |     |     |     |     |     |
|----------------------------|------------------|---------------------|-----|-----|-----|-----|----------------------------|------------------|------------------|---------------------|-----|-----|-----|-----|-----|-----|
|                            |                  | Movement            |     |     |     |     |                            |                  |                  | Movement            |     |     |     |     |     |     |
|                            |                  | 1                   | 2   | 3   | 4   | 5   | 6                          |                  |                  | 1                   | 2   | 3   | 4   | 5   | 6   |     |
| SITE J2                    | Base Year        | Measured Flows      | 72  | 479 | 136 | 222 | 529                        | 81               | Base Year        | Measured Flows      | 177 | 594 | 54  | 99  | 449 | 179 |
|                            |                  | Development Traffic | 6   | 37  | 3   | 8   | 12                         | 9                |                  | Development Traffic | 7   | 24  | 5   | 11  | 42  | 15  |
|                            | 2027             | Opening Year        |     |     |     |     |                            | 2027             | Opening Year     |                     |     |     |     |     |     |     |
|                            |                  | Do Nothing          | 75  | 496 | 141 | 230 | 548                        |                  | 84               | Do Nothing          | 183 | 615 | 56  | 103 | 465 | 185 |
|                            | 2032             | With Development    | 80  | 533 | 144 | 238 | 560                        | 93               | With Development | 190                 | 639 | 61  | 114 | 507 | 200 |     |
|                            |                  | Opening Year +5     |     |     |     |     |                            | 2032             | Opening Year +5  |                     |     |     |     |     |     |     |
|                            | Do Nothing       | 80                  | 532 | 151 | 247 | 588 | 90                         |                  | Do Nothing       | 197                 | 660 | 60  | 110 | 499 | 199 |     |
|                            | 2042             | With Development    | 86  | 569 | 154 | 255 | 600                        | 99               | With Development | 204                 | 684 | 65  | 121 | 541 | 214 |     |
|                            |                  | Opening Year +15    |     |     |     |     |                            | 2042             | Opening Year +15 |                     |     |     |     |     |     |     |
|                            | Do Nothing       | 88                  | 584 | 166 | 270 | 644 | 99                         |                  | Do Nothing       | 216                 | 724 | 66  | 121 | 547 | 218 |     |
|                            | With Development | 93                  | 620 | 169 | 279 | 657 | 108                        | With Development | 223              | 748                 | 71  | 132 | 589 | 233 |     |     |

Figure 4-11: Turning Counts for Junction 2



| AM PEAK HOUR TRAFFIC FLOWS |                  |                         |    |     |     |     |     | PM PEAK HOUR TRAFFIC FLOWS |      |                         |                     |     |     |     |     |     |     |
|----------------------------|------------------|-------------------------|----|-----|-----|-----|-----|----------------------------|------|-------------------------|---------------------|-----|-----|-----|-----|-----|-----|
|                            |                  | Movement                |    |     |     |     |     |                            |      | Movement                |                     |     |     |     |     |     |     |
|                            |                  | 1                       | 2  | 3   | 4   | 5   | 6   |                            |      | 1                       | 2                   | 3   | 4   | 5   | 6   |     |     |
| <b>SITE J2</b>             | <b>Base Year</b> | Measured Flows          | 72 | 479 | 136 | 222 | 529 | 81                         |      | <b>Base Year</b>        | Measured Flows      | 177 | 594 | 54  | 99  | 449 | 179 |
|                            |                  | Development Traffic     | 6  | 37  | 3   | 8   | 12  | 9                          |      |                         | Development Traffic | 7   | 24  | 5   | 11  | 42  | 15  |
|                            | 2027             | <b>Opening Year</b>     |    |     |     |     |     |                            | 2027 | <b>Opening Year</b>     |                     |     |     |     |     |     |     |
|                            |                  | Do Nothing              | 75 | 496 | 141 | 230 | 548 |                            |      | 84                      | Do Nothing          | 183 | 615 | 56  | 103 | 465 | 185 |
|                            |                  | With Development        | 80 | 533 | 144 | 238 | 560 | 93                         |      | With Development        | 190                 | 639 | 61  | 114 | 507 | 200 |     |
|                            | 2032             | <b>Opening Year +5</b>  |    |     |     |     |     |                            | 2032 | <b>Opening Year +5</b>  |                     |     |     |     |     |     |     |
|                            |                  | Do Nothing              | 80 | 532 | 151 | 247 | 588 |                            |      | 90                      | Do Nothing          | 197 | 660 | 60  | 110 | 499 | 199 |
|                            |                  | With Development        | 86 | 569 | 154 | 255 | 600 | 99                         |      | With Development        | 204                 | 684 | 65  | 121 | 541 | 214 |     |
|                            | 2042             | <b>Opening Year +15</b> |    |     |     |     |     |                            | 2042 | <b>Opening Year +15</b> |                     |     |     |     |     |     |     |
|                            |                  | Do Nothing              | 88 | 584 | 166 | 270 | 644 |                            |      | 99                      | Do Nothing          | 216 | 724 | 66  | 121 | 547 | 218 |
|                            |                  | With Development        | 93 | 620 | 169 | 279 | 657 | 108                        |      | With Development        | 223                 | 748 | 71  | 132 | 589 | 233 |     |

**Figure 4-12: Turning Counts for Junction 3**

## 5 TRAFFIC ASSESSMENT

The base year is taken as 2025, the year the traffic counts were undertaken. It is anticipated that the first year of operation, subject to a positive outcome from the planning process would be 2027. In accordance with the Guidelines for Traffic and Transportation Assessments as published by the TII, a traffic analysis is required to be undertaken for the Opening Year, Opening Year plus five years and Opening Year plus fifteen years.

The TII publication "Project Appraisal Guidelines for National Routes Unit 5.3 – Travel Demand Projections" was used to calculate growth factors for the road network traffic. Table 5.1 below shows the calculated growth factors:

|         |    |      | Cars/LGV | HGV   | Combined |
|---------|----|------|----------|-------|----------|
| Count % |    |      | 95%      | 5%    |          |
| 2025    | to | 2027 | 1.034    | 1.060 | 1.035    |
| 2025    | to | 2032 | 1.107    | 1.191 | 1.111    |
| 2025    | to | 2042 | 1.209    | 1.389 | 1.218    |

TII Publication PE-PAG-02017  
Project Appraisal Guidelines for National Roads Unit 5.3 - Travel Demand Projections

**Figure 5-1: Future Projected Growth Rates**

The effects of traffic growth on the existing network plus the additional traffic generated by the proposed development, have been compiled to build junction models of the priority junctions.

## 6 TRAFFIC MODELLING

### 6.1 Junctions 10 Analysis

The purpose of this Traffic and Transport Assessment is to determine if the capacity of the existing road network is sufficient to cater for the traffic generated by the proposed development.

In order to assess the capacity of the proposed development and the adjoining network, traffic models for the priority junctions were produced using the PICADY traffic modelling software.

The output movements from the models are based on the assigned junction arms. The arms are designated A to C for T-Junctions as Junctions 1 ,2 & 3.

The output result sheets from the traffic modelling software consist of tables of demand flow, capacities, queues, and delays for each 15-minute time segment of the peak hour analysis.

The Arcady output table contains information on maximum queue length, delay, and Ratio of Flow to Capacity (RFC). The RFC provides the basis for judging the acceptability of junction design and the capacity of existing junctions. Generally, an RFC of 0.85 or less is considered acceptable during the peak period. An RFC of this value indicates that at peak times the junction is at 85% of its operational capacity and therefore has a practical reserve capacity at a junction required to cater for periods of unusually high traffic flow, such as bank holiday weekends, etc. The degree of saturation of a junction is a measure of the capacity of the junction. A junction with an RFC of 0.85 would be considered to be operating at a degree of saturation of 100%.

The following summary junction performance tables describe each of the junctions' RFC, delay, and queue values for morning and evening peak hours.

| Junction 1 |    | Without Development |           | With Development |           |
|------------|----|---------------------|-----------|------------------|-----------|
|            |    | RFC (%)             | Delay (s) | RFC (%)          | Delay (s) |
| 2025       | AM | 83%                 | 24.62     | -                | -         |
|            | PM | 61%                 | 16.51     | -                | -         |
| 2027       | AM | 88%                 | 35.15     | 91%              | 43        |
|            | PM | 64%                 | 18.08     | 78%              | 32        |
| 2032       | AM | 99%                 | 87.31     | 101%             | 103       |
|            | PM | 71%                 | 23.04     | 86%              | 48        |
| 2042       | AM | 111%                | 206.61    | 113%             | 230       |
|            | PM | 81%                 | 36.26     | 98%              | 105       |

**Figure 6-1: Junction 1 – T-Junction - R617 / St Ann’s Road – Summary Table**

Junction 1 was assessed to evaluate its performance with and without the proposed development across forecast years (2025, 2027, 2032, and 2042). In the base year 2025, the junction operates with RFC values of 83% and 61% in the AM and PM peaks respectively, with delays of 24.62 and 16.51 seconds. In the Opening Year 2027, the applicant’s development is forecast to add 6% additional traffic to Junction 1, resulting in the AM peak RFC rising from 88% to 91% and the PM peak from 64% to 78%. By 2032, RFC rises further to 101% (AM) and 86% (PM). By 2042, the greatest effect is observed: AM peak RFC increases from 111% to 113% and PM peak RFC from 81% to 98%.

| Junction 2 |    | Without Development |           | With Development |           |
|------------|----|---------------------|-----------|------------------|-----------|
|            |    | RFC (%)             | Delay (s) | RFC (%)          | Delay (s) |
| 2025       | AM | 81%                 | 37.08     | -                | -         |
|            | PM | 66%                 | 13.64     | -                | -         |
| 2027       | AM | 86%                 | 48.4      | 92%              | 72        |
|            | PM | 70%                 | 15.67     | 81%              | 24        |
| 2032       | AM | 97%                 | 97.77     | 104%             | 156       |
|            | PM | 82%                 | 25.39     | 94%              | 60        |
| 2042       | AM | 115%                | 273.59    | 125%             | 387       |
|            | PM | 98%                 | 89.5      | 107%             | 167       |

**Figure 6-2: Junction 2 – T-Junction – R617 / Waterloo Road - Summary Table**

Junction 2 shows that in 2025 the junction operates with RFC values of 81% (AM) and 66% (PM), with delays of 37.08 and 13.64 seconds.

In the Opening Year 2027, the applicant’s development adds 6% additional traffic to the junction, raising RFC values from 86% to 92% in the AM peak and from 70% to 81% in the PM peak, accompanied by delay increases of 24 seconds (AM) and 8 seconds (PM). By 2032, RFC increases from 97% to 104% (AM) and from 82% to 94% (PM). In 2042, RFC rises from 115% to 125% in the AM peak and from 98% to 107% in the PM peak.

The assessment confirms that the junction will operate over capacity from 2032 onwards in both scenarios.

| Junction 3 |    | Without Development |           | With Development |           |
|------------|----|---------------------|-----------|------------------|-----------|
|            |    | RFC (%)             | Delay (s) | RFC (%)          | Delay (s) |
| 2025       | AM | 83%                 | 41.72     | -                | -         |
|            | PM | 66%                 | 12.54     | -                | -         |
| 2027       | AM | 88%                 | 57.64     | 91%              | 69        |
|            | PM | 70%                 | 14.4      | 72%              | 15.2      |
| 2032       | AM | 101%                | 133.78    | 107%             | 187       |
|            | PM | 81%                 | 22.71     | 84%              | 26.4      |
| 2042       | AM | 124%                | 373.88    | 129%             | 427       |
|            | PM | 98%                 | 81.9      | 100%             | 125       |

**Figure 6-3: Junction 3 – T-Junction - R617 / Station Road - Summary Table**

Junction 3 currently operates with RFC values of 83% (AM) and 66% (PM), with delays of 41.72 and 12.54 seconds.

In the Opening Year 2027, the applicant’s development contributes 2% additional traffic, leading to increases in RFC from 88% to 91% (AM) and from 70% to 72% (PM), with additional delays of 10.76 seconds (AM) and 0.8 seconds (PM). In 2032, RFC increases from 101% to 107% (AM) and from 81% to 84% (PM), with delays rising by 44.22 and 3.69 seconds respectively. By 2042, RFC increases from 124% to 129% (AM) and from 98% to 100% (PM). The junction is forecast to operate over capacity from 2027 onwards for both the “with Development” and without” development scenario.

| Opening Year<br>2027 | Average % Traffic<br>Added by<br>Applicant's Development |
|----------------------|--|
| Junction 1           | 6%   |
| Junction 2           | 6%   |
| Junction 3           | 2%   |

**Figure 6-4: Additional Traffic from Applicant's Development (2027)**

The table shows the additional traffic in 2027 attributable to the applicant's development. Junctions 1 and 2 experience modest increases of 6%, while Junction 3 sees a smaller increase of 2%. These increases are well within modelled capacity and are not expected to cause operational issues. Any minor impacts at these junctions can be managed through future measures, ensuring that overall traffic flow remains efficient.

The traffic generation and associated traffic distribution shows that the increase in traffic flows will be just at the threshold for assessment for each of the junctions 1 to 2 and under threshold for junction 3, per TII document PE-PDV-02045, "Traffic and Transport Assessment Guidelines". This is the threshold for which Traffic and Transport Assessments are recommended. Given that the traffic impact is sub-threshold, it is submitted that the modelling outlined in this report is not strictly warranted.

## 6.2 Cumulative Impact

The cumulative impact of the proposed development on the surrounding road network has been assessed using projected traffic growth and the junction modelling outputs for the three junctions.

The cumulative impact of the proposed development on Opening Year 2027 is modest. Junctions 1 and 2 each experience a 6% increase in traffic, while Junction 3 sees a 2% increase. These additional flows result in relatively minor increases in RFC and delays at each junction during both AM and PM peak periods.

Any minor impacts from the development can be effectively managed through network improvements and future mitigation measures, ensuring that overall traffic flow along the corridor remains efficient. Modal shift, in line with local and national government policies will also ensure that this traffic impact is reduced.

No modal shift has been incorporated into the modelling in this report, which would reduce the number of vehicles on the roads. Therefore, the results discussed show a worst-case scenario for each of the three junctions assessed.

It should be noted that the planned train station in Blarney and other BusConnects interventions are expected to have a significant impact on future commuter patterns in locations such as Blarney.

## **7 ROAD SAFETY**

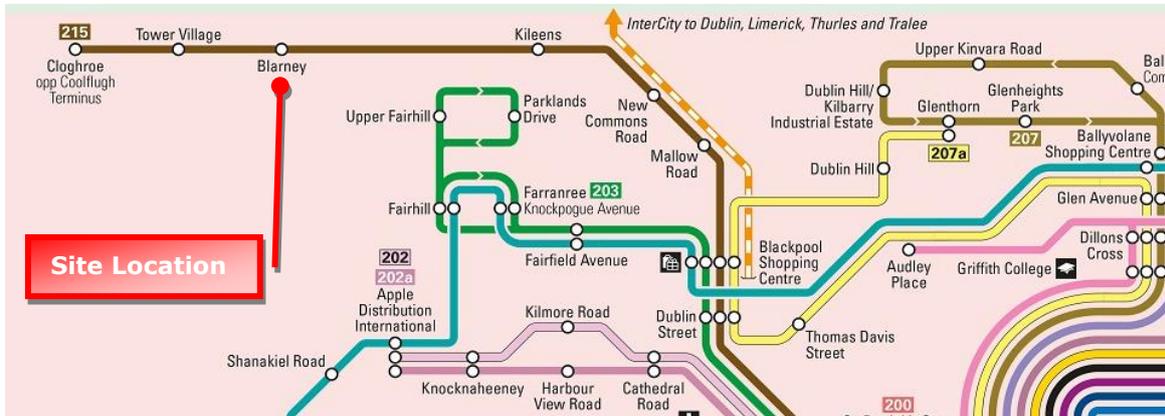
A Stage 1 Road Safety Report (RSA) is submitted as part of this planning submission.



## 9 PUBLIC TRANSPORT

The proposed development site is served by one existing Bus Éireann Services. This service is:

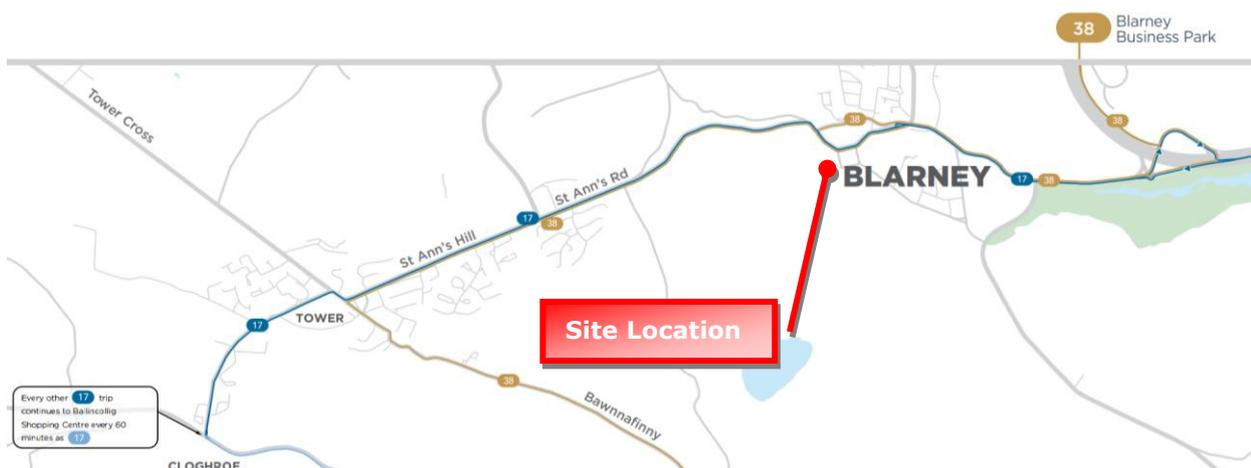
| Route No.  | Route Description                   | Weekday Frequency | Weekend Frequency |
|------------|-------------------------------------|-------------------|-------------------|
| <b>215</b> | Mahon Point to Cloghroe via Blarney | 25-40min          | 25-40min          |



**Figure 9-1 Existing Bus Services in the Area**

The National Transport Authority (NTA) has published its final new bus network for Cork. This new bus network will enable more people to avail of public transport resulting in increased access to a greater number of schools and workplaces across Cork City and County. There will be a couple of new routes in the Blarney area replacing the existing routes, see the table below for details.

| Route No. | Route Description                      | Weekday Frequency | Weekend Frequency |
|-----------|--|-------------------|-------------------|
| <b>38</b> | Parnell Place to Blarney Business Park | More than 60min   | More than 60min   |
| <b>17</b> | Ballincollig – Cloghroe – Kent Station | 30min             | 30min             |



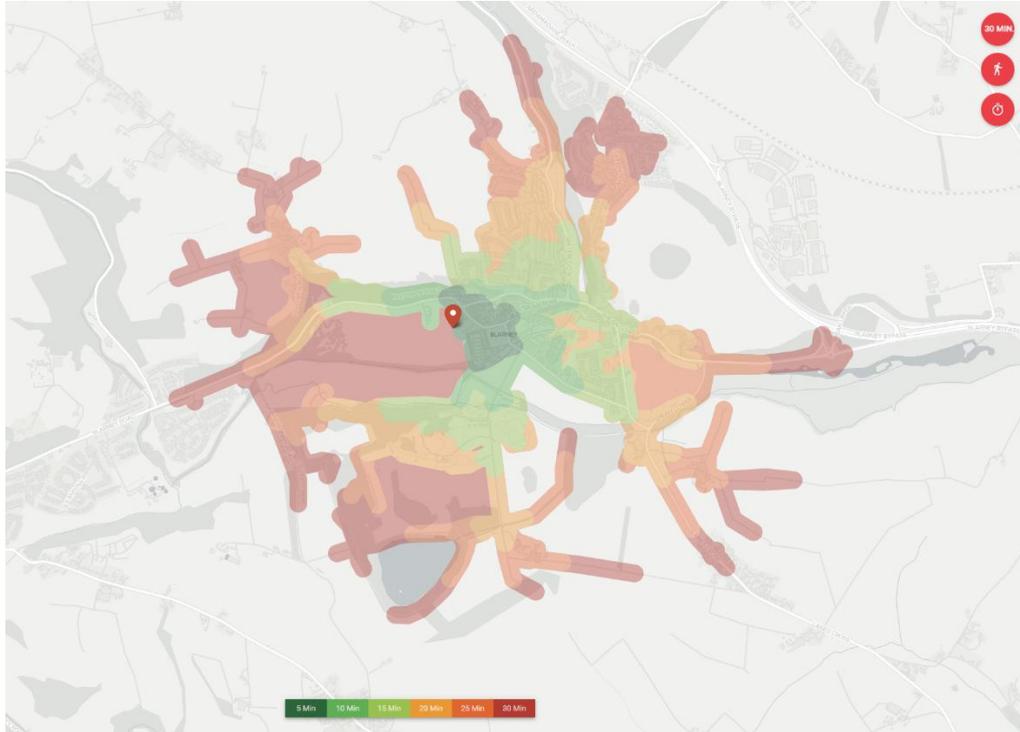
**Figure 9-2 New Bus Routes Proposed for the Area**

The provision of these new bus routes will give residents of the proposed development connectivity to Cork City centre and Kent train station which will help with the aim to increase the use of more sustainable modes of transport.

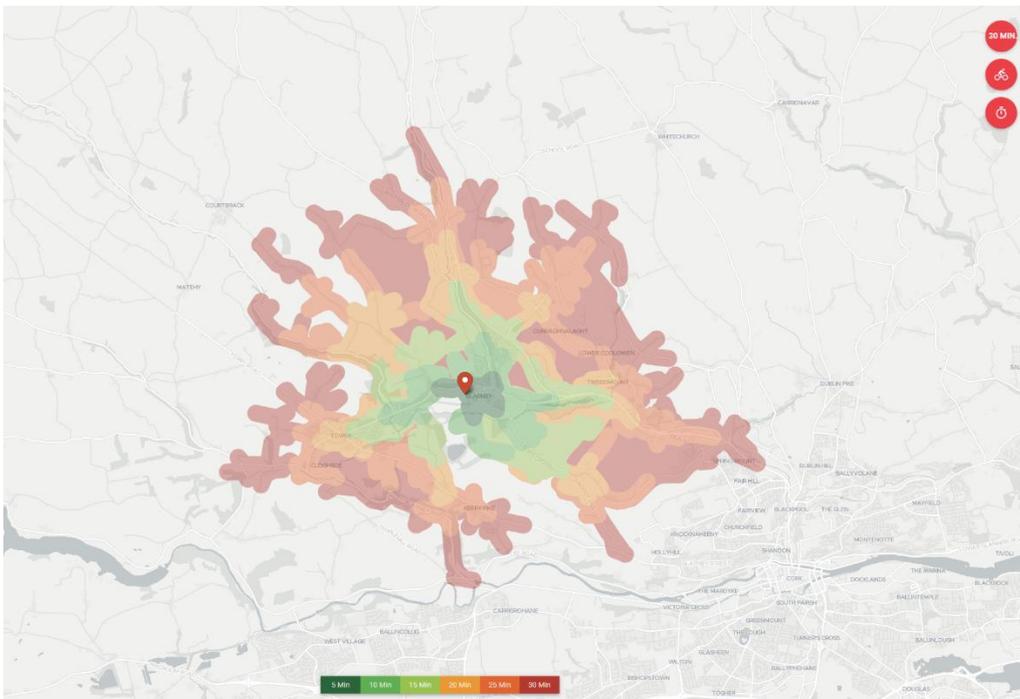
The planned new Bus Station (Estimated to be operational in c.2030) will provide significant sustainable travel options for commuters at this site and for the wider Blarney area.

## 10 PEDESTRIAN / CYCLIST / DISABILITY

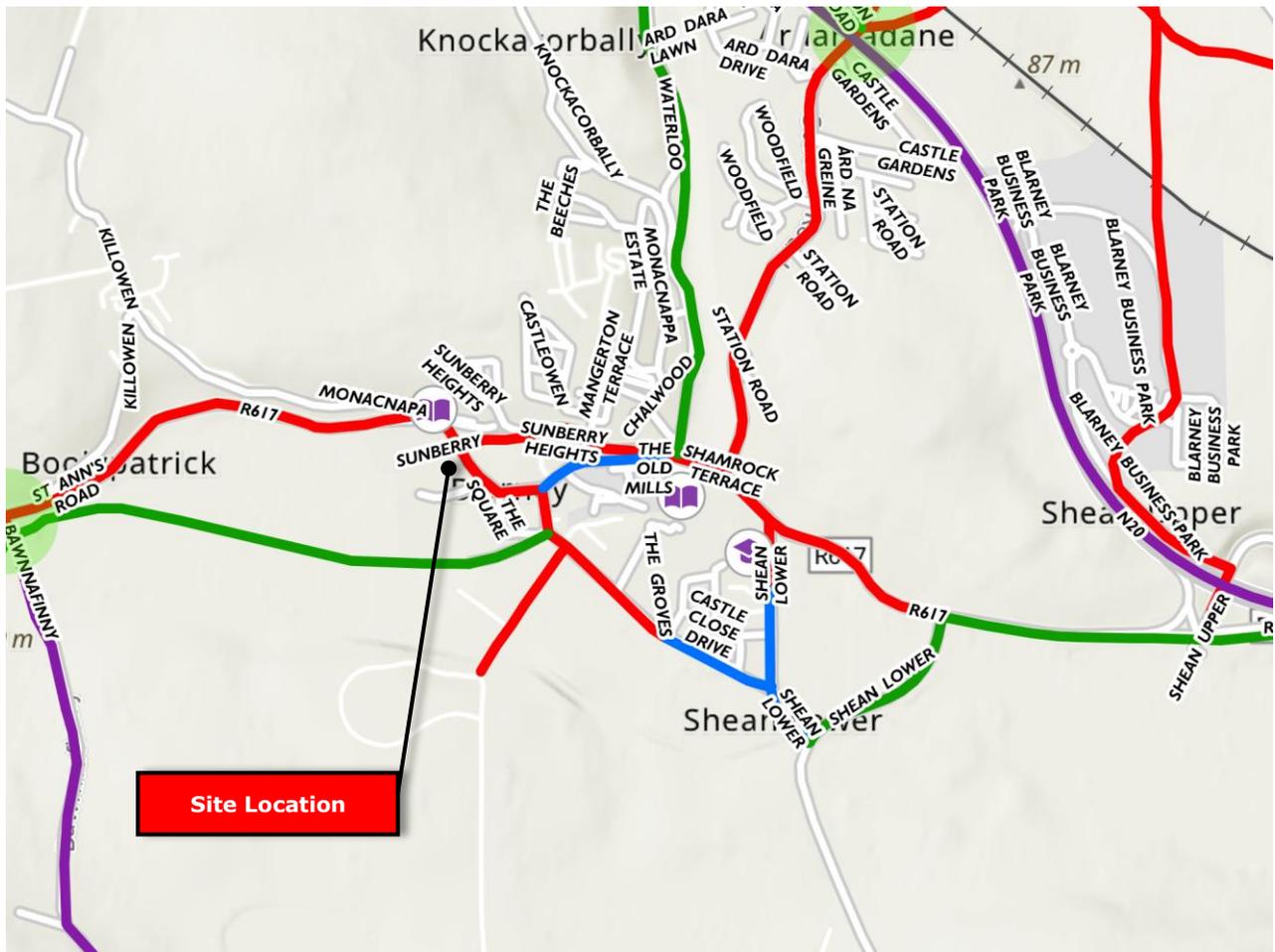
All internal footpaths should be dished at all entrances and crossings with tapered/dropped kerbs and tactile paving used on approaches in accordance with the design guidelines for use with tactile paving. This is to accommodate wheelchair access and guide the visually impaired users safely through the development.



**Figure 10-1: 30min Walking Distance from the proposed site.**



**Figure 10-2: 30min Cycle Distance from the proposed site.**



**Figure 10-3 Cork CycleConnects Map for the Area**

As shown in the graphic shown above it is proposed to improve cycle network facilities in the vicinity of the site with a proposal to provide a greenway (Blarney to Carrigrohane Greenway) to the south of the site. The proposed the greenway has been facilitated through the site in the submitted design proposal.

The latest layout provides a new pedestrian crossing of St Anne’s Road close to the proposed site entrance. This will provide improved connectivity for future residents and also for future users of the commercial and community facilities at the site.

## 11 REFERENCES

- TII. Traffic and Transport Assessment Guidelines, PE-PDV-02045
- National Roads Authority (2014) Traffic and Transport Assessment Guidelines
- Institution of Highways & Transportation (1994) Guidelines for Traffic Impact Assessment IHT, London
- National Roads Authority (2000) Road Geometry Handbook NRA, Dublin
- National Roads Authority Design Manual for Roads and Bridges NRA, Dublin
- Design Manual for Urban Roads and Streets
- Transport for Ireland (Oct 2016) Project Appraisal Guidelines for National Roads Unit 16.1 – Expansion Factors for Short Period Traffic Counts
- TII. Geometric Design of Junctions, DN-GEO-03060
- TII. Rural Road Link Design, DN-GEO-03031
- National Disability Authority (NDA) guidelines – Towards Best Practice in Provision of Transport Services
- TII approved junction simulation modelling program, Junctions 10
- Trip Rate Information Computer System (TRICS)
- Traffic Surveys: Irish Traffic Surveys Ltd
- PCU (passenger carrying units) factors, Transport in The Urban Environment, The Institution of highways and Transportation.
- Google Maps
- OpenStreetMap

## 12 APPENDIX

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## 13 TRAFFIC COUNT DATA

(Traffic Count Data Available Upon Request)

## 14 TRICS

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Audit Code: fd9c601b-fee0-4aa5-8773-922a89f1f26a

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use: 04 - EDUCATION

Category: D - NURSERY

Selected Vehicle Type: Total Vehicles

Selected regions and areas:

|    |   |                            |        |
|----|---|----------------------------|--------|
| 02 | <b>SOUTH EAST</b>                         |                            |        |
|    | KC  | KENT                       | 1 day  |
|    | SC  | SURREY                     | 1 day  |
| 03 | <b>SOUTH WEST</b>                         |                            |        |
|    | BA  | BATH & NORTH EAST SOMERSET | 1 day  |
| 04 | <b>EAST ANGLIA</b>                        |                            |        |
|    | SF  | SUFFOLK                    | 2 days |
| 05 | <b>EAST MIDLANDS</b>                      |                            |        |
|    | LN  | LINCOLNSHIRE               | 1 day  |
| 06 | <b>WEST MIDLANDS</b>                      |                            |        |
|    | SH  | SHROPSHIRE                 | 1 day  |
|    | WK  | WARWICKSHIRE               | 1 day  |
| 07 | <b>YORKSHIRE &amp; NORTH LINCOLNSHIRE</b> |                            |        |
|    | DR  | DONCASTER                  | 1 day  |
|    | NY  | NORTH YORKSHIRE            | 1 day  |
| 09 | <b>NORTH</b>                              |                            |        |
|    | DH  | DURHAM                     | 1 day  |
|    | TV  | TEES VALLEY                | 1 day  |
| 10 | <b>WALES</b>                              |                            |        |
|    | NW  | NEWPORT                    | 1 day  |
|    | RC  | RHONDDA CYNON TAFF         | 1 day  |
| 11 | <b>SCOTLAND</b>                           |                            |        |
|    | DU  | DUNDEE CITY                | 1 day  |
|    | ER  | EAST RENFREWSHIRE          | 2 days |
| 12 | <b>CONNAUGHT</b>                          |                            |        |
|    | RO  | ROSCOMMON                  | 2 days |
| 16 | <b>ULSTER (REPUBLIC OF IRELAND)</b>       |                            |        |
|    | MG  | MONAGHAN                   | 1 day  |

This section displays the number of survey days per TRICS® sub-region in the selected set.

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**Primary Filtering Selection:**

*This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.*

|                         |                          |
|-------------------------|--------------------------|
| Parameter:              | PUPILS                   |
| Actual Range:           | 18 to 200 (units:PUPILS) |
| Range Selected by User: | 18 to 200 (units:PUPILS) |
| Parking Spaces Range:   | 3 - 57                   |

**Public Transport Provision:**

|               |                      |
|---------------|----------------------|
| Selection by: | All Surveys Included |
| Date Range:   | 17/12/97 to 06/09/23 |

*This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.*

**Selected survey days:**

|           |        |
|-----------|--------|
| Friday    | 4 days |
| Monday    | 2 days |
| Thursday  | 3 days |
| Tuesday   | 4 days |
| Wednesday | 7 days |

*This data displays the number of selected surveys by day of the week.*

**Selected survey types:**

|                     |    |
|---------------------|----|
| Manual count        | 20 |
| Direction ATC Count | 0  |

*This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaken using machines*

**Selected Locations:**

|                      |        |
|----------------------|--------|
| Edge of Town         | 4 days |
| Edge of Town Centre  | 4 days |
| Neighbourhood Centre | 5 days |
| Suburban Area        | 7 days |

*This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.*

**Selected Location Sub Categories:**

|                  |         |
|------------------|---------|
| Residential Zone | 16 days |
| Village          | 4 days  |

*This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.*

**Inclusion of Servicing Vehicle Counts:**

|                             |         |
|-----------------------------|---------|
| Servicing vehicles Included | 3 days  |
| Servicing vehicles Unknown  | 17 days |

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|  |            |         |                               |
|--|------------|---------|-------------------------------|
| 1  | BA-04-D-02 | NURSERY | BATH & NORTH EAST<br>SOMERSET |
| MIDFORD ROAD<br>BATH<br>COMBE DOWN<br>Neighbourhood Centre<br>Residential Zone<br>Gross floor area: 300 sqm<br>Survey date: Thursday 15/09/2022  |            |         |                               |
|  |            |         | Survey Type: Manual           |
| 2  | DH-04-D-02 | NURSERY | DURHAM                        |
| PRIORY ROAD<br>DURHAM<br>FRAMWELLGATE MOOR<br>Suburban Area<br>Residential Zone<br>Gross floor area: 382 sqm<br>Survey date: Thursday 27/11/2008 |            |         |                               |
|  |            |         | Survey Type: Manual           |
| 3  | DR-04-D-01 | NURSERY | DONCASTER                     |
| BAWTRY ROAD<br>DONCASTER<br>Suburban Area<br>Residential Zone<br>Gross floor area: 1250 sqm<br>Survey date: Friday 13/05/2022                    |            |         |                               |
|  |            |         | Survey Type: Manual           |
| 4  | DU-04-D-01 | NURSERY | DUNDEE CITY                   |
| LONGTOWN TERRACE<br>DUNDEE<br>Suburban Area<br>Residential Zone<br>Gross floor area: 325 sqm<br>Survey date:                                     |            |         |                               |
|  |            |         | Survey Type: Manual           |
| 5  | ER-04-D-03 | NURSERY | EAST RENFREWSHIRE             |
| ROSEMOUNT AVENUE<br>NEWTON MEARNES<br>Edge of Town<br>Residential Zone<br>Gross floor area: 407 sqm<br>Survey date: Tuesday 10/11/1998           |            |         |                               |
|  |            |         | Survey Type: Manual           |
| 6  | ER-04-D-07 | NURSERY | EAST RENFREWSHIRE             |
| HIGH STREET<br>NEILSTON<br>Neighbourhood Centre<br>Village<br>Gross floor area: 341 sqm<br>Survey date: Tuesday 28/09/1999                       |            |         |                               |
|  |            |         | Survey Type: Manual           |
| 7  | KC-04-D-01 | NURSERY | KENT                          |
| PEMBURY ROAD<br>TONBRIDGE<br>Suburban Area<br>Residential Zone<br>Gross floor area: 210 sqm<br>Survey date: Wednesday 09/12/2009                 |            |         |                               |
|  |            |         | Survey Type: Manual           |
| 8  | LN-04-D-01 | NURSERY | LINCOLNSHIRE                  |
| NEWARK ROAD<br>LINCOLN<br>SWALLOW BECK   |            |         |                               |



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|  |                   |                |                           |                     |
|--|-------------------|----------------|---------------------------|---------------------|
| Suburban Area<br>Residential Zone<br>Gross floor area: 600 sqm<br>Survey date: Tuesday 31/10/2017  |                   |                |                           | Survey Type: Manual |
| <b>9</b><br>THE GRANGE<br>MONAGHAN<br>Edge of Town Centre<br>Residential Zone<br>Gross floor area: 810 sqm<br>Survey date: Tuesday 12/10/2021                | <b>MG-04-D-01</b> | <b>NURSERY</b> | <b>MONAGHAN</b>           | Survey Type: Manual |
| <b>10</b><br>CHEPSTOW ROAD<br>NEAR NEWPORT<br>LANGSTONE<br>Neighbourhood Centre<br>Village<br>Gross floor area: 284 sqm<br>Survey date: Wednesday 12/10/2022 | <b>NW-04-D-01</b> | <b>NURSERY</b> | <b>NEWPORT</b>            | Survey Type: Manual |
| <b>11</b><br>WETHERBY ROAD<br>KNARESBOROUGH<br>Suburban Area<br>Residential Zone<br>Gross floor area: 300 sqm<br>Survey date:                                | <b>NY-04-D-03</b> | <b>NURSERY</b> | <b>NORTH YORKSHIRE</b>    | Survey Type: Manual |
| <b>12</b><br>HEOL Y COLEG<br>NEAR CARDIFF<br>NANTGARW<br>Neighbourhood Centre<br>Village<br>Gross floor area: 664 sqm<br>Survey date: Thursday 06/05/2021    | <b>RC-04-D-01</b> | <b>NURSERY</b> | <b>RHONDDA CYNON TAFF</b> | Survey Type: Manual |
| <b>13</b><br>PARK VIEW<br>ROSCOMMON<br>CRUBY HILL<br>Edge of Town<br>Residential Zone<br>Gross floor area: 500 sqm<br>Survey date: Friday 26/09/2014         | <b>RO-04-D-01</b> | <b>NURSERY</b> | <b>ROSCOMMON</b>          | Survey Type: Manual |
| <b>14</b><br>CIRCULAR ROAD<br>ROSCOMMON<br>Edge of Town Centre<br>Residential Zone<br>Gross floor area: 509 sqm<br>Survey date: Tuesday 14/09/2021           | <b>RO-04-D-03</b> | <b>NURSERY</b> | <b>ROSCOMMON</b>          | Survey Type: Manual |
| <b>15</b><br>GRABURN WAY<br>EAST MOLESEY<br>ELMBRIDGE<br>Suburban Area<br>Residential Zone<br>Gross floor area: 290 sqm                                      | <b>SC-04-D-02</b> | <b>NURSERY</b> | <b>SURREY</b>             |                     |

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Audit Code: fd9c601b-fee0-4aa5-8773-922a89f1f26a

Survey date: Wednesday 17/12/1997 Survey Type: Manual

**16** SF-04-D-01 NURSERY SUFFOLK  
IXWORTH ROAD  
NEAR BURY ST EDMUNDS  
THURSTON  
Neighbourhood Centre  
Village  
Gross floor area: 600 sqm  
Survey date: Tuesday 09/05/2006 Survey Type: Manual

**17** SF-04-D-03 NURSERY SUFFOLK  
CAMP ROAD  
LOWESTOFT  
Edge of Town Centre  
Residential Zone  
Gross floor area: 750 sqm  
Survey date: Wednesday 10/12/2014 Survey Type: Manual

**18** SH-04-D-01 NURSERY SHROPSHIRE  
OLD COLEHAM  
SHREWSBURY  
Edge of Town Centre  
Residential Zone  
Gross floor area: 326 sqm  
Survey date: Wednesday 28/05/2014 Survey Type: Manual

**19** TV-04-D-01 NURSERY TEES VALLEY  
COTSWOLD DRIVE  
REDCAR  
Edge of Town  
Residential Zone  
Gross floor area: 150 sqm  
Survey date: Friday 19/05/2017 Survey Type: Manual

**20** WK-04-D-01 NURSERY WARWICKSHIRE  
THE RIDGEWAY  
STRATFORD UPON AVON  
Edge of Town  
Residential Zone  
Gross floor area: 340 sqm  
Survey date: Friday 29/06/2018 Survey Type: Manual

Audit Code: fd9c601b-fee0-4aa5-8773-922a89f1f26a

TRIP RATE for Land Use 04 - EDUCATION/D - NURSERY

Total Vehicles

Calculation factor: 1 PUPILS

*\*BOLD print indicates peak (busiest) period*

| Time Range          | No. Days | Ave. PUPILS | Arrivals | Departures | Totals |
|---------------------|----------|-------------|----------|------------|--------|
| 00:00-01:00         |          |             |          |            |        |
| 01:00-02:00         |          |             |          |            |        |
| 02:00-03:00         |          |             |          |            |        |
| 03:00-04:00         |          |             |          |            |        |
| 04:00-05:00         |          |             |          |            |        |
| 05:00-06:00         |          |             |          |            |        |
| 06:00-07:00         | 2        | 59          | 0.000    | 0.000      | 0.000  |
| 07:00-08:00         | 19       | 79          | 0.102    | 0.063      | 0.165  |
| 08:00-09:00         | 20       | 77          | 0.260    | 0.214      | 0.474  |
| 09:00-10:00         | 20       | 77          | 0.136    | 0.155      | 0.291  |
| 10:00-11:00         | 20       | 77          | 0.031    | 0.027      | 0.058  |
| 11:00-12:00         | 20       | 77          | 0.072    | 0.056      | 0.128  |
| 12:00-13:00         | 20       | 77          | 0.092    | 0.114      | 0.206  |
| 13:00-14:00         | 20       | 77          | 0.075    | 0.092      | 0.167  |
| 14:00-15:00         | 20       | 77          | 0.047    | 0.042      | 0.089  |
| 15:00-16:00         | 20       | 77          | 0.076    | 0.079      | 0.155  |
| 16:00-17:00         | 20       | 77          | 0.121    | 0.125      | 0.246  |
| 17:00-18:00         | 20       | 77          | 0.196    | 0.271      | 0.467  |
| 18:00-19:00         | 18       | 81          | 0.012    | 0.052      | 0.064  |
| 19:00-20:00         |          |             |          |            |        |
| 20:00-21:00         |          |             |          |            |        |
| 21:00-22:00         |          |             |          |            |        |
| 22:00-23:00         |          |             |          |            |        |
| 23:00-00:00         |          |             |          |            |        |
| <b>Total Rates:</b> |          |             | 1.210    | 1.220      | 2.510  |

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is:  $COUNT/TRP*FACT$ . Trip rates are then rounded to 3 decimal places.

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Audit Code: fd9c601b-fee0-4aa5-8773-922a89f1f26a

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Parameter Summary:

|   |                          |
|---|--------------------------|
| Trip rate parameter range selected:           | 18 - 200 (units: PUPILS) |
| Survey date date range:                       | 17/12/1997 - 12/06/2023  |
| Number of weekdays (Monday-Friday):           | 20                       |
| Number of Saturdays:                          | 0                        |
| Number of Sundays:                            | 0                        |
| Surveys automatically removed from selection: | 4                        |
| Surveys manually removed from selection:      | 0                        |

*This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.*

Calculation Reference: AUDIT-761701-250722-0712

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL  
Category : M - MIXED PRIVATE/AFFORDABLE HOUSING  
MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

|    |                               |        |
|----|-------------------------------|--------|
| 02 | SOUTH EAST                    |        |
|    | ES EAST SUSSEX                | 4 days |
|    | HC HAMPSHIRE                  | 1 days |
|    | SC SURREY                     | 1 days |
|    | WS WEST SUSSEX                | 1 days |
| 03 | SOUTH WEST                    |        |
|    | BA BATH & NORTH EAST SOMERSET | 1 days |
|    | DV DEVON                      | 1 days |
| 04 | EAST ANGLIA                   |        |
|    | CA CAMBRIDGESHIRE             | 1 days |
|    | NF NORFOLK                    | 7 days |
| 16 | ULSTER (REPUBLIC OF IRELAND)  |        |
|    | MG MONAGHAN                   | 1 days |

*This section displays the number of survey days per TRICS® sub-region in the selected set*

Primary Filtering selection:

*This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.*

Parameter: No of Dwellings  
 Actual Range: 17 to 392 (units: )  
 Range Selected by User: 9 to 500 (units: )

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/16 to 07/10/24

*This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.*

Selected survey days:

|           |        |
|-----------|--------|
| Monday    | 1 days |
| Tuesday   | 2 days |
| Wednesday | 9 days |
| Thursday  | 5 days |
| Friday    | 1 days |

*This data displays the number of selected surveys by day of the week.*

Selected survey types:

|                       |         |
|-----------------------|---------|
| Manual count          | 18 days |
| Directional ATC Count | 0 days  |

*This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaken using machines.*

Selected Locations:

|                     |    |
|---------------------|----|
| Edge of Town Centre | 1  |
| Edge of Town        | 17 |

*This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.*

Selected Location Sub Categories:

|                  |    |
|------------------|----|
| Residential Zone | 16 |
| No Sub Category  | 2  |

*This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.*

Inclusion of Servicing Vehicles Counts:

|                             |                    |
|-----------------------------|--------------------|
| Servicing vehicles Included | 28 days - Selected |
| Servicing vehicles Excluded | 36 days - Selected |

Secondary Filtering selection:

Use Class:

C3 18 days

*This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 has been used for this purpose, which can be found within the Library module of TRICS®.*

Population within 500m Range:

All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:

|                 |         |
|-----------------|---------|
| 1,001 to 5,000  | 8 days  |
| 5,001 to 10,000 | 10 days |

*This data displays the number of selected surveys within stated 1-mile radii of population.*

Population within 5 miles:

|                  |        |
|------------------|--------|
| 5,001 to 25,000  | 5 days |
| 25,001 to 50,000 | 6 days |
| 50,001 to 75,000 | 7 days |

*This data displays the number of selected surveys within stated 5-mile radii of population.*

Car ownership within 5 miles:

|            |         |
|------------|---------|
| 0.6 to 1.0 | 1 days  |
| 1.1 to 1.5 | 15 days |
| 1.6 to 2.0 | 2 days  |

*This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.*

Travel Plan:

|     |         |
|-----|---------|
| Yes | 16 days |
| No  | 2 days  |

*This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.*

PTAL Rating:

|                 |         |
|-----------------|---------|
| No PTAL Present | 18 days |
|-----------------|---------|

*This data displays the number of selected surveys with PTAL Ratings.*

|                       |     |  |
|-----------------------|-----|--|
| Covid-19 Restrictions | Yes | At least one survey within the selected data set was undertaken at a time of Covid-19 restrictions |
|-----------------------|-----|--|

LIST OF SITES relevant to selection parameters

|   |  |                      |                 |                            |
|---|--|----------------------|-----------------|----------------------------|
| 1 | BA-03-M-01<br>FROME ROAD<br>RADSTOCK                             | NELSON WARD DRIVE    |                 | BATH & NORTH EAST SOMERSET |
|   | Edge of Town Centre<br>No Sub Category<br>Total No of Dwellings: |                      | 141             |                            |
|   | <i>Survey date: TUESDAY</i>                                      |                      | <i>02/10/18</i> | <i>Survey Type: MANUAL</i> |
| 2 | CA-03-M-01<br>BANNOLD ROAD<br>WATERBEACH                         | MIXED HOUSES & FLATS |                 | CAMBRI DGESHI RE           |
|   | Edge of Town<br>Residential Zone<br>Total No of Dwellings:       |                      | 52              |                            |
|   | <i>Survey date: WEDNESDAY</i>                                    |                      | <i>20/06/18</i> | <i>Survey Type: MANUAL</i> |
| 3 | DV-03-M-02<br>SAINT PETER' SQUAY<br>TOTNES                       | MIXED HOUSES & FLATS |                 | DEVON                      |
|   | Edge of Town<br>Residential Zone<br>Total No of Dwellings:       |                      | 90              |                            |
|   | <i>Survey date: FRIDAY</i>                                       |                      | <i>29/03/19</i> | <i>Survey Type: MANUAL</i> |
| 4 | ES-03-M-15<br>FIELD END<br>MARESFIELD                            | MIXED HOUSES         |                 | EAST SUSSEX                |
|   | Edge of Town<br>Residential Zone<br>Total No of Dwellings:       |                      | 80              |                            |
|   | <i>Survey date: WEDNESDAY</i>                                    |                      | <i>13/03/19</i> | <i>Survey Type: MANUAL</i> |
| 5 | ES-03-M-16<br>BARNHORN ROAD<br>BEXHILL<br>LITTLE COMMON          | MIXED HOUSES & FLATS |                 | EAST SUSSEX                |
|   | Edge of Town<br>Residential Zone<br>Total No of Dwellings:       |                      | 119             |                            |
|   | <i>Survey date: WEDNESDAY</i>                                    |                      | <i>10/07/19</i> | <i>Survey Type: MANUAL</i> |
| 6 | ES-03-M-19<br>PARK ROAD<br>HAILSHAM                              | MIXED HOUSES & FLATS |                 | EAST SUSSEX                |
|   | Edge of Town<br>Residential Zone<br>Total No of Dwellings:       |                      | 149             |                            |
|   | <i>Survey date: THURSDAY</i>                                     |                      | <i>17/06/21</i> | <i>Survey Type: MANUAL</i> |
| 7 | ES-03-M-21<br>NEW ROAD<br>HAILSHAM<br>HELLINGLY                  | MIXED HOUSES & FLATS |                 | EAST SUSSEX                |
|   | Edge of Town<br>Residential Zone<br>Total No of Dwellings:       |                      | 392             |                            |
|   | <i>Survey date: MONDAY</i>                                       |                      | <i>28/03/22</i> | <i>Survey Type: MANUAL</i> |

LIST OF SITES relevant to selection parameters (Cont.)

|    |                        |                           |                     |
|----|------------------------|---------------------------|---------------------|
| 8  | HC-03-M-21             | MIXED HOUSES & FLATS      | HAMPSHIRE           |
|    | WINCHESTER ROAD        |                           |                     |
|    | BASINGSTOKE            |                           |                     |
|    | BEGGARWOOD             |                           |                     |
|    | Edge of Town           |                           |                     |
|    | Residential Zone       |                           |                     |
|    | Total No of Dwellings: | 115                       |                     |
|    | Survey date: THURSDAY  | 02/11/23                  | Survey Type: MANUAL |
| 9  | MG-03-M-01             | TERRACED & SEMI -DETACHED | MONAGHAN            |
|    | ROWANTREE ROAD         |                           |                     |
|    | MONAGHAN               |                           |                     |
|    | MULLACH GLAS           |                           |                     |
|    | Edge of Town           |                           |                     |
|    | No Sub Category        |                           |                     |
|    | Total No of Dwellings: | 17                        |                     |
|    | Survey date: WEDNESDAY | 16/11/16                  | Survey Type: MANUAL |
| 10 | NF-03-M-03             | MIXED HOUSES              | NORFOLK             |
|    | NORTH WALSHAM ROAD     |                           |                     |
|    | NORTH WALSHAM          |                           |                     |
|    | Edge of Town           |                           |                     |
|    | Residential Zone       |                           |                     |
|    | Total No of Dwellings: | 70                        |                     |
|    | Survey date: WEDNESDAY | 18/09/19                  | Survey Type: MANUAL |
| 11 | NF-03-M-04             | MIXED HOUSES & FLATS      | NORFOLK             |
|    | HUNSTANTON ROAD        |                           |                     |
|    | HUNSTANTON             |                           |                     |
|    | Edge of Town           |                           |                     |
|    | Residential Zone       |                           |                     |
|    | Total No of Dwellings: | 70                        |                     |
|    | Survey date: THURSDAY  | 19/09/19                  | Survey Type: MANUAL |
| 12 | NF-03-M-14             | MIXED HOUSES & FLATS      | NORFOLK             |
|    | NORWICH COMMON         |                           |                     |
|    | WYMONDHAM              |                           |                     |
|    | Edge of Town           |                           |                     |
|    | Residential Zone       |                           |                     |
|    | Total No of Dwellings: | 321                       |                     |
|    | Survey date: THURSDAY  | 19/09/19                  | Survey Type: MANUAL |
| 13 | NF-03-M-39             | MIXED HOUSES              | NORFOLK             |
|    | LONDON ROAD            |                           |                     |
|    | ATTLEBOROUGH           |                           |                     |
|    | Edge of Town           |                           |                     |
|    | Residential Zone       |                           |                     |
|    | Total No of Dwellings: | 61                        |                     |
|    | Survey date: WEDNESDAY | 14/10/20                  | Survey Type: MANUAL |
| 14 | NF-03-M-51             | MIXED HOUSES              | NORFOLK             |
|    | MENDHAM LANE           |                           |                     |
|    | HARLESTON              |                           |                     |
|    | Edge of Town           |                           |                     |
|    | Residential Zone       |                           |                     |
|    | Total No of Dwellings: | 120                       |                     |
|    | Survey date: WEDNESDAY | 29/09/21                  | Survey Type: MANUAL |

LIST OF SITES relevant to selection parameters (Cont.)

|    |                               |                         |                 |                            |
|----|-------------------------------|-------------------------|-----------------|----------------------------|
| 15 | NF-03-M-59                    | MIXED HOUSES            |                 | NORFOLK                    |
|    | NORWICH COMMON                |                         |                 |                            |
|    | WYMONDHAM                     |                         |                 |                            |
|    | Edge of Town                  |                         |                 |                            |
|    | Residential Zone              |                         |                 |                            |
|    | Total No of Dwellings:        |                         | 153             |                            |
|    | <i>Survey date: THURSDAY</i>  |                         | <i>29/09/22</i> | <i>Survey Type: MANUAL</i> |
| 16 | NF-03-M-63                    | MIXED HOUSES            |                 | NORFOLK                    |
|    | NORTH WALSHAM ROAD            |                         |                 |                            |
|    | NORTH WALSHAM                 |                         |                 |                            |
|    | Edge of Town                  |                         |                 |                            |
|    | Residential Zone              |                         |                 |                            |
|    | Total No of Dwellings:        |                         | 100             |                            |
|    | <i>Survey date: WEDNESDAY</i> |                         | <i>21/09/22</i> | <i>Survey Type: MANUAL</i> |
| 17 | SC-03-M-13                    | DETACHED HOUSES & FLATS |                 | SURREY                     |
|    | HOLLAND ROAD                  |                         |                 |                            |
|    | OXTED                         |                         |                 |                            |
|    | Edge of Town                  |                         |                 |                            |
|    | Residential Zone              |                         |                 |                            |
|    | Total No of Dwellings:        |                         | 168             |                            |
|    | <i>Survey date: TUESDAY</i>   |                         | <i>22/11/22</i> | <i>Survey Type: MANUAL</i> |
| 18 | WS-03-M-25                    | MIXED HOUSES            |                 | WEST SUSSEX                |
|    | CLAPPERS LANE                 |                         |                 |                            |
|    | BRACKLESHAM BAY               |                         |                 |                            |
|    | Edge of Town                  |                         |                 |                            |
|    | Residential Zone              |                         |                 |                            |
|    | Total No of Dwellings:        |                         | 110             |                            |
|    | <i>Survey date: WEDNESDAY</i> |                         | <i>24/11/21</i> | <i>Survey Type: MANUAL</i> |

*This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.*

TRIP RATE for Land Use 03 - RESIDENTIAL/M - MIXED PRIVATE/AFFORDABLE HOUSING  
 MULTI-MODAL TOTAL **VEHICLES**  
 Calculation factor: 1 DWELLS  
 BOLD print indicates peak (busiest) period  
 Total People to Total Vehicles ratio (all time periods and directions): 1.74

| Time Range           | ARRIVALS  |             |              | DEPARTURES |             |              | TOTALS    |             |              |
|----------------------|-----------|-------------|--------------|------------|-------------|--------------|-----------|-------------|--------------|
|                      | No. Days  | Ave. DWELLS | Trip Rate    | No. Days   | Ave. DWELLS | Trip Rate    | No. Days  | Ave. DWELLS | Trip Rate    |
| 00:00 - 01:00        |           |             |              |            |             |              |           |             |              |
| 01:00 - 02:00        |           |             |              |            |             |              |           |             |              |
| 02:00 - 03:00        |           |             |              |            |             |              |           |             |              |
| 03:00 - 04:00        |           |             |              |            |             |              |           |             |              |
| 04:00 - 05:00        |           |             |              |            |             |              |           |             |              |
| 05:00 - 06:00        |           |             |              |            |             |              |           |             |              |
| 06:00 - 07:00        |           |             |              |            |             |              |           |             |              |
| <b>07:00 - 08:00</b> | <b>18</b> | <b>129</b>  | <b>0.081</b> | <b>18</b>  | <b>129</b>  | <b>0.299</b> | <b>18</b> | <b>129</b>  | <b>0.380</b> |
| 08:00 - 09:00        | 18        | 129         | 0.138        | 18         | 129         | 0.357        | 18        | 129         | 0.495        |
| 09:00 - 10:00        | 18        | 129         | 0.128        | 18         | 129         | 0.166        | 18        | 129         | 0.294        |
| 10:00 - 11:00        | 18        | 129         | 0.124        | 18         | 129         | 0.144        | 18        | 129         | 0.268        |
| 11:00 - 12:00        | 18        | 129         | 0.122        | 18         | 129         | 0.135        | 18        | 129         | 0.257        |
| 12:00 - 13:00        | 18        | 129         | 0.139        | 18         | 129         | 0.131        | 18        | 129         | 0.270        |
| 13:00 - 14:00        | 18        | 129         | 0.164        | 18         | 129         | 0.159        | 18        | 129         | 0.323        |
| 14:00 - 15:00        | 18        | 129         | 0.151        | 18         | 129         | 0.175        | 18        | 129         | 0.326        |
| 15:00 - 16:00        | 18        | 129         | 0.264        | 18         | 129         | 0.166        | 18        | 129         | 0.430        |
| <b>16:00 - 17:00</b> | <b>18</b> | <b>129</b>  | <b>0.290</b> | <b>18</b>  | <b>129</b>  | <b>0.152</b> | <b>18</b> | <b>129</b>  | <b>0.442</b> |
| 17:00 - 18:00        | 18        | 129         | 0.308        | 18         | 129         | 0.169        | 18        | 129         | 0.477        |
| 18:00 - 19:00        | 18        | 129         | 0.276        | 18         | 129         | 0.144        | 18        | 129         | 0.420        |
| 19:00 - 20:00        | 1         | 119         | 0.126        | 1          | 119         | 0.008        | 1         | 119         | 0.134        |
| 20:00 - 21:00        | 1         | 119         | 0.101        | 1          | 119         | 0.017        | 1         | 119         | 0.118        |
| 21:00 - 22:00        |           |             |              |            |             |              |           |             |              |
| 22:00 - 23:00        |           |             |              |            |             |              |           |             |              |
| 23:00 - 24:00        |           |             |              |            |             |              |           |             |              |
| <b>Total Rates:</b>  |           |             | <b>2.412</b> |            |             | <b>2.222</b> |           |             | <b>4.634</b> |

*This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.*

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP\*FACT. Trip rates are then rounded to 3 decimal places.*

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Parameter summary

Trip rate parameter range selected: 17 - 392 (units: )  
 Survey date date range: 01/01/16 - 07/10/24  
 Number of weekdays (Monday-Friday): 18  
 Number of Saturdays: 0  
 Number of Sundays: 0  
 Surveys automatically removed from selection: 3  
 Surveys manually removed from selection: 0

*This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.*

TRIP RATE for Land Use 03 - RESIDENTIAL/M - MIXED PRIVATE/AFFORDABLE HOUSING  
 MULTI-MODAL TOTAL PEOPLE  
 Calculation factor: 1 DWELLS  
 BOLD print indicates peak (busiest) period  
 Total People to Total Vehicles ratio (all time periods and directions): 1.74

| Time Range          | ARRIVALS |             |           | DEPARTURES |             |           | TOTALS   |             |           |
|---------------------|----------|-------------|-----------|------------|-------------|-----------|----------|-------------|-----------|
|                     | No. Days | Ave. DWELLS | Trip Rate | No. Days   | Ave. DWELLS | Trip Rate | No. Days | Ave. DWELLS | Trip Rate |
| 00:00 - 01:00       |          |             |           |            |             |           |          |             |           |
| 01:00 - 02:00       |          |             |           |            |             |           |          |             |           |
| 02:00 - 03:00       |          |             |           |            |             |           |          |             |           |
| 03:00 - 04:00       |          |             |           |            |             |           |          |             |           |
| 04:00 - 05:00       |          |             |           |            |             |           |          |             |           |
| 05:00 - 06:00       |          |             |           |            |             |           |          |             |           |
| 06:00 - 07:00       |          |             |           |            |             |           |          |             |           |
| 07:00 - 08:00       | 18       | 129         | 0.111     | 18         | 129         | 0.500     | 18       | 129         | 0.611     |
| 08:00 - 09:00       | 18       | 129         | 0.208     | 18         | 129         | 0.765     | 18       | 129         | 0.973     |
| 09:00 - 10:00       | 18       | 129         | 0.204     | 18         | 129         | 0.267     | 18       | 129         | 0.471     |
| 10:00 - 11:00       | 18       | 129         | 0.185     | 18         | 129         | 0.234     | 18       | 129         | 0.419     |
| 11:00 - 12:00       | 18       | 129         | 0.184     | 18         | 129         | 0.219     | 18       | 129         | 0.403     |
| 12:00 - 13:00       | 18       | 129         | 0.222     | 18         | 129         | 0.210     | 18       | 129         | 0.432     |
| 13:00 - 14:00       | 18       | 129         | 0.258     | 18         | 129         | 0.249     | 18       | 129         | 0.507     |
| 14:00 - 15:00       | 18       | 129         | 0.253     | 18         | 129         | 0.287     | 18       | 129         | 0.540     |
| 15:00 - 16:00       | 18       | 129         | 0.627     | 18         | 129         | 0.288     | 18       | 129         | 0.915     |
| 16:00 - 17:00       | 18       | 129         | 0.525     | 18         | 129         | 0.268     | 18       | 129         | 0.793     |
| 17:00 - 18:00       | 18       | 129         | 0.524     | 18         | 129         | 0.286     | 18       | 129         | 0.810     |
| 18:00 - 19:00       | 18       | 129         | 0.479     | 18         | 129         | 0.261     | 18       | 129         | 0.740     |
| 19:00 - 20:00       | 1        | 119         | 0.176     | 1          | 119         | 0.025     | 1        | 119         | 0.201     |
| 20:00 - 21:00       | 1        | 119         | 0.151     | 1          | 119         | 0.017     | 1        | 119         | 0.168     |
| 21:00 - 22:00       |          |             |           |            |             |           |          |             |           |
| 22:00 - 23:00       |          |             |           |            |             |           |          |             |           |
| 23:00 - 24:00       |          |             |           |            |             |           |          |             |           |
| <b>Total Rates:</b> |          |             | 4.107     |            |             | 3.876     |          |             | 7.983     |

*This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.*

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP\*FACT. Trip rates are then rounded to 3 decimal places.*

Calculation Reference: AUDIT-761701-250725-0759

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 06 - HOTEL, FOOD & DRINK

Category : K - CAFE

TOTAL VEHICLES

Selected regions and areas:

11 SCOTLAND

GC GLASGOW CITY

1 days

*This section displays the number of survey days per TRICS® sub-region in the selected set*

## Primary Filtering selection:

*This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.*

Parameter: Gross floor area  
Actual Range: 105 to 105 (units: sqm)  
Range Selected by User: 100 to 150 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/16 to 17/04/23

*This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.*

Selected survey days:

Monday 1 days

*This data displays the number of selected surveys by day of the week.*

Selected survey types:

Manual count 1 days  
Directional ATC Count 0 days

*This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaken using machines.*

Selected Locations:

Neighbourhood Centre (PPS6 Local Centre) 1

*This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.*

Selected Location Sub Categories:

High Street 1

*This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.*

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included 1 days - Selected  
Servicing vehicles Excluded X days - Selected

## Secondary Filtering selection:

Use Class:

E(b) 1 days

*This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 has been used for this purpose, which can be found within the Library module of TRICS®.*

Population within 500m Range:

All Surveys Included

Population within 1 mile:

25,001 to 50,000 1 days

*This data displays the number of selected surveys within stated 1-mile radii of population.*

## Secondary Filtering selection (Cont.):

Population within 5 miles:

500,001 or More 1 days

*This data displays the number of selected surveys within stated 5-mile radii of population.*Car ownership within 5 miles:

1.1 to 1.5 1 days

*This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling within a radius of 5-miles of selected survey sites.*Travel Plan:

No 1 days

*This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.*PTAL Rating:

No PTAL Present 1 days

*This data displays the number of selected surveys with PTAL Ratings.*

LIST OF SITES relevant to selection parameters

|   |  |          |                     |
|---|--|----------|---------------------|
| 1 | GC-06-K-01                               | CAFÉ     | GLASGOW CITY        |
|   | GREAT WESTERN ROAD                       |          |                     |
|   | GLASGOW                                  |          |                     |
|   | WEST END                                 |          |                     |
|   | Neighbourhood Centre (PPS6 Local Centre) |          |                     |
|   | High Street                              |          |                     |
|   | Total Gross floor area:                  | 105 sqm  |                     |
|   | Survey date: MONDAY                      | 17/04/23 | Survey Type: MANUAL |

*This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.*

TRIP RATE for Land Use 06 - HOTEL, FOOD &amp; DRINK/K - CAFE

TOTAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

| Time Range           | ARRIVALS |            |              | DEPARTURES |            |              | TOTALS   |            |              |
|----------------------|----------|------------|--------------|------------|------------|--------------|----------|------------|--------------|
|                      | No. Days | Ave. GFA   | Trip Rate    | No. Days   | Ave. GFA   | Trip Rate    | No. Days | Ave. GFA   | Trip Rate    |
| 00:00 - 01:00        |          |            |              |            |            |              |          |            |              |
| 01:00 - 02:00        |          |            |              |            |            |              |          |            |              |
| 02:00 - 03:00        |          |            |              |            |            |              |          |            |              |
| 03:00 - 04:00        |          |            |              |            |            |              |          |            |              |
| 04:00 - 05:00        |          |            |              |            |            |              |          |            |              |
| 05:00 - 06:00        |          |            |              |            |            |              |          |            |              |
| 06:00 - 07:00        |          |            |              |            |            |              |          |            |              |
| <b>07:00 - 08:00</b> | <b>1</b> | <b>105</b> | <b>0.952</b> | <b>1</b>   | <b>105</b> | <b>0.000</b> | <b>1</b> | <b>105</b> | <b>0.952</b> |
| 08:00 - 09:00        | 1        | 105        | 1.905        | 1          | 105        | 1.905        | 1        | 105        | 3.810        |
| 09:00 - 10:00        | 1        | 105        | 3.810        | 1          | 105        | 3.810        | 1        | 105        | 7.620        |
| 10:00 - 11:00        | 1        | 105        | 5.714        | 1          | 105        | 5.714        | 1        | 105        | 11.428       |
| 11:00 - 12:00        | 1        | 105        | 2.857        | 1          | 105        | 2.857        | 1        | 105        | 5.714        |
| 12:00 - 13:00        | 1        | 105        | 5.714        | 1          | 105        | 5.714        | 1        | 105        | 11.428       |
| 13:00 - 14:00        | 1        | 105        | 0.000        | 1          | 105        | 0.000        | 1        | 105        | 0.000        |
| 14:00 - 15:00        | 1        | 105        | 3.810        | 1          | 105        | 2.857        | 1        | 105        | 6.667        |
| <b>15:00 - 16:00</b> | <b>1</b> | <b>105</b> | <b>0.000</b> | <b>1</b>   | <b>105</b> | <b>1.905</b> | <b>1</b> | <b>105</b> | <b>1.905</b> |
| 16:00 - 17:00        |          |            |              |            |            |              |          |            |              |
| 17:00 - 18:00        |          |            |              |            |            |              |          |            |              |
| 18:00 - 19:00        |          |            |              |            |            |              |          |            |              |
| 19:00 - 20:00        |          |            |              |            |            |              |          |            |              |
| 20:00 - 21:00        |          |            |              |            |            |              |          |            |              |
| 21:00 - 22:00        |          |            |              |            |            |              |          |            |              |
| 22:00 - 23:00        |          |            |              |            |            |              |          |            |              |
| 23:00 - 24:00        |          |            |              |            |            |              |          |            |              |
| Total Rates:         |          |            | 24.762       |            |            | 24.762       |          |            | 49.524       |

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is:  $COUNT/TRP*FACT$ . Trip rates are then rounded to 3 decimal places.

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#### Parameter summary

Trip rate parameter range selected: 105 - 105 (units: sqm)  
Survey date range: 01/01/16 - 17/04/23  
Number of weekdays (Monday-Friday): 1  
Number of Saturdays: 0  
Number of Sundays: 0  
Surveys automatically removed from selection: 0  
Surveys manually removed from selection: 0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

Calculation Reference: AUDIT-761701-250725-0714

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 07 - LEISURE  
Category : Q - COMMUNITY CENTRE  
TOTAL VEHICLES

Selected regions and areas:

04 EAST ANGLIA  
CA CAMBRIDGESHIRE 1 days

*This section displays the number of survey days per TRICS® sub-region in the selected set*

## Primary Filtering selection:

*This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.*

Parameter: Site area  
 Actual Range: 0.37 to 0.37 (units: hect)  
 Range Selected by User: 0.04 to 2.50 (units: hect)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/16 to 24/04/24

*This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.*

Selected survey days:

Thursday 1 days

*This data displays the number of selected surveys by day of the week.*

Selected survey types:

Manual count 1 days  
 Directional ATC Count 0 days

*This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaken using machines.*

Selected Locations:

Edge of Town Centre 1

*This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.*

Selected Location Sub Categories:

High Street 1

*This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.*

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included 3 days - Selected  
 Servicing vehicles Excluded 6 days - Selected

## Secondary Filtering selection:

Use Class:

F2(b) 1 days

*This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 has been used for this purpose, which can be found within the Library module of TRICS®.*

Population within 500m Range:

All Surveys Included

Population within 1 mile:

5,001 to 10,000 1 days

*This data displays the number of selected surveys within stated 1-mile radii of population.*

## Secondary Filtering selection (Cont.):

Population within 5 miles:

25,001 to 50,000

1 days

*This data displays the number of selected surveys within stated 5-mile radii of population.*

Car ownership within 5 miles:

0.6 to 1.0

1 days

*This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling within a radius of 5-miles of selected survey sites.*

Travel Plan:

No

1 days

*This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.*

PTAL Rating:

No PTAL Present

1 days

*This data displays the number of selected surveys with PTAL Ratings.*

LIST OF SITES relevant to selection parameters

|   |  |                  |                     |
|---|--|------------------|---------------------|
| 1 | CA-07-Q-02<br>HIGH STREET<br>CAMBOURNE | COMMUNITY CENTRE | CAMBRI DGESHI RE    |
|   | Edge of Town Centre<br>High Street     |                  |                     |
|   | Total Site area:                       | 0.37 hect        |                     |
|   | Survey date: THURSDAY                  | 07/06/18         | Survey Type: MANUAL |

*This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.*

TRIP RATE for Land Use 07 - LEISURE/Q - COMMUNITY CENTRE

TOTAL VEHICLES

Calculation factor: 1 hect

BOLD print indicates peak (busiest) period

| Time Range           | ARRIVALS |             |              | DEPARTURES |             |              | TOTALS   |             |              |
|----------------------|----------|-------------|--------------|------------|-------------|--------------|----------|-------------|--------------|
|                      | No. Days | Ave. AREA   | Trip Rate    | No. Days   | Ave. AREA   | Trip Rate    | No. Days | Ave. AREA   | Trip Rate    |
| 00:00 - 01:00        |          |             |              |            |             |              |          |             |              |
| 01:00 - 02:00        |          |             |              |            |             |              |          |             |              |
| 02:00 - 03:00        |          |             |              |            |             |              |          |             |              |
| 03:00 - 04:00        |          |             |              |            |             |              |          |             |              |
| 04:00 - 05:00        |          |             |              |            |             |              |          |             |              |
| 05:00 - 06:00        |          |             |              |            |             |              |          |             |              |
| 06:00 - 07:00        |          |             |              |            |             |              |          |             |              |
| <b>07:00 - 08:00</b> | <b>1</b> | <b>0.37</b> | <b>5.405</b> | <b>1</b>   | <b>0.37</b> | <b>0.000</b> | 1        | 0.37        | 5.405        |
| 08:00 - 09:00        | 1        | 0.37        | 32.432       | 1          | 0.37        | 0.000        | 1        | 0.37        | 32.432       |
| 09:00 - 10:00        | 1        | 0.37        | 24.324       | 1          | 0.37        | 18.919       | 1        | 0.37        | 43.243       |
| 10:00 - 11:00        | 1        | 0.37        | 18.919       | 1          | 0.37        | 10.811       | 1        | 0.37        | 29.730       |
| 11:00 - 12:00        | 1        | 0.37        | 2.703        | 1          | 0.37        | 32.432       | 1        | 0.37        | 35.135       |
| 12:00 - 13:00        | 1        | 0.37        | 2.703        | 1          | 0.37        | 2.703        | 1        | 0.37        | 5.406        |
| 13:00 - 14:00        | 1        | 0.37        | 2.703        | 1          | 0.37        | 2.703        | 1        | 0.37        | 5.406        |
| 14:00 - 15:00        | 1        | 0.37        | 5.405        | 1          | 0.37        | 2.703        | 1        | 0.37        | 8.108        |
| 15:00 - 16:00        | 1        | 0.37        | 8.108        | 1          | 0.37        | 8.108        | 1        | 0.37        | 16.216       |
| <b>16:00 - 17:00</b> | <b>1</b> | <b>0.37</b> | <b>2.703</b> | <b>1</b>   | <b>0.37</b> | <b>2.703</b> | <b>1</b> | <b>0.37</b> | <b>5.406</b> |
| 17:00 - 18:00        | 1        | 0.37        | 51.351       | 1          | 0.37        | 21.622       | 1        | 0.37        | 72.973       |
| 18:00 - 19:00        | 1        | 0.37        | 27.027       | 1          | 0.37        | 5.405        | 1        | 0.37        | 32.432       |
| 19:00 - 20:00        | 1        | 0.37        | 24.324       | 1          | 0.37        | 81.081       | 1        | 0.37        | 105.405      |
| 20:00 - 21:00        | 1        | 0.37        | 0.000        | 1          | 0.37        | 18.919       | 1        | 0.37        | 18.919       |
| 21:00 - 22:00        |          |             |              |            |             |              |          |             |              |
| 22:00 - 23:00        |          |             |              |            |             |              |          |             |              |
| 23:00 - 24:00        |          |             |              |            |             |              |          |             |              |
| Total Rates:         |          |             | 208.107      |            |             | 208.109      |          |             | 416.216      |

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is:  $COUNT/TRP*FACT$ . Trip rates are then rounded to 3 decimal places.

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#### Parameter summary

|   |                            |
|---|----------------------------|
| Trip rate parameter range selected:           | 0.37 to 0.37 (units: hect) |
| Survey date range:                            | 01/01/16 - 24/04/24        |
| Number of weekdays (Monday-Friday):           | 1                          |
| Number of Saturdays:                          | 0                          |
| Number of Sundays:                            | 0                          |
| Surveys automatically removed from selection: | 0                          |
| Surveys manually removed from selection:      | 0                          |

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

Calculation Reference: AUDIT-761701-250725-0743

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 07 - LEISURE

Category : V - LIBRARY

TOTAL VEHICLES

Selected regions and areas:

08 NORTH WEST

EC CHESHIRE EAST

1 days

*This section displays the number of survey days per TRICS® sub-region in the selected set*

## Primary Filtering selection:

*This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.*

Parameter: Gross Floor Area  
 Actual Range: 930 to 930 (units: sqm)  
 Range Selected by User: 375 to 4575 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/16 to 13/11/17

*This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.*

Selected survey days:

Monday 1 days

*This data displays the number of selected surveys by day of the week.*

Selected survey types:

Manual count 1 days  
 Directional ATC Count 0 days

*This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaken using machines.*

Selected Locations:

Town Centre 1

*This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.*

Selected Location Sub Categories:

Built-Up Zone 1

*This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.*

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included 1 days - Selected  
 Servicing vehicles Excluded X days - Selected

## Secondary Filtering selection:

Use Class:

F1(d) 1 days

*This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 has been used for this purpose, which can be found within the Library module of TRICS®.*

Population within 500m Range:

Selected: 0 to 2500 Actual: 0 to 7555

Population within 1 mile:

25,001 to 50,000 1 days

*This data displays the number of selected surveys within stated 1-mile radii of population.*

Secondary Filtering selection (Cont.):

Population within 5 miles:

50,001 to 75,000

1 days

*This data displays the number of selected surveys within stated 5-mile radii of population.*

Car ownership within 5 miles:

0.6 to 1.0

1 days

*This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling within a radius of 5-miles of selected survey sites.*

Travel Plan:

No

1 days

*This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.*

PTAL Rating:

No PTAL Present

1 days

*This data displays the number of selected surveys with PTAL Ratings.*

LIST OF SITES relevant to selection parameters

|   |                         |          |                     |
|---|-------------------------|----------|---------------------|
| 1 | EC-07-V-01              | LIBRARY  | CHESHIRE EAST       |
|   | JORDANGATE              |          |                     |
|   | MACCLESFIELD            |          |                     |
|   | Town Centre             |          |                     |
|   | Built-Up Zone           |          |                     |
|   | Total Gross Floor Area: | 930 sqm  |                     |
|   | Survey date: MONDAY     | 13/11/17 | Survey Type: MANUAL |

*This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.*

TRIP RATE for Land Use 07 - LEISURE/V - LIBRARY

TOTAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

| Time Range           | ARRIVALS |            |              | DEPARTURES |            |              | TOTALS   |          |           |
|----------------------|----------|------------|--------------|------------|------------|--------------|----------|----------|-----------|
|                      | No. Days | Ave. GFA   | Trip Rate    | No. Days   | Ave. GFA   | Trip Rate    | No. Days | Ave. GFA | Trip Rate |
| 00:00 - 01:00        |          |            |              |            |            |              |          |          |           |
| 01:00 - 02:00        |          |            |              |            |            |              |          |          |           |
| 02:00 - 03:00        |          |            |              |            |            |              |          |          |           |
| 03:00 - 04:00        |          |            |              |            |            |              |          |          |           |
| 04:00 - 05:00        |          |            |              |            |            |              |          |          |           |
| 05:00 - 06:00        |          |            |              |            |            |              |          |          |           |
| 06:00 - 07:00        |          |            |              |            |            |              |          |          |           |
| <b>07:00 - 08:00</b> |          |            |              |            |            |              |          |          |           |
| 08:00 - 09:00        |          |            |              |            |            |              |          |          |           |
| 09:00 - 10:00        | 1        | 930        | 3.871        | 1          | 930        | 1.613        | 1        | 930      | 5.484     |
| 10:00 - 11:00        | 1        | 930        | 4.194        | 1          | 930        | 3.226        | 1        | 930      | 7.420     |
| 11:00 - 12:00        | 1        | 930        | 2.151        | 1          | 930        | 3.441        | 1        | 930      | 5.592     |
| 12:00 - 13:00        | 1        | 930        | 2.796        | 1          | 930        | 2.581        | 1        | 930      | 5.377     |
| 13:00 - 14:00        | 1        | 930        | 3.656        | 1          | 930        | 3.656        | 1        | 930      | 7.312     |
| 14:00 - 15:00        | 1        | 930        | 5.376        | 1          | 930        | 4.194        | 1        | 930      | 9.570     |
| 15:00 - 16:00        | 1        | 930        | 2.258        | 1          | 930        | 3.441        | 1        | 930      | 5.699     |
| <b>16:00 - 17:00</b> | <b>1</b> | <b>930</b> | <b>1.613</b> | <b>1</b>   | <b>930</b> | <b>3.226</b> | 1        | 930      | 4.839     |
| 17:00 - 18:00        | 1        | 930        | 2.258        | 1          | 930        | 1.720        | 1        | 930      | 3.978     |
| 18:00 - 19:00        | 1        | 930        | 1.183        | 1          | 930        | 2.258        | 1        | 930      | 3.441     |
| 19:00 - 20:00        |          |            |              |            |            |              |          |          |           |
| 20:00 - 21:00        |          |            |              |            |            |              |          |          |           |
| 21:00 - 22:00        |          |            |              |            |            |              |          |          |           |
| 22:00 - 23:00        |          |            |              |            |            |              |          |          |           |
| 23:00 - 24:00        |          |            |              |            |            |              |          |          |           |
| Total Rates:         |          |            | 29.356       |            |            | 29.356       |          |          | 58.712    |

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is:  $COUNT/TRP*FACT$ . Trip rates are then rounded to 3 decimal places.

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#### Parameter summary

|   |                        |
|---|------------------------|
| Trip rate parameter range selected:           | 930 - 930 (units: sqm) |
| Survey date range:                            | 01/01/16 - 13/11/17    |
| Number of weekdays (Monday-Friday):           | 1                      |
| Number of Saturdays:                          | 0                      |
| Number of Sundays:                            | 0                      |
| Surveys automatically removed from selection: | 0                      |
| Surveys manually removed from selection:      | 0                      |

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

## 15 PICADY MODELLING RESULTS

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|  |
|--|
| Junctions 10   |
| PICADY 10 - Priority Intersection Module   |
| Version: 10.1.1.1905<br>© Copyright TRL Software Limited, 2023   |
| For sales and distribution information, program advice and maintenance, contact TRL Software:<br>+44 (0)1344 379777 software@trl.co.uk trlsoftware.com           |
| 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:** Import of 25036-Junctions 1,2 &3 - REV C.j10  
**Path:** N:\TIA\25036TT Blarney Hotel Site\02. Traffic\Traffic Modelling\Traffic Modelling  
**Report generation date:** 3/11/2026 9:45:54 AM

- »2025 - Base Year, AM
- »2025 - Base Year, PM
- »2027 without Dev, AM
- »2027 without Dev, PM
- »2027 - with Dev, AM
- »2027 - with Dev, PM
- »2032 - Without Dev, AM
- »2032 - without Dev, PM
- »2032 - With Dev, AM
- »2032 - With Dev, PM
- »2042 - Without Dev, AM
- »2042 -Without Dev, PM
- »2042 -With Dev, AM
- »2042 With Dev, PM

**Summary of junction performance**

|                          | AM     |             |           |      |     |                                    | PM     |             |           |      |     |                                    |
|--------------------------|--------|-------------|-----------|------|-----|------------------------------------|--------|-------------|-----------|------|-----|------------------------------------|
|                          | Set ID | Queue (PCU) | Delay (s) | RFC  | LOS | Network Residual Capacity          | Set ID | Queue (PCU) | Delay (s) | RFC  | LOS | Network Residual Capacity          |
| <b>2025 - Base Year</b>  |        |             |           |      |     |                                    |        |             |           |      |     |                                    |
| Junction 1 - Stream B-AC | D1     | 0.4         | 9.80      | 0.31 | A   | -2 %<br>[Junction 3 - Stream B-AC] | D2     | 1.5         | 16.51     | 0.61 | C   | 12 %<br>[Junction 3 - Stream B-AC] |
| Junction 1 - Stream C-AB |        | 7.0         | 24.62     | 0.83 | C   |                                    |        | 0.9         | 5.16      | 0.29 | A   |                                    |
| Junction 2 - Stream B-AC |        | 3.8         | 37.08     | 0.81 | E   |                                    |        | 0.7         | 14.99     | 0.41 | B   |                                    |
| Junction 2 - Stream C-AB |        | 0.8         | 5.55      | 0.28 | A   |                                    |        | 3.3         | 13.64     | 0.66 | B   |                                    |
| Junction 3 - Stream B-AC |        | 4.2         | 41.72     | 0.83 | E   |                                    |        | 1.3         | 19.21     | 0.57 | C   |                                    |
| Junction 3 - Stream C-AB |        | 1.4         | 7.44      | 0.41 | A   |                                    |        | 3.4         | 12.54     | 0.66 | B   |                                    |
| <b>2027 without Dev</b>  |        |             |           |      |     |                                    |        |             |           |      |     |                                    |
| Junction 1 - Stream B-AC | D3     | 0.5         | 10.18     | 0.32 | B   | -6 %<br>[Junction 3 - Stream B-AC] | D6     | 1.7         | 18.08     | 0.64 | C   | 8 %<br>[Junction 3 - Stream B-AC]  |
| Junction 1 - Stream C-AB |        | 10.0        | 35.15     | 0.88 | E   |                                    |        | 1.0         | 5.23      | 0.31 | A   |                                    |
| Junction 2 - Stream B-AC |        | 5.1         | 48.40     | 0.86 | E   |                                    |        | 0.8         | 16.51     | 0.45 | C   |                                    |
| Junction 2 - Stream C-AB |        | 0.9         | 5.63      | 0.30 | A   |                                    |        | 4.0         | 15.67     | 0.70 | C   |                                    |
| Junction 3 - Stream B-AC |        | 6.0         | 57.64     | 0.88 | F   |                                    |        | 1.5         | 22.05     | 0.61 | C   |                                    |
| Junction 3 - Stream C-AB |        | 1.5         | 7.72      | 0.44 | A   |                                    |        | 4.2         | 14.40     | 0.70 | B   |                                    |
| <b>2027 - with Dev</b>   |        |             |           |      |     |                                    |        |             |           |      |     |                                    |
| Junction 1 - Stream B-AC | D7     | 1.1         | 17.74     | 0.52 | C   | -8 %<br>[Junction 2 - Stream B-AC] | D8     | 3.0         | 28.75     | 0.76 | D   | 4 %<br>[Junction 1 - Stream B-AC]  |
| Junction 1 - Stream C-AB |        | 11.7        | 41.57     | 0.90 | E   |                                    |        | 1.3         | 5.76      | 0.37 | A   |                                    |
| Junction 2 - Stream B-AC |        | 7.5         | 68.95     | 0.91 | F   |                                    |        | 1.0         | 19.97     | 0.51 | C   |                                    |
| Junction 2 - Stream C-AB |        | 1.1         | 5.95      | 0.34 | A   |                                    |        | 6.4         | 22.49     | 0.80 | C   |                                    |
| Junction 3 - Stream B-AC |        | 7.1         | 68.49     | 0.91 | F   |                                    |        | 1.7         | 24.48     | 0.64 | C   |                                    |

|                           |     |      |        |      |   |                                     |      |        |       |      |   |                                    |
|---------------------------|-----|------|--------|------|---|-------------------------------------|------|--------|-------|------|---|------------------------------------|
| Junction 3 - Stream C-AB  |     | 1.6  | 7.86   | 0.45 | A |                                     |      | 4.7    | 15.29 | 0.72 | C |                                    |
| <b>2032 - Without Dev</b> |     |      |        |      |   |                                     |      |        |       |      |   |                                    |
| Junction 1 - Stream B-AC  | D9  | 0.6  | 11.62  | 0.37 | B | -12 %<br>[Junction 3 - Stream B-AC] |      |        |       |      |   |                                    |
| Junction 1 - Stream C-AB  |     | 24.2 | 87.31  | 0.99 | F |                                     |      |        |       |      |   |                                    |
| Junction 2 - Stream B-AC  |     | 11.4 | 97.77  | 0.97 | F |                                     |      |        |       |      |   |                                    |
| Junction 2 - Stream C-AB  |     | 1.1  | 5.83   | 0.34 | A |                                     |      |        |       |      |   |                                    |
| Junction 3 - Stream B-AC  |     | 16.0 | 133.78 | 1.01 | F |                                     |      |        |       |      |   |                                    |
| Junction 3 - Stream C-AB  |     | 2.1  | 8.58   | 0.51 | A |                                     |      |        |       |      |   |                                    |
| <b>2032 - without Dev</b> |     |      |        |      |   |                                     |      |        |       |      |   |                                    |
| Junction 1 - Stream B-AC  | D10 |      |        |      |   | 1 %<br>[Junction 3 - Stream B-AC]   | 2.4  | 23.04  | 0.71  | C    |   |                                    |
| Junction 1 - Stream C-AB  |     |      |        |      |   |                                     | 1.2  | 5.43   | 0.36  | A    |   |                                    |
| Junction 2 - Stream B-AC  |     |      |        |      |   |                                     | 1.1  | 21.34  | 0.53  | C    |   |                                    |
| Junction 2 - Stream C-AB  |     |      |        |      |   |                                     | 7.2  | 25.39  | 0.82  | D    |   |                                    |
| Junction 3 - Stream B-AC  |     |      |        |      |   |                                     | 2.3  | 32.29  | 0.71  | D    |   |                                    |
| Junction 3 - Stream C-AB  |     |      |        |      |   |                                     | 7.3  | 22.71  | 0.81  | C    |   |                                    |
| <b>2032 - With Dev</b>    |     |      |        |      |   |                                     |      |        |       |      |   |                                    |
| Junction 1 - Stream B-AC  | D11 | 1.4  | 22.80  | 0.60 | C | -14 %<br>[Junction 2 - Stream B-AC] | D12  | 4.6    | 41.93 | 0.84 | E | -3 %<br>[Junction 1 - Stream B-AC] |
| Junction 1 - Stream C-AB  |     | 27.9 | 100.66 | 1.00 | F |                                     |      | 1.6    | 6.07  | 0.42 | A |                                    |
| Junction 2 - Stream B-AC  |     | 18.8 | 148.92 | 1.03 | F |                                     |      | 1.5    | 28.59 | 0.62 | D |                                    |
| Junction 2 - Stream C-AB  |     | 1.3  | 6.22   | 0.38 | A |                                     |      | 14.4   | 51.60 | 0.92 | F |                                    |
| Junction 3 - Stream B-AC  |     | 23.2 | 183.26 | 1.07 | F |                                     |      | 2.8    | 38.14 | 0.75 | E |                                    |
| Junction 3 - Stream C-AB  |     | 2.6  | 9.76   | 0.56 | A |                                     |      | 8.7    | 26.41 | 0.84 | D |                                    |
| <b>2042 - Without Dev</b> |     |      |        |      |   |                                     |      |        |       |      |   |                                    |
| Junction 1 - Stream B-AC  | D13 | 0.8  | 14.70  | 0.45 | B | -20 %<br>[Junction 3 - Stream B-AC] |      |        |       |      |   |                                    |
| Junction 1 - Stream C-AB  |     | 62.4 | 206.61 | 1.11 | F |                                     |      |        |       |      |   |                                    |
| Junction 2 - Stream B-AC  |     | 38.6 | 273.59 | 1.15 | F |                                     |      |        |       |      |   |                                    |
| Junction 2 - Stream C-AB  |     | 1.6  | 6.30   | 0.41 | A |                                     |      |        |       |      |   |                                    |
| Junction 3 - Stream B-AC  |     | 51.4 | 373.88 | 1.24 | F |                                     |      |        |       |      |   |                                    |
| Junction 3 - Stream C-AB  |     | 3.2  | 10.66  | 0.61 | B |                                     |      |        |       |      |   |                                    |
| <b>2042 -Without Dev</b>  |     |      |        |      |   |                                     |      |        |       |      |   |                                    |
| Junction 1 - Stream B-AC  | D14 |      |        |      |   | -8 %<br>[Junction 3 - Stream B-AC]  | 4.0  | 36.26  | 0.81  | E    |   |                                    |
| Junction 1 - Stream C-AB  |     |      |        |      |   |                                     | 1.7  | 5.91   | 0.43  | A    |   |                                    |
| Junction 2 - Stream B-AC  |     |      |        |      |   |                                     | 2.2  | 41.58  | 0.71  | E    |   |                                    |
| Junction 2 - Stream C-AB  |     |      |        |      |   |                                     | 23.7 | 89.50  | 0.98  | F    |   |                                    |
| Junction 3 - Stream B-AC  |     |      |        |      |   |                                     | 7.0  | 88.82  | 0.93  | F    |   |                                    |
| Junction 3 - Stream C-AB  |     |      |        |      |   |                                     | 24.2 | 81.90  | 0.98  | F    |   |                                    |
| <b>2042 -With Dev</b>     |     |      |        |      |   |                                     |      |        |       |      |   |                                    |
| Junction 1 - Stream B-AC  | D15 | 3.0  | 44.52  | 0.78 | E | -21 %<br>[Junction 2 - Stream B-AC] |      |        |       |      |   |                                    |
| Junction 1 - Stream C-AB  |     | 68.2 | 225.47 | 1.12 | F |                                     |      |        |       |      |   |                                    |
| Junction 2 - Stream B-AC  |     | 52.5 | 369.52 | 1.23 | F |                                     |      |        |       |      |   |                                    |
| Junction 2 - Stream C-AB  |     | 1.9  | 6.87   | 0.46 | A |                                     |      |        |       |      |   |                                    |
| Junction 3 - Stream B-AC  |     | 58.1 | 427.29 | 1.29 | F |                                     |      |        |       |      |   |                                    |
| Junction 3 - Stream C-AB  |     | 3.5  | 11.11  | 0.63 | B |                                     |      |        |       |      |   |                                    |
| <b>2042 With Dev</b>      |     |      |        |      |   |                                     |      |        |       |      |   |                                    |
| Junction 1 - Stream B-AC  | D16 |      |        |      |   | -11 %<br>[Junction 1 - Stream B-AC] | 11.0 | 91.12  | 0.96  | F    |   |                                    |
| Junction 1 - Stream C-AB  |     |      |        |      |   |                                     | 2.3  | 6.82   | 0.50  | A    |   |                                    |
| Junction 2 - Stream B-AC  |     |      |        |      |   |                                     | 5.0  | 86.17  | 0.89  | F    |   |                                    |
| Junction 2 - Stream C-AB  |     |      |        |      |   |                                     | 42.5 | 154.39 | 1.06  | F    |   |                                    |
| Junction 3 - Stream B-AC  |     |      |        |      |   |                                     | 10.6 | 125.29 | 1.00  | F    |   |                                    |
| Junction 3 - Stream C-AB  |     |      |        |      |   |                                     | 29.3 | 98.20  | 1.00  | F    |   |                                    |

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

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

## File summary

### File Description

|             |            |
|-------------|------------|
| Title       |            |
| Location    |            |
| Site number |            |
| Date        | 7/29/2025  |
| Version     |            |
| Status      | (new file) |
| Identifier  |            |
| Client      |            |
| Jobnumber   |            |
| Enumerator  | MHL\szare  |
| 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 | Show lane queues in feet / metres | Show all PICADY stream intercepts | Calculate residual capacity | Residual capacity criteria type | RFC Threshold | Average Delay threshold (s) | Queue threshold (PCU) | Use simulation for HCM roundabouts | Use iterations for HCM roundabouts |
|--------------------|-----------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------|---------------------------------|---------------|-----------------------------|-----------------------|------------------------------------|------------------------------------|
| 5.75               |                             |                                   |                                   |                                   | ✓                           | Delay                           | 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  | 2025 - Base Year   | AM               | ONE HOUR             | 07:00              | 08:30               | 15                        | ✓                 |
| D2  | 2025 - Base Year   | PM               | ONE HOUR             | 16:00              | 17:30               | 15                        | ✓                 |
| D3  | 2027 without Dev   | AM               | ONE HOUR             | 07:00              | 08:30               | 15                        | ✓                 |
| D6  | 2027 without Dev   | PM               | ONE HOUR             | 16:00              | 17:30               | 15                        | ✓                 |
| D7  | 2027 - with Dev    | AM               | ONE HOUR             | 07:00              | 08:30               | 15                        | ✓                 |
| D8  | 2027 - with Dev    | PM               | ONE HOUR             | 16:00              | 17:30               | 15                        | ✓                 |
| D9  | 2032 - Without Dev | AM               | ONE HOUR             | 07:00              | 08:30               | 15                        | ✓                 |
| D10 | 2032 - without Dev | PM               | ONE HOUR             | 16:00              | 17:30               | 15                        | ✓                 |
| D11 | 2032 - With Dev    | AM               | ONE HOUR             | 07:00              | 08:30               | 15                        | ✓                 |
| D12 | 2032 - With Dev    | PM               | ONE HOUR             | 16:00              | 17:30               | 15                        | ✓                 |
| D13 | 2042 - Without Dev | AM               | ONE HOUR             | 07:00              | 08:30               | 15                        | ✓                 |
| D14 | 2042 -Without Dev  | PM               | ONE HOUR             | 16:00              | 17:30               | 15                        | ✓                 |
| D15 | 2042 -With Dev     | AM               | ONE HOUR             | 07:00              | 08:30               | 15                        | ✓                 |
| D16 | 2042 With Dev      | PM               | ONE HOUR             | 16:00              | 17:30               | 15                        | ✓                 |

## Analysis Set Details

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

# 2025 - Base Year, AM

## Data Errors and Warnings

| Severity | Area        | Item       | Description  |
|----------|-------------|------------|--|
| Warning  | Vehicle Mix | Junction 1 | 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. |
| Warning  | Vehicle Mix | Junction 2 | 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. |
| Warning  | Vehicle Mix | Junction 3 | 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 | Arm A Direction | Arm B Direction | Arm C Direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|----------|----------|---------------|-----------------|-----------------|-----------------|-----------------------|--------------------|--------------|
| 1        | untitled | T-Junction    | Two-way         | Two-way         | Two-way         |                       | 10.76              | B            |
| 2        | untitled | T-Junction    | Two-way         | Two-way         | Two-way         |                       | 9.46               | A            |
| 3        | untitled | T-Junction    | Two-way         | Two-way         | Two-way         |                       | 10.10              | B            |

### Junction Network

| Driving side | Lighting       | Network residual capacity (%) | First arm reaching threshold | Network delay (s) | Network LOS |
|--------------|----------------|-------------------------------|------------------------------|-------------------|-------------|
| Left         | Normal/unknown | -2                            | Junction 3 - Stream B-AC     | 10.10             | B           |

## Arms

### Arms

| Junction | Arm | Name     | Description | Arm type |
|----------|-----|----------|-------------|----------|
| 1        | A   | untitled |             | Major    |
|          | B   | untitled |             | Minor    |
|          | C   | untitled |             | Major    |
| 2        | A   | untitled |             | Major    |
|          | B   | untitled |             | Minor    |
|          | C   | untitled |             | Major    |
| 3        | A   | untitled |             | Major    |
|          | B   | untitled |             | Minor    |
|          | C   | untitled |             | Major    |

### Major Arm Geometry

| Junction | Arm | Width of carriageway (m) | Has kerbed central reserve | Has right-turn storage | Visibility for right turn (m) | Blocks? | Blocking queue (PCU) |
|----------|-----|--------------------------|----------------------------|------------------------|-------------------------------|---------|----------------------|
| 1        | C   | 7.00                     |                            |                        | 80.0                          | ✓       | 0.00                 |
| 2        | C   | 6.00                     |                            |                        | 80.0                          | ✓       | 0.00                 |
| 3        | C   | 7.00                     |                            |                        | 50.0                          | ✓       | 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

| Junction | Arm | Minor arm type | Lane width (m) | Visibility to left (m) | Visibility to right (m) |
|----------|-----|----------------|----------------|------------------------|-------------------------|
| 1        | B   | One lane       | 5.00           | 50                     | 25                      |
| 2        | B   | One lane       | 5.00           | 110                    | 100                     |
| 3        | B   | One lane       | 5.00           | 130                    | 150                     |

## 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    | 607                | 0.106         | 0.267         | 0.168         | 0.382         |
|          | B-C    | 768                | 0.113         | 0.285         | -             | -             |
|          | C-B    | 620                | 0.230         | 0.230         | -             | -             |

### Priority Intersection Slopes and Intercepts

| Junction | Stream | Intercept (PCU/hr) | Slope for A-B | Slope for A-C | Slope for C-A | Slope for C-B |
|----------|--------|--------------------|---------------|---------------|---------------|---------------|
| 2        | B-A    | 677                | 0.123         | 0.312         | 0.196         | 0.445         |
|          | B-C    | 824                | 0.126         | 0.319         | -             | -             |
|          | C-B    | 620                | 0.240         | 0.240         | -             | -             |

### 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 |
|----------|--------|--------------------|---------------|---------------|---------------|---------------|
| 3        | B-A    | 717                | 0.125         | 0.316         | 0.199         | 0.451         |
|          | B-C    | 862                | 0.126         | 0.320         | -             | -             |
|          | C-B    | 603                | 0.223         | 0.223         | -             | -             |

The slopes and intercepts shown above include custom intercept adjustments only.

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 | 2025 - Base Year | AM               | ONE HOUR             | 07:00              | 08:30               | 15                        | ✓                 |

### Demand overview (Traffic)

| Junction | Arm | Linked arm | Profile type | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|----------|-----|------------|--------------|--------------|-------------------------|--------------------|
| 1        | A   |            | ONE HOUR     | ✓            | 554                     | 100.000            |
|          | B   |            | ONE HOUR     | ✓            | 149                     | 100.000            |
|          | C   |            | ONE HOUR     | ✓            | 742                     | 100.000            |
| 2        | A   |            | ONE HOUR     | ✓            | 551                     | 100.000            |
|          | B   |            | ONE HOUR     | ✓            | 358                     | 100.000            |
|          | C   |            | ONE HOUR     | ✓            | 610                     | 100.000            |
| 3        | A   |            | ONE HOUR     | ✓            | 706                     | 100.000            |
|          | B   |            | ONE HOUR     | ✓            | 352                     | 100.000            |
|          | C   |            | ONE HOUR     | ✓            | 593                     | 100.000            |

## Origin-Destination Data

### Demand (PCU/hr)

Junction 1

| From | To  |     |     |
|------|-----|-----|-----|
|      | A   | B   | C   |
| A    | 0   | 41  | 513 |
| B    | 14  | 0   | 135 |
| C    | 495 | 247 | 0   |

**Demand (PCU/hr)**

**Junction 2**

|      |   | To  |    |     |
|------|---|-----|----|-----|
|      |   | A   | B  | C   |
| From | A | 0   | 72 | 479 |
|      | B | 136 | 0  | 222 |
|      | C | 529 | 81 | 0   |
|      |   |     |    |     |

**Demand (PCU/hr)**

**Junction 3**

|      |   | To  |     |     |
|------|---|-----|-----|-----|
|      |   | A   | B   | C   |
| From | A | 0   | 86  | 620 |
|      | B | 131 | 0   | 221 |
|      | C | 480 | 113 | 0   |
|      |   |     |     |     |

## Vehicle Mix

| HV data entry mode | PCU Factor for a HV (PCU) |
|--------------------|---------------------------|
| HV Percentages     | 2.00                      |

**Heavy Vehicle %**

**Junction 1**

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

**Heavy Vehicle %**

**Junction 2**

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

**Heavy Vehicle %**

**Junction 3**

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

## Results

### Results Summary for whole modelled period

| Junction | Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) |
|----------|--------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| 1        | B-AC   | 0.31    | 9.80          | 0.4             | A       | 137                     | 205                           |
|          | C-AB   | 0.83    | 24.62         | 7.0             | C       | 525                     | 788                           |
|          | C-A    |         |               |                 |         | 156                     | 234                           |
|          | A-B    |         |               |                 |         | 38                      | 56                            |
|          | A-C    |         |               |                 |         | 471                     | 706                           |
| 2        | B-AC   | 0.81    | 37.08         | 3.8             | E       | 329                     | 493                           |
|          | C-AB   | 0.28    | 5.55          | 0.8             | A       | 181                     | 271                           |
|          | C-A    |         |               |                 |         | 379                     | 568                           |
|          | A-B    |         |               |                 |         | 66                      | 99                            |
|          | A-C    |         |               |                 |         | 440                     | 659                           |
| 3        | B-AC   | 0.83    | 41.72         | 4.2             | E       | 323                     | 485                           |
|          | C-AB   | 0.41    | 7.44          | 1.4             | A       | 246                     | 369                           |
|          | C-A    |         |               |                 |         | 298                     | 447                           |
|          | A-B    |         |               |                 |         | 79                      | 118                           |
|          | A-C    |         |               |                 |         | 569                     | 853                           |

### Main Results for each time segment

#### 07:00 - 07:15

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 112                   | 28                      | 610               | 0.184 | 111                 | 0.0               | 0.2             | 7.211     | A                             |
|          | C-AB   | 353                   | 88                      | 789               | 0.447 | 348                 | 0.0               | 1.2             | 8.142     | A                             |
|          | C-A    | 206                   | 52                      |                   |       | 206                 |                   |                 |           |                               |
|          | A-B    | 31                    | 8                       |                   |       | 31                  |                   |                 |           |                               |
|          | A-C    | 386                   | 97                      |                   |       | 386                 |                   |                 |           |                               |
| 2        | B-AC   | 270                   | 67                      | 581               | 0.464 | 266                 | 0.0               | 0.8             | 11.325    | B                             |
|          | C-AB   | 121                   | 30                      | 804               | 0.150 | 120                 | 0.0               | 0.3             | 5.261     | A                             |
|          | C-A    | 338                   | 85                      |                   |       | 338                 |                   |                 |           |                               |
|          | A-B    | 54                    | 14                      |                   |       | 54                  |                   |                 |           |                               |
|          | A-C    | 361                   | 90                      |                   |       | 361                 |                   |                 |           |                               |
| 3        | B-AC   | 265                   | 66                      | 583               | 0.455 | 262                 | 0.0               | 0.8             | 11.099    | B                             |
|          | C-AB   | 165                   | 41                      | 748               | 0.220 | 163                 | 0.0               | 0.5             | 6.144     | A                             |
|          | C-A    | 282                   | 70                      |                   |       | 282                 |                   |                 |           |                               |
|          | A-B    | 65                    | 16                      |                   |       | 65                  |                   |                 |           |                               |
|          | A-C    | 467                   | 117                     |                   |       | 467                 |                   |                 |           |                               |

07:15 - 07:30

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 134                   | 33                      | 579               | 0.231 | 134                 | 0.2               | 0.3             | 8.079     | A                             |
|          | C-AB   | 485                   | 121                     | 827               | 0.586 | 481                 | 1.2               | 2.1             | 10.460    | B                             |
|          | C-A    | 182                   | 46                      |                   |       | 182                 |                   |                 |           |                               |
|          | A-B    | 37                    | 9                       |                   |       | 37                  |                   |                 |           |                               |
|          | A-C    | 461                   | 115                     |                   |       | 461                 |                   |                 |           |                               |
| 2        | B-AC   | 322                   | 80                      | 543               | 0.593 | 320                 | 0.8               | 1.4             | 15.979    | C                             |
|          | C-AB   | 168                   | 42                      | 845               | 0.198 | 167                 | 0.3               | 0.5             | 5.322     | A                             |
|          | C-A    | 381                   | 95                      |                   |       | 381                 |                   |                 |           |                               |
|          | A-B    | 65                    | 16                      |                   |       | 65                  |                   |                 |           |                               |
|          | A-C    | 431                   | 108                     |                   |       | 431                 |                   |                 |           |                               |
| 3        | B-AC   | 316                   | 79                      | 537               | 0.590 | 314                 | 0.8               | 1.4             | 16.014    | C                             |
|          | C-AB   | 228                   | 57                      | 783               | 0.291 | 227                 | 0.5               | 0.7             | 6.496     | A                             |
|          | C-A    | 305                   | 76                      |                   |       | 305                 |                   |                 |           |                               |
|          | A-B    | 77                    | 19                      |                   |       | 77                  |                   |                 |           |                               |
|          | A-C    | 557                   | 139                     |                   |       | 557                 |                   |                 |           |                               |

07:30 - 07:45

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 164                   | 41                      | 533               | 0.308 | 163                 | 0.3               | 0.4             | 9.723     | A                             |
|          | C-AB   | 723                   | 181                     | 883               | 0.818 | 706                 | 2.1               | 6.2             | 20.512    | C                             |
|          | C-A    | 94                    | 24                      |                   |       | 94                  |                   |                 |           |                               |
|          | A-B    | 45                    | 11                      |                   |       | 45                  |                   |                 |           |                               |
|          | A-C    | 565                   | 141                     |                   |       | 565                 |                   |                 |           |                               |
| 2        | B-AC   | 394                   | 99                      | 488               | 0.808 | 386                 | 1.4               | 3.6             | 32.756    | D                             |
|          | C-AB   | 253                   | 63                      | 904               | 0.279 | 251                 | 0.5               | 0.8             | 5.531     | A                             |
|          | C-A    | 419                   | 105                     |                   |       | 419                 |                   |                 |           |                               |
|          | A-B    | 79                    | 20                      |                   |       | 79                  |                   |                 |           |                               |
|          | A-C    | 527                   | 132                     |                   |       | 527                 |                   |                 |           |                               |
| 3        | B-AC   | 388                   | 97                      | 470               | 0.825 | 378                 | 1.4               | 3.9             | 35.833    | E                             |
|          | C-AB   | 344                   | 86                      | 833               | 0.413 | 341                 | 0.7               | 1.3             | 7.366     | A                             |
|          | C-A    | 309                   | 77                      |                   |       | 309                 |                   |                 |           |                               |
|          | A-B    | 95                    | 24                      |                   |       | 95                  |                   |                 |           |                               |
|          | A-C    | 683                   | 171                     |                   |       | 683                 |                   |                 |           |                               |

07:45 - 08:00

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 164                   | 41                      | 532               | 0.309 | 164                 | 0.4               | 0.4             | 9.796     | A                             |
|          | C-AB   | 736                   | 184                     | 891               | 0.826 | 733                 | 6.2               | 7.0             | 24.621    | C                             |
|          | C-A    | 81                    | 20                      |                   |       | 81                  |                   |                 |           |                               |
|          | A-B    | 45                    | 11                      |                   |       | 45                  |                   |                 |           |                               |
|          | A-C    | 565                   | 141                     |                   |       | 565                 |                   |                 |           |                               |
| 2        | B-AC   | 394                   | 99                      | 488               | 0.809 | 393                 | 3.6               | 3.8             | 37.079    | E                             |
|          | C-AB   | 253                   | 63                      | 905               | 0.280 | 253                 | 0.8               | 0.8             | 5.554     | A                             |
|          | C-A    | 418                   | 105                     |                   |       | 418                 |                   |                 |           |                               |
|          | A-B    | 79                    | 20                      |                   |       | 79                  |                   |                 |           |                               |
|          | A-C    | 527                   | 132                     |                   |       | 527                 |                   |                 |           |                               |
| 3        | B-AC   | 388                   | 97                      | 469               | 0.826 | 386                 | 3.9               | 4.2             | 41.718    | E                             |
|          | C-AB   | 345                   | 86                      | 834               | 0.414 | 345                 | 1.3               | 1.4             | 7.438     | A                             |
|          | C-A    | 308                   | 77                      |                   |       | 308                 |                   |                 |           |                               |
|          | A-B    | 95                    | 24                      |                   |       | 95                  |                   |                 |           |                               |
|          | A-C    | 683                   | 171                     |                   |       | 683                 |                   |                 |           |                               |

08:00 - 08:15

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 134                   | 33                      | 577               | 0.232 | 134                 | 0.4               | 0.3             | 8.142     | A                             |
|          | C-AB   | 497                   | 124                     | 838               | 0.593 | 515                 | 7.0               | 2.4             | 12.001    | B                             |
|          | C-A    | 170                   | 42                      |                   |       | 170                 |                   |                 |           |                               |
|          | A-B    | 37                    | 9                       |                   |       | 37                  |                   |                 |           |                               |
|          | A-C    | 461                   | 115                     |                   |       | 461                 |                   |                 |           |                               |
| 2        | B-AC   | 322                   | 80                      | 542               | 0.593 | 331                 | 3.8               | 1.5             | 17.720    | C                             |
|          | C-AB   | 168                   | 42                      | 846               | 0.199 | 170                 | 0.8               | 0.5             | 5.347     | A                             |
|          | C-A    | 380                   | 95                      |                   |       | 380                 |                   |                 |           |                               |
|          | A-B    | 65                    | 16                      |                   |       | 65                  |                   |                 |           |                               |
|          | A-C    | 431                   | 108                     |                   |       | 431                 |                   |                 |           |                               |
| 3        | B-AC   | 316                   | 79                      | 536               | 0.590 | 327                 | 4.2               | 1.5             | 18.058    | C                             |
|          | C-AB   | 229                   | 57                      | 785               | 0.292 | 232                 | 1.4               | 0.8             | 6.573     | A                             |
|          | C-A    | 304                   | 76                      |                   |       | 304                 |                   |                 |           |                               |
|          | A-B    | 77                    | 19                      |                   |       | 77                  |                   |                 |           |                               |
|          | A-C    | 557                   | 139                     |                   |       | 557                 |                   |                 |           |                               |

08:15 - 08:30

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 112                   | 28                      | 609               | 0.184 | 112                 | 0.3               | 0.2             | 7.255     | A                             |
|          | C-AB   | 357                   | 89                      | 792               | 0.451 | 362                 | 2.4               | 1.3             | 8.511     | A                             |
|          | C-A    | 202                   | 50                      |                   |       | 202                 |                   |                 |           |                               |
|          | A-B    | 31                    | 8                       |                   |       | 31                  |                   |                 |           |                               |
|          | A-C    | 386                   | 97                      |                   |       | 386                 |                   |                 |           |                               |
| 2        | B-AC   | 270                   | 67                      | 580               | 0.464 | 272                 | 1.5               | 0.9             | 11.771    | B                             |
|          | C-AB   | 122                   | 30                      | 804               | 0.151 | 122                 | 0.5               | 0.3             | 5.292     | A                             |
|          | C-A    | 337                   | 84                      |                   |       | 337                 |                   |                 |           |                               |
|          | A-B    | 54                    | 14                      |                   |       | 54                  |                   |                 |           |                               |
|          | A-C    | 361                   | 90                      |                   |       | 361                 |                   |                 |           |                               |
| 3        | B-AC   | 265                   | 66                      | 582               | 0.455 | 268                 | 1.5               | 0.9             | 11.529    | B                             |
|          | C-AB   | 166                   | 41                      | 750               | 0.221 | 167                 | 0.8               | 0.5             | 6.210     | A                             |
|          | C-A    | 281                   | 70                      |                   |       | 281                 |                   |                 |           |                               |
|          | A-B    | 65                    | 16                      |                   |       | 65                  |                   |                 |           |                               |
|          | A-C    | 467                   | 117                     |                   |       | 467                 |                   |                 |           |                               |

# 2025 - Base Year, PM

## Data Errors and Warnings

| Severity | Area        | Item       | Description  |
|----------|-------------|------------|--|
| Warning  | Vehicle Mix | Junction 1 | 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. |
| Warning  | Vehicle Mix | Junction 2 | 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. |
| Warning  | Vehicle Mix | Junction 3 | 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 | Arm A Direction | Arm B Direction | Arm C Direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|----------|----------|---------------|-----------------|-----------------|-----------------|-----------------------|--------------------|--------------|
| 1        | untitled | T-Junction    | Two-way         | Two-way         | Two-way         |                       | 4.29               | A            |
| 2        | untitled | T-Junction    | Two-way         | Two-way         | Two-way         |                       | 5.08               | A            |
| 3        | untitled | T-Junction    | Two-way         | Two-way         | Two-way         |                       | 6.11               | A            |

### Junction Network

| Driving side | Lighting       | Network residual capacity (%) | First arm reaching threshold | Network delay (s) | Network LOS |
|--------------|----------------|-------------------------------|------------------------------|-------------------|-------------|
| Left         | Normal/unknown | 12                            | Junction 3 - Stream B-AC     | 5.19              | A           |

## 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 | 2025 - Base Year | PM               | ONE HOUR             | 16:00              | 17:30               | 15                        | ✓                 |

### Demand overview (Traffic)

| Junction | Arm | Linked arm | Profile type | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|----------|-----|------------|--------------|--------------|-------------------------|--------------------|
| 1        | A   |            | ONE HOUR     | ✓            | 458                     | 100.000            |
|          | B   |            | ONE HOUR     | ✓            | 311                     | 100.000            |
|          | C   |            | ONE HOUR     | ✓            | 694                     | 100.000            |
| 2        | A   |            | ONE HOUR     | ✓            | 771                     | 100.000            |
|          | B   |            | ONE HOUR     | ✓            | 153                     | 100.000            |
|          | C   |            | ONE HOUR     | ✓            | 628                     | 100.000            |
| 3        | A   |            | ONE HOUR     | ✓            | 693                     | 100.000            |
|          | B   |            | ONE HOUR     | ✓            | 224                     | 100.000            |
|          | C   |            | ONE HOUR     | ✓            | 690                     | 100.000            |

## Origin-Destination Data

### Demand (PCU/hr)

Junction 1

|      |   | To  |    |     |
|------|---|-----|----|-----|
|      |   | A   | B  | C   |
| From | A | 0   | 19 | 439 |
|      | B | 41  | 0  | 270 |
|      | C | 611 | 83 | 0   |

**Demand (PCU/hr)**

**Junction 2**

|      |   | To  |     |     |
|------|---|-----|-----|-----|
|      |   | A   | B   | C   |
| From | A | 0   | 177 | 594 |
|      | B | 54  | 0   | 99  |
|      | C | 449 | 179 | 0   |

**Demand (PCU/hr)**

**Junction 3**

|      |   | To  |     |     |
|------|---|-----|-----|-----|
|      |   | A   | B   | C   |
| From | A | 0   | 189 | 504 |
|      | B | 105 | 0   | 119 |
|      | C | 515 | 175 | 0   |

## Vehicle Mix

| HV data entry mode | PCU Factor for a HV (PCU) |
|--------------------|---------------------------|
| HV Percentages     | 2.00                      |

**Heavy Vehicle %**

**Junction 1**

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

**Heavy Vehicle %**

**Junction 2**

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

**Heavy Vehicle %**

**Junction 3**

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

## Results

### Results Summary for whole modelled period

| Junction | Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) |
|----------|--------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| 1        | B-AC   | 0.61    | 16.51         | 1.5             | C       | 285                     | 428                           |
|          | C-AB   | 0.29    | 5.16          | 0.9             | A       | 204                     | 306                           |
|          | C-A    |         |               |                 |         | 433                     | 650                           |
|          | A-B    |         |               |                 |         | 17                      | 26                            |
|          | A-C    |         |               |                 |         | 403                     | 604                           |
| 2        | B-AC   | 0.41    | 14.99         | 0.7             | B       | 140                     | 211                           |
|          | C-AB   | 0.66    | 13.64         | 3.3             | B       | 377                     | 565                           |
|          | C-A    |         |               |                 |         | 200                     | 300                           |
|          | A-B    |         |               |                 |         | 162                     | 244                           |
|          | A-C    |         |               |                 |         | 545                     | 818                           |
| 3        | B-AC   | 0.57    | 19.21         | 1.3             | C       | 206                     | 308                           |
|          | C-AB   | 0.66    | 12.54         | 3.4             | B       | 404                     | 605                           |
|          | C-A    |         |               |                 |         | 230                     | 344                           |
|          | A-B    |         |               |                 |         | 173                     | 260                           |
|          | A-C    |         |               |                 |         | 462                     | 694                           |

### Main Results for each time segment

#### 16:00 - 16:15

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 234                   | 59                      | 622               | 0.377 | 232                 | 0.0               | 0.6             | 9.177     | A                             |
|          | C-AB   | 134                   | 33                      | 863               | 0.155 | 132                 | 0.0               | 0.4             | 4.928     | A                             |
|          | C-A    | 389                   | 97                      |                   |       | 389                 |                   |                 |           |                               |
|          | A-B    | 14                    | 4                       |                   |       | 14                  |                   |                 |           |                               |
|          | A-C    | 331                   | 83                      |                   |       | 331                 |                   |                 |           |                               |
| 2        | B-AC   | 115                   | 29                      | 536               | 0.215 | 114                 | 0.0               | 0.3             | 8.520     | A                             |
|          | C-AB   | 251                   | 63                      | 729               | 0.345 | 248                 | 0.0               | 0.8             | 7.482     | A                             |
|          | C-A    | 221                   | 55                      |                   |       | 221                 |                   |                 |           |                               |
|          | A-B    | 133                   | 33                      |                   |       | 133                 |                   |                 |           |                               |
|          | A-C    | 447                   | 112                     |                   |       | 447                 |                   |                 |           |                               |
| 3        | B-AC   | 169                   | 42                      | 558               | 0.302 | 167                 | 0.0               | 0.4             | 9.177     | A                             |
|          | C-AB   | 266                   | 66                      | 769               | 0.345 | 262                 | 0.0               | 0.9             | 7.090     | A                             |
|          | C-A    | 254                   | 63                      |                   |       | 254                 |                   |                 |           |                               |
|          | A-B    | 142                   | 36                      |                   |       | 142                 |                   |                 |           |                               |
|          | A-C    | 379                   | 95                      |                   |       | 379                 |                   |                 |           |                               |

16:15 - 16:30

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 280                   | 70                      | 596               | 0.469 | 279                 | 0.6               | 0.9             | 11.281    | B                             |
|          | C-AB   | 188                   | 47                      | 915               | 0.205 | 187                 | 0.4               | 0.5             | 4.957     | A                             |
|          | C-A    | 436                   | 109                     |                   |       | 436                 |                   |                 |           |                               |
|          | A-B    | 17                    | 4                       |                   |       | 17                  |                   |                 |           |                               |
|          | A-C    | 395                   | 99                      |                   |       | 395                 |                   |                 |           |                               |
| 2        | B-AC   | 138                   | 34                      | 485               | 0.284 | 137                 | 0.3               | 0.4             | 10.330    | B                             |
|          | C-AB   | 348                   | 87                      | 757               | 0.459 | 345                 | 0.8               | 1.4             | 8.794     | A                             |
|          | C-A    | 217                   | 54                      |                   |       | 217                 |                   |                 |           |                               |
|          | A-B    | 159                   | 40                      |                   |       | 159                 |                   |                 |           |                               |
|          | A-C    | 534                   | 133                     |                   |       | 534                 |                   |                 |           |                               |
| 3        | B-AC   | 201                   | 50                      | 508               | 0.397 | 201                 | 0.4               | 0.6             | 11.681    | B                             |
|          | C-AB   | 371                   | 93                      | 809               | 0.459 | 369                 | 0.9               | 1.4             | 8.232     | A                             |
|          | C-A    | 249                   | 62                      |                   |       | 249                 |                   |                 |           |                               |
|          | A-B    | 170                   | 42                      |                   |       | 170                 |                   |                 |           |                               |
|          | A-C    | 453                   | 113                     |                   |       | 453                 |                   |                 |           |                               |

16:30 - 16:45

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 342                   | 86                      | 560               | 0.611 | 340                 | 0.9               | 1.5             | 16.154    | C                             |
|          | C-AB   | 288                   | 72                      | 990               | 0.291 | 287                 | 0.5               | 0.9             | 5.139     | A                             |
|          | C-A    | 476                   | 119                     |                   |       | 476                 |                   |                 |           |                               |
|          | A-B    | 21                    | 5                       |                   |       | 21                  |                   |                 |           |                               |
|          | A-C    | 483                   | 121                     |                   |       | 483                 |                   |                 |           |                               |
| 2        | B-AC   | 168                   | 42                      | 410               | 0.411 | 167                 | 0.4               | 0.7             | 14.751    | B                             |
|          | C-AB   | 525                   | 131                     | 799               | 0.657 | 517                 | 1.4               | 3.1             | 12.947    | B                             |
|          | C-A    | 167                   | 42                      |                   |       | 167                 |                   |                 |           |                               |
|          | A-B    | 195                   | 49                      |                   |       | 195                 |                   |                 |           |                               |
|          | A-C    | 654                   | 164                     |                   |       | 654                 |                   |                 |           |                               |
| 3        | B-AC   | 247                   | 62                      | 435               | 0.567 | 244                 | 0.6               | 1.2             | 18.600    | C                             |
|          | C-AB   | 567                   | 142                     | 866               | 0.655 | 560                 | 1.4               | 3.3             | 11.917    | B                             |
|          | C-A    | 193                   | 48                      |                   |       | 193                 |                   |                 |           |                               |
|          | A-B    | 208                   | 52                      |                   |       | 208                 |                   |                 |           |                               |
|          | A-C    | 555                   | 139                     |                   |       | 555                 |                   |                 |           |                               |

16:45 - 17:00

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 342                   | 86                      | 560               | 0.612 | 342                 | 1.5               | 1.5             | 16.512    | C                             |
|          | C-AB   | 289                   | 72                      | 990               | 0.292 | 289                 | 0.9               | 0.9             | 5.158     | A                             |
|          | C-A    | 475                   | 119                     |                   |       | 475                 |                   |                 |           |                               |
|          | A-B    | 21                    | 5                       |                   |       | 21                  |                   |                 |           |                               |
|          | A-C    | 483                   | 121                     |                   |       | 483                 |                   |                 |           |                               |
| 2        | B-AC   | 168                   | 42                      | 409               | 0.412 | 168                 | 0.7               | 0.7             | 14.986    | B                             |
|          | C-AB   | 529                   | 132                     | 802               | 0.660 | 529                 | 3.1               | 3.3             | 13.636    | B                             |
|          | C-A    | 162                   | 40                      |                   |       | 162                 |                   |                 |           |                               |
|          | A-B    | 195                   | 49                      |                   |       | 195                 |                   |                 |           |                               |
|          | A-C    | 654                   | 164                     |                   |       | 654                 |                   |                 |           |                               |
| 3        | B-AC   | 247                   | 62                      | 434               | 0.569 | 246                 | 1.2               | 1.3             | 19.208    | C                             |
|          | C-AB   | 573                   | 143                     | 870               | 0.658 | 572                 | 3.3               | 3.4             | 12.540    | B                             |
|          | C-A    | 187                   | 47                      |                   |       | 187                 |                   |                 |           |                               |
|          | A-B    | 208                   | 52                      |                   |       | 208                 |                   |                 |           |                               |
|          | A-C    | 555                   | 139                     |                   |       | 555                 |                   |                 |           |                               |

17:00 - 17:15

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 280                   | 70                      | 596               | 0.469 | 282                 | 1.5               | 0.9             | 11.547    | B                             |
|          | C-AB   | 189                   | 47                      | 916               | 0.206 | 190                 | 0.9               | 0.5             | 4.984     | A                             |
|          | C-A    | 435                   | 109                     |                   |       | 435                 |                   |                 |           |                               |
|          | A-B    | 17                    | 4                       |                   |       | 17                  |                   |                 |           |                               |
|          | A-C    | 395                   | 99                      |                   |       | 395                 |                   |                 |           |                               |
| 2        | B-AC   | 138                   | 34                      | 483               | 0.285 | 139                 | 0.7               | 0.4             | 10.488    | B                             |
|          | C-AB   | 352                   | 88                      | 762               | 0.462 | 359                 | 3.3               | 1.5             | 9.210     | A                             |
|          | C-A    | 212                   | 53                      |                   |       | 212                 |                   |                 |           |                               |
|          | A-B    | 159                   | 40                      |                   |       | 159                 |                   |                 |           |                               |
|          | A-C    | 534                   | 133                     |                   |       | 534                 |                   |                 |           |                               |
| 3        | B-AC   | 201                   | 50                      | 506               | 0.398 | 204                 | 1.3               | 0.7             | 12.025    | B                             |
|          | C-AB   | 376                   | 94                      | 814               | 0.462 | 384                 | 3.4               | 1.5             | 8.616     | A                             |
|          | C-A    | 244                   | 61                      |                   |       | 244                 |                   |                 |           |                               |
|          | A-B    | 170                   | 42                      |                   |       | 170                 |                   |                 |           |                               |
|          | A-C    | 453                   | 113                     |                   |       | 453                 |                   |                 |           |                               |

17:15 - 17:30

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 234                   | 59                      | 622               | 0.377 | 235                 | 0.9               | 0.6             | 9.349     | A                             |
|          | C-AB   | 135                   | 34                      | 864               | 0.156 | 136                 | 0.5               | 0.4             | 4.958     | A                             |
|          | C-A    | 388                   | 97                      |                   |       | 388                 |                   |                 |           |                               |
|          | A-B    | 14                    | 4                       |                   |       | 14                  |                   |                 |           |                               |
|          | A-C    | 331                   | 83                      |                   |       | 331                 |                   |                 |           |                               |
| 2        | B-AC   | 115                   | 29                      | 534               | 0.216 | 116                 | 0.4               | 0.3             | 8.606     | A                             |
|          | C-AB   | 254                   | 63                      | 731               | 0.348 | 256                 | 1.5               | 0.9             | 7.668     | A                             |
|          | C-A    | 219                   | 55                      |                   |       | 219                 |                   |                 |           |                               |
|          | A-B    | 133                   | 33                      |                   |       | 133                 |                   |                 |           |                               |
|          | A-C    | 447                   | 112                     |                   |       | 447                 |                   |                 |           |                               |
| 3        | B-AC   | 169                   | 42                      | 556               | 0.303 | 170                 | 0.7               | 0.4             | 9.330     | A                             |
|          | C-AB   | 269                   | 67                      | 772               | 0.348 | 271                 | 1.5               | 0.9             | 7.267     | A                             |
|          | C-A    | 251                   | 63                      |                   |       | 251                 |                   |                 |           |                               |
|          | A-B    | 142                   | 36                      |                   |       | 142                 |                   |                 |           |                               |
|          | A-C    | 379                   | 95                      |                   |       | 379                 |                   |                 |           |                               |

# 2027 without Dev, AM

## Data Errors and Warnings

| Severity | Area        | Item       | Description  |
|----------|-------------|------------|--|
| Warning  | Vehicle Mix | Junction 1 | 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. |
| Warning  | Vehicle Mix | Junction 2 | 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. |
| Warning  | Vehicle Mix | Junction 3 | 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 | Arm A Direction | Arm B Direction | Arm C Direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|----------|----------|---------------|-----------------|-----------------|-----------------|-----------------------|--------------------|--------------|
| 1        | untitled | T-Junction    | Two-way         | Two-way         | Two-way         |                       | 15.52              | C            |
| 2        | untitled | T-Junction    | Two-way         | Two-way         | Two-way         |                       | 12.17              | B            |
| 3        | untitled | T-Junction    | Two-way         | Two-way         | Two-way         |                       | 13.60              | B            |

### Junction Network

| Driving side | Lighting       | Network residual capacity (%) | First arm reaching threshold | Network delay (s) | Network LOS |
|--------------|----------------|-------------------------------|------------------------------|-------------------|-------------|
| Left         | Normal/unknown | -6                            | Junction 3 - Stream B-AC     | 13.73             | B           |

## Traffic Demand

### Demand Set Details

| ID | Scenario name    | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|----|------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D3 | 2027 without Dev | AM               | ONE HOUR             | 07:00              | 08:30               | 15                        | ✓                 |

### Demand overview (Traffic)

| Junction | Arm | Linked arm | Profile type | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|----------|-----|------------|--------------|--------------|-------------------------|--------------------|
| 1        | A   |            | ONE HOUR     | ✓            | 573                     | 100.000            |
|          | B   |            | ONE HOUR     | ✓            | 154                     | 100.000            |
|          | C   |            | ONE HOUR     | ✓            | 769                     | 100.000            |
| 2        | A   |            | ONE HOUR     | ✓            | 571                     | 100.000            |
|          | B   |            | ONE HOUR     | ✓            | 371                     | 100.000            |
|          | C   |            | ONE HOUR     | ✓            | 632                     | 100.000            |
| 3        | A   |            | ONE HOUR     | ✓            | 731                     | 100.000            |
|          | B   |            | ONE HOUR     | ✓            | 365                     | 100.000            |
|          | C   |            | ONE HOUR     | ✓            | 614                     | 100.000            |

## Origin-Destination Data

### Demand (PCU/hr)

#### Junction 1

|      |   | To  |     |     |
|------|---|-----|-----|-----|
|      |   | A   | B   | C   |
| From | A | 0   | 42  | 531 |
|      | B | 14  | 0   | 140 |
|      | C | 513 | 256 | 0   |

**Demand (PCU/hr)**

**Junction 2**

|      |   | To  |    |     |
|------|---|-----|----|-----|
|      |   | A   | B  | C   |
| From | A | 0   | 75 | 496 |
|      | B | 141 | 0  | 230 |
|      | C | 548 | 84 | 0   |
|      |   |     |    |     |

**Demand (PCU/hr)**

**Junction 3**

|      |   | To  |     |     |
|------|---|-----|-----|-----|
|      |   | A   | B   | C   |
| From | A | 0   | 89  | 642 |
|      | B | 136 | 0   | 229 |
|      | C | 497 | 117 | 0   |
|      |   |     |     |     |

## Vehicle Mix

| HV data entry mode | PCU Factor for a HV (PCU) |
|--------------------|---------------------------|
| HV Percentages     | 2.00                      |

**Heavy Vehicle %**

**Junction 1**

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

**Heavy Vehicle %**

**Junction 2**

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

**Heavy Vehicle %**

**Junction 3**

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

## Results

### Results Summary for whole modelled period

| Junction | Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) |
|----------|--------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| 1        | B-AC   | 0.32    | 10.18         | 0.5             | B       | 141                     | 212                           |
|          | C-AB   | 0.88    | 35.15         | 10.0            | E       | 565                     | 848                           |
|          | C-A    |         |               |                 |         | 141                     | 211                           |
|          | A-B    |         |               |                 |         | 39                      | 58                            |
|          | A-C    |         |               |                 |         | 487                     | 731                           |
| 2        | B-AC   | 0.86    | 48.40         | 5.1             | E       | 340                     | 511                           |
|          | C-AB   | 0.30    | 5.63          | 0.9             | A       | 194                     | 291                           |
|          | C-A    |         |               |                 |         | 386                     | 578                           |
|          | A-B    |         |               |                 |         | 69                      | 103                           |
|          | A-C    |         |               |                 |         | 455                     | 683                           |
| 3        | B-AC   | 0.88    | 57.64         | 6.0             | F       | 335                     | 502                           |
|          | C-AB   | 0.44    | 7.72          | 1.5             | A       | 264                     | 396                           |
|          | C-A    |         |               |                 |         | 299                     | 449                           |
|          | A-B    |         |               |                 |         | 82                      | 123                           |
|          | A-C    |         |               |                 |         | 589                     | 884                           |

### Main Results for each time segment

#### 07:00 - 07:15

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 116                   | 29                      | 606               | 0.191 | 115                 | 0.0               | 0.2             | 7.324     | A                             |
|          | C-AB   | 375                   | 94                      | 796               | 0.471 | 369                 | 0.0               | 1.3             | 8.414     | A                             |
|          | C-A    | 204                   | 51                      |                   |       | 204                 |                   |                 |           |                               |
|          | A-B    | 32                    | 8                       |                   |       | 32                  |                   |                 |           |                               |
|          | A-C    | 400                   | 100                     |                   |       | 400                 |                   |                 |           |                               |
| 2        | B-AC   | 279                   | 70                      | 574               | 0.487 | 276                 | 0.0               | 0.9             | 11.931    | B                             |
|          | C-AB   | 129                   | 32                      | 811               | 0.159 | 127                 | 0.0               | 0.4             | 5.265     | A                             |
|          | C-A    | 347                   | 87                      |                   |       | 347                 |                   |                 |           |                               |
|          | A-B    | 56                    | 14                      |                   |       | 56                  |                   |                 |           |                               |
|          | A-C    | 373                   | 93                      |                   |       | 373                 |                   |                 |           |                               |
| 3        | B-AC   | 275                   | 69                      | 575               | 0.478 | 271                 | 0.0               | 0.9             | 11.734    | B                             |
|          | C-AB   | 175                   | 44                      | 754               | 0.232 | 173                 | 0.0               | 0.5             | 6.186     | A                             |
|          | C-A    | 287                   | 72                      |                   |       | 287                 |                   |                 |           |                               |
|          | A-B    | 67                    | 17                      |                   |       | 67                  |                   |                 |           |                               |
|          | A-C    | 483                   | 121                     |                   |       | 483                 |                   |                 |           |                               |

07:15 - 07:30

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 138                   | 35                      | 574               | 0.241 | 138                 | 0.2               | 0.3             | 8.257     | A                             |
|          | C-AB   | 518                   | 130                     | 836               | 0.620 | 514                 | 1.3               | 2.5             | 11.240    | B                             |
|          | C-A    | 173                   | 43                      |                   |       | 173                 |                   |                 |           |                               |
|          | A-B    | 38                    | 9                       |                   |       | 38                  |                   |                 |           |                               |
|          | A-C    | 477                   | 119                     |                   |       | 477                 |                   |                 |           |                               |
| 2        | B-AC   | 334                   | 83                      | 534               | 0.625 | 331                 | 0.9               | 1.6             | 17.489    | C                             |
|          | C-AB   | 180                   | 45                      | 854               | 0.210 | 179                 | 0.4               | 0.5             | 5.342     | A                             |
|          | C-A    | 389                   | 97                      |                   |       | 389                 |                   |                 |           |                               |
|          | A-B    | 67                    | 17                      |                   |       | 67                  |                   |                 |           |                               |
|          | A-C    | 446                   | 111                     |                   |       | 446                 |                   |                 |           |                               |
| 3        | B-AC   | 328                   | 82                      | 526               | 0.624 | 325                 | 0.9               | 1.6             | 17.679    | C                             |
|          | C-AB   | 244                   | 61                      | 790               | 0.308 | 243                 | 0.5               | 0.8             | 6.593     | A                             |
|          | C-A    | 308                   | 77                      |                   |       | 308                 |                   |                 |           |                               |
|          | A-B    | 80                    | 20                      |                   |       | 80                  |                   |                 |           |                               |
|          | A-C    | 577                   | 144                     |                   |       | 577                 |                   |                 |           |                               |

07:30 - 07:45

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 170                   | 42                      | 526               | 0.323 | 169                 | 0.3               | 0.5             | 10.075    | B                             |
|          | C-AB   | 780                   | 195                     | 895               | 0.871 | 756                 | 2.5               | 8.4             | 25.898    | D                             |
|          | C-A    | 67                    | 17                      |                   |       | 67                  |                   |                 |           |                               |
|          | A-B    | 46                    | 12                      |                   |       | 46                  |                   |                 |           |                               |
|          | A-C    | 585                   | 146                     |                   |       | 585                 |                   |                 |           |                               |
| 2        | B-AC   | 408                   | 102                     | 477               | 0.857 | 397                 | 1.6               | 4.6             | 40.078    | E                             |
|          | C-AB   | 273                   | 68                      | 916               | 0.298 | 272                 | 0.5               | 0.9             | 5.607     | A                             |
|          | C-A    | 423                   | 106                     |                   |       | 423                 |                   |                 |           |                               |
|          | A-B    | 83                    | 21                      |                   |       | 83                  |                   |                 |           |                               |
|          | A-C    | 546                   | 137                     |                   |       | 546                 |                   |                 |           |                               |
| 3        | B-AC   | 402                   | 100                     | 456               | 0.881 | 387                 | 1.6               | 5.2             | 45.322    | E                             |
|          | C-AB   | 371                   | 93                      | 843               | 0.440 | 368                 | 0.8               | 1.5             | 7.629     | A                             |
|          | C-A    | 305                   | 76                      |                   |       | 305                 |                   |                 |           |                               |
|          | A-B    | 98                    | 24                      |                   |       | 98                  |                   |                 |           |                               |
|          | A-C    | 707                   | 177                     |                   |       | 707                 |                   |                 |           |                               |

07:45 - 08:00

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 170                   | 42                      | 523               | 0.324 | 170                 | 0.5               | 0.5             | 10.177    | B                             |
|          | C-AB   | 800                   | 200                     | 907               | 0.882 | 794                 | 8.4               | 10.0            | 35.151    | E                             |
|          | C-A    | 47                    | 12                      |                   |       | 47                  |                   |                 |           |                               |
|          | A-B    | 46                    | 12                      |                   |       | 46                  |                   |                 |           |                               |
|          | A-C    | 585                   | 146                     |                   |       | 585                 |                   |                 |           |                               |
| 2        | B-AC   | 408                   | 102                     | 476               | 0.858 | 406                 | 4.6               | 5.1             | 48.400    | E                             |
|          | C-AB   | 274                   | 69                      | 917               | 0.299 | 274                 | 0.9               | 0.9             | 5.630     | A                             |
|          | C-A    | 422                   | 105                     |                   |       | 422                 |                   |                 |           |                               |
|          | A-B    | 83                    | 21                      |                   |       | 83                  |                   |                 |           |                               |
|          | A-C    | 546                   | 137                     |                   |       | 546                 |                   |                 |           |                               |
| 3        | B-AC   | 402                   | 100                     | 455               | 0.882 | 399                 | 5.2               | 6.0             | 57.641    | F                             |
|          | C-AB   | 373                   | 93                      | 845               | 0.441 | 373                 | 1.5               | 1.5             | 7.722     | A                             |
|          | C-A    | 303                   | 76                      |                   |       | 303                 |                   |                 |           |                               |
|          | A-B    | 98                    | 24                      |                   |       | 98                  |                   |                 |           |                               |
|          | A-C    | 707                   | 177                     |                   |       | 707                 |                   |                 |           |                               |

08:00 - 08:15

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 138                   | 35                      | 571               | 0.242 | 139                 | 0.5               | 0.3             | 8.342     | A                             |
|          | C-AB   | 538                   | 134                     | 853               | 0.630 | 566                 | 10.0              | 2.9             | 14.160    | B                             |
|          | C-A    | 154                   | 38                      |                   |       | 154                 |                   |                 |           |                               |
|          | A-B    | 38                    | 9                       |                   |       | 38                  |                   |                 |           |                               |
|          | A-C    | 477                   | 119                     |                   |       | 477                 |                   |                 |           |                               |
| 2        | B-AC   | 334                   | 83                      | 534               | 0.625 | 347                 | 5.1               | 1.8             | 20.516    | C                             |
|          | C-AB   | 180                   | 45                      | 855               | 0.211 | 182                 | 0.9               | 0.5             | 5.373     | A                             |
|          | C-A    | 388                   | 97                      |                   |       | 388                 |                   |                 |           |                               |
|          | A-B    | 67                    | 17                      |                   |       | 67                  |                   |                 |           |                               |
|          | A-C    | 446                   | 111                     |                   |       | 446                 |                   |                 |           |                               |
| 3        | B-AC   | 328                   | 82                      | 525               | 0.624 | 345                 | 6.0               | 1.8             | 21.584    | C                             |
|          | C-AB   | 245                   | 61                      | 793               | 0.310 | 248                 | 1.5               | 0.9             | 6.682     | A                             |
|          | C-A    | 307                   | 77                      |                   |       | 307                 |                   |                 |           |                               |
|          | A-B    | 80                    | 20                      |                   |       | 80                  |                   |                 |           |                               |
|          | A-C    | 577                   | 144                     |                   |       | 577                 |                   |                 |           |                               |

08:15 - 08:30

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 116                   | 29                      | 605               | 0.192 | 116                 | 0.3               | 0.2             | 7.372     | A                             |
|          | C-AB   | 380                   | 95                      | 800               | 0.475 | 386                 | 2.9               | 1.4             | 8.888     | A                             |
|          | C-A    | 199                   | 50                      |                   |       | 199                 |                   |                 |           |                               |
|          | A-B    | 32                    | 8                       |                   |       | 32                  |                   |                 |           |                               |
|          | A-C    | 400                   | 100                     |                   |       | 400                 |                   |                 |           |                               |
| 2        | B-AC   | 279                   | 70                      | 573               | 0.487 | 282                 | 1.8               | 1.0             | 12.502    | B                             |
|          | C-AB   | 130                   | 32                      | 812               | 0.160 | 130                 | 0.5               | 0.4             | 5.298     | A                             |
|          | C-A    | 346                   | 87                      |                   |       | 346                 |                   |                 |           |                               |
|          | A-B    | 56                    | 14                      |                   |       | 56                  |                   |                 |           |                               |
|          | A-C    | 373                   | 93                      |                   |       | 373                 |                   |                 |           |                               |
| 3        | B-AC   | 275                   | 69                      | 574               | 0.479 | 278                 | 1.8               | 0.9             | 12.293    | B                             |
|          | C-AB   | 176                   | 44                      | 756               | 0.233 | 178                 | 0.9               | 0.5             | 6.258     | A                             |
|          | C-A    | 286                   | 71                      |                   |       | 286                 |                   |                 |           |                               |
|          | A-B    | 67                    | 17                      |                   |       | 67                  |                   |                 |           |                               |
|          | A-C    | 483                   | 121                     |                   |       | 483                 |                   |                 |           |                               |

# 2027 without Dev, PM

## Data Errors and Warnings

| Severity | Area        | Item       | Description  |
|----------|-------------|------------|--|
| Warning  | Vehicle Mix | Junction 1 | 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. |
| Warning  | Vehicle Mix | Junction 2 | 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. |
| Warning  | Vehicle Mix | Junction 3 | 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 | Arm A Direction | Arm B Direction | Arm C Direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|----------|----------|---------------|-----------------|-----------------|-----------------|-----------------------|--------------------|--------------|
| 1        | untitled | T-Junction    | Two-way         | Two-way         | Two-way         |                       | 4.66               | A            |
| 2        | untitled | T-Junction    | Two-way         | Two-way         | Two-way         |                       | 5.92               | A            |
| 3        | untitled | T-Junction    | Two-way         | Two-way         | Two-way         |                       | 7.16               | A            |

### Junction Network

| Driving side | Lighting       | Network residual capacity (%) | First arm reaching threshold | Network delay (s) | Network LOS |
|--------------|----------------|-------------------------------|------------------------------|-------------------|-------------|
| Left         | Normal/unknown | 8                             | Junction 3 - Stream B-AC     | 5.96              | A           |

## Traffic Demand

### Demand Set Details

| ID | Scenario name    | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|----|------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D6 | 2027 without Dev | PM               | ONE HOUR             | 16:00              | 17:30               | 15                        | ✓                 |

### Demand overview (Traffic)

| Junction | Arm | Linked arm | Profile type | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|----------|-----|------------|--------------|--------------|-------------------------|--------------------|
| 1        | A   |            | ONE HOUR     | ✓            | 475                     | 100.000            |
|          | B   |            | ONE HOUR     | ✓            | 322                     | 100.000            |
|          | C   |            | ONE HOUR     | ✓            | 719                     | 100.000            |
| 2        | A   |            | ONE HOUR     | ✓            | 798                     | 100.000            |
|          | B   |            | ONE HOUR     | ✓            | 159                     | 100.000            |
|          | C   |            | ONE HOUR     | ✓            | 650                     | 100.000            |
| 3        | A   |            | ONE HOUR     | ✓            | 718                     | 100.000            |
|          | B   |            | ONE HOUR     | ✓            | 232                     | 100.000            |
|          | C   |            | ONE HOUR     | ✓            | 714                     | 100.000            |

## Origin-Destination Data

### Demand (PCU/hr)

#### Junction 1

|      |   | To  |    |     |
|------|---|-----|----|-----|
|      |   | A   | B  | C   |
| From | A | 0   | 20 | 455 |
|      | B | 42  | 0  | 280 |
|      | C | 633 | 86 | 0   |

**Demand (PCU/hr)**

**Junction 2**

|      |   | To  |     |     |
|------|---|-----|-----|-----|
|      |   | A   | B   | C   |
| From | A | 0   | 183 | 615 |
|      | B | 56  | 0   | 103 |
|      | C | 465 | 185 | 0   |

**Demand (PCU/hr)**

**Junction 3**

|      |   | To  |     |     |
|------|---|-----|-----|-----|
|      |   | A   | B   | C   |
| From | A | 0   | 196 | 522 |
|      | B | 109 | 0   | 123 |
|      | C | 533 | 181 | 0   |

## Vehicle Mix

| HV data entry mode | PCU Factor for a HV (PCU) |
|--------------------|---------------------------|
| HV Percentages     | 2.00                      |

**Heavy Vehicle %**

**Junction 1**

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

**Heavy Vehicle %**

**Junction 2**

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

**Heavy Vehicle %**

**Junction 3**

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

## Results

### Results Summary for whole modelled period

| Junction | Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) |
|----------|--------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| 1        | B-AC   | 0.64    | 18.08         | 1.7             | C       | 295                     | 443                           |
|          | C-AB   | 0.31    | 5.23          | 1.0             | A       | 219                     | 329                           |
|          | C-A    |         |               |                 |         | 440                     | 660                           |
|          | A-B    |         |               |                 |         | 18                      | 28                            |
|          | A-C    |         |               |                 |         | 418                     | 626                           |
| 2        | B-AC   | 0.45    | 16.51         | 0.8             | C       | 146                     | 219                           |
|          | C-AB   | 0.70    | 15.67         | 4.0             | C       | 404                     | 605                           |
|          | C-A    |         |               |                 |         | 193                     | 289                           |
|          | A-B    |         |               |                 |         | 168                     | 252                           |
|          | A-C    |         |               |                 |         | 564                     | 847                           |
| 3        | B-AC   | 0.61    | 22.05         | 1.5             | C       | 213                     | 319                           |
|          | C-AB   | 0.70    | 14.40         | 4.2             | B       | 434                     | 651                           |
|          | C-A    |         |               |                 |         | 221                     | 332                           |
|          | A-B    |         |               |                 |         | 180                     | 270                           |
|          | A-C    |         |               |                 |         | 479                     | 718                           |

### Main Results for each time segment

#### 16:00 - 16:15

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 242                   | 61                      | 618               | 0.393 | 240                 | 0.0               | 0.6             | 9.470     | A                             |
|          | C-AB   | 143                   | 36                      | 872               | 0.164 | 141                 | 0.0               | 0.4             | 4.925     | A                             |
|          | C-A    | 399                   | 100                     |                   |       | 399                 |                   |                 |           |                               |
|          | A-B    | 15                    | 4                       |                   |       | 15                  |                   |                 |           |                               |
|          | A-C    | 343                   | 86                      |                   |       | 343                 |                   |                 |           |                               |
| 2        | B-AC   | 120                   | 30                      | 527               | 0.227 | 119                 | 0.0               | 0.3             | 8.788     | A                             |
|          | C-AB   | 266                   | 67                      | 733               | 0.363 | 263                 | 0.0               | 0.9             | 7.636     | A                             |
|          | C-A    | 223                   | 56                      |                   |       | 223                 |                   |                 |           |                               |
|          | A-B    | 138                   | 34                      |                   |       | 138                 |                   |                 |           |                               |
|          | A-C    | 463                   | 116                     |                   |       | 463                 |                   |                 |           |                               |
| 3        | B-AC   | 175                   | 44                      | 549               | 0.318 | 173                 | 0.0               | 0.5             | 9.534     | A                             |
|          | C-AB   | 282                   | 71                      | 776               | 0.364 | 278                 | 0.0               | 0.9             | 7.228     | A                             |
|          | C-A    | 255                   | 64                      |                   |       | 255                 |                   |                 |           |                               |
|          | A-B    | 148                   | 37                      |                   |       | 148                 |                   |                 |           |                               |
|          | A-C    | 393                   | 98                      |                   |       | 393                 |                   |                 |           |                               |

**16:15 - 16:30**

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 289                   | 72                      | 591               | 0.490 | 288                 | 0.6               | 0.9             | 11.832    | B                             |
|          | C-AB   | 202                   | 50                      | 927               | 0.218 | 201                 | 0.4               | 0.6             | 4.972     | A                             |
|          | C-A    | 445                   | 111                     |                   |       | 445                 |                   |                 |           |                               |
|          | A-B    | 18                    | 4                       |                   |       | 18                  |                   |                 |           |                               |
|          | A-C    | 409                   | 102                     |                   |       | 409                 |                   |                 |           |                               |
| 2        | B-AC   | 143                   | 36                      | 474               | 0.301 | 142                 | 0.3               | 0.4             | 10.835    | B                             |
|          | C-AB   | 371                   | 93                      | 763               | 0.486 | 368                 | 0.9               | 1.5             | 9.168     | A                             |
|          | C-A    | 213                   | 53                      |                   |       | 213                 |                   |                 |           |                               |
|          | A-B    | 165                   | 41                      |                   |       | 165                 |                   |                 |           |                               |
|          | A-C    | 553                   | 138                     |                   |       | 553                 |                   |                 |           |                               |
| 3        | B-AC   | 209                   | 52                      | 496               | 0.420 | 208                 | 0.5               | 0.7             | 12.420    | B                             |
|          | C-AB   | 397                   | 99                      | 817               | 0.486 | 395                 | 0.9               | 1.6             | 8.570     | A                             |
|          | C-A    | 245                   | 61                      |                   |       | 245                 |                   |                 |           |                               |
|          | A-B    | 176                   | 44                      |                   |       | 176                 |                   |                 |           |                               |
|          | A-C    | 469                   | 117                     |                   |       | 469                 |                   |                 |           |                               |

**16:30 - 16:45**

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 355                   | 89                      | 553               | 0.641 | 351                 | 0.9               | 1.7             | 17.580    | C                             |
|          | C-AB   | 312                   | 78                      | 1004              | 0.311 | 311                 | 0.6               | 1.0             | 5.208     | A                             |
|          | C-A    | 479                   | 120                     |                   |       | 479                 |                   |                 |           |                               |
|          | A-B    | 22                    | 6                       |                   |       | 22                  |                   |                 |           |                               |
|          | A-C    | 501                   | 125                     |                   |       | 501                 |                   |                 |           |                               |
| 2        | B-AC   | 175                   | 44                      | 395               | 0.443 | 174                 | 0.4               | 0.8             | 16.050    | C                             |
|          | C-AB   | 566                   | 141                     | 807               | 0.701 | 556                 | 1.5               | 3.8             | 14.540    | B                             |
|          | C-A    | 150                   | 38                      |                   |       | 150                 |                   |                 |           |                               |
|          | A-B    | 201                   | 50                      |                   |       | 201                 |                   |                 |           |                               |
|          | A-C    | 677                   | 169                     |                   |       | 677                 |                   |                 |           |                               |
| 3        | B-AC   | 255                   | 64                      | 420               | 0.608 | 252                 | 0.7               | 1.5             | 21.067    | C                             |
|          | C-AB   | 613                   | 153                     | 877               | 0.699 | 603                 | 1.6               | 4.0             | 13.369    | B                             |
|          | C-A    | 173                   | 43                      |                   |       | 173                 |                   |                 |           |                               |
|          | A-B    | 216                   | 54                      |                   |       | 216                 |                   |                 |           |                               |
|          | A-C    | 575                   | 144                     |                   |       | 575                 |                   |                 |           |                               |

**16:45 - 17:00**

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 355                   | 89                      | 553               | 0.641 | 354                 | 1.7               | 1.7             | 18.076    | C                             |
|          | C-AB   | 313                   | 78                      | 1005              | 0.312 | 313                 | 1.0               | 1.0             | 5.232     | A                             |
|          | C-A    | 478                   | 120                     |                   |       | 478                 |                   |                 |           |                               |
|          | A-B    | 22                    | 6                       |                   |       | 22                  |                   |                 |           |                               |
|          | A-C    | 501                   | 125                     |                   |       | 501                 |                   |                 |           |                               |
| 2        | B-AC   | 175                   | 44                      | 393               | 0.446 | 175                 | 0.8               | 0.8             | 16.505    | C                             |
|          | C-AB   | 572                   | 143                     | 812               | 0.705 | 571                 | 3.8               | 4.0             | 15.672    | C                             |
|          | C-A    | 143                   | 36                      |                   |       | 143                 |                   |                 |           |                               |
|          | A-B    | 201                   | 50                      |                   |       | 201                 |                   |                 |           |                               |
|          | A-C    | 677                   | 169                     |                   |       | 677                 |                   |                 |           |                               |
| 3        | B-AC   | 255                   | 64                      | 418               | 0.611 | 255                 | 1.5               | 1.5             | 22.047    | C                             |
|          | C-AB   | 621                   | 155                     | 882               | 0.703 | 620                 | 4.0               | 4.2             | 14.396    | B                             |
|          | C-A    | 165                   | 41                      |                   |       | 165                 |                   |                 |           |                               |
|          | A-B    | 216                   | 54                      |                   |       | 216                 |                   |                 |           |                               |
|          | A-C    | 575                   | 144                     |                   |       | 575                 |                   |                 |           |                               |

17:00 - 17:15

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 289                   | 72                      | 591               | 0.490 | 292                 | 1.7               | 1.0             | 12.173    | B                             |
|          | C-AB   | 203                   | 51                      | 928               | 0.218 | 204                 | 1.0               | 0.6             | 5.001     | A                             |
|          | C-A    | 444                   | 111                     |                   |       | 444                 |                   |                 |           |                               |
|          | A-B    | 18                    | 4                       |                   |       | 18                  |                   |                 |           |                               |
|          | A-C    | 409                   | 102                     |                   |       | 409                 |                   |                 |           |                               |
| 2        | B-AC   | 143                   | 36                      | 472               | 0.303 | 144                 | 0.8               | 0.4             | 11.047    | B                             |
|          | C-AB   | 377                   | 94                      | 770               | 0.490 | 387                 | 4.0               | 1.7             | 9.757     | A                             |
|          | C-A    | 207                   | 52                      |                   |       | 207                 |                   |                 |           |                               |
|          | A-B    | 165                   | 41                      |                   |       | 165                 |                   |                 |           |                               |
|          | A-C    | 553                   | 138                     |                   |       | 553                 |                   |                 |           |                               |
| 3        | B-AC   | 209                   | 52                      | 494               | 0.423 | 212                 | 1.5               | 0.7             | 12.906    | B                             |
|          | C-AB   | 404                   | 101                     | 824               | 0.490 | 414                 | 4.2               | 1.7             | 9.110     | A                             |
|          | C-A    | 238                   | 59                      |                   |       | 238                 |                   |                 |           |                               |
|          | A-B    | 176                   | 44                      |                   |       | 176                 |                   |                 |           |                               |
|          | A-C    | 469                   | 117                     |                   |       | 469                 |                   |                 |           |                               |

17:15 - 17:30

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 242                   | 61                      | 617               | 0.393 | 244                 | 1.0               | 0.7             | 9.667     | A                             |
|          | C-AB   | 144                   | 36                      | 873               | 0.165 | 145                 | 0.6               | 0.4             | 4.957     | A                             |
|          | C-A    | 397                   | 99                      |                   |       | 397                 |                   |                 |           |                               |
|          | A-B    | 15                    | 4                       |                   |       | 15                  |                   |                 |           |                               |
|          | A-C    | 343                   | 86                      |                   |       | 343                 |                   |                 |           |                               |
| 2        | B-AC   | 120                   | 30                      | 526               | 0.228 | 120                 | 0.4               | 0.3             | 8.892     | A                             |
|          | C-AB   | 269                   | 67                      | 736               | 0.366 | 272                 | 1.7               | 0.9             | 7.857     | A                             |
|          | C-A    | 220                   | 55                      |                   |       | 220                 |                   |                 |           |                               |
|          | A-B    | 138                   | 34                      |                   |       | 138                 |                   |                 |           |                               |
|          | A-C    | 463                   | 116                     |                   |       | 463                 |                   |                 |           |                               |
| 3        | B-AC   | 175                   | 44                      | 547               | 0.319 | 176                 | 0.7               | 0.5             | 9.725     | A                             |
|          | C-AB   | 286                   | 71                      | 779               | 0.367 | 289                 | 1.7               | 1.0             | 7.434     | A                             |
|          | C-A    | 252                   | 63                      |                   |       | 252                 |                   |                 |           |                               |
|          | A-B    | 148                   | 37                      |                   |       | 148                 |                   |                 |           |                               |
|          | A-C    | 393                   | 98                      |                   |       | 393                 |                   |                 |           |                               |

# 2027 - with Dev, AM

## Data Errors and Warnings

| Severity | Area        | Item       | Description  |
|----------|-------------|------------|--|
| Warning  | Vehicle Mix | Junction 1 | 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. |
| Warning  | Vehicle Mix | Junction 2 | 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. |
| Warning  | Vehicle Mix | Junction 3 | 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 | Arm A Direction | Arm B Direction | Arm C Direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|----------|----------|---------------|-----------------|-----------------|-----------------|-----------------------|--------------------|--------------|
| 1        | untitled | T-Junction    | Two-way         | Two-way         | Two-way         |                       | 19.04              | C            |
| 2        | untitled | T-Junction    | Two-way         | Two-way         | Two-way         |                       | 16.90              | C            |
| 3        | untitled | T-Junction    | Two-way         | Two-way         | Two-way         |                       | 15.69              | C            |

### Junction Network

| Driving side | Lighting       | Network residual capacity (%) | First arm reaching threshold | Network delay (s) | Network LOS |
|--------------|----------------|-------------------------------|------------------------------|-------------------|-------------|
| Left         | Normal/unknown | -8                            | Junction 2 - Stream B-AC     | 17.15             | C           |

## Traffic Demand

### Demand Set Details

| ID | Scenario name   | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|----|-----------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D7 | 2027 - with Dev | AM               | ONE HOUR             | 07:00              | 08:30               | 15                        | ✓                 |

### Demand overview (Traffic)

| Junction | Arm | Linked arm | Profile type | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|----------|-----|------------|--------------|--------------|-------------------------|--------------------|
| 1        | A   |            | ONE HOUR     | ✓            | 587                     | 100.000            |
|          | B   |            | ONE HOUR     | ✓            | 203                     | 100.000            |
|          | C   |            | ONE HOUR     | ✓            | 773                     | 100.000            |
| 2        | A   |            | ONE HOUR     | ✓            | 607                     | 100.000            |
|          | B   |            | ONE HOUR     | ✓            | 381                     | 100.000            |
|          | C   |            | ONE HOUR     | ✓            | 650                     | 100.000            |
| 3        | A   |            | ONE HOUR     | ✓            | 759                     | 100.000            |
|          | B   |            | ONE HOUR     | ✓            | 366                     | 100.000            |
|          | C   |            | ONE HOUR     | ✓            | 619                     | 100.000            |

## Origin-Destination Data

### Demand (PCU/hr)

#### Junction 1

|      |   | To  |     |     |
|------|---|-----|-----|-----|
|      |   | A   | B   | C   |
| From | A | 0   | 56  | 531 |
|      | B | 51  | 0   | 152 |
|      | C | 513 | 260 | 0   |

**Demand (PCU/hr)**

**Junction 2**

|      |   | To  |    |     |
|------|---|-----|----|-----|
|      |   | A   | B  | C   |
| From | A | 0   | 79 | 528 |
|      | B | 144 | 0  | 237 |
|      | C | 558 | 92 | 0   |
|      |   |     |    |     |

**Demand (PCU/hr)**

**Junction 3**

|      |   | To  |     |     |
|------|---|-----|-----|-----|
|      |   | A   | B   | C   |
| From | A | 0   | 92  | 667 |
|      | B | 137 | 0   | 229 |
|      | C | 502 | 117 | 0   |
|      |   |     |     |     |

## Vehicle Mix

| HV data entry mode | PCU Factor for a HV (PCU) |
|--------------------|---------------------------|
| HV Percentages     | 2.00                      |

**Heavy Vehicle %**

**Junction 1**

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

**Heavy Vehicle %**

**Junction 2**

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

**Heavy Vehicle %**

**Junction 3**

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

## Results

### Results Summary for whole modelled period

| Junction | Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) |
|----------|--------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| 1        | B-AC   | 0.52    | 17.74         | 1.1             | C       | 186                     | 279                           |
|          | C-AB   | 0.90    | 41.57         | 11.7            | E       | 577                     | 866                           |
|          | C-A    |         |               |                 |         | 132                     | 198                           |
|          | A-B    |         |               |                 |         | 51                      | 77                            |
|          | A-C    |         |               |                 |         | 487                     | 731                           |
| 2        | B-AC   | 0.91    | 68.95         | 7.5             | F       | 350                     | 524                           |
|          | C-AB   | 0.34    | 5.95          | 1.1             | A       | 219                     | 328                           |
|          | C-A    |         |               |                 |         | 378                     | 567                           |
|          | A-B    |         |               |                 |         | 72                      | 109                           |
|          | A-C    |         |               |                 |         | 485                     | 727                           |
| 3        | B-AC   | 0.91    | 68.49         | 7.1             | F       | 336                     | 504                           |
|          | C-AB   | 0.45    | 7.86          | 1.6             | A       | 269                     | 403                           |
|          | C-A    |         |               |                 |         | 299                     | 449                           |
|          | A-B    |         |               |                 |         | 84                      | 127                           |
|          | A-C    |         |               |                 |         | 612                     | 918                           |

### Main Results for each time segment

#### 07:00 - 07:15

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 153                   | 38                      | 538               | 0.284 | 151                 | 0.0               | 0.4             | 9.271     | A                             |
|          | C-AB   | 381                   | 95                      | 794               | 0.480 | 376                 | 0.0               | 1.4             | 8.582     | A                             |
|          | C-A    | 201                   | 50                      |                   |       | 201                 |                   |                 |           |                               |
|          | A-B    | 42                    | 11                      |                   |       | 42                  |                   |                 |           |                               |
|          | A-C    | 400                   | 100                     |                   |       | 400                 |                   |                 |           |                               |
| 2        | B-AC   | 287                   | 72                      | 563               | 0.509 | 283                 | 0.0               | 1.0             | 12.659    | B                             |
|          | C-AB   | 144                   | 36                      | 811               | 0.177 | 142                 | 0.0               | 0.4             | 5.377     | A                             |
|          | C-A    | 346                   | 86                      |                   |       | 346                 |                   |                 |           |                               |
|          | A-B    | 59                    | 15                      |                   |       | 59                  |                   |                 |           |                               |
|          | A-C    | 398                   | 99                      |                   |       | 398                 |                   |                 |           |                               |
| 3        | B-AC   | 276                   | 69                      | 567               | 0.486 | 272                 | 0.0               | 0.9             | 12.051    | B                             |
|          | C-AB   | 177                   | 44                      | 753               | 0.235 | 175                 | 0.0               | 0.5             | 6.217     | A                             |
|          | C-A    | 289                   | 72                      |                   |       | 289                 |                   |                 |           |                               |
|          | A-B    | 69                    | 17                      |                   |       | 69                  |                   |                 |           |                               |
|          | A-C    | 502                   | 126                     |                   |       | 502                 |                   |                 |           |                               |

07:15 - 07:30

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 182                   | 46                      | 496               | 0.368 | 182                 | 0.4               | 0.6             | 11.436    | B                             |
|          | C-AB   | 528                   | 132                     | 834               | 0.633 | 523                 | 1.4               | 2.6             | 11.663    | B                             |
|          | C-A    | 167                   | 42                      |                   |       | 167                 |                   |                 |           |                               |
|          | A-B    | 50                    | 13                      |                   |       | 50                  |                   |                 |           |                               |
|          | A-C    | 477                   | 119                     |                   |       | 477                 |                   |                 |           |                               |
| 2        | B-AC   | 343                   | 86                      | 521               | 0.657 | 339                 | 1.0               | 1.8             | 19.465    | C                             |
|          | C-AB   | 201                   | 50                      | 855               | 0.236 | 201                 | 0.4               | 0.6             | 5.515     | A                             |
|          | C-A    | 383                   | 96                      |                   |       | 383                 |                   |                 |           |                               |
|          | A-B    | 71                    | 18                      |                   |       | 71                  |                   |                 |           |                               |
|          | A-C    | 475                   | 119                     |                   |       | 475                 |                   |                 |           |                               |
| 3        | B-AC   | 329                   | 82                      | 517               | 0.636 | 326                 | 0.9               | 1.7             | 18.557    | C                             |
|          | C-AB   | 247                   | 62                      | 790               | 0.313 | 246                 | 0.5               | 0.8             | 6.647     | A                             |
|          | C-A    | 309                   | 77                      |                   |       | 309                 |                   |                 |           |                               |
|          | A-B    | 83                    | 21                      |                   |       | 83                  |                   |                 |           |                               |
|          | A-C    | 600                   | 150                     |                   |       | 600                 |                   |                 |           |                               |

07:30 - 07:45

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 224                   | 56                      | 431               | 0.518 | 222                 | 0.6               | 1.0             | 17.011    | C                             |
|          | C-AB   | 796                   | 199                     | 893               | 0.892 | 769                 | 2.6               | 9.4             | 28.799    | D                             |
|          | C-A    | 55                    | 14                      |                   |       | 55                  |                   |                 |           |                               |
|          | A-B    | 62                    | 15                      |                   |       | 62                  |                   |                 |           |                               |
|          | A-C    | 585                   | 146                     |                   |       | 585                 |                   |                 |           |                               |
| 2        | B-AC   | 419                   | 105                     | 460               | 0.913 | 402                 | 1.8               | 6.2             | 51.395    | F                             |
|          | C-AB   | 309                   | 77                      | 918               | 0.337 | 307                 | 0.6               | 1.1             | 5.916     | A                             |
|          | C-A    | 407                   | 102                     |                   |       | 407                 |                   |                 |           |                               |
|          | A-B    | 87                    | 22                      |                   |       | 87                  |                   |                 |           |                               |
|          | A-C    | 581                   | 145                     |                   |       | 581                 |                   |                 |           |                               |
| 3        | B-AC   | 403                   | 101                     | 444               | 0.907 | 386                 | 1.7               | 6.0             | 51.096    | F                             |
|          | C-AB   | 379                   | 95                      | 843               | 0.450 | 376                 | 0.8               | 1.6             | 7.765     | A                             |
|          | C-A    | 303                   | 76                      |                   |       | 303                 |                   |                 |           |                               |
|          | A-B    | 101                   | 25                      |                   |       | 101                 |                   |                 |           |                               |
|          | A-C    | 734                   | 184                     |                   |       | 734                 |                   |                 |           |                               |

07:45 - 08:00

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 224                   | 56                      | 426               | 0.525 | 223                 | 1.0               | 1.1             | 17.743    | C                             |
|          | C-AB   | 820                   | 205                     | 906               | 0.905 | 811                 | 9.4               | 11.7            | 41.568    | E                             |
|          | C-A    | 31                    | 8                       |                   |       | 31                  |                   |                 |           |                               |
|          | A-B    | 62                    | 15                      |                   |       | 62                  |                   |                 |           |                               |
|          | A-C    | 585                   | 146                     |                   |       | 585                 |                   |                 |           |                               |
| 2        | B-AC   | 419                   | 105                     | 459               | 0.914 | 415                 | 6.2               | 7.5             | 68.947    | F                             |
|          | C-AB   | 310                   | 78                      | 919               | 0.337 | 310                 | 1.1               | 1.1             | 5.954     | A                             |
|          | C-A    | 406                   | 101                     |                   |       | 406                 |                   |                 |           |                               |
|          | A-B    | 87                    | 22                      |                   |       | 87                  |                   |                 |           |                               |
|          | A-C    | 581                   | 145                     |                   |       | 581                 |                   |                 |           |                               |
| 3        | B-AC   | 403                   | 101                     | 444               | 0.908 | 398                 | 6.0               | 7.1             | 68.489    | F                             |
|          | C-AB   | 381                   | 95                      | 844               | 0.451 | 381                 | 1.6               | 1.6             | 7.865     | A                             |
|          | C-A    | 301                   | 75                      |                   |       | 301                 |                   |                 |           |                               |
|          | A-B    | 101                   | 25                      |                   |       | 101                 |                   |                 |           |                               |
|          | A-C    | 734                   | 184                     |                   |       | 734                 |                   |                 |           |                               |

08:00 - 08:15

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 182                   | 46                      | 489               | 0.373 | 184                 | 1.1               | 0.6             | 11.877    | B                             |
|          | C-AB   | 552                   | 138                     | 854               | 0.646 | 586                 | 11.7              | 3.1             | 15.587    | C                             |
|          | C-A    | 143                   | 36                      |                   |       | 143                 |                   |                 |           |                               |
|          | A-B    | 50                    | 13                      |                   |       | 50                  |                   |                 |           |                               |
|          | A-C    | 477                   | 119                     |                   |       | 477                 |                   |                 |           |                               |
| 2        | B-AC   | 343                   | 86                      | 521               | 0.658 | 364                 | 7.5               | 2.1             | 25.704    | D                             |
|          | C-AB   | 203                   | 51                      | 857               | 0.236 | 204                 | 1.1               | 0.6             | 5.557     | A                             |
|          | C-A    | 382                   | 95                      |                   |       | 382                 |                   |                 |           |                               |
|          | A-B    | 71                    | 18                      |                   |       | 71                  |                   |                 |           |                               |
|          | A-C    | 475                   | 119                     |                   |       | 475                 |                   |                 |           |                               |
| 3        | B-AC   | 329                   | 82                      | 516               | 0.637 | 350                 | 7.1               | 1.9             | 24.016    | C                             |
|          | C-AB   | 249                   | 62                      | 792               | 0.315 | 252                 | 1.6               | 0.9             | 6.747     | A                             |
|          | C-A    | 307                   | 77                      |                   |       | 307                 |                   |                 |           |                               |
|          | A-B    | 83                    | 21                      |                   |       | 83                  |                   |                 |           |                               |
|          | A-C    | 600                   | 150                     |                   |       | 600                 |                   |                 |           |                               |

08:15 - 08:30

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 153                   | 38                      | 536               | 0.285 | 154                 | 0.6               | 0.4             | 9.430     | A                             |
|          | C-AB   | 387                   | 97                      | 799               | 0.485 | 394                 | 3.1               | 1.5             | 9.113     | A                             |
|          | C-A    | 195                   | 49                      |                   |       | 195                 |                   |                 |           |                               |
|          | A-B    | 42                    | 11                      |                   |       | 42                  |                   |                 |           |                               |
|          | A-C    | 400                   | 100                     |                   |       | 400                 |                   |                 |           |                               |
| 2        | B-AC   | 287                   | 72                      | 563               | 0.510 | 291                 | 2.1               | 1.1             | 13.412    | B                             |
|          | C-AB   | 145                   | 36                      | 812               | 0.178 | 146                 | 0.6               | 0.4             | 5.417     | A                             |
|          | C-A    | 345                   | 86                      |                   |       | 345                 |                   |                 |           |                               |
|          | A-B    | 59                    | 15                      |                   |       | 59                  |                   |                 |           |                               |
|          | A-C    | 398                   | 99                      |                   |       | 398                 |                   |                 |           |                               |
| 3        | B-AC   | 276                   | 69                      | 566               | 0.486 | 279                 | 1.9               | 1.0             | 12.681    | B                             |
|          | C-AB   | 178                   | 45                      | 755               | 0.236 | 180                 | 0.9               | 0.6             | 6.292     | A                             |
|          | C-A    | 288                   | 72                      |                   |       | 288                 |                   |                 |           |                               |
|          | A-B    | 69                    | 17                      |                   |       | 69                  |                   |                 |           |                               |
|          | A-C    | 502                   | 126                     |                   |       | 502                 |                   |                 |           |                               |

# 2027 - with Dev, PM

## Data Errors and Warnings

| Severity | Area        | Item       | Description  |
|----------|-------------|------------|--|
| Warning  | Vehicle Mix | Junction 1 | 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. |
| Warning  | Vehicle Mix | Junction 2 | 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. |
| Warning  | Vehicle Mix | Junction 3 | 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 | Arm A Direction | Arm B Direction | Arm C Direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|----------|----------|---------------|-----------------|-----------------|-----------------|-----------------------|--------------------|--------------|
| 1        | untitled | T-Junction    | Two-way         | Two-way         | Two-way         |                       | 7.41               | A            |
| 2        | untitled | T-Junction    | Two-way         | Two-way         | Two-way         |                       | 8.74               | A            |
| 3        | untitled | T-Junction    | Two-way         | Two-way         | Two-way         |                       | 7.82               | A            |

### Junction Network

| Driving side | Lighting       | Network residual capacity (%) | First arm reaching threshold | Network delay (s) | Network LOS |
|--------------|----------------|-------------------------------|------------------------------|-------------------|-------------|
| Left         | Normal/unknown | 4                             | Junction 1 - Stream B-AC     | 8.00              | A           |

## Traffic Demand

### Demand Set Details

| ID | Scenario name   | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|----|-----------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D8 | 2027 - with Dev | PM               | ONE HOUR             | 16:00              | 17:30               | 15                        | ✓                 |

### Demand overview (Traffic)

| Junction | Arm | Linked arm | Profile type | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|----------|-----|------------|--------------|--------------|-------------------------|--------------------|
| 1        | A   |            | ONE HOUR     | ✓            | 515                     | 100.000            |
|          | B   |            | ONE HOUR     | ✓            | 357                     | 100.000            |
|          | C   |            | ONE HOUR     | ✓            | 733                     | 100.000            |
| 2        | A   |            | ONE HOUR     | ✓            | 825                     | 100.000            |
|          | B   |            | ONE HOUR     | ✓            | 172                     | 100.000            |
|          | C   |            | ONE HOUR     | ✓            | 699                     | 100.000            |
| 3        | A   |            | ONE HOUR     | ✓            | 730                     | 100.000            |
|          | B   |            | ONE HOUR     | ✓            | 236                     | 100.000            |
|          | C   |            | ONE HOUR     | ✓            | 737                     | 100.000            |

## Origin-Destination Data

### Demand (PCU/hr)

#### Junction 1

|      |   | To  |     |     |
|------|---|-----|-----|-----|
|      |   | A   | B   | C   |
| From | A | 0   | 60  | 455 |
|      | B | 69  | 0   | 288 |
|      | C | 633 | 100 | 0   |

**Demand (PCU/hr)**

**Junction 2**

|      |   | To  |     |     |
|------|---|-----|-----|-----|
|      |   | A   | B   | C   |
| From | A | 0   | 189 | 636 |
|      | B | 60  | 0   | 112 |
|      | C | 501 | 198 | 0   |
|      |   |     |     |     |

**Demand (PCU/hr)**

**Junction 3**

|      |   | To  |     |     |
|------|---|-----|-----|-----|
|      |   | A   | B   | C   |
| From | A | 0   | 199 | 531 |
|      | B | 113 | 0   | 123 |
|      | C | 556 | 181 | 0   |
|      |   |     |     |     |

**Vehicle Mix**

| HV data entry mode | PCU Factor for a HV (PCU) |
|--------------------|---------------------------|
| HV Percentages     | 2.00                      |

**Heavy Vehicle %**

**Junction 1**

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

**Heavy Vehicle %**

**Junction 2**

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

**Heavy Vehicle %**

**Junction 3**

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

## Results

### Results Summary for whole modelled period

| Junction | Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) |
|----------|--------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| 1        | B-AC   | 0.76    | 28.75         | 3.0             | D       | 328                     | 491                           |
|          | C-AB   | 0.37    | 5.76          | 1.3             | A       | 258                     | 387                           |
|          | C-A    |         |               |                 |         | 414                     | 622                           |
|          | A-B    |         |               |                 |         | 55                      | 83                            |
|          | A-C    |         |               |                 |         | 418                     | 626                           |
| 2        | B-AC   | 0.51    | 19.97         | 1.0             | C       | 158                     | 237                           |
|          | C-AB   | 0.80    | 22.49         | 6.4             | C       | 465                     | 697                           |
|          | C-A    |         |               |                 |         | 177                     | 265                           |
|          | A-B    |         |               |                 |         | 173                     | 260                           |
|          | A-C    |         |               |                 |         | 584                     | 875                           |
| 3        | B-AC   | 0.64    | 24.48         | 1.7             | C       | 217                     | 325                           |
|          | C-AB   | 0.72    | 15.29         | 4.7             | C       | 453                     | 679                           |
|          | C-A    |         |               |                 |         | 224                     | 336                           |
|          | A-B    |         |               |                 |         | 183                     | 274                           |
|          | A-C    |         |               |                 |         | 487                     | 731                           |

### Main Results for each time segment

#### 16:00 - 16:15

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 269                   | 67                      | 591               | 0.455 | 266                 | 0.0               | 0.8             | 10.972    | B                             |
|          | C-AB   | 167                   | 42                      | 867               | 0.193 | 165                 | 0.0               | 0.5             | 5.130     | A                             |
|          | C-A    | 385                   | 96                      |                   |       | 385                 |                   |                 |           |                               |
|          | A-B    | 45                    | 11                      |                   |       | 45                  |                   |                 |           |                               |
|          | A-C    | 343                   | 86                      |                   |       | 343                 |                   |                 |           |                               |
| 2        | B-AC   | 129                   | 32                      | 516               | 0.251 | 128                 | 0.0               | 0.3             | 9.259     | A                             |
|          | C-AB   | 300                   | 75                      | 749               | 0.400 | 296                 | 0.0               | 1.1             | 7.919     | A                             |
|          | C-A    | 226                   | 57                      |                   |       | 226                 |                   |                 |           |                               |
|          | A-B    | 142                   | 36                      |                   |       | 142                 |                   |                 |           |                               |
|          | A-C    | 479                   | 120                     |                   |       | 479                 |                   |                 |           |                               |
| 3        | B-AC   | 178                   | 44                      | 541               | 0.328 | 176                 | 0.0               | 0.5             | 9.808     | A                             |
|          | C-AB   | 291                   | 73                      | 787               | 0.370 | 287                 | 0.0               | 1.0             | 7.192     | A                             |
|          | C-A    | 264                   | 66                      |                   |       | 264                 |                   |                 |           |                               |
|          | A-B    | 150                   | 37                      |                   |       | 150                 |                   |                 |           |                               |
|          | A-C    | 400                   | 100                     |                   |       | 400                 |                   |                 |           |                               |

16:15 - 16:30

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 321                   | 80                      | 560               | 0.573 | 319                 | 0.8               | 1.3             | 14.795    | B                             |
|          | C-AB   | 237                   | 59                      | 921               | 0.257 | 236                 | 0.5               | 0.7             | 5.269     | A                             |
|          | C-A    | 422                   | 106                     |                   |       | 422                 |                   |                 |           |                               |
|          | A-B    | 54                    | 13                      |                   |       | 54                  |                   |                 |           |                               |
|          | A-C    | 409                   | 102                     |                   |       | 409                 |                   |                 |           |                               |
| 2        | B-AC   | 155                   | 39                      | 459               | 0.337 | 154                 | 0.3               | 0.5             | 11.774    | B                             |
|          | C-AB   | 423                   | 106                     | 783               | 0.540 | 420                 | 1.1               | 1.9             | 9.965     | A                             |
|          | C-A    | 205                   | 51                      |                   |       | 205                 |                   |                 |           |                               |
|          | A-B    | 170                   | 42                      |                   |       | 170                 |                   |                 |           |                               |
|          | A-C    | 572                   | 143                     |                   |       | 572                 |                   |                 |           |                               |
| 3        | B-AC   | 212                   | 53                      | 487               | 0.435 | 211                 | 0.5               | 0.8             | 12.987    | B                             |
|          | C-AB   | 413                   | 103                     | 831               | 0.497 | 410                 | 1.0               | 1.7             | 8.603     | A                             |
|          | C-A    | 250                   | 62                      |                   |       | 250                 |                   |                 |           |                               |
|          | A-B    | 179                   | 45                      |                   |       | 179                 |                   |                 |           |                               |
|          | A-C    | 477                   | 119                     |                   |       | 477                 |                   |                 |           |                               |

16:30 - 16:45

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 393                   | 98                      | 516               | 0.761 | 387                 | 1.3               | 2.8             | 26.581    | D                             |
|          | C-AB   | 369                   | 92                      | 998               | 0.369 | 366                 | 0.7               | 1.2             | 5.721     | A                             |
|          | C-A    | 439                   | 110                     |                   |       | 439                 |                   |                 |           |                               |
|          | A-B    | 66                    | 17                      |                   |       | 66                  |                   |                 |           |                               |
|          | A-C    | 501                   | 125                     |                   |       | 501                 |                   |                 |           |                               |
| 2        | B-AC   | 189                   | 47                      | 373               | 0.507 | 187                 | 0.5               | 1.0             | 19.177    | C                             |
|          | C-AB   | 657                   | 164                     | 834               | 0.788 | 642                 | 1.9               | 5.8             | 19.088    | C                             |
|          | C-A    | 112                   | 28                      |                   |       | 112                 |                   |                 |           |                               |
|          | A-B    | 208                   | 52                      |                   |       | 208                 |                   |                 |           |                               |
|          | A-C    | 700                   | 175                     |                   |       | 700                 |                   |                 |           |                               |
| 3        | B-AC   | 260                   | 65                      | 409               | 0.636 | 256                 | 0.8               | 1.6             | 23.114    | C                             |
|          | C-AB   | 643                   | 161                     | 895               | 0.719 | 633                 | 1.7               | 4.4             | 13.981    | B                             |
|          | C-A    | 168                   | 42                      |                   |       | 168                 |                   |                 |           |                               |
|          | A-B    | 219                   | 55                      |                   |       | 219                 |                   |                 |           |                               |
|          | A-C    | 585                   | 146                     |                   |       | 585                 |                   |                 |           |                               |

16:45 - 17:00

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 393                   | 98                      | 516               | 0.762 | 392                 | 2.8               | 3.0             | 28.750    | D                             |
|          | C-AB   | 370                   | 92                      | 1000              | 0.370 | 370                 | 1.2               | 1.3             | 5.764     | A                             |
|          | C-A    | 437                   | 109                     |                   |       | 437                 |                   |                 |           |                               |
|          | A-B    | 66                    | 17                      |                   |       | 66                  |                   |                 |           |                               |
|          | A-C    | 501                   | 125                     |                   |       | 501                 |                   |                 |           |                               |
| 2        | B-AC   | 189                   | 47                      | 369               | 0.513 | 189                 | 1.0               | 1.0             | 19.967    | C                             |
|          | C-AB   | 670                   | 168                     | 842               | 0.795 | 668                 | 5.8               | 6.4             | 22.488    | C                             |
|          | C-A    | 99                    | 25                      |                   |       | 99                  |                   |                 |           |                               |
|          | A-B    | 208                   | 52                      |                   |       | 208                 |                   |                 |           |                               |
|          | A-C    | 700                   | 175                     |                   |       | 700                 |                   |                 |           |                               |
| 3        | B-AC   | 260                   | 65                      | 406               | 0.640 | 260                 | 1.6               | 1.7             | 24.476    | C                             |
|          | C-AB   | 653                   | 163                     | 901               | 0.724 | 651                 | 4.4               | 4.7             | 15.289    | C                             |
|          | C-A    | 159                   | 40                      |                   |       | 159                 |                   |                 |           |                               |
|          | A-B    | 219                   | 55                      |                   |       | 219                 |                   |                 |           |                               |
|          | A-C    | 585                   | 146                     |                   |       | 585                 |                   |                 |           |                               |

17:00 - 17:15

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 321                   | 80                      | 560               | 0.573 | 327                 | 3.0               | 1.4             | 15.870    | C                             |
|          | C-AB   | 238                   | 60                      | 923               | 0.258 | 240                 | 1.3               | 0.7             | 5.312     | A                             |
|          | C-A    | 421                   | 105                     |                   |       | 421                 |                   |                 |           |                               |
|          | A-B    | 54                    | 13                      |                   |       | 54                  |                   |                 |           |                               |
|          | A-C    | 409                   | 102                     |                   |       | 409                 |                   |                 |           |                               |
| 2        | B-AC   | 155                   | 39                      | 455               | 0.340 | 157                 | 1.0               | 0.5             | 12.163    | B                             |
|          | C-AB   | 434                   | 109                     | 795               | 0.547 | 451                 | 6.4               | 2.1             | 11.214    | B                             |
|          | C-A    | 194                   | 48                      |                   |       | 194                 |                   |                 |           |                               |
|          | A-B    | 170                   | 42                      |                   |       | 170                 |                   |                 |           |                               |
|          | A-C    | 572                   | 143                     |                   |       | 572                 |                   |                 |           |                               |
| 3        | B-AC   | 212                   | 53                      | 484               | 0.438 | 216                 | 1.7               | 0.8             | 13.604    | B                             |
|          | C-AB   | 421                   | 105                     | 839               | 0.501 | 432                 | 4.7               | 1.9             | 9.234     | A                             |
|          | C-A    | 242                   | 60                      |                   |       | 242                 |                   |                 |           |                               |
|          | A-B    | 179                   | 45                      |                   |       | 179                 |                   |                 |           |                               |
|          | A-C    | 477                   | 119                     |                   |       | 477                 |                   |                 |           |                               |

17:15 - 17:30

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 269                   | 67                      | 590               | 0.455 | 271                 | 1.4               | 0.9             | 11.351    | B                             |
|          | C-AB   | 169                   | 42                      | 868               | 0.194 | 170                 | 0.7               | 0.5             | 5.172     | A                             |
|          | C-A    | 383                   | 96                      |                   |       | 383                 |                   |                 |           |                               |
|          | A-B    | 45                    | 11                      |                   |       | 45                  |                   |                 |           |                               |
|          | A-C    | 343                   | 86                      |                   |       | 343                 |                   |                 |           |                               |
| 2        | B-AC   | 129                   | 32                      | 514               | 0.252 | 130                 | 0.5               | 0.3             | 9.401     | A                             |
|          | C-AB   | 304                   | 76                      | 753               | 0.404 | 308                 | 2.1               | 1.1             | 8.227     | A                             |
|          | C-A    | 222                   | 56                      |                   |       | 222                 |                   |                 |           |                               |
|          | A-B    | 142                   | 36                      |                   |       | 142                 |                   |                 |           |                               |
|          | A-C    | 479                   | 120                     |                   |       | 479                 |                   |                 |           |                               |
| 3        | B-AC   | 178                   | 44                      | 539               | 0.329 | 179                 | 0.8               | 0.5             | 10.022    | B                             |
|          | C-AB   | 295                   | 74                      | 790               | 0.373 | 298                 | 1.9               | 1.0             | 7.414     | A                             |
|          | C-A    | 260                   | 65                      |                   |       | 260                 |                   |                 |           |                               |
|          | A-B    | 150                   | 37                      |                   |       | 150                 |                   |                 |           |                               |
|          | A-C    | 400                   | 100                     |                   |       | 400                 |                   |                 |           |                               |

# 2032 - Without Dev, AM

## Data Errors and Warnings

| Severity | Area        | Item       | Description  |
|----------|-------------|------------|--|
| Warning  | Vehicle Mix | Junction 1 | 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. |
| Warning  | Vehicle Mix | Junction 2 | 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. |
| Warning  | Vehicle Mix | Junction 3 | 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 | Arm A Direction | Arm B Direction | Arm C Direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|----------|----------|---------------|-----------------|-----------------|-----------------|-----------------------|--------------------|--------------|
| 1        | untitled | T-Junction    | Two-way         | Two-way         | Two-way         |                       | 39.83              | E            |
| 2        | untitled | T-Junction    | Two-way         | Two-way         | Two-way         |                       | 23.90              | C            |
| 3        | untitled | T-Junction    | Two-way         | Two-way         | Two-way         |                       | 30.13              | D            |

### Junction Network

| Driving side | Lighting       | Network residual capacity (%) | First arm reaching threshold | Network delay (s) | Network LOS |
|--------------|----------------|-------------------------------|------------------------------|-------------------|-------------|
| Left         | Normal/unknown | -12                           | Junction 3 - Stream B-AC     | 31.12             | D           |

## Traffic Demand

### Demand Set Details

| ID | Scenario name      | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|----|--------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D9 | 2032 - Without Dev | AM               | ONE HOUR             | 07:00              | 08:30               | 15                        | ✓                 |

### Demand overview (Traffic)

| Junction | Arm | Linked arm | Profile type | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|----------|-----|------------|--------------|--------------|-------------------------|--------------------|
| 1        | A   |            | ONE HOUR     | ✓            | 616                     | 100.000            |
|          | B   |            | ONE HOUR     | ✓            | 166                     | 100.000            |
|          | C   |            | ONE HOUR     | ✓            | 824                     | 100.000            |
| 2        | A   |            | ONE HOUR     | ✓            | 612                     | 100.000            |
|          | B   |            | ONE HOUR     | ✓            | 398                     | 100.000            |
|          | C   |            | ONE HOUR     | ✓            | 678                     | 100.000            |
| 3        | A   |            | ONE HOUR     | ✓            | 785                     | 100.000            |
|          | B   |            | ONE HOUR     | ✓            | 392                     | 100.000            |
|          | C   |            | ONE HOUR     | ✓            | 659                     | 100.000            |

## Origin-Destination Data

### Demand (PCU/hr)

#### Junction 1

|      |   | To  |     |     |
|------|---|-----|-----|-----|
|      |   | A   | B   | C   |
| From | A | 0   | 46  | 570 |
|      | B | 16  | 0   | 150 |
|      | C | 550 | 274 | 0   |

**Demand (PCU/hr)**

**Junction 2**

|      |   | To  |    |     |
|------|---|-----|----|-----|
|      |   | A   | B  | C   |
| From | A | 0   | 80 | 532 |
|      | B | 151 | 0  | 247 |
|      | C | 588 | 90 | 0   |

**Demand (PCU/hr)**

**Junction 3**

|      |   | To  |     |     |
|------|---|-----|-----|-----|
|      |   | A   | B   | C   |
| From | A | 0   | 96  | 689 |
|      | B | 146 | 0   | 246 |
|      | C | 533 | 126 | 0   |

## Vehicle Mix

| HV data entry mode | PCU Factor for a HV (PCU) |
|--------------------|---------------------------|
| HV Percentages     | 2.00                      |

**Heavy Vehicle %**

**Junction 1**

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

**Heavy Vehicle %**

**Junction 2**

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

**Heavy Vehicle %**

**Junction 3**

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

## Results

### Results Summary for whole modelled period

| Junction | Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) |
|----------|--------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| 1        | B-AC   | 0.37    | 11.62         | 0.6             | B       | 152                     | 228                           |
|          | C-AB   | 0.99    | 87.31         | 24.2            | F       | 652                     | 978                           |
|          | C-A    |         |               |                 |         | 104                     | 156                           |
|          | A-B    |         |               |                 |         | 42                      | 63                            |
|          | A-C    |         |               |                 |         | 523                     | 785                           |
| 2        | B-AC   | 0.97    | 97.77         | 11.4            | F       | 365                     | 548                           |
|          | C-AB   | 0.34    | 5.83          | 1.1             | A       | 225                     | 337                           |
|          | C-A    |         |               |                 |         | 397                     | 596                           |
|          | A-B    |         |               |                 |         | 73                      | 110                           |
|          | A-C    |         |               |                 |         | 488                     | 732                           |
| 3        | B-AC   | 1.01    | 133.78        | 16.0            | F       | 360                     | 540                           |
|          | C-AB   | 0.51    | 8.58          | 2.1             | A       | 307                     | 461                           |
|          | C-A    |         |               |                 |         | 298                     | 446                           |
|          | A-B    |         |               |                 |         | 88                      | 132                           |
|          | A-C    |         |               |                 |         | 632                     | 948                           |

### Main Results for each time segment

#### 07:00 - 07:15

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 125                   | 31                      | 591               | 0.211 | 124                 | 0.0               | 0.3             | 7.686     | A                             |
|          | C-AB   | 422                   | 106                     | 810               | 0.522 | 416                 | 0.0               | 1.6             | 9.097     | A                             |
|          | C-A    | 198                   | 50                      |                   |       | 198                 |                   |                 |           |                               |
|          | A-B    | 35                    | 9                       |                   |       | 35                  |                   |                 |           |                               |
|          | A-C    | 429                   | 107                     |                   |       | 429                 |                   |                 |           |                               |
| 2        | B-AC   | 300                   | 75                      | 559               | 0.536 | 295                 | 0.0               | 1.1             | 13.409    | B                             |
|          | C-AB   | 146                   | 36                      | 827               | 0.176 | 144                 | 0.0               | 0.4             | 5.272     | A                             |
|          | C-A    | 365                   | 91                      |                   |       | 365                 |                   |                 |           |                               |
|          | A-B    | 60                    | 15                      |                   |       | 60                  |                   |                 |           |                               |
|          | A-C    | 401                   | 100                     |                   |       | 401                 |                   |                 |           |                               |
| 3        | B-AC   | 295                   | 74                      | 557               | 0.530 | 291                 | 0.0               | 1.1             | 13.331    | B                             |
|          | C-AB   | 199                   | 50                      | 767               | 0.259 | 196                 | 0.0               | 0.6             | 6.304     | A                             |
|          | C-A    | 297                   | 74                      |                   |       | 297                 |                   |                 |           |                               |
|          | A-B    | 72                    | 18                      |                   |       | 72                  |                   |                 |           |                               |
|          | A-C    | 519                   | 130                     |                   |       | 519                 |                   |                 |           |                               |

## 07:15 - 07:30

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 149                   | 37                      | 556               | 0.269 | 149                 | 0.3               | 0.4             | 8.839     | A                             |
|          | C-AB   | 592                   | 148                     | 854               | 0.693 | 585                 | 1.6               | 3.4             | 13.495    | B                             |
|          | C-A    | 149                   | 37                      |                   |       | 149                 |                   |                 |           |                               |
|          | A-B    | 41                    | 10                      |                   |       | 41                  |                   |                 |           |                               |
|          | A-C    | 512                   | 128                     |                   |       | 512                 |                   |                 |           |                               |
| 2        | B-AC   | 358                   | 89                      | 516               | 0.693 | 354                 | 1.1               | 2.1             | 21.661    | C                             |
|          | C-AB   | 206                   | 52                      | 874               | 0.236 | 205                 | 0.4               | 0.6             | 5.396     | A                             |
|          | C-A    | 403                   | 101                     |                   |       | 403                 |                   |                 |           |                               |
|          | A-B    | 72                    | 18                      |                   |       | 72                  |                   |                 |           |                               |
|          | A-C    | 478                   | 120                     |                   |       | 478                 |                   |                 |           |                               |
| 3        | B-AC   | 352                   | 88                      | 504               | 0.699 | 348                 | 1.1               | 2.2             | 22.516    | C                             |
|          | C-AB   | 281                   | 70                      | 807               | 0.349 | 280                 | 0.6               | 1.0             | 6.859     | A                             |
|          | C-A    | 311                   | 78                      |                   |       | 311                 |                   |                 |           |                               |
|          | A-B    | 86                    | 22                      |                   |       | 86                  |                   |                 |           |                               |
|          | A-C    | 619                   | 155                     |                   |       | 619                 |                   |                 |           |                               |

## 07:30 - 07:45

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 183                   | 46                      | 500               | 0.366 | 182                 | 0.4               | 0.6             | 11.290    | B                             |
|          | C-AB   | 907                   | 227                     | 918               | 0.988 | 850                 | 3.4               | 17.7            | 48.269    | E                             |
|          | C-A    | 0                     | 0                       |                   |       | 0                   |                   |                 |           |                               |
|          | A-B    | 51                    | 13                      |                   |       | 51                  |                   |                 |           |                               |
|          | A-C    | 628                   | 157                     |                   |       | 628                 |                   |                 |           |                               |
| 2        | B-AC   | 438                   | 110                     | 453               | 0.967 | 412                 | 2.1               | 8.6             | 65.000    | F                             |
|          | C-AB   | 320                   | 80                      | 942               | 0.340 | 318                 | 0.6               | 1.1             | 5.795     | A                             |
|          | C-A    | 426                   | 107                     |                   |       | 426                 |                   |                 |           |                               |
|          | A-B    | 88                    | 22                      |                   |       | 88                  |                   |                 |           |                               |
|          | A-C    | 586                   | 146                     |                   |       | 586                 |                   |                 |           |                               |
| 3        | B-AC   | 432                   | 108                     | 426               | 1.013 | 397                 | 2.2               | 10.9            | 79.959    | F                             |
|          | C-AB   | 437                   | 109                     | 865               | 0.506 | 433                 | 1.0               | 2.0             | 8.417     | A                             |
|          | C-A    | 288                   | 72                      |                   |       | 288                 |                   |                 |           |                               |
|          | A-B    | 106                   | 26                      |                   |       | 106                 |                   |                 |           |                               |
|          | A-C    | 759                   | 190                     |                   |       | 759                 |                   |                 |           |                               |

## 07:45 - 08:00

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 183                   | 46                      | 492               | 0.371 | 183                 | 0.6               | 0.6             | 11.615    | B                             |
|          | C-AB   | 907                   | 227                     | 920               | 0.986 | 881                 | 17.7              | 24.2            | 87.313    | F                             |
|          | C-A    | 0                     | 0                       |                   |       | 0                   |                   |                 |           |                               |
|          | A-B    | 51                    | 13                      |                   |       | 51                  |                   |                 |           |                               |
|          | A-C    | 628                   | 157                     |                   |       | 628                 |                   |                 |           |                               |
| 2        | B-AC   | 438                   | 110                     | 453               | 0.968 | 427                 | 8.6               | 11.4            | 97.769    | F                             |
|          | C-AB   | 321                   | 80                      | 943               | 0.341 | 321                 | 1.1               | 1.1             | 5.833     | A                             |
|          | C-A    | 425                   | 106                     |                   |       | 425                 |                   |                 |           |                               |
|          | A-B    | 88                    | 22                      |                   |       | 88                  |                   |                 |           |                               |
|          | A-C    | 586                   | 146                     |                   |       | 586                 |                   |                 |           |                               |
| 3        | B-AC   | 432                   | 108                     | 425               | 1.015 | 411                 | 10.9              | 16.0            | 133.782   | F                             |
|          | C-AB   | 440                   | 110                     | 867               | 0.508 | 440                 | 2.0               | 2.1             | 8.583     | A                             |
|          | C-A    | 285                   | 71                      |                   |       | 285                 |                   |                 |           |                               |
|          | A-B    | 106                   | 26                      |                   |       | 106                 |                   |                 |           |                               |
|          | A-C    | 759                   | 190                     |                   |       | 759                 |                   |                 |           |                               |

08:00 - 08:15

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 149                   | 37                      | 547               | 0.273 | 150                 | 0.6               | 0.4             | 9.079     | A                             |
|          | C-AB   | 651                   | 163                     | 899               | 0.725 | 729                 | 24.2              | 4.7             | 32.479    | D                             |
|          | C-A    | 89                    | 22                      |                   |       | 89                  |                   |                 |           |                               |
|          | A-B    | 41                    | 10                      |                   |       | 41                  |                   |                 |           |                               |
|          | A-C    | 512                   | 128                     |                   |       | 512                 |                   |                 |           |                               |
| 2        | B-AC   | 358                   | 89                      | 516               | 0.694 | 393                 | 11.4              | 2.5             | 36.000    | E                             |
|          | C-AB   | 207                   | 52                      | 876               | 0.237 | 209                 | 1.1               | 0.6             | 5.441     | A                             |
|          | C-A    | 402                   | 101                     |                   |       | 402                 |                   |                 |           |                               |
|          | A-B    | 72                    | 18                      |                   |       | 72                  |                   |                 |           |                               |
|          | A-C    | 478                   | 120                     |                   |       | 478                 |                   |                 |           |                               |
| 3        | B-AC   | 352                   | 88                      | 503               | 0.701 | 406                 | 16.0              | 2.6             | 50.692    | F                             |
|          | C-AB   | 284                   | 71                      | 810               | 0.350 | 288                 | 2.1               | 1.1             | 7.001     | A                             |
|          | C-A    | 308                   | 77                      |                   |       | 308                 |                   |                 |           |                               |
|          | A-B    | 86                    | 22                      |                   |       | 86                  |                   |                 |           |                               |
|          | A-C    | 619                   | 155                     |                   |       | 619                 |                   |                 |           |                               |

08:15 - 08:30

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 125                   | 31                      | 590               | 0.212 | 125                 | 0.4               | 0.3             | 7.758     | A                             |
|          | C-AB   | 432                   | 108                     | 818               | 0.528 | 443                 | 4.7               | 1.8             | 10.031    | B                             |
|          | C-A    | 189                   | 47                      |                   |       | 189                 |                   |                 |           |                               |
|          | A-B    | 35                    | 9                       |                   |       | 35                  |                   |                 |           |                               |
|          | A-C    | 429                   | 107                     |                   |       | 429                 |                   |                 |           |                               |
| 2        | B-AC   | 300                   | 75                      | 559               | 0.536 | 305                 | 2.5               | 1.2             | 14.432    | B                             |
|          | C-AB   | 147                   | 37                      | 828               | 0.178 | 148                 | 0.6               | 0.4             | 5.314     | A                             |
|          | C-A    | 363                   | 91                      |                   |       | 363                 |                   |                 |           |                               |
|          | A-B    | 60                    | 15                      |                   |       | 60                  |                   |                 |           |                               |
|          | A-C    | 401                   | 100                     |                   |       | 401                 |                   |                 |           |                               |
| 3        | B-AC   | 295                   | 74                      | 556               | 0.531 | 301                 | 2.6               | 1.2             | 14.421    | B                             |
|          | C-AB   | 201                   | 50                      | 769               | 0.261 | 203                 | 1.1               | 0.6             | 6.397     | A                             |
|          | C-A    | 295                   | 74                      |                   |       | 295                 |                   |                 |           |                               |
|          | A-B    | 72                    | 18                      |                   |       | 72                  |                   |                 |           |                               |
|          | A-C    | 519                   | 130                     |                   |       | 519                 |                   |                 |           |                               |

# 2032 - without Dev, PM

## Data Errors and Warnings

| Severity | Area        | Item       | Description  |
|----------|-------------|------------|--|
| Warning  | Vehicle Mix | Junction 1 | 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. |
| Warning  | Vehicle Mix | Junction 2 | 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. |
| Warning  | Vehicle Mix | Junction 3 | 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 | Arm A Direction | Arm B Direction | Arm C Direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|----------|----------|---------------|-----------------|-----------------|-----------------|-----------------------|--------------------|--------------|
| 1        | untitled | T-Junction    | Two-way         | Two-way         | Two-way         |                       | 5.83               | A            |
| 2        | untitled | T-Junction    | Two-way         | Two-way         | Two-way         |                       | 9.67               | A            |
| 3        | untitled | T-Junction    | Two-way         | Two-way         | Two-way         |                       | 11.53              | B            |

### Junction Network

| Driving side | Lighting       | Network residual capacity (%) | First arm reaching threshold | Network delay (s) | Network LOS |
|--------------|----------------|-------------------------------|------------------------------|-------------------|-------------|
| Left         | Normal/unknown | 1                             | Junction 3 - Stream B-AC     | 9.10              | A           |

## Traffic Demand

### Demand Set Details

| ID  | Scenario name      | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|-----|--------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D10 | 2032 - without Dev | PM               | ONE HOUR             | 16:00              | 17:30               | 15                        | ✓                 |

### Demand overview (Traffic)

| Junction | Arm | Linked arm | Profile type | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|----------|-----|------------|--------------|--------------|-------------------------|--------------------|
| 1        | A   |            | ONE HOUR     | ✓            | 509                     | 100.000            |
|          | B   |            | ONE HOUR     | ✓            | 346                     | 100.000            |
|          | C   |            | ONE HOUR     | ✓            | 771                     | 100.000            |
| 2        | A   |            | ONE HOUR     | ✓            | 857                     | 100.000            |
|          | B   |            | ONE HOUR     | ✓            | 170                     | 100.000            |
|          | C   |            | ONE HOUR     | ✓            | 698                     | 100.000            |
| 3        | A   |            | ONE HOUR     | ✓            | 770                     | 100.000            |
|          | B   |            | ONE HOUR     | ✓            | 249                     | 100.000            |
|          | C   |            | ONE HOUR     | ✓            | 766                     | 100.000            |

## Origin-Destination Data

### Demand (PCU/hr)

Junction 1

|      |   | To  |    |     |
|------|---|-----|----|-----|
|      |   | A   | B  | C   |
| From | A | 0   | 21 | 488 |
|      | B | 46  | 0  | 300 |
|      | C | 679 | 92 | 0   |

**Demand (PCU/hr)**

**Junction 2**

|      |   | To  |     |     |
|------|---|-----|-----|-----|
|      |   | A   | B   | C   |
| From | A | 0   | 197 | 660 |
|      | B | 60  | 0   | 110 |
|      | C | 499 | 199 | 0   |

**Demand (PCU/hr)**

**Junction 3**

|      |   | To  |     |     |
|------|---|-----|-----|-----|
|      |   | A   | B   | C   |
| From | A | 0   | 210 | 560 |
|      | B | 117 | 0   | 132 |
|      | C | 572 | 194 | 0   |

## Vehicle Mix

| HV data entry mode | PCU Factor for a HV (PCU) |
|--------------------|---------------------------|
| HV Percentages     | 2.00                      |

**Heavy Vehicle %**

**Junction 1**

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

**Heavy Vehicle %**

**Junction 2**

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

**Heavy Vehicle %**

**Junction 3**

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

## Results

### Results Summary for whole modelled period

| Junction | Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) |
|----------|--------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| 1        | B-AC   | 0.71    | 23.04         | 2.4             | C       | 317                     | 476                           |
|          | C-AB   | 0.36    | 5.43          | 1.2             | A       | 255                     | 382                           |
|          | C-A    |         |               |                 |         | 453                     | 679                           |
|          | A-B    |         |               |                 |         | 19                      | 29                            |
|          | A-C    |         |               |                 |         | 448                     | 672                           |
| 2        | B-AC   | 0.53    | 21.34         | 1.1             | C       | 156                     | 234                           |
|          | C-AB   | 0.82    | 25.39         | 7.2             | D       | 471                     | 707                           |
|          | C-A    |         |               |                 |         | 169                     | 253                           |
|          | A-B    |         |               |                 |         | 181                     | 271                           |
|          | A-C    |         |               |                 |         | 606                     | 908                           |
| 3        | B-AC   | 0.71    | 32.29         | 2.3             | D       | 228                     | 343                           |
|          | C-AB   | 0.81    | 22.71         | 7.3             | C       | 507                     | 760                           |
|          | C-A    |         |               |                 |         | 196                     | 294                           |
|          | A-B    |         |               |                 |         | 193                     | 289                           |
|          | A-C    |         |               |                 |         | 514                     | 771                           |

### Main Results for each time segment

#### 16:00 - 16:15

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 260                   | 65                      | 607               | 0.429 | 258                 | 0.0               | 0.7             | 10.215    | B                             |
|          | C-AB   | 162                   | 41                      | 892               | 0.182 | 160                 | 0.0               | 0.4             | 4.919     | A                             |
|          | C-A    | 418                   | 105                     |                   |       | 418                 |                   |                 |           |                               |
|          | A-B    | 16                    | 4                       |                   |       | 16                  |                   |                 |           |                               |
|          | A-C    | 367                   | 92                      |                   |       | 367                 |                   |                 |           |                               |
| 2        | B-AC   | 128                   | 32                      | 507               | 0.252 | 127                 | 0.0               | 0.3             | 9.423     | A                             |
|          | C-AB   | 303                   | 76                      | 744               | 0.407 | 298                 | 0.0               | 1.1             | 8.063     | A                             |
|          | C-A    | 223                   | 56                      |                   |       | 223                 |                   |                 |           |                               |
|          | A-B    | 148                   | 37                      |                   |       | 148                 |                   |                 |           |                               |
|          | A-C    | 497                   | 124                     |                   |       | 497                 |                   |                 |           |                               |
| 3        | B-AC   | 187                   | 47                      | 530               | 0.354 | 185                 | 0.0               | 0.5             | 10.390    | B                             |
|          | C-AB   | 321                   | 80                      | 791               | 0.406 | 316                 | 0.0               | 1.1             | 7.573     | A                             |
|          | C-A    | 256                   | 64                      |                   |       | 256                 |                   |                 |           |                               |
|          | A-B    | 158                   | 40                      |                   |       | 158                 |                   |                 |           |                               |
|          | A-C    | 422                   | 105                     |                   |       | 422                 |                   |                 |           |                               |

16:15 - 16:30

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 311                   | 78                      | 578               | 0.538 | 309                 | 0.7               | 1.1             | 13.314    | B                             |
|          | C-AB   | 232                   | 58                      | 952               | 0.244 | 232                 | 0.4               | 0.7             | 5.014     | A                             |
|          | C-A    | 461                   | 115                     |                   |       | 461                 |                   |                 |           |                               |
|          | A-B    | 19                    | 5                       |                   |       | 19                  |                   |                 |           |                               |
|          | A-C    | 439                   | 110                     |                   |       | 439                 |                   |                 |           |                               |
| 2        | B-AC   | 153                   | 38                      | 449               | 0.340 | 152                 | 0.3               | 0.5             | 12.101    | B                             |
|          | C-AB   | 428                   | 107                     | 777               | 0.551 | 424                 | 1.1               | 2.0             | 10.281    | B                             |
|          | C-A    | 200                   | 50                      |                   |       | 200                 |                   |                 |           |                               |
|          | A-B    | 177                   | 44                      |                   |       | 177                 |                   |                 |           |                               |
|          | A-C    | 593                   | 148                     |                   |       | 593                 |                   |                 |           |                               |
| 3        | B-AC   | 224                   | 56                      | 472               | 0.474 | 222                 | 0.5               | 0.9             | 14.322    | B                             |
|          | C-AB   | 458                   | 115                     | 836               | 0.548 | 455                 | 1.1               | 2.1             | 9.510     | A                             |
|          | C-A    | 230                   | 58                      |                   |       | 230                 |                   |                 |           |                               |
|          | A-B    | 189                   | 47                      |                   |       | 189                 |                   |                 |           |                               |
|          | A-C    | 503                   | 126                     |                   |       | 503                 |                   |                 |           |                               |

16:30 - 16:45

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 381                   | 95                      | 536               | 0.711 | 376                 | 1.1               | 2.3             | 21.915    | C                             |
|          | C-AB   | 368                   | 92                      | 1036              | 0.355 | 366                 | 0.7               | 1.2             | 5.395     | A                             |
|          | C-A    | 481                   | 120                     |                   |       | 481                 |                   |                 |           |                               |
|          | A-B    | 23                    | 6                       |                   |       | 23                  |                   |                 |           |                               |
|          | A-C    | 537                   | 134                     |                   |       | 537                 |                   |                 |           |                               |
| 2        | B-AC   | 187                   | 47                      | 360               | 0.520 | 185                 | 0.5               | 1.0             | 20.341    | C                             |
|          | C-AB   | 668                   | 167                     | 826               | 0.808 | 650                 | 2.0               | 6.4             | 20.825    | C                             |
|          | C-A    | 101                   | 25                      |                   |       | 101                 |                   |                 |           |                               |
|          | A-B    | 217                   | 54                      |                   |       | 217                 |                   |                 |           |                               |
|          | A-C    | 727                   | 182                     |                   |       | 727                 |                   |                 |           |                               |
| 3        | B-AC   | 274                   | 69                      | 388               | 0.706 | 269                 | 0.9               | 2.2             | 29.040    | D                             |
|          | C-AB   | 724                   | 181                     | 903               | 0.802 | 706                 | 2.1               | 6.5             | 18.763    | C                             |
|          | C-A    | 120                   | 30                      |                   |       | 120                 |                   |                 |           |                               |
|          | A-B    | 231                   | 58                      |                   |       | 231                 |                   |                 |           |                               |
|          | A-C    | 617                   | 154                     |                   |       | 617                 |                   |                 |           |                               |

16:45 - 17:00

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 381                   | 95                      | 536               | 0.711 | 381                 | 2.3               | 2.4             | 23.038    | C                             |
|          | C-AB   | 369                   | 92                      | 1038              | 0.356 | 369                 | 1.2               | 1.2             | 5.429     | A                             |
|          | C-A    | 480                   | 120                     |                   |       | 480                 |                   |                 |           |                               |
|          | A-B    | 23                    | 6                       |                   |       | 23                  |                   |                 |           |                               |
|          | A-C    | 537                   | 134                     |                   |       | 537                 |                   |                 |           |                               |
| 2        | B-AC   | 187                   | 47                      | 355               | 0.527 | 187                 | 1.0               | 1.1             | 21.339    | C                             |
|          | C-AB   | 683                   | 171                     | 836               | 0.816 | 679                 | 6.4               | 7.2             | 25.394    | D                             |
|          | C-A    | 86                    | 21                      |                   |       | 86                  |                   |                 |           |                               |
|          | A-B    | 217                   | 54                      |                   |       | 217                 |                   |                 |           |                               |
|          | A-C    | 727                   | 182                     |                   |       | 727                 |                   |                 |           |                               |
| 3        | B-AC   | 274                   | 69                      | 384               | 0.715 | 273                 | 2.2               | 2.3             | 32.288    | D                             |
|          | C-AB   | 740                   | 185                     | 913               | 0.811 | 737                 | 6.5               | 7.3             | 22.713    | C                             |
|          | C-A    | 103                   | 26                      |                   |       | 103                 |                   |                 |           |                               |
|          | A-B    | 231                   | 58                      |                   |       | 231                 |                   |                 |           |                               |
|          | A-C    | 617                   | 154                     |                   |       | 617                 |                   |                 |           |                               |

17:00 - 17:15

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 311                   | 78                      | 578               | 0.538 | 316                 | 2.4               | 1.2             | 13.954    | B                             |
|          | C-AB   | 234                   | 58                      | 953               | 0.245 | 236                 | 1.2               | 0.7             | 5.055     | A                             |
|          | C-A    | 459                   | 115                     |                   |       | 459                 |                   |                 |           |                               |
|          | A-B    | 19                    | 5                       |                   |       | 19                  |                   |                 |           |                               |
|          | A-C    | 439                   | 110                     |                   |       | 439                 |                   |                 |           |                               |
| 2        | B-AC   | 153                   | 38                      | 444               | 0.344 | 155                 | 1.1               | 0.5             | 12.558    | B                             |
|          | C-AB   | 441                   | 110                     | 790               | 0.558 | 461                 | 7.2               | 2.3             | 11.826    | B                             |
|          | C-A    | 187                   | 47                      |                   |       | 187                 |                   |                 |           |                               |
|          | A-B    | 177                   | 44                      |                   |       | 177                 |                   |                 |           |                               |
|          | A-C    | 593                   | 148                     |                   |       | 593                 |                   |                 |           |                               |
| 3        | B-AC   | 224                   | 56                      | 467               | 0.479 | 229                 | 2.3               | 0.9             | 15.490    | C                             |
|          | C-AB   | 473                   | 118                     | 850               | 0.556 | 493                 | 7.3               | 2.3             | 10.866    | B                             |
|          | C-A    | 216                   | 54                      |                   |       | 216                 |                   |                 |           |                               |
|          | A-B    | 189                   | 47                      |                   |       | 189                 |                   |                 |           |                               |
|          | A-C    | 503                   | 126                     |                   |       | 503                 |                   |                 |           |                               |

17:15 - 17:30

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 260                   | 65                      | 607               | 0.429 | 262                 | 1.2               | 0.8             | 10.501    | B                             |
|          | C-AB   | 164                   | 41                      | 894               | 0.183 | 165                 | 0.7               | 0.5             | 4.957     | A                             |
|          | C-A    | 417                   | 104                     |                   |       | 417                 |                   |                 |           |                               |
|          | A-B    | 16                    | 4                       |                   |       | 16                  |                   |                 |           |                               |
|          | A-C    | 367                   | 92                      |                   |       | 367                 |                   |                 |           |                               |
| 2        | B-AC   | 128                   | 32                      | 506               | 0.253 | 129                 | 0.5               | 0.3             | 9.575     | A                             |
|          | C-AB   | 307                   | 77                      | 748               | 0.411 | 311                 | 2.3               | 1.2             | 8.398     | A                             |
|          | C-A    | 218                   | 55                      |                   |       | 218                 |                   |                 |           |                               |
|          | A-B    | 148                   | 37                      |                   |       | 148                 |                   |                 |           |                               |
|          | A-C    | 497                   | 124                     |                   |       | 497                 |                   |                 |           |                               |
| 3        | B-AC   | 187                   | 47                      | 528               | 0.355 | 189                 | 0.9               | 0.6             | 10.680    | B                             |
|          | C-AB   | 326                   | 81                      | 795               | 0.410 | 330                 | 2.3               | 1.2             | 7.883     | A                             |
|          | C-A    | 251                   | 63                      |                   |       | 251                 |                   |                 |           |                               |
|          | A-B    | 158                   | 40                      |                   |       | 158                 |                   |                 |           |                               |
|          | A-C    | 422                   | 105                     |                   |       | 422                 |                   |                 |           |                               |

# 2032 - With Dev, AM

## Data Errors and Warnings

| Severity | Area        | Item       | Description  |
|----------|-------------|------------|--|
| Warning  | Vehicle Mix | Junction 1 | 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. |
| Warning  | Vehicle Mix | Junction 2 | 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. |
| Warning  | Vehicle Mix | Junction 3 | 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 | Arm A Direction | Arm B Direction | Arm C Direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|----------|----------|---------------|-----------------|-----------------|-----------------|-----------------------|--------------------|--------------|
| 1        | untitled | T-Junction    | Two-way         | Two-way         | Two-way         |                       | 46.43              | E            |
| 2        | untitled | T-Junction    | Two-way         | Two-way         | Two-way         |                       | 35.61              | E            |
| 3        | untitled | T-Junction    | Two-way         | Two-way         | Two-way         |                       | 40.59              | E            |

### Junction Network

| Driving side | Lighting       | Network residual capacity (%) | First arm reaching threshold | Network delay (s) | Network LOS |
|--------------|----------------|-------------------------------|------------------------------|-------------------|-------------|
| Left         | Normal/unknown | -14                           | Junction 2 - Stream B-AC     | 40.78             | E           |

## Traffic Demand

### Demand Set Details

| ID  | Scenario name   | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|-----|-----------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D11 | 2032 - With Dev | AM               | ONE HOUR             | 07:00              | 08:30               | 15                        | ✓                 |

### Demand overview (Traffic)

| Junction | Arm | Linked arm | Profile type | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|----------|-----|------------|--------------|--------------|-------------------------|--------------------|
| 1        | A   |            | ONE HOUR     | ✓            | 629                     | 100.000            |
|          | B   |            | ONE HOUR     | ✓            | 214                     | 100.000            |
|          | C   |            | ONE HOUR     | ✓            | 829                     | 100.000            |
| 2        | A   |            | ONE HOUR     | ✓            | 649                     | 100.000            |
|          | B   |            | ONE HOUR     | ✓            | 408                     | 100.000            |
|          | C   |            | ONE HOUR     | ✓            | 697                     | 100.000            |
| 3        | A   |            | ONE HOUR     | ✓            | 813                     | 100.000            |
|          | B   |            | ONE HOUR     | ✓            | 398                     | 100.000            |
|          | C   |            | ONE HOUR     | ✓            | 675                     | 100.000            |

## Origin-Destination Data

### Demand (PCU/hr)

#### Junction 1

|      |   | To  |     |     |
|------|---|-----|-----|-----|
|      |   | A   | B   | C   |
| From | A | 0   | 59  | 570 |
|      | B | 52  | 0   | 162 |
|      | C | 550 | 279 | 0   |

**Demand (PCU/hr)**

**Junction 2**

|      |   | To  |    |     |
|------|---|-----|----|-----|
|      |   | A   | B  | C   |
| From | A | 0   | 85 | 564 |
|      | B | 154 | 0  | 254 |
|      | C | 599 | 98 | 0   |

**Demand (PCU/hr)**

**Junction 3**

|      |   | To  |     |     |
|------|---|-----|-----|-----|
|      |   | A   | B   | C   |
| From | A | 0   | 99  | 714 |
|      | B | 147 | 0   | 251 |
|      | C | 538 | 137 | 0   |

## Vehicle Mix

| HV data entry mode | PCU Factor for a HV (PCU) |
|--------------------|---------------------------|
| HV Percentages     | 2.00                      |

**Heavy Vehicle %**

**Junction 1**

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

**Heavy Vehicle %**

**Junction 2**

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

**Heavy Vehicle %**

**Junction 3**

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

## Results

### Results Summary for whole modelled period

| Junction | Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) |
|----------|--------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| 1        | B-AC   | 0.60    | 22.80         | 1.4             | C       | 196                     | 295                           |
|          | C-AB   | 1.00    | 100.66        | 27.9            | F       | 663                     | 995                           |
|          | C-A    |         |               |                 |         | 98                      | 146                           |
|          | A-B    |         |               |                 |         | 54                      | 81                            |
|          | A-C    |         |               |                 |         | 523                     | 785                           |
| 2        | B-AC   | 1.03    | 148.92        | 18.8            | F       | 374                     | 562                           |
|          | C-AB   | 0.38    | 6.22          | 1.3             | A       | 252                     | 378                           |
|          | C-A    |         |               |                 |         | 388                     | 581                           |
|          | A-B    |         |               |                 |         | 78                      | 117                           |
|          | A-C    |         |               |                 |         | 518                     | 776                           |
| 3        | B-AC   | 1.07    | 183.26        | 23.2            | F       | 365                     | 548                           |
|          | C-AB   | 0.56    | 9.76          | 2.6             | A       | 340                     | 510                           |
|          | C-A    |         |               |                 |         | 279                     | 419                           |
|          | A-B    |         |               |                 |         | 91                      | 136                           |
|          | A-C    |         |               |                 |         | 655                     | 983                           |

### Main Results for each time segment

#### 07:00 - 07:15

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 161                   | 40                      | 526               | 0.306 | 159                 | 0.0               | 0.4             | 9.770     | A                             |
|          | C-AB   | 431                   | 108                     | 808               | 0.533 | 424                 | 0.0               | 1.7             | 9.333     | A                             |
|          | C-A    | 193                   | 48                      |                   |       | 193                 |                   |                 |           |                               |
|          | A-B    | 44                    | 11                      |                   |       | 44                  |                   |                 |           |                               |
|          | A-C    | 429                   | 107                     |                   |       | 429                 |                   |                 |           |                               |
| 2        | B-AC   | 307                   | 77                      | 549               | 0.560 | 302                 | 0.0               | 1.2             | 14.345    | B                             |
|          | C-AB   | 162                   | 41                      | 828               | 0.196 | 160                 | 0.0               | 0.5             | 5.391     | A                             |
|          | C-A    | 363                   | 91                      |                   |       | 363                 |                   |                 |           |                               |
|          | A-B    | 64                    | 16                      |                   |       | 64                  |                   |                 |           |                               |
|          | A-C    | 425                   | 106                     |                   |       | 425                 |                   |                 |           |                               |
| 3        | B-AC   | 300                   | 75                      | 548               | 0.547 | 295                 | 0.0               | 1.2             | 13.986    | B                             |
|          | C-AB   | 219                   | 55                      | 766               | 0.286 | 216                 | 0.0               | 0.7             | 6.538     | A                             |
|          | C-A    | 289                   | 72                      |                   |       | 289                 |                   |                 |           |                               |
|          | A-B    | 75                    | 19                      |                   |       | 75                  |                   |                 |           |                               |
|          | A-C    | 538                   | 134                     |                   |       | 538                 |                   |                 |           |                               |

07:15 - 07:30

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 192                   | 48                      | 480               | 0.401 | 191                 | 0.4               | 0.7             | 12.456    | B                             |
|          | C-AB   | 605                   | 151                     | 853               | 0.710 | 597                 | 1.7               | 3.6             | 14.240    | B                             |
|          | C-A    | 140                   | 35                      |                   |       | 140                 |                   |                 |           |                               |
|          | A-B    | 53                    | 13                      |                   |       | 53                  |                   |                 |           |                               |
|          | A-C    | 512                   | 128                     |                   |       | 512                 |                   |                 |           |                               |
| 2        | B-AC   | 367                   | 92                      | 503               | 0.730 | 362                 | 1.2               | 2.5             | 24.729    | C                             |
|          | C-AB   | 231                   | 58                      | 876               | 0.263 | 230                 | 0.5               | 0.7             | 5.589     | A                             |
|          | C-A    | 396                   | 99                      |                   |       | 396                 |                   |                 |           |                               |
|          | A-B    | 76                    | 19                      |                   |       | 76                  |                   |                 |           |                               |
|          | A-C    | 507                   | 127                     |                   |       | 507                 |                   |                 |           |                               |
| 3        | B-AC   | 358                   | 89                      | 493               | 0.726 | 353                 | 1.2               | 2.4             | 24.862    | C                             |
|          | C-AB   | 311                   | 78                      | 806               | 0.385 | 309                 | 0.7               | 1.1             | 7.273     | A                             |
|          | C-A    | 296                   | 74                      |                   |       | 296                 |                   |                 |           |                               |
|          | A-B    | 89                    | 22                      |                   |       | 89                  |                   |                 |           |                               |
|          | A-C    | 642                   | 160                     |                   |       | 642                 |                   |                 |           |                               |

07:30 - 07:45

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 236                   | 59                      | 407               | 0.580 | 233                 | 0.7               | 1.3             | 20.441    | C                             |
|          | C-AB   | 913                   | 228                     | 909               | 1.004 | 849                 | 3.6               | 19.7            | 53.606    | F                             |
|          | C-A    | 0                     | 0                       |                   |       | 0                   |                   |                 |           |                               |
|          | A-B    | 65                    | 16                      |                   |       | 65                  |                   |                 |           |                               |
|          | A-C    | 628                   | 157                     |                   |       | 628                 |                   |                 |           |                               |
| 2        | B-AC   | 449                   | 112                     | 435               | 1.032 | 409                 | 2.5               | 12.4            | 86.349    | F                             |
|          | C-AB   | 361                   | 90                      | 945               | 0.382 | 359                 | 0.7               | 1.3             | 6.173     | A                             |
|          | C-A    | 406                   | 102                     |                   |       | 406                 |                   |                 |           |                               |
|          | A-B    | 94                    | 23                      |                   |       | 94                  |                   |                 |           |                               |
|          | A-C    | 621                   | 155                     |                   |       | 621                 |                   |                 |           |                               |
| 3        | B-AC   | 438                   | 110                     | 411               | 1.066 | 390                 | 2.4               | 14.4            | 99.501    | F                             |
|          | C-AB   | 486                   | 122                     | 865               | 0.562 | 481                 | 1.1               | 2.5             | 9.480     | A                             |
|          | C-A    | 257                   | 64                      |                   |       | 257                 |                   |                 |           |                               |
|          | A-B    | 109                   | 27                      |                   |       | 109                 |                   |                 |           |                               |
|          | A-C    | 786                   | 197                     |                   |       | 786                 |                   |                 |           |                               |

07:45 - 08:00

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 236                   | 59                      | 392               | 0.601 | 235                 | 1.3               | 1.4             | 22.804    | C                             |
|          | C-AB   | 913                   | 228                     | 910               | 1.003 | 880                 | 19.7              | 27.9            | 100.656   | F                             |
|          | C-A    | 0                     | 0                       |                   |       | 0                   |                   |                 |           |                               |
|          | A-B    | 65                    | 16                      |                   |       | 65                  |                   |                 |           |                               |
|          | A-C    | 628                   | 157                     |                   |       | 628                 |                   |                 |           |                               |
| 2        | B-AC   | 449                   | 112                     | 435               | 1.034 | 424                 | 12.4              | 18.8            | 148.916   | F                             |
|          | C-AB   | 363                   | 91                      | 947               | 0.383 | 363                 | 1.3               | 1.3             | 6.225     | A                             |
|          | C-A    | 405                   | 101                     |                   |       | 405                 |                   |                 |           |                               |
|          | A-B    | 94                    | 23                      |                   |       | 94                  |                   |                 |           |                               |
|          | A-C    | 621                   | 155                     |                   |       | 621                 |                   |                 |           |                               |
| 3        | B-AC   | 438                   | 110                     | 410               | 1.070 | 403                 | 14.4              | 23.2            | 183.261   | F                             |
|          | C-AB   | 490                   | 123                     | 868               | 0.565 | 490                 | 2.5               | 2.6             | 9.757     | A                             |
|          | C-A    | 253                   | 63                      |                   |       | 253                 |                   |                 |           |                               |
|          | A-B    | 109                   | 27                      |                   |       | 109                 |                   |                 |           |                               |
|          | A-C    | 786                   | 197                     |                   |       | 786                 |                   |                 |           |                               |

08:00 - 08:15

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 192                   | 48                      | 461               | 0.417 | 195                 | 1.4               | 0.7             | 13.665    | B                             |
|          | C-AB   | 676                   | 169                     | 904               | 0.748 | 766                 | 27.9              | 5.4             | 43.083    | E                             |
|          | C-A    | 69                    | 17                      |                   |       | 69                  |                   |                 |           |                               |
|          | A-B    | 53                    | 13                      |                   |       | 53                  |                   |                 |           |                               |
|          | A-C    | 512                   | 128                     |                   |       | 512                 |                   |                 |           |                               |
| 2        | B-AC   | 367                   | 92                      | 502               | 0.731 | 429                 | 18.8              | 3.1             | 68.230    | F                             |
|          | C-AB   | 232                   | 58                      | 878               | 0.264 | 234                 | 1.3               | 0.8             | 5.645     | A                             |
|          | C-A    | 394                   | 99                      |                   |       | 394                 |                   |                 |           |                               |
|          | A-B    | 76                    | 19                      |                   |       | 76                  |                   |                 |           |                               |
|          | A-C    | 507                   | 127                     |                   |       | 507                 |                   |                 |           |                               |
| 3        | B-AC   | 358                   | 89                      | 491               | 0.728 | 438                 | 23.2              | 3.2             | 91.250    | F                             |
|          | C-AB   | 314                   | 79                      | 810               | 0.388 | 320                 | 2.6               | 1.2             | 7.481     | A                             |
|          | C-A    | 293                   | 73                      |                   |       | 293                 |                   |                 |           |                               |
|          | A-B    | 89                    | 22                      |                   |       | 89                  |                   |                 |           |                               |
|          | A-C    | 642                   | 160                     |                   |       | 642                 |                   |                 |           |                               |

08:15 - 08:30

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 161                   | 40                      | 523               | 0.308 | 162                 | 0.7               | 0.5             | 10.011    | B                             |
|          | C-AB   | 442                   | 110                     | 818               | 0.540 | 456                 | 5.4               | 1.9             | 10.478    | B                             |
|          | C-A    | 182                   | 46                      |                   |       | 182                 |                   |                 |           |                               |
|          | A-B    | 44                    | 11                      |                   |       | 44                  |                   |                 |           |                               |
|          | A-C    | 429                   | 107                     |                   |       | 429                 |                   |                 |           |                               |
| 2        | B-AC   | 307                   | 77                      | 548               | 0.560 | 314                 | 3.1               | 1.3             | 15.858    | C                             |
|          | C-AB   | 164                   | 41                      | 829               | 0.197 | 165                 | 0.8               | 0.5             | 5.440     | A                             |
|          | C-A    | 361                   | 90                      |                   |       | 361                 |                   |                 |           |                               |
|          | A-B    | 64                    | 16                      |                   |       | 64                  |                   |                 |           |                               |
|          | A-C    | 425                   | 106                     |                   |       | 425                 |                   |                 |           |                               |
| 3        | B-AC   | 300                   | 75                      | 547               | 0.548 | 308                 | 3.2               | 1.3             | 15.487    | C                             |
|          | C-AB   | 221                   | 55                      | 769               | 0.288 | 223                 | 1.2               | 0.7             | 6.657     | A                             |
|          | C-A    | 287                   | 72                      |                   |       | 287                 |                   |                 |           |                               |
|          | A-B    | 75                    | 19                      |                   |       | 75                  |                   |                 |           |                               |
|          | A-C    | 538                   | 134                     |                   |       | 538                 |                   |                 |           |                               |

# 2032 - With Dev, PM

## Data Errors and Warnings

| Severity | Area        | Item       | Description  |
|----------|-------------|------------|--|
| Warning  | Vehicle Mix | Junction 1 | 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. |
| Warning  | Vehicle Mix | Junction 2 | 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. |
| Warning  | Vehicle Mix | Junction 3 | 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 | Arm A Direction | Arm B Direction | Arm C Direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|----------|----------|---------------|-----------------|-----------------|-----------------|-----------------------|--------------------|--------------|
| 1        | untitled | T-Junction    | Two-way         | Two-way         | Two-way         |                       | 10.46              | B            |
| 2        | untitled | T-Junction    | Two-way         | Two-way         | Two-way         |                       | 19.79              | C            |
| 3        | untitled | T-Junction    | Two-way         | Two-way         | Two-way         |                       | 13.65              | B            |

### Junction Network

| Driving side | Lighting       | Network residual capacity (%) | First arm reaching threshold | Network delay (s) | Network LOS |
|--------------|----------------|-------------------------------|------------------------------|-------------------|-------------|
| Left         | Normal/unknown | -3                            | Junction 1 - Stream B-AC     | 14.71             | B           |

## Traffic Demand

### Demand Set Details

| ID  | Scenario name   | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|-----|-----------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D12 | 2032 - With Dev | PM               | ONE HOUR             | 16:00              | 17:30               | 15                        | ✓                 |

### Demand overview (Traffic)

| Junction | Arm | Linked arm | Profile type | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|----------|-----|------------|--------------|--------------|-------------------------|--------------------|
| 1        | A   |            | ONE HOUR     | ✓            | 550                     | 100.000            |
|          | B   |            | ONE HOUR     | ✓            | 381                     | 100.000            |
|          | C   |            | ONE HOUR     | ✓            | 785                     | 100.000            |
| 2        | A   |            | ONE HOUR     | ✓            | 884                     | 100.000            |
|          | B   |            | ONE HOUR     | ✓            | 184                     | 100.000            |
|          | C   |            | ONE HOUR     | ✓            | 747                     | 100.000            |
| 3        | A   |            | ONE HOUR     | ✓            | 784                     | 100.000            |
|          | B   |            | ONE HOUR     | ✓            | 253                     | 100.000            |
|          | C   |            | ONE HOUR     | ✓            | 790                     | 100.000            |

## Origin-Destination Data

### Demand (PCU/hr)

Junction 1

|      |   | To  |     |     |
|------|---|-----|-----|-----|
|      |   | A   | B   | C   |
| From | A | 0   | 62  | 488 |
|      | B | 72  | 0   | 309 |
|      | C | 679 | 106 | 0   |

**Demand (PCU/hr)**

**Junction 2**

|      |   | To  |     |     |
|------|---|-----|-----|-----|
|      |   | A   | B   | C   |
| From | A | 0   | 203 | 681 |
|      | B | 64  | 0   | 120 |
|      | C | 535 | 212 | 0   |

**Demand (PCU/hr)**

**Junction 3**

|      |   | To  |     |     |
|------|---|-----|-----|-----|
|      |   | A   | B   | C   |
| From | A | 0   | 214 | 570 |
|      | B | 121 | 0   | 132 |
|      | C | 596 | 194 | 0   |

## Vehicle Mix

| HV data entry mode | PCU Factor for a HV (PCU) |
|--------------------|---------------------------|
| HV Percentages     | 2.00                      |

**Heavy Vehicle %**

**Junction 1**

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

**Heavy Vehicle %**

**Junction 2**

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

**Heavy Vehicle %**

**Junction 3**

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

## Results

### Results Summary for whole modelled period

| Junction | Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) |
|----------|--------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| 1        | B-AC   | 0.84    | 41.93         | 4.6             | E       | 350                     | 524                           |
|          | C-AB   | 0.42    | 6.07          | 1.6             | A       | 298                     | 446                           |
|          | C-A    |         |               |                 |         | 423                     | 634                           |
|          | A-B    |         |               |                 |         | 57                      | 85                            |
|          | A-C    |         |               |                 |         | 448                     | 672                           |
| 2        | B-AC   | 0.62    | 28.59         | 1.5             | D       | 169                     | 253                           |
|          | C-AB   | 0.92    | 51.60         | 14.4            | F       | 545                     | 818                           |
|          | C-A    |         |               |                 |         | 140                     | 211                           |
|          | A-B    |         |               |                 |         | 186                     | 279                           |
|          | A-C    |         |               |                 |         | 625                     | 937                           |
| 3        | B-AC   | 0.75    | 38.14         | 2.8             | E       | 232                     | 348                           |
|          | C-AB   | 0.84    | 26.41         | 8.7             | D       | 531                     | 797                           |
|          | C-A    |         |               |                 |         | 194                     | 291                           |
|          | A-B    |         |               |                 |         | 196                     | 295                           |
|          | A-C    |         |               |                 |         | 523                     | 785                           |

### Main Results for each time segment

#### 16:00 - 16:15

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 287                   | 72                      | 581               | 0.493 | 283                 | 0.0               | 0.9             | 11.923    | B                             |
|          | C-AB   | 188                   | 47                      | 887               | 0.212 | 186                 | 0.0               | 0.5             | 5.136     | A                             |
|          | C-A    | 403                   | 101                     |                   |       | 403                 |                   |                 |           |                               |
|          | A-B    | 47                    | 12                      |                   |       | 47                  |                   |                 |           |                               |
|          | A-C    | 367                   | 92                      |                   |       | 367                 |                   |                 |           |                               |
| 2        | B-AC   | 139                   | 35                      | 496               | 0.279 | 137                 | 0.0               | 0.4             | 9.980     | A                             |
|          | C-AB   | 340                   | 85                      | 760               | 0.447 | 334                 | 0.0               | 1.3             | 8.435     | A                             |
|          | C-A    | 223                   | 56                      |                   |       | 223                 |                   |                 |           |                               |
|          | A-B    | 153                   | 38                      |                   |       | 153                 |                   |                 |           |                               |
|          | A-C    | 513                   | 128                     |                   |       | 513                 |                   |                 |           |                               |
| 3        | B-AC   | 190                   | 48                      | 522               | 0.365 | 188                 | 0.0               | 0.6             | 10.730    | B                             |
|          | C-AB   | 331                   | 83                      | 802               | 0.413 | 327                 | 0.0               | 1.2             | 7.556     | A                             |
|          | C-A    | 263                   | 66                      |                   |       | 263                 |                   |                 |           |                               |
|          | A-B    | 161                   | 40                      |                   |       | 161                 |                   |                 |           |                               |
|          | A-C    | 429                   | 107                     |                   |       | 429                 |                   |                 |           |                               |

**16:15 - 16:30**

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 343                   | 86                      | 549               | 0.624 | 340                 | 0.9               | 1.6             | 17.031    | C                             |
|          | C-AB   | 271                   | 68                      | 946               | 0.286 | 270                 | 0.5               | 0.8             | 5.338     | A                             |
|          | C-A    | 435                   | 109                     |                   |       | 435                 |                   |                 |           |                               |
|          | A-B    | 56                    | 14                      |                   |       | 56                  |                   |                 |           |                               |
|          | A-C    | 439                   | 110                     |                   |       | 439                 |                   |                 |           |                               |
| 2        | B-AC   | 165                   | 41                      | 434               | 0.381 | 165                 | 0.4               | 0.6             | 13.325    | B                             |
|          | C-AB   | 486                   | 122                     | 798               | 0.610 | 481                 | 1.3               | 2.6             | 11.487    | B                             |
|          | C-A    | 185                   | 46                      |                   |       | 185                 |                   |                 |           |                               |
|          | A-B    | 182                   | 46                      |                   |       | 182                 |                   |                 |           |                               |
|          | A-C    | 612                   | 153                     |                   |       | 612                 |                   |                 |           |                               |
| 3        | B-AC   | 227                   | 57                      | 463               | 0.492 | 226                 | 0.6               | 0.9             | 15.117    | C                             |
|          | C-AB   | 477                   | 119                     | 851               | 0.561 | 473                 | 1.2               | 2.2             | 9.625     | A                             |
|          | C-A    | 233                   | 58                      |                   |       | 233                 |                   |                 |           |                               |
|          | A-B    | 192                   | 48                      |                   |       | 192                 |                   |                 |           |                               |
|          | A-C    | 512                   | 128                     |                   |       | 512                 |                   |                 |           |                               |

**16:30 - 16:45**

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 419                   | 105                     | 500               | 0.838 | 409                 | 1.6               | 4.2             | 35.913    | E                             |
|          | C-AB   | 431                   | 108                     | 1030              | 0.418 | 428                 | 0.8               | 1.5             | 6.008     | A                             |
|          | C-A    | 434                   | 108                     |                   |       | 434                 |                   |                 |           |                               |
|          | A-B    | 68                    | 17                      |                   |       | 68                  |                   |                 |           |                               |
|          | A-C    | 537                   | 134                     |                   |       | 537                 |                   |                 |           |                               |
| 2        | B-AC   | 203                   | 51                      | 337               | 0.602 | 199                 | 0.6               | 1.4             | 25.636    | D                             |
|          | C-AB   | 774                   | 194                     | 854               | 0.907 | 740                 | 2.6               | 11.0            | 32.141    | D                             |
|          | C-A    | 48                    | 12                      |                   |       | 48                  |                   |                 |           |                               |
|          | A-B    | 224                   | 56                      |                   |       | 224                 |                   |                 |           |                               |
|          | A-C    | 750                   | 187                     |                   |       | 750                 |                   |                 |           |                               |
| 3        | B-AC   | 279                   | 70                      | 375               | 0.742 | 272                 | 0.9               | 2.5             | 33.070    | D                             |
|          | C-AB   | 762                   | 191                     | 921               | 0.828 | 741                 | 2.2               | 7.5             | 20.578    | C                             |
|          | C-A    | 107                   | 27                      |                   |       | 107                 |                   |                 |           |                               |
|          | A-B    | 236                   | 59                      |                   |       | 236                 |                   |                 |           |                               |
|          | A-C    | 628                   | 157                     |                   |       | 628                 |                   |                 |           |                               |

**16:45 - 17:00**

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 419                   | 105                     | 500               | 0.839 | 418                 | 4.2               | 4.6             | 41.927    | E                             |
|          | C-AB   | 433                   | 108                     | 1032              | 0.419 | 433                 | 1.5               | 1.6             | 6.072     | A                             |
|          | C-A    | 432                   | 108                     |                   |       | 432                 |                   |                 |           |                               |
|          | A-B    | 68                    | 17                      |                   |       | 68                  |                   |                 |           |                               |
|          | A-C    | 537                   | 134                     |                   |       | 537                 |                   |                 |           |                               |
| 2        | B-AC   | 203                   | 51                      | 327               | 0.619 | 202                 | 1.4               | 1.5             | 28.590    | D                             |
|          | C-AB   | 807                   | 202                     | 873               | 0.924 | 794                 | 11.0              | 14.4            | 51.598    | F                             |
|          | C-A    | 15                    | 4                       |                   |       | 15                  |                   |                 |           |                               |
|          | A-B    | 224                   | 56                      |                   |       | 224                 |                   |                 |           |                               |
|          | A-C    | 750                   | 187                     |                   |       | 750                 |                   |                 |           |                               |
| 3        | B-AC   | 279                   | 70                      | 370               | 0.753 | 278                 | 2.5               | 2.8             | 38.142    | E                             |
|          | C-AB   | 784                   | 196                     | 934               | 0.839 | 779                 | 7.5               | 8.7             | 26.414    | D                             |
|          | C-A    | 86                    | 22                      |                   |       | 86                  |                   |                 |           |                               |
|          | A-B    | 236                   | 59                      |                   |       | 236                 |                   |                 |           |                               |
|          | A-C    | 628                   | 157                     |                   |       | 628                 |                   |                 |           |                               |

17:00 - 17:15

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 343                   | 86                      | 548               | 0.625 | 354                 | 4.6               | 1.7             | 19.474    | C                             |
|          | C-AB   | 273                   | 68                      | 949               | 0.288 | 276                 | 1.6               | 0.9             | 5.402     | A                             |
|          | C-A    | 433                   | 108                     |                   |       | 433                 |                   |                 |           |                               |
|          | A-B    | 56                    | 14                      |                   |       | 56                  |                   |                 |           |                               |
|          | A-C    | 439                   | 110                     |                   |       | 439                 |                   |                 |           |                               |
| 2        | B-AC   | 165                   | 41                      | 422               | 0.392 | 169                 | 1.5               | 0.7             | 14.406    | B                             |
|          | C-AB   | 518                   | 129                     | 827               | 0.626 | 563                 | 14.4              | 3.1             | 16.651    | C                             |
|          | C-A    | 154                   | 38                      |                   |       | 154                 |                   |                 |           |                               |
|          | A-B    | 182                   | 46                      |                   |       | 182                 |                   |                 |           |                               |
|          | A-C    | 612                   | 153                     |                   |       | 612                 |                   |                 |           |                               |
| 3        | B-AC   | 227                   | 57                      | 456               | 0.499 | 234                 | 2.8               | 1.0             | 16.746    | C                             |
|          | C-AB   | 496                   | 124                     | 868               | 0.571 | 520                 | 8.7               | 2.6             | 11.387    | B                             |
|          | C-A    | 214                   | 54                      |                   |       | 214                 |                   |                 |           |                               |
|          | A-B    | 192                   | 48                      |                   |       | 192                 |                   |                 |           |                               |
|          | A-C    | 512                   | 128                     |                   |       | 512                 |                   |                 |           |                               |

17:15 - 17:30

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 287                   | 72                      | 581               | 0.494 | 290                 | 1.7               | 1.0             | 12.487    | B                             |
|          | C-AB   | 190                   | 48                      | 889               | 0.214 | 191                 | 0.9               | 0.5             | 5.186     | A                             |
|          | C-A    | 401                   | 100                     |                   |       | 401                 |                   |                 |           |                               |
|          | A-B    | 47                    | 12                      |                   |       | 47                  |                   |                 |           |                               |
|          | A-C    | 367                   | 92                      |                   |       | 367                 |                   |                 |           |                               |
| 2        | B-AC   | 139                   | 35                      | 494               | 0.281 | 140                 | 0.7               | 0.4             | 10.197    | B                             |
|          | C-AB   | 346                   | 86                      | 766               | 0.451 | 352                 | 3.1               | 1.4             | 8.939     | A                             |
|          | C-A    | 217                   | 54                      |                   |       | 217                 |                   |                 |           |                               |
|          | A-B    | 153                   | 38                      |                   |       | 153                 |                   |                 |           |                               |
|          | A-C    | 513                   | 128                     |                   |       | 513                 |                   |                 |           |                               |
| 3        | B-AC   | 190                   | 48                      | 519               | 0.367 | 192                 | 1.0               | 0.6             | 11.065    | B                             |
|          | C-AB   | 337                   | 84                      | 807               | 0.417 | 342                 | 2.6               | 1.3             | 7.892     | A                             |
|          | C-A    | 258                   | 64                      |                   |       | 258                 |                   |                 |           |                               |
|          | A-B    | 161                   | 40                      |                   |       | 161                 |                   |                 |           |                               |
|          | A-C    | 429                   | 107                     |                   |       | 429                 |                   |                 |           |                               |

# 2042 - Without Dev, AM

## Data Errors and Warnings

| Severity | Area        | Item       | Description  |
|----------|-------------|------------|--|
| Warning  | Vehicle Mix | Junction 1 | 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. |
| Warning  | Vehicle Mix | Junction 2 | 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. |
| Warning  | Vehicle Mix | Junction 3 | 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 | Arm A Direction | Arm B Direction | Arm C Direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|----------|----------|---------------|-----------------|-----------------|-----------------|-----------------------|--------------------|--------------|
| 1        | untitled | T-Junction    | Two-way         | Two-way         | Two-way         |                       | 99.66              | F            |
| 2        | untitled | T-Junction    | Two-way         | Two-way         | Two-way         |                       | 65.47              | F            |
| 3        | untitled | T-Junction    | Two-way         | Two-way         | Two-way         |                       | 81.90              | F            |

### Junction Network

| Driving side | Lighting       | Network residual capacity (%) | First arm reaching threshold | Network delay (s) | Network LOS |
|--------------|----------------|-------------------------------|------------------------------|-------------------|-------------|
| Left         | Normal/unknown | -20                           | Junction 3 - Stream B-AC     | 82.05             | F           |

## Traffic Demand

### Demand Set Details

| ID  | Scenario name      | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|-----|--------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D13 | 2042 - Without Dev | AM               | ONE HOUR             | 07:00              | 08:30               | 15                        | ✓                 |

### Demand overview (Traffic)

| Junction | Arm | Linked arm | Profile type | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|----------|-----|------------|--------------|--------------|-------------------------|--------------------|
| 1        | A   |            | ONE HOUR     | ✓            | 675                     | 100.000            |
|          | B   |            | ONE HOUR     | ✓            | 181                     | 100.000            |
|          | C   |            | ONE HOUR     | ✓            | 904                     | 100.000            |
| 2        | A   |            | ONE HOUR     | ✓            | 672                     | 100.000            |
|          | B   |            | ONE HOUR     | ✓            | 436                     | 100.000            |
|          | C   |            | ONE HOUR     | ✓            | 743                     | 100.000            |
| 3        | A   |            | ONE HOUR     | ✓            | 860                     | 100.000            |
|          | B   |            | ONE HOUR     | ✓            | 429                     | 100.000            |
|          | C   |            | ONE HOUR     | ✓            | 723                     | 100.000            |

## Origin-Destination Data

### Demand (PCU/hr)

#### Junction 1

|      |   | To  |     |     |
|------|---|-----|-----|-----|
|      |   | A   | B   | C   |
| From | A | 0   | 50  | 625 |
|      | B | 17  | 0   | 164 |
|      | C | 603 | 301 | 0   |

**Demand (PCU/hr)**

**Junction 2**

|      |   | To  |    |     |
|------|---|-----|----|-----|
|      |   | A   | B  | C   |
| From | A | 0   | 88 | 584 |
|      | B | 166 | 0  | 270 |
|      | C | 644 | 99 | 0   |

**Demand (PCU/hr)**

**Junction 3**

|      |   | To  |     |     |
|------|---|-----|-----|-----|
|      |   | A   | B   | C   |
| From | A | 0   | 105 | 755 |
|      | B | 160 | 0   | 269 |
|      | C | 585 | 138 | 0   |

## Vehicle Mix

| HV data entry mode | PCU Factor for a HV (PCU) |
|--------------------|---------------------------|
| HV Percentages     | 2.00                      |

**Heavy Vehicle %**

**Junction 1**

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

**Heavy Vehicle %**

**Junction 2**

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

**Heavy Vehicle %**

**Junction 3**

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

## Results

### Results Summary for whole modelled period

| Junction | Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) |
|----------|--------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| 1        | B-AC   | 0.45    | 14.70         | 0.8             | B       | 166                     | 249                           |
|          | C-AB   | 1.11    | 206.61        | 62.4            | F       | 767                     | 1151                          |
|          | C-A    |         |               |                 |         | 62                      | 93                            |
|          | A-B    |         |               |                 |         | 46                      | 69                            |
|          | A-C    |         |               |                 |         | 574                     | 860                           |
| 2        | B-AC   | 1.15    | 273.59        | 38.6            | F       | 400                     | 600                           |
|          | C-AB   | 0.41    | 6.30          | 1.6             | A       | 276                     | 414                           |
|          | C-A    |         |               |                 |         | 406                     | 609                           |
|          | A-B    |         |               |                 |         | 81                      | 121                           |
|          | A-C    |         |               |                 |         | 536                     | 804                           |
| 3        | B-AC   | 1.24    | 373.88        | 51.4            | F       | 394                     | 590                           |
|          | C-AB   | 0.61    | 10.66         | 3.2             | B       | 377                     | 566                           |
|          | C-A    |         |               |                 |         | 286                     | 429                           |
|          | A-B    |         |               |                 |         | 96                      | 145                           |
|          | A-C    |         |               |                 |         | 693                     | 1039                          |

### Main Results for each time segment

#### 07:00 - 07:15

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 136                   | 34                      | 576               | 0.237 | 135                 | 0.0               | 0.3             | 8.150     | A                             |
|          | C-AB   | 500                   | 125                     | 830               | 0.602 | 491                 | 0.0               | 2.3             | 10.524    | B                             |
|          | C-A    | 181                   | 45                      |                   |       | 181                 |                   |                 |           |                               |
|          | A-B    | 38                    | 9                       |                   |       | 38                  |                   |                 |           |                               |
|          | A-C    | 471                   | 118                     |                   |       | 471                 |                   |                 |           |                               |
| 2        | B-AC   | 328                   | 82                      | 538               | 0.610 | 322                 | 0.0               | 1.5             | 16.296    | C                             |
|          | C-AB   | 174                   | 43                      | 849               | 0.205 | 172                 | 0.0               | 0.5             | 5.314     | A                             |
|          | C-A    | 386                   | 96                      |                   |       | 386                 |                   |                 |           |                               |
|          | A-B    | 66                    | 17                      |                   |       | 66                  |                   |                 |           |                               |
|          | A-C    | 440                   | 110                     |                   |       | 440                 |                   |                 |           |                               |
| 3        | B-AC   | 323                   | 81                      | 531               | 0.608 | 317                 | 0.0               | 1.5             | 16.412    | C                             |
|          | C-AB   | 236                   | 59                      | 787               | 0.300 | 233                 | 0.0               | 0.8             | 6.500     | A                             |
|          | C-A    | 308                   | 77                      |                   |       | 308                 |                   |                 |           |                               |
|          | A-B    | 79                    | 20                      |                   |       | 79                  |                   |                 |           |                               |
|          | A-C    | 568                   | 142                     |                   |       | 568                 |                   |                 |           |                               |

07:15 - 07:30

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 163                   | 41                      | 535               | 0.304 | 162                 | 0.3               | 0.4             | 9.658     | A                             |
|          | C-AB   | 716                   | 179                     | 882               | 0.812 | 701                 | 2.3               | 6.0             | 20.086    | C                             |
|          | C-A    | 97                    | 24                      |                   |       | 97                  |                   |                 |           |                               |
|          | A-B    | 45                    | 11                      |                   |       | 45                  |                   |                 |           |                               |
|          | A-C    | 562                   | 140                     |                   |       | 562                 |                   |                 |           |                               |
| 2        | B-AC   | 392                   | 98                      | 489               | 0.802 | 384                 | 1.5               | 3.4             | 32.167    | D                             |
|          | C-AB   | 251                   | 63                      | 902               | 0.278 | 249                 | 0.5               | 0.8             | 5.535     | A                             |
|          | C-A    | 417                   | 104                     |                   |       | 417                 |                   |                 |           |                               |
|          | A-B    | 79                    | 20                      |                   |       | 79                  |                   |                 |           |                               |
|          | A-C    | 525                   | 131                     |                   |       | 525                 |                   |                 |           |                               |
| 3        | B-AC   | 386                   | 96                      | 471               | 0.818 | 377                 | 1.5               | 3.7             | 35.106    | E                             |
|          | C-AB   | 341                   | 85                      | 832               | 0.410 | 339                 | 0.8               | 1.3             | 7.344     | A                             |
|          | C-A    | 309                   | 77                      |                   |       | 309                 |                   |                 |           |                               |
|          | A-B    | 94                    | 24                      |                   |       | 94                  |                   |                 |           |                               |
|          | A-C    | 679                   | 170                     |                   |       | 679                 |                   |                 |           |                               |

07:30 - 07:45

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 199                   | 50                      | 466               | 0.427 | 198                 | 0.4               | 0.7             | 13.355    | B                             |
|          | C-AB   | 995                   | 249                     | 898               | 1.108 | 872                 | 6.0               | 36.9            | 95.552    | F                             |
|          | C-A    | 0                     | 0                       |                   |       | 0                   |                   |                 |           |                               |
|          | A-B    | 55                    | 14                      |                   |       | 55                  |                   |                 |           |                               |
|          | A-C    | 688                   | 172                     |                   |       | 688                 |                   |                 |           |                               |
| 2        | B-AC   | 480                   | 120                     | 417               | 1.151 | 405                 | 3.4               | 22.1            | 135.326   | F                             |
|          | C-AB   | 401                   | 100                     | 979               | 0.409 | 398                 | 0.8               | 1.5             | 6.238     | A                             |
|          | C-A    | 417                   | 104                     |                   |       | 417                 |                   |                 |           |                               |
|          | A-B    | 97                    | 24                      |                   |       | 97                  |                   |                 |           |                               |
|          | A-C    | 643                   | 161                     |                   |       | 643                 |                   |                 |           |                               |
| 3        | B-AC   | 472                   | 118                     | 382               | 1.237 | 375                 | 3.7               | 28.1            | 175.376   | F                             |
|          | C-AB   | 547                   | 137                     | 898               | 0.610 | 540                 | 1.3               | 3.1             | 10.215    | B                             |
|          | C-A    | 249                   | 62                      |                   |       | 249                 |                   |                 |           |                               |
|          | A-B    | 116                   | 29                      |                   |       | 116                 |                   |                 |           |                               |
|          | A-C    | 831                   | 208                     |                   |       | 831                 |                   |                 |           |                               |

07:45 - 08:00

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 199                   | 50                      | 444               | 0.449 | 199                 | 0.7               | 0.8             | 14.698    | B                             |
|          | C-AB   | 995                   | 249                     | 900               | 1.106 | 893                 | 36.9              | 62.4            | 206.613   | F                             |
|          | C-A    | 0                     | 0                       |                   |       | 0                   |                   |                 |           |                               |
|          | A-B    | 55                    | 14                      |                   |       | 55                  |                   |                 |           |                               |
|          | A-C    | 688                   | 172                     |                   |       | 688                 |                   |                 |           |                               |
| 2        | B-AC   | 480                   | 120                     | 416               | 1.153 | 414                 | 22.1              | 38.6            | 273.586   | F                             |
|          | C-AB   | 403                   | 101                     | 981               | 0.411 | 403                 | 1.5               | 1.6             | 6.301     | A                             |
|          | C-A    | 415                   | 104                     |                   |       | 415                 |                   |                 |           |                               |
|          | A-B    | 97                    | 24                      |                   |       | 97                  |                   |                 |           |                               |
|          | A-C    | 643                   | 161                     |                   |       | 643                 |                   |                 |           |                               |
| 3        | B-AC   | 472                   | 118                     | 380               | 1.242 | 379                 | 28.1              | 51.4            | 373.877   | F                             |
|          | C-AB   | 553                   | 138                     | 902               | 0.613 | 553                 | 3.1               | 3.2             | 10.664    | B                             |
|          | C-A    | 243                   | 61                      |                   |       | 243                 |                   |                 |           |                               |
|          | A-B    | 116                   | 29                      |                   |       | 116                 |                   |                 |           |                               |
|          | A-C    | 831                   | 208                     |                   |       | 831                 |                   |                 |           |                               |

08:00 - 08:15

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 163                   | 41                      | 506               | 0.322 | 164                 | 0.8               | 0.5             | 10.572    | B                             |
|          | C-AB   | 813                   | 203                     | 941               | 0.864 | 916                 | 62.4              | 36.6            | 191.087   | F                             |
|          | C-A    | 0                     | 0                       |                   |       | 0                   |                   |                 |           |                               |
|          | A-B    | 45                    | 11                      |                   |       | 45                  |                   |                 |           |                               |
|          | A-C    | 562                   | 140                     |                   |       | 562                 |                   |                 |           |                               |
| 2        | B-AC   | 392                   | 98                      | 488               | 0.803 | 476                 | 38.6              | 17.7            | 217.570   | F                             |
|          | C-AB   | 253                   | 63                      | 905               | 0.279 | 255                 | 1.6               | 0.8             | 5.599     | A                             |
|          | C-A    | 415                   | 104                     |                   |       | 415                 |                   |                 |           |                               |
|          | A-B    | 79                    | 20                      |                   |       | 79                  |                   |                 |           |                               |
|          | A-C    | 525                   | 131                     |                   |       | 525                 |                   |                 |           |                               |
| 3        | B-AC   | 386                   | 96                      | 469               | 0.822 | 460                 | 51.4              | 32.7            | 327.064   | F                             |
|          | C-AB   | 346                   | 87                      | 838               | 0.413 | 353                 | 3.2               | 1.4             | 7.634     | A                             |
|          | C-A    | 304                   | 76                      |                   |       | 304                 |                   |                 |           |                               |
|          | A-B    | 94                    | 24                      |                   |       | 94                  |                   |                 |           |                               |
|          | A-C    | 679                   | 170                     |                   |       | 679                 |                   |                 |           |                               |

08:15 - 08:30

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 136                   | 34                      | 563               | 0.242 | 137                 | 0.5               | 0.3             | 8.455     | A                             |
|          | C-AB   | 584                   | 146                     | 901               | 0.649 | 718                 | 36.6              | 3.1             | 38.650    | E                             |
|          | C-A    | 96                    | 24                      |                   |       | 96                  |                   |                 |           |                               |
|          | A-B    | 38                    | 9                       |                   |       | 38                  |                   |                 |           |                               |
|          | A-C    | 471                   | 118                     |                   |       | 471                 |                   |                 |           |                               |
| 2        | B-AC   | 328                   | 82                      | 537               | 0.611 | 392                 | 17.7              | 1.7             | 35.390    | E                             |
|          | C-AB   | 175                   | 44                      | 851               | 0.206 | 177                 | 0.8               | 0.5             | 5.366     | A                             |
|          | C-A    | 384                   | 96                      |                   |       | 384                 |                   |                 |           |                               |
|          | A-B    | 66                    | 17                      |                   |       | 66                  |                   |                 |           |                               |
|          | A-C    | 440                   | 110                     |                   |       | 440                 |                   |                 |           |                               |
| 3        | B-AC   | 323                   | 81                      | 530               | 0.610 | 447                 | 32.7              | 1.7             | 88.099    | F                             |
|          | C-AB   | 239                   | 60                      | 789               | 0.303 | 241                 | 1.4               | 0.8             | 6.635     | A                             |
|          | C-A    | 305                   | 76                      |                   |       | 305                 |                   |                 |           |                               |
|          | A-B    | 79                    | 20                      |                   |       | 79                  |                   |                 |           |                               |
|          | A-C    | 568                   | 142                     |                   |       | 568                 |                   |                 |           |                               |

# 2042 -Without Dev, PM

## Data Errors and Warnings

| Severity | Area        | Item       | Description  |
|----------|-------------|------------|--|
| Warning  | Vehicle Mix | Junction 1 | 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. |
| Warning  | Vehicle Mix | Junction 2 | 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. |
| Warning  | Vehicle Mix | Junction 3 | 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 | Arm A Direction | Arm B Direction | Arm C Direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|----------|----------|---------------|-----------------|-----------------|-----------------|-----------------------|--------------------|--------------|
| 1        | untitled | T-Junction    | Two-way         | Two-way         | Two-way         |                       | 8.85               | A            |
| 2        | untitled | T-Junction    | Two-way         | Two-way         | Two-way         |                       | 34.22              | D            |
| 3        | untitled | T-Junction    | Two-way         | Two-way         | Two-way         |                       | 41.29              | E            |

### Junction Network

| Driving side | Lighting       | Network residual capacity (%) | First arm reaching threshold | Network delay (s) | Network LOS |
|--------------|----------------|-------------------------------|------------------------------|-------------------|-------------|
| Left         | Normal/unknown | -8                            | Junction 3 - Stream B-AC     | 28.65             | D           |

## Traffic Demand

### Demand Set Details

| ID  | Scenario name     | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|-----|-------------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D14 | 2042 -Without Dev | PM               | ONE HOUR             | 16:00              | 17:30               | 15                        | ✓                 |

### Demand overview (Traffic)

| Junction | Arm | Linked arm | Profile type | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|----------|-----|------------|--------------|--------------|-------------------------|--------------------|
| 1        | A   |            | ONE HOUR     | ✓            | 558                     | 100.000            |
|          | B   |            | ONE HOUR     | ✓            | 379                     | 100.000            |
|          | C   |            | ONE HOUR     | ✓            | 845                     | 100.000            |
| 2        | A   |            | ONE HOUR     | ✓            | 940                     | 100.000            |
|          | B   |            | ONE HOUR     | ✓            | 187                     | 100.000            |
|          | C   |            | ONE HOUR     | ✓            | 765                     | 100.000            |
| 3        | A   |            | ONE HOUR     | ✓            | 844                     | 100.000            |
|          | B   |            | ONE HOUR     | ✓            | 273                     | 100.000            |
|          | C   |            | ONE HOUR     | ✓            | 840                     | 100.000            |

## Origin-Destination Data

### Demand (PCU/hr)

#### Junction 1

|      |   | To  |     |     |
|------|---|-----|-----|-----|
|      |   | A   | B   | C   |
| From | A | 0   | 23  | 535 |
|      | B | 50  | 0   | 329 |
|      | C | 744 | 101 | 0   |

**Demand (PCU/hr)**

**Junction 2**

|      |   | To  |     |     |
|------|---|-----|-----|-----|
|      |   | A   | B   | C   |
| From | A | 0   | 216 | 724 |
|      | B | 66  | 0   | 121 |
|      | C | 547 | 218 | 0   |

**Demand (PCU/hr)**

**Junction 3**

|      |   | To  |     |     |
|------|---|-----|-----|-----|
|      |   | A   | B   | C   |
| From | A | 0   | 230 | 614 |
|      | B | 128 | 0   | 145 |
|      | C | 627 | 213 | 0   |

**Vehicle Mix**

| HV data entry mode | PCU Factor for a HV (PCU) |
|--------------------|---------------------------|
| HV Percentages     | 2.00                      |

**Heavy Vehicle %**

**Junction 1**

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

**Heavy Vehicle %**

**Junction 2**

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

**Heavy Vehicle %**

**Junction 3**

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

## Results

### Results Summary for whole modelled period

| Junction | Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) |
|----------|--------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| 1        | B-AC   | 0.81    | 36.26         | 4.0             | E       | 348                     | 522                           |
|          | C-AB   | 0.43    | 5.91          | 1.7             | A       | 315                     | 473                           |
|          | C-A    |         |               |                 |         | 460                     | 690                           |
|          | A-B    |         |               |                 |         | 21                      | 32                            |
|          | A-C    |         |               |                 |         | 491                     | 736                           |
| 2        | B-AC   | 0.71    | 41.58         | 2.2             | E       | 172                     | 257                           |
|          | C-AB   | 0.98    | 89.50         | 23.7            | F       | 584                     | 876                           |
|          | C-A    |         |               |                 |         | 118                     | 177                           |
|          | A-B    |         |               |                 |         | 198                     | 297                           |
|          | A-C    |         |               |                 |         | 664                     | 997                           |
| 3        | B-AC   | 0.93    | 88.82         | 7.0             | F       | 251                     | 376                           |
|          | C-AB   | 0.98    | 81.90         | 24.2            | F       | 634                     | 951                           |
|          | C-A    |         |               |                 |         | 137                     | 206                           |
|          | A-B    |         |               |                 |         | 211                     | 317                           |
|          | A-C    |         |               |                 |         | 563                     | 845                           |

### Main Results for each time segment

#### 16:00 - 16:15

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 285                   | 71                      | 593               | 0.481 | 282                 | 0.0               | 0.9             | 11.425    | B                             |
|          | C-AB   | 194                   | 49                      | 921               | 0.211 | 192                 | 0.0               | 0.5             | 4.939     | A                             |
|          | C-A    | 442                   | 111                     |                   |       | 442                 |                   |                 |           |                               |
|          | A-B    | 17                    | 4                       |                   |       | 17                  |                   |                 |           |                               |
|          | A-C    | 403                   | 101                     |                   |       | 403                 |                   |                 |           |                               |
| 2        | B-AC   | 141                   | 35                      | 479               | 0.294 | 139                 | 0.0               | 0.4             | 10.533    | B                             |
|          | C-AB   | 359                   | 90                      | 759               | 0.473 | 353                 | 0.0               | 1.4             | 8.843     | A                             |
|          | C-A    | 217                   | 54                      |                   |       | 217                 |                   |                 |           |                               |
|          | A-B    | 163                   | 41                      |                   |       | 163                 |                   |                 |           |                               |
|          | A-C    | 545                   | 136                     |                   |       | 545                 |                   |                 |           |                               |
| 3        | B-AC   | 206                   | 51                      | 502               | 0.409 | 203                 | 0.0               | 0.7             | 11.911    | B                             |
|          | C-AB   | 383                   | 96                      | 812               | 0.472 | 377                 | 0.0               | 1.5             | 8.255     | A                             |
|          | C-A    | 249                   | 62                      |                   |       | 249                 |                   |                 |           |                               |
|          | A-B    | 173                   | 43                      |                   |       | 173                 |                   |                 |           |                               |
|          | A-C    | 462                   | 116                     |                   |       | 462                 |                   |                 |           |                               |

16:15 - 16:30

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 341                   | 85                      | 561               | 0.607 | 338                 | 0.9               | 1.5             | 15.994    | C                             |
|          | C-AB   | 284                   | 71                      | 987               | 0.288 | 283                 | 0.5               | 0.9             | 5.131     | A                             |
|          | C-A    | 475                   | 119                     |                   |       | 475                 |                   |                 |           |                               |
|          | A-B    | 21                    | 5                       |                   |       | 21                  |                   |                 |           |                               |
|          | A-C    | 481                   | 120                     |                   |       | 481                 |                   |                 |           |                               |
| 2        | B-AC   | 168                   | 42                      | 412               | 0.408 | 167                 | 0.4               | 0.7             | 14.619    | B                             |
|          | C-AB   | 519                   | 130                     | 797               | 0.651 | 512                 | 1.4               | 3.1             | 12.783    | B                             |
|          | C-A    | 169                   | 42                      |                   |       | 169                 |                   |                 |           |                               |
|          | A-B    | 194                   | 49                      |                   |       | 194                 |                   |                 |           |                               |
|          | A-C    | 651                   | 163                     |                   |       | 651                 |                   |                 |           |                               |
| 3        | B-AC   | 245                   | 61                      | 438               | 0.561 | 243                 | 0.7               | 1.2             | 18.319    | C                             |
|          | C-AB   | 560                   | 140                     | 864               | 0.648 | 553                 | 1.5               | 3.2             | 11.742    | B                             |
|          | C-A    | 195                   | 49                      |                   |       | 195                 |                   |                 |           |                               |
|          | A-B    | 207                   | 52                      |                   |       | 207                 |                   |                 |           |                               |
|          | A-C    | 552                   | 138                     |                   |       | 552                 |                   |                 |           |                               |

16:30 - 16:45

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 417                   | 104                     | 513               | 0.813 | 409                 | 1.5               | 3.7             | 32.031    | D                             |
|          | C-AB   | 464                   | 116                     | 1082              | 0.429 | 461                 | 0.9               | 1.7             | 5.838     | A                             |
|          | C-A    | 466                   | 116                     |                   |       | 466                 |                   |                 |           |                               |
|          | A-B    | 25                    | 6                       |                   |       | 25                  |                   |                 |           |                               |
|          | A-C    | 589                   | 147                     |                   |       | 589                 |                   |                 |           |                               |
| 2        | B-AC   | 206                   | 51                      | 306               | 0.672 | 201                 | 0.7               | 1.8             | 32.918    | D                             |
|          | C-AB   | 840                   | 210                     | 856               | 0.982 | 783                 | 3.1               | 17.4            | 48.141    | E                             |
|          | C-A    | 2                     | 0.62                    |                   |       | 2                   |                   |                 |           |                               |
|          | A-B    | 238                   | 59                      |                   |       | 238                 |                   |                 |           |                               |
|          | A-C    | 797                   | 199                     |                   |       | 797                 |                   |                 |           |                               |
| 3        | B-AC   | 301                   | 75                      | 340               | 0.885 | 286                 | 1.2               | 4.9             | 56.441    | F                             |
|          | C-AB   | 916                   | 229                     | 941               | 0.974 | 858                 | 3.2               | 17.7            | 43.771    | E                             |
|          | C-A    | 9                     | 2                       |                   |       | 9                   |                   |                 |           |                               |
|          | A-B    | 253                   | 63                      |                   |       | 253                 |                   |                 |           |                               |
|          | A-C    | 676                   | 169                     |                   |       | 676                 |                   |                 |           |                               |

16:45 - 17:00

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 417                   | 104                     | 513               | 0.814 | 416                 | 3.7               | 4.0             | 36.256    | E                             |
|          | C-AB   | 467                   | 117                     | 1084              | 0.431 | 467                 | 1.7               | 1.7             | 5.906     | A                             |
|          | C-A    | 463                   | 116                     |                   |       | 463                 |                   |                 |           |                               |
|          | A-B    | 25                    | 6                       |                   |       | 25                  |                   |                 |           |                               |
|          | A-C    | 589                   | 147                     |                   |       | 589                 |                   |                 |           |                               |
| 2        | B-AC   | 206                   | 51                      | 289               | 0.713 | 204                 | 1.8               | 2.2             | 41.580    | E                             |
|          | C-AB   | 842                   | 211                     | 859               | 0.981 | 817                 | 17.4              | 23.7            | 89.500    | F                             |
|          | C-A    | 0                     | 0                       |                   |       | 0                   |                   |                 |           |                               |
|          | A-B    | 238                   | 59                      |                   |       | 238                 |                   |                 |           |                               |
|          | A-C    | 797                   | 199                     |                   |       | 797                 |                   |                 |           |                               |
| 3        | B-AC   | 301                   | 75                      | 323               | 0.930 | 292                 | 4.9               | 7.0             | 88.823    | F                             |
|          | C-AB   | 925                   | 231                     | 947               | 0.977 | 899                 | 17.7              | 24.2            | 81.905    | F                             |
|          | C-A    | 0                     | 0                       |                   |       | 0                   |                   |                 |           |                               |
|          | A-B    | 253                   | 63                      |                   |       | 253                 |                   |                 |           |                               |
|          | A-C    | 676                   | 169                     |                   |       | 676                 |                   |                 |           |                               |

17:00 - 17:15

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 341                   | 85                      | 561               | 0.608 | 350                 | 4.0               | 1.6             | 17.786    | C                             |
|          | C-AB   | 287                   | 72                      | 990               | 0.289 | 290                 | 1.7               | 0.9             | 5.196     | A                             |
|          | C-A    | 473                   | 118                     |                   |       | 473                 |                   |                 |           |                               |
|          | A-B    | 21                    | 5                       |                   |       | 21                  |                   |                 |           |                               |
|          | A-C    | 481                   | 120                     |                   |       | 481                 |                   |                 |           |                               |
| 2        | B-AC   | 168                   | 42                      | 391               | 0.430 | 174                 | 2.2               | 0.8             | 16.976    | C                             |
|          | C-AB   | 577                   | 144                     | 847               | 0.682 | 655                 | 23.7              | 4.1             | 28.540    | D                             |
|          | C-A    | 110                   | 28                      |                   |       | 110                 |                   |                 |           |                               |
|          | A-B    | 194                   | 49                      |                   |       | 194                 |                   |                 |           |                               |
|          | A-C    | 651                   | 163                     |                   |       | 651                 |                   |                 |           |                               |
| 3        | B-AC   | 245                   | 61                      | 416               | 0.590 | 267                 | 7.0               | 1.5             | 27.384    | D                             |
|          | C-AB   | 626                   | 156                     | 916               | 0.683 | 705                 | 24.2              | 4.3             | 25.563    | D                             |
|          | C-A    | 129                   | 32                      |                   |       | 129                 |                   |                 |           |                               |
|          | A-B    | 207                   | 52                      |                   |       | 207                 |                   |                 |           |                               |
|          | A-C    | 552                   | 138                     |                   |       | 552                 |                   |                 |           |                               |

17:15 - 17:30

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 285                   | 71                      | 593               | 0.481 | 288                 | 1.6               | 0.9             | 11.902    | B                             |
|          | C-AB   | 196                   | 49                      | 923               | 0.213 | 198                 | 0.9               | 0.6             | 4.989     | A                             |
|          | C-A    | 440                   | 110                     |                   |       | 440                 |                   |                 |           |                               |
|          | A-B    | 17                    | 4                       |                   |       | 17                  |                   |                 |           |                               |
|          | A-C    | 403                   | 101                     |                   |       | 403                 |                   |                 |           |                               |
| 2        | B-AC   | 141                   | 35                      | 476               | 0.296 | 142                 | 0.8               | 0.4             | 10.829    | B                             |
|          | C-AB   | 367                   | 92                      | 767               | 0.478 | 377                 | 4.1               | 1.6             | 9.584     | A                             |
|          | C-A    | 209                   | 52                      |                   |       | 209                 |                   |                 |           |                               |
|          | A-B    | 163                   | 41                      |                   |       | 163                 |                   |                 |           |                               |
|          | A-C    | 545                   | 136                     |                   |       | 545                 |                   |                 |           |                               |
| 3        | B-AC   | 206                   | 51                      | 499               | 0.412 | 209                 | 1.5               | 0.7             | 12.551    | B                             |
|          | C-AB   | 392                   | 98                      | 821               | 0.478 | 403                 | 4.3               | 1.7             | 8.944     | A                             |
|          | C-A    | 240                   | 60                      |                   |       | 240                 |                   |                 |           |                               |
|          | A-B    | 173                   | 43                      |                   |       | 173                 |                   |                 |           |                               |
|          | A-C    | 462                   | 116                     |                   |       | 462                 |                   |                 |           |                               |

# 2042 -With Dev, AM

## Data Errors and Warnings

| Severity | Area        | Item       | Description  |
|----------|-------------|------------|--|
| Warning  | Vehicle Mix | Junction 1 | 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. |
| Warning  | Vehicle Mix | Junction 2 | 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. |
| Warning  | Vehicle Mix | Junction 3 | 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 | Arm A Direction | Arm B Direction | Arm C Direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|----------|----------|---------------|-----------------|-----------------|-----------------|-----------------------|--------------------|--------------|
| 1        | untitled | T-Junction    | Two-way         | Two-way         | Two-way         |                       | 110.20             | F            |
| 2        | untitled | T-Junction    | Two-way         | Two-way         | Two-way         |                       | 87.17              | F            |
| 3        | untitled | T-Junction    | Two-way         | Two-way         | Two-way         |                       | 92.12              | F            |

### Junction Network

| Driving side | Lighting       | Network residual capacity (%) | First arm reaching threshold | Network delay (s) | Network LOS |
|--------------|----------------|-------------------------------|------------------------------|-------------------|-------------|
| Left         | Normal/unknown | -21                           | Junction 2 - Stream B-AC     | 96.19             | F           |

## 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 |
|-----|----------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D15 | 2042 -With Dev | AM               | ONE HOUR             | 07:00              | 08:30               | 15                        | ✓                 |

### Demand overview (Traffic)

| Junction | Arm | Linked arm | Profile type | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|----------|-----|------------|--------------|--------------|-------------------------|--------------------|
| 1        | A   |            | ONE HOUR     | ✓            | 688                     | 100.000            |
|          | B   |            | ONE HOUR     | ✓            | 231                     | 100.000            |
|          | C   |            | ONE HOUR     | ✓            | 908                     | 100.000            |
| 2        | A   |            | ONE HOUR     | ✓            | 709                     | 100.000            |
|          | B   |            | ONE HOUR     | ✓            | 446                     | 100.000            |
|          | C   |            | ONE HOUR     | ✓            | 762                     | 100.000            |
| 3        | A   |            | ONE HOUR     | ✓            | 888                     | 100.000            |
|          | B   |            | ONE HOUR     | ✓            | 430                     | 100.000            |
|          | C   |            | ONE HOUR     | ✓            | 727                     | 100.000            |

## Origin-Destination Data

### Demand (PCU/hr)

#### Junction 1

|      |   | To  |     |     |
|------|---|-----|-----|-----|
|      |   | A   | B   | C   |
| From | A | 0   | 63  | 625 |
|      | B | 54  | 0   | 177 |
|      | C | 603 | 305 | 0   |

**Demand (PCU/hr)**

**Junction 2**

|      |   | To  |     |     |
|------|---|-----|-----|-----|
|      |   | A   | B   | C   |
| From | A | 0   | 93  | 616 |
|      | B | 168 | 0   | 278 |
|      | C | 655 | 107 | 0   |

**Demand (PCU/hr)**

**Junction 3**

|      |   | To  |     |     |
|------|---|-----|-----|-----|
|      |   | A   | B   | C   |
| From | A | 0   | 108 | 780 |
|      | B | 161 | 0   | 269 |
|      | C | 589 | 138 | 0   |

**Vehicle Mix**

| HV data entry mode | PCU Factor for a HV (PCU) |
|--------------------|---------------------------|
| HV Percentages     | 2.00                      |

**Heavy Vehicle %**

**Junction 1**

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

**Heavy Vehicle %**

**Junction 2**

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

**Heavy Vehicle %**

**Junction 3**

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

## Results

### Results Summary for whole modelled period

| Junction | Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) |
|----------|--------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| 1        | B-AC   | 0.78    | 44.52         | 3.0             | E       | 212                     | 318                           |
|          | C-AB   | 1.12    | 225.47        | 68.2            | F       | 778                     | 1166                          |
|          | C-A    |         |               |                 |         | 56                      | 84                            |
|          | A-B    |         |               |                 |         | 58                      | 87                            |
|          | A-C    |         |               |                 |         | 574                     | 860                           |
| 2        | B-AC   | 1.23    | 369.52        | 52.5            | F       | 409                     | 614                           |
|          | C-AB   | 0.46    | 6.87          | 1.9             | A       | 308                     | 462                           |
|          | C-A    |         |               |                 |         | 391                     | 587                           |
|          | A-B    |         |               |                 |         | 85                      | 128                           |
|          | A-C    |         |               |                 |         | 565                     | 848                           |
| 3        | B-AC   | 1.29    | 427.29        | 58.1            | F       | 395                     | 592                           |
|          | C-AB   | 0.63    | 11.11         | 3.5             | B       | 384                     | 576                           |
|          | C-A    |         |               |                 |         | 283                     | 425                           |
|          | A-B    |         |               |                 |         | 99                      | 149                           |
|          | A-C    |         |               |                 |         | 716                     | 1074                          |

### Main Results for each time segment

#### 07:00 - 07:15

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 174                   | 43                      | 508               | 0.342 | 172                 | 0.0               | 0.5             | 10.639    | B                             |
|          | C-AB   | 508                   | 127                     | 829               | 0.613 | 498                 | 0.0               | 2.4             | 10.811    | B                             |
|          | C-A    | 176                   | 44                      |                   |       | 176                 |                   |                 |           |                               |
|          | A-B    | 47                    | 12                      |                   |       | 47                  |                   |                 |           |                               |
|          | A-C    | 471                   | 118                     |                   |       | 471                 |                   |                 |           |                               |
| 2        | B-AC   | 336                   | 84                      | 527               | 0.637 | 329                 | 0.0               | 1.7             | 17.628    | C                             |
|          | C-AB   | 192                   | 48                      | 850               | 0.226 | 189                 | 0.0               | 0.6             | 5.448     | A                             |
|          | C-A    | 382                   | 95                      |                   |       | 382                 |                   |                 |           |                               |
|          | A-B    | 70                    | 18                      |                   |       | 70                  |                   |                 |           |                               |
|          | A-C    | 464                   | 116                     |                   |       | 464                 |                   |                 |           |                               |
| 3        | B-AC   | 324                   | 81                      | 523               | 0.618 | 318                 | 0.0               | 1.5             | 17.022    | C                             |
|          | C-AB   | 239                   | 60                      | 785               | 0.304 | 236                 | 0.0               | 0.8             | 6.547     | A                             |
|          | C-A    | 309                   | 77                      |                   |       | 309                 |                   |                 |           |                               |
|          | A-B    | 81                    | 20                      |                   |       | 81                  |                   |                 |           |                               |
|          | A-C    | 587                   | 147                     |                   |       | 587                 |                   |                 |           |                               |

07:15 - 07:30

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 208                   | 52                      | 455               | 0.457 | 206                 | 0.5               | 0.8             | 14.426    | B                             |
|          | C-AB   | 728                   | 182                     | 880               | 0.827 | 711                 | 2.4               | 6.5             | 21.531    | C                             |
|          | C-A    | 88                    | 22                      |                   |       | 88                  |                   |                 |           |                               |
|          | A-B    | 57                    | 14                      |                   |       | 57                  |                   |                 |           |                               |
|          | A-C    | 562                   | 140                     |                   |       | 562                 |                   |                 |           |                               |
| 2        | B-AC   | 401                   | 100                     | 476               | 0.843 | 391                 | 1.7               | 4.2             | 38.316    | E                             |
|          | C-AB   | 278                   | 70                      | 904               | 0.308 | 277                 | 0.6               | 0.9             | 5.763     | A                             |
|          | C-A    | 407                   | 102                     |                   |       | 407                 |                   |                 |           |                               |
|          | A-B    | 84                    | 21                      |                   |       | 84                  |                   |                 |           |                               |
|          | A-C    | 554                   | 138                     |                   |       | 554                 |                   |                 |           |                               |
| 3        | B-AC   | 387                   | 97                      | 462               | 0.837 | 376                 | 1.5               | 4.1             | 38.189    | E                             |
|          | C-AB   | 346                   | 87                      | 831               | 0.417 | 344                 | 0.8               | 1.4             | 7.441     | A                             |
|          | C-A    | 308                   | 77                      |                   |       | 308                 |                   |                 |           |                               |
|          | A-B    | 97                    | 24                      |                   |       | 97                  |                   |                 |           |                               |
|          | A-C    | 701                   | 175                     |                   |       | 701                 |                   |                 |           |                               |

07:30 - 07:45

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 254                   | 64                      | 365               | 0.696 | 249                 | 0.8               | 2.1             | 29.836    | D                             |
|          | C-AB   | 1000                  | 250                     | 890               | 1.123 | 867                 | 6.5               | 39.7            | 103.437   | F                             |
|          | C-A    | 0                     | 0                       |                   |       | 0                   |                   |                 |           |                               |
|          | A-B    | 69                    | 17                      |                   |       | 69                  |                   |                 |           |                               |
|          | A-C    | 688                   | 172                     |                   |       | 688                 |                   |                 |           |                               |
| 2        | B-AC   | 491                   | 123                     | 399               | 1.231 | 392                 | 4.2               | 29.0            | 174.632   | F                             |
|          | C-AB   | 450                   | 112                     | 982               | 0.458 | 446                 | 0.9               | 1.9             | 6.765     | A                             |
|          | C-A    | 389                   | 97                      |                   |       | 389                 |                   |                 |           |                               |
|          | A-B    | 102                   | 26                      |                   |       | 102                 |                   |                 |           |                               |
|          | A-C    | 678                   | 170                     |                   |       | 678                 |                   |                 |           |                               |
| 3        | B-AC   | 473                   | 118                     | 370               | 1.281 | 364                 | 4.1               | 31.5            | 198.324   | F                             |
|          | C-AB   | 559                   | 140                     | 897               | 0.623 | 551                 | 1.4               | 3.3             | 10.576    | B                             |
|          | C-A    | 241                   | 60                      |                   |       | 241                 |                   |                 |           |                               |
|          | A-B    | 119                   | 30                      |                   |       | 119                 |                   |                 |           |                               |
|          | A-C    | 859                   | 215                     |                   |       | 859                 |                   |                 |           |                               |

07:45 - 08:00

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 254                   | 64                      | 327               | 0.777 | 251                 | 2.1               | 3.0             | 44.517    | E                             |
|          | C-AB   | 1000                  | 250                     | 891               | 1.122 | 886                 | 39.7              | 68.2            | 225.468   | F                             |
|          | C-A    | 0                     | 0                       |                   |       | 0                   |                   |                 |           |                               |
|          | A-B    | 69                    | 17                      |                   |       | 69                  |                   |                 |           |                               |
|          | A-C    | 688                   | 172                     |                   |       | 688                 |                   |                 |           |                               |
| 2        | B-AC   | 491                   | 123                     | 398               | 1.234 | 397                 | 29.0              | 52.5            | 369.523   | F                             |
|          | C-AB   | 453                   | 113                     | 985               | 0.460 | 452                 | 1.9               | 1.9             | 6.868     | A                             |
|          | C-A    | 386                   | 97                      |                   |       | 386                 |                   |                 |           |                               |
|          | A-B    | 102                   | 26                      |                   |       | 102                 |                   |                 |           |                               |
|          | A-C    | 678                   | 170                     |                   |       | 678                 |                   |                 |           |                               |
| 3        | B-AC   | 473                   | 118                     | 368               | 1.287 | 367                 | 31.5              | 58.1            | 427.293   | F                             |
|          | C-AB   | 566                   | 141                     | 902               | 0.627 | 565                 | 3.3               | 3.5             | 11.105    | B                             |
|          | C-A    | 235                   | 59                      |                   |       | 235                 |                   |                 |           |                               |
|          | A-B    | 119                   | 30                      |                   |       | 119                 |                   |                 |           |                               |
|          | A-C    | 859                   | 215                     |                   |       | 859                 |                   |                 |           |                               |

08:00 - 08:15

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 208                   | 52                      | 399               | 0.520 | 215                 | 3.0               | 1.1             | 20.272    | C                             |
|          | C-AB   | 816                   | 204                     | 933               | 0.875 | 911                 | 68.2              | 44.4            | 218.682   | F                             |
|          | C-A    | 0                     | 0                       |                   |       | 0                   |                   |                 |           |                               |
|          | A-B    | 57                    | 14                      |                   |       | 57                  |                   |                 |           |                               |
|          | A-C    | 562                   | 140                     |                   |       | 562                 |                   |                 |           |                               |
| 2        | B-AC   | 401                   | 100                     | 475               | 0.845 | 466                 | 52.5              | 36.3            | 340.902   | F                             |
|          | C-AB   | 281                   | 70                      | 907               | 0.310 | 285                 | 1.9               | 1.0             | 5.855     | A                             |
|          | C-A    | 404                   | 101                     |                   |       | 404                 |                   |                 |           |                               |
|          | A-B    | 84                    | 21                      |                   |       | 84                  |                   |                 |           |                               |
|          | A-C    | 554                   | 138                     |                   |       | 554                 |                   |                 |           |                               |
| 3        | B-AC   | 387                   | 97                      | 460               | 0.841 | 452                 | 58.1              | 41.7            | 391.087   | F                             |
|          | C-AB   | 352                   | 88                      | 837               | 0.420 | 360                 | 3.5               | 1.5             | 7.761     | A                             |
|          | C-A    | 302                   | 75                      |                   |       | 302                 |                   |                 |           |                               |
|          | A-B    | 97                    | 24                      |                   |       | 97                  |                   |                 |           |                               |
|          | A-C    | 701                   | 175                     |                   |       | 701                 |                   |                 |           |                               |

08:15 - 08:30

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 174                   | 43                      | 479               | 0.363 | 176                 | 1.1               | 0.6             | 11.951    | B                             |
|          | C-AB   | 614                   | 153                     | 914               | 0.672 | 777                 | 44.4              | 3.5             | 60.501    | F                             |
|          | C-A    | 70                    | 17                      |                   |       | 70                  |                   |                 |           |                               |
|          | A-B    | 47                    | 12                      |                   |       | 47                  |                   |                 |           |                               |
|          | A-C    | 471                   | 118                     |                   |       | 471                 |                   |                 |           |                               |
| 2        | B-AC   | 336                   | 84                      | 527               | 0.638 | 473                 | 36.3              | 2.1             | 118.070   | F                             |
|          | C-AB   | 194                   | 48                      | 852               | 0.227 | 195                 | 1.0               | 0.6             | 5.514     | A                             |
|          | C-A    | 380                   | 95                      |                   |       | 380                 |                   |                 |           |                               |
|          | A-B    | 70                    | 18                      |                   |       | 70                  |                   |                 |           |                               |
|          | A-C    | 464                   | 116                     |                   |       | 464                 |                   |                 |           |                               |
| 3        | B-AC   | 324                   | 81                      | 522               | 0.620 | 483                 | 41.7              | 2.0             | 144.784   | F                             |
|          | C-AB   | 242                   | 60                      | 788               | 0.307 | 244                 | 1.5               | 0.8             | 6.688     | A                             |
|          | C-A    | 306                   | 76                      |                   |       | 306                 |                   |                 |           |                               |
|          | A-B    | 81                    | 20                      |                   |       | 81                  |                   |                 |           |                               |
|          | A-C    | 587                   | 147                     |                   |       | 587                 |                   |                 |           |                               |

# 2042 With Dev, PM

## Data Errors and Warnings

| Severity | Area        | Item       | Description  |
|----------|-------------|------------|--|
| Warning  | Vehicle Mix | Junction 1 | 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. |
| Warning  | Vehicle Mix | Junction 2 | 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. |
| Warning  | Vehicle Mix | Junction 3 | 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 | Arm A Direction | Arm B Direction | Arm C Direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|----------|----------|---------------|-----------------|-----------------|-----------------|-----------------------|--------------------|--------------|
| 1        | untitled | T-Junction    | Two-way         | Two-way         | Two-way         |                       | 21.63              | C            |
| 2        | untitled | T-Junction    | Two-way         | Two-way         | Two-way         |                       | 64.14              | F            |
| 3        | untitled | T-Junction    | Two-way         | Two-way         | Two-way         |                       | 52.74              | F            |

### Junction Network

| Driving side | Lighting       | Network residual capacity (%) | First arm reaching threshold | Network delay (s) | Network LOS |
|--------------|----------------|-------------------------------|------------------------------|-------------------|-------------|
| Left         | Normal/unknown | -11                           | Junction 1 - Stream B-AC     | 46.64             | E           |

## Traffic Demand

### Demand Set Details

| ID  | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) | Run automatically |
|-----|---------------|------------------|----------------------|--------------------|---------------------|---------------------------|-------------------|
| D16 | 2042 With Dev | PM               | ONE HOUR             | 16:00              | 17:30               | 15                        | ✓                 |

### Demand overview (Traffic)

| Junction | Arm | Linked arm | Profile type | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|----------|-----|------------|--------------|--------------|-------------------------|--------------------|
| 1        | A   |            | ONE HOUR     | ✓            | 599                     | 100.000            |
|          | B   |            | ONE HOUR     | ✓            | 415                     | 100.000            |
|          | C   |            | ONE HOUR     | ✓            | 859                     | 100.000            |
| 2        | A   |            | ONE HOUR     | ✓            | 966                     | 100.000            |
|          | B   |            | ONE HOUR     | ✓            | 200                     | 100.000            |
|          | C   |            | ONE HOUR     | ✓            | 814                     | 100.000            |
| 3        | A   |            | ONE HOUR     | ✓            | 857                     | 100.000            |
|          | B   |            | ONE HOUR     | ✓            | 278                     | 100.000            |
|          | C   |            | ONE HOUR     | ✓            | 864                     | 100.000            |

## Origin-Destination Data

### Demand (PCU/hr)

#### Junction 1

|      |   | To  |     |     |
|------|---|-----|-----|-----|
|      |   | A   | B   | C   |
| From | A | 0   | 64  | 535 |
|      | B | 77  | 0   | 338 |
|      | C | 744 | 115 | 0   |

**Demand (PCU/hr)**

**Junction 2**

|      |   | To  |     |     |
|------|---|-----|-----|-----|
|      |   | A   | B   | C   |
| From | A | 0   | 222 | 744 |
|      | B | 70  | 0   | 130 |
|      | C | 583 | 231 | 0   |

**Demand (PCU/hr)**

**Junction 3**

|      |   | To  |     |     |
|------|---|-----|-----|-----|
|      |   | A   | B   | C   |
| From | A | 0   | 234 | 623 |
|      | B | 133 | 0   | 145 |
|      | C | 651 | 213 | 0   |

**Vehicle Mix**

| HV data entry mode | PCU Factor for a HV (PCU) |
|--------------------|---------------------------|
| HV Percentages     | 2.00                      |

**Heavy Vehicle %**

**Junction 1**

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

**Heavy Vehicle %**

**Junction 2**

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

**Heavy Vehicle %**

**Junction 3**

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

## Results

### Results Summary for whole modelled period

| Junction | Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) |
|----------|--------|---------|---------------|-----------------|---------|-------------------------|-------------------------------|
| 1        | B-AC   | 0.96    | 91.12         | 11.0            | F       | 381                     | 571                           |
|          | C-AB   | 0.50    | 6.82          | 2.3             | A       | 365                     | 547                           |
|          | C-A    |         |               |                 |         | 424                     | 636                           |
|          | A-B    |         |               |                 |         | 59                      | 88                            |
|          | A-C    |         |               |                 |         | 491                     | 736                           |
| 2        | B-AC   | 0.89    | 86.17         | 5.0             | F       | 184                     | 275                           |
|          | C-AB   | 1.06    | 154.39        | 42.5            | F       | 652                     | 979                           |
|          | C-A    |         |               |                 |         | 95                      | 142                           |
|          | A-B    |         |               |                 |         | 204                     | 306                           |
|          | A-C    |         |               |                 |         | 683                     | 1024                          |
| 3        | B-AC   | 1.00    | 125.29        | 10.6            | F       | 255                     | 383                           |
|          | C-AB   | 1.00    | 98.20         | 29.3            | F       | 660                     | 990                           |
|          | C-A    |         |               |                 |         | 133                     | 200                           |
|          | A-B    |         |               |                 |         | 215                     | 322                           |
|          | A-C    |         |               |                 |         | 572                     | 858                           |

### Main Results for each time segment

#### 16:00 - 16:15

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 312                   | 78                      | 567               | 0.551 | 308                 | 0.0               | 1.2             | 13.631    | B                             |
|          | C-AB   | 223                   | 56                      | 916               | 0.243 | 220                 | 0.0               | 0.6             | 5.175     | A                             |
|          | C-A    | 424                   | 106                     |                   |       | 424                 |                   |                 |           |                               |
|          | A-B    | 48                    | 12                      |                   |       | 48                  |                   |                 |           |                               |
|          | A-C    | 403                   | 101                     |                   |       | 403                 |                   |                 |           |                               |
| 2        | B-AC   | 151                   | 38                      | 467               | 0.322 | 149                 | 0.0               | 0.5             | 11.238    | B                             |
|          | C-AB   | 400                   | 100                     | 776               | 0.516 | 394                 | 0.0               | 1.7             | 9.387     | A                             |
|          | C-A    | 212                   | 53                      |                   |       | 212                 |                   |                 |           |                               |
|          | A-B    | 167                   | 42                      |                   |       | 167                 |                   |                 |           |                               |
|          | A-C    | 560                   | 140                     |                   |       | 560                 |                   |                 |           |                               |
| 3        | B-AC   | 209                   | 52                      | 494               | 0.424 | 206                 | 0.0               | 0.7             | 12.400    | B                             |
|          | C-AB   | 396                   | 99                      | 824               | 0.480 | 389                 | 0.0               | 1.6             | 8.273     | A                             |
|          | C-A    | 255                   | 64                      |                   |       | 255                 |                   |                 |           |                               |
|          | A-B    | 176                   | 44                      |                   |       | 176                 |                   |                 |           |                               |
|          | A-C    | 469                   | 117                     |                   |       | 469                 |                   |                 |           |                               |

16:15 - 16:30

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 373                   | 93                      | 531               | 0.703 | 369                 | 1.2               | 2.2             | 21.713    | C                             |
|          | C-AB   | 327                   | 82                      | 982               | 0.333 | 326                 | 0.6               | 1.0             | 5.510     | A                             |
|          | C-A    | 445                   | 111                     |                   |       | 445                 |                   |                 |           |                               |
|          | A-B    | 58                    | 14                      |                   |       | 58                  |                   |                 |           |                               |
|          | A-C    | 481                   | 120                     |                   |       | 481                 |                   |                 |           |                               |
| 2        | B-AC   | 180                   | 45                      | 395               | 0.455 | 178                 | 0.5               | 0.8             | 16.485    | C                             |
|          | C-AB   | 587                   | 147                     | 819               | 0.717 | 578                 | 1.7               | 4.1             | 15.175    | C                             |
|          | C-A    | 144                   | 36                      |                   |       | 144                 |                   |                 |           |                               |
|          | A-B    | 200                   | 50                      |                   |       | 200                 |                   |                 |           |                               |
|          | A-C    | 669                   | 167                     |                   |       | 669                 |                   |                 |           |                               |
| 3        | B-AC   | 250                   | 62                      | 427               | 0.585 | 247                 | 0.7               | 1.3             | 19.748    | C                             |
|          | C-AB   | 583                   | 146                     | 879               | 0.664 | 576                 | 1.6               | 3.4             | 12.066    | B                             |
|          | C-A    | 193                   | 48                      |                   |       | 193                 |                   |                 |           |                               |
|          | A-B    | 210                   | 53                      |                   |       | 210                 |                   |                 |           |                               |
|          | A-C    | 560                   | 140                     |                   |       | 560                 |                   |                 |           |                               |

16:30 - 16:45

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 457                   | 114                     | 476               | 0.961 | 432                 | 2.2               | 8.4             | 61.686    | F                             |
|          | C-AB   | 538                   | 135                     | 1077              | 0.500 | 534                 | 1.0               | 2.2             | 6.689     | A                             |
|          | C-A    | 408                   | 102                     |                   |       | 408                 |                   |                 |           |                               |
|          | A-B    | 70                    | 18                      |                   |       | 70                  |                   |                 |           |                               |
|          | A-C    | 589                   | 147                     |                   |       | 589                 |                   |                 |           |                               |
| 2        | B-AC   | 220                   | 55                      | 279               | 0.791 | 211                 | 0.8               | 3.0             | 48.643    | E                             |
|          | C-AB   | 896                   | 224                     | 848               | 1.057 | 804                 | 4.1               | 27.1            | 73.229    | F                             |
|          | C-A    | 0                     | 0                       |                   |       | 0                   |                   |                 |           |                               |
|          | A-B    | 244                   | 61                      |                   |       | 244                 |                   |                 |           |                               |
|          | A-C    | 819                   | 205                     |                   |       | 819                 |                   |                 |           |                               |
| 3        | B-AC   | 306                   | 77                      | 326               | 0.939 | 286                 | 1.3               | 6.4             | 69.657    | F                             |
|          | C-AB   | 951                   | 238                     | 953               | 0.999 | 882                 | 3.4               | 20.9            | 50.093    | F                             |
|          | C-A    | 0                     | 0                       |                   |       | 0                   |                   |                 |           |                               |
|          | A-B    | 258                   | 64                      |                   |       | 258                 |                   |                 |           |                               |
|          | A-C    | 686                   | 171                     |                   |       | 686                 |                   |                 |           |                               |

16:45 - 17:00

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 457                   | 114                     | 475               | 0.962 | 447                 | 8.4               | 11.0            | 91.117    | F                             |
|          | C-AB   | 542                   | 136                     | 1080              | 0.502 | 542                 | 2.2               | 2.3             | 6.816     | A                             |
|          | C-A    | 404                   | 101                     |                   |       | 404                 |                   |                 |           |                               |
|          | A-B    | 70                    | 18                      |                   |       | 70                  |                   |                 |           |                               |
|          | A-C    | 589                   | 147                     |                   |       | 589                 |                   |                 |           |                               |
| 2        | B-AC   | 220                   | 55                      | 247               | 0.893 | 212                 | 3.0               | 5.0             | 86.170    | F                             |
|          | C-AB   | 896                   | 224                     | 850               | 1.054 | 835                 | 27.1              | 42.5            | 154.392   | F                             |
|          | C-A    | 0                     | 0                       |                   |       | 0                   |                   |                 |           |                               |
|          | A-B    | 244                   | 61                      |                   |       | 244                 |                   |                 |           |                               |
|          | A-C    | 819                   | 205                     |                   |       | 819                 |                   |                 |           |                               |
| 3        | B-AC   | 306                   | 77                      | 306               | 1.000 | 289                 | 6.4               | 10.6            | 125.293   | F                             |
|          | C-AB   | 951                   | 238                     | 955               | 0.996 | 918                 | 20.9              | 29.3            | 98.201    | F                             |
|          | C-A    | 0                     | 0                       |                   |       | 0                   |                   |                 |           |                               |
|          | A-B    | 258                   | 64                      |                   |       | 258                 |                   |                 |           |                               |
|          | A-C    | 686                   | 171                     |                   |       | 686                 |                   |                 |           |                               |

17:00 - 17:15

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 373                   | 93                      | 530               | 0.704 | 407                 | 11.0              | 2.6             | 35.152    | E                             |
|          | C-AB   | 331                   | 83                      | 986               | 0.336 | 335                 | 2.3               | 1.1             | 5.616     | A                             |
|          | C-A    | 441                   | 110                     |                   |       | 441                 |                   |                 |           |                               |
|          | A-B    | 58                    | 14                      |                   |       | 58                  |                   |                 |           |                               |
|          | A-C    | 481                   | 120                     |                   |       | 481                 |                   |                 |           |                               |
| 2        | B-AC   | 180                   | 45                      | 353               | 0.509 | 195                 | 5.0               | 1.1             | 24.799    | C                             |
|          | C-AB   | 716                   | 179                     | 910               | 0.787 | 851                 | 42.5              | 8.7             | 95.036    | F                             |
|          | C-A    | 16                    | 4                       |                   |       | 16                  |                   |                 |           |                               |
|          | A-B    | 200                   | 50                      |                   |       | 200                 |                   |                 |           |                               |
|          | A-C    | 669                   | 167                     |                   |       | 669                 |                   |                 |           |                               |
| 3        | B-AC   | 250                   | 62                      | 400               | 0.624 | 285                 | 10.6              | 1.8             | 39.063    | E                             |
|          | C-AB   | 670                   | 167                     | 943               | 0.710 | 766                 | 29.3              | 5.1             | 34.662    | D                             |
|          | C-A    | 107                   | 27                      |                   |       | 107                 |                   |                 |           |                               |
|          | A-B    | 210                   | 53                      |                   |       | 210                 |                   |                 |           |                               |
|          | A-C    | 560                   | 140                     |                   |       | 560                 |                   |                 |           |                               |

17:15 - 17:30

| Junction | 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 |
|----------|--------|-----------------------|-------------------------|-------------------|-------|---------------------|-------------------|-----------------|-----------|-------------------------------|
| 1        | B-AC   | 312                   | 78                      | 567               | 0.551 | 318                 | 2.6               | 1.3             | 14.743    | B                             |
|          | C-AB   | 225                   | 56                      | 918               | 0.245 | 227                 | 1.1               | 0.7             | 5.242     | A                             |
|          | C-A    | 421                   | 105                     |                   |       | 421                 |                   |                 |           |                               |
|          | A-B    | 48                    | 12                      |                   |       | 48                  |                   |                 |           |                               |
|          | A-C    | 403                   | 101                     |                   |       | 403                 |                   |                 |           |                               |
| 2        | B-AC   | 151                   | 38                      | 460               | 0.327 | 153                 | 1.1               | 0.5             | 11.805    | B                             |
|          | C-AB   | 418                   | 105                     | 794               | 0.526 | 445                 | 8.7               | 2.0             | 11.293    | B                             |
|          | C-A    | 195                   | 49                      |                   |       | 195                 |                   |                 |           |                               |
|          | A-B    | 167                   | 42                      |                   |       | 167                 |                   |                 |           |                               |
|          | A-C    | 560                   | 140                     |                   |       | 560                 |                   |                 |           |                               |
| 3        | B-AC   | 209                   | 52                      | 489               | 0.428 | 213                 | 1.8               | 0.8             | 13.227    | B                             |
|          | C-AB   | 407                   | 102                     | 835               | 0.488 | 420                 | 5.1               | 1.7             | 9.092     | A                             |
|          | C-A    | 243                   | 61                      |                   |       | 243                 |                   |                 |           |                               |
|          | A-B    | 176                   | 44                      |                   |       | 176                 |                   |                 |           |                               |
|          | A-C    | 469                   | 117                     |                   |       | 469                 |                   |                 |           |                               |



**OFFICES:**

**CORK**  
Unit 1B,  
The Atrium,  
Blackpool,  
Cork.

**KERRY**  
HQ Tralee,  
Abbey Street,  
Tralee,  
Kerry

Tel: +353 (0) 214840214

E: [info@mhl.ie](mailto:info@mhl.ie)

MHL & Associates Consulting Engineers  
Registration Number  
311279

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