## Introduction

This document has been prepared to provide explanation as to how forecast traffic associated with Area B of the Tiverton Urban Extension has been calculated along with a junction capacity review of the Posthill / Mayfair priority junction.

## Calculating Forecast Traffic

Assessment has been completed to determine the likely vehicular trip generation for the development of 500 dwellings on Area B. Assessment is based on AM and PM peak periods. Transport Assessments when prepared to support planning applications focus assessment upon the morning and evening 'commuter' peaks, this is normally the peak hours in the morning and evening that residential developments generate the highest volume of trips. This assessment therefore provides a capacity review for the busiest parts of the day.

**Data Sources – Posthill Base Traffic**

The sources of data utilised in undertaking forecast traffic assessment is as follows:

- PCL Transport Assessment as prepared on behalf of Waddeton Park Ltd for the development scheme land South of Uplowman Road.
- PFA Transport Assessment as prepared on behalf of the Chettiscombe Trust for the development scheme Tiverton Eastern urban Extension. This scheme excluded the Waddeton Park site and Area B.

Traffic flows along Posthill, excluding the development of the Eastern Urban Extension, have been derived from survey flows presented in the Waddeton Park and Chettiscombe Trust Transport Assessments. Planning permission for the Waddeton Park scheme agreed that the full development of 330 dwellings could be accessed from Golf Course Lane. It is understood alternative access options have been considered however for the purpose of this assessment we have completed our analysis based on the Waddeton Park scheme being accessed from Golf Course Lane. This scenario will result in a higher volume of traffic on Posthill and as such provides a more robust evidence base to assess the impact upon Mayfair.

Traffic growth rates from the Tempro database have been applied in order to provide a consistent base year of 2016 on-top of which forecast development traffic flows are applied. The use of Tempro allows a consistent base year to be achieved given that the survey flows in assessment of the two Area A sites are for different years and different sections of the highway network. The flow diagrams at Appendix A confirm the source data for the 2016 base year.

**Data Sources – Area A**

The forecast trips for the two respective Area A developments are as per those identified in the Transport Assessments for the respective schemes. The traffic flows for the two schemes are provided in Appendix B along with the combined base and Area A traffic flows.

**Area B Trip Forecast**

The trip forecast for the Area B scheme has been derived utilising the trip rates applied for the Chettiscombe Trust scheme and which have been agreed by Devon County Council as Highway Authority. The rates and trips associated with a 500 dwelling development is provided in Table 1.

*Table 1: Area B Trips (500 dwellings)*

| | AM Peak | | PM Peak | |
|---|---|---|---|---|
| | in | out | in | out |
| Trip Rates | 0.144 | 0.398 | 0.376 | 0.214 |
| Trips | 72 | 199 | 188 | 107 |

Trips have been assigned at the Posthill / Mayfair junction on the basis of the following distribution:

- 90% to / from the west.
- 10% to / from the east.

This allows for the introduction of a new junction onto the A361 which is a requirement of the Tiverton Eastern Urban Extension allocation. The resulting trip distribution for the 500 dwellings is presented in the flow diagrams at Appendix C along with the total traffic flows allowing for the combined base date, Area A data and Area B data.

**Mayfair / Posthill Junction Capacity Assessment**

In order to determine whether there is adequate capacity within the Posthill / Mayfair Junction a junction capacity assessment has been completed allowing for the combined forecast traffic volumes along Posthill and Mayfair. This has been completed utilising Junctions 9.

A summary of the junction capacity assessment is provided in Table 2 with the full junction modelling outputs provided at Appendix D.

*Table 2: Posthill / Mayfair Junction Capacity Assessment Summary*

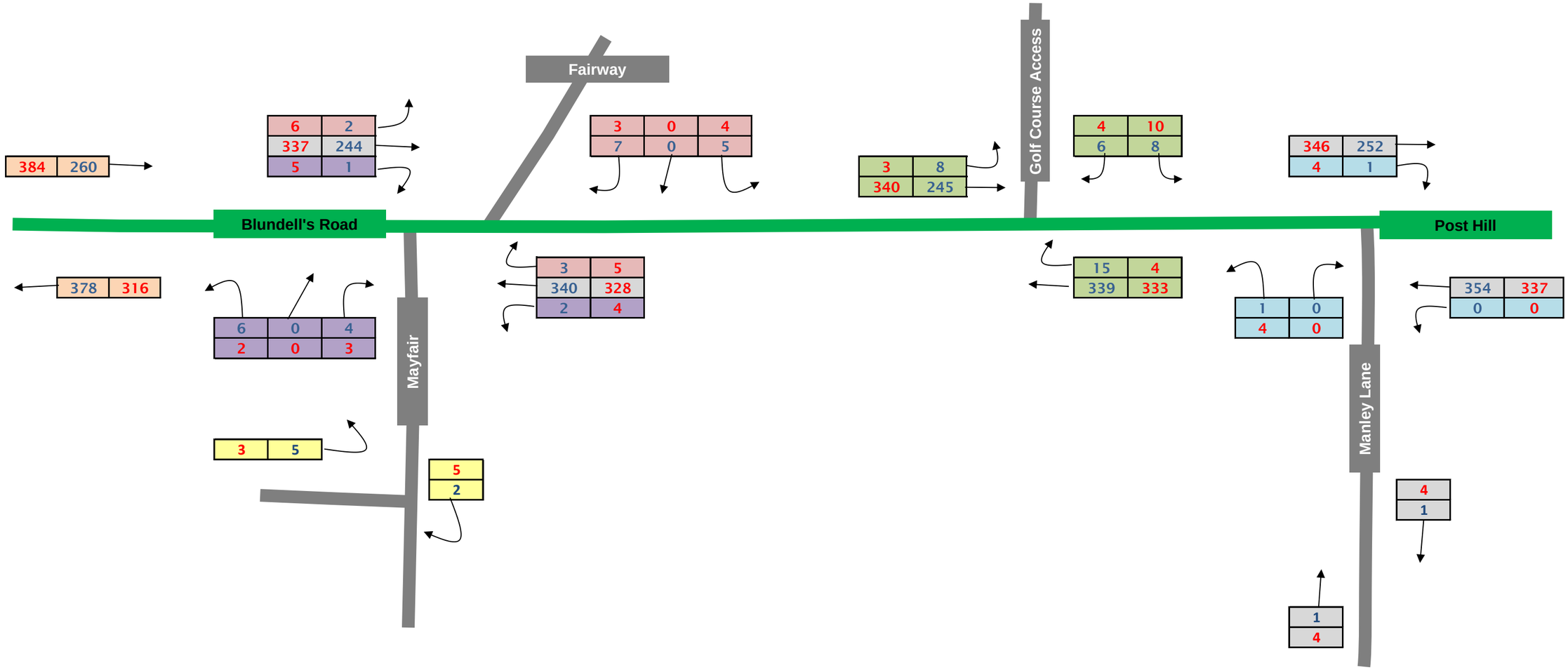
| Arm | AM Peak | | PM Peak | |
|---|---|---|---|---|
| | Max RFC | Max Queue (vehicles) | Max RFC | Max Queue (vehicles) |
| Post Hill (East) | 0.01 | 0.0 | 0.02 | 0.0 |
| Mayfair | 0.59 | 1.4 | 0.50 | 0.35 |
| Post Hill (west) | 0.09 | 0.2 | 0.27 | 0.7 |
| Fairway | 0.01 | 0.0 | 0.02 | 0.0 |

The PICADY assessments confirm that the Mayfair / Posthill junction can accommodate traffic associated with at least 500 dwellings. The PICADY results for 500 dwellings identifies that an RFC of 0.85 is not exceeded on any arm of the junction. . A key consideration in determining whether a priority junction is at or approaching capacity is a Ratio of Flow to Capacity (RFC) of 0.85. RFC is one of a number of outputs provided when modelling a priority junction along with factors such as queue length, on each arm of the junction.

**Summary**

Based on the review provided within this document there is adequate capacity to accommodate all development traffic accessing Area B via Mayfair.

# APPENDIX A




**KEY:**

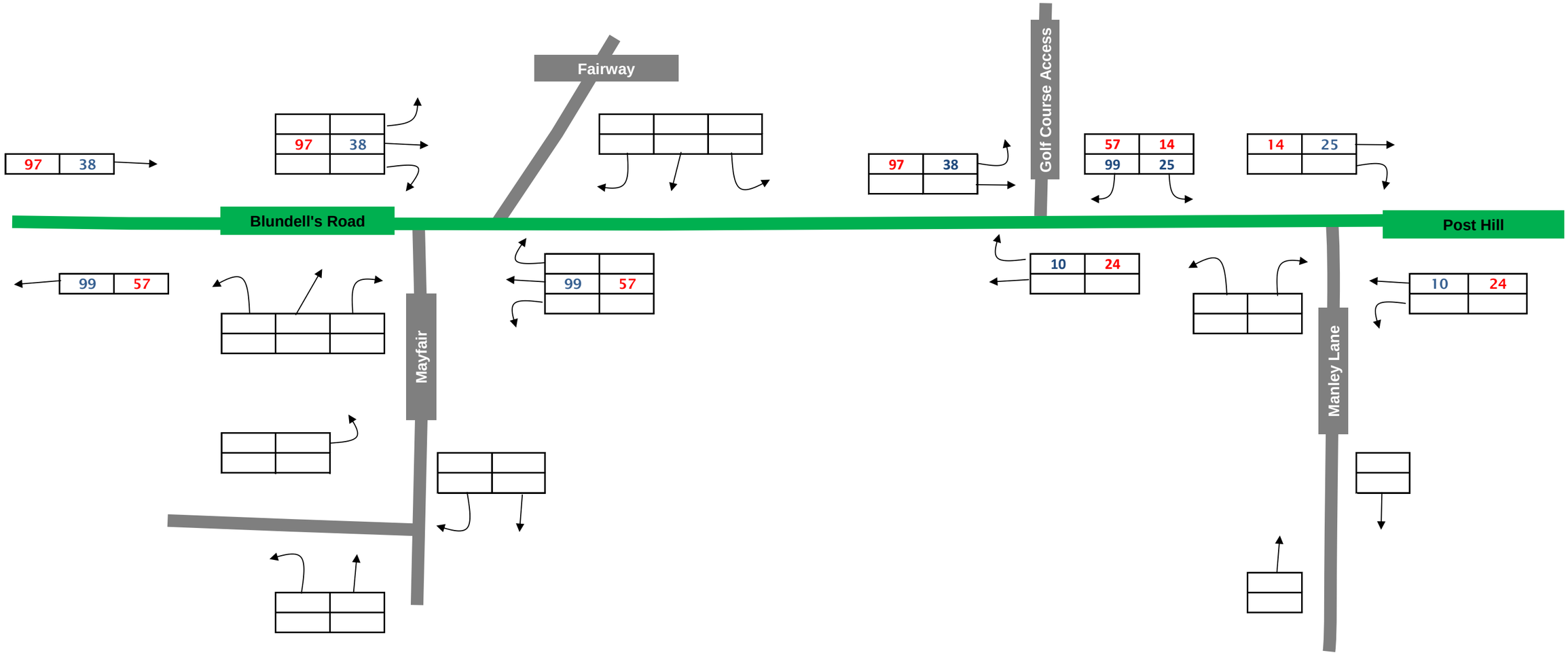
| | |
|---|---|
| | 2011 Base (PFA TA,2013) DCC Model for TEUE |
| | 2013 Base (DCC) ATC |
| | 2012 Base data (PLC Supplementary TA) MCC for Waddeton Park |
| | TRICS generated assessment for 24 dwellings on Mayfair |
| | TRICS generated assessment for 13 dwellings on Mayfair (West) |
| | TRICS generated assessment for 30 dwellings on Fairway |
| | Flows calculated from adjacent junction data |
| 350 | AM Peak |
| 253 | PM Peak |

**WYG Transport**

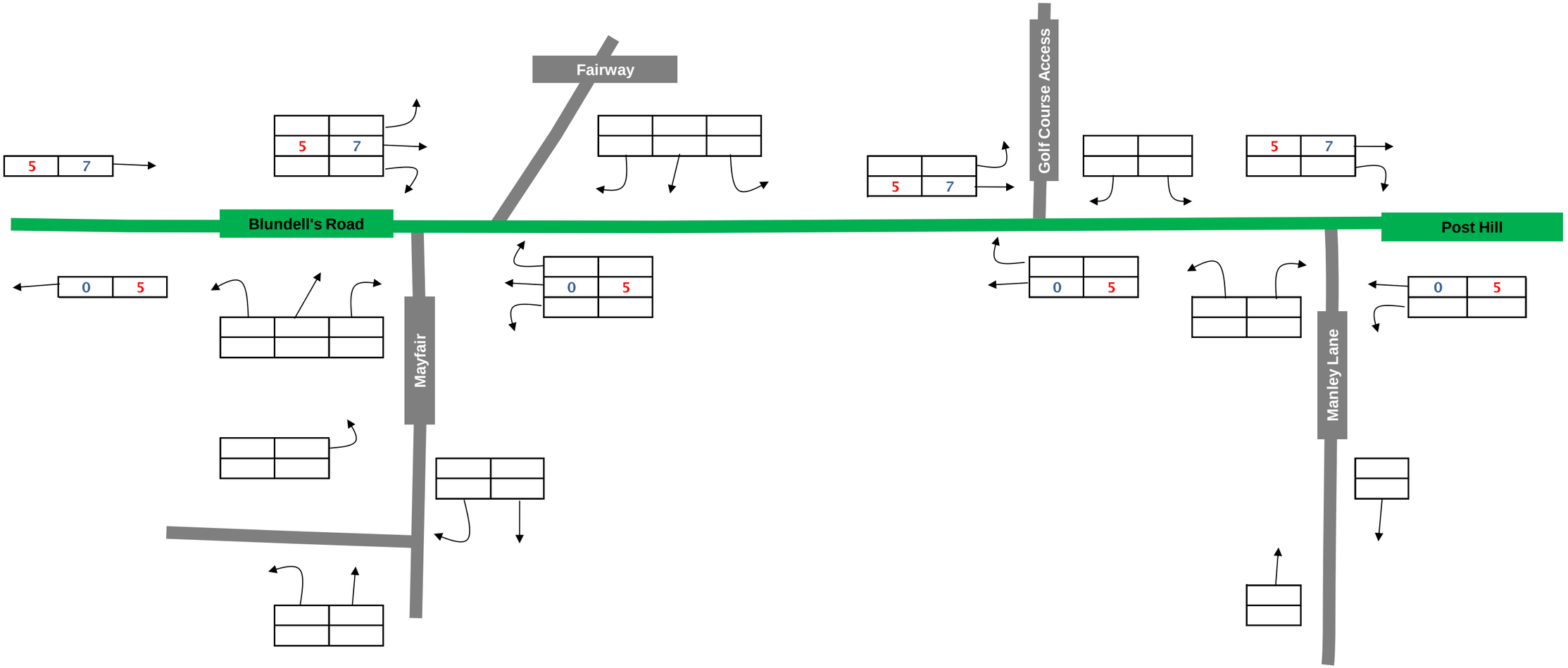
Hawkridge House
Chelston Business Park
Wellington, Somerset
TA21 8YA
t:01823 666150

| | | | |
|---|---|---|---|
| **Client:** | **Mid Devon District Council** | | |
| **Project:** | **Tiverton Eastern Urban Extension - Area B Amenity Study** | | |
| **Title:** | **Source Data** | | |
| **By:** DD | | **Chkd:** | **Date:** |
| **Figure No:** | | | **Job No:** A095750 |

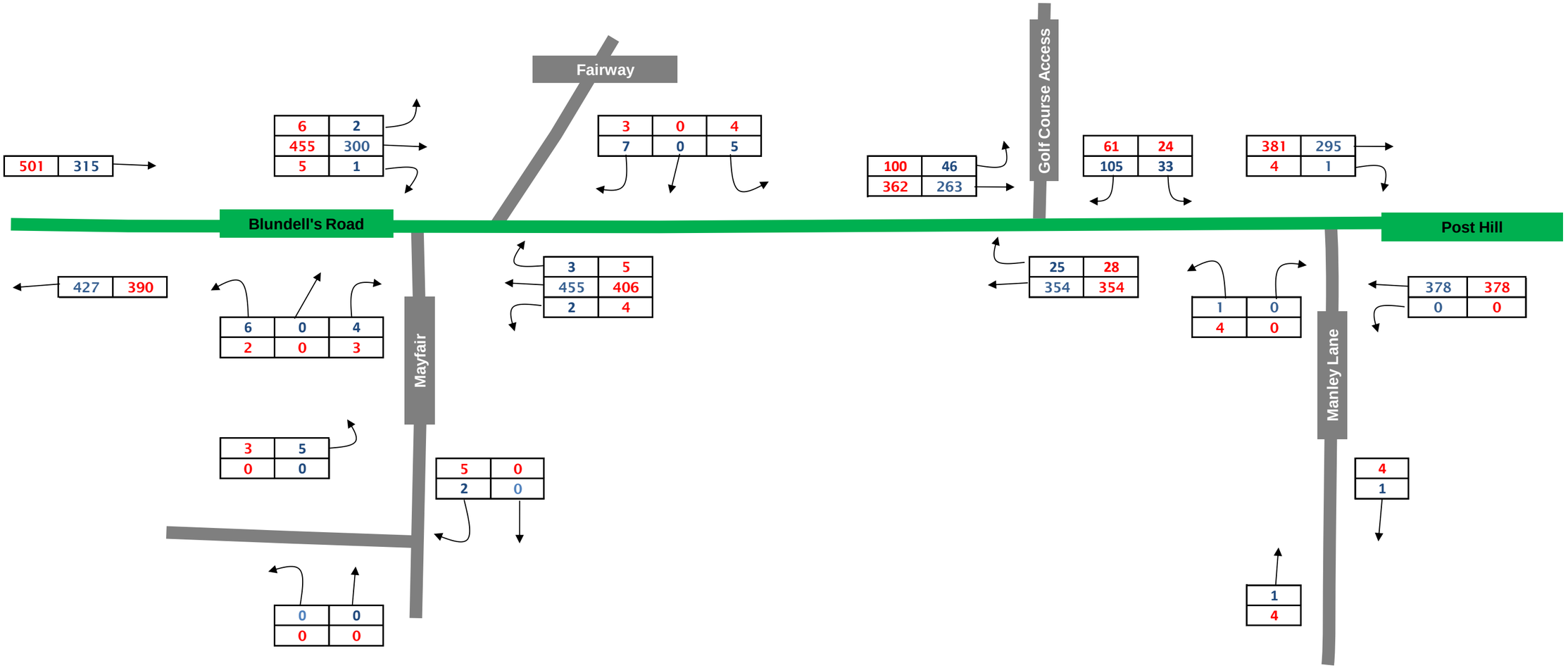
# APPENDIX B




| | | | |
|---|---|---|---|
| **WYG Transport**<br><br>Hawkridge House<br>Chelston Business Park<br>Wellington, Somerset<br>TA21 8YA<br>t:01823 666150 | Client: | Mid Devon District Council | |
| | Project: | Tiverton Eastern Urban Extension - Area B Amenity Study | |
| | Title: | Total Waddeton Park Trips along Posthill | |
| | By: DD | Chkd: | Date: |
| | Figure No: | | Job No: A095750 |

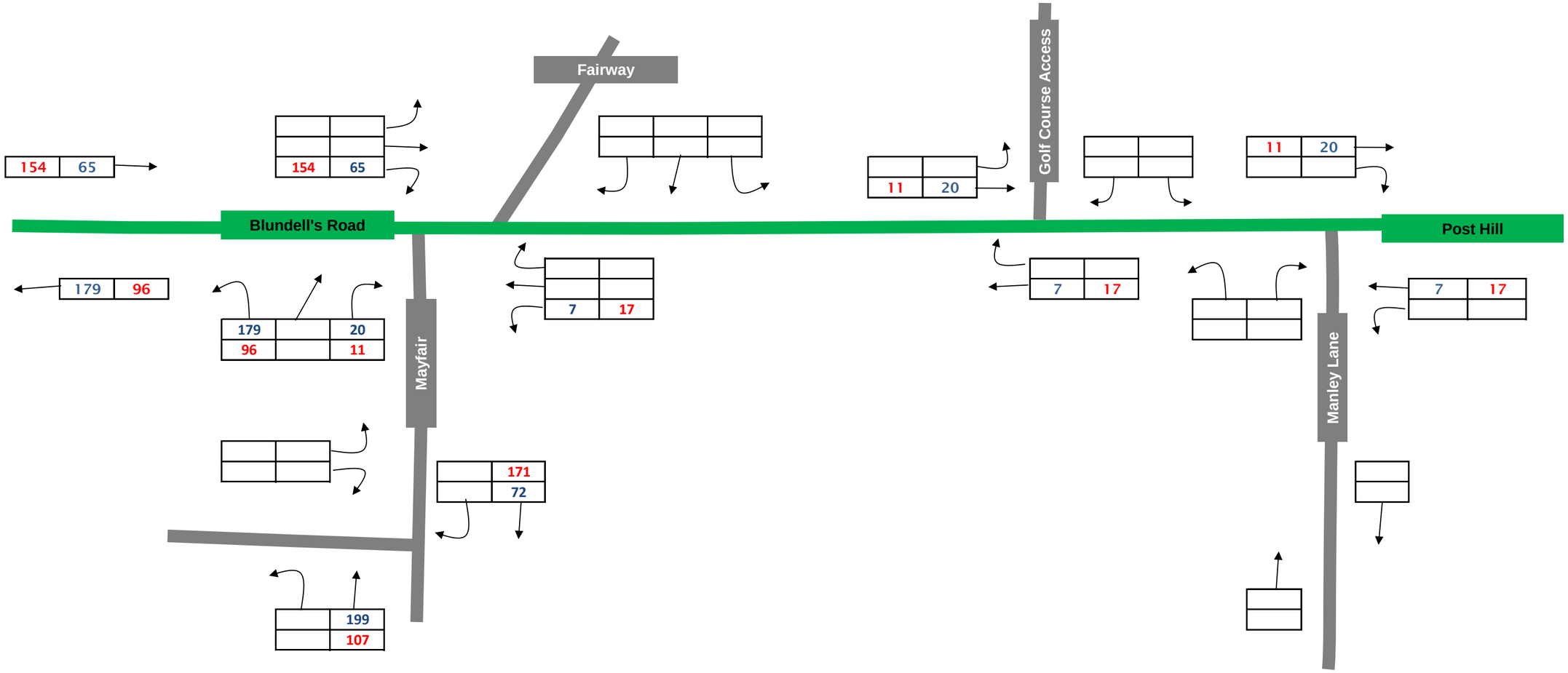



| | | | |
|---|---|---|---|
| **WYG Transport**<br><br>Hawkridge House<br>Chelston Business Park<br>Wellington, Somerset<br>TA21 8YA<br>t:01823 666150 | Client: | Mid Devon District Council | |
| | Project: | Tiverton Eastern Urban Extension - Area B Amenity Study | |
| | Title: | Total Chettiscombe Trust Trips along Posthill | |
| | By: DD | Chkd: | Date: |
| | Figure No: | Job No: A095750 | |

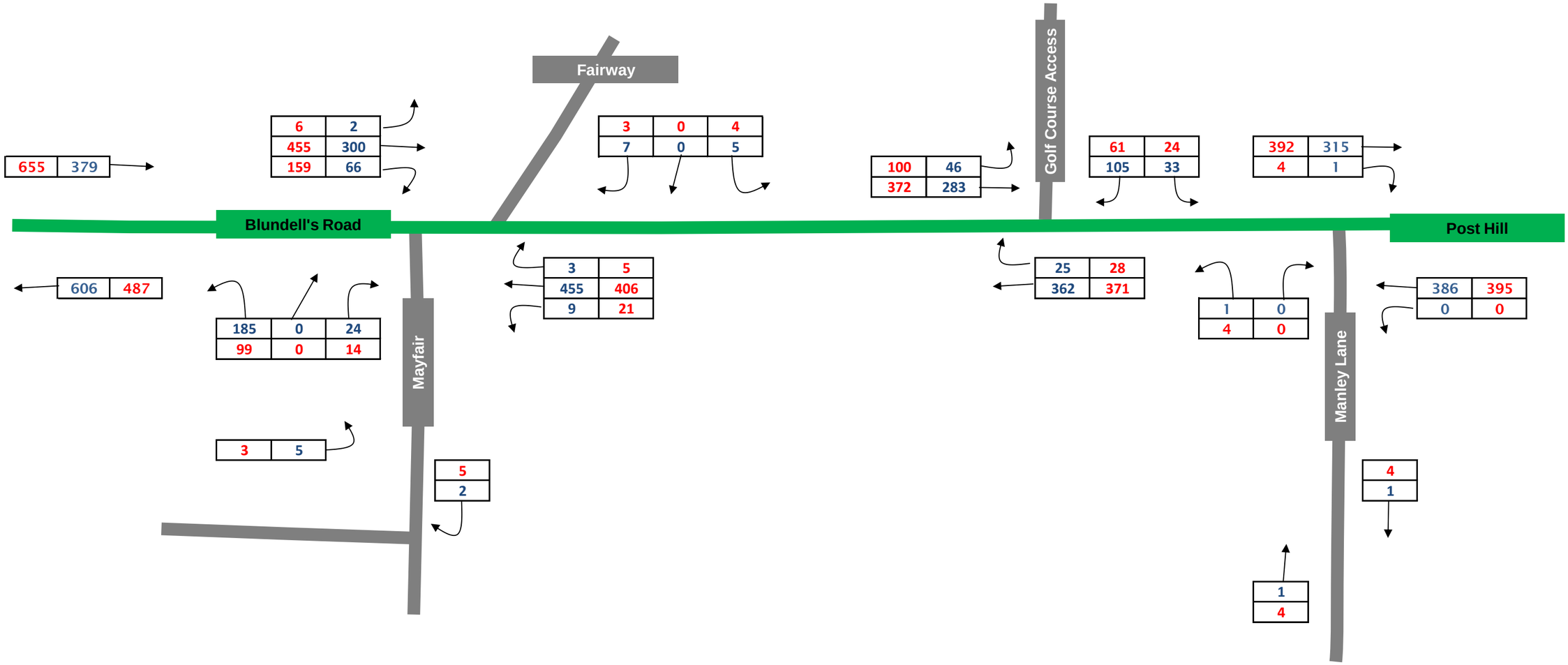



| | | | |
|---|---|---|---|
| **WYG Transport**<br><br>Hawkridge House<br>Chelston Business Park<br>Wellington, Somerset<br>TA21 8YA<br>t:01823 666150 | Client: | Mid Devon District Council | |
| | Project: | Tiverton Eastern Urban Extension - Area B Amenity Study | |
| | Title: | Base + Area A Trips along Posthill | |
| | By: DD | Chkd: | Date: |
| | Figure No: | | Job No: A095750 |

# APPENDIX C




| | | | |
|---|---|---|---|
| **WYG Transport**<br><br>Hawkridge House<br>Chelston Business Park<br>Wellington, Somerset<br>TA21 8YA<br>t:01823 666150 | Client: | Mid Devon District Council | |
| | Project: | Tiverton Eastern Urban Extension - Area B Amenity Study | |
| | Title: | Area Development Trips - Mayfair Access Only - 500.<br>Scenario with new junction on A361. | |
| | By: DD | Chkd: | Date: |
| | Figure No: | | Job No: A095750 |




**WYG Transport**

Hawkridge House
Chelston Business Park
Wellington, Somerset
TA21 8YA
t:01823 666150

| | | | |
|---|---|---|---|
| Client: | Mid Devon District Council | | |
| Project: | Tiverton Eastern Urban Extension - Area B Amenity Study | | |
| Title: | Base + Area A Traffic + Development Traffic 500 dwellings. Scenario with new A361 Junction | | |
| By: DD | Chkd: | Date: | |
| Figure No: | | Job No: A095750 | |

# APPENDIX D

# Junctions 9

## PICADY 9 - Priority Intersection Module

Version: 9.0.0.4211 []
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Tel: +44 (0)1344 770758 email: software@trl.co.uk Web: http://www.trlsoftware.co.uk

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

**Filename:** Sensitivity Test.j9
**Path:** Q:\Projects\A095501 - A096000\A095750 - Tiverton East Urban Extension\Calculations\Traffic\Picady\Mayfair Access Picady\Sensitivity Test - 19.05.2016
**Report generation date:** 18/05/2016 17:22:20

»(Default Analysis Set) - Base + Area A + Dev 500, AM
»(Default Analysis Set) - Base + Area A + Dev 500, PM
»(Default Analysis Set) - Base + Area A, AM
»(Default Analysis Set) - Base + Area A, PM

## Summary of junction performance

| | AM | | | | PM | | | |
|---|---|---|---|---|---|---|---|---|
| | Queue (PCU) | Delay (s) | RFC | LOS | Queue (PCU) | Delay (s) | RFC | LOS |
| | A1 - Base + Area A + Dev 500 | | | | | | | |
| Stream B-ACD | 1.4 | 22.28 | 0.59 | C | 0.5 | 15.80 | 0.35 | C |
| Stream A-BCD | 0.0 | 4.57 | 0.01 | A | 0.0 | 4.68 | 0.02 | A |
| Stream A-B | | | | | | | | |
| Stream A-C | | | | | | | | |
| Stream D-A | 0.0 | 6.59 | 0.01 | A | 0.0 | 7.06 | 0.02 | A |
| Stream D-BC | 0.0 | 11.04 | 0.02 | B | 0.0 | 12.44 | 0.01 | B |
| Stream C-ABD | 0.2 | 5.60 | 0.09 | A | 0.7 | 5.79 | 0.27 | A |
| Stream C-D | | | | | | | | |
| Stream C-A | | | | | | | | |
| | A1 - Base + Area A | | | | | | | |
| Stream B-ACD | 0.0 | 9.14 | 0.03 | A | 0.0 | 10.01 | 0.02 | B |
| Stream A-BCD | 0.0 | 4.62 | 0.01 | A | 0.0 | 4.92 | 0.01 | A |
| Stream A-B | | | | | | | | |
| Stream A-C | | | | | | | | |
| Stream D-A | 0.0 | 6.32 | 0.01 | A | 0.0 | 6.85 | 0.02 | A |
| Stream D-BC | 0.0 | 10.18 | 0.02 | B | 0.0 | 11.36 | 0.01 | B |
| Stream C-ABD | 0.0 | 5.28 | 0.00 | A | 0.0 | 4.71 | 0.01 | A |
| Stream C-D | | | | | | | | |
| Stream C-A | | | | | | | | |

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

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

# File summary

## File Description

| | |
|---|---|
| **Title** | Mayfair / Post Hill Junction |
| **Location** | Tiverton EUE |
| **Site number** | |
| **Date** | 13/02/2012 |
| **Version** | |
| **Status** | |
| **Identifier** | |
| **Client** | |
| **Jobnumber** | A095750 |
| **Enumerator** | Dorota Dys |
| **Description** | |

# Units

| Distance units | Speed units | Traffic units input | Traffic units results | Flow units | Average delay units | Total delay units | Rate of delay units |
|---|---|---|---|---|---|---|---|
| m | kph | PCU | PCU | perHour | s | -Min | perMin |

# Analysis Options

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

# Demand Set Summary

| Scenario name | Time Period name | Traffic profile type | Model start time (HH:mm) | Model finish time (HH:mm) | Time segment length (min) | Run automatically |
|---|---|---|---|---|---|---|
| Base + Area A + Dev 500 | AM | ONE HOUR | 07:45 | 09:15 | 15 | ✓ |
| Base + Area A + Dev 500 | PM | ONE HOUR | 16:45 | 18:15 | 15 | ✓ |
| Base + Area A | AM | ONE HOUR | 07:45 | 09:15 | 15 | ✓ |
| Base + Area A | PM | ONE HOUR | 16:45 | 18:15 | 15 | ✓ |

# (Default Analysis Set) - Base + Area A + Dev 500, AM

## Data Errors and Warnings

| Severity | Area | Item | Description |
|---|---|---|---|
| Warning | Minor arm flare | Arm D - Minor arm geometry | Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed. |
| Warning | Accident prediction | Accident Prediction | Accident prediction for urban staggers assumes that the stagger length is less than 20m. See the User Guide for more details. |

## Analysis Set Details

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

# Junction Network

## Junctions

| Junction | Name | Junction Type | Major road direction | Visibilities conform to TD 42/95 | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Mayfair / Post Hill | Right-Left Stagger | Two-way | ✓ | 4.81 | A |

## Junction Network Options

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

# Arms

## Arms

| Arm | Name | Description | Arm type |
|---|---|---|---|
| A | Post Hill (E) | | Major |
| B | Mayfair | | Minor |
| C | Post Hill (W) | | Major |
| D | Fairway | | Minor |

## Major Arm Geometry

| Arm | Width of carriageway (m) | Has kerbed central reserve | Has right turn bay | Visibility for right turn (m) | Blocks? | Blocking queue (PCU) |
|---|---|---|---|---|---|---|
| A | 7.00 | | | 50.0 | ✓ | 0.00 |
| 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

| Arm | Minor arm type | Lane width (m) | Width at give-way (m) | Width at 5m (m) | Width at 10m (m) | Width at 15m (m) | Width at 20m (m) | Estimate flare length | Flare length (PCU) | Visibility to left (m) | Visibility to right (m) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| B | One lane | 2.50 | | | | | | | | 27 | 18 |
| D | One lane plus flare | | 8.00 | 4.00 | 2.75 | 2.50 | 2.50 | ✓ | 1.00 | 13 | 25 |

## Geometric Delay Data for Priority Intersections

| Arm | Entry speed (kph) | Exit speed (kph) | Entry radius from arm (m) | Exit radius into arm (m) | Stagger length (m) | Distance included upstream (m) | Distance included downstream (m) |
|---|---|---|---|---|---|---|---|
| A | 48.00 | 48.00 | 6.00 | | | 200.00 | 200.00 |
| B | 48.00 | 48.00 | 8.00 | 6.00 | 10.00 | 200.00 | 200.00 |
| C | 48.00 | 48.00 | 5.00 | | | 200.00 | 200.00 |
| D | 48.00 | 48.00 | 10.00 | 6.00 | 10.00 | 200.00 | 200.00 |

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

| Junction | Stream | Intercept (PCU/hr) | Slope for A-B | Slope for A-C | Slope for A-D | Slope for B-A | Slope for B-D | Slope for C-A | Slope for C-B | Slope for C-D | Slope for D-B | Slope for D-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | A-D | 602.919 | - | - | - | 0.223 | 0.223 | 0.223 | - | 0.223 | - | - |
| 1 | B-AD | 470.403 | 0.082 | 0.207 | - | - | - | 0.130 | 0.296 | 0.130 | 0.082 | 0.207 |
| 1 | B-C | 603.468 | 0.088 | 0.224 | - | - | - | - | - | - | 0.088 | 0.224 |
| 1 | C-B | 602.919 | 0.223 | 0.223 | - | - | - | - | - | - | 0.223 | 0.223 |
| 1 | D-A | 661.022 | - | - | - | 0.245 | 0.097 | 0.245 | - | 0.097 | - | - |
| 1 | D-BC | 508.120 | 0.141 | 0.141 | 0.320 | 0.224 | 0.089 | 0.224 | - | 0.089 | - | - |

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

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

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

# Traffic Demand

## Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Model start time (HH:mm) | Model finish time (HH:mm) | Time segment length (min) | Run automatically |
|---|---|---|---|---|---|---|---|
| D1 | Base + Area A + Dev 500 | AM | ONE HOUR | 07:45 | 09:15 | 15 | ✓ |

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

## Demand overview (Traffic)

| Arm | Linked arm | Profile type | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|---|
| A | | ONE HOUR | ✓ | 502.00 | 100.000 |
| B | | ONE HOUR | ✓ | 209.00 | 100.000 |
| C | | ONE HOUR | ✓ | 333.00 | 100.000 |
| D | | ONE HOUR | ✓ | 12.00 | 100.000 |

# Origin-Destination Data

### Demand (PCU/hr)

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.000 | 44.000 | 455.000 | 3.000 |
| | B | 87.000 | 0.000 | 122.000 | 0.000 |
| | C | 300.000 | 31.000 | 0.000 | 2.000 |
| | D | 5.000 | 0.000 | 7.000 | 0.000 |

### Proportions

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 0.09 | 0.91 | 0.01 |
| | B | 0.42 | 0.00 | 0.58 | 0.00 |
| | C | 0.90 | 0.09 | 0.00 | 0.01 |
| | D | 0.42 | 0.00 | 0.58 | 0.00 |

# Vehicle Mix

### Heavy Vehicle proportion

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

### Average PCU Per Veh

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 1.000 | 1.000 | 1.000 | 1.000 |
| | B | 1.000 | 1.000 | 1.000 | 1.000 |
| | C | 1.000 | 1.000 | 1.000 | 1.000 |
| | D | 1.000 | 1.000 | 1.000 | 1.000 |

# Results

### Results Summary for whole modelled period

| Stream | Max RFC | Max delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) |
|---|---|---|---|---|---|---|
| B-ACD | 0.59 | 22.28 | 1.4 | C | 191.78 | 287.67 |
| A-BCD | 0.01 | 4.57 | 0.0 | A | 5.61 | 8.41 |
| A-B | | | | | 40.12 | 60.19 |
| A-C | | | | | 414.91 | 622.37 |
| D-A | 0.01 | 6.59 | 0.0 | A | 4.59 | 6.88 |
| D-BC | 0.02 | 11.04 | 0.0 | B | 6.42 | 9.63 |
| C-ABD | 0.09 | 5.60 | 0.2 | A | 47.33 | 70.99 |
| C-D | | | | | 1.71 | 2.57 |
| C-A | | | | | 256.53 | 384.79 |

# Geometric Delay Results for modelled period

## Geometric Delay per light vehicle (s) - Junction 1

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 7.38 | 0.00 | 7.38 |
| | B | 8.36 | 0.00 | 6.81 | 11.00 |
| | C | 0.00 | 7.38 | 0.00 | 7.70 |
| | D | 6.32 | 10.69 | 8.36 | 0.00 |

## Inclusive Geometric Delay (PCU-min) - Junction 1

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 7.45 | 0.00 | 0.51 |
| | B | 16.68 | 0.00 | 19.07 | 0.00 |
| | C | 0.00 | 5.25 | 0.00 | 0.35 |
| | D | 0.72 | 0.00 | 1.34 | 0.00 |

## Point to Point Journey Times Summary (s) - Junction 1

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 42.34 | 34.59 | 41.59 |
| | B | 55.55 | 0.00 | 53.25 | 57.81 |
| | C | 39.03 | 46.03 | 0.00 | 47.10 |
| | D | 42.29 | 50.82 | 48.87 | 0.00 |

# Main Results for each time segment

## Main results: (07:45-08:00)

| Stream | Total Demand (PCU/hr) | Junction demand (PCU/hr) | Junction Arrivals (PCU) | Bypass demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | LOS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| B-ACD | 157.35 | 157.35 | 39.34 | 0.00 | 439.40 | 0.358 | 155.16 | 0.0 | 0.5 | 12.573 | B |
| A-BCD | 4.02 | 4.02 | 1.01 | 0.00 | 791.81 | 0.005 | 4.00 | 0.0 | 0.0 | 4.569 | A |
| A-B | 32.97 | 32.97 | 8.24 | 0.00 | | | 32.97 | | | | |
| A-C | 340.94 | 340.94 | 85.24 | 0.00 | | | 340.94 | | | | |
| D-A | 3.76 | 3.76 | 0.94 | 0.00 | 587.51 | 0.006 | 3.74 | 0.0 | 0.0 | 6.166 | A |
| D-BC | 5.27 | 5.27 | 1.32 | 0.00 | 389.19 | 0.014 | 5.22 | 0.0 | 0.0 | 9.374 | A |
| C-ABD | 34.39 | 34.39 | 8.60 | 0.00 | 677.50 | 0.051 | 34.09 | 0.0 | 0.1 | 5.595 | A |
| C-D | 1.43 | 1.43 | 0.36 | 0.00 | | | 1.43 | | | | |
| C-A | 214.87 | 214.87 | 53.72 | 0.00 | | | 214.87 | | | | |

## Main results: (08:00-08:15)

| Stream | Total Demand (PCU/hr) | Junction demand (PCU/hr) | Junction Arrivals (PCU) | Bypass demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | LOS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| B-ACD | 187.89 | 187.89 | 46.97 | 0.00 | 419.31 | 0.448 | 186.92 | 0.5 | 0.8 | 15.428 | C |
| A-BCD | 5.33 | 5.33 | 1.33 | 0.00 | 827.37 | 0.006 | 5.32 | 0.0 | 0.0 | 4.378 | A |
| A-B | 39.32 | 39.32 | 9.83 | 0.00 | | | 39.32 | | | | |
| A-C | 406.64 | 406.64 | 101.66 | 0.00 | | | 406.64 | | | | |
| D-A | 4.49 | 4.49 | 1.12 | 0.00 | 572.56 | 0.008 | 4.49 | 0.0 | 0.0 | 6.336 | A |
| D-BC | 6.29 | 6.29 | 1.57 | 0.00 | 365.92 | 0.017 | 6.28 | 0.0 | 0.0 | 10.009 | B |
| C-ABD | 44.49 | 44.49 | 11.12 | 0.00 | 693.42 | 0.064 | 44.37 | 0.1 | 0.1 | 5.547 | A |
| C-D | 1.69 | 1.69 | 0.42 | 0.00 | | | 1.69 | | | | |
| C-A | 253.19 | 253.19 | 63.30 | 0.00 | | | 253.19 | | | | |

## Main results: (08:15-08:30)

| Stream | Total Demand (PCU/hr) | Junction demand (PCU/hr) | Junction Arrivals (PCU) | Bypass demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | LOS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| B-ACD | 230.11 | 230.11 | 57.53 | 0.00 | 391.21 | 0.588 | 227.85 | 0.8 | 1.4 | 21.729 | C |
| A-BCD | 7.46 | 7.46 | 1.87 | 0.00 | 875.30 | 0.009 | 7.45 | 0.0 | 0.0 | 4.147 | A |
| A-B | 48.08 | 48.08 | 12.02 | 0.00 | | | 48.08 | | | | |
| A-C | 497.17 | 497.17 | 124.29 | 0.00 | | | 497.17 | | | | |
| D-A | 5.51 | 5.51 | 1.38 | 0.00 | 552.48 | 0.010 | 5.50 | 0.0 | 0.0 | 6.580 | A |
| D-BC | 7.71 | 7.71 | 1.93 | 0.00 | 333.90 | 0.023 | 7.68 | 0.0 | 0.0 | 11.035 | B |
| C-ABD | 62.95 | 62.95 | 15.74 | 0.00 | 721.41 | 0.087 | 62.70 | 0.1 | 0.2 | 5.469 | A |
| C-D | 2.01 | 2.01 | 0.50 | 0.00 | | | 2.01 | | | | |
| C-A | 301.68 | 301.68 | 75.42 | 0.00 | | | 301.68 | | | | |

## Main results: (08:30-08:45)

| Stream | Total Demand (PCU/hr) | Junction demand (PCU/hr) | Junction Arrivals (PCU) | Bypass demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | LOS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| B-ACD | 230.11 | 230.11 | 57.53 | 0.00 | 391.17 | 0.588 | 229.97 | 1.4 | 1.4 | 22.278 | C |
| A-BCD | 7.47 | 7.47 | 1.87 | 0.00 | 875.13 | 0.009 | 7.47 | 0.0 | 0.0 | 4.150 | A |
| A-B | 48.08 | 48.08 | 12.02 | 0.00 | | | 48.08 | | | | |
| A-C | 497.17 | 497.17 | 124.29 | 0.00 | | | 497.17 | | | | |
| D-A | 5.51 | 5.51 | 1.38 | 0.00 | 552.05 | 0.010 | 5.50 | 0.0 | 0.0 | 6.586 | A |
| D-BC | 7.71 | 7.71 | 1.93 | 0.00 | 333.67 | 0.023 | 7.71 | 0.0 | 0.0 | 11.043 | B |
| C-ABD | 63.03 | 63.03 | 15.76 | 0.00 | 721.51 | 0.087 | 63.03 | 0.2 | 0.2 | 5.473 | A |
| C-D | 2.01 | 2.01 | 0.50 | 0.00 | | | 2.01 | | | | |
| C-A | 301.60 | 301.60 | 75.40 | 0.00 | | | 301.60 | | | | |

### Main results: (08:45-09:00)

| Stream | Total Demand (PCU/hr) | Junction demand (PCU/hr) | Junction Arrivals (PCU) | Bypass demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | LOS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| B-ACD | 187.89 | 187.89 | 46.97 | 0.00 | 419.25 | 0.448 | 190.10 | 1.4 | 0.8 | 15.856 | C |
| A-BCD | 5.33 | 5.33 | 1.33 | 0.00 | 827.10 | 0.006 | 5.34 | 0.0 | 0.0 | 4.382 | A |
| A-B | 39.32 | 39.32 | 9.83 | 0.00 | | | 39.32 | | | | |
| A-C | 406.63 | 406.63 | 101.66 | 0.00 | | | 406.63 | | | | |
| D-A | 4.49 | 4.49 | 1.12 | 0.00 | 571.83 | 0.008 | 4.50 | 0.0 | 0.0 | 6.344 | A |
| D-BC | 6.29 | 6.29 | 1.57 | 0.00 | 365.60 | 0.017 | 6.32 | 0.0 | 0.0 | 10.022 | B |
| C-ABD | 44.58 | 44.58 | 11.15 | 0.00 | 693.56 | 0.064 | 44.82 | 0.2 | 0.1 | 5.553 | A |
| C-D | 1.69 | 1.69 | 0.42 | 0.00 | | | 1.69 | | | | |
| C-A | 253.09 | 253.09 | 63.27 | 0.00 | | | 253.09 | | | | |

### Main results: (09:00-09:15)

| Stream | Total Demand (PCU/hr) | Junction demand (PCU/hr) | Junction Arrivals (PCU) | Bypass demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | LOS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| B-ACD | 157.35 | 157.35 | 39.34 | 0.00 | 439.32 | 0.358 | 158.41 | 0.8 | 0.6 | 12.866 | B |
| A-BCD | 4.03 | 4.03 | 1.01 | 0.00 | 791.54 | 0.005 | 4.04 | 0.0 | 0.0 | 4.571 | A |
| A-B | 32.97 | 32.97 | 8.24 | 0.00 | | | 32.97 | | | | |
| A-C | 340.93 | 340.93 | 85.23 | 0.00 | | | 340.93 | | | | |
| D-A | 3.76 | 3.76 | 0.94 | 0.00 | 586.56 | 0.006 | 3.77 | 0.0 | 0.0 | 6.176 | A |
| D-BC | 5.27 | 5.27 | 1.32 | 0.00 | 388.91 | 0.014 | 5.29 | 0.0 | 0.0 | 9.385 | A |
| C-ABD | 34.52 | 34.52 | 8.63 | 0.00 | 677.59 | 0.051 | 34.65 | 0.1 | 0.1 | 5.603 | A |
| C-D | 1.43 | 1.43 | 0.36 | 0.00 | | | 1.43 | | | | |
| C-A | 214.74 | 214.74 | 53.69 | 0.00 | | | 214.74 | | | | |

## Geometric Delay Results for each time segment

### Geometric Delay results: (07:45-08:00)

| Stream | Geometric total delay (PCU-min) | Geometric rate of delay (PCU-min/min) |
|---|---|---|
| B-ACD | 4.82 | 0.32 |
| A-BCD | 0.07 | 0.00 |
| A-B | 1.01 | 0.07 |
| A-C | 0.00 | 0.00 |
| D-A | 0.10 | 0.01 |
| D-BC | 0.18 | 0.01 |
| C-ABD | 0.71 | 0.05 |
| C-D | 0.05 | 0.00 |
| C-A | 0.00 | 0.00 |

## Geometric Delay results: (08:00-08:15)

| Stream | Geometric total delay (PCU-min) | Geometric rate of delay (PCU-min/min) |
|---|---|---|
| B-ACD | 5.81 | 0.39 |
| A-BCD | 0.09 | 0.01 |
| A-B | 1.21 | 0.08 |
| A-C | 0.00 | 0.00 |
| D-A | 0.12 | 0.01 |
| D-BC | 0.22 | 0.01 |
| C-ABD | 0.86 | 0.06 |
| C-D | 0.05 | 0.00 |
| C-A | 0.00 | 0.00 |

## Geometric Delay results: (08:15-08:30)

| Stream | Geometric total delay (PCU-min) | Geometric rate of delay (PCU-min/min) |
|---|---|---|
| B-ACD | 7.08 | 0.47 |
| A-BCD | 0.11 | 0.01 |
| A-B | 1.48 | 0.10 |
| A-C | 0.00 | 0.00 |
| D-A | 0.14 | 0.01 |
| D-BC | 0.27 | 0.02 |
| C-ABD | 1.05 | 0.07 |
| C-D | 0.06 | 0.00 |
| C-A | 0.00 | 0.00 |

## Geometric Delay results: (08:30-08:45)

| Stream | Geometric total delay (PCU-min) | Geometric rate of delay (PCU-min/min) |
|---|---|---|
| B-ACD | 7.14 | 0.48 |
| A-BCD | 0.11 | 0.01 |
| A-B | 1.48 | 0.10 |
| A-C | 0.00 | 0.00 |
| D-A | 0.14 | 0.01 |
| D-BC | 0.27 | 0.02 |
| C-ABD | 1.06 | 0.07 |
| C-D | 0.06 | 0.00 |
| C-A | 0.00 | 0.00 |

## Geometric Delay results: (08:45-09:00)

| Stream | Geometric total delay (PCU-min) | Geometric rate of delay (PCU-min/min) |
|---|---|---|
| B-ACD | 5.91 | 0.39 |
| A-BCD | 0.09 | 0.01 |
| A-B | 1.21 | 0.08 |
| A-C | 0.00 | 0.00 |
| D-A | 0.12 | 0.01 |
| D-BC | 0.22 | 0.01 |
| C-ABD | 0.86 | 0.06 |
| C-D | 0.05 | 0.00 |
| C-A | 0.00 | 0.00 |

## Geometric Delay results: (09:00-09:15)

| Stream | Geometric total delay (PCU-min) | Geometric rate of delay (PCU-min/min) |
|---|---|---|
| B-ACD | 4.92 | 0.33 |
| A-BCD | 0.07 | 0.00 |
| A-B | 1.01 | 0.07 |
| A-C | 0.00 | 0.00 |
| D-A | 0.10 | 0.01 |
| D-BC | 0.18 | 0.01 |
| C-ABD | 0.72 | 0.05 |
| C-D | 0.05 | 0.00 |
| C-A | 0.00 | 0.00 |

## Total Geometric Delay By Turn (PCU-min) - Junction 1 - (07:45-08:00)

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 1.02 | 0.00 | 0.07 |
| | B | 2.25 | 0.00 | 2.57 | 0.00 |
| | C | 0.00 | 0.71 | 0.00 | 0.05 |
| | D | 0.10 | 0.00 | 0.18 | 0.00 |

## Total Geometric Delay By Turn (PCU-min) - Junction 1 - (08:00-08:15)

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 1.22 | 0.00 | 0.08 |
| | B | 2.71 | 0.00 | 3.10 | 0.00 |
| | C | 0.00 | 0.85 | 0.00 | 0.06 |
| | D | 0.12 | 0.00 | 0.22 | 0.00 |

## Total Geometric Delay By Turn (PCU-min) - Junction 1 - (08:15-08:30)

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 1.49 | 0.00 | 0.10 |
| | B | 3.30 | 0.00 | 3.78 | 0.00 |
| | C | 0.00 | 1.05 | 0.00 | 0.07 |
| | D | 0.14 | 0.00 | 0.27 | 0.00 |

## Total Geometric Delay By Turn (PCU-min) - Junction 1 - (08:30-08:45)

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 1.49 | 0.00 | 0.10 |
| | B | 3.33 | 0.00 | 3.81 | 0.00 |
| | C | 0.00 | 1.05 | 0.00 | 0.07 |
| | D | 0.14 | 0.00 | 0.27 | 0.00 |

## Total Geometric Delay By Turn (PCU-min) - Junction 1 - (08:45-09:00)

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 1.22 | 0.00 | 0.08 |
| | B | 2.76 | 0.00 | 3.15 | 0.00 |
| | C | 0.00 | 0.86 | 0.00 | 0.06 |
| | D | 0.12 | 0.00 | 0.22 | 0.00 |

## Total Geometric Delay By Turn (PCU-min) - Junction 1 - (09:00-09:15)

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 1.02 | 0.00 | 0.07 |
| | B | 2.30 | 0.00 | 2.62 | 0.00 |
| | C | 0.00 | 0.72 | 0.00 | 0.05 |
| | D | 0.10 | 0.00 | 0.18 | 0.00 |

## Point to Point Journey Times By Turn (s) - Junction 1 - (07:45-08:00)

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 42.32 | 34.57 | 41.57 |
| | B | 51.30 | 0.00 | 49.01 | 53.57 |
| | C | 35.59 | 42.60 | 0.00 | 43.67 |
| | D | 42.11 | 50.06 | 48.11 | 0.00 |

## Point to Point Journey Times By Turn (s) - Junction 1 - (08:00-08:15)

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 42.13 | 34.38 | 41.38 |
| | B | 54.16 | 0.00 | 51.87 | 56.42 |
| | C | 35.55 | 42.55 | 0.00 | 43.62 |
| | D | 42.28 | 50.70 | 48.74 | 0.00 |

## Point to Point Journey Times By Turn (s) - Junction 1 - (08:15-08:30)

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 41.90 | 34.15 | 41.15 |
| | B | 60.46 | 0.00 | 58.17 | 62.73 |
| | C | 35.47 | 42.47 | 0.00 | 43.54 |
| | D | 42.52 | 51.72 | 49.77 | 0.00 |

## Point to Point Journey Times By Turn (s) - Junction 1 - (08:30-08:45)

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 41.90 | 34.15 | 41.15 |
| | B | 61.01 | 0.00 | 58.72 | 63.27 |
| | C | 35.47 | 42.48 | 0.00 | 43.55 |
| | D | 42.53 | 51.73 | 49.77 | 0.00 |

## Point to Point Journey Times By Turn (s) - Junction 1 - (08:45-09:00)

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 42.14 | 34.38 | 41.39 |
| | B | 54.59 | 0.00 | 52.29 | 56.85 |
| | C | 35.55 | 42.56 | 0.00 | 43.63 |
| | D | 42.29 | 50.71 | 48.75 | 0.00 |

## Point to Point Journey Times By Turn (s) - Junction 1 - (09:00-09:15)

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 42.32 | 34.57 | 41.57 |
| | B | 51.60 | 0.00 | 49.30 | 53.86 |
| | C | 35.60 | 42.61 | 0.00 | 43.68 |
| | D | 42.12 | 50.07 | 48.12 | 0.00 |

# (Default Analysis Set) - Base + Area A + Dev 500, PM

## Data Errors and Warnings

| Severity | Area | Item | Description |
|---|---|---|---|
| Warning | Minor arm flare | Arm D - Minor arm geometry | Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed. |
| Warning | Accident prediction | Accident Prediction | Accident prediction for urban staggers assumes that the stagger length is less than 20m. See the User Guide for more details. |

## Analysis Set Details

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

# Junction Network

## Junctions

| Junction | Name | Junction Type | Major road direction | Visibilities conform to TD 42/95 | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Mayfair / Post Hill | Right-Left Stagger | Two-way | ✓ | 2.52 | A |

### Junction Network Options
*[same as above]*

# Arms

### Arms
*[same as above]*

### Major Arm Geometry
*[same as above]*

### Minor Arm Geometry
*[same as above]*

### Geometric Delay Data for Priority Intersections
*[same as above]*

### Slope / Intercept / Capacity
*[same as above]*

# Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Model start time (HH:mm) | Model finish time (HH:mm) | Time segment length (min) | Run automatically |
|---|---|---|---|---|---|---|---|
| D2 | Base + Area A + Dev 500 | PM | ONE HOUR | 16:45 | 18:15 | 15 | ✓ |

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

### Demand overview (Traffic)

| Arm | Linked arm | Profile type | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|---|
| A | | ONE HOUR | ✓ | 508.00 | 100.000 |
| B | | ONE HOUR | ✓ | 112.00 | 100.000 |
| C | | ONE HOUR | ✓ | 544.00 | 100.000 |
| D | | ONE HOUR | ✓ | 13.00 | 100.000 |

# Origin-Destination Data

### Demand (PCU/hr)

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.000 | 97.000 | 406.000 | 5.000 |
| | B | 57.000 | 0.000 | 55.000 | 0.000 |
| | C | 455.000 | 83.000 | 0.000 | 6.000 |
| | D | 10.000 | 0.000 | 3.000 | 0.000 |

### Proportions

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 0.19 | 0.80 | 0.01 |
| | B | 0.51 | 0.00 | 0.49 | 0.00 |
| | C | 0.84 | 0.15 | 0.00 | 0.01 |
| | D | 0.77 | 0.00 | 0.23 | 0.00 |

# Vehicle Mix

### Heavy Vehicle proportion

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

### Average PCU Per Veh

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 1.000 | 1.000 | 1.000 | 1.000 |
| | B | 1.000 | 1.000 | 1.000 | 1.000 |
| | C | 1.000 | 1.000 | 1.000 | 1.000 |
| | D | 1.000 | 1.000 | 1.000 | 1.000 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) |
|---|---|---|---|---|---|---|
| B-ACD | 0.35 | 15.80 | 0.5 | C | 102.77 | 154.16 |
| A-BCD | 0.02 | 4.68 | 0.0 | A | 9.68 | 14.51 |
| A-B | | | | | 88.03 | 132.04 |
| A-C | | | | | 368.45 | 552.67 |
| D-A | 0.02 | 7.06 | 0.0 | A | 9.18 | 13.76 |
| D-BC | 0.01 | 12.44 | 0.0 | B | 2.75 | 4.13 |
| C-ABD | 0.27 | 5.79 | 0.7 | A | 164.38 | 246.56 |
| C-D | | | | | 4.36 | 6.54 |
| C-A | | | | | 330.45 | 495.68 |

## Geometric Delay Results for modelled period

### Geometric Delay per light vehicle (s) - Junction 1

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 7.38 | 0.00 | 7.38 |
| | B | 8.36 | 0.00 | 6.81 | 11.00 |
| | C | 0.00 | 7.38 | 0.00 | 7.70 |
| | D | 6.32 | 10.69 | 8.36 | 0.00 |

### Inclusive Geometric Delay (PCU-min) - Junction 1

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 16.42 | 0.00 | 0.85 |
| | B | 10.93 | 0.00 | 8.60 | 0.00 |
| | C | 0.00 | 14.05 | 0.00 | 1.06 |
| | D | 1.45 | 0.00 | 0.58 | 0.00 |

### Point to Point Journey Times Summary (s) - Junction 1

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 42.68 | 34.93 | 41.93 |
| | B | 51.93 | 0.00 | 49.64 | 54.19 |
| | C | 40.67 | 47.67 | 0.00 | 48.74 |
| | D | 42.66 | 51.89 | 49.94 | 0.00 |

## Main Results for each time segment

### Main results: (16:45-17:00)

| Stream | Total Demand (PCU/hr) | Junction demand (PCU/hr) | Junction Arrivals (PCU) | Bypass demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | LOS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| B-ACD | 84.32 | 84.32 | 21.08 | 0.00 | 409.78 | 0.206 | 83.30 | 0.0 | 0.3 | 10.993 | B |
| A-BCD | 6.86 | 6.86 | 1.71 | 0.00 | 776.43 | 0.009 | 6.82 | 0.0 | 0.0 | 4.677 | A |
| A-B | 72.43 | 72.43 | 18.11 | 0.00 | | | 72.43 | | | | |
| A-C | 303.16 | 303.16 | 75.79 | 0.00 | | | 303.16 | | | | |
| D-A | 7.53 | 7.53 | 1.88 | 0.00 | 566.17 | 0.013 | 7.48 | 0.0 | 0.0 | 6.443 | A |
| D-BC | 2.26 | 2.26 | 0.56 | 0.00 | 356.84 | 0.006 | 2.23 | 0.0 | 0.0 | 10.152 | B |
| C-ABD | 113.34 | 113.34 | 28.34 | 0.00 | 763.59 | 0.148 | 112.13 | 0.0 | 0.3 | 5.524 | A |
| C-D | 3.86 | 3.86 | 0.96 | 0.00 | | | 3.86 | | | | |
| C-A | 292.35 | 292.35 | 73.09 | 0.00 | | | 292.35 | | | | |

### Main results: (17:00-17:15)

| Stream | Total Demand (PCU/hr) | Junction demand (PCU/hr) | Junction Arrivals (PCU) | Bypass demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | LOS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| B-ACD | 100.69 | 100.69 | 25.17 | 0.00 | 385.49 | 0.261 | 100.32 | 0.3 | 0.3 | 12.607 | B |
| A-BCD | 9.16 | 9.16 | 2.29 | 0.00 | 809.87 | 0.011 | 9.14 | 0.0 | 0.0 | 4.495 | A |
| A-B | 86.30 | 86.30 | 21.58 | 0.00 | | | 86.30 | | | | |
| A-C | 361.22 | 361.22 | 90.31 | 0.00 | | | 361.22 | | | | |
| D-A | 8.99 | 8.99 | 2.25 | 0.00 | 547.24 | 0.016 | 8.98 | 0.0 | 0.0 | 6.687 | A |
| D-BC | 2.70 | 2.70 | 0.67 | 0.00 | 329.96 | 0.008 | 2.69 | 0.0 | 0.0 | 10.999 | B |
| C-ABD | 153.05 | 153.05 | 38.26 | 0.00 | 797.85 | 0.192 | 152.52 | 0.3 | 0.4 | 5.589 | A |
| C-D | 4.37 | 4.37 | 1.09 | 0.00 | | | 4.37 | | | | |
| C-A | 331.63 | 331.63 | 82.91 | 0.00 | | | 331.63 | | | | |

## Main results: (17:15-17:30)

| Stream | Total Demand (PCU/hr) | Junction demand (PCU/hr) | Junction Arrivals (PCU) | Bypass demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | LOS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| B-ACD | 123.31 | 123.31 | 30.83 | 0.00 | 351.20 | 0.351 | 122.59 | 0.3 | 0.5 | 15.697 | C |
| A-BCD | 12.99 | 12.99 | 3.25 | 0.00 | 855.26 | 0.015 | 12.97 | 0.0 | 0.0 | 4.273 | A |
| A-B | 105.36 | 105.36 | 26.34 | 0.00 | | | 105.36 | | | | |
| A-C | 440.97 | 440.97 | 110.24 | 0.00 | | | 440.97 | | | | |
| D-A | 11.01 | 11.01 | 2.75 | 0.00 | 521.25 | 0.021 | 10.99 | 0.0 | 0.0 | 7.054 | A |
| D-BC | 3.30 | 3.30 | 0.83 | 0.00 | 293.01 | 0.011 | 3.29 | 0.0 | 0.0 | 12.425 | B |
| C-ABD | 225.84 | 225.84 | 56.46 | 0.00 | 850.03 | 0.266 | 224.77 | 0.4 | 0.7 | 5.772 | A |
| C-D | 4.86 | 4.86 | 1.21 | 0.00 | | | 4.86 | | | | |
| C-A | 368.25 | 368.25 | 92.06 | 0.00 | | | 368.25 | | | | |

## Main results: (17:30-17:45)

| Stream | Total Demand (PCU/hr) | Junction demand (PCU/hr) | Junction Arrivals (PCU) | Bypass demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | LOS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| B-ACD | 123.31 | 123.31 | 30.83 | 0.00 | 351.03 | 0.351 | 123.29 | 0.5 | 0.5 | 15.802 | C |
| A-BCD | 13.00 | 13.00 | 3.25 | 0.00 | 855.08 | 0.015 | 13.00 | 0.0 | 0.0 | 4.274 | A |
| A-B | 105.35 | 105.35 | 26.34 | 0.00 | | | 105.35 | | | | |
| A-C | 440.96 | 440.96 | 110.24 | 0.00 | | | 440.96 | | | | |
| D-A | 11.01 | 11.01 | 2.75 | 0.00 | 520.96 | 0.021 | 11.01 | 0.0 | 0.0 | 7.058 | A |
| D-BC | 3.30 | 3.30 | 0.83 | 0.00 | 292.75 | 0.011 | 3.30 | 0.0 | 0.0 | 12.436 | B |
| C-ABD | 226.34 | 226.34 | 56.59 | 0.00 | 850.59 | 0.266 | 226.31 | 0.7 | 0.7 | 5.791 | A |
| C-D | 4.85 | 4.85 | 1.21 | 0.00 | | | 4.85 | | | | |
| C-A | 367.76 | 367.76 | 91.94 | 0.00 | | | 367.76 | | | | |

## Main results: (17:45-18:00)

| Stream | Total Demand (PCU/hr) | Junction demand (PCU/hr) | Junction Arrivals (PCU) | Bypass demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | LOS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| B-ACD | 100.69 | 100.69 | 25.17 | 0.00 | 385.25 | 0.261 | 101.38 | 0.5 | 0.4 | 12.714 | B |
| A-BCD | 9.17 | 9.17 | 2.29 | 0.00 | 809.59 | 0.011 | 9.19 | 0.0 | 0.0 | 4.499 | A |
| A-B | 86.30 | 86.30 | 21.57 | 0.00 | | | 86.30 | | | | |
| A-C | 361.21 | 361.21 | 90.30 | 0.00 | | | 361.21 | | | | |
| D-A | 8.99 | 8.99 | 2.25 | 0.00 | 546.81 | 0.016 | 9.01 | 0.0 | 0.0 | 6.693 | A |
| D-BC | 2.70 | 2.70 | 0.67 | 0.00 | 329.58 | 0.008 | 2.71 | 0.0 | 0.0 | 11.015 | B |
| C-ABD | 153.60 | 153.60 | 38.40 | 0.00 | 798.64 | 0.192 | 154.64 | 0.7 | 0.5 | 5.612 | A |
| C-D | 4.37 | 4.37 | 1.09 | 0.00 | | | 4.37 | | | | |
| C-A | 331.08 | 331.08 | 82.77 | 0.00 | | | 331.08 | | | | |

### Main results: (18:00-18:15)

| Stream | Total Demand (PCU/hr) | Junction demand (PCU/hr) | Junction Arrivals (PCU) | Bypass demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | LOS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| B-ACD | 84.32 | 84.32 | 21.08 | 0.00 | 409.48 | 0.206 | 84.71 | 0.4 | 0.3 | 11.097 | B |
| A-BCD | 6.88 | 6.88 | 1.72 | 0.00 | 776.15 | 0.009 | 6.89 | 0.0 | 0.0 | 4.679 | A |
| A-B | 72.43 | 72.43 | 18.11 | 0.00 | | | 72.43 | | | | |
| A-C | 303.14 | 303.14 | 75.79 | 0.00 | | | 303.14 | | | | |
| D-A | 7.53 | 7.53 | 1.88 | 0.00 | 565.76 | 0.013 | 7.54 | 0.0 | 0.0 | 6.448 | A |
| D-BC | 2.26 | 2.26 | 0.56 | 0.00 | 356.47 | 0.006 | 2.27 | 0.0 | 0.0 | 10.163 | B |
| C-ABD | 114.08 | 114.08 | 28.52 | 0.00 | 764.23 | 0.149 | 114.63 | 0.5 | 0.3 | 5.555 | A |
| C-D | 3.85 | 3.85 | 0.96 | 0.00 | | | 3.85 | | | | |
| C-A | 291.63 | 291.63 | 72.91 | 0.00 | | | 291.63 | | | | |

## Geometric Delay Results for each time segment

### Geometric Delay results: (16:45-17:00)

| Stream | Geometric total delay (PCU-min) | Geometric rate of delay (PCU-min/min) |
|---|---|---|
| B-ACD | 2.64 | 0.18 |
| A-BCD | 0.13 | 0.01 |
| A-B | 2.23 | 0.15 |
| A-C | 0.00 | 0.00 |
| D-A | 0.20 | 0.01 |
| D-BC | 0.08 | 0.01 |
| C-ABD | 1.92 | 0.13 |
| C-D | 0.12 | 0.01 |
| C-A | 0.00 | 0.00 |

### Geometric Delay results: (17:00-17:15)

| Stream | Geometric total delay (PCU-min) | Geometric rate of delay (PCU-min/min) |
|---|---|---|
| B-ACD | 3.18 | 0.21 |
| A-BCD | 0.17 | 0.01 |
| A-B | 2.65 | 0.18 |
| A-C | 0.00 | 0.00 |
| D-A | 0.24 | 0.02 |
| D-BC | 0.09 | 0.01 |
| C-ABD | 2.32 | 0.15 |
| C-D | 0.14 | 0.01 |
| C-A | 0.00 | 0.00 |

## Geometric Delay results: (17:15-17:30)

| Stream | Geometric total delay (PCU-min) | Geometric rate of delay (PCU-min/min) |
|---|---|---|
| B-ACD | 3.88 | 0.26 |
| A-BCD | 0.21 | 0.01 |
| A-B | 3.24 | 0.22 |
| A-C | 0.00 | 0.00 |
| D-A | 0.29 | 0.02 |
| D-BC | 0.11 | 0.01 |
| C-ABD | 2.86 | 0.19 |
| C-D | 0.16 | 0.01 |
| C-A | 0.00 | 0.00 |

## Geometric Delay results: (17:30-17:45)

| Stream | Geometric total delay (PCU-min) | Geometric rate of delay (PCU-min/min) |
|---|---|---|
| B-ACD | 3.90 | 0.26 |
| A-BCD | 0.21 | 0.01 |
| A-B | 3.24 | 0.22 |
| A-C | 0.00 | 0.00 |
| D-A | 0.29 | 0.02 |
| D-BC | 0.12 | 0.01 |
| C-ABD | 2.87 | 0.19 |
| C-D | 0.16 | 0.01 |
| C-A | 0.00 | 0.00 |

## Geometric Delay results: (17:45-18:00)

| Stream | Geometric total delay (PCU-min) | Geometric rate of delay (PCU-min/min) |
|---|---|---|
| B-ACD | 3.21 | 0.21 |
| A-BCD | 0.17 | 0.01 |
| A-B | 2.65 | 0.18 |
| A-C | 0.00 | 0.00 |
| D-A | 0.24 | 0.02 |
| D-BC | 0.09 | 0.01 |
| C-ABD | 2.34 | 0.16 |
| C-D | 0.14 | 0.01 |
| C-A | 0.00 | 0.00 |

## Geometric Delay results: (18:00-18:15)

| Stream | Geometric total delay (PCU-min) | Geometric rate of delay (PCU-min/min) |
|---|---|---|
| B-ACD | 2.68 | 0.18 |
| A-BCD | 0.13 | 0.01 |
| A-B | 2.23 | 0.15 |
| A-C | 0.00 | 0.00 |
| D-A | 0.20 | 0.01 |
| D-BC | 0.08 | 0.01 |
| C-ABD | 1.95 | 0.13 |
| C-D | 0.12 | 0.01 |
| C-A | 0.00 | 0.00 |

### Total Geometric Delay By Turn (PCU-min) - Junction 1 - (16:45-17:00)

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 2.24 | 0.00 | 0.12 |
| | B | 1.48 | 0.00 | 1.16 | 0.00 |
| | C | 0.00 | 1.90 | 0.00 | 0.14 |
| | D | 0.20 | 0.00 | 0.08 | 0.00 |

### Total Geometric Delay By Turn (PCU-min) - Junction 1 - (17:00-17:15)

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 2.68 | 0.00 | 0.14 |
| | B | 1.78 | 0.00 | 1.40 | 0.00 |
| | C | 0.00 | 2.29 | 0.00 | 0.17 |
| | D | 0.24 | 0.00 | 0.09 | 0.00 |

### Total Geometric Delay By Turn (PCU-min) - Junction 1 - (17:15-17:30)

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 3.28 | 0.00 | 0.17 |
| | B | 2.17 | 0.00 | 1.71 | 0.00 |
| | C | 0.00 | 2.80 | 0.00 | 0.21 |
| | D | 0.29 | 0.00 | 0.11 | 0.00 |

### Total Geometric Delay By Turn (PCU-min) - Junction 1 - (17:30-17:45)

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 3.28 | 0.00 | 0.17 |
| | B | 2.18 | 0.00 | 1.72 | 0.00 |
| | C | 0.00 | 2.81 | 0.00 | 0.21 |
| | D | 0.29 | 0.00 | 0.12 | 0.00 |

### Total Geometric Delay By Turn (PCU-min) - Junction 1 - (17:45-18:00)

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 2.68 | 0.00 | 0.14 |
| | B | 1.80 | 0.00 | 1.41 | 0.00 |
| | C | 0.00 | 2.30 | 0.00 | 0.17 |
| | D | 0.24 | 0.00 | 0.09 | 0.00 |

### Total Geometric Delay By Turn (PCU-min) - Junction 1 - (18:00-18:15)

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 2.25 | 0.00 | 0.12 |
| | B | 1.50 | 0.00 | 1.18 | 0.00 |
| | C | 0.00 | 1.93 | 0.00 | 0.15 |
| | D | 0.20 | 0.00 | 0.08 | 0.00 |

### Point to Point Journey Times By Turn (s) - Junction 1 - (16:45-17:00)

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 42.43 | 34.68 | 41.68 |
| | B | 49.73 | 0.00 | 47.43 | 51.99 |
| | C | 35.52 | 42.53 | 0.00 | 43.60 |
| | D | 42.38 | 50.84 | 48.88 | 0.00 |

### Point to Point Journey Times By Turn (s) - Junction 1 - (17:00-17:15)

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 42.25 | 34.50 | 41.50 |
| | B | 51.34 | 0.00 | 49.04 | 53.60 |
| | C | 35.59 | 42.59 | 0.00 | 43.66 |
| | D | 42.63 | 51.69 | 49.73 | 0.00 |

### Point to Point Journey Times By Turn (s) - Junction 1 - (17:15-17:30)

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 42.03 | 34.27 | 41.28 |
| | B | 54.43 | 0.00 | 52.13 | 56.69 |
| | C | 35.77 | 42.77 | 0.00 | 43.84 |
| | D | 43.00 | 53.11 | 51.16 | 0.00 |

### Point to Point Journey Times By Turn (s) - Junction 1 - (17:30-17:45)

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 42.03 | 34.27 | 41.28 |
| | B | 54.53 | 0.00 | 52.24 | 56.80 |
| | C | 35.79 | 42.79 | 0.00 | 43.86 |
| | D | 43.00 | 53.12 | 51.17 | 0.00 |

### Point to Point Journey Times By Turn (s) - Junction 1 - (17:45-18:00)

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 42.25 | 34.50 | 41.50 |
| | B | 51.45 | 0.00 | 49.15 | 53.71 |
| | C | 35.61 | 42.62 | 0.00 | 43.68 |
| | D | 42.63 | 51.70 | 49.75 | 0.00 |

### Point to Point Journey Times By Turn (s) - Junction 1 - (18:00-18:15)

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 42.43 | 34.68 | 41.68 |
| | B | 49.83 | 0.00 | 47.53 | 52.09 |
| | C | 35.55 | 42.56 | 0.00 | 43.63 |
| | D | 42.39 | 50.85 | 48.89 | 0.00 |

# (Default Analysis Set) - Base + Area A, AM

## Data Errors and Warnings

| Severity | Area | Item | Description |
|---|---|---|---|
| Warning | Minor arm flare | Arm D - Minor arm geometry | Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed. |
| Warning | Accident prediction | Accident Prediction | Accident prediction for urban staggers assumes that the stagger length is less than 20m. See the User Guide for more details. |

## Analysis Set Details

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

# Junction Network

## Junctions

| Junction | Name | Junction Type | Major road direction | Visibilities conform to TD 42/95 | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Mayfair / Post Hill | Right-Left Stagger | Two-way | ✓ | 0.29 | A |

### Junction Network Options
*[same as above]*

# Arms

### Arms
*[same as above]*

### Major Arm Geometry
*[same as above]*

### Minor Arm Geometry
*[same as above]*

### Geometric Delay Data for Priority Intersections
*[same as above]*

### Slope / Intercept / Capacity
*[same as above]*

# Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Model start time (HH:mm) | Model finish time (HH:mm) | Time segment length (min) | Run automatically |
|---|---|---|---|---|---|---|---|
| D3 | Base + Area A | AM | ONE HOUR | 07:45 | 09:15 | 15 | ✓ |

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

### Demand overview (Traffic)

| Arm | Linked arm | Profile type | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|---|
| A | | ONE HOUR | ✓ | 460.00 | 100.000 |
| B | | ONE HOUR | ✓ | 10.00 | 100.000 |
| C | | ONE HOUR | ✓ | 303.00 | 100.000 |
| D | | ONE HOUR | ✓ | 12.00 | 100.000 |

# Origin-Destination Data

### Demand (PCU/hr)

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.000 | 2.000 | 455.000 | 3.000 |
| | B | 4.000 | 0.000 | 6.000 | 0.000 |
| | C | 300.000 | 1.000 | 0.000 | 2.000 |
| | D | 5.000 | 0.000 | 7.000 | 0.000 |

### Proportions

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 0.00 | 0.99 | 0.01 |
| | B | 0.40 | 0.00 | 0.60 | 0.00 |
| | C | 0.99 | 0.00 | 0.00 | 0.01 |
| | D | 0.42 | 0.00 | 0.58 | 0.00 |

# Vehicle Mix

### Heavy Vehicle proportion

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

### Average PCU Per Veh

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 1.000 | 1.000 | 1.000 | 1.000 |
| | B | 1.000 | 1.000 | 1.000 | 1.000 |
| | C | 1.000 | 1.000 | 1.000 | 1.000 |
| | D | 1.000 | 1.000 | 1.000 | 1.000 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) |
|---|---|---|---|---|---|---|
| B-ACD | 0.03 | 9.14 | 0.0 | A | 9.18 | 13.76 |
| A-BCD | 0.01 | 4.62 | 0.0 | A | 5.25 | 7.88 |
| A-B | | | | | 1.82 | 2.74 |
| A-C | | | | | 415.03 | 622.54 |
| D-A | 0.01 | 6.32 | 0.0 | A | 4.59 | 6.88 |
| D-BC | 0.02 | 10.18 | 0.0 | B | 6.42 | 9.63 |
| C-ABD | 0.00 | 5.28 | 0.0 | A | 1.49 | 2.23 |
| C-D | | | | | 1.83 | 2.75 |
| C-A | | | | | 274.72 | 412.08 |

## Geometric Delay Results for modelled period

### Geometric Delay per light vehicle (s) - Junction 1

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 7.38 | 0.00 | 7.38 |
| | B | 8.36 | 0.00 | 6.81 | 11.00 |
| | C | 0.00 | 7.38 | 0.00 | 7.70 |
| | D | 6.32 | 10.69 | 8.36 | 0.00 |

### Inclusive Geometric Delay (PCU-min) - Junction 1

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 0.34 | 0.00 | 0.51 |
| | B | 0.77 | 0.00 | 0.94 | 0.00 |
| | C | 0.00 | 0.17 | 0.00 | 0.35 |
| | D | 0.72 | 0.00 | 1.34 | 0.00 |

### Point to Point Journey Times Summary (s) - Junction 1

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 42.39 | 34.63 | 41.64 |
| | B | 47.33 | 0.00 | 45.03 | 49.59 |
| | C | 35.20 | 42.21 | 0.00 | 43.27 |
| | D | 42.08 | 50.19 | 48.23 | 0.00 |

## Main Results for each time segment

### Main results: (07:45-08:00)

| Stream | Total Demand (PCU/hr) | Junction demand (PCU/hr) | Junction Arrivals (PCU) | Bypass demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | LOS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| B-ACD | 7.53 | 7.53 | 1.88 | 0.00 | 448.93 | 0.017 | 7.46 | 0.0 | 0.0 | 8.153 | A |
| A-BCD | 3.82 | 3.82 | 0.95 | 0.00 | 782.99 | 0.005 | 3.80 | 0.0 | 0.0 | 4.619 | A |
| A-B | 1.50 | 1.50 | 0.37 | 0.00 | | | 1.50 | | | | |
| A-C | 340.99 | 340.99 | 85.25 | 0.00 | | | 340.99 | | | | |
| D-A | 3.76 | 3.76 | 0.94 | 0.00 | 602.85 | 0.006 | 3.74 | 0.0 | 0.0 | 6.008 | A |
| D-BC | 5.27 | 5.27 | 1.32 | 0.00 | 407.63 | 0.013 | 5.22 | 0.0 | 0.0 | 8.945 | A |
| C-ABD | 1.10 | 1.10 | 0.28 | 0.00 | 683.68 | 0.002 | 1.10 | 0.0 | 0.0 | 5.273 | A |
| C-D | 1.50 | 1.50 | 0.38 | 0.00 | | | 1.50 | | | | |
| C-A | 225.51 | 225.51 | 56.38 | 0.00 | | | 225.51 | | | | |

### Main results: (08:00-08:15)

| Stream | Total Demand (PCU/hr) | Junction demand (PCU/hr) | Junction Arrivals (PCU) | Bypass demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | LOS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| B-ACD | 8.99 | 8.99 | 2.25 | 0.00 | 430.46 | 0.021 | 8.97 | 0.0 | 0.0 | 8.541 | A |
| A-BCD | 5.01 | 5.01 | 1.25 | 0.00 | 817.02 | 0.006 | 5.00 | 0.0 | 0.0 | 4.433 | A |
| A-B | 1.79 | 1.79 | 0.45 | 0.00 | | | 1.79 | | | | |
| A-C | 406.73 | 406.73 | 101.68 | 0.00 | | | 406.73 | | | | |
| D-A | 4.49 | 4.49 | 1.12 | 0.00 | 591.17 | 0.008 | 4.49 | 0.0 | 0.0 | 6.135 | A |
| D-BC | 6.29 | 6.29 | 1.57 | 0.00 | 388.15 | 0.016 | 6.28 | 0.0 | 0.0 | 9.427 | A |
| C-ABD | 1.42 | 1.42 | 0.36 | 0.00 | 700.55 | 0.002 | 1.42 | 0.0 | 0.0 | 5.148 | A |
| C-D | 1.79 | 1.79 | 0.45 | 0.00 | | | 1.79 | | | | |
| C-A | 269.17 | 269.17 | 67.29 | 0.00 | | | 269.17 | | | | |

## Main results: (08:15-08:30)

| Stream | Total Demand (PCU/hr) | Junction demand (PCU/hr) | Junction Arrivals (PCU) | Bypass demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | LOS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| B-ACD | 11.01 | 11.01 | 2.75 | 0.00 | 404.67 | 0.027 | 10.98 | 0.0 | 0.0 | 9.144 | A |
| A-BCD | 6.93 | 6.93 | 1.73 | 0.00 | 862.84 | 0.008 | 6.92 | 0.0 | 0.0 | 4.205 | A |
| A-B | 2.19 | 2.19 | 0.55 | 0.00 | | | 2.19 | | | | |
| A-C | 497.36 | 497.36 | 124.34 | 0.00 | | | 497.36 | | | | |
| D-A | 5.51 | 5.51 | 1.38 | 0.00 | 575.37 | 0.010 | 5.50 | 0.0 | 0.0 | 6.316 | A |
| D-BC | 7.71 | 7.71 | 1.93 | 0.00 | 361.18 | 0.021 | 7.69 | 0.0 | 0.0 | 10.184 | B |
| C-ABD | 1.94 | 1.94 | 0.48 | 0.00 | 724.20 | 0.003 | 1.93 | 0.0 | 0.0 | 4.983 | A |
| C-D | 2.20 | 2.20 | 0.55 | 0.00 | | | 2.20 | | | | |
| C-A | 329.48 | 329.48 | 82.37 | 0.00 | | | 329.48 | | | | |

## Main results: (08:30-08:45)

| Stream | Total Demand (PCU/hr) | Junction demand (PCU/hr) | Junction Arrivals (PCU) | Bypass demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | LOS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| B-ACD | 11.01 | 11.01 | 2.75 | 0.00 | 404.66 | 0.027 | 11.01 | 0.0 | 0.0 | 9.144 | A |
| A-BCD | 6.93 | 6.93 | 1.73 | 0.00 | 862.84 | 0.008 | 6.93 | 0.0 | 0.0 | 4.207 | A |
| A-B | 2.19 | 2.19 | 0.55 | 0.00 | | | 2.19 | | | | |
| A-C | 497.35 | 497.35 | 124.34 | 0.00 | | | 497.35 | | | | |
| D-A | 5.51 | 5.51 | 1.38 | 0.00 | 575.22 | 0.010 | 5.50 | 0.0 | 0.0 | 6.318 | A |
| D-BC | 7.71 | 7.71 | 1.93 | 0.00 | 361.19 | 0.021 | 7.71 | 0.0 | 0.0 | 10.183 | B |
| C-ABD | 1.94 | 1.94 | 0.48 | 0.00 | 724.19 | 0.003 | 1.94 | 0.0 | 0.0 | 4.985 | A |
| C-D | 2.20 | 2.20 | 0.55 | 0.00 | | | 2.20 | | | | |
| C-A | 329.48 | 329.48 | 82.37 | 0.00 | | | 329.48 | | | | |

## Main results: (08:45-09:00)

| Stream | Total Demand (PCU/hr) | Junction demand (PCU/hr) | Junction Arrivals (PCU) | Bypass demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | LOS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| B-ACD | 8.99 | 8.99 | 2.25 | 0.00 | 430.45 | 0.021 | 9.01 | 0.0 | 0.0 | 8.544 | A |
| A-BCD | 5.01 | 5.01 | 1.25 | 0.00 | 817.02 | 0.006 | 5.02 | 0.0 | 0.0 | 4.433 | A |
| A-B | 1.79 | 1.79 | 0.45 | 0.00 | | | 1.79 | | | | |
| A-C | 406.73 | 406.73 | 101.68 | 0.00 | | | 406.73 | | | | |
| D-A | 4.49 | 4.49 | 1.12 | 0.00 | 590.87 | 0.008 | 4.50 | 0.0 | 0.0 | 6.138 | A |
| D-BC | 6.29 | 6.29 | 1.57 | 0.00 | 388.18 | 0.016 | 6.31 | 0.0 | 0.0 | 9.429 | A |
| C-ABD | 1.43 | 1.43 | 0.36 | 0.00 | 700.54 | 0.002 | 1.43 | 0.0 | 0.0 | 5.148 | A |
| C-D | 1.79 | 1.79 | 0.45 | 0.00 | | | 1.79 | | | | |
| C-A | 269.17 | 269.17 | 67.29 | 0.00 | | | 269.17 | | | | |

### Main results: (09:00-09:15)

| Stream | Total Demand (PCU/hr) | Junction demand (PCU/hr) | Junction Arrivals (PCU) | Bypass demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | LOS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| B-ACD | 7.53 | 7.53 | 1.88 | 0.00 | 448.92 | 0.017 | 7.55 | 0.0 | 0.0 | 8.156 | A |
| A-BCD | 3.83 | 3.83 | 0.96 | 0.00 | 782.99 | 0.005 | 3.84 | 0.0 | 0.0 | 4.621 | A |
| A-B | 1.50 | 1.50 | 0.37 | 0.00 | | | 1.50 | | | | |
| A-C | 340.98 | 340.98 | 85.25 | 0.00 | | | 340.98 | | | | |
| D-A | 3.76 | 3.76 | 0.94 | 0.00 | 602.32 | 0.006 | 3.77 | 0.0 | 0.0 | 6.016 | A |
| D-BC | 5.27 | 5.27 | 1.32 | 0.00 | 407.68 | 0.013 | 5.28 | 0.0 | 0.0 | 8.946 | A |
| C-ABD | 1.11 | 1.11 | 0.28 | 0.00 | 683.67 | 0.002 | 1.11 | 0.0 | 0.0 | 5.275 | A |
| C-D | 1.50 | 1.50 | 0.38 | 0.00 | | | 1.50 | | | | |
| C-A | 225.50 | 225.50 | 56.38 | 0.00 | | | 225.50 | | | | |

## Geometric Delay Results for each time segment

### Geometric Delay results: (07:45-08:00)

| Stream | Geometric total delay (PCU-min) | Geometric rate of delay (PCU-min/min) |
|---|---|---|
| B-ACD | 0.23 | 0.02 |
| A-BCD | 0.07 | 0.00 |
| A-B | 0.05 | 0.00 |
| A-C | 0.00 | 0.00 |
| D-A | 0.10 | 0.01 |
| D-BC | 0.18 | 0.01 |
| C-ABD | 0.02 | 0.00 |
| C-D | 0.05 | 0.00 |
| C-A | 0.00 | 0.00 |

### Geometric Delay results: (08:00-08:15)

| Stream | Geometric total delay (PCU-min) | Geometric rate of delay (PCU-min/min) |
|---|---|---|
| B-ACD | 0.28 | 0.02 |
| A-BCD | 0.08 | 0.01 |
| A-B | 0.05 | 0.00 |
| A-C | 0.00 | 0.00 |
| D-A | 0.12 | 0.01 |
| D-BC | 0.22 | 0.01 |
| C-ABD | 0.03 | 0.00 |
| C-D | 0.06 | 0.00 |
| C-A | 0.00 | 0.00 |

## Geometric Delay results: (08:15-08:30)

| Stream | Geometric total delay (PCU-min) | Geometric rate of delay (PCU-min/min) |
|---|---|---|
| B-ACD | 0.34 | 0.02 |
| A-BCD | 0.10 | 0.01 |
| A-B | 0.07 | 0.00 |
| A-C | 0.00 | 0.00 |
| D-A | 0.14 | 0.01 |
| D-BC | 0.27 | 0.02 |
| C-ABD | 0.03 | 0.00 |
| C-D | 0.07 | 0.00 |
| C-A | 0.00 | 0.00 |

## Geometric Delay results: (08:30-08:45)

| Stream | Geometric total delay (PCU-min) | Geometric rate of delay (PCU-min/min) |
|---|---|---|
| B-ACD | 0.34 | 0.02 |
| A-BCD | 0.10 | 0.01 |
| A-B | 0.07 | 0.00 |
| A-C | 0.00 | 0.00 |
| D-A | 0.14 | 0.01 |
| D-BC | 0.27 | 0.02 |
| C-ABD | 0.03 | 0.00 |
| C-D | 0.07 | 0.00 |
| C-A | 0.00 | 0.00 |

## Geometric Delay results: (08:45-09:00)

| Stream | Geometric total delay (PCU-min) | Geometric rate of delay (PCU-min/min) |
|---|---|---|
| B-ACD | 0.28 | 0.02 |
| A-BCD | 0.08 | 0.01 |
| A-B | 0.05 | 0.00 |
| A-C | 0.00 | 0.00 |
| D-A | 0.12 | 0.01 |
| D-BC | 0.22 | 0.01 |
| C-ABD | 0.03 | 0.00 |
| C-D | 0.06 | 0.00 |
| C-A | 0.00 | 0.00 |

## Geometric Delay results: (09:00-09:15)

| Stream | Geometric total delay (PCU-min) | Geometric rate of delay (PCU-min/min) |
|---|---|---|
| B-ACD | 0.23 | 0.02 |
| A-BCD | 0.07 | 0.00 |
| A-B | 0.05 | 0.00 |
| A-C | 0.00 | 0.00 |
| D-A | 0.10 | 0.01 |
| D-BC | 0.18 | 0.01 |
| C-ABD | 0.02 | 0.00 |
| C-D | 0.05 | 0.00 |
| C-A | 0.00 | 0.00 |

### Total Geometric Delay By Turn (PCU-min) - Junction 1 - (07:45-08:00)

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 0.05 | 0.00 | 0.07 |
| | B | 0.10 | 0.00 | 0.13 | 0.00 |
| | C | 0.00 | 0.02 | 0.00 | 0.05 |
| | D | 0.10 | 0.00 | 0.18 | 0.00 |

### Total Geometric Delay By Turn (PCU-min) - Junction 1 - (08:00-08:15)

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 0.06 | 0.00 | 0.08 |
| | B | 0.12 | 0.00 | 0.15 | 0.00 |
| | C | 0.00 | 0.03 | 0.00 | 0.06 |
| | D | 0.12 | 0.00 | 0.22 | 0.00 |

### Total Geometric Delay By Turn (PCU-min) - Junction 1 - (08:15-08:30)

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 0.07 | 0.00 | 0.10 |
| | B | 0.15 | 0.00 | 0.19 | 0.00 |
| | C | 0.00 | 0.03 | 0.00 | 0.07 |
| | D | 0.14 | 0.00 | 0.27 | 0.00 |

### Total Geometric Delay By Turn (PCU-min) - Junction 1 - (08:30-08:45)

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 0.07 | 0.00 | 0.10 |
| | B | 0.15 | 0.00 | 0.19 | 0.00 |
| | C | 0.00 | 0.03 | 0.00 | 0.07 |
| | D | 0.14 | 0.00 | 0.27 | 0.00 |

### Total Geometric Delay By Turn (PCU-min) - Junction 1 - (08:45-09:00)

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 0.06 | 0.00 | 0.08 |
| | B | 0.13 | 0.00 | 0.15 | 0.00 |
| | C | 0.00 | 0.03 | 0.00 | 0.06 |
| | D | 0.12 | 0.00 | 0.22 | 0.00 |

### Total Geometric Delay By Turn (PCU-min) - Junction 1 - (09:00-09:15)

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 0.05 | 0.00 | 0.07 |
| | B | 0.11 | 0.00 | 0.13 | 0.00 |
| | C | 0.00 | 0.02 | 0.00 | 0.05 |
| | D | 0.10 | 0.00 | 0.18 | 0.00 |

## Point to Point Journey Times By Turn (s) - Junction 1 - (07:45-08:00)

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 42.37 | 34.62 | 41.62 |
| | B | 46.89 | 0.00 | 44.59 | 49.15 |
| | C | 35.27 | 42.28 | 0.00 | 43.35 |
| | D | 41.95 | 49.63 | 47.68 | 0.00 |

## Point to Point Journey Times By Turn (s) - Junction 1 - (08:00-08:15)

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 42.19 | 34.43 | 41.44 |
| | B | 47.27 | 0.00 | 44.98 | 49.54 |
| | C | 35.15 | 42.15 | 0.00 | 43.22 |
| | D | 42.08 | 50.11 | 48.16 | 0.00 |

## Point to Point Journey Times By Turn (s) - Junction 1 - (08:15-08:30)

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 41.96 | 34.21 | 41.21 |
| | B | 47.88 | 0.00 | 45.58 | 50.14 |
| | C | 34.98 | 41.99 | 0.00 | 43.06 |
| | D | 42.26 | 50.87 | 48.92 | 0.00 |

## Point to Point Journey Times By Turn (s) - Junction 1 - (08:30-08:45)

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 41.96 | 34.21 | 41.21 |
| | B | 47.88 | 0.00 | 45.58 | 50.14 |
| | C | 34.99 | 41.99 | 0.00 | 43.06 |
| | D | 42.26 | 50.87 | 48.92 | 0.00 |

## Point to Point Journey Times By Turn (s) - Junction 1 - (08:45-09:00)

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 42.19 | 34.43 | 41.44 |
| | B | 47.28 | 0.00 | 44.98 | 49.54 |
| | C | 35.15 | 42.15 | 0.00 | 43.22 |
| | D | 42.08 | 50.12 | 48.16 | 0.00 |

## Point to Point Journey Times By Turn (s) - Junction 1 - (09:00-09:15)

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 42.37 | 34.62 | 41.62 |
| | B | 46.89 | 0.00 | 44.59 | 49.15 |
| | C | 35.28 | 42.28 | 0.00 | 43.35 |
| | D | 41.96 | 49.63 | 47.68 | 0.00 |

# (Default Analysis Set) - Base + Area A, PM

## Data Errors and Warnings

| Severity | Area | Item | Description |
|---|---|---|---|
| Warning | Minor arm flare | Arm D - Minor arm geometry | Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed. |
| Warning | Accident prediction | Accident Prediction | Accident prediction for urban staggers assumes that the stagger length is less than 20m. See the User Guide for more details. |

## Analysis Set Details

| ID | Name | Include in report | Network flow scaling factor (%) | Network capacity scaling factor (%) |
|---|---|---|---|---|
| **A1** | (Default Analysis Set) | ✓ | 100.000 | 100.000 |

# Junction Network

## Junctions

| Junction | Name | Junction Type | Major road direction | Visibilities conform to TD 42/95 | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| **1** | Mayfair / Post Hill | Right-Left Stagger | Two-way | ✓ | 0.27 | A |

### Junction Network Options
*[same as above]*

# Arms

### Arms
*[same as above]*

### Major Arm Geometry
*[same as above]*

### Minor Arm Geometry
*[same as above]*

### Geometric Delay Data for Priority Intersections
*[same as above]*

### Slope / Intercept / Capacity
*[same as above]*

# Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Model start time (HH:mm) | Model finish time (HH:mm) | Time segment length (min) | Run automatically |
|---|---|---|---|---|---|---|---|
| D4 | Base + Area A | PM | ONE HOUR | 16:45 | 18:15 | 15 | ✓ |

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

### Demand overview (Traffic)

| Arm | Linked arm | Profile type | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|---|
| A | | ONE HOUR | ✓ | 415.00 | 100.000 |
| B | | ONE HOUR | ✓ | 5.00 | 100.000 |
| C | | ONE HOUR | ✓ | 466.00 | 100.000 |
| D | | ONE HOUR | ✓ | 13.00 | 100.000 |

# Origin-Destination Data

### Demand (PCU/hr)

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.000 | 4.000 | 406.000 | 5.000 |
| | B | 3.000 | 0.000 | 2.000 | 0.000 |
| | C | 455.000 | 5.000 | 0.000 | 6.000 |
| | D | 10.000 | 0.000 | 3.000 | 0.000 |

### Proportions

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 0.01 | 0.98 | 0.01 |
| | B | 0.60 | 0.00 | 0.40 | 0.00 |
| | C | 0.98 | 0.01 | 0.00 | 0.01 |
| | D | 0.77 | 0.00 | 0.23 | 0.00 |

# Vehicle Mix

### Heavy Vehicle proportion

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

### Average PCU Per Veh

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 1.000 | 1.000 | 1.000 | 1.000 |
| | B | 1.000 | 1.000 | 1.000 | 1.000 |
| | C | 1.000 | 1.000 | 1.000 | 1.000 |
| | D | 1.000 | 1.000 | 1.000 | 1.000 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max delay (s) | Max Queue (PCU) | Max LOS | Average Demand (PCU/hr) | Total Junction Arrivals (PCU) |
|---|---|---|---|---|---|---|
| B-ACD | 0.02 | 10.01 | 0.0 | B | 4.59 | 6.88 |
| A-BCD | 0.01 | 4.92 | 0.0 | A | 8.56 | 12.84 |
| A-B | | | | | 3.63 | 5.45 |
| A-C | | | | | 368.62 | 552.93 |
| D-A | 0.02 | 6.85 | 0.0 | A | 9.18 | 13.76 |
| D-BC | 0.01 | 11.36 | 0.0 | B | 2.75 | 4.13 |
| C-ABD | 0.01 | 4.71 | 0.0 | A | 9.00 | 13.50 |
| C-D | | | | | 5.45 | 8.17 |
| C-A | | | | | 413.16 | 619.75 |

## Geometric Delay Results for modelled period

### Geometric Delay per light vehicle (s) - Junction 1

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 7.38 | 0.00 | 7.38 |
| | B | 8.36 | 0.00 | 6.81 | 11.00 |
| | C | 0.00 | 7.38 | 0.00 | 7.70 |
| | D | 6.32 | 10.69 | 8.36 | 0.00 |

### Inclusive Geometric Delay (PCU-min) - Junction 1

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 0.68 | 0.00 | 0.85 |
| | B | 0.58 | 0.00 | 0.31 | 0.00 |
| | C | 0.00 | 0.85 | 0.00 | 1.06 |
| | D | 1.45 | 0.00 | 0.58 | 0.00 |

### Point to Point Journey Times Summary (s) - Junction 1

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 42.94 | 35.19 | 42.19 |
| | B | 48.06 | 0.00 | 45.77 | 50.32 |
| | C | 34.94 | 41.94 | 0.00 | 43.01 |
| | D | 42.50 | 51.11 | 49.16 | 0.00 |

## Main Results for each time segment

### Main results: (16:45-17:00)

| Stream | Total Demand (PCU/hr) | Junction demand (PCU/hr) | Junction Arrivals (PCU) | Bypass demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | LOS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| B-ACD | 3.76 | 3.76 | 0.94 | 0.00 | 414.06 | 0.009 | 3.73 | 0.0 | 0.0 | 8.773 | A |
| A-BCD | 6.20 | 6.20 | 1.55 | 0.00 | 738.18 | 0.008 | 6.17 | 0.0 | 0.0 | 4.917 | A |
| A-B | 2.99 | 2.99 | 0.75 | 0.00 | | | 2.99 | | | | |
| A-C | 303.24 | 303.24 | 75.81 | 0.00 | | | 303.24 | | | | |
| D-A | 7.53 | 7.53 | 1.88 | 0.00 | 576.18 | 0.013 | 7.48 | 0.0 | 0.0 | 6.330 | A |
| D-BC | 2.26 | 2.26 | 0.56 | 0.00 | 375.27 | 0.006 | 2.23 | 0.0 | 0.0 | 9.650 | A |
| C-ABD | 6.48 | 6.48 | 1.62 | 0.00 | 770.27 | 0.008 | 6.45 | 0.0 | 0.0 | 4.712 | A |
| C-D | 4.48 | 4.48 | 1.12 | 0.00 | | | 4.48 | | | | |
| C-A | 339.86 | 339.86 | 84.97 | 0.00 | | | 339.86 | | | | |

### Main results: (17:00-17:15)

| Stream | Total Demand (PCU/hr) | Junction demand (PCU/hr) | Junction Arrivals (PCU) | Bypass demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | LOS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| B-ACD | 4.49 | 4.49 | 1.12 | 0.00 | 393.71 | 0.011 | 4.49 | 0.0 | 0.0 | 9.248 | A |
| A-BCD | 8.15 | 8.15 | 2.04 | 0.00 | 765.04 | 0.011 | 8.14 | 0.0 | 0.0 | 4.755 | A |
| A-B | 3.56 | 3.56 | 0.89 | 0.00 | | | 3.56 | | | | |
| A-C | 361.37 | 361.37 | 90.34 | 0.00 | | | 361.37 | | | | |
| D-A | 8.99 | 8.99 | 2.25 | 0.00 | 559.45 | 0.016 | 8.98 | 0.0 | 0.0 | 6.539 | A |
| D-BC | 2.70 | 2.70 | 0.67 | 0.00 | 352.19 | 0.008 | 2.69 | 0.0 | 0.0 | 10.300 | B |
| C-ABD | 8.55 | 8.55 | 2.14 | 0.00 | 802.50 | 0.011 | 8.54 | 0.0 | 0.0 | 4.533 | A |
| C-D | 5.34 | 5.34 | 1.34 | 0.00 | | | 5.34 | | | | |
| C-A | 405.03 | 405.03 | 101.26 | 0.00 | | | 405.03 | | | | |

## Main results: (17:15-17:30)

| Stream | Total Demand (PCU/hr) | Junction demand (PCU/hr) | Junction Arrivals (PCU) | Bypass demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | LOS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| B-ACD | 5.51 | 5.51 | 1.38 | 0.00 | 365.21 | 0.015 | 5.49 | 0.0 | 0.0 | 10.007 | B |
| A-BCD | 11.32 | 11.32 | 2.83 | 0.00 | 801.87 | 0.014 | 11.31 | 0.0 | 0.0 | 4.553 | A |
| A-B | 4.35 | 4.35 | 1.09 | 0.00 | | | 4.35 | | | | |
| A-C | 441.25 | 441.25 | 110.31 | 0.00 | | | 441.25 | | | | |
| D-A | 11.01 | 11.01 | 2.75 | 0.00 | 536.31 | 0.021 | 10.99 | 0.0 | 0.0 | 6.852 | A |
| D-BC | 3.30 | 3.30 | 0.83 | 0.00 | 320.29 | 0.010 | 3.29 | 0.0 | 0.0 | 11.356 | B |
| C-ABD | 11.94 | 11.94 | 2.99 | 0.00 | 846.14 | 0.014 | 11.92 | 0.0 | 0.0 | 4.315 | A |
| C-D | 6.52 | 6.52 | 1.63 | 0.00 | | | 6.52 | | | | |
| C-A | 494.61 | 494.61 | 123.65 | 0.00 | | | 494.61 | | | | |

## Main results: (17:30-17:45)

| Stream | Total Demand (PCU/hr) | Junction demand (PCU/hr) | Junction Arrivals (PCU) | Bypass demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | LOS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| B-ACD | 5.51 | 5.51 | 1.38 | 0.00 | 365.20 | 0.015 | 5.50 | 0.0 | 0.0 | 10.008 | B |
| A-BCD | 11.33 | 11.33 | 2.83 | 0.00 | 801.88 | 0.014 | 11.33 | 0.0 | 0.0 | 4.555 | A |
| A-B | 4.35 | 4.35 | 1.09 | 0.00 | | | 4.35 | | | | |
| A-C | 441.25 | 441.25 | 110.31 | 0.00 | | | 441.25 | | | | |
| D-A | 11.01 | 11.01 | 2.75 | 0.00 | 536.30 | 0.021 | 11.01 | 0.0 | 0.0 | 6.852 | A |
| D-BC | 3.30 | 3.30 | 0.83 | 0.00 | 320.29 | 0.010 | 3.30 | 0.0 | 0.0 | 11.356 | B |
| C-ABD | 11.95 | 11.95 | 2.99 | 0.00 | 846.15 | 0.014 | 11.95 | 0.0 | 0.0 | 4.315 | A |
| C-D | 6.52 | 6.52 | 1.63 | 0.00 | | | 6.52 | | | | |
| C-A | 494.61 | 494.61 | 123.65 | 0.00 | | | 494.61 | | | | |

## Main results: (17:45-18:00)

| Stream | Total Demand (PCU/hr) | Junction demand (PCU/hr) | Junction Arrivals (PCU) | Bypass demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | LOS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| B-ACD | 4.49 | 4.49 | 1.12 | 0.00 | 393.70 | 0.011 | 4.51 | 0.0 | 0.0 | 9.251 | A |
| A-BCD | 8.15 | 8.15 | 2.04 | 0.00 | 765.05 | 0.011 | 8.17 | 0.0 | 0.0 | 4.757 | A |
| A-B | 3.56 | 3.56 | 0.89 | 0.00 | | | 3.56 | | | | |
| A-C | 361.36 | 361.36 | 90.34 | 0.00 | | | 361.36 | | | | |
| D-A | 8.99 | 8.99 | 2.25 | 0.00 | 559.43 | 0.016 | 9.01 | 0.0 | 0.0 | 6.542 | A |
| D-BC | 2.70 | 2.70 | 0.67 | 0.00 | 352.18 | 0.008 | 2.71 | 0.0 | 0.0 | 10.303 | B |
| C-ABD | 8.56 | 8.56 | 2.14 | 0.00 | 802.51 | 0.011 | 8.58 | 0.0 | 0.0 | 4.535 | A |
| C-D | 5.34 | 5.34 | 1.34 | 0.00 | | | 5.34 | | | | |
| C-A | 405.02 | 405.02 | 101.26 | 0.00 | | | 405.02 | | | | |

### Main results: (18:00-18:15)

| Stream | Total Demand (PCU/hr) | Junction demand (PCU/hr) | Junction Arrivals (PCU) | Bypass demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | Start queue (PCU) | End queue (PCU) | Delay (s) | LOS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| B-ACD | 3.76 | 3.76 | 0.94 | 0.00 | 414.04 | 0.009 | 3.77 | 0.0 | 0.0 | 8.774 | A |
| A-BCD | 6.22 | 6.22 | 1.55 | 0.00 | 738.18 | 0.008 | 6.23 | 0.0 | 0.0 | 4.918 | A |
| A-B | 2.99 | 2.99 | 0.75 | 0.00 | | | 2.99 | | | | |
| A-C | 303.23 | 303.23 | 75.81 | 0.00 | | | 303.23 | | | | |
| D-A | 7.53 | 7.53 | 1.88 | 0.00 | 576.15 | 0.013 | 7.54 | 0.0 | 0.0 | 6.333 | A |
| D-BC | 2.26 | 2.26 | 0.56 | 0.00 | 375.25 | 0.006 | 2.27 | 0.0 | 0.0 | 9.653 | A |
| C-ABD | 6.50 | 6.50 | 1.63 | 0.00 | 770.28 | 0.008 | 6.51 | 0.0 | 0.0 | 4.713 | A |
| C-D | 4.48 | 4.48 | 1.12 | 0.00 | | | 4.48 | | | | |
| C-A | 339.85 | 339.85 | 84.96 | 0.00 | | | 339.85 | | | | |

## Geometric Delay Results for each time segment

### Geometric Delay results: (16:45-17:00)

| Stream | Geometric total delay (PCU-min) | Geometric rate of delay (PCU-min/min) |
|---|---|---|
| B-ACD | 0.12 | 0.01 |
| A-BCD | 0.12 | 0.01 |
| A-B | 0.09 | 0.01 |
| A-C | 0.00 | 0.00 |
| D-A | 0.20 | 0.01 |
| D-BC | 0.08 | 0.01 |
| C-ABD | 0.12 | 0.01 |
| C-D | 0.14 | 0.01 |
| C-A | 0.00 | 0.00 |

### Geometric Delay results: (17:00-17:15)

| Stream | Geometric total delay (PCU-min) | Geometric rate of delay (PCU-min/min) |
|---|---|---|
| B-ACD | 0.14 | 0.01 |
| A-BCD | 0.14 | 0.01 |
| A-B | 0.11 | 0.01 |
| A-C | 0.00 | 0.00 |
| D-A | 0.24 | 0.02 |
| D-BC | 0.09 | 0.01 |
| C-ABD | 0.14 | 0.01 |
| C-D | 0.17 | 0.01 |
| C-A | 0.00 | 0.00 |

## Geometric Delay results: (17:15-17:30)

| Stream | Geometric total delay (PCU-min) | Geometric rate of delay (PCU-min/min) |
|---|---|---|
| B-ACD | 0.18 | 0.01 |
| A-BCD | 0.17 | 0.01 |
| A-B | 0.13 | 0.01 |
| A-C | 0.00 | 0.00 |
| D-A | 0.29 | 0.02 |
| D-BC | 0.11 | 0.01 |
| C-ABD | 0.17 | 0.01 |
| C-D | 0.21 | 0.01 |
| C-A | 0.00 | 0.00 |

## Geometric Delay results: (17:30-17:45)

| Stream | Geometric total delay (PCU-min) | Geometric rate of delay (PCU-min/min) |
|---|---|---|
| B-ACD | 0.18 | 0.01 |
| A-BCD | 0.17 | 0.01 |
| A-B | 0.13 | 0.01 |
| A-C | 0.00 | 0.00 |
| D-A | 0.29 | 0.02 |
| D-BC | 0.12 | 0.01 |
| C-ABD | 0.17 | 0.01 |
| C-D | 0.21 | 0.01 |
| C-A | 0.00 | 0.00 |

## Geometric Delay results: (17:45-18:00)

| Stream | Geometric total delay (PCU-min) | Geometric rate of delay (PCU-min/min) |
|---|---|---|
| B-ACD | 0.15 | 0.01 |
| A-BCD | 0.14 | 0.01 |
| A-B | 0.11 | 0.01 |
| A-C | 0.00 | 0.00 |
| D-A | 0.24 | 0.02 |
| D-BC | 0.09 | 0.01 |
| C-ABD | 0.14 | 0.01 |
| C-D | 0.17 | 0.01 |
| C-A | 0.00 | 0.00 |

## Geometric Delay results: (18:00-18:15)

| Stream | Geometric total delay (PCU-min) | Geometric rate of delay (PCU-min/min) |
|---|---|---|
| B-ACD | 0.12 | 0.01 |
| A-BCD | 0.12 | 0.01 |
| A-B | 0.09 | 0.01 |
| A-C | 0.00 | 0.00 |
| D-A | 0.20 | 0.01 |
| D-BC | 0.08 | 0.01 |
| C-ABD | 0.12 | 0.01 |
| C-D | 0.14 | 0.01 |
| C-A | 0.00 | 0.00 |

### Total Geometric Delay By Turn (PCU-min) - Junction 1 - (16:45-17:00)

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 0.09 | 0.00 | 0.12 |
| | B | 0.08 | 0.00 | 0.04 | 0.00 |
| | C | 0.00 | 0.12 | 0.00 | 0.14 |
| | D | 0.20 | 0.00 | 0.08 | 0.00 |

### Total Geometric Delay By Turn (PCU-min) - Junction 1 - (17:00-17:15)

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 0.11 | 0.00 | 0.14 |
| | B | 0.09 | 0.00 | 0.05 | 0.00 |
| | C | 0.00 | 0.14 | 0.00 | 0.17 |
| | D | 0.24 | 0.00 | 0.09 | 0.00 |

### Total Geometric Delay By Turn (PCU-min) - Junction 1 - (17:15-17:30)

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 0.14 | 0.00 | 0.17 |
| | B | 0.11 | 0.00 | 0.06 | 0.00 |
| | C | 0.00 | 0.17 | 0.00 | 0.21 |
| | D | 0.29 | 0.00 | 0.11 | 0.00 |

### Total Geometric Delay By Turn (PCU-min) - Junction 1 - (17:30-17:45)

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 0.14 | 0.00 | 0.17 |
| | B | 0.12 | 0.00 | 0.06 | 0.00 |
| | C | 0.00 | 0.17 | 0.00 | 0.21 |
| | D | 0.29 | 0.00 | 0.12 | 0.00 |

### Total Geometric Delay By Turn (PCU-min) - Junction 1 - (17:45-18:00)

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 0.11 | 0.00 | 0.14 |
| | B | 0.09 | 0.00 | 0.05 | 0.00 |
| | C | 0.00 | 0.14 | 0.00 | 0.17 |
| | D | 0.24 | 0.00 | 0.09 | 0.00 |

### Total Geometric Delay By Turn (PCU-min) - Junction 1 - (18:00-18:15)

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 0.09 | 0.00 | 0.12 |
| | B | 0.08 | 0.00 | 0.04 | 0.00 |
| | C | 0.00 | 0.12 | 0.00 | 0.14 |
| | D | 0.20 | 0.00 | 0.08 | 0.00 |

### Point to Point Journey Times By Turn (s) - Junction 1 - (16:45-17:00)

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 42.67 | 34.92 | 41.92 |
| | B | 47.51 | 0.00 | 45.21 | 49.77 |
| | C | 34.71 | 41.72 | 0.00 | 42.79 |
| | D | 42.27 | 50.34 | 48.38 | 0.00 |

### Point to Point Journey Times By Turn (s) - Junction 1 - (17:00-17:15)

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 42.51 | 34.76 | 41.76 |
| | B | 47.98 | 0.00 | 45.69 | 50.24 |
| | C | 34.53 | 41.54 | 0.00 | 42.61 |
| | D | 42.48 | 50.99 | 49.03 | 0.00 |

### Point to Point Journey Times By Turn (s) - Junction 1 - (17:15-17:30)

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 42.31 | 34.55 | 41.56 |
| | B | 48.74 | 0.00 | 46.45 | 51.00 |
| | C | 34.31 | 41.32 | 0.00 | 42.39 |
| | D | 42.79 | 52.04 | 50.09 | 0.00 |

### Point to Point Journey Times By Turn (s) - Junction 1 - (17:30-17:45)

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 42.31 | 34.55 | 41.56 |
| | B | 48.74 | 0.00 | 46.45 | 51.00 |
| | C | 34.31 | 41.32 | 0.00 | 42.39 |
| | D | 42.79 | 52.04 | 50.09 | 0.00 |

### Point to Point Journey Times By Turn (s) - Junction 1 - (17:45-18:00)

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 42.51 | 34.76 | 41.76 |
| | B | 47.98 | 0.00 | 45.69 | 50.25 |
| | C | 34.54 | 41.54 | 0.00 | 42.61 |
| | D | 42.48 | 50.99 | 49.03 | 0.00 |

### Point to Point Journey Times By Turn (s) - Junction 1 - (18:00-18:15)

| | | To | | | |
|---|---|---|---|---|---|
| | | A | B | C | D |
| From | A | 0.00 | 42.67 | 34.92 | 41.92 |
| | B | 47.51 | 0.00 | 45.21 | 49.77 |
| | C | 34.71 | 41.72 | 0.00 | 42.79 |
| | D | 42.27 | 50.34 | 48.38 | 0.00 |