MOTT MACDONALD

# Royal Mail - Delivery Office - Salisbury

## Transport Assessment

September 2023

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# Royal Mail - Delivery Office - Salisbury

## Transport Assessment

September 2023

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# Issue and Revision Record

| Revision | Date | Originator | Checker | Approver | Description |
|---|---|---|---|---|---|
| A | 03/12/21 | DL | KB | MS | DRAFT |
| B | 17/12/21 | DL | KB | MS | DRAFT |
| C | 26/09/23 | MP / SA | JW / MT | - | Updated Draft for RMG Review |
| D | 29/09/23 | MP / SA | JW / MT | MS | Final Draft for Planning Submission |
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| | | | | | |

**Document reference:** 100404109 | SLSB-MMD-XX-XX-RP-TP-0001 |

**Information class: Standard**

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# 1 Introduction

This Transport Assessment (TA) has been prepared in support of a Royal Mail Delivery Office (DO) on the existing temporary Royal Mail Car Park site at Brunel Road, in the Churchfields Industrial Estate in Salisbury. The proposal would retain vehicle and pedestrian access off Brunel Road. A Travel Plan has also been prepared to support the application which should be read in conjunction with this document.

## 1.1 Scope of transport assessment

Pre-application scoping has been undertaken with Wiltshire Council Highways prior to undertaking this TA. Accordingly the contents of this document are as follows:

- National and local policy context: A review of relevant national and local transport planning policies;
- Baseline transport conditions: A review of baseline transport conditions and accessibility of the site;
- Traffic data: an overview of the traffic and parking surveys undertaken to provide the evidence base of this assessment;
- Proposed development: an overview of the development, means of access and operation;
- Transport demand: presentation of staff multi modal travel survey data and traffic generation calculations;
- Development impact: A review of the potential impact of the development at key junctions and on parking;
- Summary and Conclusions.

# 2 National and Local Policy Context

## 2.1 Introduction

In this section planning policy relevant to this application is provided with a specific focus on transport. Following this an overview of the scoping which has been undertaken prior to this planning submission is provided.

The statutory development plan transport policies relevant to the application proposal are summarised below. The following policies and guidance are material considerations which also inform this TA:

- National Planning Policy Framework (2023)
- Planning Practice Guidance (2014)
- Wiltshire Core Strategy
- Wiltshire Local Transport Plan 2011-2026
- Salisbury Transport Strategy
- Salisbury Central Area Framework

These policy and guidance documents form the foundation for this TA and are summarised further within the section.

## 2.2 National Policy

### 2.2.1 National Planning Policy Framework (2023 refresh)

The National Planning Policy Framework (NPPF) sets out the government's policies on planning for England and how it expects these to be applied. The NPPF also provides a framework for local authorities to work within whilst still reflecting the needs of the local community. The purpose of the planning system is to contribute to the achievement of sustainable development and there is therefore a presumption in favour of sustainable development, in economic, social, and environmental terms, within the NPPF. It is recognised, however, that proposals must still be considered against the latest Local Plan and be approved where they fall in line with it or refused if they conflict (unless other material considerations indicate otherwise).

Chapter 9 paragraphs 110-113 of the NPPF discusses the importance of promoting sustainable transport within new developments by setting out key issues, planning policy requirements and necessary development proposal assessments.

In assessing sites that may be allocated for development in plans, or specific applications for development it should be ensured that:

- Appropriate opportunities to promote sustainable transport modes have been taken up, given the type of development and its location.
- Safe and suitable access can be achieved for all users.
- The design of streets, parking areas, other transport elements and the content of associated standards reflects current national guidance.
- Any significant impacts from the development on the transport network (in terms of capacity and congestion), or on the highway safety, can be cost effectively mitigated to an acceptable degree.

The NPFF also states that "*developments should only be prevented or refused on highway grounds if there would be an unacceptable impact on highway safety or the residual cumulative impact on the road network would be severe".*

Within this context, the NPPF also states that applications for development should:

- Give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second - so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use.
- Address the needs of people with disabilities and reducing mobility in relation to all modes of transport.
- Create places that are safe, secure, and attractive which minimise the scope of conflicts between pedestrians, cyclists, and vehicles, avoid unnecessary street clutter, and respond to local character and design standards.
- Allow for the efficient delivery of goods, and access by service and emergency vehicles.
- Be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible, and convenient locations.

### 2.2.2 Guidance on Travel Plans, Transport Assessments and Statements (March 2014)

The Government's National Planning Practice Guidance (NPPG) on 'Travel Plans, Transport Assessments and Statements' provides details on the overarching principles of Transport Assessments in decision making. The guidance states that "Transport Assessments and Statements are ways of assessing the potential transport impacts of developments (and they may propose mitigation measures to promote sustainable development)" (NPPG Paragraph 004). Transport Assessments are required for all developments which generate significant amounts of movements.

Travel Plans, Transport Assessments and Statements can positively contribute to:

- Encouraging sustainable travel;
- Lessening traffic generation and its detrimental impacts;
- Reducing carbon emissions and climate impacts;
- Creating accessible, connected, inclusive communities;
- Improving health outcomes and quality of life;
- Improving road safety; and
- Reducing the need for new development to increase existing road capacity or provide new roads.

They support national planning policy which sets out that planning should actively manage patterns of growth to make the fullest possible use of public transport, walking and cycling, and focus significant development in locations which are or can be made sustainable.

## 2.3 Local Policy

### 2.3.1 Wiltshire Core Strategy

The Wiltshire Core Strategy was adopted by the Council in January 2015 and sets out the Council's ambitions for future development in the area. Key relevant policies include:

- **Core Policy 41 Sustainable Construction and Low-carbon Energy** sets out that new development will be encouraged to incorporate design measures to reduce energy demand.

- **Core Policy 55 Air Quality** outlines that development proposals will need to demonstrate that measures can be taken to effectively mitigate emission levels
- **Core Policy 60 Sustainable Transport** sets out that the council will use its planning and transport powers to help reduce the need to travel particularly by private car, and support and encourage the sustainable, safe, and efficient movement of people and goods within and through Wiltshire.
- **Core Policy 61 Transport and New Development** sets out new development should be located and designed to reduce the need to travel particularly by private car, and to encourage the use of sustainable transport alternatives.
- **Core Policy 62 Development Impacts on the Transport Network** states that developments should provide appropriate mitigating measures to offset any adverse impacts on the transport network at both the construction and operational stages.

### 2.3.2 Wiltshire Local Transport Plan 2011 – 2026

The Wiltshire Local Transport Plan (LTP) sets out Wiltshire's long-term ambition for transport. The strategy outlines several strategic transport objectives relating to Wiltshire's transport challenges, national transport goals and community plan objectives. The most relevant of these objectives are included below:

- **SO2:** To provide, support and/or promote a choice of sustainable transport alternatives including walking, cycling, buses and rail.
- **SO6:** To make the best use of the existing infrastructure through effective design, management, and maintenance.
- **SO8:** To improve safety for all road users and to reduce the number of casualties on Wiltshire's roads.
- **SO12:** To support planned growth in Wiltshire and ensure that new developments adequately provide for their sustainable transport requirements and mitigate their traffic impacts.
- **SO14:** To promote travel modes that are beneficial to health.

The Local Transport Plan also includes a 'Car Parking Strategy' which sets out maximum car parking standards for new development in the Wiltshire area.

### 2.3.3 Transport Assessment Guidance: Wiltshire Council

This document provides guidance on the production of Transport Assessments and Transport Statements in support of planning applications in Wiltshire: It provides advice on the following:

- Scoping with Wiltshire Council;
- Guidance on when Transport Assessment and Transport Statements will be required;
- Recommended content and assessment methodologies.

In preparation of this Transport Assessment Mott MacDonald has contacted Wiltshire Council for scoping in line with the recommendations in this document.

### 2.3.4 Salisbury Transport Strategy (2018 refresh)

The Salisbury Transport Strategy is Wiltshire Council's proposed approach to meeting the transport needs of the city within the context of planned housing and employment growth. The strategy has been developed around three main themes:

1. Providing for strategic development sites
2. Maintaining the strategic function of the A36 and key roads

3. Improving the accessibility and attractiveness of the city centre and other service centres

Several transport objectives have been established around these main themes. The most relevant are included below:

- **Objective 1:** Ensure that development sites provide necessary infrastructure and services to facilitate journeys by sustainable modes of travel.
- **Objective 2:** Provide a transport network which caters for increased travel demand as a result of planned development.
- **Objective 4:** Improve road safety across the transport network in Salisbury.
- **Objective 5:** Reduce transport-related air pollutants and CO2 emissions to within legal limits, and ensure transport minimises any adverse impacts on the local environment.
- **Objective 6:** Encourage and facilitate walking and cycling journeys.
- **Objective 9:** Better management of car parking supply, facilities, and infrastructure.

### 2.3.5 Salisbury Central Area Framework (August 2020)

The Salisbury Central Area Framework (CAF) provides the overarching strategy for the central area of Salisbury. The CAF is an evidence-based document that will inform Wiltshire Council's review of the Local Plan and Salisbury City Council in the preparation of their Neighbourhood Development Plan. In addition, it is a material planning consideration of determining planning decisions.

In terms of the Churchfields Industrial Estate, the CAF recommends the following Key Objective; to enhance the Churchfields Industrial Estate area and support a diversification of employment generating uses. This should be sought by:

- Promoting the suitable relocation of employment uses, notably high traffic generators
- Improving the quality of place to attract start-ups and a greater variety of employment types
- Supporting higher density employment uses, where appropriate; and
- Investigating the relocation of Wiltshire Council's depot.

## 2.4 Transport Assessment Scoping

In line with Wiltshire Council's Transport Assessment Guidance, scoping with Wiltshire Council Highways has been undertaken prior to planning application submission. Agreement of the study area was reached as well as the requirement to provide a Travel Plan to accompany the application. Details of this scoping is included in Appendix C.

# 3 Site Location and Baseline Conditions

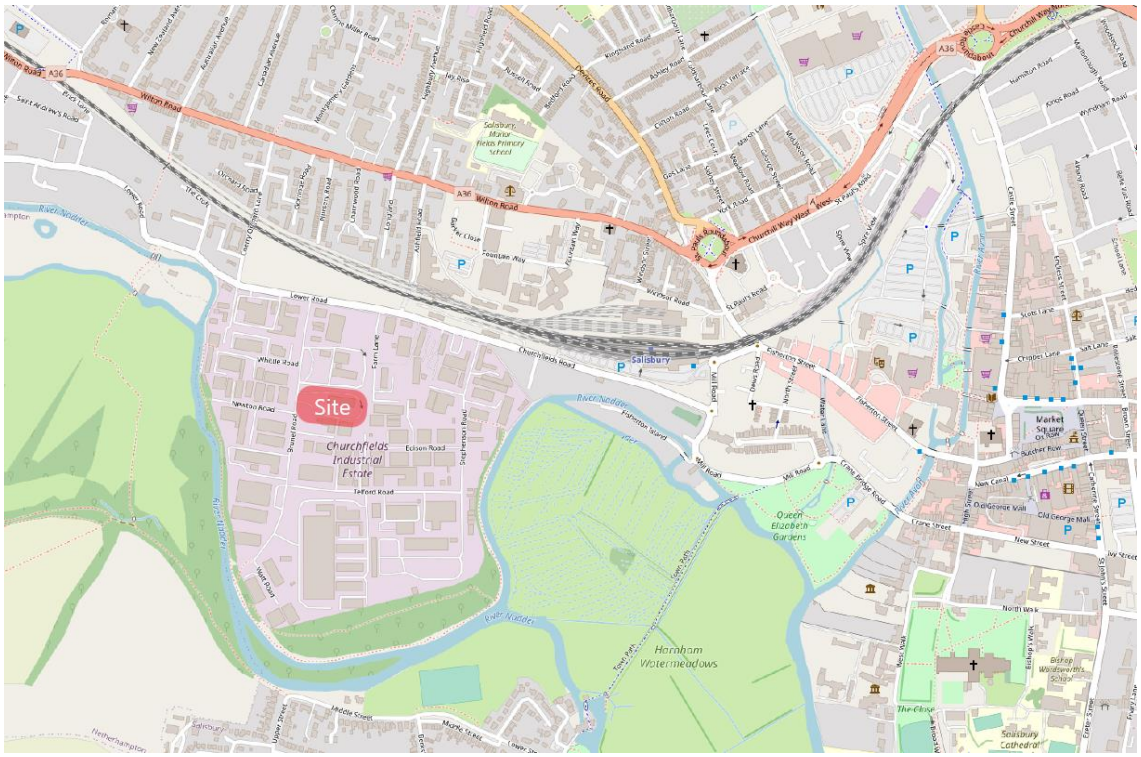
## 3.1 Introduction

This section provides details of the existing transport infrastructure and conditions in the vicinity of the proposed development site, covering access by road, public transport, walking and cycling. Firstly, a general introduction of the site is provided in terms of its general location and existing uses.

## 3.2 Location and surrounding uses

The proposed development site is located within the Churchfields Industrial Estate (Figure 3.1). This is a major employment site serving Salisbury and supports around 200 businesses across 33 hectares of land. The estate site lies to the west of the town centre and to the south of the railway line serving Salisbury train station and is bounded by the river Nadder to the west, south and east. Strategically the site lies near to Salisbury Train Station, which is roughly 0.6 miles to the north east, and to major roads including A360 Devizes Road and A36 Wilton Road.

**Figure 3.1: Site location- wider context**




Source: Openstreetmap

### 3.2.1 Development Site

The proposed development site sits near the centre of the industrial estate. The approximate site boundary is displayed on Figure 3.2. As the proposed site sits within an industrial estate, land uses around the site are predominantly industrial, manufacturing and wholesale retailer based.

**Figure 3.2: Site location- local context**




Source: Google Earth

The site was previously used by the Driver & Vehicle Standards Agency (DVSA) as an MOT and Goods Vehicle Testing Station (GVTS). This facility has now closed. Vehicular access to the site is provided by two gated junctions with Brunel Road. The northernmost is 9m width and used for ‘entry only’, the southern access is approximately 4.5m wide and used for ‘exit only’.

The development site is surrounded on each boundary by existing employment and industrial units. A motorbike dealership lies to the west of the site across Brunel Road, a car rental use to the north, and smaller commercial uses to the east and south of the site. The main site features some trees both within the site and along its southern border.

### 3.2.2 Traffic generation of former use

#### 3.2.2.1 GVTS

The site is currently in use as a temporary car park but was previously used by the DVSA as a GVTS. Accordingly, traffic surveys at the site cannot provide data on the potential traffic generation of the site in its former GVTS use. The detailed aspects of its original operations and working capacity as a GVTS are not known.

However Royal Mail owns and operates its own GVTS sites for the testing of their fleet vehicles, which are also open to the public. Data used in other planning applications for Royal Mail GVTS sites has therefore been used to estimate the traffic generation of the site in its former use.

The estimation is based on a GVTS site in Daventry, whose site area is 0.857 hectares and which gained approval in 2014 (Daventry District Council Ref: DA/2014/0339). The area of the site in Salisbury is 0.75 hectares, a comparable size. The trip generation of the Daventry site is

set out in the Transport Statement which accompanied its planning application and is as follows in Table 3.1 and is deemed to reflect the likely original GVTS use of the Salisbury site:

**Table 3.1: GVTS trip generation**

| Service | Frequency/hr AM | Frequency/hr PM | Total |
|---|---|---|---|
| AM Peak 08:00 – 09:00 | 5 (5) | 4 (4) | 9 (9) |
| PM Peak 17:00 – 18:00 | 0 (0) | 1 (1) | 1 (1) |
| Daily Total 24 Hour | 102 (54) | 102 (54) | 204 (108) |

Source: Mott MacDonald- Total vehicles shown (**HGV total in brackets)

The estimated AM peak hour movements were estimated to be 9 vehicle movements, all of which would be made by HGV. In the evening peak it was estimated the site generated one HGV movement. On a daily basis it was estimated that the site would generate 204 vehicle movements, of which 108 would be made by HGVs. The majority of vehicle movements associated with the site in its use as a GVTS would have been made outside of the network peaks.

#### 3.2.2.2 Use of the site as a temporary car park

A planning application has previously been approved for the use of the site as a temporary car park (planning application Ref PL/2021/10500) and the site is currently operating as a temporary car park.

Mott MacDonald produced a Transport Statement to accompany the temporary car park application. The traffic generation assessment was based on a 'worst case' scenario whereby 100% of all staff using the site would arrive by car to pick up their Royal Mail vehicle. The Transport Statement concluded that the proposed temporary use would not have a material impact on the transport network. Trip generation of the use as a temporary car park is summarised in Table 3.2 below.

**Table 3.2: Temporary car park trip generation**

| | Staff Vehicles | | | Royal Mail Vehicles | | | All Vehicles | | |
|---|---|---|---|---|---|---|---|---|---|
| Time | Arr | Dep | Total | Arr | Dep | Tot | Arr | Dep | Total |
| AM Peak 08:00– 09:00 | 27 | 0 | 27 | 0 | 27 | 27 | 27 | 27 | 53 |
| PM Peak 17:00 – 18:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Daily Total 24 Hour | 85 | 85 | 170 | 85 | 85 | 170 | 170 | 170 | 340 |

Source: Mott MacDonald

The AM peak hour trip generation is 53 movements, with no movements in the PM Peak. In a 24 hour period the site would generate 340 vehicle movements. No HGV movements would be generated.

## 3.3 Access by road

The site is accessible via Brunel Road, one of the main spine roads at Churchfields Industrial Estate. The main vehicle corridors into the industrial estate are Lower Road and Churchfields Road. The local road network is displayed below in Figure 3.3.

**Figure 3.3: Local road network**




Source: Openstreetmap

### 3.3.1 Key routes

#### 3.3.1.1 Brunel Road

The proposed development site is directly accessed via Brunel Road. Brunel Road connects to Lower Road to the north via a mini roundabout and from Telford Road to the south of the proposed development. Brunel Road is around 9m wide and parking is largely unrestricted away from junctions and access points. This means that cars use the carriageway for on street parking, but the width of the road is such that two-way traffic can still move in areas where cars are parked. Footways are provided on both sides of Brunel Road, separated from the carriageway by a grassed verge.

**Figure 3.4: Brunel Road**




Source: Mott MacDonald

#### 3.3.1.2 Lower Road

Lower Road is the primary access road to the Churchfields Industrial Estate from areas to the west of the proposed development site such as Bemerton and west-Salisbury. Lower Road is located 200m north of the proposed development site and is a two-lane road with an imposed vehicle weight restriction of 7.5 tonnes to the west of the Churchfields Industrial Estate. Lower Road is accessed from the west via Cherry Orchard Lane, however, there is a railway bridge over Cherry Orchard Lane to the north of its junction with Lower Road with a height restriction of 10'3" (3.12 metres) which restricts access for large vehicles via this route. There is a mini roundabout at the junction between Lower Road and Brunel Road. From here vehicles can access Brunel Road, turn around or continue straight to Churchfields Road. Vehicles exceeding 7.5 tonnes or 3.1m in height must therefore access Brunel Road from the east and cannot use the western section of Lower Road beyond the Industrial Estate.

Lower Road has footways on both sides of the road, is generally around 7.3m wide and is subject to double yellow parking restrictions along its southern side in the vicinity of the industrial estate.

**Figure 3.5: Lower Road**



Source: Mott MacDonald

#### 3.3.1.3 Churchfields Road

Churchfields Road is the primary access road to Churchfields Industrial Estate from areas to the east of the proposed development site including the town centre, Salisbury Train Station and the A36. Churchfields Road is around 7.3m wide with footways on both sides and is subject to double yellow parking restrictions along its southern side in the vicinity of the industrial estate. East of the industrial estate Churchfields Road is fronted by residential properties to the south and the train station car park to the north and parking is for residential permit holders only. It is accessed from Mill Road which is adjacent to Salisbury Train Station. The road becomes Lower Road at the junction with Farm Lane. On account of weight and height restrictions west of the industrial estate, HGVs are signed to use Churchfields Road for all access and egress to and from the industrial estate.

**Figure 3.6: Churchfields Road**



Source: Mott MacDonald

#### 3.3.1.4 Ashfield Road

Ashfield Road provides a direct link from Wilton Road to the north of the railway line to Lower Road. The road is two-way and is primarily bordered by residential uses. There is a railway bridge towards the south of the road prior to the junction with Lower Road (see image). As such, the road has an imposed height-restriction of 11'0" (3.35 metres).

**Figure 3.7: Ashfield Road**




Source: Mott MacDonald

#### 3.3.1.5 Cherry Orchard Lane

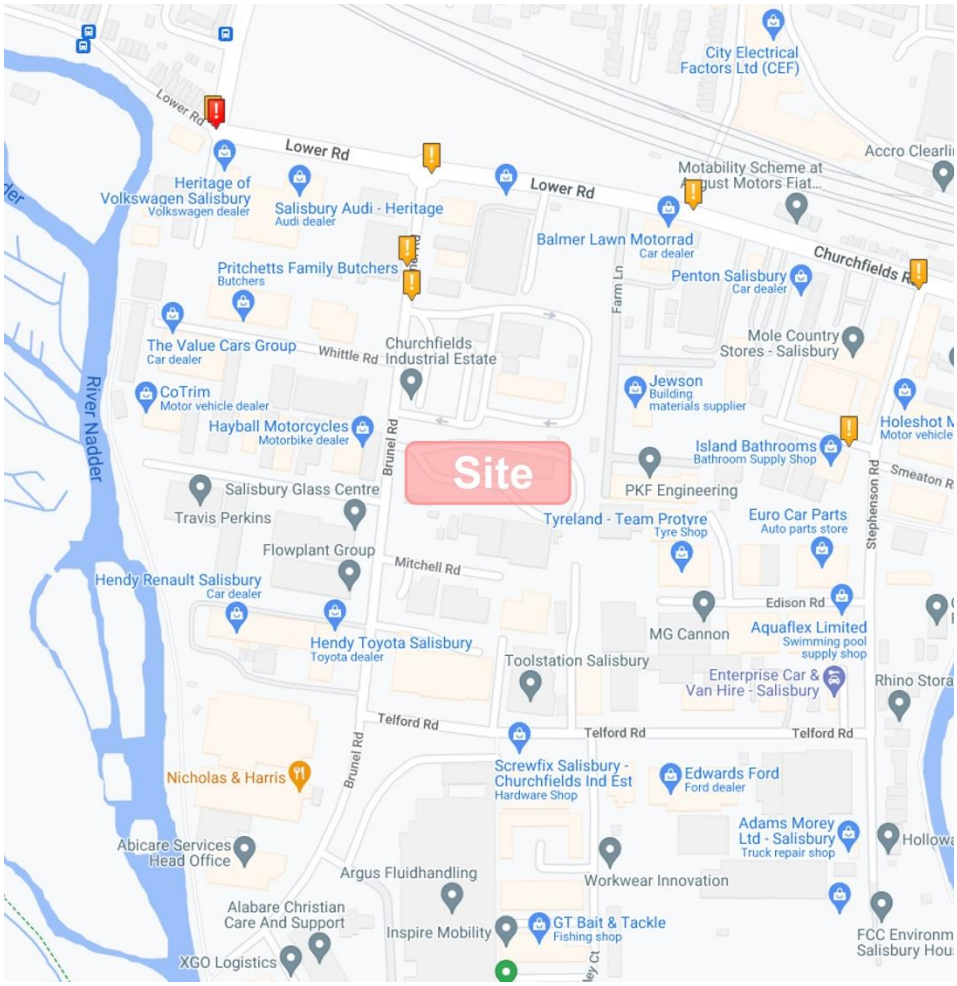
Cherry Orchard Lane provides the primary access to Lower Road from Bemerton and areas to the west of Salisbury town centre. The road is two-way and passes underneath a railway bridge with a maximum clearance of 10'3" (3.12 metres) restricting it's use as an access to the industrial estate by larger vehicles.

## 3.4 Road traffic collisions

Personal Injury Accident (PIA) records have been obtained from CrashMap for the most recent five-year period (2017-2021). It is important to note that while the 2020 and 2021 datasets have been included in the analysis, associated travel disruption caused by the COVID-19 pandemic occurred during this time.

A total of 8 collisions have been identified in the area surrounding the development site, 7 of which were classified as slight and one as serious. The collisions that occurred within the area surrounding the development site during this time period are illustrated in Figure 3.8 .

**Figure 3.8: Road traffic collisions**




Source: CrashMap (2017-2021)

A summary of the collisions is provided in Table 3.3 below:

**Table 3.3: Road traffic collisions summary**

| Location | Date | Severity | Description |
|---|---|---|---|
| Cherry Orchard Lane/Lower Road Jn | 14/05/2018 | Serious | Two vehicles and no cyclists involved |
| Cherry Orchard Lane/Lower Road Jn | 10/02/2017 | Slight | Two vehicles and one cyclist involved |
| Brunel Road | 05/09/2017 | Slight | Two vehicles and no cyclists involved |
| Brunel Road | 09/05/2018 | Slight | One vehicle and no cyclists involved |
| Brunel Road/Lower Road Jn | 03/08/2018 | Slight | Two vehicles and no cyclists involved |
| Churchfields Road/ Ashfield Road Jn | 11/09/2018 | Slight | Two vehicles and one cyclist involved |
| Churchfields Road / Stephenson Road Jn | 18/01/2018 | Slight | Two vehicles and one cyclist involved |
| Faraday Road | 12/01/2017 | Slight | One vehicle and no cyclists involved |

Source: CrashMap (2017-2021)

## 3.5 Parking

There are several car parks in the vicinity of the proposed development site. Local car parks are located to the east of the proposed development site towards Salisbury town centre. The following car parks are nearest to the site:

- **Salisbury Train Station Car Park (South Western Railway):** 0.6 miles from the site (13 minutes on foot). 287 parking spaces. Weekday full-day rate of £9.90, £3.50 on weekends.
- **Central Short Stay Car Park (Wiltshire Council):** 1 mile from the site (20 minutes on foot). 219 parking spaces, 3 hours maximum stay (£4.50). Free after 6pm.
- **The Maltings Car Park (Wiltshire Council):** 1 mile from the site (20 minutes on foot). 586 parking spaces, 3 hours maximum stay (£4.50). Free after 6pm.

## 3.6 Access by public transport

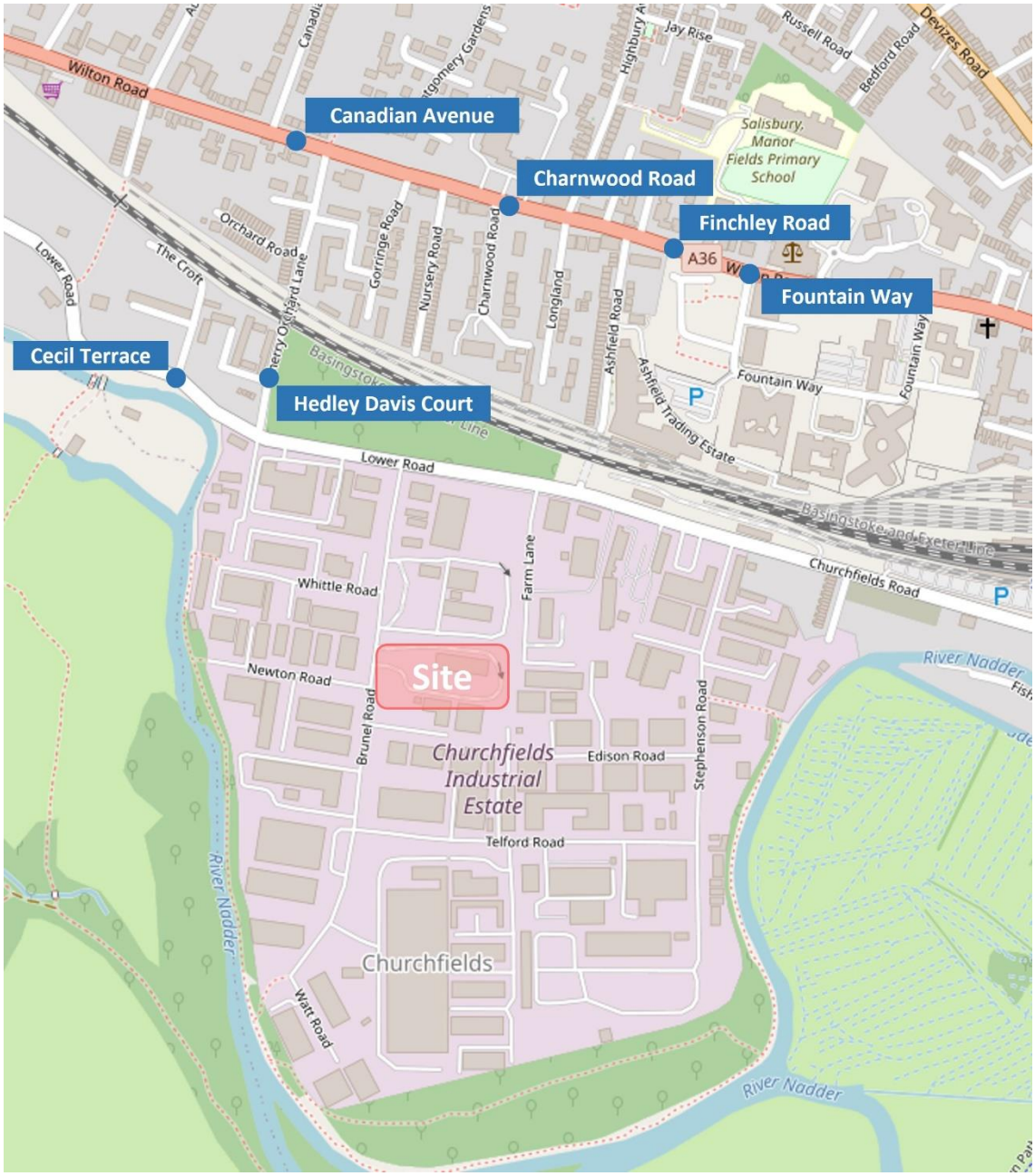
The proposed development site is accessible by public transport. An overview of access to the site by individual public transport modes is included below.

### 3.6.1 Bus

The Institution of Highways and Transportation (IHT) publication ‘Guidelines for Planning for Public Transport in Developments’ recommends a maximum walking distance to bus stops of 400m, with a preference for less than 300m.

There are several bus stops in the vicinity of the site (see Figure 3.9). The closest bus stop to the site is Hedley Davis Court, located on Cherry Orchard Lane, a walk of approximately 400m. The bus stop has a shelter and raised bus boarding kerbs. Pedestrians travelling to / from this bus stop can travel via the footpaths on Brunel Road and can utilise the pedestrian refuge island on Lower Road to cross over the road before turning onto Cherry Orchard Lane.

**Figure 3.9: Bus stop locations**




Source: Openstreetmap / Google Maps 2023

The available services and their corresponding frequencies are outlines below in Table 3.4 below:

**Table 3.4: Bus frequency**

| Bus Service | Route | Nearest Stop | Frequency (buses per hour) Weekdays* |
|---|---|---|---|
| R8 Red | Salisbury City Centre – Ditchampton | Hedley Davis Court | 1 |
| 2 | Salisbury - Devizes | Canadian Avenue | 1 |
| 24 | Salisbury – Warminster | Canadian Avenue | 0.5 |

| Bus Service | Route | Nearest Stop | Frequency (buses per hour) Weekdays* |
|---|---|---|---|
| 25 | Salisbury - Zeals, Tisbury or Wincanton | Canadian Avenue | 0.5 |
| 26 | Salisbury – Gillingham or Hindon | Canadian Avenue | 3 per day |
| 27 | Salisbury - Shaftesbury | Canadian Avenue | 2 per day |
| 56 | Salisbury - Warminster | Canadian Avenue | Tuesday, Friday 1 per day |
| PR3 Park & Ride | Salisbury City Centre - Bulbridge | Canadian Avenue | 2 |
| R10 | Salisbury City Centre - St Peter's Place | Canadian Avenue | 2 |
| R3 Red | Salisbury City Centre - Ditchampton | Canadian Avenue | 2 |
| 66 | Salibsury – Shipton Bellinger | Canadian Avenue | 1 per day |

Source: www.salisburyreds.co.uk and www.bustimes.org

### 3.6.2 Train

The closest rail station is Salisbury Station which is approximately 1km from the site and is located west of the town centre. The station is a step-free Category B station, meaning step-free access to the platform is available. There is no taxi rank at this station. Bicycle compounds and racks for a total of 110 bikes are located near the car park, platform 4 and platform 6.

The station is served by the Great Western Railway (GWR) and South Western Railway (SWR). The GWR operates direct trains to Westbury, Southampton Central, Brighton and Portsmouth harbour. The SWR has direct trains to Basingstoke, Exeter St David's and Bristol Temple Meads. The available services and their corresponding journey times and frequency are shown in Table 3.5.

**Table 3.5: Train frequency**

| Service | Journey Time (Approx.) | Frequency (trains per hour) Weekdays* |
|---|---|---|
| Westbury | 29 minutes | 2 |
| Southampton Central | 33 minutes | 2 |
| Portsmouth harbour | 1 hour 17 minutes | 1 |
| Basingstoke | 38 minutes | 2 |
| Exeter St David's | 1 hour 55 minutes | 2 |
| Bristol Temple Meads | 1 hour 10 minutes | 2 |

Source: National Rail

## 3.7 Access by walking and cycling

The proposed development site is well placed for trips on foot or by bicycle. The site is within 200 metres of National Cycle Route 24, which is located on Churchfields Road and Lower Road (Figure 3.10). On this section of the route cyclists share the carriageway with vehicles. There are footpaths along each of the local roads providing safe walking access to the site from bus stops, Salisbury Train Station, and surrounding areas. At the Lower Road roundabout junction with Brunel Road a pedestrian crossing of Lower Road, in the form of a dropped kerb crossing with a central island, is provided.

There is no direct walking or cycling access to Churchfields Industrial Estate from areas to the south of the river Nadder (Harnham). However, access to Lower Road from Harnham is possible via the 'Broken Bridges' track which follows the River Nadder from Middle Street. It takes approximately 20 minutes on foot or 5 minutes by bike to reach the proposed site via this route.

**Figure 3.10: Walking & cycle access**

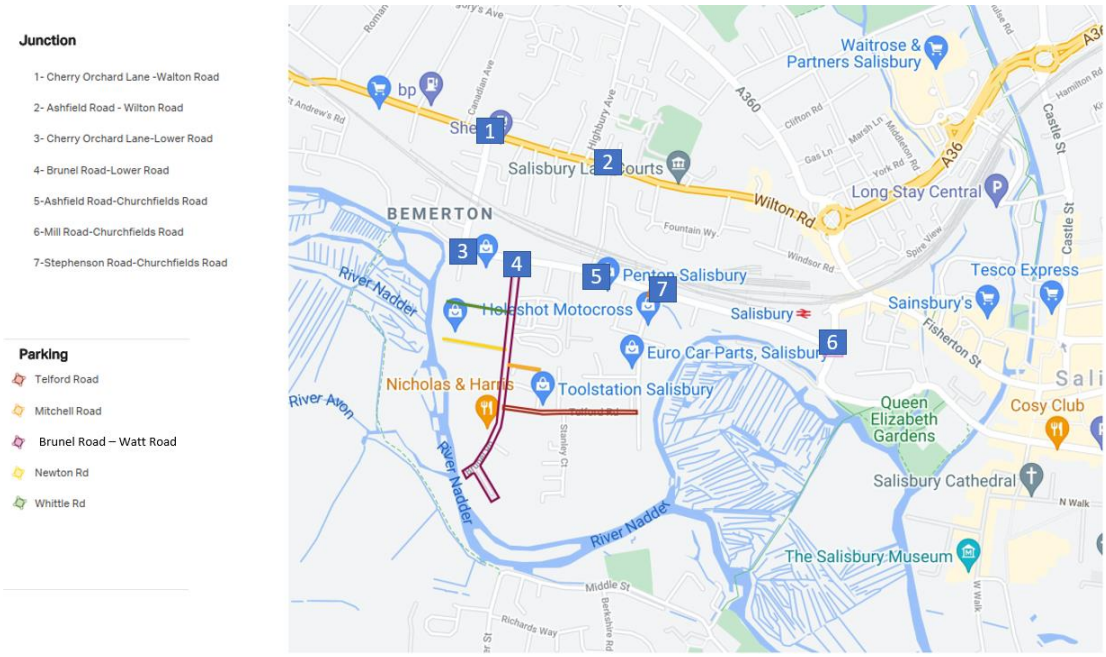



Source: Openstreetmap

# 4 Traffic Surveys

Traffic and parking surveys were undertaken in the vicinity of the development site in November 2021. The scope of the surveys was agreed in discussion with Wiltshire Highways. A plan of the surveyed area is shown in Figure 4.1 below.

**Figure 4.1: Survey Area**




Source: Mott MacDonald / Google Maps

## 4.1 Traffic Data

Traffic surveys were undertaken across the following 7 key junctions in proximity to the proposed development site:

1. Cherry Orchard Lane-Wilton Road
2. Ashfield Road-Wilton Road
3. Cherry Orchard Lane-Lower Road
4. Brunel Road-Lower Road
5. Ashfield Road-Churchfields Road
6. Mill Road-Churchfields Road
7. Stephenson Road-Churchfields Road

The location of these junctions can be seen in Figure 4.1 (above). The traffic survey was undertaken to determine the baseline traffic conditions on roads in proximity to the proposed site and to assess the likely traffic impacts on the local road network that the proposed development will have. The results of the traffic survey for each of the 7 junctions is presented in Table 4.1 for the times when the proposed development will generate most trips (Refer to Section 6, the proposed development will generate most trips between 09:00 – 10:00 and 14:00 – 15:00).

**Table 4.1: Junction baseline traffic data- traffic inflow at junctions- in PCU**

| Junction | AM total 09:00-10:00 | PM total 14:00-15:00 |
|---|---|---|
| Cherry Orchard Lane-Wilton Road | 1670 | 1646 |
| Ashfield Road-Wilton Road | 1411 | 1481 |
| Cherry Orchard Lane-Lower Road | 554 | 505 |
| Brunel Road-Lower Road | 762 | 676 |
| Ashfield Road-Churchfields Road | 644 | 634 |
| Mill Road-Churchfields Road | 933 | 969 |
| Stephenson Road-Churchfields Road | 817 | 859 |

Junction turning diagrams are shown in Appendix B. The traffic surveys demonstrate that the two junctions with Wilton Road have the highest traffic flow with over 1,400 PCU per hour in both peak periods. This is then followed by the Mill Road / Churchfields Road junction with over 900 PCU surveyed in each peak period. Traffic flow at the remaining junctions varies between 500 – 800 PCU per hour.

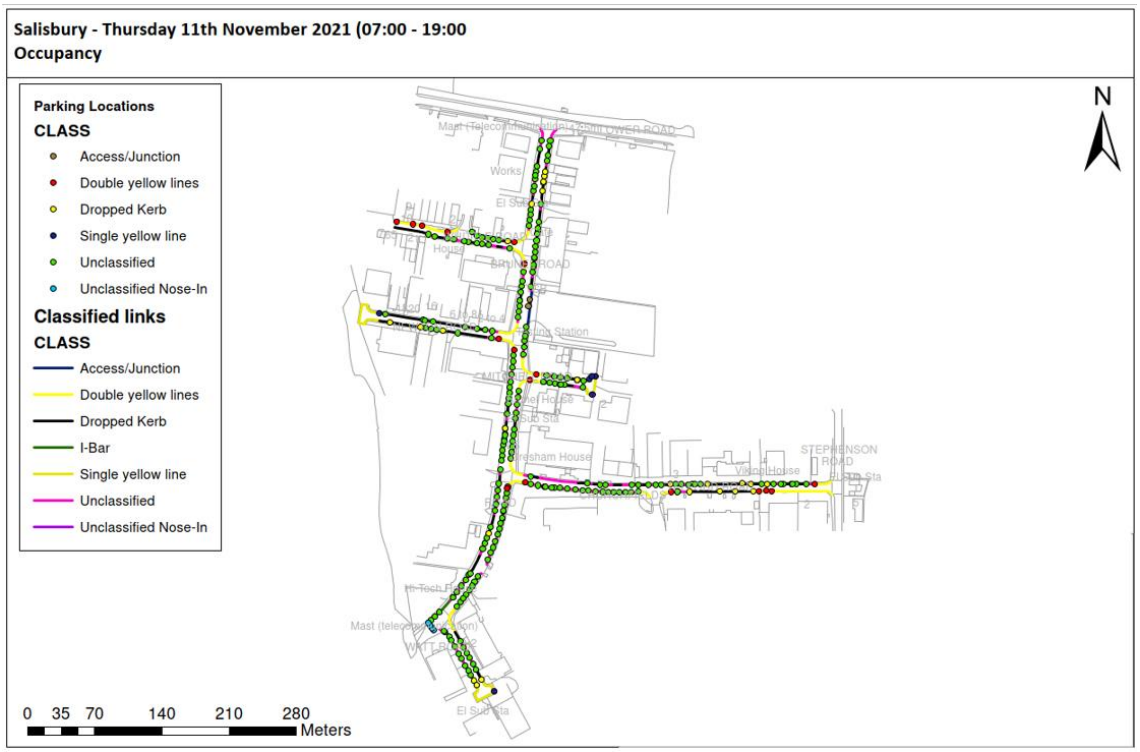
## 4.2 Parking Data

The parking occupancy survey was undertaken on Thursday 11th November. The survey was undertaken across the hours of 07:00-19:00 and surveyed parking locations (including on classified links) across the following location classes:

- Access/junction
- Double yellow lines
- Dropped kerb
- I-Bar
- Single yellow line
- Unclassified
- Unclassified nose-in

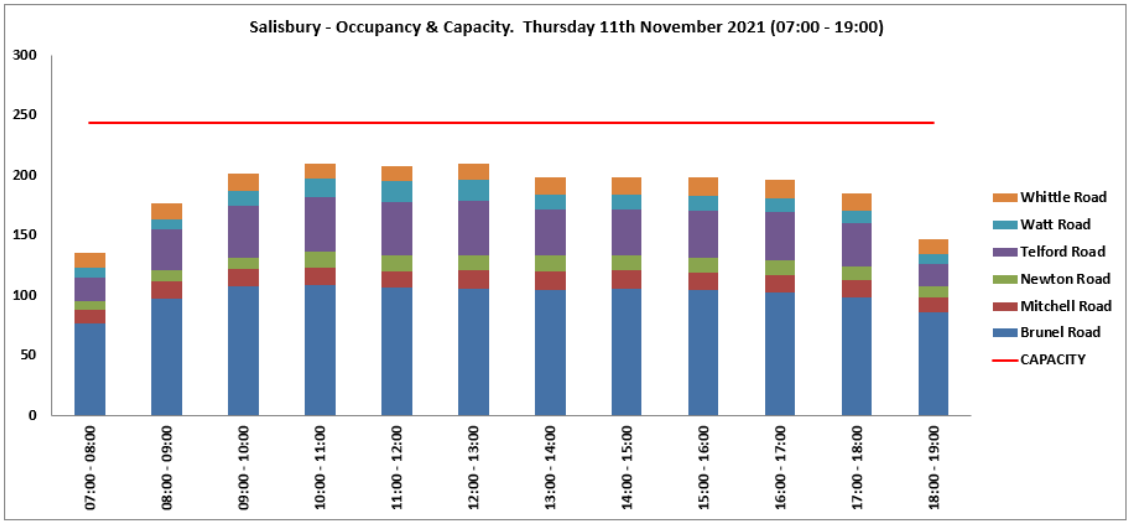
Figure 4.2 (below) shows the results of the parking occupancy classifications, Figure 4.3 summarises the survey results.

**Figure 4.2: Parking occupancy survey- zone classifications**




Source: Streetwise

**Figure 4.3: Parking survey results**




Source: Streetwise

In some instances across the surveyed site vehicles were observed parked on double yellow lines and across accesses/near to junctions. However, total capacity across all of the surveyed roads was not exceeded throughout the day.

A detailed breakdown of occupancy per road across the day is presented in Figure 4.4 (below). This includes the total number of parked vehicles, parking capacity, and occupancy percentage for each of the surveyed roads during each hour from 7am – 7pm.

**Figure 4.4: Parking Occupancy Stress Level**

| NUMBER OF VEHICLES PARKED (AT) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| STREET NAME | 07:00 - 08:00 | | | 08:00 - 09:00 | | | 09:00 - 10:00 | | | 10:00 - 11:00 | | | 11:00 - 12:00 | | | 12:00 - 13:00 | | |
| | CAP | TOT | %OCC | CAP | TOT | %OCC | CAP | TOT | %OCC | CAP | TOT | %OCC | CAP | TOT | %OCC | CAP | TOT | %OCC |
| Brunel Road | 126 | 77 | 61.1% | 126 | 97 | 77.0% | 126 | 108 | 85.7% | 126 | 109 | 86.5% | 126 | 107 | 84.9% | 126 | 106 | 84.1% |
| Mitchell Road | 13 | 11 | 84.6% | 13 | 15 | 115.4% | 13 | 14 | 107.7% | 13 | 14 | 107.7% | 13 | 13 | 100.0% | 13 | 15 | 115.4% |
| Newton Road | 13 | 7 | 53.8% | 13 | 9 | 69.2% | 13 | 9 | 69.2% | 13 | 14 | 107.7% | 13 | 13 | 100.0% | 13 | 12 | 92.3% |
| Telford Road | 55 | 20 | 36.4% | 55 | 34 | 61.8% | 55 | 44 | 80.0% | 55 | 45 | 81.8% | 55 | 45 | 81.8% | 55 | 46 | 83.6% |
| Watt Road | 19 | 8 | 42.1% | 19 | 8 | 42.1% | 19 | 12 | 63.2% | 19 | 15 | 78.9% | 19 | 17 | 89.5% | 19 | 17 | 89.5% |
| Whittle Road | 18 | 12 | 66.7% | 18 | 14 | 77.8% | 18 | 14 | 77.8% | 18 | 13 | 72.2% | 18 | 13 | 72.2% | 18 | 14 | 77.8% |
| TOTAL | 244 | 135 | 55.3% | 244 | 177 | 72.5% | 244 | 201 | 82.4% | 244 | 210 | 86.1% | 244 | 208 | 85.2% | 244 | 210 | 86.1% |

| NUMBER OF VEHICLES PARKED (AT) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| STREET NAME | 13:00 - 14:00 | | | 14:00 - 15:00 | | | 15:00 - 16:00 | | | 16:00 - 17:00 | | | 17:00 - 18:00 | | | 18:00 - 19:00 | | |
| | CAP | TOT | %OCC | CAP | TOT | %OCC | CAP | TOT | %OCC | CAP | TOT | %OCC | CAP | TOT | %OCC | CAP | TOT | %OCC |
| Brunel Road | 126 | 104 | 82.5% | 126 | 106 | 84.1% | 126 | 104 | 82.5% | 126 | 102 | 81.0% | 126 | 98 | 77.8% | 126 | 86 | 68.3% |
| Mitchell Road | 13 | 16 | 123.1% | 13 | 15 | 115.4% | 13 | 15 | 115.4% | 13 | 15 | 115.4% | 13 | 15 | 115.4% | 13 | 12 | 92.3% |
| Newton Road | 13 | 13 | 100.0% | 13 | 12 | 92.3% | 13 | 12 | 92.3% | 13 | 12 | 92.3% | 13 | 11 | 84.6% | 13 | 10 | 76.9% |
| Telford Road | 55 | 39 | 70.9% | 55 | 39 | 70.9% | 55 | 40 | 72.7% | 55 | 40 | 72.7% | 55 | 36 | 65.5% | 55 | 18 | 32.7% |
| Watt Road | 19 | 12 | 63.2% | 19 | 12 | 63.2% | 19 | 12 | 63.2% | 19 | 12 | 63.2% | 19 | 11 | 57.9% | 19 | 8 | 42.1% |
| Whittle Road | 18 | 14 | 77.8% | 18 | 14 | 77.8% | 18 | 15 | 83.3% | 18 | 15 | 83.3% | 18 | 14 | 77.8% | 18 | 13 | 72.2% |
| TOTAL | 244 | 198 | 81.1% | 244 | 198 | 81.1% | 244 | 198 | 81.1% | 244 | 196 | 80.3% | 244 | 185 | 75.8% | 244 | 147 | 60.2% |

Source: Streetwise

Average occupancy across all surveyed roads was at its highest between the hours of 10am-11am and 12am-1pm with a total average occupancy at 86.1%. The average occupancy across all roads throughout the day was 77.3%, and 55.3% at its lowest between 7am-8am. The average occupancy for each of the roads across the day were as follows:

- Brunel Road: 80%
- Mitchell Road: 109%
- Newton Road: 86%
- Telford Road: 68%
- Watt Road: 63%
- Whittle Road: 76%

Of the surveyed roads Mitchell Road had the highest occupancy percentage and was over capacity for each hour of the day from 8am-6pm, peaking between 1am-2pm at 123% capacity. However, due to the low capacity of the road (13), over-occupancy only translates to between one and three extra vehicles on the street. Each of the other surveyed roads remained below capacity throughout the day, with only Newton Road exceeding 100% capacity for one hour of the day between 10am-11am at one vehicle over capacity.

Brunel Road has the highest capacity of all surveyed roads with 126 vehicle parking spaces. At its highest surveyed occupancy level of 86.9% (109 parked vehicles) this results in 17 unoccupied spaces. In the early morning (7am – 8am) and evening (6pm – 7pm) occupancy is significantly lower, at 60-70%, resulting in between 40 and 50 unoccupied spaces.

# 5 Proposed Development

## 5.1 Overview

The proposed development consists of the following:

- New Royal Mail Delivery Office (18,476m²);
- Car and van parking;
  - 85 van / car parking spaces;
  - 1 x 17.5t loading bay;
  - 2 customer parking spaces;
  - 17 staff parking spaces;
  - 3 motorcycle spaces
- 60 cycle spaces (secure and covered).

A plan of the proposed development is shown in Figure 5.1 and at a larger scale in Appendix A.

**Figure 5.1: Proposed development layout**



Source: Watson Batty Architects

## 5.2 Access

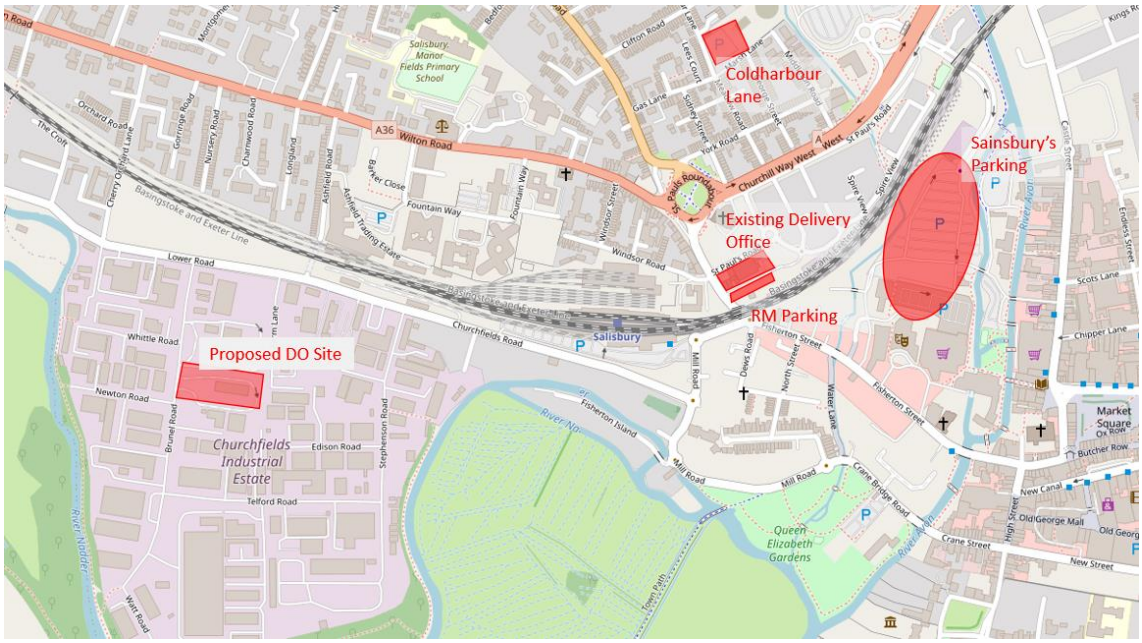
All access to the fleet parking area and for HGVs will be via the existing northern access junction to the site. The existing southern access junction will accommodate staff and customer cars. All pedestrians and cyclists accessing the site will do so via the southern junction.

## 5.3 Operation and Management

The development is proposed to be a replacement for the existing Salisbury DO located at Fisherton Street. The existing facility has very limited facilities for Royal Mail vehicle storage. Royal Mail has confirmed that there will be an increase of 12 staff with the proposed move to

Brunel Road, and a minimal change in the general mode of site operation with the exception of vehicle storage arrangements.

**Figure 5.2: Existing Royal Mail Delivery Office and car parks**




Source: OpenStreetMap

### 5.3.1 Existing operation of Royal Mail car parks and delivery office

As minimal parking is available at the existing DO, remote sites are currently used for Royal Mail vehicle storage. Royal Mail vehicles must be driven between the vehicle storage sites and the DO to pick up mail for delivery and to return the vehicles back to the car parks.

In recent years the Royal Mail has used a number of remote sites for vehicle storage purposes, these are illustrated in Figure 5.2:

- Coldharbour Lane in combination with Network Rail land outside the existing DO;
- The current arrangement is for 50 Royal Mail vehicles to be stored at Sainsbury's car park with around 30 on Network Rail land outside the existing DO.
- Royal Mail recently submitted a planning application for temporary use of the proposed development site as car parking / RM vehicle storage (planning Ref PL/2021/10500).

The existing operation is broadly summarised below and is based on information provided by Royal Mail:

- **Morning:** The majority of Royal Mail staff arrive at the existing car parks. Those driving leave their vehicles there. Staff then depart driving a Royal Mail vehicle to the DO to pick up post for wider delivery.
- **Early Afternoon** Remaining Royal Mail staff arrive at the existing car parks. Those driving leave their vehicles there. Staff then depart driving a Royal Mail vehicle to the DO to pick up post for wider delivery.
- **Mid Afternoon:** The majority of Royal Mail staff arrive at the existing car parks in Royal Mail vehicles. Those driving pick up their own cars and leave at the end of the working day.
- **Early Evening:** Remaining Royal Mail staff arrive at the existing car parks in Royal Mail vehicles. Those driving pick up their own cars and leave at the end of the working day.

The application PL/2021/10500 for temporary use of the site for vehicle storage was based on these broad operational details. The traffic movements between the remote parking sites and the DO are carefully managed so that the number of RM vehicles arriving at the existing DO to pick up mail does not exceed the limited area within the DO where vehicles can park. Accordingly trips for RM Mail vehicles to visit the DO are typically spread over 3 hour periods in the day.

### 5.3.2 Proposed operation of development site

The Brunel Road site will be equipped with storage for Royal Mail delivery vehicles – 85 spaces. Accordingly, Royal Mail vehicles will no longer need to travel between the DO and the remote car parking sites. The proposed development will reduce the number of Royal Mail traffic movements on the road network and allow for a more efficient operation. In addition, the arrival and departure of Royal Mail vehicles will no longer need to be staggered over long periods on account of a lack of space for them on the existing site.

The site will be managed and operated by Royal Mail. Access will be available on a 24-hour basis. Royal Mail will be responsible for maintaining and securing the site.

### 5.3.3 Cycle parking

The site will be equipped with secure, sheltered cycle storage for 60 bicycles. Taking into account the predicted staff cycle modal share at the site (Staff survey data in Section 6 revealed future demand for 55 cycle parking spaces) we consider this provision suitable to meet demand and accommodate modal shift towards cycling in future.

# 6 Transport Demand

## 6.1 Transport Demand

Staff travel surveys and detailed information on operational movements have been used to assess the transport demand to be generated by the proposed development. Royal Mail has provided information on staff movements and shift patterns which has informed this assessment.

## 6.2 Staff Travel Survey

A staff travel survey was undertaken by Royal Mail in November 2021 to determine how staff currently travel to work and how they propose to travel to the new site. In total there are 149 staff currently on site at the Fisherton DO, with 12 more staff proposed at the new site. The response rate to the survey was 100%.

Staff postcodes were provided within the survey to show staff household locations. This has allowed for detailed analysis to be undertaken showing staff walking and cycling access and journey times to the site, the number of staff living within the Salisbury district and the household locations of staff who propose to drive or get a lift to the new site.

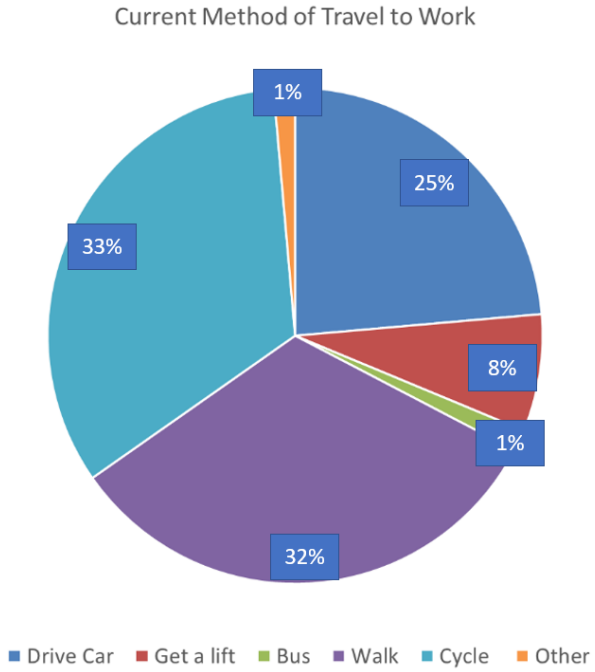
### 6.2.1 Current Method of Travel to Work

The staff travel survey showed that currently:

- 25% of staff drive to work (36 staff)
- 8% get a lift (11 staff)
- 1% travel by bus (2 staff)
- 32% walk (47 staff)
- 33% cycle (48 staff)
- 1% travel by other means (2 staff)

Figure 6.1 (below) shows a breakdown of the current travel methods.

**Figure 6.1: Staff Current Method of Travel to Work**




Source: Royal Mail Survey

### 6.2.2 Proposed Method of Travel to the New Site

Salisbury DO staff were asked how they envisage to the new DO site on Brunel Road when it opened. The survey showed that the proposed method of travel to the new site is largely unchanged from current travel methods to work. In total:

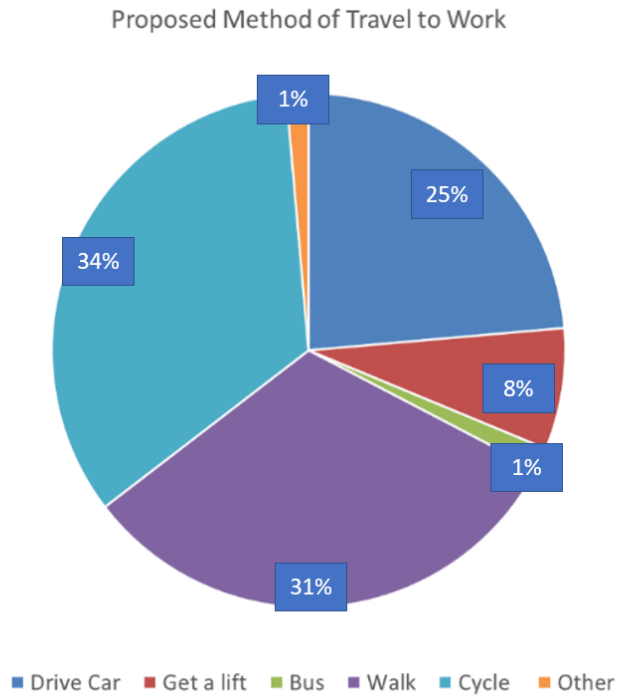
- 25% of staff will drive to the new site
- 8% staff will get a lift
- 1% staff will travel by bus
- 31% staff will walk
- 34% staff will cycle
- 1% staff will travel by other means

When applied to the 161 members of staff at the proposed DO:

- 39 staff will drive to the new site
- 12 staff will get a lift
- 2 staff will travel by bus
- 51 staff will walk
- 55 staff will cycle
- 2 staff will travel by other means

Figure 6.2 shows a breakdown of the proposed travel methods.

**Figure 6.2: Staff Proposed Method of Travel to Work**

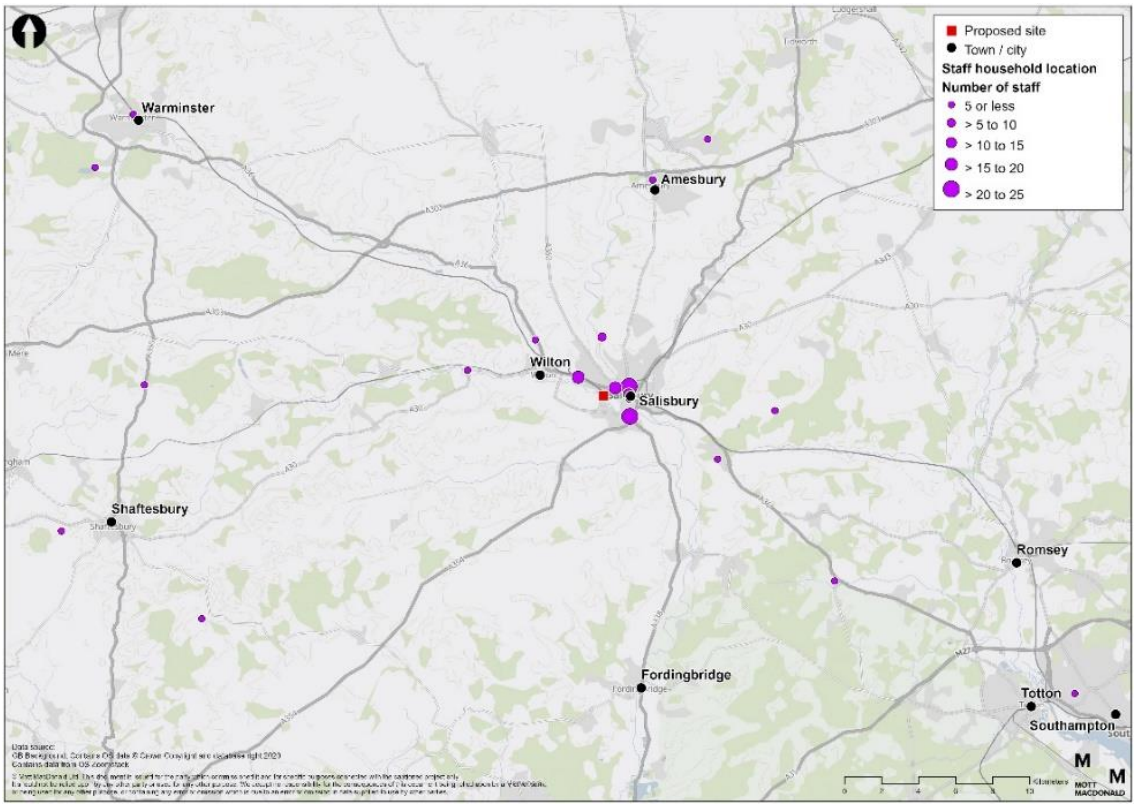



Source: Royal Mail Survey

### 6.2.3 Staff Household Locations

A map of staff household locations (Figure 6.3) has been compiled using postcode data provided within the Staff Travel Survey. Analysis of the postcodes shows that most staff, around 70% live within the Salisbury urban area with many near to the town centre. Around 30% of staff live outside of Salisbury in areas including Warminster, Shaftesbury and Southampton.

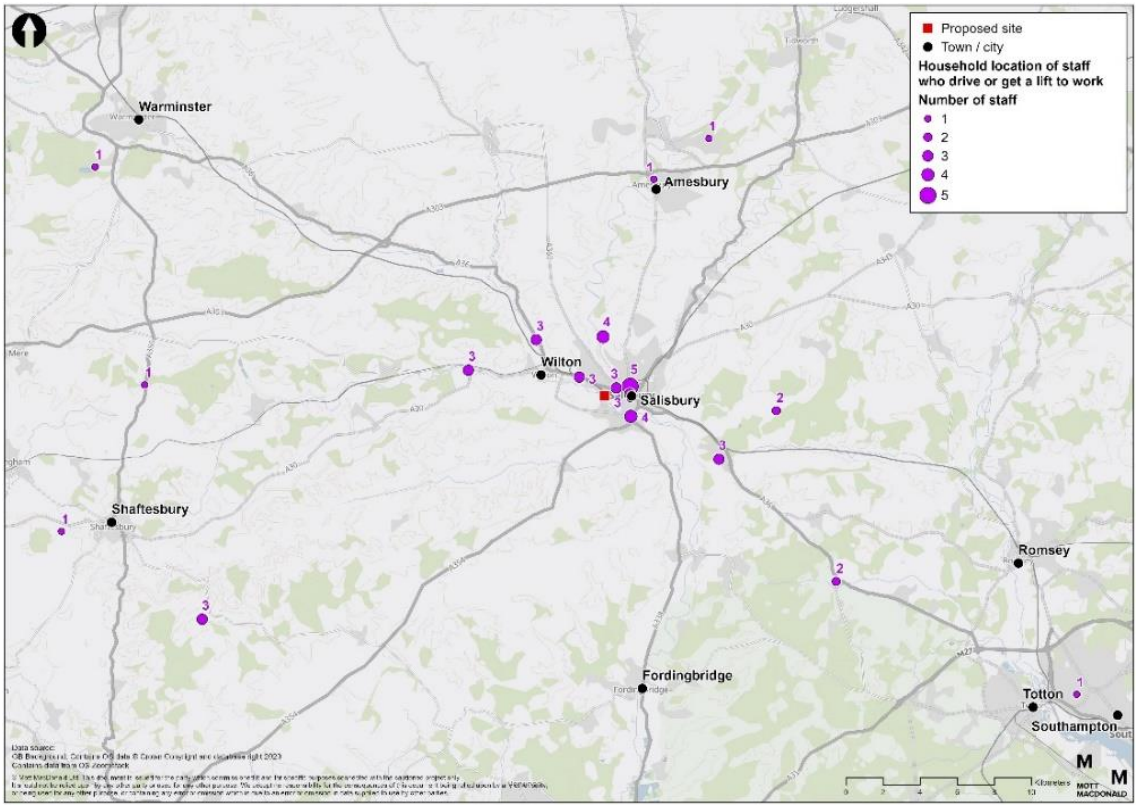
**Figure 6.3: Staff Household Locations**




Source: Royal Mail / Mott MacDonald

Figure 6.4 (below) isolates the household locations of staff who plan to drive or get a lift to the proposed site. This shows that many of the staff who plan to drive to the new site live within Salisbury and near to the proposed site.

**Figure 6.4: All Staff Driver & Lift Household Locations**

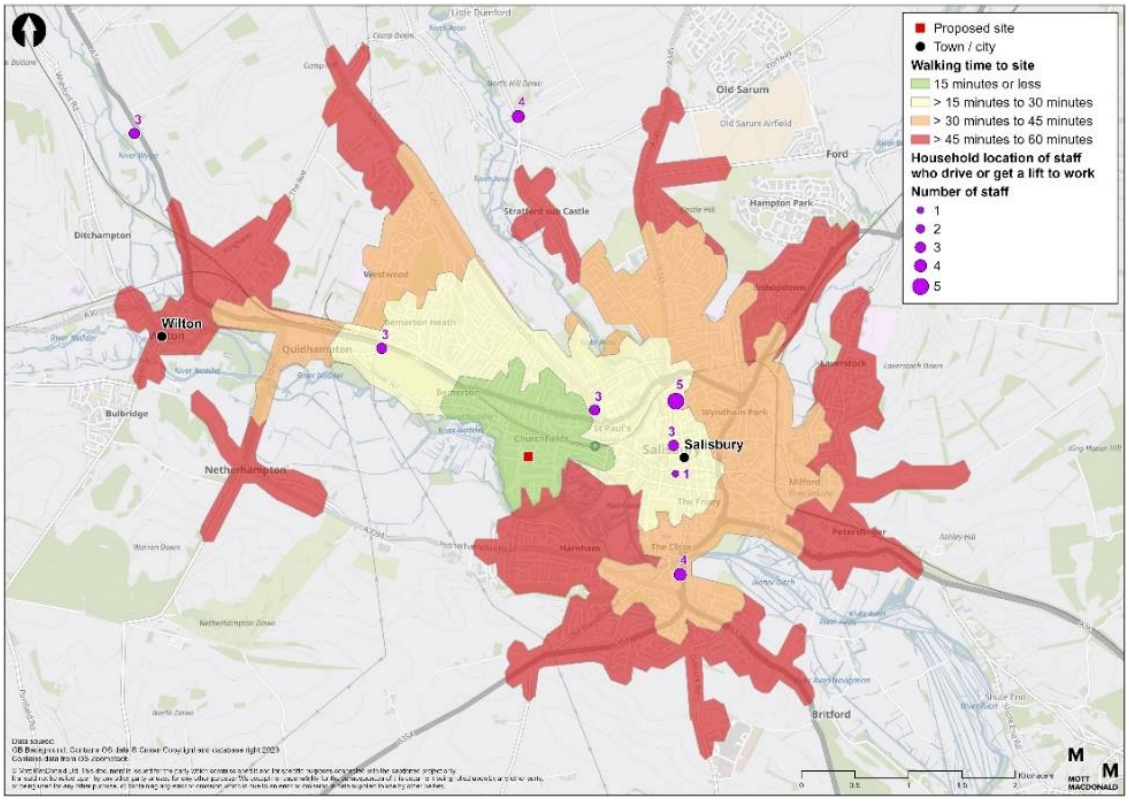



Source: Royal Mail / Mott MacDonald

### 6.2.4 Walking and Cycling Isochrones

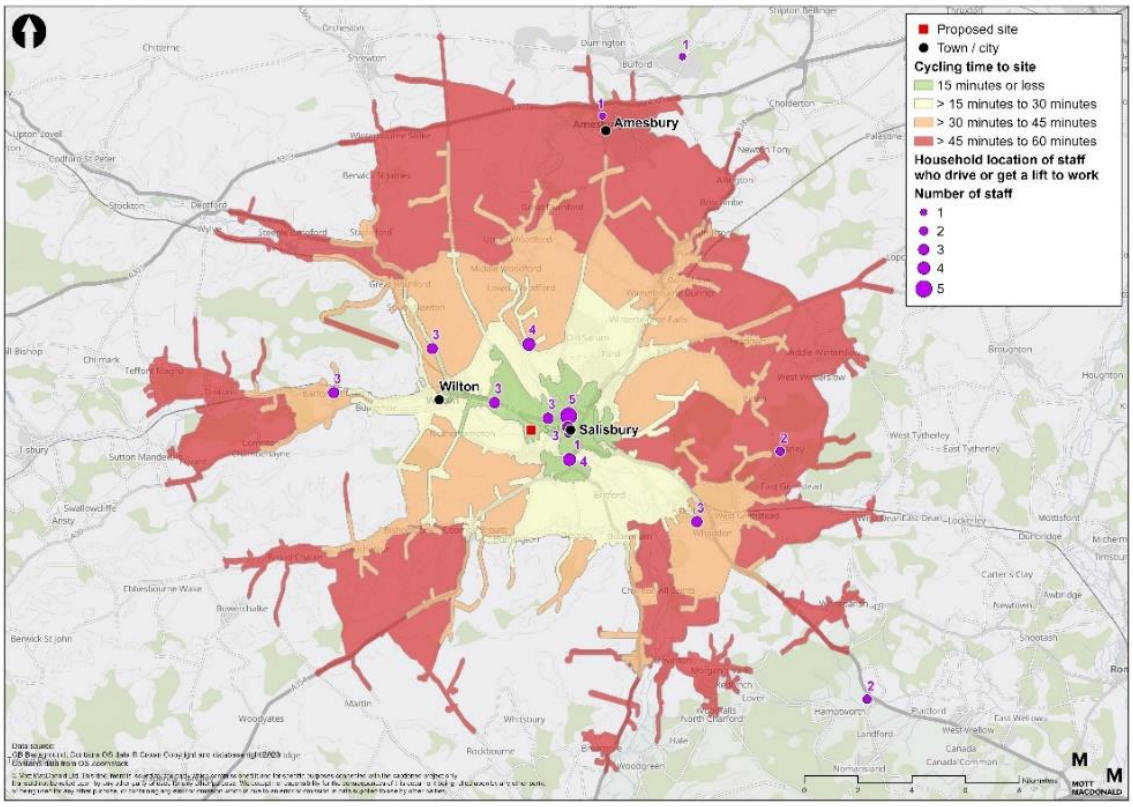
Figure 6.5 and Figure 6.6 isolate the household locations of staff who intend to drive or get a lift to the proposed site who live within a 60-minute walking and cycling distance of the site. The data shows that of the 47 staff who responded to the Travel Survey that they propose driving/getting a lift, 15 (32%) live within a 15–30-minute walking time of the site, and 19 (40%) within a 15 minute or less cycling journey time of the site.

**Figure 6.5: Driver & lift household locations with walking time to site**




Source: Royal Mail / Mott MacDonald

**Figure 6.6: Driver & lift household locations with cycling time to site**




Source: Royal Mail / Mott MacDonald

## 6.3 Proposed Development Traffic Trip Generation

Based on the data provided by Royal Mail and the staff travel survey results, the calculated trip generation of the proposed development is illustrated in Table 6.1. This includes the additional 12 staff members and RM vehicle movements for the proposed development, which have been applied to the forecast modal split within Figure 6.2. The majority of traffic movements to be generated by the site will take place outside of the network peak hours.

### Table 6.1: Proposed development vehicle trip generation

| | Staff vehicles | | | RM Vehicles | | | 17.5T | | | Visitors | | | All | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Time | Arrival | Departure | Total | Arrival | Departure | Total | Arrival | Departure | Total | Arrival | Departure | Total | Arrival | Departure | Total |
| 12:00:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 01:00:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 02:00:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 0 | 0 | 0 | 1 | 1 | 2 |
| 03:00:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:00:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:00:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 0 | 0 | 0 | 1 | 1 | 2 |
| 06:00:00 AM | 29 | 0 | 29 | 0 | 0 | 0 | 1 | 1 | 2 | 0 | 0 | 0 | 30 | 1 | 31 |
| 07:00:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:00:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 8 | 16 | 8 | 8 | 16 |
| **09:00:00 AM** | **0** | **0** | **0** | **0** | **80** | **80** | **0** | **0** | **0** | **8** | **8** | **16** | **8** | **88** | **96** |
| 10:00:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 8 | 8 | 16 | 9 | 9 | 18 |
| 11:00:00 AM | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 8 | 16 | 11 | 8 | 19 |
| 12:00:00 PM | 0 | 0 | 0 | 11 | 0 | 11 | 0 | 0 | 0 | 8 | 8 | 16 | 19 | 8 | 27 |
| **01:00:00 PM** | **0** | **0** | **0** | **80** | **0** | **80** | **0** | **0** | **0** | **8** | **8** | **16** | **88** | **8** | **96** |
| 02:00:00 PM | 8 | 29 | 37 | 0 | 10 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 39 | 47 |
| 03:00:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:00:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 8 | 16 | 8 | 8 | 16 |
| 05:00:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 8 | 16 | 8 | 8 | 16 |
| 06:00:00 PM | 0 | 8 | 8 | 10 | 11 | 21 | 1 | 1 | 2 | 8 | 8 | 16 | 19 | 28 | 47 |
| 07:00:00 PM | 0 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 |
| 08:00:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 09:00:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10:00:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:00:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Total** | **39** | **39** | **79** | **101** | **101** | **202** | **5** | **5** | **10** | **72** | **72** | **144** | **217** | **217** | **435** |

The total expected trip generation of the site over 24 hours is 425 vehicle movements and 10 17.5t lorry movements.

It is expected that there will be 39 two-way staff vehicle movements generated by the site. It is anticipated that the 12 staff members who get a lift to the site will be passengers within these 39 two-way trips of staff that are already travelling to the site.

In terms of visitor movements Royal Mail has stated they expect around 72 customers per day based on the existing Salisbury DO figures. The public facing element of the DO will operate similar opening hours to the existing DO, mainly being open between 08:00 – 14:00 and 16:00 – 19:00 on weekdays. A mode share of 100% customer trips by car has been assumed to provide a robust assessment.

The peak traffic generation of the site takes place between 09:00 and 10:00, and 13:00 and 14:00 when the site will generate 96 vehicle movements in each hour. These two hourly periods constitute around 44% of all daily trips. It is noted that the development is not expected to generate a significant volume of traffic vehicle trips in the morning or evening peak hours (08:00 – 09:00 & 17:00 – 18:00), generating only 16 movements in each of these periods.

Based on the data above the development will not generate significant vehicle trips during the network peak hours. Accordingly, impact assessments will be based on the impact of the development when it generates most traffic, 09:00 – 10:00 and 13:00 – 14:00.

# 7 Development Impact Assessment

## 7.1 Traffic Impact Methodology

From the data presented in Section 6 it is clear that the majority of staff travel to the site using sustainable modes. A staff travel plan has been prepared to accompany this planning application which sets out measures to further encourage sustainable travel.

### 7.1.1 Assessment Periods and Scenarios

In this section an assessment of the impact of the traffic to be generated by the site is provided. As set out in the previous section the development will not generate significant vehicle trips during the network peak hours. Accordingly, impact assessments will be based on impact of the development when it generates most traffic, 09:00 – 10:00 and 13:00 – 14:00.

An opening year of 2026 is assumed and a future year assessment date of 2028 (five years after planned planning submission).

Surveyed traffic data has been uplifted to these future years using Tempro to create future baseline traffic data. Surveyed and future baseline traffic flow diagrams are included in Appendix B.

### 7.1.2 Traffic Distribution

Based on surveyed turning movements the traffic generation of the site has been distributed on the Road Network. This is an appropriate methodology as development traffic during the assessment period is limited to Royal Mail vehicles and customers. The traffic flow diagrams for the assessment periods are shown in Appendix B. This development traffic has been added to the 2023 and 2026 future baseline traffic to produce base plus development diagrams, included in the same appendix.

### 7.1.3 Junction Assessments Scope

Junctions within the study area have been screened. Junctions where there is a forecast increase of 30 PCU during the peak hours as a result of the proposed development trips have been fully assessed using junction modelling software. Any other junctions have been screened out. This screening process is shown in Table 7.1 below.

**Table 7.1: Junction Assessment Screening**

| Junction | 09:00-10:00 | 14:00-15:00 | Detailed Assessment |
|---|---|---|---|
| Wilton Road / Cherry Orchard Lane | 36 | 34 | Yes |
| Lower Road / Cherry Orchard Lane | 42 | 41 | Yes |
| Lower Road / Brunel Road | 96 | 96 | Yes |
| Churchfields Road / Ashfield Road | 54 | 55 | Yes |
| Churchfields Road / Stephenson Road | 48 | 51 | Yes |
| Wilton Road / Ashfield Road / Finchley Road | 7 | 13 | No |
| Churchfields Road / Mill Road | 48 | 51 | Yes |

It should be noted that traffic potentially generated by the previous uses on the site (former GVTS testing site and temporary Royal Mail car park) has not been included in the baseline traffic data. Therefore, we consider that this is a highly robust assessment. If the previous use was accounted for, the level of 'increase' in traffic on the work on account of development would be smaller and therefore the number of junctions requiring assessment reduced.

## 7.2 Junction Assessment Results

Priority and roundabout junctions have been assessed using Junctions 9 industry standard software. Junction geometries have been measured from OS mapping and aerial photography.

In Junctions 9, a junction arm operating below 0.85 RFC (Ratio of Flow to Capacity) indicates it is operating within its design capacity. An RFC value above 0.85 can be taken to indicate a junction is operating close to or above its design capacity and could experience queueing and delay. Full model outputs are included as Appendix D.

### 7.2.1 Wilton Road / Cherry Orchard Lane

The results of the Wilton Road/Cherry Orchard Lane junction modelling are shown in Table 7.2. the modelling demonstrates that all of the traffic streams are operating within their design capacities in both the AM and PM assessment periods. It is anticipated that this will be the case through to 2028 including the proposed development traffic. The results of the modelling demonstrates that development will not have a material impact on the operation of the junction.

**Table 7.2: Wilton Road / Cherry Orchard Lane Junction Modelling Results**

| Stream | AM | | | PM | | |
|---|---|---|---|---|---|---|
| | Queue (PCU) | Delay (s) | RFC | Queue (PCU) | Delay (s) | RFC |
| **2021 Survey** | | | | | | |
| **Stream B-AC** | 0.7 | 13.42 | 0.41 | 1 | 17.77 | 0.51 |
| **Stream C-AB** | 0.7 | 10.13 | 0.4 | 0.4 | 9.56 | 0.28 |
| **2026 Base** | | | | | | |
| **Stream B-AC** | 0.7 | 13.95 | 0.42 | 1.2 | 19.46 | 0.54 |
| **Stream C-AB** | 0.8 | 10.36 | 0.42 | 0.40 | 9.85 | 0.3 |
| **2026 Base + Development** | | | | | | |
| **Stream B-AC** | 0.9 | 15.52 | 0.49 | 1.2 | 20.19 | 0.56 |
| **Stream C-AB** | 0.8 | 10.47 | 0.43 | 0.5 | 10.38 | 0.34 |
| **2028 Base** | | | | | | |
| **Stream B-AC** | 0.8 | 14.43 | 0.43 | 1.2 | 20.09 | 0.55 |
| **Stream C-AB** | 0.8 | 10.44 | 0.42 | 0.4 | 9.98 | 0.30 |
| **2028 Base + Development** | | | | | | |
| **Stream B-AC** | 1.0 | 16.11 | 0.50 | 1.3 | 20.94 | 0.57 |
| **Stream C-AB** | 0.8 | 10.52 | 0.43 | 0.6 | 10.56 | 0.35 |

Source: Mott MacDonald

### 7.2.2 Lower Road / Cherry Orchard Lane

The results of the Lower Road/Cherry Orchard Lane junction modelling are shown in Table 7.3. The modelling demonstrates that the junction is predicted to operate within its design capacity in 2026 and 2028 in both the with and without development traffic scenarios. We conclude therefore that the development will not have a material impact on the junction.

**Table 7.3: Cherry Orchard Lane / Lower Road Junction Modelling Results**

| Stream | AM | | | PM | | |
|---|---|---|---|---|---|---|
| | Queue (PCU) | Delay (s) | RFC | Queue (PCU) | Delay (s) | RFC |
| **2021 Survey** | | | | | | |
| **Stream B-ACD** | 0.1 | 9.71 | 0.05 | 0 | 9.41 | 0.04 |
| **Stream A-BCD** | 0.4 | 7.82 | 0.29 | 0.6 | 8.24 | 0.35 |
| **Stream D-ABC** | 0.9 | 11.39 | 0.46 | 0.5 | 8.95 | 0.31 |
| **Stream C-ABD** | 0 | 5.28 | 0.01 | 0 | 0 | 0 |
| **2026 Base** | | | | | | |
| **Stream B-ACD** | 0.1 | 9.78 | 0.05 | 0 | 9.48 | 0.04 |
| **Stream A-BCD** | 0.5 | 7.91 | 0.30 | 0.6 | 8.41 | 0.37 |
| **Stream D-ABC** | 0.9 | 11.68 | 0.48 | 0.5 | 9.08 | 0.32 |
| **Stream C-ABD** | 0 | 5.28 | 0.01 | 0 | 0 | 0 |
| **2026 Base + Development** | | | | | | |
| **Stream B-ACD** | 0.1 | 10.03 | 0.05 | 0 | 9.58 | 0.04 |
| **Stream A-BCD** | 0.6 | 8.54 | 0.35 | 0.6 | 8.50 | 0.37 |
| **Stream D-ABC** | 0.9 | 11.84 | 0.48 | 0.6 | 9.80 | 0.37 |
| **Stream C-ABD** | 0 | 5.40 | 0.01 | 0 | 0 | 0 |
| **2028 Base** | | | | | | |
| **Stream B-ACD** | 0.1 | 9.81 | 0.05 | 0 | 9.51 | 0.04 |
| **Stream A-BCD** | 0.5 | 7.94 | 0.30 | 0.7 | 8.49 | 0.37 |
| **Stream D-ABC** | 1 | 11.84 | 0.48 | 0.5 | 9.21 | 0.33 |
| **Stream C-ABD** | 0 | 5.29 | 0.01 | 0 | 0 | 0 |
| **2028 Base + Development** | | | | | | |
| **Stream B-ACD** | 0.1 | 10.07 | 0.05 | 0 | 9.62 | 0.04 |
| **Stream A-BCD** | 0.6 | 8.59 | 0.36 | 0.7 | 8.59 | 0.38 |
| **Stream D-ABC** | 0.9 | 12.06 | 0.49 | 0.6 | 9.97 | 0.38 |
| **Stream C-ABD** | 0 | 5.41 | 0.01 | 0 | 0 | 0 |

Source: Mott MacDonald

### 7.2.3 Lower Road / Brunel Road

The results of the Lower Road/Brunel Road Junction modelling are shown in Table 7.4. the modelling shows that each of the traffic streams are operating within their design capacities in both the AM and PM and are predicted to do so in the 2026 and 2028 assessment year. The modelling shows that the addition of development traffic at the junction does not have a material impact.

**Table 7.4: Lower Road / Brunel Road Junction Modelling Results**

| Stream | AM | | | PM | | |
|---|---|---|---|---|---|---|
| | Queue (PCU) | Delay (s) | RFC | Queue (PCU) | Delay (s) | RFC |
| **2021 Survey** | | | | | | |
| **1 - Lower Road East** | 0.3 | 3.69 | 0.24 | 0.3 | 3.5 | 0.23 |
| **2 - Brunel Road** | 0.4 | 8.49 | 0.31 | 0.6 | 9.75 | 0.37 |
| **3 - Lower Road West** | 0.6 | 6.51 | 0.38 | 0.3 | 5.5 | 0.25 |
| **2026 Base** | | | | | | |
| **1 - Lower Road East** | 0.3 | 3.73 | 0.25 | 0.3 | 3.55 | 0.24 |
| **2 - Brunel Road** | 0.5 | 8.66 | 0.32 | 0.6 | 10.10 | 0.39 |
| **3 - Lower Road West** | 0.6 | 6.64 | 0.39 | 0.4 | 5.59 | 0.26 |
| **2026 Base + Development** | | | | | | |
| **1 - Lower Road East** | 0.3 | 3.77 | 0.25 | 0.4 | 3.91 | 0.29 |
| **2 - Brunel Road** | 0.9 | 11.29 | 0.48 | 0.7 | 10.35 | 0.40 |
| **3 - Lower Road West** | 0.7 | 7.14 | 0.41 | 0.5 | 6.01 | 0.31 |
| **2028 Base** | | | | | | |
| **1 - Lower Road East** | 0.4 | 3.75 | 0.25 | 0.3 | 3.57 | 0.24 |
| **2 - Brunel Road** | 0.5 | 8.74 | 0.32 | 0.6 | 10.25 | 0.39 |
| **3 - Lower Road West** | 0.6 | 6.71 | 0.39 | 0.4 | 5.63 | 0.27 |
| **2028 Base + Development** | | | | | | |
| **1 - Lower Road East** | 0.3 | 3.79 | 0.26 | 0.4 | 3.93 | 0.29 |
| **2 - Brunel Road** | 0.9 | 11.42 | 0.48 | 0.7 | 10.55 | 0.41 |
| **3 - Lower Road West** | 0.7 | 7.19 | 0.41 | 0.5 | 6.05 | 0.32 |

Source: Mott MacDonald

### 7.2.4 Churchfields Road / Ashfield Road

The results of the Churchfields Road/Ashfield Road junction modelling are shown in Table 7.5. The modelling shows that the junction is predicted to operate within its design capacity in 2026 and 2028. The addition of development traffic does not have a material impact on the operation of the junction.

**Table 7.5: Churchfields Road / Ashfield Road Junction Modelling Results**

| Stream | AM | | | PM | | |
|---|---|---|---|---|---|---|
| | Queue (PCU) | Delay (s) | RFC | Queue (PCU) | Delay (s) | RFC |
| **2021 Survey** | | | | | | |
| **Stream B-AC** | 0.2 | 9.48 | 0.14 | 0.1 | 8.93 | 0.13 |
| **Stream C-AB** | 0.1 | 4.8 | 0.07 | 0.2 | 4.85 | 0.11 |
| **2026 Base** | | | | | | |
| **Stream B-AC** | 0.2 | 9.60 | 0.15 | 0.2 | 9.00 | 0.13 |
| **Stream C-AB** | 0.1 | 4.79 | 0.07 | 0.2 | 4.84 | 0.11 |
| **2026 Base + Development** | | | | | | |
| **Stream B-AC** | 0.2 | 9.94 | 0.15 | 0.2 | 9.43 | 0.15 |
| **Stream C-AB** | 0.1 | 4.84 | 0.07 | 0.2 | 4.73 | 0.11 |

| Stream | AM | | | PM | | |
|---|---|---|---|---|---|---|
| | Queue (PCU) | Delay (s) | RFC | Queue (PCU) | Delay (s) | RFC |
| **2028 Base** | | | | | | |
| **Stream B-AC** | 0.2 | 9.63 | 0.15 | 0.2 | 9.11 | 0.14 |
| **Stream C-AB** | 0.1 | 4.79 | 0.07 | 0.2 | 4.84 | 0.11 |
| **2028 Base + Development** | | | | | | |
| **Stream B-AC** | 0.2 | 10.04 | 0.15 | 0.2 | 9.55 | 0.15 |
| **Stream C-AB** | 0.1 | 4.84 | 0.07 | 0.2 | 4.73 | 0.12 |

Source: Mott MacDonald

### 7.2.5 Churchfields Road / Stephenson Road

The results of the Churchfields Road/Stephenson junction are summarised in Table 7.6. The table shows that the junction is predicted to operate within its design capacity in the 2026 and 2028 future years. The modelling demonstrates that the addition of development traffic at the junction does not make a material difference to the operation of the junction.

**Table 7.6: Churchfields Road / Stephenson Road Junction Modelling Results**

| Stream | AM | | | PM | | |
|---|---|---|---|---|---|---|
| | Queue (PCU) | Delay (s) | RFC | Queue (PCU) | Delay (s) | RFC |
| **2021 Survey** | | | | | | |
| **Stream B-AC** | 0.7 | 13.41 | 0.43 | 1 | 15.2 | 0.5 |
| **Stream C-AB** | 0.2 | 5.28 | 0.12 | 0.2 | 5.62 | 0.14 |
| **2026 Base** | | | | | | |
| **Stream B-AC** | 0.8 | 13.85 | 0.44 | 1.1 | 16.08 | 0.52 |
| **Stream C-AB** | 0.2 | 5.30 | 0.12 | 0.2 | 5.66 | 0.15 |
| **2026 Base + Development** | | | | | | |
| **Stream B-AC** | 0.8 | 14.24 | 0.45 | 1.1 | 17.07 | 0.54 |
| **Stream C-AB** | 0.2 | 5.11 | 0.13 | 0.3 | 5.75 | 0.15 |
| **2028 Base** | | | | | | |
| **Stream B-AC** | 0.8 | 14.08 | 0.45 | 1.1 | 16.45 | 0.53 |
| **Stream C-AB** | 0.2 | 5.29 | 0.12 | 0.3 | 5.67 | 0.15 |
| **2028 Base + Development** | | | | | | |
| **Stream B-AC** | 0.8 | 14.48 | 0.46 | 1.2 | 17.51 | 0.55 |
| **Stream C-AB** | 0.2 | 5.11 | 0.13 | 0.3 | 5.77 | 0.16 |

Source: Mott MacDonald

### 7.2.6 Churchfields Road / Mill Road

The results of the Churchfields Road/Mill Road junction modelling are summarised in Table 7.7. The traffic streams will operate within their design capacities in the future rear assessments. The addition of development traffic in these years does not make a material difference to the operation of the junction.

**Table 7.7: Churchfields Road / Mill Road Junction Modelling Results**

| Stream | AM | | | PM | | |
|---|---|---|---|---|---|---|
| | Queue (PCU) | Delay (s) | RFC | Queue (PCU) | Delay (s) | RFC |
| **2021 Survey** | | | | | | |
| **1 - Mill Road (N)** | 0.4 | 6.08 | 0.31 | 0.5 | 6.07 | 0.32 |
| **2 - Mill Road (S)** | 0.5 | 5.27 | 0.33 | 0.6 | 5.64 | 0.37 |
| **3 - Churchfields Road** | 1 | 8.82 | 0.51 | 1.1 | 9.14 | 0.52 |
| **2026 Base** | | | | | | |
| **1 - Mill Road (N)** | 0.5 | 6.19 | 0.32 | 0.5 | 6.23 | 0.33 |
| **2 - Mill Road (S)** | 0.5 | 5.36 | 0.34 | 0.3 | 4.59 | 0.22 |
| **3 - Churchfields Road** | 1.1 | 9.11 | 0.52 | 0.9 | 7.51 | 0.47 |
| **2026 Base + Development** | | | | | | |
| **1 - Mill Road (N)** | 0.5 | 6.36 | 0.33 | 0.6 | 6.54 | 0.37 |
| **2 - Mill Road (S)** | 0.5 | 5.39 | 0.34 | 0.3 | 4.84 | 0.24 |
| **3 - Churchfields Road** | 1.4 | 10.42 | 0.58 | 0.9 | 7.59 | 0.48 |
| **2028 Base** | | | | | | |
| **1 - Mill Road (N)** | 0.5 | 6.23 | 0.32 | 0.5 | 6.30 | 0.34 |
| **2 - Mill Road (S)** | 0.5 | 5.41 | 0.34 | 0.3 | 4.62 | 0.22 |
| **3 - Churchfields Road** | 1.1 | 9.26 | 0.53 | 0.9 | 7.63 | 0.48 |
| **2028 Base + Development** | | | | | | |
| **1 - Mill Road (N)** | 0.5 | 6.40 | 0.33 | 0.6 | 6.61 | 0.37 |
| **2 - Mill Road (S)** | 0.5 | 5.44 | 0.35 | 0.3 | 4.88 | 0.25 |
| **3 - Churchfields Road** | 1.4 | 10.61 | 0.59 | 0.9 | 7.68 | 0.49 |

Source: Mott MacDonald

## 7.3 Parking Impact

Parking standards applicable within the Wiltshire Local Authority area are set out in the Wiltshire Local Transport Plan 2011 – 2026. It should be noted that a Royal Mail Delivery Office is a ‘sui generis use’ and therefore not specifically identified within the parking standards. As such this transport Assessment provides a robust justification for the parking provision in this section.

The site will accommodate the following:

- 85 van / car parking spaces for Royal Mail Vehicles;
- 1 x 17.5t loading bay;
- 2 customer parking spaces;
- 17 staff parking spaces

### 7.3.1 Royal Mail Vehicles

Royal Mail vehicles and vans will have 85 spaces on site available to them. This reflects the broad number of vehicles operating out of the existing DO at Fisherton Street. Royal Mail have confirmed that 96 vehicles will be used at the new DO site. It is envisaged that the extra 11 vehicles will be taken home by staff, and the loading of vehicles will be phased so that the operational parking capacity of the site is not exceeded.

It should be noted that it would not be desirable nor sustainable to provide fewer car / van parking spaces for Royal Mail vehicles than necessary. Should fewer than necessary be

provided this would result in a situation where Royal Mail vehicles would park at a remote site - a similar situation to the existing Royal Mail DO at Fisherton Street resulting in additional vehicle trips on the network.

### 7.3.2 Staff cars

17 staff parking spaces will be provided on site. It has been noted previously that there will be 39 staff vehicle trips to the site per day An analysis of the staff the trip generation profile in Table 6.1Table 6. shows that there will be a maximum demand for staff car parking spaces of 32.

17 staff parking spaces will be provided leaving an excess demand of 15 spaces. Mott MacDonald has undertaken a detailed assessment of staff travel based on survey data. This is included as Section 6.2. The survey data presented shows that a significant proportion of those who stated in the survey they will drive to the new Delivery Office live within cycle or walking distance of the site. Furthermore, a Staff Travel Plan has been prepared to accompany this planning application, which contains measures to encourage sustainable staff travel.

The parking surveys as presented in Section 4 indicate there is sufficient capacity on the streets surrounding the site to accommodate 15 additional vehicles if necessary. In light of this we consider that the provision of 17 staff parking spaces is reasonable in the interests of encouraging sustainable travel and is unlikely to result in a severe impact on the transport network.

### 7.3.3 Customer cars

Two customer car parking spaces are provided. Royal Mail has stated that this level of provision will be sufficient and reflects the typical level of demand for customer parking at similar sites elsewhere. The DO office will generate in the region of 72 two-way trips per day (based on a robust assessment of 100% car mode share). Royal Mail has stated that typically most visits only last between 5 and 7 minutes. On this basis we consider that the provision of 2 spaces will be adequate to accommodate the demand.

### 7.3.4 17.5t Vehicles

Table 6.1 sets out the predicted profile of 17.5t Royal Mail vehicles at the site. One bay will be provided for the site. Taking into account the frequency of visits by these vehicles (5 per day) we consider that this provision is suitable for the level of demand predicted.

### 7.3.5 Cycle Parking

60 sheltered and secure cycle spaces will be provided for staff. The staff survey included in Section 6.2 finds that 55 staff state they will cycle to the new DO. We consider that the provision of 60 spaces is sufficient to accommodate the level of predicted demand with spare capacity to accommodate any growth in this mode.

Customers may also use these cycle stands should they travel to the site by this mode.

# 8 Summary & Conclusions

This Transport Assessment has been prepared in support of a Royal Mail Delivery Office (DO) at Brunel Road, Salisbury. The site was previously used as a goods vehicle testing site and is currently vacant. The site also has planning permission for use as a temporary car park for Royal Mail. The new DO will be a replacement for the existing Salisbury DO which is located on Fisherton Street, Salisbury.

An accessibility assessment of the development site by all modes has been undertaken. The assessment concluded that the site is accessible by sustainable travel modes, including public transport, cycling, and walking. The site is served by key bus routes stopping on Wilton Road and Cherry Orchard Lane, is located near to National Cycle Routes, and is easily accessed on foot via local streets. The site is accessible by motor vehicle via Brunel Road, linking to Churchfields Road that provides access from areas towards the town centre. A check on vehicle collision records does not indicate any current road safety issue in the area.

Traffic surveys and parking surveys have been undertaken on the local road network to establish baseline traffic conditions. A staff travel survey has been undertaken to establish how Royal Mail staff currently travel to the existing Salisbury DO and how they will travel to the new facility. The survey reveals that 74% of staff travel sustainably to work to the existing DO (walking, cycling, public transport, car share), and that 75% intend to travel sustainably once the proposed DO opens.

Traffic analysis has been undertaken based on data provided by Royal Mail and the staff travel survey. Development traffic has been distributed on the network and its impact on junctions on local roads assessed. The impact assessment used Junctions 9 traffic modelling software. The analysis demonstrates that the development will not have a material impact on the operation of the road network. The proposed level of parking (for vehicles and cycles) has been assessed with the conclusion there will be sufficient.

Based on the analysis presented in this Transport Assessment the development will not have a severe impact on the surrounding transport network. Considering this we see no transport-related reason for objection to this planning application.

# Appendices

# A. Site plan




Proposed Site Plan
1 : 200

0m 4m 8m 12m 16m 20m

VISUAL SCALE 1:200

**KEY**

- **Site Boundary**
- **2.4m high palisade fence**
- **Electric Vehicle Charging**
- **SOFT LANDSCAPE**
  **(Refer to the Planting Schedule, SAL-HLM-00-00-DR-L-4500)**
- **Understorey Planting to Woodland/ Existing Planting Areas**
- **Proposed Species Rich Wildflower Meadow**
- **Proposed Trees**
- **Tree Protection Barrier**
  **((Refer to Detail, SAL-HLM-00-00-DR-L-4500)**
- **ECOLOGICAL ENHANCEMENT**
- **Proposed Bird Box**
- **Proposed Bat Box**

| Rev: | Date: | Drawn: | Checked: | Description: |
|---|---|---|---|---|

Suitability:
PL Planning

## Salisbury Delivery Office

## Proposed Site Plan

Location:
Brunel Rd,
Salisbury
SP2 7PU

Client:
Royal Mail Group LTD (RMG)

| UPRN | Originator | Zone | Level | Type | Role | Series/Number | Revision: |
|---|---|---|---|---|---|---|---|
| | | | | | | RMSDO-WBA-SI-00-DR-A-PL_003 | |

| Date: | Drawn: | Checked: | Scale: @A0 | 1nt Job No: |
|---|---|---|---|---|
| 13/09/2023 | BP | SH | As indicated | 3500-183 |

WATSON BATTY ARCHITECTS
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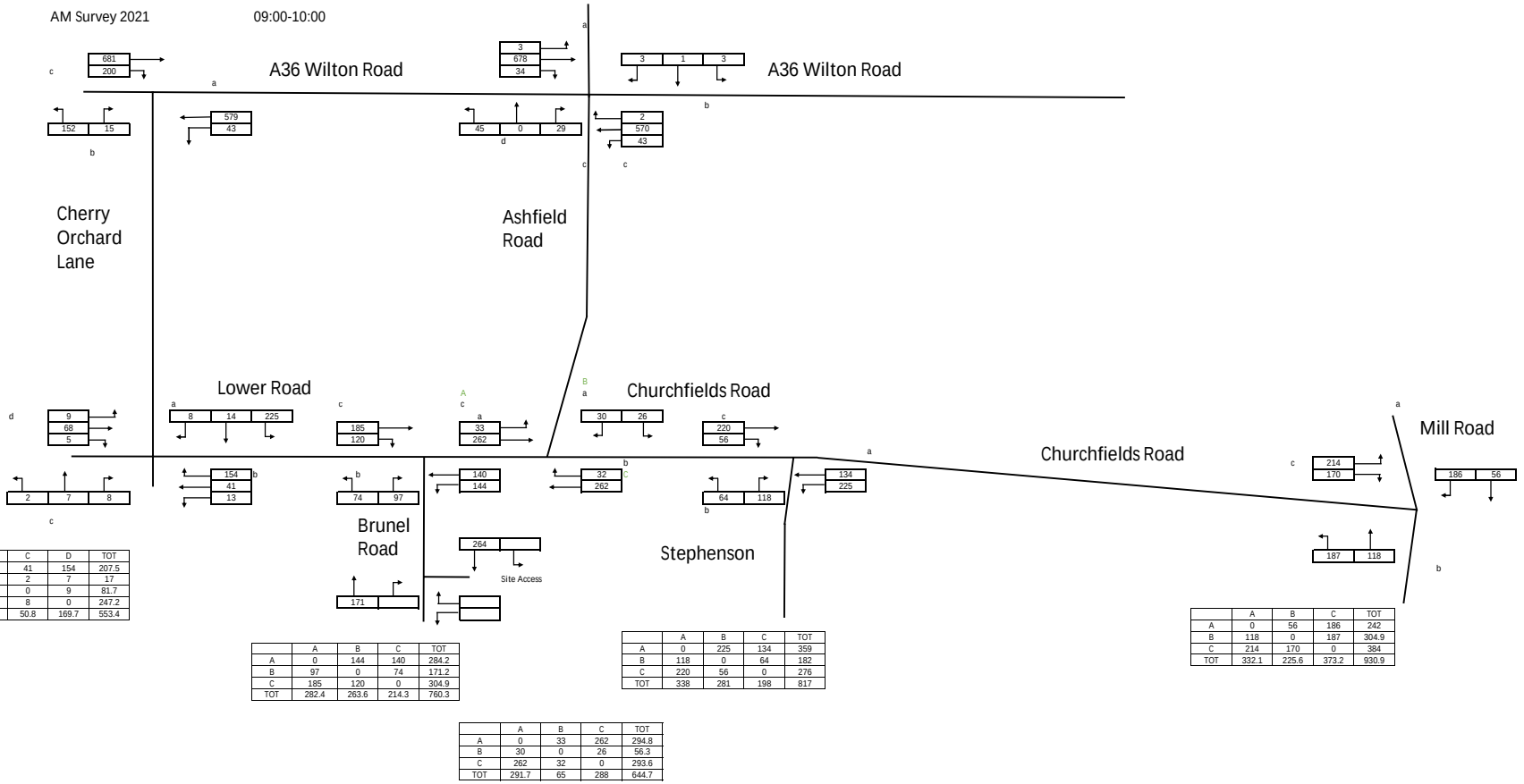
E: enquiries@watsonbatty.com
W: www.watsonbatty.com

FUTURE BUILT

Note: Do not Scale from this drawing. All dimensions to be checked on site

# B. Traffic Flow Diagrams

| | A | B | C | TOT |
|---|---|---|---|---|
| A | 0 | 43 | 579 | 622.4 |
| B | 15 | 0 | 152 | 166.7 |
| C | 681 | 200 | 0 | 881.1 |
| TOT | 696 | 243.1 | 731.1 | 1670.2 |




| | A | B | C | D | TOT |
|---|---|---|---|---|---|
| A | 0 | 13 | 41 | 154 | 207.5 |
| B | 8 | 0 | 2 | 7 | 17 |
| C | 68 | 5 | 0 | 9 | 81.7 |
| D | 225 | 14 | 8 | 0 | 247.2 |
| TOT | 300.9 | 32 | 50.8 | 169.7 | 553.4 |

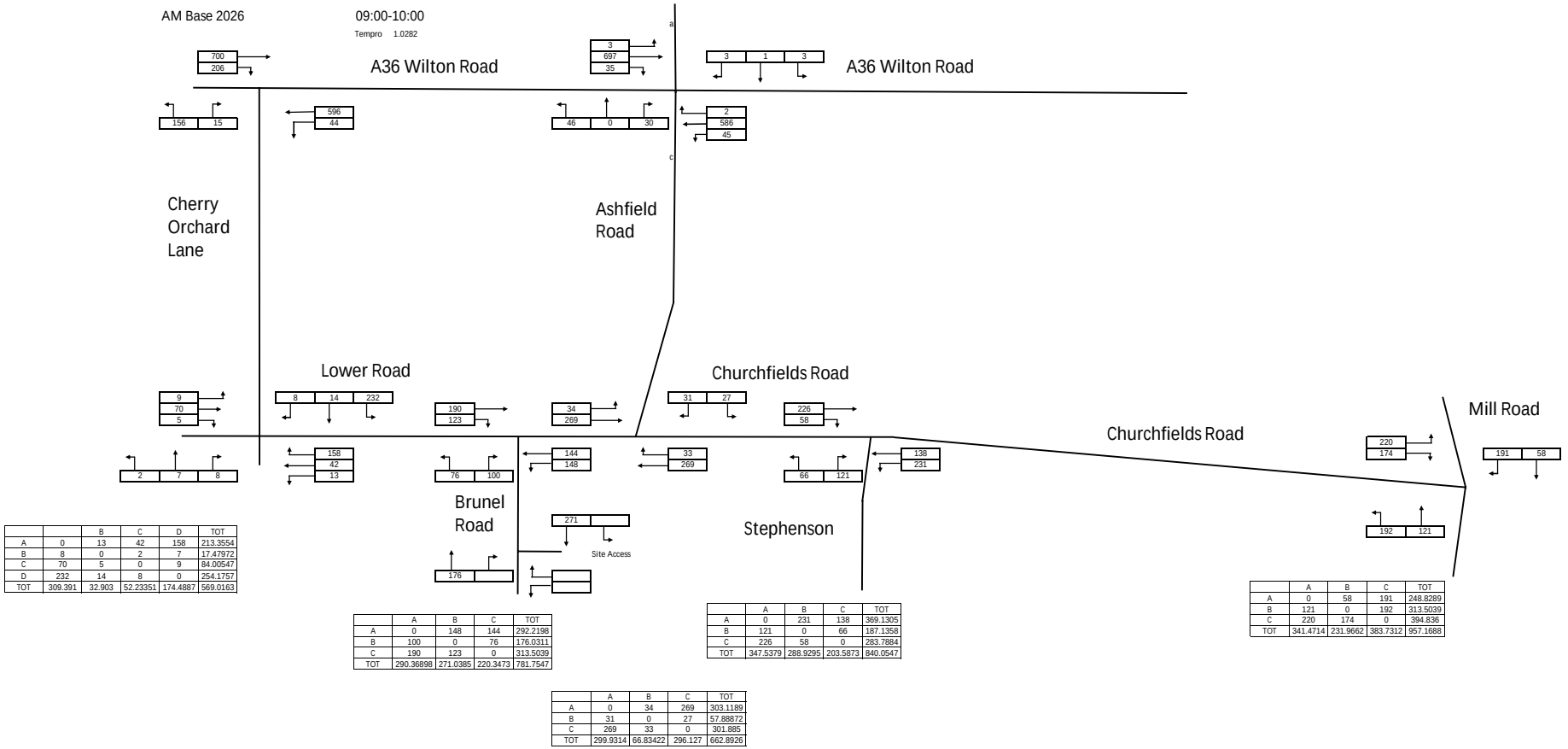
| | A | B | C | TOT |
|---|---|---|---|---|
| A | 0 | 144 | 140 | 284.2 |
| B | 97 | 0 | 74 | 171.2 |
| C | 185 | 120 | 0 | 304.9 |
| TOT | 282.4 | 263.6 | 214.3 | 760.3 |

| | A | B | C | TOT |
|---|---|---|---|---|
| A | 0 | 33 | 262 | 294.8 |
| B | 30 | 0 | 26 | 56.3 |
| C | 262 | 32 | 0 | 293.6 |
| TOT | 291.7 | 65 | 288 | 644.7 |

| | A | B | C | TOT |
|---|---|---|---|---|
| A | 0 | 225 | 134 | 359 |
| B | 118 | 0 | 64 | 182 |
| C | 220 | 56 | 0 | 276 |
| TOT | 338 | 281 | 198 | 817 |

| | A | B | C | TOT |
|---|---|---|---|---|
| A | 0 | 56 | 186 | 242 |
| B | 118 | 0 | 187 | 304.9 |
| C | 214 | 170 | 0 | 384 |
| TOT | 332.1 | 225.6 | 373.2 | 930.9 |

| | A | B | C | TOT |
|---|---|---|---|---|
| A | 0 | 44 | 596 | 639.9634 |
| B | 15 | 0 | 156 | 171.4041 |
| C | 700 | 206 | 0 | 905.9635 |
| TOT | 715.6403 | 249.96 | 751.7307 | 1717.331 |




| | | B | C | D | TOT |
|---|---|---|---|---|---|
| A | 0 | 13 | 42 | 158 | 213.3554 |
| B | 8 | 0 | 2 | 7 | 17.47972 |
| C | 70 | 5 | 0 | 9 | 84.00547 |
| D | 232 | 14 | 8 | 0 | 254.1757 |
| TOT | 309.391 | 32.903 | 52.23351 | 174.4887 | 569.0163 |

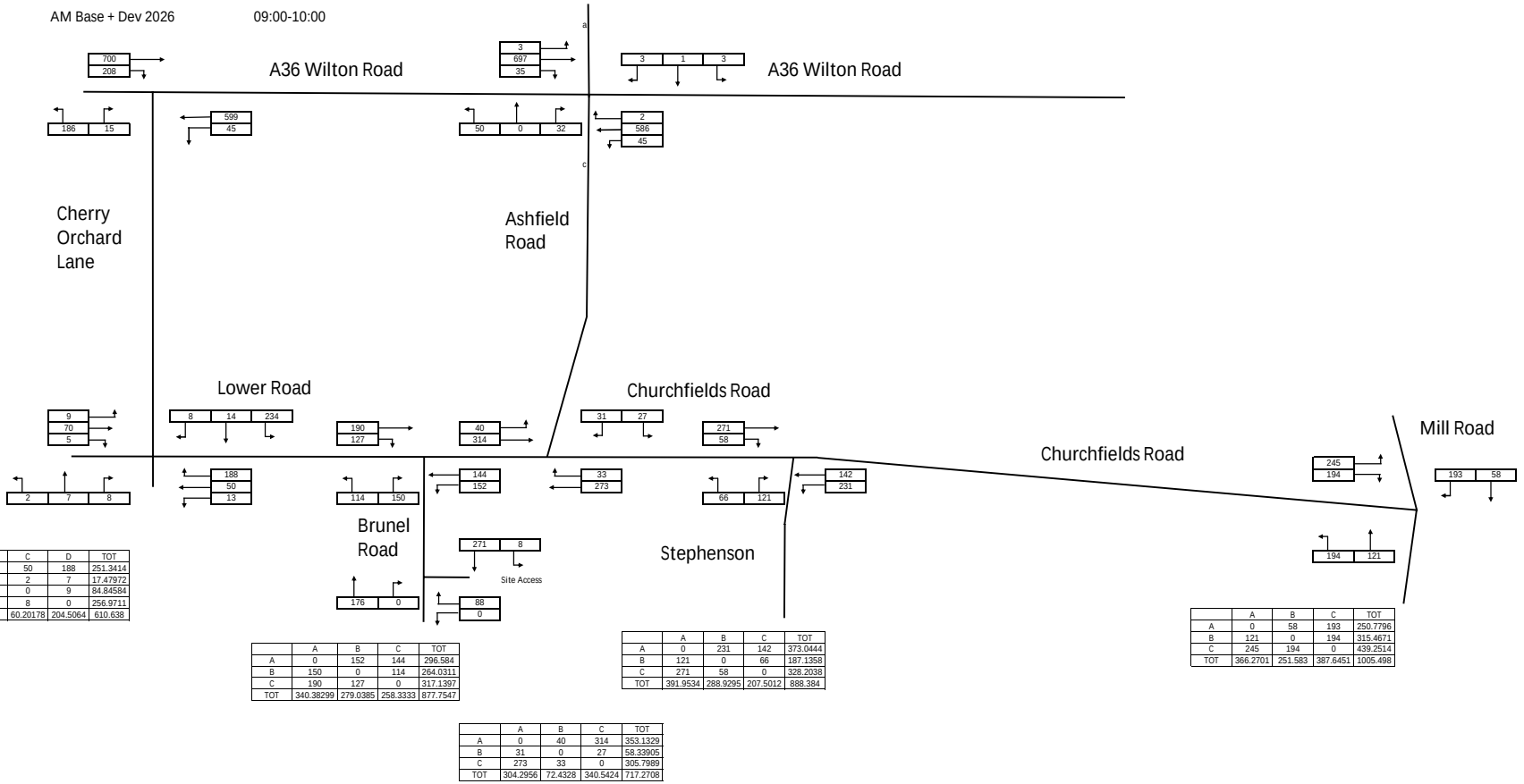
| | A | B | C | TOT |
|---|---|---|---|---|
| A | 0 | 148 | 144 | 292.2198 |
| B | 100 | 0 | 76 | 176.0311 |
| C | 190 | 123 | 0 | 313.5039 |
| TOT | 290.36898 | 271.0385 | 220.3473 | 781.7547 |

| | A | B | C | TOT |
|---|---|---|---|---|
| A | 0 | 34 | 269 | 303.1189 |
| B | 31 | 0 | 27 | 57.88872 |
| C | 269 | 33 | 0 | 301.885 |
| TOT | 299.9314 | 66.83422 | 296.127 | 662.8926 |

| | A | B | C | TOT |
|---|---|---|---|---|
| A | 0 | 231 | 138 | 369.1305 |
| B | 121 | 0 | 66 | 187.1358 |
| C | 226 | 58 | 0 | 283.7884 |
| TOT | 347.5379 | 288.9295 | 203.5873 | 840.0547 |

| | A | B | C | TOT |
|---|---|---|---|---|
| A | 0 | 58 | 191 | 248.8289 |
| B | 121 | 0 | 192 | 313.5039 |
| C | 220 | 174 | 0 | 394.836 |
| TOT | 341.4714 | 231.9662 | 383.7312 | 957.1688 |

| | A | B | C | TOT |
|---|---|---|---|---|
| A | 0 | 45 | 599 | 643.8624 |
| B | 15 | 0 | 186 | 201.4218 |
| C | 700 | 208 | 0 | 908.4614 |
| TOT | 715.8371 | 252.7554 | 785.153 | 1753.745 |




| | | B | C | D | TOT |
|---|---|---|---|---|---|
| A | 0 | 13 | 50 | 188 | 251.3414 |
| B | 8 | 0 | 2 | 7 | 17.47972 |
| C | 70 | 5 | 0 | 9 | 84.84584 |
| D | 234 | 14 | 8 | 0 | 256.9711 |
| TOT | 313.0268 | 32.903 | 60.20178 | 204.5064 | 610.638 |

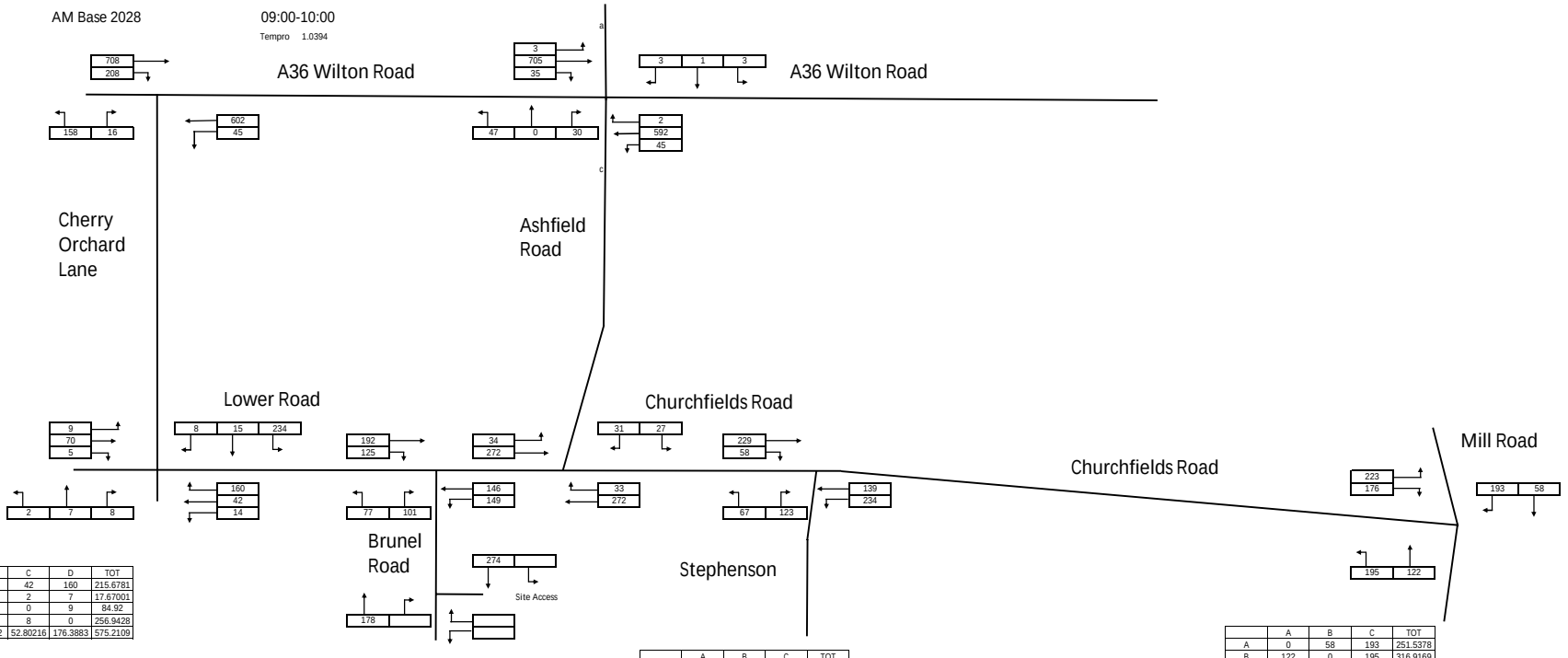
| | A | B | C | TOT |
|---|---|---|---|---|
| A | 0 | 152 | 144 | 296.584 |
| B | 150 | 0 | 114 | 264.0311 |
| C | 190 | 127 | 0 | 317.1397 |
| TOT | 340.38299 | 279.0385 | 258.3333 | 877.7547 |

| | A | B | C | TOT |
|---|---|---|---|---|
| A | 0 | 231 | 142 | 373.0444 |
| B | 121 | 0 | 66 | 187.1358 |
| C | 271 | 58 | 0 | 328.2038 |
| TOT | 391.9534 | 288.9295 | 207.5012 | 888.384 |

| | A | B | C | TOT |
|---|---|---|---|---|
| A | 0 | 58 | 193 | 250.7796 |
| B | 121 | 0 | 194 | 315.4671 |
| C | 245 | 194 | 0 | 439.2514 |
| TOT | 366.2701 | 251.583 | 387.6451 | 1005.498 |

| | A | B | C | TOT |
|---|---|---|---|---|
| A | 0 | 40 | 314 | 353.1329 |
| B | 31 | 0 | 27 | 58.33905 |
| C | 273 | 33 | 0 | 305.7989 |
| TOT | 304.2956 | 72.4328 | 340.5424 | 717.2708 |

| | A | B | C | TOT |
|---|---|---|---|---|
| A | 0 | 45 | 602 | 646.9303 |
| B | 16 | 0 | 158 | 173.2701 |
| C | 708 | 208 | 0 | 915.8264 |
| TOT | 723.4311 | 252.6812 | 759.9145 | 1736.027 |




| | | B | C | D | TOT |
|---|---|---|---|---|---|
| A | 0 | 14 | 42 | 160 | 215.6781 |
| B | 8 | 0 | 2 | 7 | 17.67001 |
| C | 70 | 5 | 0 | 9 | 84.92 |
| D | 234 | 15 | 8 | 0 | 256.9428 |
| TOT | 312.7592 | 33.2612 | 52.80216 | 176.3883 | 575.2109 |

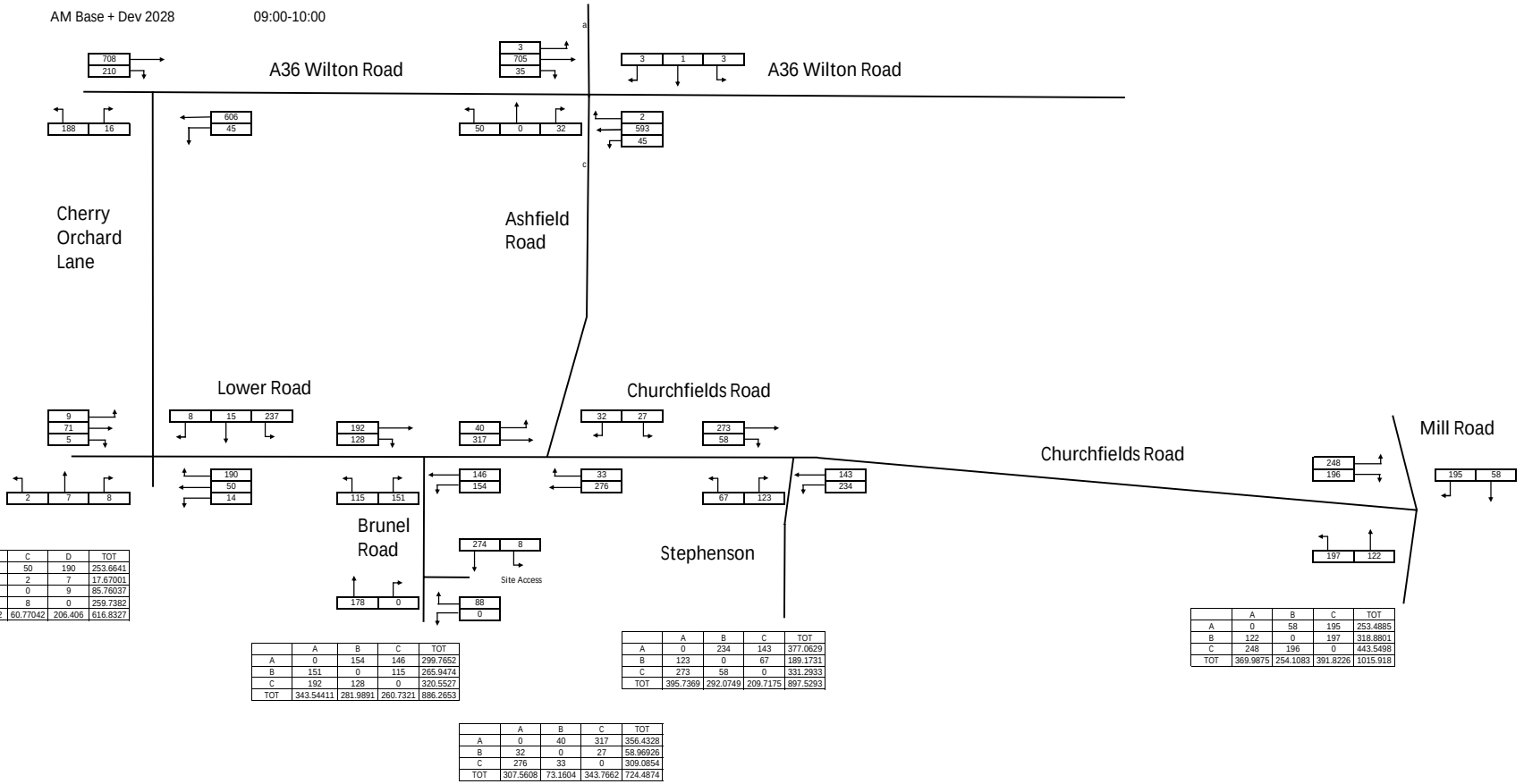
| | A | B | C | TOT |
|---|---|---|---|---|
| A | 0 | 149 | 146 | 295.401 |
| B | 101 | 0 | 77 | 177.9474 |
| C | 192 | 125 | 0 | 316.9169 |
| TOT | 293.53009 | 273.9891 | 222.7461 | 790.2653 |

| | A | B | C | TOT |
|---|---|---|---|---|
| A | 0 | 234 | 139 | 373.1491 |
| B | 123 | 0 | 67 | 189.1731 |
| C | 229 | 58 | 0 | 286.8779 |
| TOT | 351.3214 | 292.0749 | 205.8037 | 849.2 |

| | A | B | C | TOT |
|---|---|---|---|---|
| A | 0 | 58 | 193 | 251.5378 |
| B | 122 | 0 | 195 | 316.9169 |
| C | 223 | 176 | 0 | 399.1344 |
| TOT | 345.1889 | 234.4915 | 387.9087 | 967.5891 |

| | A | B | C | TOT |
|---|---|---|---|---|
| A | 0 | 34 | 272 | 306.4188 |
| B | 31 | 0 | 27 | 58.51892 |
| C | 272 | 33 | 0 | 305.1715 |
| TOT | 303.1966 | 67.56181 | 299.3508 | 670.1092 |

| | A | B | C | TOT |
|---|---|---|---|---|
| A | 0 | 45 | 606 | 650.8293 |
| B | 16 | 0 | 188 | 203.2878 |
| C | 708 | 210 | 0 | 918.3242 |
| TOT | 723.6279 | 255.4766 | 793.3367 | 1772.441 |




| | | B | C | D | TOT |
|---|---|---|---|---|---|
| A | 0 | 14 | 50 | 190 | 253.6641 |
| B | 8 | 0 | 2 | 7 | 17.67001 |
| C | 71 | 5 | 0 | 9 | 85.76037 |
| D | 237 | 15 | 8 | 0 | 259.7382 |
| TOT | 316.395 | 33.2612 | 60.77042 | 206.406 | 616.8327 |

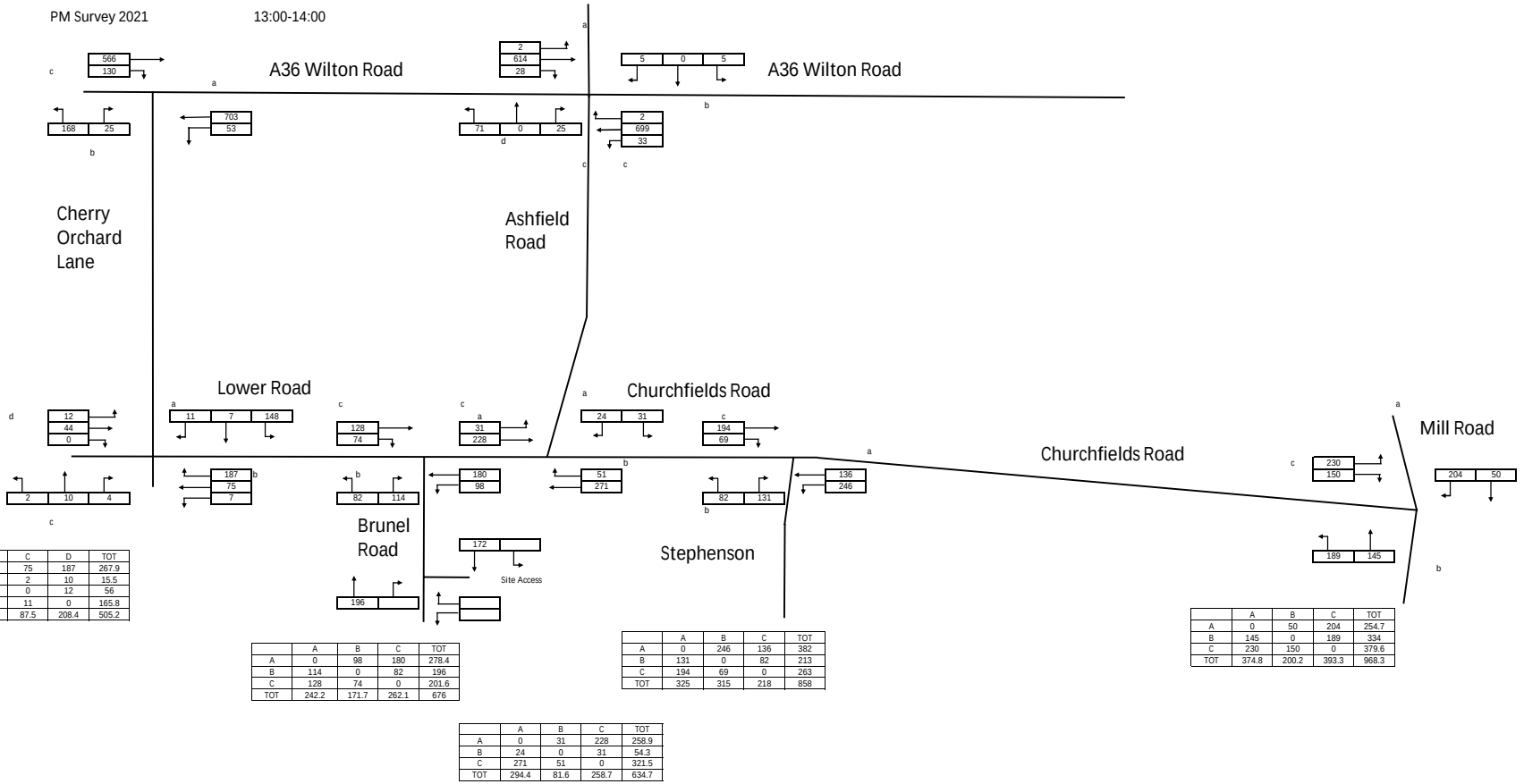
| | A | B | C | TOT |
|---|---|---|---|---|
| A | 0 | 154 | 146 | 299.7652 |
| B | 151 | 0 | 115 | 265.9474 |
| C | 192 | 128 | 0 | 320.5527 |
| TOT | 343.54411 | 281.9891 | 260.7321 | 886.2653 |

| | A | B | C | TOT |
|---|---|---|---|---|
| A | 0 | 40 | 317 | 356.4328 |
| B | 32 | 0 | 27 | 58.96926 |
| C | 276 | 33 | 0 | 309.0854 |
| TOT | 307.5608 | 73.1604 | 343.7662 | 724.4874 |

| | A | B | C | TOT |
|---|---|---|---|---|
| A | 0 | 234 | 143 | 377.0629 |
| B | 123 | 0 | 67 | 189.1731 |
| C | 273 | 58 | 0 | 331.2933 |
| TOT | 395.7369 | 292.0749 | 209.7175 | 897.5293 |

| | A | B | C | TOT |
|---|---|---|---|---|
| A | 0 | 58 | 195 | 253.4885 |
| B | 122 | 0 | 197 | 318.8801 |
| C | 248 | 196 | 0 | 443.5498 |
| TOT | 369.9875 | 254.1083 | 391.8226 | 1015.918 |

| | A | B | C | TOT |
|---|---|---|---|---|
| A | 0 | 53 | 703 | 755.8 |
| B | 25 | 0 | 168 | 192.7 |
| C | 566 | 130 | 0 | 696.4 |
| TOT | 591.4 | 182.5 | 871 | 1644.9 |




| | | B | C | D | TOT |
|---|---|---|---|---|---|
| A | 0 | 7 | 75 | 187 | 267.9 |
| B | 4 | 0 | 2 | 10 | 15.5 |
| C | 44 | 0 | 0 | 12 | 56 |
| D | 148 | 7 | 11 | 0 | 165.8 |
| TOT | 195.8 | 13.5 | 87.5 | 208.4 | 505.2 |

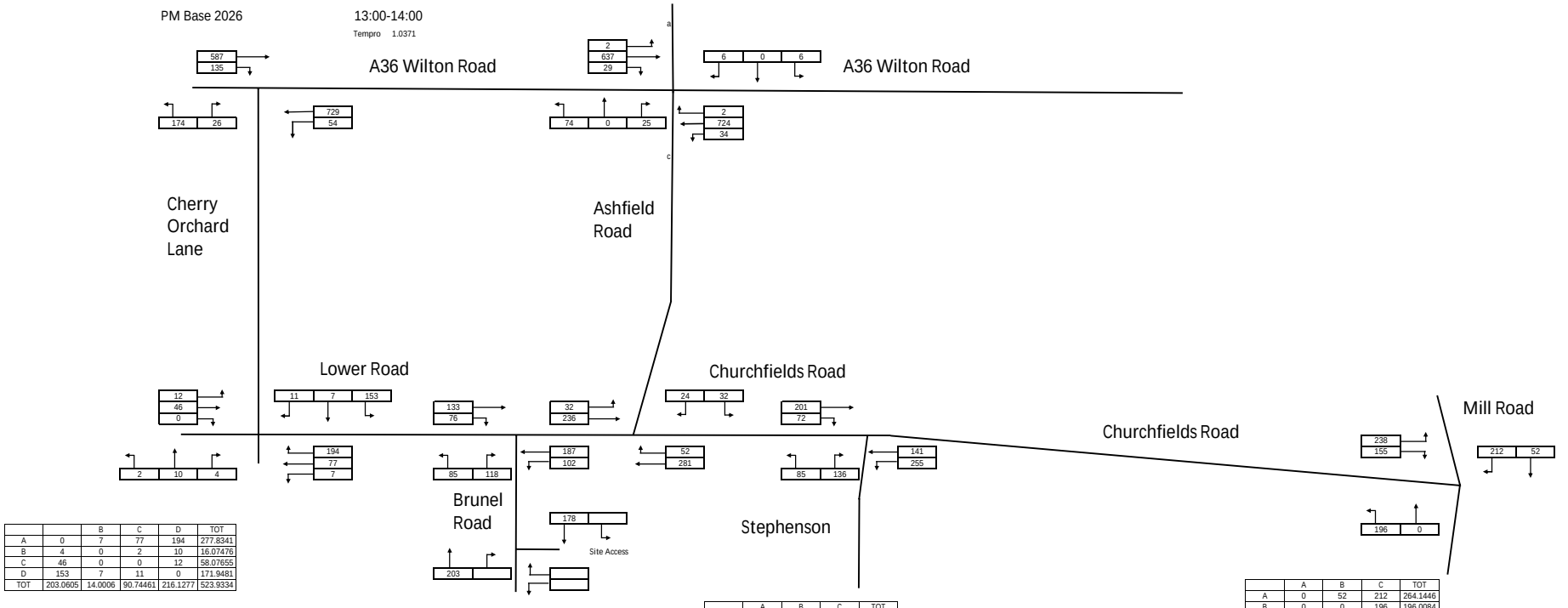
| | A | B | C | TOT |
|---|---|---|---|---|
| A | 0 | 98 | 180 | 278.4 |
| B | 114 | 0 | 82 | 196 |
| C | 128 | 74 | 0 | 201.6 |
| TOT | 242.2 | 171.7 | 262.1 | 676 |

| | A | B | C | TOT |
|---|---|---|---|---|
| A | 0 | 246 | 136 | 382 |
| B | 131 | 0 | 82 | 213 |
| C | 194 | 69 | 0 | 263 |
| TOT | 325 | 315 | 218 | 858 |

| | A | B | C | TOT |
|---|---|---|---|---|
| A | 0 | 50 | 204 | 254.7 |
| B | 145 | 0 | 189 | 334 |
| C | 230 | 150 | 0 | 379.6 |
| TOT | 374.8 | 200.2 | 393.3 | 968.3 |

| | A | B | C | TOT |
|---|---|---|---|---|
| A | 0 | 31 | 228 | 258.9 |
| B | 24 | 0 | 31 | 54.3 |
| C | 271 | 51 | 0 | 321.5 |
| TOT | 294.4 | 81.6 | 258.7 | 634.7 |

| | A | B | C | TOT |
|---|---|---|---|---|
| A | 0 | 54 | 729 | 783.826 |
| B | 26 | 0 | 174 | 199.8456 |
| C | 587 | 135 | 0 | 722.2234 |
| TOT | 613.3299 | 189.2673 | 903.2978 | 1705.895 |




| | | B | C | D | TOT |
|---|---|---|---|---|---|
| A | 0 | 7 | 77 | 194 | 277.8341 |
| B | 4 | 0 | 2 | 10 | 16.07476 |
| C | 46 | 0 | 0 | 12 | 58.07655 |
| D | 153 | 7 | 11 | 0 | 171.9481 |
| TOT | 203.0605 | 14.0006 | 90.74461 | 216.1277 | 523.9334 |

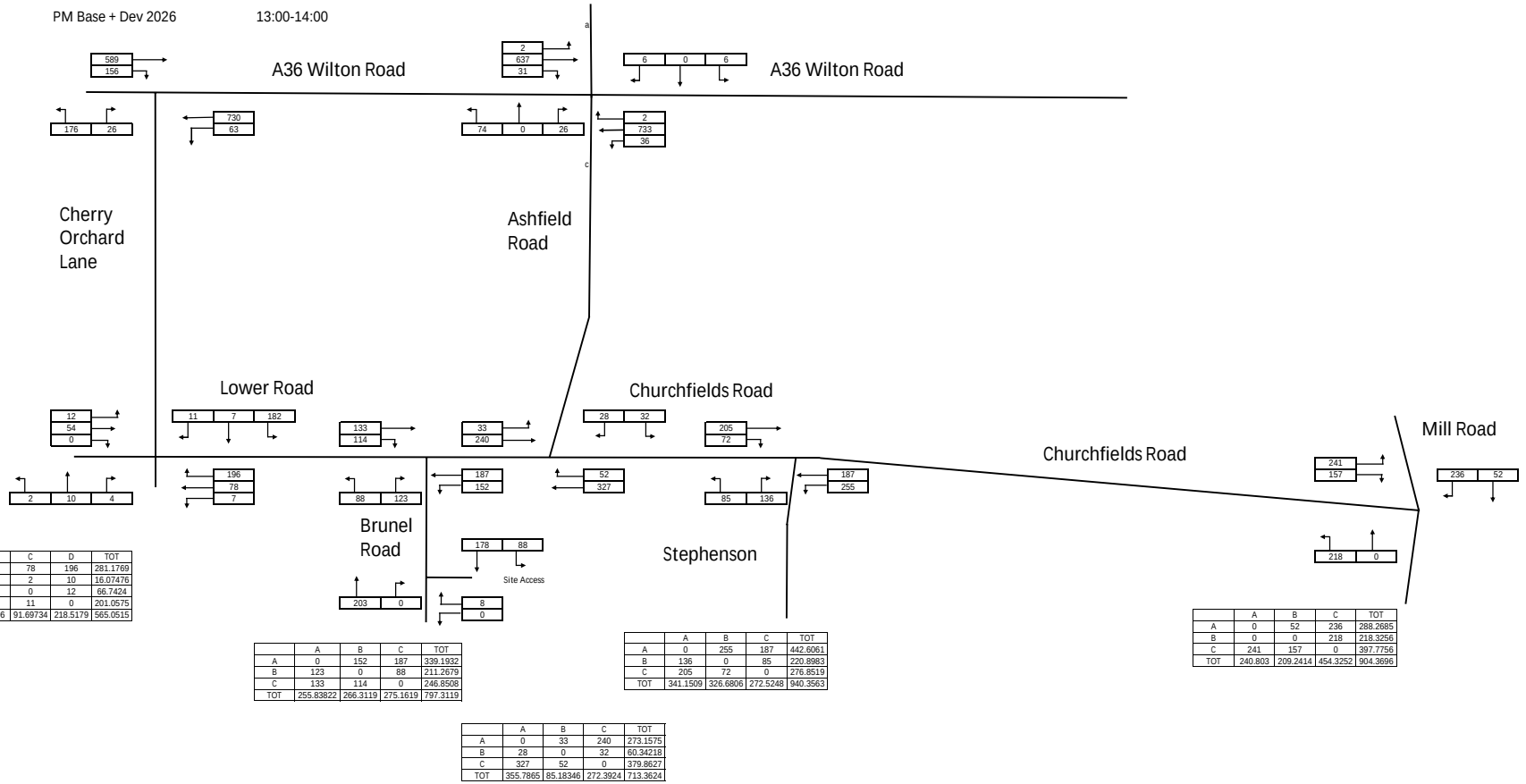
| | A | B | C | TOT |
|---|---|---|---|---|
| A | 0 | 102 | 187 | 288.7234 |
| B | 118 | 0 | 85 | 203.2679 |
| C | 133 | 76 | 0 | 209.0756 |
| TOT | 251.18108 | 178.0669 | 271.819 | 701.0669 |

| | A | B | C | TOT |
|---|---|---|---|---|
| A | 0 | 255 | 141 | 396.165 |
| B | 136 | 0 | 85 | 220.8983 |
| C | 201 | 72 | 0 | 272.7524 |
| TOT | 337.0514 | 326.6806 | 226.0837 | 889.8157 |

| | A | B | C | TOT |
|---|---|---|---|---|
| A | 0 | 52 | 212 | 264.1446 |
| B | 0 | 0 | 196 | 196.0084 |
| C | 238 | 155 | 0 | 393.676 |
| TOT | 238.3213 | 207.6237 | 407.8841 | 853.829 |

| | A | B | C | TOT |
|---|---|---|---|---|
| A | 0 | 32 | 236 | 268.5003 |
| B | 24 | 0 | 32 | 56.31351 |
| C | 281 | 52 | 0 | 333.4216 |
| TOT | 305.3167 | 84.62583 | 268.2929 | 658.2355 |

| | A | B | C | TOT |
|---|---|---|---|---|
| A | 0 | 63 | 730 | 792.6151 |
| B | 26 | 0 | 176 | 202.2357 |
| C | 589 | 156 | 0 | 744.8136 |
| TOT | 615.1846 | 218.3767 | 906.1031 | 1739.664 |




| | | B | C | D | TOT |
|---|---|---|---|---|---|
| A | 0 | 7 | 78 | 196 | 281.1769 |
| B | 4 | 0 | 2 | 10 | 16.07476 |
| C | 54 | 0 | 0 | 12 | 66.7424 |
| D | 182 | 7 | 11 | 0 | 201.0575 |
| TOT | 240.8357 | 14.0006 | 91.69734 | 218.5179 | 565.0515 |

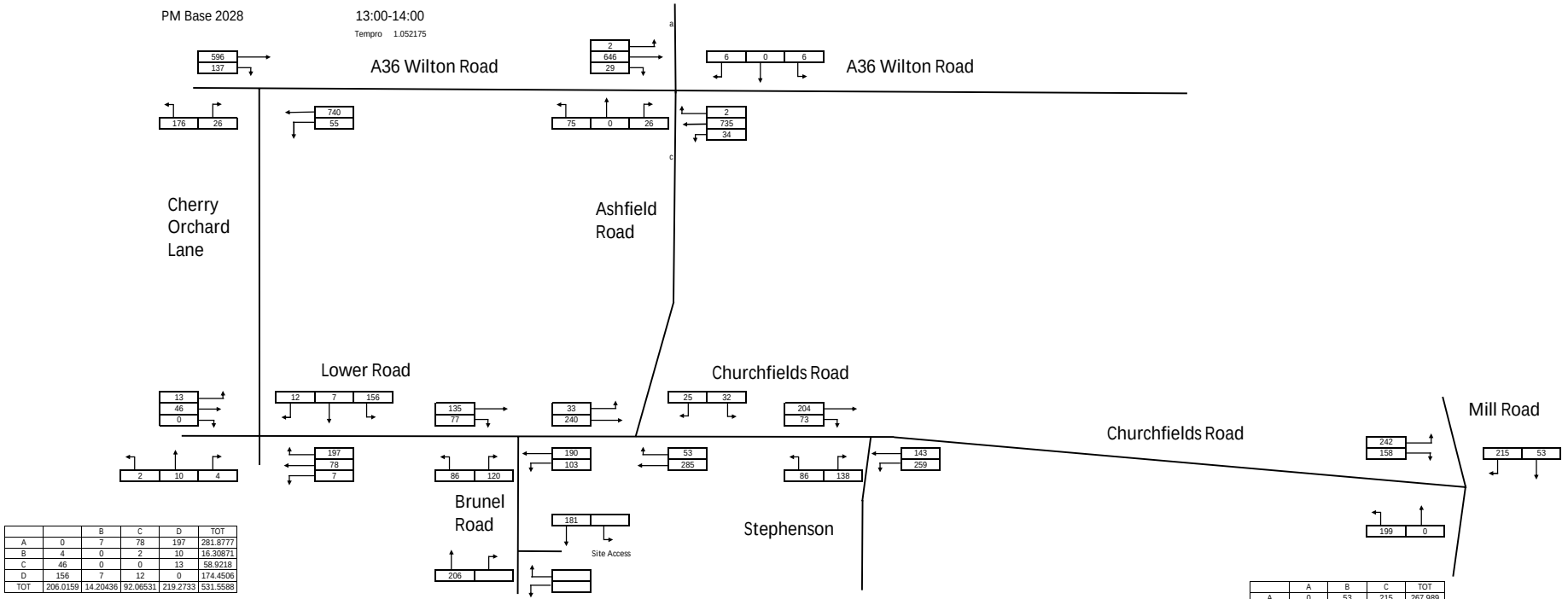
| | A | B | C | TOT |
|---|---|---|---|---|
| A | 0 | 152 | 187 | 339.1932 |
| B | 123 | 0 | 88 | 211.2679 |
| C | 133 | 114 | 0 | 246.8508 |
| TOT | 255.83822 | 266.3119 | 275.1619 | 797.3119 |

| | A | B | C | TOT |
|---|---|---|---|---|
| A | 0 | 33 | 240 | 273.1575 |
| B | 28 | 0 | 32 | 60.34218 |
| C | 327 | 52 | 0 | 379.8627 |
| TOT | 355.7865 | 85.18346 | 272.3924 | 713.3624 |

| | A | B | C | TOT |
|---|---|---|---|---|
| A | 0 | 255 | 187 | 442.6061 |
| B | 136 | 0 | 85 | 220.8983 |
| C | 205 | 72 | 0 | 276.8519 |
| TOT | 341.1509 | 326.6806 | 272.5248 | 940.3563 |

| | A | B | C | TOT |
|---|---|---|---|---|
| A | 0 | 52 | 236 | 288.2685 |
| B | 0 | 0 | 218 | 218.3256 |
| C | 241 | 157 | 0 | 397.7756 |
| TOT | 240.803 | 209.2414 | 454.3252 | 904.3696 |

| | A | B | C | TOT |
|---|---|---|---|---|
| A | 0 | 55 | 740 | 795.2339 |
| B | 26 | 0 | 176 | 202.7541 |
| C | 596 | 137 | 0 | 732.7347 |
| TOT | 622.2563 | 192.0219 | 916.4444 | 1730.723 |




| | | B | C | D | TOT |
|---|---|---|---|---|---|
| A | 0 | 7 | 78 | 197 | 281.8777 |
| B | 4 | 0 | 2 | 10 | 16.30871 |
| C | 46 | 0 | 0 | 13 | 58.9218 |
| D | 156 | 7 | 12 | 0 | 174.4506 |
| TOT | 206.0159 | 14.20436 | 92.06531 | 219.2733 | 531.5588 |

| | A | B | C | TOT |
|---|---|---|---|---|
| A | 0 | 103 | 190 | 292.9255 |
| B | 120 | 0 | 86 | 206.2263 |
| C | 135 | 77 | 0 | 212.1185 |
| TOT | 254.83679 | 180.6584 | 275.7751 | 711.2703 |

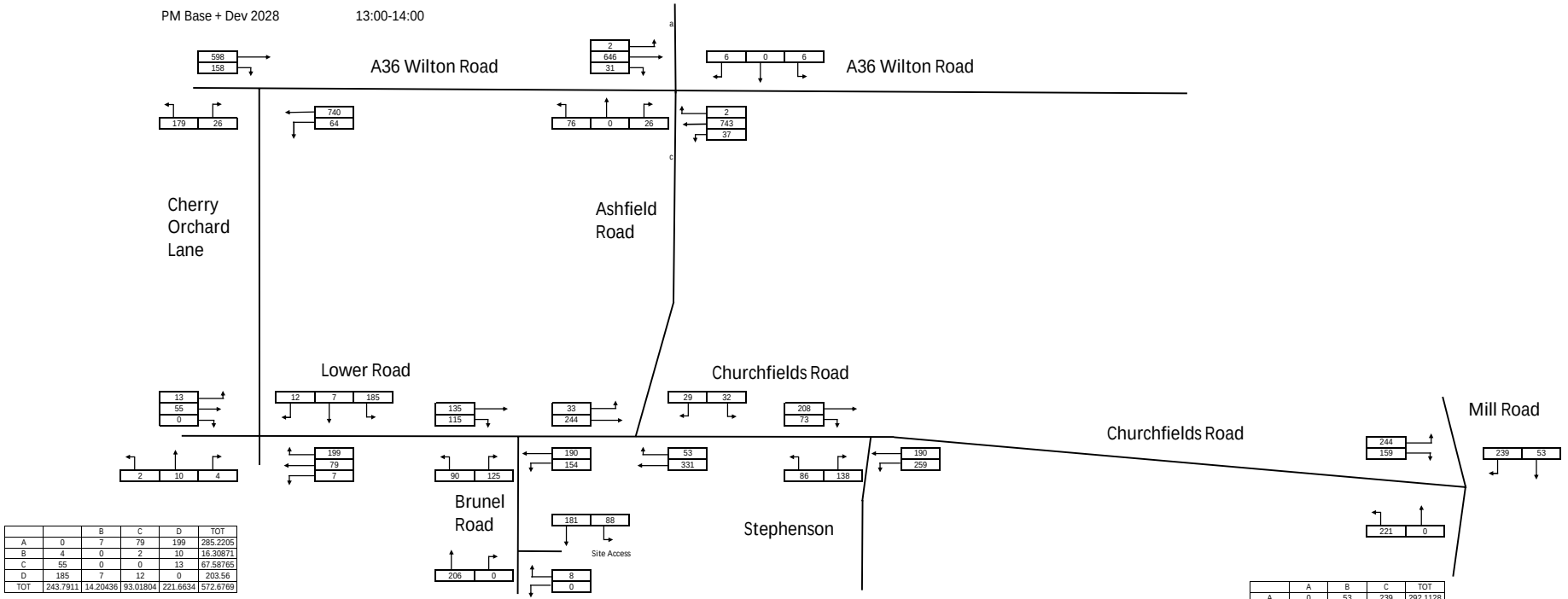
| | A | B | C | TOT |
|---|---|---|---|---|
| A | 0 | 33 | 240 | 272.4081 |
| B | 25 | 0 | 32 | 57.1331 |
| C | 285 | 53 | 0 | 338.2743 |
| TOT | 309.7603 | 85.85748 | 272.1977 | 667.8155 |

| | A | B | C | TOT |
|---|---|---|---|---|
| A | 0 | 259 | 143 | 401.9309 |
| B | 138 | 0 | 86 | 224.1133 |
| C | 204 | 73 | 0 | 276.722 |
| TOT | 341.9569 | 331.4351 | 229.3742 | 902.7662 |

| | A | B | C | TOT |
|---|---|---|---|---|
| A | 0 | 53 | 215 | 267.989 |
| B | 0 | 0 | 199 | 198.8611 |
| C | 242 | 158 | 0 | 399.4056 |
| TOT | 241.7898 | 210.6454 | 413.8204 | 866.2557 |

| | A | B | C | TOT |
|---|---|---|---|---|
| A | 0 | 64 | 740 | 804.023 |
| B | 26 | 0 | 179 | 205.1443 |
| C | 598 | 158 | 0 | 755.3249 |
| TOT | 624.1111 | 221.1313 | 919.2497 | 1764.492 |

PM Base + Dev 2028 13:00-14:00




| | | B | C | D | TOT |
|---|---|---|---|---|---|
| A | 0 | 7 | 79 | 199 | 285.2205 |
| B | 4 | 0 | 2 | 10 | 16.30871 |
| C | 55 | 0 | 0 | 13 | 67.58765 |
| D | 185 | 7 | 12 | 0 | 203.56 |
| TOT | 243.7911 | 14.20436 | 93.01804 | 221.6634 | 572.6769 |

| | A | B | C | TOT |
|---|---|---|---|---|
| A | 0 | 154 | 190 | 343.3953 |
| B | 125 | 0 | 90 | 214.2263 |
| C | 135 | 115 | 0 | 249.8937 |
| TOT | 259.49393 | 268.9034 | 279.1179 | 807.5153 |

| | A | B | C | TOT |
|---|---|---|---|---|
| A | 0 | 259 | 190 | 448.372 |
| B | 138 | 0 | 86 | 224.1133 |
| C | 208 | 73 | 0 | 280.8215 |
| TOT | 346.0564 | 331.4351 | 275.8153 | 953.3068 |

| | A | B | C | TOT |
|---|---|---|---|---|
| A | 0 | 53 | 239 | 292.1128 |
| B | 0 | 0 | 221 | 221.1783 |
| C | 244 | 159 | 0 | 403.5051 |
| TOT | 244.2716 | 212.2632 | 460.2615 | 916.7963 |

| | A | B | C | TOT |
|---|---|---|---|---|
| A | 0 | 33 | 244 | 277.0653 |
| B | 29 | 0 | 32 | 61.16177 |
| C | 331 | 53 | 0 | 384.7154 |
| TOT | 360.2301 | 86.41511 | 276.2972 | 722.9424 |

# C. Scoping

Kevin Blakey

From: Cleave, Julie <Julie.Cleave@wiltshire.gov.uk>
Sent: 10 November 2021 11:18
To: Kevin Blakey
Subject: FW: Royal Mail Delivery Office- Churchfields Industrial Estate GI_21_421
Attachments: transport-assessment-RM DO Salisbury.pdf; SAL-HLM-01-00-DR-A-0003 PROPOSED SITE PLAN.pdf

Dear Kevin,

Thank you for your email below which has been passed to me for consideration. I am sorry for the delay in responding.

I note that you mention a planning application for a temporary car park at this site, do you happen to have a planning app reference number so that I can check whether it has been received by us in Highways? I have also forwarded your email to my colleague in Transportation and I shall let you know any comments I receive back as soon as possible.

It is acknowledged that the site will be relocating from existing premises at Fisherton Street and that an increase in staff levels is not anticipated. A Travel Plan should accompany the future planning application to support a commitment to alternative travel modes.

The suggested junction assessment seems appropriate and I note that trip generation data will be provided. The existing accesses are likely to be suitable to serve the proposed use and car parking will be as per the requirements of the specific business use, using information from how the current site functions.

Please let me know if you have any queries.

Regards,

**Julie Cleave MCIHT**
**Highways Development Control Engineer (Level 3)**
Sustainable Transport
(Part time: Mon – Thurs)

Wiltshire Council

Tel: 01225 713463

Email: Julie.Cleave@wiltshire.gov.uk
Web: www.wiltshire.gov.uk
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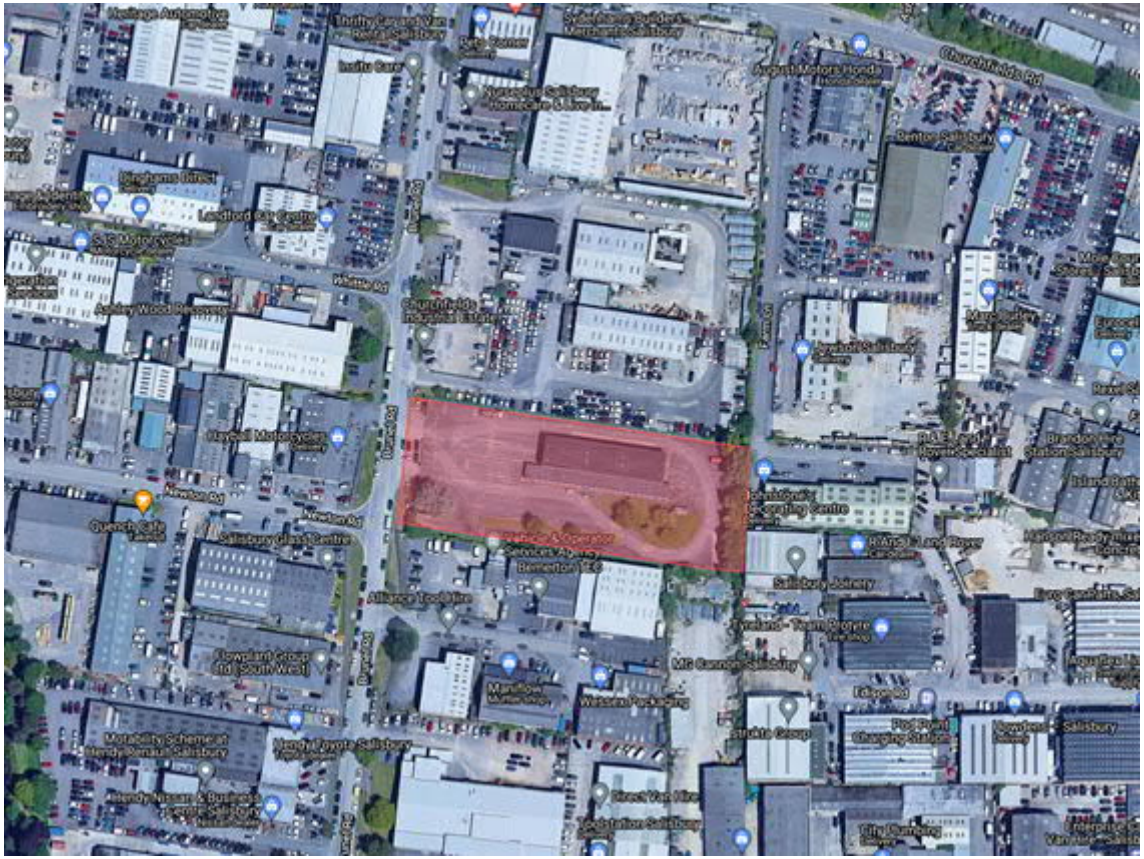
From: Kevin Blakey <Kevin.Blakey@mottmac.com>
Sent: 26 October 2021 14:57
To: Highways Development <HighwaysDevelopment@wiltshire.gov.uk>
Cc: Paul Derry <Paul.Derry@bartonwillmore.co.uk>; Dan Levers <Dan.Levers@mottmac.com>; Mark J Taylor <mark.j.taylor@mottmac.com>; Alan Simpson <Alan.Simpson@mottmac.com>; SustainableTransportAdmin <SustainableTransportAdmin@wiltshire.gov.uk>
Subject: Royal Mail Delivery Office- Churchfields Industrial Estate ** Asked RM if we need to make this up as an application **

Sir / Madam

I write to request a Transport Assessment scoping discussion to assess the transport requirements to support a planning application for a new Royal Mail Delivery Office at Brunel Road, Churchfield Industrial Estate in Salisbury. I attach the scoping request pro-forma and also a work in progress draft layout plan.

I have contacted the Wiltshire Council switchboard and have been advised this is the best way to initiate a transport scoping discussion.

The proposed development is located on the site of the existing Driver & Vehicle Standards Agency HGV testing site. Please see the plan below.




A planning application for a temporary car park on the development site has recently been submitted. The proposed development will supersede this use. The new Delivery Office will be a replacement for the Existing office at Fisherton Street- see plan below




Estimates of potential multi modal trip generation is currently being progressed by Royal Mail. It is not expected that the development will result in a change in staffing levels- existing staff at Fisherton Street will simply transfer to the new site. The proposed development will be a 'like for like' replacement.

To assess the level of change in traffic on the network, baseline traffic and parking surveys have been commissioned. These are detailed in the attached pro-forma. The trips generated by the development will not be 'new' to the network but largely transferred from the existing facility on Fisherton Street to the new.

I trust this is a suitable level of information to provide the necessary background. I would appreciate a scoping discussion as early as possible. Royal Mail proposed to submit a planning application imminently.

**Kevin Blakey**
MRTPI
Principal Transport Planner
D 0151 482 9923
kevin.blakey@mottmac.com

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Liverpool L3 1JH
United Kingdom

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# Appendix 1 - Transport Assessment scoping study

**Appendix 1**

**Transport Assessment scoping form**

| **Site Name:** Royal Mail Delivery Office - Churchfields Industrial Estate, Salisbury |
|---|

**Part A - General**

| **Contact information** | | | |
|---|---|---|---|
| Developer: | Royal Mail | Consultant: | Mott MacDonald |
| Company: | | Company: | |
| Address: | | Address: | |
| Contact person: | | Contact person: | Kevin Blakey |
| Email: | | Email: | kevin.blakey@mottmac.com |
| Tel: | | Tel: | 0151 482 9923 |

| **Development details** | |
|---|---|
| Brief development details: | New Royal Mail Delivery Office to replace existing facility at Fisherton Street |
| Description of location:<br>(include pdf map with this form) | Brunel Road, Churchfields Industrial Estate, Salisbury.<br>Site of former The Driver and Vehicle Standards Agency, HGV testing site |
| Postcode: | SP2 7PU |
| Number/Street/Road: | Brunel Road |
| Town: | Salisbury |
| Size: (GFA/ no of units) | 102 car parking spaces proposed |
| Planned date of opening: | 2022 |

Please tick the applicable box from the questions below:

| | YES | NO |
|---|---|---|
| Is the development residential with more than 50 units? | | No |
| Is the development non-residential with a GFA of over 500 sq. m? | | Yes |
| Is the development likely to generate over 30 two way vehicle trips per hour? | | Yes |
| Is the development likely to generate over 10 HGVs a day? | | Yes |
| Is the development likely to generate one or more special-order abnormal loads a year? | | No |

If the answer to any of the above questions is **YES**, please complete Parts **B**, **C** and **D** of this form.

Please note that the information provided in Parts B, C and D will be used for any subsequent assessment that may be required for this planning application.

If the answer to any of the above questions is NO, please sign the form and return it to the address on page 24.

**Part B - Travel Characteristics in the vicinity of the development site**

Journeys to and from the development site

Provide an estimate of journeys to and from the development site during the peak traffic periods, for each category of travel listed in the table below. For example, peak travel periods for residential and employment uses are normally 08:00-09:00 and 17:00-18:00 during weekdays. For retail developments, the peak hour normally falls on Saturday between 11:00 and 16:00.

| Travel Mode | Weekday peak hour of adjacent road network | | Weekday peak hour of proposed development | | Weekend peak hour of proposed development | |
|---|---|---|---|---|---|---|
| | AM | PM | AM | PM | AM | PM |
| Walk | | | | | | |
| Cycle | | | | | | |
| Car with driver only | | | | | | |
| Car with passenger | | | | | | |
| Bus | | | | | | |
| Train | | | | | | |
| Taxi | | | | | | |
| Delivery goods vehicle up to 7.5t | | | | | | |
| Delivery goods vehicle over 7.5t | | | | | | |
| Abnormal loads | | | | | | |

SEE Text Below

The trip generation of the site is currently under review by the RM Team. The staff employed at the new facility will be the same as the existing Delivery Office. It is not expected the transfer will result in a change in staff numbers and the basic operation of the new site will be similar to the existing. Current staff numbers is circa 150

RM are currently reviewing existing traffic movements at the Fisherton Street site and how these will transfer to the new DO. This will be set out in detail in the Transport Assessment.

**Committed developments and programmed highway improvements.**

In order to assess the impact of your development, please identify nearby major developments that have planning consent and any highway schemes that are programmed (by the local highway authority or Highways England) but are yet to be implemented.

| |
|---|
| None identified: |

**Part C**

**Identify the likely transport impacts of the development**

*Please tick the applicable column from the questions below*

| | Yes | No |
|---|---|---|
| 1. Will the development increase conflicts among all types of vehicles? | | No |
| 2. Will the development increase conflicts between vehicles and pedestrians? | | No |
| 3. Will the development increase conflicts between vehicles and cyclists? | | No |
| 4. Will the development provide on-site parking?<br>*If **YES**, please provide total number of parking spaces proposed* | | X<br>X |
| 5. Will the development increase demand for on-street parking? | | No |
| 6. Will the development increase traffic queues and delays at nearby junctions?<br>*If **YES**, please identify the critical junctions in box **C1** below* | | No |
| 7. Will the development increase traffic noise?<br>*If **YES**, please briefly describe the nature of the impact and identify in box **C2** the areas that are likely to be affected* | | No |
| 8. Will the develepment reduce air quality?<br>*If **YES**, please briefly describe the nature of the impact and identify in box **C3** the areas that are likely to be affected* | | No |
| 9. Will traffic generated by the development affect the areas of townscape, landscape and the natural/historic environment importance? | | No |

**C1**: Please identify all the critical junctions from question 6

Please enter text:

All access will be taken from the existing site access junction with Brunel Road.

Traffic surveys have been commissioned at the following junctions. In this way- once development trips are known, and how these will Transfer from Fisherton Street the level of increase in traffic on the network will be determined:

Cherry Orchard Lane / Wilton Road
Ashfield Road / Wilton Road
Cherry Orchard Lane / Lower Road
Brunel Road / Lower Road
Ashfield Road / Churchfields Road
Mill Road / Churchfields Road

In addition parking surveys will be undertaken on Brunel Road and Telford Road

**C2**: Please describe the nature of the noise impact from question 7

Please enter text:

The Transport Assessment will consider transport impact. The proposed development site is located within an industrial estate. The LPA will confirm in scoping whether a noise assessment is required

**C3**: Please describe the nature of the impact on air quality from question 8

Please enter text:

The Transport Assessment will consider transport impact. The proposed development site is located within an industrial estate. The LPA will confirm in scoping whether an air quality assessment is required

**Part D: Identify the likely mitigation measures**

*Please tick the applicable column from the questions below*

| | YES | NO |
|---|---|---|
| 1. Will the development provide measures to improve safety for all road users? | SEE TEXT BELOW*** | |
| 2. Will the development provide measures to promote walking? | | |
| 3. Will the development provide measures to promote cycling? | | |
| 4. Will the development provide measures to promote the use of public transport? | | |
| 5. Will the development provide measures to minimise car parking? | | |
| 6. Will the development provide measures to improve freight traffic movements, where applicable? (*e.g for warehouses and distribution centres*) | | |
| 7. Will the developments provide mitigation measures? (*e.g. public transport services and facilities, pedestrian and cyclist facilities, highway improvements*) | | |

***Within the Transport Assessment a review of current staff modal split will be provided as well as projected. The Transport Assessment will contain a suite of measures to be considered by Royal Mail for implementation to encourage sustainable travel at the site.

The proposed means of access to the site is the same as the site in its former use.

At present no mitigation measures are proposed at the site as it is not expected that the development will have a severe impact on the transport network. Modelling in the Transport Assessment will demonstrate this.

**D2**: Please describe the main mitigation measures that are likely to be proposed

Please enter text:

No physical mitigation measures are proposed as it is not expected that the development will have a severe impact on the transport network. The Transport Assessment will contain a suite of measures to be considered by Royal Mail for implementation to encourage sustainable travel at the site

Signed: Date:

Print name:

Please e-mail the completed form and site location map to: highwaysdevelopment@wiltshire.gov.uk or post to:

Highway Development Management
Sustainable Transport
Wiltshire Council
County Hall
Bythesea Road
Trowbridge
BA14 8JD

Please note that location maps submitted in pdf format must clearly show:

- locations of new/modified accesses of development onto existing road network
- existing bus stops and locations of transport interchanges in area

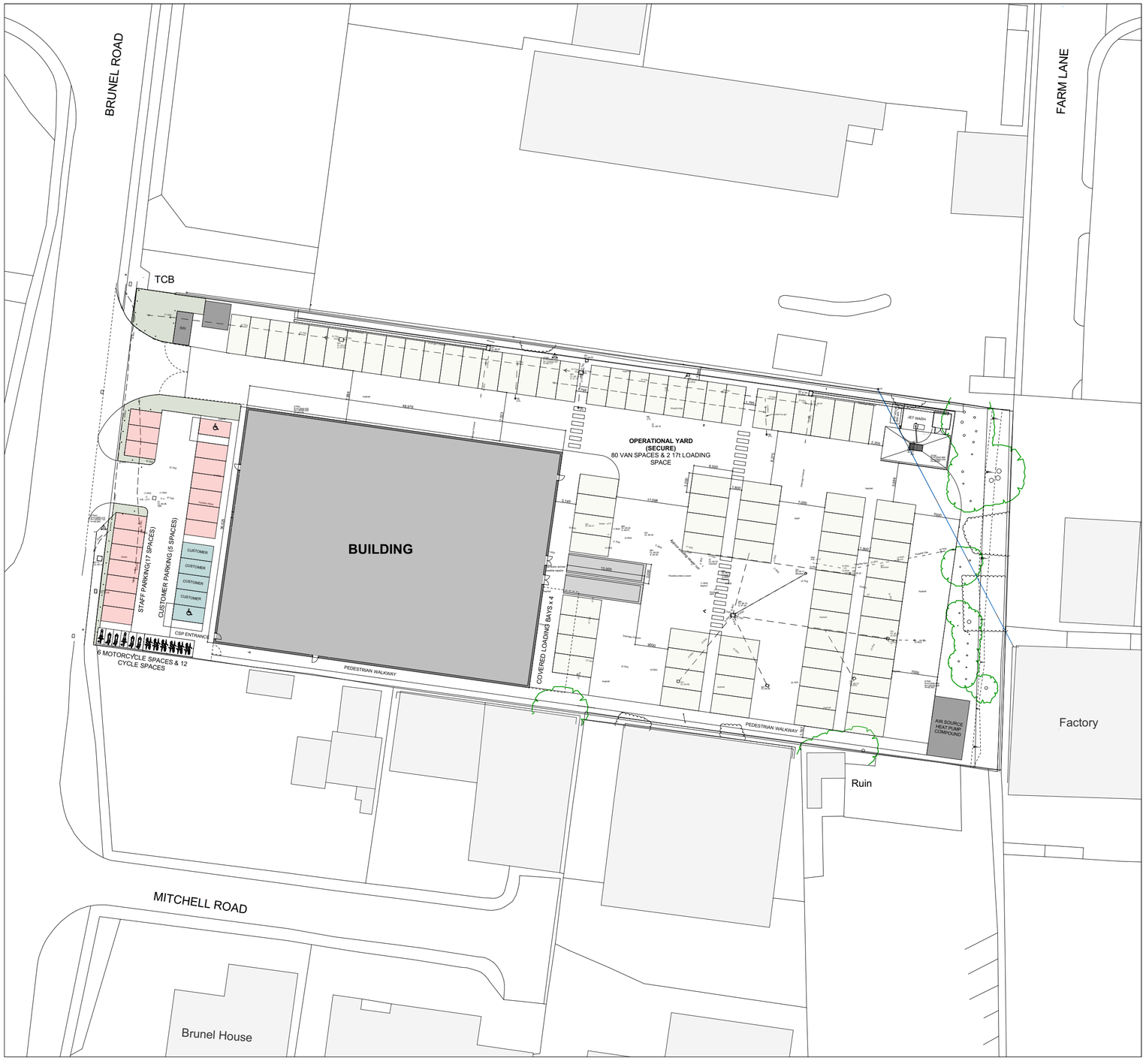
Please note that plans submitted in pdf format must clearly show:

- each new/modified accesses showing carriageway widths, footpaths and visibility standards
- all parking spaces (on street and within development area) and turning areas where applicable
- private land and public highway

## Notes

Check all dimensions on site. Do not scale from this drawing
Report any discrepancies and omissions to HLM Architects
This Drawing is Copyright ©

| ITEM | RM SOR | SITE ACHIEVED |
|---|---|---|
| Building Total Area (GIA) | 1844 m² | 1876 m² |
| Accessible Parking | 4 spaces | 2 Spaces |
| Customer Parking | 4 Spaces | 4 Spaces |
| Staff Parking | 76 Spaces | 17 Spaces |
| Cycle Spaces | 11 Spaces | 11 Spaces |
| Motorcycle Spaces | 6 Spaces | 6 Spaces |
| Transit Parking Bays | 2 Spaces | 2 Spaces |
| Van Parking (side loading & electric charge) | 78 Spaces | 78 Spaces |
| 17 tonne vehicle Bay | 1 Space | 2 Spaces |
| Refuse Enclosure | Yes | Yes |
| Oil. Water & Air | Yes | Yes |
| Jet Wash | Yes | Yes |
| Full Length Canopy | Yes | Part Length |
| Storage/Waste | Yes | Yes |
| Total Site Area (including Landscaping) | 9644 m² | 7575 m² |




1:100 10 M

| Rev | Description | Date | By | Chk |
|---|---|---|---|---|
| B | parking layout amended & internal changes actioned | 25.10.21 | MG | OJ |

Revisions Suitability

Project

# RMG Salisbury

Client

## Royal Mail Group

Title

## PROPOSED SITE PLAN

| Drawing No. | Revision |
|---|---|
| SAL-HLM-01-00-DR-A-0003 | B |

| Scale @ A2 | Drawn |
|---|---|
| 1:500 | OP |
| **Date** | **Checked** |
| 29/09/21 | OP |

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# D. Modelling

# Junctions 9

## PICADY 9 - Priority Intersection Module

Version: 9.5.1.7462
© Copyright TRL Limited, 2019

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

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

**Filename:** 1. Lower Road - Cherry Orchard Lane [Crossroads].j9
**Path:** C:\Users\BUR103205\Downloads\Modelling\Modelling
**Report generation date:** 27/09/2023 11:31:38

---

»2021 Survey, AM
»2026 Base, AM
»2026 Base + Dev, AM
»2028 Base, AM
»2028 Base + Dev, AM
»2021 Survey, PM
»2026 Base, PM
»2026 Base + Dev, PM
»2028 Base, PM
»2028 Base + Dev, PM

## Summary of junction performance

| | AM | | | | | PM | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Set ID | Queue (PCU) | Delay (s) | RFC | LOS | Set ID | Queue (PCU) | Delay (s) | RFC | LOS |
| | 2021 Survey | | | | | | | | | |
| Stream B-ACD | D1 | 0.1 | 9.71 | 0.05 | A | D6 | 0.0 | 9.41 | 0.04 | A |
| Stream A-BCD | | 0.4 | 7.82 | 0.29 | A | | 0.6 | 8.24 | 0.35 | A |
| Stream D-ABC | | 0.9 | 11.39 | 0.46 | B | | 0.5 | 8.95 | 0.31 | A |
| Stream C-ABD | | 0.0 | 5.28 | 0.01 | A | | 0.0 | 0.00 | 0.00 | A |
| | 2026 Base | | | | | | | | | |
| Stream B-ACD | D2 | 0.1 | 9.78 | 0.05 | A | D7 | 0.0 | 9.48 | 0.04 | A |
| Stream A-BCD | | 0.5 | 7.91 | 0.30 | A | | 0.6 | 8.41 | 0.37 | A |
| Stream D-ABC | | 0.9 | 11.68 | 0.48 | B | | 0.5 | 9.08 | 0.32 | A |
| Stream C-ABD | | 0.0 | 5.28 | 0.01 | A | | 0.0 | 0.00 | 0.00 | A |
| | 2026 Base + Dev | | | | | | | | | |
| Stream B-ACD | D3 | 0.1 | 10.03 | 0.05 | B | D8 | 0.0 | 9.58 | 0.04 | A |
| Stream A-BCD | | 0.6 | 8.54 | 0.35 | A | | 0.6 | 8.50 | 0.37 | A |
| Stream D-ABC | | 0.9 | 11.84 | 0.48 | B | | 0.6 | 9.80 | 0.37 | A |
| Stream C-ABD | | 0.0 | 5.40 | 0.01 | A | | 0.0 | 0.00 | 0.00 | A |
| | 2028 Base | | | | | | | | | |
| Stream B-ACD | D4 | 0.1 | 9.81 | 0.05 | A | D9 | 0.0 | 9.51 | 0.04 | A |
| Stream A-BCD | | 0.5 | 7.94 | 0.30 | A | | 0.7 | 8.49 | 0.37 | A |
| Stream D-ABC | | 0.9 | 11.84 | 0.48 | B | | 0.5 | 9.21 | 0.33 | A |
| Stream C-ABD | | 0.0 | 5.29 | 0.01 | A | | 0.0 | 0.00 | 0.00 | A |
| | 2028 Base + Dev | | | | | | | | | |
| Stream B-ACD | D5 | 0.1 | 10.07 | 0.05 | B | D10 | 0.0 | 9.62 | 0.04 | A |
| Stream A-BCD | | 0.6 | 8.59 | 0.36 | A | | 0.7 | 8.59 | 0.38 | A |
| Stream D-ABC | | 0.9 | 12.06 | 0.49 | B | | 0.6 | 9.97 | 0.38 | A |
| Stream C-ABD | | 0.0 | 5.41 | 0.01 | A | | 0.0 | 0.00 | 0.00 | 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** | Lower Road / Cherry Orchard Lane |
| **Location** | |
| **Site number** | |
| **Date** | 22/11/2021 |
| **Version** | 1 |
| **Status** | (new file) |
| **Identifier** | |
| **Client** | Royal Mail Group |
| **Jobnumber** | |
| **Enumerator** | MOTTMAC\MCM80211 |
| **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

| Calculate Queue Percentiles | Calculate residual capacity | RFC Threshold | Average Delay threshold (s) | Queue threshold (PCU) |
|---|---|---|---|---|
| | | 0.85 | 36.00 | 20.00 |

## Demand Set Summary

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D1 | 2021 Survey | AM | ONE HOUR | 08:45 | 10:15 | 15 |
| D2 | 2026 Base | AM | ONE HOUR | 08:45 | 10:15 | 15 |
| D3 | 2026 Base + Dev | AM | ONE HOUR | 08:45 | 10:15 | 15 |
| D4 | 2028 Base | AM | ONE HOUR | 08:45 | 10:15 | 15 |
| D5 | 2028 Base + Dev | AM | ONE HOUR | 08:45 | 10:15 | 15 |
| D6 | 2021 Survey | PM | ONE HOUR | 13:45 | 15:15 | 15 |
| D7 | 2026 Base | PM | ONE HOUR | 13:45 | 15:15 | 15 |
| D8 | 2026 Base + Dev | PM | ONE HOUR | 13:45 | 15:15 | 15 |
| D9 | 2028 Base | PM | ONE HOUR | 13:45 | 15:15 | 15 |
| D10 | 2028 Base + Dev | PM | ONE HOUR | 13:45 | 15:15 | 15 |

## Analysis Set Details

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

# 2021 Survey, AM

### Data Errors and Warnings

| Severity | Area | Item | Description |
|---|---|---|---|
| Warning | Major arm width | A - Lower Road East - Major arm geometry | For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m. |
| Warning | Major arm width | C - Lower Road West - Major arm geometry | For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m. |
| Warning | Vehicle Mix | | HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning. |

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Lower Road / Cherry Orchard Road | Crossroads | Two-way | | 7.79 | A |

### Junction Network Options

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

## Arms

### Arms

| Arm | Name | Description | Arm type |
|---|---|---|---|
| A | Lower Road East | | Major |
| B | Cherry Orchard Lane South | | Minor |
| C | Lower Road West | | Major |
| D | Cherry Orchard Lane North | | 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 - Lower Road East | 5.80 | | | 98.0 | ✓ | 0.00 |
| C - Lower Road West | 5.80 | | | 250.0 | ✓ | 0.00 |

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

### Minor Arm Geometry

| Arm | Minor arm type | Lane width (m) | Visibility to left (m) | Visibility to right (m) |
|---|---|---|---|---|
| B - Cherry Orchard Lane South | One lane | 2.40 | 27 | 20 |
| D - Cherry Orchard Lane North | One lane | 3.00 | 20 | 16 |

### Slope / Intercept / Capacity

#### Priority Intersection Slopes and Intercepts

| Stream | Intercept (PCU/hr) | Slope for A-B | Slope for A-C | Slope for A-D | Slope for B-A | Slope for B-C | Slope for B-D | Slope for C-A | Slope for C-B | Slope for C-D | Slope for D-A | Slope for D-B | Slope for D-C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A-D | 631 | - | - | - | - | - | - | 0.247 | 0.352 | 0.247 | - | - | - |
| B-A | 467 | 0.086 | 0.217 | 0.217 | - | - | - | 0.136 | 0.310 | - | 0.217 | 0.217 | 0.108 |
| B-C | 599 | 0.093 | 0.234 | - | - | - | - | - | - | - | - | - | - |
| B-D, nearside lane | 467 | 0.086 | 0.217 | 0.217 | - | - | - | 0.136 | 0.310 | 0.136 | - | - | - |
| B-D, offside lane | 467 | 0.086 | 0.217 | 0.217 | - | - | - | 0.136 | 0.310 | 0.136 | - | - | - |
| C-B | 719 | 0.281 | 0.281 | 0.401 | - | - | - | - | - | - | - | - | - |
| D-A | 634 | - | - | - | - | - | - | 0.248 | - | 0.098 | - | - | - |
| D-B, nearside lane | 492 | 0.144 | 0.144 | 0.326 | - | - | - | 0.228 | 0.228 | 0.090 | - | - | - |
| D-B, offside lane | 492 | 0.144 | 0.144 | 0.326 | - | - | - | 0.228 | 0.228 | 0.090 | - | - | - |
| D-C | 492 | - | 0.144 | 0.326 | 0.114 | 0.228 | 0.228 | 0.228 | 0.228 | 0.090 | - | - | - |

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

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

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D1 | 2021 Survey | AM | ONE HOUR | 08:45 | 10:15 | 15 |

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

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| A - Lower Road East | | ✓ | 208 | 100.000 |
| B - Cherry Orchard Lane South | | ✓ | 17 | 100.000 |
| C - Lower Road West | | ✓ | 82 | 100.000 |
| D - Cherry Orchard Lane North | | ✓ | 247 | 100.000 |

## Origin-Destination Data

#### Demand (PCU/hr)

| | | To | | | |
|---|---|---|---|---|---|
| | | A - Lower Road East | B - Cherry Orchard Lane South | C - Lower Road West | D - Cherry Orchard Lane North |
| From | A - Lower Road East | 0 | 13 | 41 | 154 |
| | B - Cherry Orchard Lane South | 8 | 0 | 2 | 7 |
| | C - Lower Road West | 68 | 5 | 0 | 9 |
| | D - Cherry Orchard Lane North | 225 | 14 | 8 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | | |
|---|---|---|---|---|---|
| | | A - Lower Road East | B - Cherry Orchard Lane South | C - Lower Road West | D - Cherry Orchard Lane North |
| From | A - Lower Road East | 0 | 0 | 0 | 0 |
| | B - Cherry Orchard Lane South | 0 | 0 | 0 | 0 |
| | C - Lower Road West | 0 | 0 | 0 | 0 |
| | D - Cherry Orchard Lane North | 0 | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| B-ACD | 0.05 | 9.71 | 0.1 | A |
| A-BCD | 0.29 | 7.82 | 0.4 | A |
| A-B | | | | |
| A-C | | | | |
| D-ABC | 0.46 | 11.39 | 0.9 | B |
| C-ABD | 0.01 | 5.28 | 0.0 | A |
| C-D | | | | |
| C-A | | | | |

## Main Results for each time segment

### 08:45 - 09:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-ACD | 13 | 419 | 0.031 | 13 | 0.0 | 8.856 | A |
| A-BCD | 124 | 642 | 0.193 | 123 | 0.3 | 6.923 | A |
| A-B | 8 | | | 8 | | | |
| A-C | 25 | | | 25 | | | |
| D-ABC | 186 | 598 | 0.311 | 184 | 0.4 | 8.665 | A |
| C-ABD | 4 | 697 | 0.006 | 4 | 0.0 | 5.191 | A |
| C-D | 7 | | | 7 | | | |
| C-A | 51 | | | 51 | | | |

### 09:00 - 09:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-ACD | 15 | 407 | 0.038 | 15 | 0.0 | 9.200 | A |
| A-BCD | 150 | 644 | 0.233 | 150 | 0.3 | 7.275 | A |
| A-B | 9 | | | 9 | | | |
| A-C | 28 | | | 28 | | | |
| D-ABC | 222 | 594 | 0.374 | 221 | 0.6 | 9.654 | A |
| C-ABD | 5 | 693 | 0.007 | 5 | 0.0 | 5.228 | A |
| C-D | 8 | | | 8 | | | |
| C-A | 61 | | | 61 | | | |

### 09:15 - 09:30

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-ACD | 19 | 389 | 0.048 | 19 | 0.0 | 9.707 | A |
| A-BCD | 187 | 647 | 0.289 | 186 | 0.4 | 7.806 | A |
| A-B | 10 | | | 10 | | | |
| A-C | 32 | | | 32 | | | |
| D-ABC | 272 | 588 | 0.463 | 271 | 0.8 | 11.318 | B |
| C-ABD | 6 | 688 | 0.009 | 6 | 0.0 | 5.276 | A |
| C-D | 10 | | | 10 | | | |
| C-A | 74 | | | 74 | | | |

### 09:30 - 09:45

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-ACD | 19 | 389 | 0.048 | 19 | 0.1 | 9.714 | A |
| A-BCD | 187 | 647 | 0.289 | 187 | 0.4 | 7.822 | A |
| A-B | 10 | | | 10 | | | |
| A-C | 32 | | | 32 | | | |
| D-ABC | 272 | 588 | 0.463 | 272 | 0.9 | 11.387 | B |
| C-ABD | 6 | 688 | 0.009 | 6 | 0.0 | 5.278 | A |
| C-D | 10 | | | 10 | | | |
| C-A | 74 | | | 74 | | | |

### 09:45 - 10:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-ACD | 15 | 406 | 0.038 | 15 | 0.0 | 9.212 | A |
| A-BCD | 150 | 644 | 0.233 | 150 | 0.3 | 7.296 | A |
| A-B | 9 | | | 9 | | | |
| A-C | 28 | | | 28 | | | |
| D-ABC | 222 | 594 | 0.374 | 223 | 0.6 | 9.739 | A |
| C-ABD | 5 | 693 | 0.007 | 5 | 0.0 | 5.233 | A |
| C-D | 8 | | | 8 | | | |
| C-A | 61 | | | 61 | | | |

### 10:00 - 10:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-ACD | 13 | 418 | 0.031 | 13 | 0.0 | 8.877 | A |
| A-BCD | 124 | 642 | 0.193 | 124 | 0.3 | 6.960 | A |
| A-B | 8 | | | 8 | | | |
| A-C | 25 | | | 25 | | | |
| D-ABC | 186 | 598 | 0.311 | 187 | 0.5 | 8.766 | A |
| C-ABD | 4 | 697 | 0.006 | 4 | 0.0 | 5.197 | A |
| C-D | 7 | | | 7 | | | |
| C-A | 51 | | | 51 | | | |

# 2026 Base, AM

### Data Errors and Warnings

| Severity | Area | Item | Description |
|---|---|---|---|
| Warning | Major arm width | A - Lower Road East - Major arm geometry | For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m. |
| Warning | Major arm width | C - Lower Road West - Major arm geometry | For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m. |
| Warning | Vehicle Mix | | HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning. |

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Lower Road / Cherry Orchard Road | Crossroads | Two-way | | 7.96 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D2 | 2026 Base | AM | ONE HOUR | 08:45 | 10:15 | 15 |

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

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| A - Lower Road East | | ✓ | 213 | 100.000 |
| B - Cherry Orchard Lane South | | ✓ | 17 | 100.000 |
| C - Lower Road West | | ✓ | 84 | 100.000 |
| D - Cherry Orchard Lane North | | ✓ | 254 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | | |
|---|---|---|---|---|---|
| | | A - Lower Road East | B - Cherry Orchard Lane South | C - Lower Road West | D - Cherry Orchard Lane North |
| From | A - Lower Road East | 0 | 13 | 42 | 158 |
| | B - Cherry Orchard Lane South | 8 | 0 | 2 | 7 |
| | C - Lower Road West | 70 | 5 | 0 | 9 |
| | D - Cherry Orchard Lane North | 232 | 14 | 8 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | | |
|---|---|---|---|---|---|
| | | A - Lower Road East | B - Cherry Orchard Lane South | C - Lower Road West | D - Cherry Orchard Lane North |
| From | A - Lower Road East | 0 | 0 | 0 | 0 |
| | B - Cherry Orchard Lane South | 0 | 0 | 0 | 0 |
| | C - Lower Road West | 0 | 0 | 0 | 0 |
| | D - Cherry Orchard Lane North | 0 | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| B-ACD | 0.05 | 9.78 | 0.1 | A |
| A-BCD | 0.30 | 7.91 | 0.5 | A |
| A-B | | | | |
| A-C | | | | |
| D-ABC | 0.48 | 11.68 | 0.9 | B |
| C-ABD | 0.01 | 5.28 | 0.0 | A |
| C-D | | | | |
| C-A | | | | |

## Main Results for each time segment

### 08:45 - 09:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-ACD | 13 | 417 | 0.031 | 13 | 0.0 | 8.891 | A |
| A-BCD | 127 | 642 | 0.198 | 126 | 0.3 | 6.966 | A |
| A-B | 8 | | | 8 | | | |
| A-C | 25 | | | 25 | | | |
| D-ABC | 191 | 598 | 0.320 | 189 | 0.5 | 8.773 | A |
| C-ABD | 4 | 697 | 0.006 | 4 | 0.0 | 5.194 | A |
| C-D | 7 | | | 7 | | | |
| C-A | 52 | | | 52 | | | |

### 09:00 - 09:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-ACD | 15 | 405 | 0.038 | 15 | 0.0 | 9.247 | A |
| A-BCD | 154 | 644 | 0.239 | 154 | 0.3 | 7.334 | A |
| A-B | 9 | | | 9 | | | |
| A-C | 29 | | | 29 | | | |
| D-ABC | 228 | 594 | 0.385 | 228 | 0.6 | 9.819 | A |
| C-ABD | 5 | 693 | 0.007 | 5 | 0.0 | 5.232 | A |
| C-D | 8 | | | 8 | | | |
| C-A | 62 | | | 62 | | | |

### 09:15 - 09:30

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-ACD | 19 | 387 | 0.048 | 19 | 0.1 | 9.772 | A |
| A-BCD | 192 | 648 | 0.297 | 192 | 0.4 | 7.898 | A |
| A-B | 10 | | | 10 | | | |
| A-C | 32 | | | 32 | | | |
| D-ABC | 280 | 588 | 0.476 | 279 | 0.9 | 11.599 | B |
| C-ABD | 6 | 688 | 0.009 | 6 | 0.0 | 5.281 | A |
| C-D | 10 | | | 10 | | | |
| C-A | 76 | | | 76 | | | |

### 09:30 - 09:45

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-ACD | 19 | 387 | 0.048 | 19 | 0.1 | 9.780 | A |
| A-BCD | 192 | 648 | 0.297 | 192 | 0.5 | 7.906 | A |
| A-B | 10 | | | 10 | | | |
| A-C | 32 | | | 32 | | | |
| D-ABC | 280 | 588 | 0.476 | 280 | 0.9 | 11.677 | B |
| C-ABD | 6 | 688 | 0.009 | 6 | 0.0 | 5.282 | A |
| C-D | 10 | | | 10 | | | |
| C-A | 76 | | | 76 | | | |

### 09:45 - 10:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-ACD | 15 | 404 | 0.038 | 15 | 0.0 | 9.260 | A |
| A-BCD | 154 | 644 | 0.239 | 154 | 0.3 | 7.359 | A |
| A-B | 9 | | | 9 | | | |
| A-C | 29 | | | 29 | | | |
| D-ABC | 228 | 594 | 0.385 | 229 | 0.6 | 9.912 | A |
| C-ABD | 5 | 693 | 0.007 | 5 | 0.0 | 5.235 | A |
| C-D | 8 | | | 8 | | | |
| C-A | 62 | | | 62 | | | |

### 10:00 - 10:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-ACD | 13 | 417 | 0.031 | 13 | 0.0 | 8.911 | A |
| A-BCD | 127 | 642 | 0.198 | 128 | 0.3 | 7.001 | A |
| A-B | 8 | | | 8 | | | |
| A-C | 25 | | | 25 | | | |
| D-ABC | 191 | 598 | 0.320 | 192 | 0.5 | 8.880 | A |
| C-ABD | 4 | 697 | 0.006 | 4 | 0.0 | 5.198 | A |
| C-D | 7 | | | 7 | | | |
| C-A | 52 | | | 52 | | | |

# 2026 Base + Dev, AM

### Data Errors and Warnings

| Severity | Area | Item | Description |
|---|---|---|---|
| Warning | Major arm width | A - Lower Road East - Major arm geometry | For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m. |
| Warning | Major arm width | C - Lower Road West - Major arm geometry | For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m. |
| Warning | Vehicle Mix | | HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning. |

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Lower Road / Cherry Orchard Road | Crossroads | Two-way | | 8.23 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D3 | 2026 Base + Dev | AM | ONE HOUR | 08:45 | 10:15 | 15 |

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

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| A - Lower Road East | | ✓ | 251 | 100.000 |
| B - Cherry Orchard Lane South | | ✓ | 17 | 100.000 |
| C - Lower Road West | | ✓ | 84 | 100.000 |
| D - Cherry Orchard Lane North | | ✓ | 256 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | | |
|---|---|---|---|---|---|
| | | A - Lower Road East | B - Cherry Orchard Lane South | C - Lower Road West | D - Cherry Orchard Lane North |
| From | A - Lower Road East | 0 | 13 | 50 | 188 |
| | B - Cherry Orchard Lane South | 8 | 0 | 2 | 7 |
| | C - Lower Road West | 70 | 5 | 0 | 9 |
| | D - Cherry Orchard Lane North | 234 | 14 | 8 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | | |
|---|---|---|---|---|---|
| | | A - Lower Road East | B - Cherry Orchard Lane South | C - Lower Road West | D - Cherry Orchard Lane North |
| From | A - Lower Road East | 0 | 0 | 0 | 0 |
| | B - Cherry Orchard Lane South | 0 | 0 | 0 | 0 |
| | C - Lower Road West | 0 | 0 | 0 | 0 |
| | D - Cherry Orchard Lane North | 0 | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| B-ACD | 0.05 | 10.03 | 0.1 | B |
| A-BCD | 0.35 | 8.54 | 0.6 | A |
| A-B | | | | |
| A-C | | | | |
| D-ABC | 0.48 | 11.84 | 0.9 | B |
| C-ABD | 0.01 | 5.40 | 0.0 | A |
| C-D | | | | |
| C-A | | | | |

## Main Results for each time segment

### 08:45 - 09:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-ACD | 13 | 411 | 0.031 | 13 | 0.0 | 9.030 | A |
| A-BCD | 153 | 646 | 0.236 | 151 | 0.3 | 7.263 | A |
| A-B | 7 | | | 7 | | | |
| A-C | 29 | | | 29 | | | |
| D-ABC | 193 | 597 | 0.323 | 191 | 0.5 | 8.830 | A |
| C-ABD | 4 | 687 | 0.006 | 4 | 0.0 | 5.273 | A |
| C-D | 7 | | | 7 | | | |
| C-A | 52 | | | 52 | | | |

### 09:00 - 09:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-ACD | 15 | 397 | 0.038 | 15 | 0.0 | 9.429 | A |
| A-BCD | 185 | 649 | 0.285 | 185 | 0.4 | 7.752 | A |
| A-B | 8 | | | 8 | | | |
| A-C | 32 | | | 32 | | | |
| D-ABC | 230 | 592 | 0.389 | 230 | 0.6 | 9.907 | A |
| C-ABD | 5 | 680 | 0.007 | 5 | 0.0 | 5.329 | A |
| C-D | 8 | | | 8 | | | |
| C-A | 62 | | | 62 | | | |

### 09:15 - 09:30

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-ACD | 19 | 378 | 0.050 | 19 | 0.1 | 10.024 | B |
| A-BCD | 232 | 653 | 0.355 | 231 | 0.6 | 8.515 | A |
| A-B | 9 | | | 9 | | | |
| A-C | 35 | | | 35 | | | |
| D-ABC | 282 | 586 | 0.481 | 281 | 0.9 | 11.757 | B |
| C-ABD | 6 | 673 | 0.009 | 6 | 0.0 | 5.401 | A |
| C-D | 10 | | | 10 | | | |
| C-A | 76 | | | 76 | | | |

### 09:30 - 09:45

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-ACD | 19 | 377 | 0.050 | 19 | 0.1 | 10.034 | B |
| A-BCD | 232 | 653 | 0.355 | 232 | 0.6 | 8.545 | A |
| A-B | 9 | | | 9 | | | |
| A-C | 35 | | | 35 | | | |
| D-ABC | 282 | 586 | 0.481 | 282 | 0.9 | 11.842 | B |
| C-ABD | 6 | 673 | 0.009 | 6 | 0.0 | 5.403 | A |
| C-D | 10 | | | 10 | | | |
| C-A | 76 | | | 76 | | | |

### 09:45 - 10:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-ACD | 15 | 397 | 0.039 | 15 | 0.0 | 9.444 | A |
| A-BCD | 185 | 649 | 0.286 | 186 | 0.4 | 7.786 | A |
| A-B | 8 | | | 8 | | | |
| A-C | 32 | | | 32 | | | |
| D-ABC | 230 | 592 | 0.389 | 231 | 0.6 | 10.006 | B |
| C-ABD | 5 | 680 | 0.007 | 5 | 0.0 | 5.334 | A |
| C-D | 8 | | | 8 | | | |
| C-A | 62 | | | 62 | | | |

### 10:00 - 10:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-ACD | 13 | 411 | 0.031 | 13 | 0.0 | 9.052 | A |
| A-BCD | 153 | 646 | 0.237 | 153 | 0.3 | 7.313 | A |
| A-B | 7 | | | 7 | | | |
| A-C | 29 | | | 29 | | | |
| D-ABC | 193 | 597 | 0.323 | 193 | 0.5 | 8.943 | A |
| C-ABD | 4 | 686 | 0.006 | 4 | 0.0 | 5.279 | A |
| C-D | 7 | | | 7 | | | |
| C-A | 52 | | | 52 | | | |

# 2028 Base, AM

### Data Errors and Warnings

| Severity | Area | Item | Description |
|---|---|---|---|
| Warning | Major arm width | A - Lower Road East - Major arm geometry | For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m. |
| Warning | Major arm width | C - Lower Road West - Major arm geometry | For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m. |
| Warning | Vehicle Mix | | HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning. |

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Lower Road / Cherry Orchard Road | Crossroads | Two-way | | 8.06 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D4 | 2028 Base | AM | ONE HOUR | 08:45 | 10:15 | 15 |

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

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| A - Lower Road East | | ✓ | 216 | 100.000 |
| B - Cherry Orchard Lane South | | ✓ | 17 | 100.000 |
| C - Lower Road West | | ✓ | 84 | 100.000 |
| D - Cherry Orchard Lane North | | ✓ | 257 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | | |
|---|---|---|---|---|---|
| | | A - Lower Road East | B - Cherry Orchard Lane South | C - Lower Road West | D - Cherry Orchard Lane North |
| From | A - Lower Road East | 0 | 14 | 42 | 160 |
| | B - Cherry Orchard Lane South | 8 | 0 | 2 | 7 |
| | C - Lower Road West | 70 | 5 | 0 | 9 |
| | D - Cherry Orchard Lane North | 234 | 15 | 8 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | | |
|---|---|---|---|---|---|
| | | A - Lower Road East | B - Cherry Orchard Lane South | C - Lower Road West | D - Cherry Orchard Lane North |
| From | A - Lower Road East | 0 | 0 | 0 | 0 |
| | B - Cherry Orchard Lane South | 0 | 0 | 0 | 0 |
| | C - Lower Road West | 0 | 0 | 0 | 0 |
| | D - Cherry Orchard Lane North | 0 | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| B-ACD | 0.05 | 9.81 | 0.1 | A |
| A-BCD | 0.30 | 7.94 | 0.5 | A |
| A-B | | | | |
| A-C | | | | |
| D-ABC | 0.48 | 11.84 | 0.9 | B |
| C-ABD | 0.01 | 5.29 | 0.0 | A |
| C-D | | | | |
| C-A | | | | |

## Main Results for each time segment

### 08:45 - 09:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-ACD | 13 | 417 | 0.031 | 13 | 0.0 | 8.906 | A |
| A-BCD | 129 | 642 | 0.201 | 128 | 0.3 | 6.984 | A |
| A-B | 8 | | | 8 | | | |
| A-C | 25 | | | 25 | | | |
| D-ABC | 193 | 597 | 0.324 | 192 | 0.5 | 8.838 | A |
| C-ABD | 4 | 696 | 0.006 | 4 | 0.0 | 5.200 | A |
| C-D | 7 | | | 7 | | | |
| C-A | 52 | | | 52 | | | |

### 09:00 - 09:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-ACD | 15 | 404 | 0.038 | 15 | 0.0 | 9.266 | A |
| A-BCD | 156 | 645 | 0.242 | 156 | 0.3 | 7.358 | A |
| A-B | 10 | | | 10 | | | |
| A-C | 29 | | | 29 | | | |
| D-ABC | 231 | 593 | 0.390 | 230 | 0.6 | 9.914 | A |
| C-ABD | 5 | 692 | 0.007 | 5 | 0.0 | 5.239 | A |
| C-D | 8 | | | 8 | | | |
| C-A | 62 | | | 62 | | | |

### 09:15 - 09:30

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-ACD | 19 | 386 | 0.048 | 19 | 0.1 | 9.798 | A |
| A-BCD | 195 | 648 | 0.301 | 194 | 0.5 | 7.926 | A |
| A-B | 11 | | | 11 | | | |
| A-C | 32 | | | 32 | | | |
| D-ABC | 283 | 587 | 0.482 | 282 | 0.9 | 11.758 | B |
| C-ABD | 6 | 687 | 0.009 | 6 | 0.0 | 5.290 | A |
| C-D | 10 | | | 10 | | | |
| C-A | 76 | | | 76 | | | |

### 09:30 - 09:45

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-ACD | 19 | 386 | 0.049 | 19 | 0.1 | 9.807 | A |
| A-BCD | 195 | 648 | 0.301 | 195 | 0.5 | 7.942 | A |
| A-B | 11 | | | 11 | | | |
| A-C | 32 | | | 32 | | | |
| D-ABC | 283 | 587 | 0.482 | 283 | 0.9 | 11.842 | B |
| C-ABD | 6 | 687 | 0.009 | 6 | 0.0 | 5.293 | A |
| C-D | 10 | | | 10 | | | |
| C-A | 76 | | | 76 | | | |

### 09:45 - 10:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-ACD | 15 | 403 | 0.038 | 15 | 0.0 | 9.277 | A |
| A-BCD | 156 | 645 | 0.242 | 157 | 0.3 | 7.383 | A |
| A-B | 10 | | | 10 | | | |
| A-C | 29 | | | 29 | | | |
| D-ABC | 231 | 593 | 0.390 | 232 | 0.6 | 10.013 | B |
| C-ABD | 5 | 692 | 0.007 | 5 | 0.0 | 5.242 | A |
| C-D | 8 | | | 8 | | | |
| C-A | 62 | | | 62 | | | |

### 10:00 - 10:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-ACD | 13 | 416 | 0.031 | 13 | 0.0 | 8.926 | A |
| A-BCD | 129 | 643 | 0.201 | 129 | 0.3 | 7.019 | A |
| A-B | 8 | | | 8 | | | |
| A-C | 25 | | | 25 | | | |
| D-ABC | 193 | 597 | 0.324 | 194 | 0.5 | 8.951 | A |
| C-ABD | 4 | 696 | 0.006 | 4 | 0.0 | 5.206 | A |
| C-D | 7 | | | 7 | | | |
| C-A | 52 | | | 52 | | | |

# 2028 Base + Dev, AM

### Data Errors and Warnings

| Severity | Area | Item | Description |
|---|---|---|---|
| Warning | Major arm width | A - Lower Road East - Major arm geometry | For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m. |
| Warning | Major arm width | C - Lower Road West - Major arm geometry | For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m. |
| Warning | Vehicle Mix | | HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning. |

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Lower Road / Cherry Orchard Road | Crossroads | Two-way | | 8.34 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D5 | 2028 Base + Dev | AM | ONE HOUR | 08:45 | 10:15 | 15 |

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

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| A - Lower Road East | | ✓ | 254 | 100.000 |
| B - Cherry Orchard Lane South | | ✓ | 17 | 100.000 |
| C - Lower Road West | | ✓ | 85 | 100.000 |
| D - Cherry Orchard Lane North | | ✓ | 260 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | | |
|---|---|---|---|---|---|
| | | A - Lower Road East | B - Cherry Orchard Lane South | C - Lower Road West | D - Cherry Orchard Lane North |
| From | A - Lower Road East | 0 | 14 | 50 | 190 |
| | B - Cherry Orchard Lane South | 8 | 0 | 2 | 7 |
| | C - Lower Road West | 71 | 5 | 0 | 9 |
| | D - Cherry Orchard Lane North | 237 | 15 | 8 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | | |
|---|---|---|---|---|---|
| | | A - Lower Road East | B - Cherry Orchard Lane South | C - Lower Road West | D - Cherry Orchard Lane North |
| From | A - Lower Road East | 0 | 0 | 0 | 0 |
| | B - Cherry Orchard Lane South | 0 | 0 | 0 | 0 |
| | C - Lower Road West | 0 | 0 | 0 | 0 |
| | D - Cherry Orchard Lane North | 0 | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| B-ACD | 0.05 | 10.07 | 0.1 | B |
| A-BCD | 0.36 | 8.59 | 0.6 | A |
| A-B | | | | |
| A-C | | | | |
| D-ABC | 0.49 | 12.06 | 0.9 | B |
| C-ABD | 0.01 | 5.41 | 0.0 | A |
| C-D | | | | |
| C-A | | | | |

## Main Results for each time segment

### 08:45 - 09:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-ACD | 13 | 410 | 0.031 | 13 | 0.0 | 9.049 | A |
| A-BCD | 155 | 646 | 0.239 | 153 | 0.3 | 7.286 | A |
| A-B | 8 | | | 8 | | | |
| A-C | 29 | | | 29 | | | |
| D-ABC | 196 | 596 | 0.329 | 194 | 0.5 | 8.914 | A |
| C-ABD | 4 | 686 | 0.006 | 4 | 0.0 | 5.276 | A |
| C-D | 7 | | | 7 | | | |
| C-A | 53 | | | 53 | | | |

### 09:00 - 09:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-ACD | 15 | 396 | 0.039 | 15 | 0.0 | 9.454 | A |
| A-BCD | 188 | 649 | 0.289 | 187 | 0.4 | 7.784 | A |
| A-B | 9 | | | 9 | | | |
| A-C | 32 | | | 32 | | | |
| D-ABC | 234 | 591 | 0.395 | 233 | 0.6 | 10.037 | B |
| C-ABD | 5 | 680 | 0.007 | 5 | 0.0 | 5.332 | A |
| C-D | 8 | | | 8 | | | |
| C-A | 63 | | | 63 | | | |

### 09:15 - 09:30

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-ACD | 19 | 376 | 0.050 | 19 | 0.1 | 10.061 | B |
| A-BCD | 235 | 654 | 0.359 | 234 | 0.6 | 8.567 | A |
| A-B | 10 | | | 10 | | | |
| A-C | 35 | | | 35 | | | |
| D-ABC | 286 | 585 | 0.490 | 285 | 0.9 | 11.971 | B |
| C-ABD | 6 | 672 | 0.009 | 6 | 0.0 | 5.404 | A |
| C-D | 10 | | | 10 | | | |
| C-A | 77 | | | 77 | | | |

### 09:30 - 09:45

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-ACD | 19 | 376 | 0.050 | 19 | 0.1 | 10.071 | B |
| A-BCD | 235 | 654 | 0.359 | 235 | 0.6 | 8.593 | A |
| A-B | 10 | | | 10 | | | |
| A-C | 35 | | | 35 | | | |
| D-ABC | 286 | 585 | 0.490 | 286 | 0.9 | 12.063 | B |
| C-ABD | 6 | 672 | 0.009 | 6 | 0.0 | 5.408 | A |
| C-D | 10 | | | 10 | | | |
| C-A | 77 | | | 77 | | | |

### 09:45 - 10:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-ACD | 15 | 396 | 0.039 | 15 | 0.0 | 9.470 | A |
| A-BCD | 188 | 650 | 0.289 | 188 | 0.4 | 7.820 | A |
| A-B | 9 | | | 9 | | | |
| A-C | 32 | | | 32 | | | |
| D-ABC | 234 | 591 | 0.395 | 235 | 0.7 | 10.139 | B |
| C-ABD | 5 | 680 | 0.007 | 5 | 0.0 | 5.337 | A |
| C-D | 8 | | | 8 | | | |
| C-A | 63 | | | 63 | | | |

### 10:00 - 10:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-ACD | 13 | 410 | 0.031 | 13 | 0.0 | 9.071 | A |
| A-BCD | 155 | 646 | 0.239 | 155 | 0.3 | 7.338 | A |
| A-B | 8 | | | 8 | | | |
| A-C | 29 | | | 29 | | | |
| D-ABC | 196 | 596 | 0.329 | 196 | 0.5 | 9.031 | A |
| C-ABD | 4 | 686 | 0.006 | 4 | 0.0 | 5.281 | A |
| C-D | 7 | | | 7 | | | |
| C-A | 53 | | | 53 | | | |

# 2021 Survey, PM

### Data Errors and Warnings

| Severity | Area | Item | Description |
|---|---|---|---|
| Warning | Major arm width | A - Lower Road East - Major arm geometry | For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m. |
| Warning | Major arm width | C - Lower Road West - Major arm geometry | For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m. |
| Warning | Vehicle Mix | | HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning. |

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Lower Road / Cherry Orchard Road | Crossroads | Two-way | | 6.67 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D6 | 2021 Survey | PM | ONE HOUR | 13:45 | 15:15 | 15 |

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

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| A - Lower Road East | | ✓ | 269 | 100.000 |
| B - Cherry Orchard Lane South | | ✓ | 16 | 100.000 |
| C - Lower Road West | | ✓ | 56 | 100.000 |
| D - Cherry Orchard Lane North | | ✓ | 166 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | | |
|---|---|---|---|---|---|
| | | A - Lower Road East | B - Cherry Orchard Lane South | C - Lower Road West | D - Cherry Orchard Lane North |
| From | A - Lower Road East | 0 | 7 | 75 | 187 |
| | B - Cherry Orchard Lane South | 4 | 0 | 2 | 10 |
| | C - Lower Road West | 44 | 0 | 0 | 12 |
| | D - Cherry Orchard Lane North | 148 | 7 | 11 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | | |
|---|---|---|---|---|---|
| | | A - Lower Road East | B - Cherry Orchard Lane South | C - Lower Road West | D - Cherry Orchard Lane North |
| From | A - Lower Road East | 0 | 0 | 0 | 0 |
| | B - Cherry Orchard Lane South | 0 | 0 | 0 | 0 |
| | C - Lower Road West | 0 | 0 | 0 | 0 |
| | D - Cherry Orchard Lane North | 0 | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| B-ACD | 0.04 | 9.41 | 0.0 | A |
| A-BCD | 0.35 | 8.24 | 0.6 | A |
| A-B | | | | |
| A-C | | | | |
| D-ABC | 0.31 | 8.95 | 0.5 | A |
| C-ABD | 0.00 | 0.00 | 0.0 | A |
| C-D | | | | |
| C-A | | | | |

## Main Results for each time segment

### 13:45 - 14:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-ACD | 12 | 426 | 0.028 | 12 | 0.0 | 8.688 | A |
| A-BCD | 155 | 661 | 0.235 | 154 | 0.3 | 7.087 | A |
| A-B | 4 | | | 4 | | | |
| A-C | 43 | | | 43 | | | |
| D-ABC | 125 | 595 | 0.210 | 124 | 0.3 | 7.622 | A |
| C-ABD | 0 | 645 | 0.000 | 0 | 0.0 | 0.000 | A |
| C-D | 9 | | | 9 | | | |
| C-A | 33 | | | 33 | | | |

### 14:00 - 14:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-ACD | 14 | 415 | 0.035 | 14 | 0.0 | 8.980 | A |
| A-BCD | 189 | 667 | 0.284 | 189 | 0.4 | 7.530 | A |
| A-B | 4 | | | 4 | | | |
| A-C | 48 | | | 48 | | | |
| D-ABC | 149 | 591 | 0.253 | 149 | 0.3 | 8.139 | A |
| C-ABD | 0 | 630 | 0.000 | 0 | 0.0 | 0.000 | A |
| C-D | 11 | | | 11 | | | |
| C-A | 40 | | | 40 | | | |

### 14:15 - 14:30

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-ACD | 18 | 400 | 0.044 | 18 | 0.0 | 9.403 | A |
| A-BCD | 238 | 675 | 0.352 | 237 | 0.6 | 8.219 | A |
| A-B | 5 | | | 5 | | | |
| A-C | 53 | | | 53 | | | |
| D-ABC | 183 | 585 | 0.312 | 182 | 0.4 | 8.928 | A |
| C-ABD | 0 | 610 | 0.000 | 0 | 0.0 | 0.000 | A |
| C-D | 13 | | | 13 | | | |
| C-A | 48 | | | 48 | | | |

### 14:30 - 14:45

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-ACD | 18 | 400 | 0.044 | 18 | 0.0 | 9.409 | A |
| A-BCD | 238 | 675 | 0.353 | 238 | 0.6 | 8.242 | A |
| A-B | 5 | | | 5 | | | |
| A-C | 53 | | | 53 | | | |
| D-ABC | 183 | 585 | 0.312 | 183 | 0.5 | 8.949 | A |
| C-ABD | 0 | 610 | 0.000 | 0 | 0.0 | 0.000 | A |
| C-D | 13 | | | 13 | | | |
| C-A | 48 | | | 48 | | | |

### 14:45 - 15:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-ACD | 14 | 415 | 0.035 | 14 | 0.0 | 8.987 | A |
| A-BCD | 189 | 667 | 0.284 | 190 | 0.4 | 7.563 | A |
| A-B | 4 | | | 4 | | | |
| A-C | 48 | | | 48 | | | |
| D-ABC | 149 | 591 | 0.253 | 150 | 0.3 | 8.167 | A |
| C-ABD | 0 | 630 | 0.000 | 0 | 0.0 | 0.000 | A |
| C-D | 11 | | | 11 | | | |
| C-A | 40 | | | 40 | | | |

### 15:00 - 15:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-ACD | 12 | 426 | 0.028 | 12 | 0.0 | 8.702 | A |
| A-BCD | 155 | 661 | 0.235 | 156 | 0.3 | 7.138 | A |
| A-B | 4 | | | 4 | | | |
| A-C | 43 | | | 43 | | | |
| D-ABC | 125 | 595 | 0.210 | 125 | 0.3 | 7.670 | A |
| C-ABD | 0 | 644 | 0.000 | 0 | 0.0 | 0.000 | A |
| C-D | 9 | | | 9 | | | |
| C-A | 33 | | | 33 | | | |

# 2026 Base, PM

### Data Errors and Warnings

| Severity | Area | Item | Description |
|---|---|---|---|
| Warning | Major arm width | A - Lower Road East - Major arm geometry | For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m. |
| Warning | Major arm width | C - Lower Road West - Major arm geometry | For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m. |
| Warning | Vehicle Mix | | HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning. |

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Lower Road / Cherry Orchard Road | Crossroads | Two-way | | 6.80 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D7 | 2026 Base | PM | ONE HOUR | 13:45 | 15:15 | 15 |

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

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| A - Lower Road East | | ✓ | 278 | 100.000 |
| B - Cherry Orchard Lane South | | ✓ | 16 | 100.000 |
| C - Lower Road West | | ✓ | 58 | 100.000 |
| D - Cherry Orchard Lane North | | ✓ | 171 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | | |
|---|---|---|---|---|---|
| | | A - Lower Road East | B - Cherry Orchard Lane South | C - Lower Road West | D - Cherry Orchard Lane North |
| From | A - Lower Road East | 0 | 7 | 77 | 194 |
| | B - Cherry Orchard Lane South | 4 | 0 | 2 | 10 |
| | C - Lower Road West | 46 | 0 | 0 | 12 |
| | D - Cherry Orchard Lane North | 153 | 7 | 11 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | | |
|---|---|---|---|---|---|
| | | A - Lower Road East | B - Cherry Orchard Lane South | C - Lower Road West | D - Cherry Orchard Lane North |
| From | A - Lower Road East | 0 | 0 | 0 | 0 |
| | B - Cherry Orchard Lane South | 0 | 0 | 0 | 0 |
| | C - Lower Road West | 0 | 0 | 0 | 0 |
| | D - Cherry Orchard Lane North | 0 | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| B-ACD | 0.04 | 9.48 | 0.0 | A |
| A-BCD | 0.37 | 8.41 | 0.6 | A |
| A-B | | | | |
| A-C | | | | |
| D-ABC | 0.32 | 9.08 | 0.5 | A |
| C-ABD | 0.00 | 0.00 | 0.0 | A |
| C-D | | | | |
| C-A | | | | |

## Main Results for each time segment

### 13:45 - 14:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-ACD | 12 | 424 | 0.028 | 12 | 0.0 | 8.727 | A |
| A-BCD | 161 | 661 | 0.244 | 160 | 0.3 | 7.166 | A |
| A-B | 4 | | | 4 | | | |
| A-C | 44 | | | 44 | | | |
| D-ABC | 129 | 595 | 0.216 | 128 | 0.3 | 7.682 | A |
| C-ABD | 0 | 642 | 0.000 | 0 | 0.0 | 0.000 | A |
| C-D | 9 | | | 9 | | | |
| C-A | 35 | | | 35 | | | |

### 14:00 - 14:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-ACD | 14 | 413 | 0.035 | 14 | 0.0 | 9.030 | A |
| A-BCD | 197 | 668 | 0.295 | 196 | 0.5 | 7.637 | A |
| A-B | 4 | | | 4 | | | |
| A-C | 49 | | | 49 | | | |
| D-ABC | 154 | 591 | 0.260 | 153 | 0.3 | 8.223 | A |
| C-ABD | 0 | 627 | 0.000 | 0 | 0.0 | 0.000 | A |
| C-D | 11 | | | 11 | | | |
| C-A | 41 | | | 41 | | | |

### 14:15 - 14:30

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-ACD | 18 | 398 | 0.044 | 18 | 0.0 | 9.472 | A |
| A-BCD | 248 | 676 | 0.366 | 247 | 0.6 | 8.387 | A |
| A-B | 5 | | | 5 | | | |
| A-C | 54 | | | 54 | | | |
| D-ABC | 188 | 585 | 0.322 | 188 | 0.5 | 9.056 | A |
| C-ABD | 0 | 606 | 0.000 | 0 | 0.0 | 0.000 | A |
| C-D | 13 | | | 13 | | | |
| C-A | 51 | | | 51 | | | |

### 14:30 - 14:45

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-ACD | 18 | 397 | 0.044 | 18 | 0.0 | 9.478 | A |
| A-BCD | 248 | 676 | 0.367 | 248 | 0.6 | 8.413 | A |
| A-B | 5 | | | 5 | | | |
| A-C | 53 | | | 53 | | | |
| D-ABC | 188 | 585 | 0.322 | 188 | 0.5 | 9.078 | A |
| C-ABD | 0 | 606 | 0.000 | 0 | 0.0 | 0.000 | A |
| C-D | 13 | | | 13 | | | |
| C-A | 51 | | | 51 | | | |

### 14:45 - 15:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-ACD | 14 | 413 | 0.035 | 14 | 0.0 | 9.040 | A |
| A-BCD | 197 | 668 | 0.295 | 198 | 0.5 | 7.673 | A |
| A-B | 4 | | | 4 | | | |
| A-C | 49 | | | 49 | | | |
| D-ABC | 154 | 591 | 0.260 | 154 | 0.4 | 8.253 | A |
| C-ABD | 0 | 627 | 0.000 | 0 | 0.0 | 0.000 | A |
| C-D | 11 | | | 11 | | | |
| C-A | 41 | | | 41 | | | |

### 15:00 - 15:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-ACD | 12 | 424 | 0.028 | 12 | 0.0 | 8.743 | A |
| A-BCD | 162 | 662 | 0.244 | 162 | 0.4 | 7.219 | A |
| A-B | 4 | | | 4 | | | |
| A-C | 44 | | | 44 | | | |
| D-ABC | 129 | 595 | 0.216 | 129 | 0.3 | 7.729 | A |
| C-ABD | 0 | 642 | 0.000 | 0 | 0.0 | 0.000 | A |
| C-D | 9 | | | 9 | | | |
| C-A | 35 | | | 35 | | | |

# 2026 Base + Dev, PM

### Data Errors and Warnings

| Severity | Area | Item | Description |
|---|---|---|---|
| Warning | Major arm width | A - Lower Road East - Major arm geometry | For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m. |
| Warning | Major arm width | C - Lower Road West - Major arm geometry | For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m. |
| Warning | Vehicle Mix | | HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning. |

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Lower Road / Cherry Orchard Road | Crossroads | Two-way | | 7.12 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D8 | 2026 Base + Dev | PM | ONE HOUR | 13:45 | 15:15 | 15 |

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

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| A - Lower Road East | | ✓ | 281 | 100.000 |
| B - Cherry Orchard Lane South | | ✓ | 16 | 100.000 |
| C - Lower Road West | | ✓ | 66 | 100.000 |
| D - Cherry Orchard Lane North | | ✓ | 200 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | | |
|---|---|---|---|---|---|
| | | A - Lower Road East | B - Cherry Orchard Lane South | C - Lower Road West | D - Cherry Orchard Lane North |
| From | A - Lower Road East | 0 | 7 | 78 | 196 |
| | B - Cherry Orchard Lane South | 4 | 0 | 2 | 10 |
| | C - Lower Road West | 54 | 0 | 0 | 12 |
| | D - Cherry Orchard Lane North | 182 | 7 | 11 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | | |
|---|---|---|---|---|---|
| | | A - Lower Road East | B - Cherry Orchard Lane South | C - Lower Road West | D - Cherry Orchard Lane North |
| From | A - Lower Road East | 0 | 0 | 0 | 0 |
| | B - Cherry Orchard Lane South | 0 | 0 | 0 | 0 |
| | C - Lower Road West | 0 | 0 | 0 | 0 |
| | D - Cherry Orchard Lane North | 0 | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| B-ACD | 0.04 | 9.58 | 0.0 | A |
| A-BCD | 0.37 | 8.50 | 0.6 | A |
| A-B | | | | |
| A-C | | | | |
| D-ABC | 0.37 | 9.80 | 0.6 | A |
| C-ABD | 0.00 | 0.00 | 0.0 | A |
| C-D | | | | |
| C-A | | | | |

## Main Results for each time segment

### 13:45 - 14:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-ACD | 12 | 422 | 0.029 | 12 | 0.0 | 8.784 | A |
| A-BCD | 163 | 660 | 0.247 | 162 | 0.4 | 7.204 | A |
| A-B | 4 | | | 4 | | | |
| A-C | 44 | | | 44 | | | |
| D-ABC | 151 | 598 | 0.252 | 149 | 0.3 | 8.006 | A |
| C-ABD | 0 | 642 | 0.000 | 0 | 0.0 | 0.000 | A |
| C-D | 9 | | | 9 | | | |
| C-A | 41 | | | 41 | | | |

### 14:00 - 14:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-ACD | 14 | 410 | 0.035 | 14 | 0.0 | 9.104 | A |
| A-BCD | 199 | 666 | 0.299 | 199 | 0.5 | 7.695 | A |
| A-B | 4 | | | 4 | | | |
| A-C | 49 | | | 49 | | | |
| D-ABC | 180 | 593 | 0.303 | 179 | 0.4 | 8.688 | A |
| C-ABD | 0 | 626 | 0.000 | 0 | 0.0 | 0.000 | A |
| C-D | 11 | | | 11 | | | |
| C-A | 49 | | | 49 | | | |

### 14:15 - 14:30

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-ACD | 18 | 393 | 0.045 | 18 | 0.0 | 9.575 | A |
| A-BCD | 251 | 675 | 0.372 | 250 | 0.6 | 8.473 | A |
| A-B | 5 | | | 5 | | | |
| A-C | 54 | | | 54 | | | |
| D-ABC | 220 | 587 | 0.375 | 220 | 0.6 | 9.770 | A |
| C-ABD | 0 | 605 | 0.000 | 0 | 0.0 | 0.000 | A |
| C-D | 13 | | | 13 | | | |
| C-A | 59 | | | 59 | | | |

### 14:30 - 14:45

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-ACD | 18 | 393 | 0.045 | 18 | 0.0 | 9.582 | A |
| A-BCD | 251 | 675 | 0.372 | 251 | 0.6 | 8.501 | A |
| A-B | 5 | | | 5 | | | |
| A-C | 54 | | | 54 | | | |
| D-ABC | 220 | 587 | 0.375 | 220 | 0.6 | 9.804 | A |
| C-ABD | 0 | 605 | 0.000 | 0 | 0.0 | 0.000 | A |
| C-D | 13 | | | 13 | | | |
| C-A | 59 | | | 59 | | | |

### 14:45 - 15:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-ACD | 14 | 409 | 0.035 | 14 | 0.0 | 9.113 | A |
| A-BCD | 199 | 667 | 0.299 | 200 | 0.5 | 7.734 | A |
| A-B | 4 | | | 4 | | | |
| A-C | 49 | | | 49 | | | |
| D-ABC | 180 | 593 | 0.303 | 180 | 0.4 | 8.733 | A |
| C-ABD | 0 | 626 | 0.000 | 0 | 0.0 | 0.000 | A |
| C-D | 11 | | | 11 | | | |
| C-A | 49 | | | 49 | | | |

### 15:00 - 15:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-ACD | 12 | 421 | 0.029 | 12 | 0.0 | 8.801 | A |
| A-BCD | 164 | 661 | 0.248 | 164 | 0.4 | 7.261 | A |
| A-B | 4 | | | 4 | | | |
| A-C | 44 | | | 44 | | | |
| D-ABC | 151 | 598 | 0.252 | 151 | 0.3 | 8.069 | A |
| C-ABD | 0 | 641 | 0.000 | 0 | 0.0 | 0.000 | A |
| C-D | 9 | | | 9 | | | |
| C-A | 41 | | | 41 | | | |

# 2028 Base, PM

### Data Errors and Warnings

| Severity | Area | Item | Description |
|---|---|---|---|
| Warning | Major arm width | A - Lower Road East - Major arm geometry | For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m. |
| Warning | Major arm width | C - Lower Road West - Major arm geometry | For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m. |
| Warning | Vehicle Mix | | HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning. |

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Lower Road / Cherry Orchard Road | Crossroads | Two-way | | 6.89 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D9 | 2028 Base | PM | ONE HOUR | 13:45 | 15:15 | 15 |

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

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| A - Lower Road East | | ✓ | 282 | 100.000 |
| B - Cherry Orchard Lane South | | ✓ | 16 | 100.000 |
| C - Lower Road West | | ✓ | 59 | 100.000 |
| D - Cherry Orchard Lane North | | ✓ | 175 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | | |
|---|---|---|---|---|---|
| | | A - Lower Road East | B - Cherry Orchard Lane South | C - Lower Road West | D - Cherry Orchard Lane North |
| From | A - Lower Road East | 0 | 7 | 78 | 197 |
| | B - Cherry Orchard Lane South | 4 | 0 | 2 | 10 |
| | C - Lower Road West | 46 | 0 | 0 | 13 |
| | D - Cherry Orchard Lane North | 156 | 7 | 12 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | | |
|---|---|---|---|---|---|
| | | A - Lower Road East | B - Cherry Orchard Lane South | C - Lower Road West | D - Cherry Orchard Lane North |
| From | A - Lower Road East | 0 | 0 | 0 | 0 |
| | B - Cherry Orchard Lane South | 0 | 0 | 0 | 0 |
| | C - Lower Road West | 0 | 0 | 0 | 0 |
| | D - Cherry Orchard Lane North | 0 | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| B-ACD | 0.04 | 9.51 | 0.0 | A |
| A-BCD | 0.37 | 8.49 | 0.7 | A |
| A-B | | | | |
| A-C | | | | |
| D-ABC | 0.33 | 9.21 | 0.5 | A |
| C-ABD | 0.00 | 0.00 | 0.0 | A |
| C-D | | | | |
| C-A | | | | |

## Main Results for each time segment

### 13:45 - 14:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-ACD | 12 | 423 | 0.028 | 12 | 0.0 | 8.745 | A |
| A-BCD | 164 | 662 | 0.248 | 163 | 0.4 | 7.198 | A |
| A-B | 4 | | | 4 | | | |
| A-C | 44 | | | 44 | | | |
| D-ABC | 132 | 594 | 0.222 | 131 | 0.3 | 7.749 | A |
| C-ABD | 0 | 641 | 0.000 | 0 | 0.0 | 0.000 | A |
| C-D | 10 | | | 10 | | | |
| C-A | 35 | | | 35 | | | |

### 14:00 - 14:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-ACD | 14 | 412 | 0.035 | 14 | 0.0 | 9.054 | A |
| A-BCD | 200 | 668 | 0.300 | 200 | 0.5 | 7.686 | A |
| A-B | 4 | | | 4 | | | |
| A-C | 49 | | | 49 | | | |
| D-ABC | 157 | 590 | 0.267 | 157 | 0.4 | 8.315 | A |
| C-ABD | 0 | 626 | 0.000 | 0 | 0.0 | 0.000 | A |
| C-D | 12 | | | 12 | | | |
| C-A | 41 | | | 41 | | | |

### 14:15 - 14:30

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-ACD | 18 | 396 | 0.044 | 18 | 0.0 | 9.504 | A |
| A-BCD | 252 | 676 | 0.373 | 251 | 0.6 | 8.460 | A |
| A-B | 5 | | | 5 | | | |
| A-C | 54 | | | 54 | | | |
| D-ABC | 193 | 583 | 0.330 | 192 | 0.5 | 9.190 | A |
| C-ABD | 0 | 605 | 0.000 | 0 | 0.0 | 0.000 | A |
| C-D | 14 | | | 14 | | | |
| C-A | 51 | | | 51 | | | |

### 14:30 - 14:45

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-ACD | 18 | 396 | 0.044 | 18 | 0.0 | 9.511 | A |
| A-BCD | 252 | 677 | 0.373 | 252 | 0.7 | 8.488 | A |
| A-B | 5 | | | 5 | | | |
| A-C | 54 | | | 54 | | | |
| D-ABC | 193 | 583 | 0.330 | 193 | 0.5 | 9.214 | A |
| C-ABD | 0 | 604 | 0.000 | 0 | 0.0 | 0.000 | A |
| C-D | 14 | | | 14 | | | |
| C-A | 51 | | | 51 | | | |

### 14:45 - 15:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-ACD | 14 | 412 | 0.035 | 14 | 0.0 | 9.062 | A |
| A-BCD | 200 | 668 | 0.300 | 201 | 0.5 | 7.725 | A |
| A-B | 4 | | | 4 | | | |
| A-C | 49 | | | 49 | | | |
| D-ABC | 157 | 590 | 0.267 | 158 | 0.4 | 8.349 | A |
| C-ABD | 0 | 625 | 0.000 | 0 | 0.0 | 0.000 | A |
| C-D | 12 | | | 12 | | | |
| C-A | 41 | | | 41 | | | |

### 15:00 - 15:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-ACD | 12 | 423 | 0.028 | 12 | 0.0 | 8.760 | A |
| A-BCD | 164 | 662 | 0.248 | 165 | 0.4 | 7.251 | A |
| A-B | 4 | | | 4 | | | |
| A-C | 44 | | | 44 | | | |
| D-ABC | 132 | 594 | 0.222 | 132 | 0.3 | 7.799 | A |
| C-ABD | 0 | 641 | 0.000 | 0 | 0.0 | 0.000 | A |
| C-D | 10 | | | 10 | | | |
| C-A | 35 | | | 35 | | | |

# 2028 Base + Dev, PM

### Data Errors and Warnings

| Severity | Area | Item | Description |
|---|---|---|---|
| Warning | Major arm width | A - Lower Road East - Major arm geometry | For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m. |
| Warning | Major arm width | C - Lower Road West - Major arm geometry | For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m. |
| Warning | Vehicle Mix | | HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning. |

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Lower Road / Cherry Orchard Road | Crossroads | Two-way | | 7.21 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D10 | 2028 Base + Dev | PM | ONE HOUR | 13:45 | 15:15 | 15 |

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

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| A - Lower Road East | | ✓ | 285 | 100.000 |
| B - Cherry Orchard Lane South | | ✓ | 16 | 100.000 |
| C - Lower Road West | | ✓ | 68 | 100.000 |
| D - Cherry Orchard Lane North | | ✓ | 204 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | | |
|---|---|---|---|---|---|
| | | A - Lower Road East | B - Cherry Orchard Lane South | C - Lower Road West | D - Cherry Orchard Lane North |
| From | A - Lower Road East | 0 | 7 | 79 | 199 |
| | B - Cherry Orchard Lane South | 4 | 0 | 2 | 10 |
| | C - Lower Road West | 55 | 0 | 0 | 13 |
| | D - Cherry Orchard Lane North | 185 | 7 | 12 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | | |
|---|---|---|---|---|---|
| | | A - Lower Road East | B - Cherry Orchard Lane South | C - Lower Road West | D - Cherry Orchard Lane North |
| From | A - Lower Road East | 0 | 0 | 0 | 0 |
| | B - Cherry Orchard Lane South | 0 | 0 | 0 | 0 |
| | C - Lower Road West | 0 | 0 | 0 | 0 |
| | D - Cherry Orchard Lane North | 0 | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| B-ACD | 0.04 | 9.62 | 0.0 | A |
| A-BCD | 0.38 | 8.59 | 0.7 | A |
| A-B | | | | |
| A-C | | | | |
| D-ABC | 0.38 | 9.97 | 0.6 | A |
| C-ABD | 0.00 | 0.00 | 0.0 | A |
| C-D | | | | |
| C-A | | | | |

## Main Results for each time segment

### 13:45 - 14:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-ACD | 12 | 421 | 0.029 | 12 | 0.0 | 8.804 | A |
| A-BCD | 166 | 661 | 0.251 | 165 | 0.4 | 7.242 | A |
| A-B | 4 | | | 4 | | | |
| A-C | 45 | | | 45 | | | |
| D-ABC | 154 | 596 | 0.258 | 152 | 0.3 | 8.079 | A |
| C-ABD | 0 | 640 | 0.000 | 0 | 0.0 | 0.000 | A |
| C-D | 10 | | | 10 | | | |
| C-A | 41 | | | 41 | | | |

### 14:00 - 14:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-ACD | 14 | 409 | 0.035 | 14 | 0.0 | 9.131 | A |
| A-BCD | 203 | 667 | 0.304 | 202 | 0.5 | 7.748 | A |
| A-B | 4 | | | 4 | | | |
| A-C | 49 | | | 49 | | | |
| D-ABC | 183 | 592 | 0.310 | 183 | 0.4 | 8.793 | A |
| C-ABD | 0 | 625 | 0.000 | 0 | 0.0 | 0.000 | A |
| C-D | 12 | | | 12 | | | |
| C-A | 49 | | | 49 | | | |

### 14:15 - 14:30

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-ACD | 18 | 392 | 0.045 | 18 | 0.0 | 9.612 | A |
| A-BCD | 255 | 675 | 0.378 | 254 | 0.7 | 8.556 | A |
| A-B | 5 | | | 5 | | | |
| A-C | 54 | | | 54 | | | |
| D-ABC | 225 | 586 | 0.384 | 224 | 0.6 | 9.933 | A |
| C-ABD | 0 | 603 | 0.000 | 0 | 0.0 | 0.000 | A |
| C-D | 14 | | | 14 | | | |
| C-A | 61 | | | 61 | | | |

### 14:30 - 14:45

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-ACD | 18 | 392 | 0.045 | 18 | 0.0 | 9.619 | A |
| A-BCD | 255 | 675 | 0.378 | 255 | 0.7 | 8.586 | A |
| A-B | 5 | | | 5 | | | |
| A-C | 54 | | | 54 | | | |
| D-ABC | 225 | 586 | 0.384 | 225 | 0.6 | 9.969 | A |
| C-ABD | 0 | 603 | 0.000 | 0 | 0.0 | 0.000 | A |
| C-D | 14 | | | 14 | | | |
| C-A | 61 | | | 61 | | | |

### 14:45 - 15:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-ACD | 14 | 408 | 0.035 | 14 | 0.0 | 9.141 | A |
| A-BCD | 203 | 667 | 0.304 | 203 | 0.5 | 7.787 | A |
| A-B | 4 | | | 4 | | | |
| A-C | 49 | | | 49 | | | |
| D-ABC | 183 | 592 | 0.310 | 184 | 0.5 | 8.842 | A |
| C-ABD | 0 | 624 | 0.000 | 0 | 0.0 | 0.000 | A |
| C-D | 12 | | | 12 | | | |
| C-A | 49 | | | 49 | | | |

### 15:00 - 15:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-ACD | 12 | 420 | 0.029 | 12 | 0.0 | 8.820 | A |
| A-BCD | 166 | 661 | 0.252 | 167 | 0.4 | 7.296 | A |
| A-B | 4 | | | 4 | | | |
| A-C | 44 | | | 44 | | | |
| D-ABC | 154 | 596 | 0.258 | 154 | 0.4 | 8.148 | A |
| C-ABD | 0 | 640 | 0.000 | 0 | 0.0 | 0.000 | A |
| C-D | 10 | | | 10 | | | |
| C-A | 41 | | | 41 | | | |

# Junctions 9

## ARCADY 9 - Roundabout Module

Version: 9.5.1.7462
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For sales and distribution information, program advice and maintenance, contact TRL:
+44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk

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

**Filename:** 2. Lower Road - Brunel Road [Mini Roundabout].j9
**Path:** C:\Users\BUR103205\Downloads\Modelling\Modelling
**Report generation date:** 27/09/2023 11:38:44

»2021 Survey, AM
»2026 Base, AM
»2026 Base + Dev, AM
»2028 Base, AM
»2028 Base + Dev, AM
»2021 Survey, PM
»2026 Base, PM
»2026 Base + Dev, PM
»2028 Base, PM
»2028 Base + Dev, PM

### Summary of junction performance

| | AM | | | | | PM | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Set ID | Queue (PCU) | Delay (s) | RFC | LOS | Set ID | Queue (PCU) | Delay (s) | RFC | LOS |
| **2021 Survey** | | | | | | | | | | |
| 1 - Lower Road East | D1 | 0.3 | 3.69 | 0.24 | A | D6 | 0.3 | 3.50 | 0.23 | A |
| 2 - Brunel Road | | 0.4 | 8.49 | 0.31 | A | | 0.6 | 9.75 | 0.37 | A |
| 3 - Lower Road West | | 0.6 | 6.51 | 0.38 | A | | 0.3 | 5.50 | 0.25 | A |
| **2026 Base** | | | | | | | | | | |
| 1 - Lower Road East | D2 | 0.3 | 3.73 | 0.25 | A | D7 | 0.3 | 3.55 | 0.24 | A |
| 2 - Brunel Road | | 0.5 | 8.66 | 0.32 | A | | 0.6 | 10.10 | 0.39 | B |
| 3 - Lower Road West | | 0.6 | 6.64 | 0.39 | A | | 0.4 | 5.59 | 0.26 | A |
| **2026 Base + Dev** | | | | | | | | | | |
| 1 - Lower Road East | D3 | 0.3 | 3.77 | 0.25 | A | D8 | 0.4 | 3.91 | 0.29 | A |
| 2 - Brunel Road | | 0.9 | 11.29 | 0.48 | B | | 0.7 | 10.35 | 0.40 | B |
| 3 - Lower Road West | | 0.7 | 7.14 | 0.41 | A | | 0.5 | 6.01 | 0.31 | A |
| **2028 Base** | | | | | | | | | | |
| 1 - Lower Road East | D4 | 0.3 | 3.75 | 0.25 | A | D9 | 0.3 | 3.57 | 0.24 | A |
| 2 - Brunel Road | | 0.5 | 8.74 | 0.32 | A | | 0.6 | 10.25 | 0.39 | B |
| 3 - Lower Road West | | 0.6 | 6.71 | 0.39 | A | | 0.4 | 5.63 | 0.27 | A |
| **2028 Base + Dev** | | | | | | | | | | |
| 1 - Lower Road East | D5 | 0.3 | 3.79 | 0.26 | A | D10 | 0.4 | 3.93 | 0.29 | A |
| 2 - Brunel Road | | 0.9 | 11.42 | 0.48 | B | | 0.7 | 10.55 | 0.41 | B |
| 3 - Lower Road West | | 0.7 | 7.19 | 0.41 | A | | 0.5 | 6.05 | 0.32 | 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** | Lower Road / Brunel Road |
| **Location** | |
| **Site number** | |
| **Date** | 23/11/2021 |
| **Version** | 1 |
| **Status** | (new file) |
| **Identifier** | |
| **Client** | Royal Mail Group |
| **Jobnumber** | |
| **Enumerator** | MOTTMAC\MCM80211 |
| **Description** | Model of existing layout. |

## 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

| Mini-roundabout model | Calculate Queue Percentiles | Calculate residual capacity | RFC Threshold | Average Delay threshold (s) | Queue threshold (PCU) |
|---|---|---|---|---|---|
| JUNCTIONS 9 | | | 0.85 | 36.00 | 20.00 |

## Demand Set Summary

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| **D1** | 2021 Survey | AM | ONE HOUR | 08:45 | 10:15 | 15 |
| **D2** | 2026 Base | AM | ONE HOUR | 08:45 | 10:15 | 15 |
| **D3** | 2026 Base + Dev | AM | ONE HOUR | 08:45 | 10:15 | 15 |
| **D4** | 2028 Base | AM | ONE HOUR | 08:45 | 10:15 | 15 |
| **D5** | 2028 Base + Dev | AM | ONE HOUR | 08:45 | 10:15 | 15 |
| **D6** | 2021 Survey | PM | ONE HOUR | 13:45 | 15:15 | 15 |
| **D7** | 2026 Base | PM | ONE HOUR | 13:45 | 15:15 | 15 |
| **D8** | 2026 Base + Dev | PM | ONE HOUR | 13:45 | 15:15 | 15 |
| **D9** | 2028 Base | PM | ONE HOUR | 13:45 | 15:15 | 15 |
| **D10** | 2028 Base + Dev | PM | ONE HOUR | 13:45 | 15:15 | 15 |

## Analysis Set Details

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

# 2021 Survey, AM

### Data Errors and Warnings

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

## Junction Network

### Junctions

| Junction | Name | Junction type | Use circulating lanes | Arm order | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Lower Road / Brunel Road | Mini-roundabout | | 1, 2, 3 | 5.90 | A |

### Junction Network Options

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

## Arms

### Arms

| Arm | Name | Description |
|---|---|---|
| 1 | Lower Road East | |
| 2 | Brunel Road | |
| 3 | Lower Road West | |

### Mini Roundabout Geometry

| Arm | Approach road half-width (m) | Minimum approach road half-width (m) | Entry width (m) | Effective flare length (m) | Distance to next arm (m) | Entry corner kerb line distance (m) | Gradient over 50m (%) | Kerbed central island |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 3.32 | 3.32 | 3.32 | 0.0 | 7.67 | 20.00 | 0.0 | |
| 2 - Brunel Road | 4.59 | 3.21 | 7.80 | 2.3 | 11.10 | 7.40 | 0.0 | |
| 3 - Lower Road West | 3.19 | 3.19 | 3.19 | 0.0 | 20.00 | 9.80 | 0.0 | |

### Slope / Intercept / Capacity

#### Roundabout Slope and Intercept used in model

| Arm | Final slope | Final intercept (PCU/hr) |
|---|---|---|
| 1 - Lower Road East | 0.906 | 1408 |
| 2 - Brunel Road | 0.622 | 708 |
| 3 - Lower Road West | 0.599 | 952 |

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D1 | 2021 Survey | AM | ONE HOUR | 08:45 | 10:15 | 15 |

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

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| 1 - Lower Road East | | ✓ | 284 | 100.000 |
| 2 - Brunel Road | | ✓ | 171 | 100.000 |
| 3 - Lower Road West | | ✓ | 305 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | 1 - Lower Road East | 2 - Brunel Road | 3 - Lower Road West |
| From | 1 - Lower Road East | 0 | 144 | 140 |
| | 2 - Brunel Road | 97 | 0 | 74 |
| | 3 - Lower Road West | 185 | 120 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | 1 - Lower Road East | 2 - Brunel Road | 3 - Lower Road West |
| From | 1 - Lower Road East | 0 | 0 | 0 |
| | 2 - Brunel Road | 0 | 0 | 0 |
| | 3 - Lower Road West | 0 | 0 | 0 |

## Results

### Results Summary for whole modelled period

| Arm | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| 1 - Lower Road East | 0.24 | 3.69 | 0.3 | A |
| 2 - Brunel Road | 0.31 | 8.49 | 0.4 | A |
| 3 - Lower Road West | 0.38 | 6.51 | 0.6 | A |

### Main Results for each time segment

#### 08:45 - 09:00

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 214 | 90 | 1327 | 0.161 | 213 | 0.2 | 3.230 | A |
| 2 - Brunel Road | 129 | 105 | 643 | 0.200 | 128 | 0.2 | 6.978 | A |
| 3 - Lower Road West | 230 | 72 | 909 | 0.253 | 228 | 0.3 | 5.281 | A |

#### 09:00 - 09:15

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 255 | 108 | 1311 | 0.195 | 255 | 0.2 | 3.410 | A |
| 2 - Brunel Road | 154 | 126 | 630 | 0.244 | 153 | 0.3 | 7.551 | A |
| 3 - Lower Road West | 274 | 87 | 900 | 0.305 | 274 | 0.4 | 5.743 | A |

### 09:15 - 09:30

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 313 | 132 | 1289 | 0.243 | 312 | 0.3 | 3.687 | A |
| 2 - Brunel Road | 188 | 154 | 612 | 0.308 | 188 | 0.4 | 8.472 | A |
| 3 - Lower Road West | 336 | 107 | 888 | 0.378 | 335 | 0.6 | 6.498 | A |

### 09:30 - 09:45

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 313 | 132 | 1289 | 0.243 | 313 | 0.3 | 3.688 | A |
| 2 - Brunel Road | 188 | 154 | 612 | 0.308 | 188 | 0.4 | 8.492 | A |
| 3 - Lower Road West | 336 | 107 | 888 | 0.378 | 336 | 0.6 | 6.515 | A |

### 09:45 - 10:00

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 255 | 108 | 1310 | 0.195 | 256 | 0.2 | 3.413 | A |
| 2 - Brunel Road | 154 | 126 | 630 | 0.244 | 154 | 0.3 | 7.577 | A |
| 3 - Lower Road West | 274 | 87 | 900 | 0.305 | 275 | 0.4 | 5.767 | A |

### 10:00 - 10:15

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 214 | 91 | 1326 | 0.161 | 214 | 0.2 | 3.239 | A |
| 2 - Brunel Road | 129 | 105 | 642 | 0.200 | 129 | 0.3 | 7.015 | A |
| 3 - Lower Road West | 230 | 73 | 908 | 0.253 | 230 | 0.3 | 5.311 | A |

# 2026 Base, AM

### Data Errors and Warnings

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

## Junction Network

### Junctions

| Junction | Name | Junction type | Use circulating lanes | Arm order | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Lower Road / Brunel Road | Mini-roundabout | | 1, 2, 3 | 6.01 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D2 | 2026 Base | AM | ONE HOUR | 08:45 | 10:15 | 15 |

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

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| 1 - Lower Road East | | ✓ | 292 | 100.000 |
| 2 - Brunel Road | | ✓ | 176 | 100.000 |
| 3 - Lower Road West | | ✓ | 313 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | 1 - Lower Road East | 2 - Brunel Road | 3 - Lower Road West |
| From | 1 - Lower Road East | 0 | 148 | 144 |
| | 2 - Brunel Road | 100 | 0 | 76 |
| | 3 - Lower Road West | 190 | 123 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | 1 - Lower Road East | 2 - Brunel Road | 3 - Lower Road West |
| From | 1 - Lower Road East | 0 | 0 | 0 |
| | 2 - Brunel Road | 0 | 0 | 0 |
| | 3 - Lower Road West | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Arm | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| 1 - Lower Road East | 0.25 | 3.73 | 0.3 | A |
| 2 - Brunel Road | 0.32 | 8.66 | 0.5 | A |
| 3 - Lower Road West | 0.39 | 6.64 | 0.6 | A |

## Main Results for each time segment

### 08:45 - 09:00

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 220 | 92 | 1325 | 0.166 | 219 | 0.2 | 3.254 | A |
| 2 - Brunel Road | 133 | 108 | 641 | 0.207 | 131 | 0.3 | 7.053 | A |
| 3 - Lower Road West | 236 | 75 | 908 | 0.260 | 234 | 0.3 | 5.336 | A |

### 09:00 - 09:15

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 263 | 110 | 1308 | 0.201 | 262 | 0.2 | 3.441 | A |
| 2 - Brunel Road | 158 | 129 | 628 | 0.252 | 158 | 0.3 | 7.659 | A |
| 3 - Lower Road West | 281 | 90 | 899 | 0.313 | 281 | 0.5 | 5.825 | A |

### 09:15 - 09:30

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 321 | 135 | 1286 | 0.250 | 321 | 0.3 | 3.732 | A |
| 2 - Brunel Road | 194 | 158 | 610 | 0.318 | 193 | 0.5 | 8.638 | A |
| 3 - Lower Road West | 345 | 110 | 886 | 0.389 | 344 | 0.6 | 6.627 | A |

### 09:30 - 09:45

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 321 | 135 | 1286 | 0.250 | 321 | 0.3 | 3.733 | A |
| 2 - Brunel Road | 194 | 159 | 609 | 0.318 | 194 | 0.5 | 8.660 | A |
| 3 - Lower Road West | 345 | 110 | 886 | 0.389 | 345 | 0.6 | 6.644 | A |

### 09:45 - 10:00

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 263 | 111 | 1308 | 0.201 | 263 | 0.3 | 3.445 | A |
| 2 - Brunel Road | 158 | 130 | 627 | 0.252 | 159 | 0.3 | 7.688 | A |
| 3 - Lower Road West | 281 | 90 | 898 | 0.313 | 282 | 0.5 | 5.848 | A |

### 10:00 - 10:15

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 220 | 93 | 1324 | 0.166 | 220 | 0.2 | 3.260 | A |
| 2 - Brunel Road | 133 | 109 | 641 | 0.207 | 133 | 0.3 | 7.096 | A |
| 3 - Lower Road West | 236 | 75 | 907 | 0.260 | 236 | 0.4 | 5.370 | A |

# 2026 Base + Dev, AM

### Data Errors and Warnings

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

## Junction Network

### Junctions

| Junction | Name | Junction type | Use circulating lanes | Arm order | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Lower Road / Brunel Road | Mini-roundabout | | 1, 2, 3 | 7.25 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D3 | 2026 Base + Dev | AM | ONE HOUR | 08:45 | 10:15 | 15 |

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

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| 1 - Lower Road East | | ✓ | 296 | 100.000 |
| 2 - Brunel Road | | ✓ | 264 | 100.000 |
| 3 - Lower Road West | | ✓ | 317 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | 1 - Lower Road East | 2 - Brunel Road | 3 - Lower Road West |
| From | 1 - Lower Road East | 0 | 152 | 144 |
| | 2 - Brunel Road | 150 | 0 | 114 |
| | 3 - Lower Road West | 190 | 127 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | 1 - Lower Road East | 2 - Brunel Road | 3 - Lower Road West |
| From | 1 - Lower Road East | 0 | 0 | 0 |
| | 2 - Brunel Road | 0 | 0 | 0 |
| | 3 - Lower Road West | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Arm | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| 1 - Lower Road East | 0.25 | 3.77 | 0.3 | A |
| 2 - Brunel Road | 0.48 | 11.29 | 0.9 | B |
| 3 - Lower Road West | 0.41 | 7.14 | 0.7 | A |

## Main Results for each time segment

### 08:45 - 09:00

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 223 | 95 | 1322 | 0.169 | 222 | 0.2 | 3.271 | A |
| 2 - Brunel Road | 199 | 108 | 641 | 0.310 | 197 | 0.4 | 8.078 | A |
| 3 - Lower Road West | 239 | 112 | 885 | 0.270 | 237 | 0.4 | 5.543 | A |

### 09:00 - 09:15

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 266 | 114 | 1305 | 0.204 | 266 | 0.3 | 3.464 | A |
| 2 - Brunel Road | 237 | 129 | 628 | 0.378 | 237 | 0.6 | 9.195 | A |
| 3 - Lower Road West | 285 | 134 | 872 | 0.327 | 285 | 0.5 | 6.125 | A |

### 09:15 - 09:30

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 326 | 140 | 1282 | 0.254 | 326 | 0.3 | 3.764 | A |
| 2 - Brunel Road | 291 | 158 | 610 | 0.477 | 289 | 0.9 | 11.206 | B |
| 3 - Lower Road West | 349 | 164 | 854 | 0.409 | 348 | 0.7 | 7.109 | A |

### 09:30 - 09:45

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 326 | 140 | 1282 | 0.254 | 326 | 0.3 | 3.765 | A |
| 2 - Brunel Road | 291 | 159 | 609 | 0.477 | 291 | 0.9 | 11.289 | B |
| 3 - Lower Road West | 349 | 165 | 853 | 0.409 | 349 | 0.7 | 7.137 | A |

### 09:45 - 10:00

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 266 | 114 | 1305 | 0.204 | 266 | 0.3 | 3.470 | A |
| 2 - Brunel Road | 237 | 130 | 627 | 0.378 | 238 | 0.6 | 9.282 | A |
| 3 - Lower Road West | 285 | 135 | 871 | 0.327 | 286 | 0.5 | 6.160 | A |

### 10:00 - 10:15

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 223 | 96 | 1321 | 0.169 | 223 | 0.2 | 3.279 | A |
| 2 - Brunel Road | 199 | 109 | 641 | 0.310 | 199 | 0.5 | 8.172 | A |
| 3 - Lower Road West | 239 | 113 | 884 | 0.270 | 239 | 0.4 | 5.582 | A |

# 2028 Base, AM

### Data Errors and Warnings

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

## Junction Network

### Junctions

| Junction | Name | Junction type | Use circulating lanes | Arm order | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Lower Road / Brunel Road | Mini-roundabout | | 1, 2, 3 | 6.06 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D4 | 2028 Base | AM | ONE HOUR | 08:45 | 10:15 | 15 |

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

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| 1 - Lower Road East | | ✓ | 295 | 100.000 |
| 2 - Brunel Road | | ✓ | 178 | 100.000 |
| 3 - Lower Road West | | ✓ | 317 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | 1 - Lower Road East | 2 - Brunel Road | 3 - Lower Road West |
| From | 1 - Lower Road East | 0 | 149 | 146 |
| | 2 - Brunel Road | 101 | 0 | 77 |
| | 3 - Lower Road West | 192 | 125 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | 1 - Lower Road East | 2 - Brunel Road | 3 - Lower Road West |
| From | 1 - Lower Road East | 0 | 0 | 0 |
| | 2 - Brunel Road | 0 | 0 | 0 |
| | 3 - Lower Road West | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Arm | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| 1 - Lower Road East | 0.25 | 3.75 | 0.3 | A |
| 2 - Brunel Road | 0.32 | 8.74 | 0.5 | A |
| 3 - Lower Road West | 0.39 | 6.71 | 0.6 | A |

## Main Results for each time segment

### 08:45 - 09:00

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 222 | 94 | 1324 | 0.168 | 221 | 0.2 | 3.265 | A |
| 2 - Brunel Road | 134 | 110 | 640 | 0.209 | 133 | 0.3 | 7.087 | A |
| 3 - Lower Road West | 239 | 75 | 907 | 0.263 | 237 | 0.4 | 5.364 | A |

### 09:00 - 09:15

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 265 | 112 | 1307 | 0.203 | 265 | 0.3 | 3.456 | A |
| 2 - Brunel Road | 160 | 131 | 626 | 0.255 | 160 | 0.3 | 7.708 | A |
| 3 - Lower Road West | 285 | 91 | 898 | 0.317 | 285 | 0.5 | 5.865 | A |

### 09:15 - 09:30

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 325 | 137 | 1284 | 0.253 | 324 | 0.3 | 3.752 | A |
| 2 - Brunel Road | 196 | 161 | 608 | 0.322 | 195 | 0.5 | 8.711 | A |
| 3 - Lower Road West | 349 | 111 | 886 | 0.394 | 348 | 0.6 | 6.687 | A |

### 09:30 - 09:45

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 325 | 138 | 1284 | 0.253 | 325 | 0.3 | 3.753 | A |
| 2 - Brunel Road | 196 | 161 | 608 | 0.322 | 196 | 0.5 | 8.736 | A |
| 3 - Lower Road West | 349 | 111 | 886 | 0.394 | 349 | 0.6 | 6.707 | A |

### 09:45 - 10:00

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 265 | 113 | 1306 | 0.203 | 266 | 0.3 | 3.459 | A |
| 2 - Brunel Road | 160 | 131 | 626 | 0.256 | 161 | 0.3 | 7.738 | A |
| 3 - Lower Road West | 285 | 91 | 898 | 0.317 | 286 | 0.5 | 5.890 | A |

### 10:00 - 10:15

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 222 | 94 | 1323 | 0.168 | 222 | 0.2 | 3.270 | A |
| 2 - Brunel Road | 134 | 110 | 640 | 0.210 | 134 | 0.3 | 7.128 | A |
| 3 - Lower Road West | 239 | 76 | 907 | 0.263 | 239 | 0.4 | 5.396 | A |

# 2028 Base + Dev, AM

### Data Errors and Warnings

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

## Junction Network

### Junctions

| Junction | Name | Junction type | Use circulating lanes | Arm order | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Lower Road / Brunel Road | Mini-roundabout | | 1, 2, 3 | 7.31 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D5 | 2028 Base + Dev | AM | ONE HOUR | 08:45 | 10:15 | 15 |

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

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| 1 - Lower Road East | | ✓ | 300 | 100.000 |
| 2 - Brunel Road | | ✓ | 266 | 100.000 |
| 3 - Lower Road West | | ✓ | 320 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | 1 - Lower Road East | 2 - Brunel Road | 3 - Lower Road West |
| From | 1 - Lower Road East | 0 | 154 | 146 |
| | 2 - Brunel Road | 151 | 0 | 115 |
| | 3 - Lower Road West | 192 | 128 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | 1 - Lower Road East | 2 - Brunel Road | 3 - Lower Road West |
| From | 1 - Lower Road East | 0 | 0 | 0 |
| | 2 - Brunel Road | 0 | 0 | 0 |
| | 3 - Lower Road West | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Arm | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| 1 - Lower Road East | 0.26 | 3.79 | 0.3 | A |
| 2 - Brunel Road | 0.48 | 11.42 | 0.9 | B |
| 3 - Lower Road West | 0.41 | 7.19 | 0.7 | A |

## Main Results for each time segment

### 08:45 - 09:00

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 226 | 96 | 1321 | 0.171 | 225 | 0.2 | 3.282 | A |
| 2 - Brunel Road | 200 | 110 | 640 | 0.313 | 198 | 0.4 | 8.122 | A |
| 3 - Lower Road West | 241 | 113 | 885 | 0.272 | 239 | 0.4 | 5.566 | A |

### 09:00 - 09:15

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 270 | 115 | 1304 | 0.207 | 269 | 0.3 | 3.479 | A |
| 2 - Brunel Road | 239 | 131 | 626 | 0.382 | 238 | 0.6 | 9.262 | A |
| 3 - Lower Road West | 288 | 135 | 871 | 0.330 | 287 | 0.5 | 6.159 | A |

### 09:15 - 09:30

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 330 | 141 | 1281 | 0.258 | 330 | 0.3 | 3.786 | A |
| 2 - Brunel Road | 293 | 161 | 608 | 0.482 | 292 | 0.9 | 11.330 | B |
| 3 - Lower Road West | 352 | 166 | 853 | 0.413 | 352 | 0.7 | 7.165 | A |

### 09:30 - 09:45

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 330 | 141 | 1281 | 0.258 | 330 | 0.3 | 3.787 | A |
| 2 - Brunel Road | 293 | 161 | 608 | 0.482 | 293 | 0.9 | 11.416 | B |
| 3 - Lower Road West | 352 | 166 | 853 | 0.413 | 352 | 0.7 | 7.193 | A |

### 09:45 - 10:00

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 270 | 115 | 1304 | 0.207 | 270 | 0.3 | 3.482 | A |
| 2 - Brunel Road | 239 | 131 | 626 | 0.382 | 240 | 0.6 | 9.355 | A |
| 3 - Lower Road West | 288 | 136 | 871 | 0.330 | 288 | 0.5 | 6.195 | A |

### 10:00 - 10:15

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 226 | 97 | 1321 | 0.171 | 226 | 0.2 | 3.288 | A |
| 2 - Brunel Road | 200 | 110 | 640 | 0.313 | 201 | 0.5 | 8.218 | A |
| 3 - Lower Road West | 241 | 114 | 884 | 0.273 | 241 | 0.4 | 5.608 | A |

# 2021 Survey, PM

### Data Errors and Warnings

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

## Junction Network

### Junctions

| Junction | Name | Junction type | Use circulating lanes | Arm order | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Lower Road / Brunel Road | Mini-roundabout | | 1, 2, 3 | 5.91 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D6 | 2021 Survey | PM | ONE HOUR | 13:45 | 15:15 | 15 |

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

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| 1 - Lower Road East | | ✓ | 278 | 100.000 |
| 2 - Brunel Road | | ✓ | 196 | 100.000 |
| 3 - Lower Road West | | ✓ | 202 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | 1 - Lower Road East | 2 - Brunel Road | 3 - Lower Road West |
| From | 1 - Lower Road East | 0 | 98 | 180 |
| | 2 - Brunel Road | 114 | 0 | 82 |
| | 3 - Lower Road West | 128 | 74 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | 1 - Lower Road East | 2 - Brunel Road | 3 - Lower Road West |
| From | 1 - Lower Road East | 0 | 0 | 0 |
| | 2 - Brunel Road | 0 | 0 | 0 |
| | 3 - Lower Road West | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Arm | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| 1 - Lower Road East | 0.23 | 3.50 | 0.3 | A |
| 2 - Brunel Road | 0.37 | 9.75 | 0.6 | A |
| 3 - Lower Road West | 0.25 | 5.50 | 0.3 | A |

## Main Results for each time segment

### 13:45 - 14:00

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 209 | 55 | 1358 | 0.154 | 209 | 0.2 | 3.130 | A |
| 2 - Brunel Road | 148 | 135 | 624 | 0.236 | 146 | 0.3 | 7.518 | A |
| 3 - Lower Road West | 152 | 85 | 901 | 0.169 | 151 | 0.2 | 4.795 | A |

### 14:00 - 14:15

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 250 | 66 | 1348 | 0.185 | 250 | 0.2 | 3.277 | A |
| 2 - Brunel Road | 176 | 162 | 607 | 0.290 | 176 | 0.4 | 8.332 | A |
| 3 - Lower Road West | 182 | 102 | 891 | 0.204 | 181 | 0.3 | 5.072 | A |

### 14:15 - 14:30

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 306 | 81 | 1335 | 0.229 | 306 | 0.3 | 3.499 | A |
| 2 - Brunel Road | 216 | 198 | 585 | 0.369 | 215 | 0.6 | 9.717 | A |
| 3 - Lower Road West | 222 | 125 | 877 | 0.254 | 222 | 0.3 | 5.492 | A |

### 14:30 - 14:45

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 306 | 81 | 1334 | 0.229 | 306 | 0.3 | 3.499 | A |
| 2 - Brunel Road | 216 | 198 | 585 | 0.369 | 216 | 0.6 | 9.754 | A |
| 3 - Lower Road West | 222 | 126 | 877 | 0.254 | 222 | 0.3 | 5.498 | A |

### 14:45 - 15:00

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 250 | 67 | 1348 | 0.185 | 250 | 0.2 | 3.279 | A |
| 2 - Brunel Road | 176 | 162 | 607 | 0.290 | 177 | 0.4 | 8.378 | A |
| 3 - Lower Road West | 182 | 103 | 891 | 0.204 | 182 | 0.3 | 5.081 | A |

### 15:00 - 15:15

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 209 | 56 | 1358 | 0.154 | 209 | 0.2 | 3.137 | A |
| 2 - Brunel Road | 148 | 136 | 624 | 0.237 | 148 | 0.3 | 7.573 | A |
| 3 - Lower Road West | 152 | 86 | 901 | 0.169 | 152 | 0.2 | 4.812 | A |

# 2026 Base, PM

### Data Errors and Warnings

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

## Junction Network

### Junctions

| Junction | Name | Junction type | Use circulating lanes | Arm order | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Lower Road / Brunel Road | Mini-roundabout | | 1, 2, 3 | 6.05 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D7 | 2026 Base | PM | ONE HOUR | 13:45 | 15:15 | 15 |

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

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| 1 - Lower Road East | | ✓ | 289 | 100.000 |
| 2 - Brunel Road | | ✓ | 203 | 100.000 |
| 3 - Lower Road West | | ✓ | 209 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | 1 - Lower Road East | 2 - Brunel Road | 3 - Lower Road West |
| From | 1 - Lower Road East | 0 | 102 | 187 |
| | 2 - Brunel Road | 118 | 0 | 85 |
| | 3 - Lower Road West | 133 | 76 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | 1 - Lower Road East | 2 - Brunel Road | 3 - Lower Road West |
| From | 1 - Lower Road East | 0 | 0 | 0 |
| | 2 - Brunel Road | 0 | 0 | 0 |
| | 3 - Lower Road West | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Arm | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| 1 - Lower Road East | 0.24 | 3.55 | 0.3 | A |
| 2 - Brunel Road | 0.39 | 10.10 | 0.6 | B |
| 3 - Lower Road West | 0.26 | 5.59 | 0.4 | A |

## Main Results for each time segment

### 13:45 - 14:00

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 218 | 57 | 1357 | 0.160 | 217 | 0.2 | 3.157 | A |
| 2 - Brunel Road | 153 | 140 | 621 | 0.246 | 152 | 0.3 | 7.652 | A |
| 3 - Lower Road West | 157 | 88 | 900 | 0.175 | 157 | 0.2 | 4.840 | A |

### 14:00 - 14:15

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 260 | 68 | 1346 | 0.193 | 260 | 0.2 | 3.312 | A |
| 2 - Brunel Road | 182 | 168 | 604 | 0.302 | 182 | 0.4 | 8.532 | A |
| 3 - Lower Road West | 188 | 106 | 889 | 0.211 | 188 | 0.3 | 5.133 | A |

### 14:15 - 14:30

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 318 | 84 | 1333 | 0.239 | 318 | 0.3 | 3.548 | A |
| 2 - Brunel Road | 224 | 206 | 580 | 0.385 | 223 | 0.6 | 10.055 | B |
| 3 - Lower Road West | 230 | 129 | 875 | 0.263 | 230 | 0.4 | 5.580 | A |

### 14:30 - 14:45

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 318 | 84 | 1332 | 0.239 | 318 | 0.3 | 3.548 | A |
| 2 - Brunel Road | 224 | 206 | 580 | 0.385 | 223 | 0.6 | 10.096 | B |
| 3 - Lower Road West | 230 | 130 | 874 | 0.263 | 230 | 0.4 | 5.586 | A |

### 14:45 - 15:00

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 260 | 68 | 1346 | 0.193 | 260 | 0.2 | 3.314 | A |
| 2 - Brunel Road | 182 | 168 | 603 | 0.302 | 183 | 0.4 | 8.585 | A |
| 3 - Lower Road West | 188 | 107 | 888 | 0.211 | 188 | 0.3 | 5.145 | A |

### 15:00 - 15:15

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 218 | 57 | 1356 | 0.160 | 218 | 0.2 | 3.164 | A |
| 2 - Brunel Road | 153 | 141 | 620 | 0.246 | 153 | 0.3 | 7.715 | A |
| 3 - Lower Road West | 157 | 89 | 899 | 0.175 | 158 | 0.2 | 4.859 | A |

# 2026 Base + Dev, PM

### Data Errors and Warnings

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

## Junction Network

### Junctions

| Junction | Name | Junction type | Use circulating lanes | Arm order | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Lower Road / Brunel Road | Mini-roundabout | | 1, 2, 3 | 6.26 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D8 | 2026 Base + Dev | PM | ONE HOUR | 13:45 | 15:15 | 15 |

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

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| 1 - Lower Road East | | ✓ | 339 | 100.000 |
| 2 - Brunel Road | | ✓ | 211 | 100.000 |
| 3 - Lower Road West | | ✓ | 247 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | 1 - Lower Road East | 2 - Brunel Road | 3 - Lower Road West |
| From | 1 - Lower Road East | 0 | 152 | 187 |
| | 2 - Brunel Road | 123 | 0 | 88 |
| | 3 - Lower Road West | 133 | 114 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | 1 - Lower Road East | 2 - Brunel Road | 3 - Lower Road West |
| From | 1 - Lower Road East | 0 | 0 | 0 |
| | 2 - Brunel Road | 0 | 0 | 0 |
| | 3 - Lower Road West | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Arm | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| 1 - Lower Road East | 0.29 | 3.91 | 0.4 | A |
| 2 - Brunel Road | 0.40 | 10.35 | 0.7 | B |
| 3 - Lower Road West | 0.31 | 6.01 | 0.5 | A |

## Main Results for each time segment

### 13:45 - 14:00

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 255 | 85 | 1331 | 0.192 | 254 | 0.2 | 3.340 | A |
| 2 - Brunel Road | 159 | 140 | 621 | 0.256 | 157 | 0.3 | 7.748 | A |
| 3 - Lower Road West | 186 | 92 | 897 | 0.207 | 185 | 0.3 | 5.046 | A |

### 14:00 - 14:15

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 305 | 102 | 1316 | 0.232 | 304 | 0.3 | 3.560 | A |
| 2 - Brunel Road | 190 | 168 | 604 | 0.314 | 189 | 0.5 | 8.679 | A |
| 3 - Lower Road West | 222 | 110 | 886 | 0.251 | 222 | 0.3 | 5.415 | A |

### 14:15 - 14:30

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 373 | 125 | 1295 | 0.288 | 373 | 0.4 | 3.903 | A |
| 2 - Brunel Road | 232 | 206 | 580 | 0.400 | 232 | 0.7 | 10.302 | B |
| 3 - Lower Road West | 272 | 135 | 871 | 0.312 | 271 | 0.4 | 5.995 | A |

### 14:30 - 14:45

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 373 | 126 | 1295 | 0.288 | 373 | 0.4 | 3.907 | A |
| 2 - Brunel Road | 232 | 206 | 580 | 0.401 | 232 | 0.7 | 10.352 | B |
| 3 - Lower Road West | 272 | 135 | 871 | 0.312 | 272 | 0.5 | 6.007 | A |

### 14:45 - 15:00

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 305 | 103 | 1315 | 0.232 | 305 | 0.3 | 3.564 | A |
| 2 - Brunel Road | 190 | 168 | 603 | 0.314 | 190 | 0.5 | 8.736 | A |
| 3 - Lower Road West | 222 | 111 | 886 | 0.251 | 223 | 0.3 | 5.431 | A |

### 15:00 - 15:15

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 255 | 86 | 1330 | 0.192 | 255 | 0.2 | 3.349 | A |
| 2 - Brunel Road | 159 | 141 | 620 | 0.256 | 159 | 0.3 | 7.815 | A |
| 3 - Lower Road West | 186 | 93 | 897 | 0.207 | 186 | 0.3 | 5.071 | A |

# 2028 Base, PM

### Data Errors and Warnings

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

## Junction Network

### Junctions

| Junction | Name | Junction type | Use circulating lanes | Arm order | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Lower Road / Brunel Road | Mini-roundabout | | 1, 2, 3 | 6.12 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D9 | 2028 Base | PM | ONE HOUR | 13:45 | 15:15 | 15 |

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

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| 1 - Lower Road East | | ✓ | 293 | 100.000 |
| 2 - Brunel Road | | ✓ | 206 | 100.000 |
| 3 - Lower Road West | | ✓ | 212 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | 1 - Lower Road East | 2 - Brunel Road | 3 - Lower Road West |
| From | 1 - Lower Road East | 0 | 103 | 190 |
| | 2 - Brunel Road | 120 | 0 | 86 |
| | 3 - Lower Road West | 135 | 77 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | 1 - Lower Road East | 2 - Brunel Road | 3 - Lower Road West |
| From | 1 - Lower Road East | 0 | 0 | 0 |
| | 2 - Brunel Road | 0 | 0 | 0 |
| | 3 - Lower Road West | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Arm | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| 1 - Lower Road East | 0.24 | 3.57 | 0.3 | A |
| 2 - Brunel Road | 0.39 | 10.25 | 0.6 | B |
| 3 - Lower Road West | 0.27 | 5.63 | 0.4 | A |

## Main Results for each time segment

### 13:45 - 14:00

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 221 | 58 | 1356 | 0.163 | 220 | 0.2 | 3.167 | A |
| 2 - Brunel Road | 155 | 143 | 619 | 0.250 | 154 | 0.3 | 7.711 | A |
| 3 - Lower Road West | 160 | 90 | 899 | 0.178 | 159 | 0.2 | 4.861 | A |

### 14:00 - 14:15

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 263 | 69 | 1346 | 0.196 | 263 | 0.2 | 3.325 | A |
| 2 - Brunel Road | 185 | 171 | 602 | 0.308 | 185 | 0.4 | 8.622 | A |
| 3 - Lower Road West | 191 | 108 | 888 | 0.215 | 190 | 0.3 | 5.160 | A |

### 14:15 - 14:30

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 323 | 85 | 1332 | 0.242 | 322 | 0.3 | 3.567 | A |
| 2 - Brunel Road | 227 | 209 | 578 | 0.392 | 226 | 0.6 | 10.203 | B |
| 3 - Lower Road West | 233 | 132 | 873 | 0.267 | 233 | 0.4 | 5.620 | A |

### 14:30 - 14:45

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 323 | 85 | 1331 | 0.242 | 323 | 0.3 | 3.567 | A |
| 2 - Brunel Road | 227 | 209 | 578 | 0.392 | 227 | 0.6 | 10.250 | B |
| 3 - Lower Road West | 233 | 132 | 873 | 0.267 | 233 | 0.4 | 5.626 | A |

### 14:45 - 15:00

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 263 | 69 | 1345 | 0.196 | 264 | 0.2 | 3.330 | A |
| 2 - Brunel Road | 185 | 171 | 602 | 0.308 | 186 | 0.5 | 8.676 | A |
| 3 - Lower Road West | 191 | 108 | 887 | 0.215 | 191 | 0.3 | 5.173 | A |

### 15:00 - 15:15

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 221 | 58 | 1356 | 0.163 | 221 | 0.2 | 3.171 | A |
| 2 - Brunel Road | 155 | 143 | 619 | 0.251 | 156 | 0.3 | 7.776 | A |
| 3 - Lower Road West | 160 | 91 | 898 | 0.178 | 160 | 0.2 | 4.878 | A |

# 2028 Base + Dev, PM

### Data Errors and Warnings

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

## Junction Network

### Junctions

| Junction | Name | Junction type | Use circulating lanes | Arm order | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Lower Road / Brunel Road | Mini-roundabout | | 1, 2, 3 | 6.35 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D10 | 2028 Base + Dev | PM | ONE HOUR | 13:45 | 15:15 | 15 |

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

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| 1 - Lower Road East | | ✓ | 344 | 100.000 |
| 2 - Brunel Road | | ✓ | 215 | 100.000 |
| 3 - Lower Road West | | ✓ | 250 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | 1 - Lower Road East | 2 - Brunel Road | 3 - Lower Road West |
| From | 1 - Lower Road East | 0 | 154 | 190 |
| | 2 - Brunel Road | 125 | 0 | 90 |
| | 3 - Lower Road West | 135 | 115 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | 1 - Lower Road East | 2 - Brunel Road | 3 - Lower Road West |
| From | 1 - Lower Road East | 0 | 0 | 0 |
| | 2 - Brunel Road | 0 | 0 | 0 |
| | 3 - Lower Road West | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Arm | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| 1 - Lower Road East | 0.29 | 3.93 | 0.4 | A |
| 2 - Brunel Road | 0.41 | 10.55 | 0.7 | B |
| 3 - Lower Road West | 0.32 | 6.05 | 0.5 | A |

## Main Results for each time segment

### 13:45 - 14:00

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 259 | 86 | 1330 | 0.195 | 258 | 0.2 | 3.354 | A |
| 2 - Brunel Road | 162 | 143 | 619 | 0.261 | 160 | 0.3 | 7.821 | A |
| 3 - Lower Road West | 188 | 93 | 896 | 0.210 | 187 | 0.3 | 5.069 | A |

### 14:00 - 14:15

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 309 | 103 | 1315 | 0.235 | 309 | 0.3 | 3.579 | A |
| 2 - Brunel Road | 193 | 171 | 602 | 0.321 | 193 | 0.5 | 8.793 | A |
| 3 - Lower Road West | 225 | 112 | 885 | 0.254 | 224 | 0.3 | 5.446 | A |

### 14:15 - 14:30

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 379 | 126 | 1294 | 0.293 | 378 | 0.4 | 3.931 | A |
| 2 - Brunel Road | 237 | 209 | 578 | 0.410 | 236 | 0.7 | 10.491 | B |
| 3 - Lower Road West | 275 | 137 | 870 | 0.316 | 275 | 0.5 | 6.041 | A |

### 14:30 - 14:45

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 379 | 127 | 1294 | 0.293 | 379 | 0.4 | 3.935 | A |
| 2 - Brunel Road | 237 | 209 | 578 | 0.410 | 237 | 0.7 | 10.548 | B |
| 3 - Lower Road West | 275 | 138 | 870 | 0.316 | 275 | 0.5 | 6.054 | A |

### 14:45 - 15:00

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 309 | 104 | 1314 | 0.235 | 310 | 0.3 | 3.586 | A |
| 2 - Brunel Road | 193 | 171 | 602 | 0.321 | 194 | 0.5 | 8.851 | A |
| 3 - Lower Road West | 225 | 113 | 885 | 0.254 | 225 | 0.3 | 5.464 | A |

### 15:00 - 15:15

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Lower Road East | 259 | 87 | 1330 | 0.195 | 259 | 0.2 | 3.363 | A |
| 2 - Brunel Road | 162 | 143 | 619 | 0.262 | 162 | 0.4 | 7.893 | A |
| 3 - Lower Road West | 188 | 94 | 896 | 0.210 | 189 | 0.3 | 5.094 | A |

# Junctions 9

## PICADY 9 - Priority Intersection Module

Version: 9.5.1.7462
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**Filename:** 3. Churchfields Road - Ashfields Road.j9
**Path:** C:\Users\BUR103205\Downloads\Modelling\Modelling
**Report generation date:** 27/09/2023 11:51:36

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»2021 Survey, AM
»2026 Base, AM
»2026 Base + Dev, AM
»2028 Base, AM
»2028 Base + Dev, AM
»2021 Survey, PM
»2026 Base, PM
»2026 Base + Dev, PM
»2028 Base, PM
»2028 Base + Dev, PM

### Summary of junction performance

| | AM | | | | | PM | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Set ID | Queue (PCU) | Delay (s) | RFC | LOS | Set ID | Queue (PCU) | Delay (s) | RFC | LOS |
| | 2021 Survey | | | | | | | | | |
| Stream B-AC | D1 | 0.2 | 9.48 | 0.14 | A | D6 | 0.1 | 8.93 | 0.13 | A |
| Stream C-AB | | 0.1 | 4.80 | 0.07 | A | | 0.2 | 4.85 | 0.11 | A |
| | 2026 Base | | | | | | | | | |
| Stream B-AC | D2 | 0.2 | 9.60 | 0.15 | A | D7 | 0.2 | 9.00 | 0.13 | A |
| Stream C-AB | | 0.1 | 4.79 | 0.07 | A | | 0.2 | 4.84 | 0.11 | A |
| | 2026 Base + Dev | | | | | | | | | |
| Stream B-AC | D3 | 0.2 | 9.94 | 0.15 | A | D8 | 0.2 | 9.43 | 0.15 | A |
| Stream C-AB | | 0.1 | 4.84 | 0.07 | A | | 0.2 | 4.73 | 0.11 | A |
| | 2028 Base | | | | | | | | | |
| Stream B-AC | D4 | 0.2 | 9.63 | 0.15 | A | D9 | 0.2 | 9.11 | 0.14 | A |
| Stream C-AB | | 0.1 | 4.79 | 0.07 | A | | 0.2 | 4.84 | 0.11 | A |
| | 2028 Base + Dev | | | | | | | | | |
| Stream B-AC | D5 | 0.2 | 10.04 | 0.15 | B | D10 | 0.2 | 9.55 | 0.15 | A |
| Stream C-AB | | 0.1 | 4.84 | 0.07 | A | | 0.2 | 4.73 | 0.12 | 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** | Churchfields Road / Ashfields Road |
| **Location** | |
| **Site number** | |
| **Date** | 24/11/2021 |
| **Version** | 1 |
| **Status** | (new file) |
| **Identifier** | |
| **Client** | Royal Mail Group |
| **Jobnumber** | |
| **Enumerator** | MOTTMAC\MCM80211 |
| **Description** | Existing junction arrangement. |

## 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

| Calculate Queue Percentiles | Calculate residual capacity | RFC Threshold | Average Delay threshold (s) | Queue threshold (PCU) |
|---|---|---|---|---|
| | | 0.85 | 36.00 | 20.00 |

## Demand Set Summary

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| **D1** | 2021 Survey | AM | ONE HOUR | 08:45 | 10:15 | 15 |
| **D2** | 2026 Base | AM | ONE HOUR | 08:45 | 10:15 | 15 |
| **D3** | 2026 Base + Dev | AM | ONE HOUR | 08:45 | 10:15 | 15 |
| **D4** | 2028 Base | AM | ONE HOUR | 08:45 | 10:15 | 15 |
| **D5** | 2028 Base + Dev | AM | ONE HOUR | 08:45 | 10:15 | 15 |
| **D6** | 2021 Survey | PM | ONE HOUR | 13:45 | 15:15 | 15 |
| **D7** | 2026 Base | PM | ONE HOUR | 13:45 | 15:15 | 15 |
| **D8** | 2026 Base + Dev | PM | ONE HOUR | 13:45 | 15:15 | 15 |
| **D9** | 2028 Base | PM | ONE HOUR | 13:45 | 15:15 | 15 |
| **D10** | 2028 Base + Dev | PM | ONE HOUR | 13:45 | 15:15 | 15 |

## Analysis Set Details

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

# 2021 Survey, AM

### Data Errors and Warnings

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

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Churchfields Road / Ashfield Road | T-Junction | Two-way | | 1.17 | A |

### Junction Network Options

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

## Arms

### Arms

| Arm | Name | Description | Arm type |
|---|---|---|---|
| A | Churchfields Road (W) | | Major |
| B | Ashfield Road | | Minor |
| C | Churchfields Road (E) | | Major |

### Major Arm Geometry

| Arm | Width of carriageway (m) | Has kerbed central reserve | Has right turn bay | Visibility for right turn (m) | Blocks? | Blocking queue (PCU) |
|---|---|---|---|---|---|---|
| C - Churchfields Road (E) | 6.41 | | | 250.0 | ✓ | 0.00 |

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

### Minor Arm Geometry

| Arm | Minor arm type | Lane width (m) | Visibility to left (m) | Visibility to right (m) |
|---|---|---|---|---|
| B - Ashfield Road | One lane | 3.00 | 17 | 17 |

### Slope / Intercept / Capacity

#### Priority Intersection Slopes and Intercepts

| Stream | Intercept (PCU/hr) | Slope for A-B | Slope for A-C | Slope for C-A | Slope for C-B |
|---|---|---|---|---|---|
| B-A | 491 | 0.088 | 0.222 | 0.140 | 0.317 |
| B-C | 635 | 0.096 | 0.242 | - | - |
| C-B | 719 | 0.274 | 0.274 | - | - |

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

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

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

# Traffic Demand

## Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D1 | 2021 Survey | AM | ONE HOUR | 08:45 | 10:15 | 15 |

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

## Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| A - Churchfields Road (W) | | ✓ | 295 | 100.000 |
| B - Ashfield Road | | ✓ | 56 | 100.000 |
| C - Churchfields Road (E) | | ✓ | 294 | 100.000 |

# Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | A - Churchfields Road (W) | B - Ashfield Road | C - Churchfields Road (E) |
| From | A - Churchfields Road (W) | 0 | 33 | 262 |
| | B - Ashfield Road | 30 | 0 | 26 |
| | C - Churchfields Road (E) | 262 | 32 | 0 |

# Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | A - Churchfields Road (W) | B - Ashfield Road | C - Churchfields Road (E) |
| From | A - Churchfields Road (W) | 0 | 0 | 0 |
| | B - Ashfield Road | 0 | 0 | 0 |
| | C - Churchfields Road (E) | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| B-AC | 0.14 | 9.48 | 0.2 | A |
| C-AB | 0.07 | 4.80 | 0.1 | A |
| C-A | | | | |
| A-B | | | | |
| A-C | | | | |

## Main Results for each time segment

### 08:45 - 09:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 42 | 476 | 0.089 | 42 | 0.1 | 8.280 | A |
| C-AB | 32 | 783 | 0.041 | 32 | 0.1 | 4.791 | A |
| C-A | 189 | | | 189 | | | |
| A-B | 25 | | | 25 | | | |
| A-C | 197 | | | 197 | | | |

### 09:00 - 09:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 50 | 462 | 0.109 | 50 | 0.1 | 8.747 | A |
| C-AB | 41 | 797 | 0.051 | 41 | 0.1 | 4.759 | A |
| C-A | 223 | | | 223 | | | |
| A-B | 30 | | | 30 | | | |
| A-C | 236 | | | 236 | | | |

### 09:15 - 09:30

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 62 | 442 | 0.140 | 61 | 0.2 | 9.468 | A |
| C-AB | 55 | 817 | 0.067 | 54 | 0.1 | 4.718 | A |
| C-A | 269 | | | 269 | | | |
| A-B | 36 | | | 36 | | | |
| A-C | 288 | | | 288 | | | |

### 09:30 - 09:45

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 62 | 442 | 0.140 | 62 | 0.2 | 9.476 | A |
| C-AB | 55 | 818 | 0.067 | 55 | 0.1 | 4.722 | A |
| C-A | 269 | | | 269 | | | |
| A-B | 36 | | | 36 | | | |
| A-C | 288 | | | 288 | | | |

### 09:45 - 10:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 50 | 462 | 0.109 | 50 | 0.1 | 8.758 | A |
| C-AB | 41 | 797 | 0.051 | 41 | 0.1 | 4.762 | A |
| C-A | 223 | | | 223 | | | |
| A-B | 30 | | | 30 | | | |
| A-C | 236 | | | 236 | | | |

### 10:00 - 10:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 42 | 476 | 0.089 | 42 | 0.1 | 8.299 | A |
| C-AB | 32 | 783 | 0.041 | 32 | 0.1 | 4.797 | A |
| C-A | 189 | | | 189 | | | |
| A-B | 25 | | | 25 | | | |
| A-C | 197 | | | 197 | | | |

# 2026 Base, AM

### Data Errors and Warnings

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

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Churchfields Road / Ashfield Road | T-Junction | Two-way | | 1.19 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D2 | 2026 Base | AM | ONE HOUR | 08:45 | 10:15 | 15 |

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

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| A - Churchfields Road (W) | | ✓ | 303 | 100.000 |
| B - Ashfield Road | | ✓ | 58 | 100.000 |
| C - Churchfields Road (E) | | ✓ | 302 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | A - Churchfields Road (W) | B - Ashfield Road | C - Churchfields Road (E) |
| From | A - Churchfields Road (W) | 0 | 34 | 269 |
| | B - Ashfield Road | 31 | 0 | 27 |
| | C - Churchfields Road (E) | 269 | 33 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | A - Churchfields Road (W) | B - Ashfield Road | C - Churchfields Road (E) |
| From | A - Churchfields Road (W) | 0 | 0 | 0 |
| | B - Ashfield Road | 0 | 0 | 0 |
| | C - Churchfields Road (E) | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| B-AC | 0.15 | 9.60 | 0.2 | A |
| C-AB | 0.07 | 4.79 | 0.1 | A |
| C-A | | | | |
| A-B | | | | |
| A-C | | | | |

## Main Results for each time segment

### 08:45 - 09:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 44 | 474 | 0.092 | 43 | 0.1 | 8.343 | A |
| C-AB | 33 | 785 | 0.043 | 33 | 0.1 | 4.787 | A |
| C-A | 194 | | | 194 | | | |
| A-B | 26 | | | 26 | | | |
| A-C | 203 | | | 203 | | | |

### 09:00 - 09:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 52 | 460 | 0.113 | 52 | 0.1 | 8.833 | A |
| C-AB | 43 | 800 | 0.053 | 43 | 0.1 | 4.755 | A |
| C-A | 229 | | | 229 | | | |
| A-B | 31 | | | 31 | | | |
| A-C | 242 | | | 242 | | | |

### 09:15 - 09:30

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 64 | 439 | 0.146 | 64 | 0.2 | 9.594 | A |
| C-AB | 57 | 820 | 0.069 | 57 | 0.1 | 4.715 | A |
| C-A | 276 | | | 276 | | | |
| A-B | 37 | | | 37 | | | |
| A-C | 296 | | | 296 | | | |

### 09:30 - 09:45

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 64 | 439 | 0.146 | 64 | 0.2 | 9.602 | A |
| C-AB | 57 | 821 | 0.070 | 57 | 0.1 | 4.716 | A |
| C-A | 275 | | | 275 | | | |
| A-B | 37 | | | 37 | | | |
| A-C | 296 | | | 296 | | | |

### 09:45 - 10:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 52 | 459 | 0.113 | 52 | 0.1 | 8.846 | A |
| C-AB | 43 | 800 | 0.053 | 43 | 0.1 | 4.760 | A |
| C-A | 229 | | | 229 | | | |
| A-B | 31 | | | 31 | | | |
| A-C | 242 | | | 242 | | | |

### 10:00 - 10:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 44 | 474 | 0.092 | 44 | 0.1 | 8.363 | A |
| C-AB | 34 | 785 | 0.043 | 34 | 0.1 | 4.793 | A |
| C-A | 194 | | | 194 | | | |
| A-B | 26 | | | 26 | | | |
| A-C | 203 | | | 203 | | | |

# 2026 Base + Dev, AM

### Data Errors and Warnings

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

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Churchfields Road / Ashfield Road | T-Junction | Two-way | | 1.13 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D3 | 2026 Base + Dev | AM | ONE HOUR | 08:45 | 10:15 | 15 |

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

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| A - Churchfields Road (W) | | ✓ | 354 | 100.000 |
| B - Ashfield Road | | ✓ | 58 | 100.000 |
| C - Churchfields Road (E) | | ✓ | 306 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | A - Churchfields Road (W) | B - Ashfield Road | C - Churchfields Road (E) |
| From | A - Churchfields Road (W) | 0 | 40 | 314 |
| | B - Ashfield Road | 31 | 0 | 27 |
| | C - Churchfields Road (E) | 273 | 33 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | A - Churchfields Road (W) | B - Ashfield Road | C - Churchfields Road (E) |
| From | A - Churchfields Road (W) | 0 | 0 | 0 |
| | B - Ashfield Road | 0 | 0 | 0 |
| | C - Churchfields Road (E) | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| B-AC | 0.15 | 9.94 | 0.2 | A |
| C-AB | 0.07 | 4.84 | 0.1 | A |
| C-A | | | | |
| A-B | | | | |
| A-C | | | | |

## Main Results for each time segment

### 08:45 - 09:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 44 | 466 | 0.094 | 43 | 0.1 | 8.514 | A |
| C-AB | 34 | 778 | 0.043 | 34 | 0.1 | 4.837 | A |
| C-A | 197 | | | 197 | | | |
| A-B | 30 | | | 30 | | | |
| A-C | 236 | | | 236 | | | |

### 09:00 - 09:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 52 | 449 | 0.116 | 52 | 0.1 | 9.065 | A |
| C-AB | 43 | 791 | 0.054 | 43 | 0.1 | 4.813 | A |
| C-A | 232 | | | 232 | | | |
| A-B | 36 | | | 36 | | | |
| A-C | 282 | | | 282 | | | |

### 09:15 - 09:30

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 64 | 426 | 0.150 | 64 | 0.2 | 9.932 | A |
| C-AB | 58 | 811 | 0.071 | 58 | 0.1 | 4.782 | A |
| C-A | 279 | | | 279 | | | |
| A-B | 44 | | | 44 | | | |
| A-C | 346 | | | 346 | | | |

### 09:30 - 09:45

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 64 | 426 | 0.150 | 64 | 0.2 | 9.942 | A |
| C-AB | 58 | 811 | 0.071 | 58 | 0.1 | 4.786 | A |
| C-A | 279 | | | 279 | | | |
| A-B | 44 | | | 44 | | | |
| A-C | 346 | | | 346 | | | |

### 09:45 - 10:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 52 | 449 | 0.116 | 52 | 0.1 | 9.077 | A |
| C-AB | 43 | 791 | 0.055 | 43 | 0.1 | 4.818 | A |
| C-A | 232 | | | 232 | | | |
| A-B | 36 | | | 36 | | | |
| A-C | 282 | | | 282 | | | |

### 10:00 - 10:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 44 | 466 | 0.094 | 44 | 0.1 | 8.537 | A |
| C-AB | 34 | 778 | 0.044 | 34 | 0.1 | 4.841 | A |
| C-A | 197 | | | 197 | | | |
| A-B | 30 | | | 30 | | | |
| A-C | 236 | | | 236 | | | |

# 2028 Base, AM

### Data Errors and Warnings

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

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Churchfields Road / Ashfield Road | T-Junction | Two-way | | 1.18 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D4 | 2028 Base | AM | ONE HOUR | 08:45 | 10:15 | 15 |

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

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| A - Churchfields Road (W) | | ✓ | 306 | 100.000 |
| B - Ashfield Road | | ✓ | 58 | 100.000 |
| C - Churchfields Road (E) | | ✓ | 305 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | A - Churchfields Road (W) | B - Ashfield Road | C - Churchfields Road (E) |
| From | A - Churchfields Road (W) | 0 | 34 | 272 |
| | B - Ashfield Road | 31 | 0 | 27 |
| | C - Churchfields Road (E) | 272 | 33 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | A - Churchfields Road (W) | B - Ashfield Road | C - Churchfields Road (E) |
| From | A - Churchfields Road (W) | 0 | 0 | 0 |
| | B - Ashfield Road | 0 | 0 | 0 |
| | C - Churchfields Road (E) | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| B-AC | 0.15 | 9.63 | 0.2 | A |
| C-AB | 0.07 | 4.79 | 0.1 | A |
| C-A | | | | |
| A-B | | | | |
| A-C | | | | |

## Main Results for each time segment

### 08:45 - 09:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 44 | 474 | 0.092 | 43 | 0.1 | 8.357 | A |
| C-AB | 34 | 786 | 0.043 | 33 | 0.1 | 4.782 | A |
| C-A | 196 | | | 196 | | | |
| A-B | 26 | | | 26 | | | |
| A-C | 205 | | | 205 | | | |

### 09:00 - 09:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 52 | 459 | 0.114 | 52 | 0.1 | 8.853 | A |
| C-AB | 43 | 801 | 0.053 | 43 | 0.1 | 4.750 | A |
| C-A | 231 | | | 231 | | | |
| A-B | 31 | | | 31 | | | |
| A-C | 245 | | | 245 | | | |

### 09:15 - 09:30

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 64 | 438 | 0.146 | 64 | 0.2 | 9.623 | A |
| C-AB | 57 | 822 | 0.070 | 57 | 0.1 | 4.710 | A |
| C-A | 279 | | | 279 | | | |
| A-B | 37 | | | 37 | | | |
| A-C | 299 | | | 299 | | | |

### 09:30 - 09:45

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 64 | 438 | 0.146 | 64 | 0.2 | 9.631 | A |
| C-AB | 57 | 822 | 0.070 | 57 | 0.1 | 4.712 | A |
| C-A | 278 | | | 278 | | | |
| A-B | 37 | | | 37 | | | |
| A-C | 299 | | | 299 | | | |

### 09:45 - 10:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 52 | 459 | 0.114 | 52 | 0.1 | 8.864 | A |
| C-AB | 43 | 801 | 0.054 | 43 | 0.1 | 4.754 | A |
| C-A | 231 | | | 231 | | | |
| A-B | 31 | | | 31 | | | |
| A-C | 245 | | | 245 | | | |

### 10:00 - 10:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 44 | 474 | 0.092 | 44 | 0.1 | 8.378 | A |
| C-AB | 34 | 786 | 0.043 | 34 | 0.1 | 4.786 | A |
| C-A | 196 | | | 196 | | | |
| A-B | 26 | | | 26 | | | |
| A-C | 205 | | | 205 | | | |

# 2028 Base + Dev, AM

### Data Errors and Warnings

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

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Churchfields Road / Ashfield Road | T-Junction | Two-way | | 1.15 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D5 | 2028 Base + Dev | AM | ONE HOUR | 08:45 | 10:15 | 15 |

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

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| A - Churchfields Road (W) | | ✓ | 357 | 100.000 |
| B - Ashfield Road | | ✓ | 59 | 100.000 |
| C - Churchfields Road (E) | | ✓ | 309 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | A - Churchfields Road (W) | B - Ashfield Road | C - Churchfields Road (E) |
| From | A - Churchfields Road (W) | 0 | 40 | 317 |
| | B - Ashfield Road | 32 | 0 | 27 |
| | C - Churchfields Road (E) | 276 | 33 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | A - Churchfields Road (W) | B - Ashfield Road | C - Churchfields Road (E) |
| From | A - Churchfields Road (W) | 0 | 0 | 0 |
| | B - Ashfield Road | 0 | 0 | 0 |
| | C - Churchfields Road (E) | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| B-AC | 0.15 | 10.04 | 0.2 | B |
| C-AB | 0.07 | 4.84 | 0.1 | A |
| C-A | | | | |
| A-B | | | | |
| A-C | | | | |

## Main Results for each time segment

### 08:45 - 09:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 44 | 464 | 0.096 | 44 | 0.1 | 8.570 | A |
| C-AB | 34 | 779 | 0.044 | 34 | 0.1 | 4.832 | A |
| C-A | 199 | | | 199 | | | |
| A-B | 30 | | | 30 | | | |
| A-C | 239 | | | 239 | | | |

### 09:00 - 09:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 53 | 447 | 0.119 | 53 | 0.1 | 9.135 | A |
| C-AB | 43 | 792 | 0.055 | 43 | 0.1 | 4.808 | A |
| C-A | 235 | | | 235 | | | |
| A-B | 36 | | | 36 | | | |
| A-C | 285 | | | 285 | | | |

### 09:15 - 09:30

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 65 | 423 | 0.153 | 65 | 0.2 | 10.032 | B |
| C-AB | 58 | 812 | 0.072 | 58 | 0.1 | 4.775 | A |
| C-A | 282 | | | 282 | | | |
| A-B | 44 | | | 44 | | | |
| A-C | 349 | | | 349 | | | |

### 09:30 - 09:45

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 65 | 423 | 0.153 | 65 | 0.2 | 10.043 | B |
| C-AB | 58 | 812 | 0.072 | 58 | 0.1 | 4.779 | A |
| C-A | 282 | | | 282 | | | |
| A-B | 44 | | | 44 | | | |
| A-C | 349 | | | 349 | | | |

### 09:45 - 10:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 53 | 447 | 0.119 | 53 | 0.1 | 9.152 | A |
| C-AB | 43 | 792 | 0.055 | 43 | 0.1 | 4.810 | A |
| C-A | 234 | | | 234 | | | |
| A-B | 36 | | | 36 | | | |
| A-C | 285 | | | 285 | | | |

### 10:00 - 10:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 44 | 464 | 0.096 | 45 | 0.1 | 8.593 | A |
| C-AB | 34 | 779 | 0.044 | 34 | 0.1 | 4.838 | A |
| C-A | 199 | | | 199 | | | |
| A-B | 30 | | | 30 | | | |
| A-C | 239 | | | 239 | | | |

# 2021 Survey, PM

### Data Errors and Warnings

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

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Churchfields Road / Ashfield Road | T-Junction | Two-way | | 1.34 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D6 | 2021 Survey | PM | ONE HOUR | 13:45 | 15:15 | 15 |

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

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| A - Churchfields Road (W) | | ✓ | 259 | 100.000 |
| B - Ashfield Road | | ✓ | 55 | 100.000 |
| C - Churchfields Road (E) | | ✓ | 322 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | A - Churchfields Road (W) | B - Ashfield Road | C - Churchfields Road (E) |
| From | A - Churchfields Road (W) | 0 | 31 | 228 |
| | B - Ashfield Road | 24 | 0 | 31 |
| | C - Churchfields Road (E) | 271 | 51 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | A - Churchfields Road (W) | B - Ashfield Road | C - Churchfields Road (E) |
| From | A - Churchfields Road (W) | 0 | 0 | 0 |
| | B - Ashfield Road | 0 | 0 | 0 |
| | C - Churchfields Road (E) | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| B-AC | 0.13 | 8.93 | 0.1 | A |
| C-AB | 0.11 | 4.85 | 0.2 | A |
| C-A | | | | |
| A-B | | | | |
| A-C | | | | |

## Main Results for each time segment

### 13:45 - 14:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 41 | 496 | 0.084 | 41 | 0.1 | 7.902 | A |
| C-AB | 52 | 794 | 0.065 | 51 | 0.1 | 4.847 | A |
| C-A | 191 | | | 191 | | | |
| A-B | 23 | | | 23 | | | |
| A-C | 172 | | | 172 | | | |

### 14:00 - 14:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 49 | 482 | 0.103 | 49 | 0.1 | 8.311 | A |
| C-AB | 66 | 810 | 0.081 | 66 | 0.1 | 4.836 | A |
| C-A | 224 | | | 224 | | | |
| A-B | 28 | | | 28 | | | |
| A-C | 205 | | | 205 | | | |

### 14:15 - 14:30

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 61 | 464 | 0.131 | 60 | 0.1 | 8.927 | A |
| C-AB | 88 | 833 | 0.105 | 87 | 0.2 | 4.832 | A |
| C-A | 267 | | | 267 | | | |
| A-B | 34 | | | 34 | | | |
| A-C | 251 | | | 251 | | | |

### 14:30 - 14:45

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 61 | 464 | 0.131 | 61 | 0.1 | 8.933 | A |
| C-AB | 88 | 833 | 0.105 | 88 | 0.2 | 4.835 | A |
| C-A | 267 | | | 267 | | | |
| A-B | 34 | | | 34 | | | |
| A-C | 251 | | | 251 | | | |

### 14:45 - 15:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 49 | 482 | 0.103 | 50 | 0.1 | 8.321 | A |
| C-AB | 66 | 810 | 0.081 | 66 | 0.1 | 4.842 | A |
| C-A | 224 | | | 224 | | | |
| A-B | 28 | | | 28 | | | |
| A-C | 205 | | | 205 | | | |

### 15:00 - 15:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 41 | 496 | 0.084 | 42 | 0.1 | 7.927 | A |
| C-AB | 52 | 794 | 0.065 | 52 | 0.1 | 4.854 | A |
| C-A | 191 | | | 191 | | | |
| A-B | 23 | | | 23 | | | |
| A-C | 172 | | | 172 | | | |

# 2026 Base, PM

### Data Errors and Warnings

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

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Churchfields Road / Ashfield Road | T-Junction | Two-way | | 1.34 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D7 | 2026 Base | PM | ONE HOUR | 13:45 | 15:15 | 15 |

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

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| A - Churchfields Road (W) | | ✓ | 268 | 100.000 |
| B - Ashfield Road | | ✓ | 56 | 100.000 |
| C - Churchfields Road (E) | | ✓ | 333 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | A - Churchfields Road (W) | B - Ashfield Road | C - Churchfields Road (E) |
| From | A - Churchfields Road (W) | 0 | 32 | 236 |
| | B - Ashfield Road | 24 | 0 | 32 |
| | C - Churchfields Road (E) | 281 | 52 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | A - Churchfields Road (W) | B - Ashfield Road | C - Churchfields Road (E) |
| From | A - Churchfields Road (W) | 0 | 0 | 0 |
| | B - Ashfield Road | 0 | 0 | 0 |
| | C - Churchfields Road (E) | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| B-AC | 0.13 | 9.00 | 0.2 | A |
| C-AB | 0.11 | 4.84 | 0.2 | A |
| C-A | | | | |
| A-B | | | | |
| A-C | | | | |

## Main Results for each time segment

### 13:45 - 14:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 42 | 495 | 0.085 | 42 | 0.1 | 7.937 | A |
| C-AB | 53 | 797 | 0.067 | 53 | 0.1 | 4.838 | A |
| C-A | 197 | | | 197 | | | |
| A-B | 24 | | | 24 | | | |
| A-C | 178 | | | 178 | | | |

### 14:00 - 14:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 50 | 481 | 0.105 | 50 | 0.1 | 8.354 | A |
| C-AB | 68 | 814 | 0.083 | 68 | 0.1 | 4.826 | A |
| C-A | 231 | | | 231 | | | |
| A-B | 29 | | | 29 | | | |
| A-C | 212 | | | 212 | | | |

### 14:15 - 14:30

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 62 | 462 | 0.134 | 62 | 0.2 | 8.995 | A |
| C-AB | 91 | 838 | 0.109 | 91 | 0.2 | 4.822 | A |
| C-A | 276 | | | 276 | | | |
| A-B | 35 | | | 35 | | | |
| A-C | 260 | | | 260 | | | |

### 14:30 - 14:45

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 62 | 462 | 0.134 | 62 | 0.2 | 9.001 | A |
| C-AB | 91 | 838 | 0.109 | 91 | 0.2 | 4.825 | A |
| C-A | 276 | | | 276 | | | |
| A-B | 35 | | | 35 | | | |
| A-C | 260 | | | 260 | | | |

### 14:45 - 15:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 50 | 481 | 0.105 | 50 | 0.1 | 8.364 | A |
| C-AB | 68 | 814 | 0.084 | 68 | 0.1 | 4.832 | A |
| C-A | 231 | | | 231 | | | |
| A-B | 29 | | | 29 | | | |
| A-C | 212 | | | 212 | | | |

### 15:00 - 15:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 42 | 495 | 0.085 | 42 | 0.1 | 7.956 | A |
| C-AB | 53 | 797 | 0.067 | 54 | 0.1 | 4.845 | A |
| C-A | 197 | | | 197 | | | |
| A-B | 24 | | | 24 | | | |
| A-C | 178 | | | 178 | | | |

# 2026 Base + Dev, PM

### Data Errors and Warnings

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

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Churchfields Road / Ashfield Road | T-Junction | Two-way | | 1.34 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D8 | 2026 Base + Dev | PM | ONE HOUR | 13:45 | 15:15 | 15 |

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

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| A - Churchfields Road (W) | | ✓ | 273 | 100.000 |
| B - Ashfield Road | | ✓ | 60 | 100.000 |
| C - Churchfields Road (E) | | ✓ | 379 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | A - Churchfields Road (W) | B - Ashfield Road | C - Churchfields Road (E) |
| From | A - Churchfields Road (W) | 0 | 33 | 240 |
| | B - Ashfield Road | 28 | 0 | 32 |
| | C - Churchfields Road (E) | 327 | 52 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | A - Churchfields Road (W) | B - Ashfield Road | C - Churchfields Road (E) |
| From | A - Churchfields Road (W) | 0 | 0 | 0 |
| | B - Ashfield Road | 0 | 0 | 0 |
| | C - Churchfields Road (E) | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| B-AC | 0.15 | 9.43 | 0.2 | A |
| C-AB | 0.11 | 4.73 | 0.2 | A |
| C-A | | | | |
| A-B | | | | |
| A-C | | | | |

## Main Results for each time segment

### 13:45 - 14:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 45 | 484 | 0.093 | 45 | 0.1 | 8.188 | A |
| C-AB | 56 | 818 | 0.068 | 56 | 0.1 | 4.722 | A |
| C-A | 229 | | | 229 | | | |
| A-B | 25 | | | 25 | | | |
| A-C | 181 | | | 181 | | | |

### 14:00 - 14:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 54 | 469 | 0.115 | 54 | 0.1 | 8.671 | A |
| C-AB | 72 | 839 | 0.086 | 72 | 0.1 | 4.695 | A |
| C-A | 269 | | | 269 | | | |
| A-B | 30 | | | 30 | | | |
| A-C | 216 | | | 216 | | | |

### 14:15 - 14:30

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 66 | 448 | 0.148 | 66 | 0.2 | 9.422 | A |
| C-AB | 98 | 869 | 0.113 | 98 | 0.2 | 4.669 | A |
| C-A | 319 | | | 319 | | | |
| A-B | 36 | | | 36 | | | |
| A-C | 264 | | | 264 | | | |

### 14:30 - 14:45

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 66 | 448 | 0.148 | 66 | 0.2 | 9.430 | A |
| C-AB | 98 | 869 | 0.113 | 98 | 0.2 | 4.670 | A |
| C-A | 319 | | | 319 | | | |
| A-B | 36 | | | 36 | | | |
| A-C | 264 | | | 264 | | | |

### 14:45 - 15:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 54 | 469 | 0.115 | 54 | 0.1 | 8.684 | A |
| C-AB | 72 | 839 | 0.086 | 72 | 0.2 | 4.699 | A |
| C-A | 268 | | | 268 | | | |
| A-B | 30 | | | 30 | | | |
| A-C | 216 | | | 216 | | | |

### 15:00 - 15:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 45 | 484 | 0.093 | 45 | 0.1 | 8.209 | A |
| C-AB | 56 | 818 | 0.069 | 56 | 0.1 | 4.727 | A |
| C-A | 229 | | | 229 | | | |
| A-B | 25 | | | 25 | | | |
| A-C | 181 | | | 181 | | | |

# 2028 Base, PM

### Data Errors and Warnings

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

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Churchfields Road / Ashfield Road | T-Junction | Two-way | | 1.35 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D9 | 2028 Base | PM | ONE HOUR | 13:45 | 15:15 | 15 |

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

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| A - Churchfields Road (W) | | ✓ | 273 | 100.000 |
| B - Ashfield Road | | ✓ | 57 | 100.000 |
| C - Churchfields Road (E) | | ✓ | 338 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | A - Churchfields Road (W) | B - Ashfield Road | C - Churchfields Road (E) |
| From | A - Churchfields Road (W) | 0 | 33 | 240 |
| | B - Ashfield Road | 25 | 0 | 32 |
| | C - Churchfields Road (E) | 285 | 53 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | A - Churchfields Road (W) | B - Ashfield Road | C - Churchfields Road (E) |
| From | A - Churchfields Road (W) | 0 | 0 | 0 |
| | B - Ashfield Road | 0 | 0 | 0 |
| | C - Churchfields Road (E) | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| B-AC | 0.14 | 9.11 | 0.2 | A |
| C-AB | 0.11 | 4.84 | 0.2 | A |
| C-A | | | | |
| A-B | | | | |
| A-C | | | | |

## Main Results for each time segment

### 13:45 - 14:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 43 | 492 | 0.087 | 43 | 0.1 | 8.004 | A |
| C-AB | 55 | 798 | 0.068 | 54 | 0.1 | 4.840 | A |
| C-A | 200 | | | 200 | | | |
| A-B | 25 | | | 25 | | | |
| A-C | 181 | | | 181 | | | |

### 14:00 - 14:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 51 | 478 | 0.107 | 51 | 0.1 | 8.438 | A |
| C-AB | 70 | 815 | 0.085 | 69 | 0.1 | 4.831 | A |
| C-A | 234 | | | 234 | | | |
| A-B | 30 | | | 30 | | | |
| A-C | 216 | | | 216 | | | |

### 14:15 - 14:30

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 63 | 458 | 0.137 | 63 | 0.2 | 9.103 | A |
| C-AB | 93 | 839 | 0.111 | 93 | 0.2 | 4.825 | A |
| C-A | 279 | | | 279 | | | |
| A-B | 36 | | | 36 | | | |
| A-C | 264 | | | 264 | | | |

### 14:30 - 14:45

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 63 | 458 | 0.137 | 63 | 0.2 | 9.114 | A |
| C-AB | 93 | 840 | 0.111 | 93 | 0.2 | 4.828 | A |
| C-A | 279 | | | 279 | | | |
| A-B | 36 | | | 36 | | | |
| A-C | 264 | | | 264 | | | |

### 14:45 - 15:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 51 | 478 | 0.107 | 51 | 0.1 | 8.450 | A |
| C-AB | 70 | 815 | 0.086 | 70 | 0.1 | 4.835 | A |
| C-A | 234 | | | 234 | | | |
| A-B | 30 | | | 30 | | | |
| A-C | 216 | | | 216 | | | |

### 15:00 - 15:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 43 | 492 | 0.087 | 43 | 0.1 | 8.022 | A |
| C-AB | 55 | 798 | 0.069 | 55 | 0.1 | 4.845 | A |
| C-A | 200 | | | 200 | | | |
| A-B | 25 | | | 25 | | | |
| A-C | 181 | | | 181 | | | |

# 2028 Base + Dev, PM

### Data Errors and Warnings

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

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Churchfields Road / Ashfield Road | T-Junction | Two-way | | 1.36 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D10 | 2028 Base + Dev | PM | ONE HOUR | 13:45 | 15:15 | 15 |

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

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| A - Churchfields Road (W) | | ✓ | 277 | 100.000 |
| B - Ashfield Road | | ✓ | 61 | 100.000 |
| C - Churchfields Road (E) | | ✓ | 384 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | A - Churchfields Road (W) | B - Ashfield Road | C - Churchfields Road (E) |
| From | A - Churchfields Road (W) | 0 | 33 | 244 |
| | B - Ashfield Road | 29 | 0 | 32 |
| | C - Churchfields Road (E) | 331 | 53 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | A - Churchfields Road (W) | B - Ashfield Road | C - Churchfields Road (E) |
| From | A - Churchfields Road (W) | 0 | 0 | 0 |
| | B - Ashfield Road | 0 | 0 | 0 |
| | C - Churchfields Road (E) | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| B-AC | 0.15 | 9.55 | 0.2 | A |
| C-AB | 0.12 | 4.73 | 0.2 | A |
| C-A | | | | |
| A-B | | | | |
| A-C | | | | |

## Main Results for each time segment

### 13:45 - 14:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 46 | 481 | 0.095 | 46 | 0.1 | 8.254 | A |
| C-AB | 57 | 819 | 0.070 | 57 | 0.1 | 4.723 | A |
| C-A | 232 | | | 232 | | | |
| A-B | 25 | | | 25 | | | |
| A-C | 184 | | | 184 | | | |

### 14:00 - 14:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 55 | 466 | 0.118 | 55 | 0.1 | 8.755 | A |
| C-AB | 74 | 841 | 0.088 | 74 | 0.2 | 4.695 | A |
| C-A | 271 | | | 271 | | | |
| A-B | 30 | | | 30 | | | |
| A-C | 219 | | | 219 | | | |

### 14:15 - 14:30

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 67 | 444 | 0.151 | 67 | 0.2 | 9.537 | A |
| C-AB | 101 | 871 | 0.115 | 100 | 0.2 | 4.672 | A |
| C-A | 322 | | | 322 | | | |
| A-B | 36 | | | 36 | | | |
| A-C | 269 | | | 269 | | | |

### 14:30 - 14:45

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 67 | 444 | 0.151 | 67 | 0.2 | 9.546 | A |
| C-AB | 101 | 871 | 0.116 | 101 | 0.2 | 4.676 | A |
| C-A | 322 | | | 322 | | | |
| A-B | 36 | | | 36 | | | |
| A-C | 269 | | | 269 | | | |

### 14:45 - 15:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 55 | 466 | 0.118 | 55 | 0.1 | 8.767 | A |
| C-AB | 74 | 841 | 0.088 | 74 | 0.2 | 4.702 | A |
| C-A | 271 | | | 271 | | | |
| A-B | 30 | | | 30 | | | |
| A-C | 219 | | | 219 | | | |

### 15:00 - 15:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 46 | 481 | 0.095 | 46 | 0.1 | 8.275 | A |
| C-AB | 58 | 819 | 0.070 | 58 | 0.1 | 4.728 | A |
| C-A | 232 | | | 232 | | | |
| A-B | 25 | | | 25 | | | |
| A-C | 184 | | | 184 | | | |

# Junctions 9

## PICADY 9 - Priority Intersection Module

Version: 9.5.1.7462
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**The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution**

**Filename:** 4. Churchfields Road - Stephenson Road.j9
**Path:** C:\Users\BUR103205\Downloads\Modelling\Modelling
**Report generation date:** 27/09/2023 12:01:14

»2021 Survey, AM
»2026 Base, AM
»2026 Base + Dev, AM
»2028 Base, AM
»2028 Base + Dev, AM
»2021 Survey, PM
»2026 Base, PM
»2026 Base + Dev, PM
»2028 Base, PM
»2028 Base + Dev, PM

### Summary of junction performance

| | AM | | | | | PM | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Set ID | Queue (PCU) | Delay (s) | RFC | LOS | Set ID | Queue (PCU) | Delay (s) | RFC | LOS |
| | 2021 Survey | | | | | | | | | |
| Stream B-AC | D1 | 0.7 | 13.41 | 0.43 | B | D6 | 1.0 | 15.20 | 0.50 | C |
| Stream C-AB | | 0.2 | 5.28 | 0.12 | A | | 0.2 | 5.62 | 0.14 | A |
| | 2026 Base | | | | | | | | | |
| Stream B-AC | D2 | 0.8 | 13.85 | 0.44 | B | D7 | 1.1 | 16.08 | 0.52 | C |
| Stream C-AB | | 0.2 | 5.30 | 0.12 | A | | 0.2 | 5.66 | 0.15 | A |
| | 2026 Base + Dev | | | | | | | | | |
| Stream B-AC | D3 | 0.8 | 14.24 | 0.45 | B | D8 | 1.1 | 17.07 | 0.54 | C |
| Stream C-AB | | 0.2 | 5.11 | 0.13 | A | | 0.3 | 5.75 | 0.15 | A |
| | 2028 Base | | | | | | | | | |
| Stream B-AC | D4 | 0.8 | 14.08 | 0.45 | B | D9 | 1.1 | 16.45 | 0.53 | C |
| Stream C-AB | | 0.2 | 5.29 | 0.12 | A | | 0.3 | 5.67 | 0.15 | A |
| | 2028 Base + Dev | | | | | | | | | |
| Stream B-AC | D5 | 0.8 | 14.48 | 0.46 | B | D10 | 1.2 | 17.51 | 0.55 | C |
| Stream C-AB | | 0.2 | 5.11 | 0.13 | A | | 0.3 | 5.77 | 0.16 | 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** | Churchfields Road / Stephenson Road |
| **Location** | |
| **Site number** | |
| **Date** | 24/11/2021 |
| **Version** | 1 |
| **Status** | (new file) |
| **Identifier** | |
| **Client** | Royal Mail Group |
| **Jobnumber** | |
| **Enumerator** | MOTTMAC\MCM80211 |
| **Description** | Existing junction arrangement. |

## 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

| Calculate Queue Percentiles | Calculate residual capacity | RFC Threshold | Average Delay threshold (s) | Queue threshold (PCU) |
|---|---|---|---|---|
| | | 0.85 | 36.00 | 20.00 |

## Demand Set Summary

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| **D1** | 2021 Survey | AM | ONE HOUR | 08:45 | 10:15 | 15 |
| **D2** | 2026 Base | AM | ONE HOUR | 08:45 | 10:15 | 15 |
| **D3** | 2026 Base + Dev | AM | ONE HOUR | 08:45 | 10:15 | 15 |
| **D4** | 2028 Base | AM | ONE HOUR | 08:45 | 10:15 | 15 |
| **D5** | 2028 Base + Dev | AM | ONE HOUR | 08:45 | 10:15 | 15 |
| **D6** | 2021 Survey | PM | ONE HOUR | 13:45 | 15:15 | 15 |
| **D7** | 2026 Base | PM | ONE HOUR | 13:45 | 15:15 | 15 |
| **D8** | 2026 Base + Dev | PM | ONE HOUR | 13:45 | 15:15 | 15 |
| **D9** | 2028 Base | PM | ONE HOUR | 13:45 | 15:15 | 15 |
| **D10** | 2028 Base + Dev | PM | ONE HOUR | 13:45 | 15:15 | 15 |

## Analysis Set Details

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

# 2021 Survey, AM

### Data Errors and Warnings

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

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Churchfields Road / Stephenson Road | T-Junction | Two-way | | 3.49 | A |

### Junction Network Options

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

## Arms

### Arms

| Arm | Name | Description | Arm type |
|---|---|---|---|
| A | Churchfields Road (E) | | Major |
| B | Stephenson Road | | Minor |
| C | Churchfields Road (W) | | Major |

### Major Arm Geometry

| Arm | Width of carriageway (m) | Has kerbed central reserve | Has right turn bay | Visibility for right turn (m) | Blocks? | Blocking queue (PCU) |
|---|---|---|---|---|---|---|
| C - Churchfields Road (W) | 6.85 | | | 250.0 | ✓ | 0.00 |

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

### Minor Arm Geometry

| Arm | Minor arm type | Lane width (m) | Visibility to left (m) | Visibility to right (m) |
|---|---|---|---|---|
| B - Stephenson Road | One lane | 3.50 | 27 | 35 |

### Slope / Intercept / Capacity

#### Priority Intersection Slopes and Intercepts

| Stream | Intercept (PCU/hr) | Slope for A-B | Slope for A-C | Slope for C-A | Slope for C-B |
|---|---|---|---|---|---|
| B-A | 529 | 0.093 | 0.234 | 0.148 | 0.335 |
| B-C | 679 | 0.100 | 0.253 | - | - |
| C-B | 719 | 0.268 | 0.268 | - | - |

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

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

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

# Traffic Demand

## Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D1 | 2021 Survey | AM | ONE HOUR | 08:45 | 10:15 | 15 |

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

## Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| A - Churchfields Road (E) | | ✓ | 359 | 100.000 |
| B - Stephenson Road | | ✓ | 182 | 100.000 |
| C - Churchfields Road (W) | | ✓ | 276 | 100.000 |

# Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | A - Churchfields Road (E) | B - Stephenson Road | C - Churchfields Road (W) |
| From | A - Churchfields Road (E) | 0 | 225 | 134 |
| | B - Stephenson Road | 118 | 0 | 64 |
| | C - Churchfields Road (W) | 220 | 56 | 0 |

# Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | A - Churchfields Road (E) | B - Stephenson Road | C - Churchfields Road (W) |
| From | A - Churchfields Road (E) | 0 | 0 | 0 |
| | B - Stephenson Road | 0 | 0 | 0 |
| | C - Churchfields Road (W) | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| B-AC | 0.43 | 13.41 | 0.7 | B |
| C-AB | 0.12 | 5.28 | 0.2 | A |
| C-A | | | | |
| A-B | | | | |
| A-C | | | | |

## Main Results for each time segment

### 08:45 - 09:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 137 | 502 | 0.273 | 136 | 0.4 | 9.775 | A |
| C-AB | 54 | 752 | 0.072 | 54 | 0.1 | 5.150 | A |
| C-A | 154 | | | 154 | | | |
| A-B | 169 | | | 169 | | | |
| A-C | 101 | | | 101 | | | |

### 09:00 - 09:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 164 | 488 | 0.335 | 163 | 0.5 | 11.053 | B |
| C-AB | 68 | 761 | 0.090 | 68 | 0.1 | 5.199 | A |
| C-A | 180 | | | 180 | | | |
| A-B | 202 | | | 202 | | | |
| A-C | 120 | | | 120 | | | |

### 09:15 - 09:30

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 200 | 469 | 0.428 | 199 | 0.7 | 13.322 | B |
| C-AB | 90 | 773 | 0.117 | 90 | 0.2 | 5.273 | A |
| C-A | 214 | | | 214 | | | |
| A-B | 248 | | | 248 | | | |
| A-C | 148 | | | 148 | | | |

### 09:30 - 09:45

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 200 | 469 | 0.428 | 200 | 0.7 | 13.413 | B |
| C-AB | 90 | 773 | 0.117 | 90 | 0.2 | 5.277 | A |
| C-A | 214 | | | 214 | | | |
| A-B | 248 | | | 248 | | | |
| A-C | 148 | | | 148 | | | |

### 09:45 - 10:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 164 | 488 | 0.335 | 165 | 0.5 | 11.152 | B |
| C-AB | 68 | 761 | 0.090 | 68 | 0.1 | 5.204 | A |
| C-A | 180 | | | 180 | | | |
| A-B | 202 | | | 202 | | | |
| A-C | 120 | | | 120 | | | |

### 10:00 - 10:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 137 | 502 | 0.273 | 138 | 0.4 | 9.886 | A |
| C-AB | 54 | 753 | 0.072 | 54 | 0.1 | 5.160 | A |
| C-A | 154 | | | 154 | | | |
| A-B | 169 | | | 169 | | | |
| A-C | 101 | | | 101 | | | |

# 2026 Base, AM

### Data Errors and Warnings

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

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Churchfields Road / Stephenson Road | T-Junction | Two-way | | 3.59 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D2 | 2026 Base | AM | ONE HOUR | 08:45 | 10:15 | 15 |

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

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| A - Churchfields Road (E) | | ✓ | 369 | 100.000 |
| B - Stephenson Road | | ✓ | 187 | 100.000 |
| C - Churchfields Road (W) | | ✓ | 284 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | A - Churchfields Road (E) | B - Stephenson Road | C - Churchfields Road (W) |
| From | A - Churchfields Road (E) | 0 | 231 | 138 |
| | B - Stephenson Road | 121 | 0 | 66 |
| | C - Churchfields Road (W) | 226 | 58 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | A - Churchfields Road (E) | B - Stephenson Road | C - Churchfields Road (W) |
| From | A - Churchfields Road (E) | 0 | 0 | 0 |
| | B - Stephenson Road | 0 | 0 | 0 |
| | C - Churchfields Road (W) | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| B-AC | 0.44 | 13.85 | 0.8 | B |
| C-AB | 0.12 | 5.30 | 0.2 | A |
| C-A | | | | |
| A-B | | | | |
| A-C | | | | |

## Main Results for each time segment

### 08:45 - 09:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 141 | 500 | 0.281 | 139 | 0.4 | 9.925 | A |
| C-AB | 56 | 753 | 0.075 | 56 | 0.1 | 5.159 | A |
| C-A | 157 | | | 157 | | | |
| A-B | 174 | | | 174 | | | |
| A-C | 104 | | | 104 | | | |

### 09:00 - 09:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 168 | 486 | 0.346 | 168 | 0.5 | 11.288 | B |
| C-AB | 71 | 762 | 0.093 | 71 | 0.1 | 5.213 | A |
| C-A | 184 | | | 184 | | | |
| A-B | 208 | | | 208 | | | |
| A-C | 124 | | | 124 | | | |

### 09:15 - 09:30

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 206 | 466 | 0.442 | 205 | 0.8 | 13.743 | B |
| C-AB | 94 | 774 | 0.122 | 94 | 0.2 | 5.295 | A |
| C-A | 218 | | | 218 | | | |
| A-B | 254 | | | 254 | | | |
| A-C | 152 | | | 152 | | | |

### 09:30 - 09:45

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 206 | 466 | 0.442 | 206 | 0.8 | 13.845 | B |
| C-AB | 94 | 774 | 0.122 | 94 | 0.2 | 5.296 | A |
| C-A | 218 | | | 218 | | | |
| A-B | 254 | | | 254 | | | |
| A-C | 152 | | | 152 | | | |

### 09:45 - 10:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 168 | 486 | 0.346 | 169 | 0.5 | 11.401 | B |
| C-AB | 71 | 762 | 0.094 | 72 | 0.1 | 5.219 | A |
| C-A | 184 | | | 184 | | | |
| A-B | 208 | | | 208 | | | |
| A-C | 124 | | | 124 | | | |

### 10:00 - 10:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 141 | 500 | 0.281 | 141 | 0.4 | 10.043 | B |
| C-AB | 57 | 754 | 0.075 | 57 | 0.1 | 5.169 | A |
| C-A | 157 | | | 157 | | | |
| A-B | 174 | | | 174 | | | |
| A-C | 104 | | | 104 | | | |

# 2026 Base + Dev, AM

### Data Errors and Warnings

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

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Churchfields Road / Stephenson Road | T-Junction | Two-way | | 3.49 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D3 | 2026 Base + Dev | AM | ONE HOUR | 08:45 | 10:15 | 15 |

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

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| A - Churchfields Road (E) | | ✓ | 373 | 100.000 |
| B - Stephenson Road | | ✓ | 187 | 100.000 |
| C - Churchfields Road (W) | | ✓ | 329 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | A - Churchfields Road (E) | B - Stephenson Road | C - Churchfields Road (W) |
| From | A - Churchfields Road (E) | 0 | 231 | 142 |
| | B - Stephenson Road | 121 | 0 | 66 |
| | C - Churchfields Road (W) | 271 | 58 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | A - Churchfields Road (E) | B - Stephenson Road | C - Churchfields Road (W) |
| From | A - Churchfields Road (E) | 0 | 0 | 0 |
| | B - Stephenson Road | 0 | 0 | 0 |
| | C - Churchfields Road (W) | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| B-AC | 0.45 | 14.24 | 0.8 | B |
| C-AB | 0.13 | 5.11 | 0.2 | A |
| C-A | | | | |
| A-B | | | | |
| A-C | | | | |

## Main Results for each time segment

### 08:45 - 09:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 141 | 496 | 0.284 | 139 | 0.4 | 10.052 | B |
| C-AB | 59 | 775 | 0.077 | 59 | 0.1 | 5.028 | A |
| C-A | 188 | | | 188 | | | |
| A-B | 174 | | | 174 | | | |
| A-C | 107 | | | 107 | | | |

### 09:00 - 09:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 168 | 480 | 0.350 | 168 | 0.5 | 11.495 | B |
| C-AB | 76 | 787 | 0.096 | 76 | 0.2 | 5.058 | A |
| C-A | 220 | | | 220 | | | |
| A-B | 208 | | | 208 | | | |
| A-C | 128 | | | 128 | | | |

### 09:15 - 09:30

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 206 | 459 | 0.449 | 205 | 0.8 | 14.125 | B |
| C-AB | 102 | 806 | 0.126 | 101 | 0.2 | 5.109 | A |
| C-A | 261 | | | 261 | | | |
| A-B | 254 | | | 254 | | | |
| A-C | 156 | | | 156 | | | |

### 09:30 - 09:45

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 206 | 459 | 0.449 | 206 | 0.8 | 14.239 | B |
| C-AB | 102 | 806 | 0.126 | 102 | 0.2 | 5.113 | A |
| C-A | 261 | | | 261 | | | |
| A-B | 254 | | | 254 | | | |
| A-C | 156 | | | 156 | | | |

### 09:45 - 10:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 168 | 480 | 0.350 | 169 | 0.5 | 11.616 | B |
| C-AB | 76 | 788 | 0.096 | 76 | 0.2 | 5.063 | A |
| C-A | 220 | | | 220 | | | |
| A-B | 208 | | | 208 | | | |
| A-C | 128 | | | 128 | | | |

### 10:00 - 10:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 141 | 496 | 0.284 | 141 | 0.4 | 10.180 | B |
| C-AB | 59 | 775 | 0.077 | 60 | 0.1 | 5.039 | A |
| C-A | 188 | | | 188 | | | |
| A-B | 174 | | | 174 | | | |
| A-C | 107 | | | 107 | | | |

# 2028 Base, AM

### Data Errors and Warnings

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

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Churchfields Road / Stephenson Road | T-Junction | Two-way | | 3.65 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D4 | 2028 Base | AM | ONE HOUR | 08:45 | 10:15 | 15 |

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

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| A - Churchfields Road (E) | | ✓ | 373 | 100.000 |
| B - Stephenson Road | | ✓ | 190 | 100.000 |
| C - Churchfields Road (W) | | ✓ | 287 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | A - Churchfields Road (E) | B - Stephenson Road | C - Churchfields Road (W) |
| From | A - Churchfields Road (E) | 0 | 234 | 139 |
| | B - Stephenson Road | 123 | 0 | 67 |
| | C - Churchfields Road (W) | 229 | 58 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | A - Churchfields Road (E) | B - Stephenson Road | C - Churchfields Road (W) |
| From | A - Churchfields Road (E) | 0 | 0 | 0 |
| | B - Stephenson Road | 0 | 0 | 0 |
| | C - Churchfields Road (W) | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| B-AC | 0.45 | 14.08 | 0.8 | B |
| C-AB | 0.12 | 5.29 | 0.2 | A |
| C-A | | | | |
| A-B | | | | |
| A-C | | | | |

## Main Results for each time segment

### 08:45 - 09:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 143 | 500 | 0.286 | 141 | 0.4 | 10.004 | B |
| C-AB | 57 | 754 | 0.075 | 56 | 0.1 | 5.155 | A |
| C-A | 159 | | | 159 | | | |
| A-B | 176 | | | 176 | | | |
| A-C | 105 | | | 105 | | | |

### 09:00 - 09:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 171 | 485 | 0.352 | 170 | 0.5 | 11.414 | B |
| C-AB | 72 | 763 | 0.094 | 71 | 0.1 | 5.209 | A |
| C-A | 186 | | | 186 | | | |
| A-B | 210 | | | 210 | | | |
| A-C | 125 | | | 125 | | | |

### 09:15 - 09:30

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 209 | 465 | 0.450 | 208 | 0.8 | 13.971 | B |
| C-AB | 95 | 776 | 0.122 | 95 | 0.2 | 5.290 | A |
| C-A | 221 | | | 221 | | | |
| A-B | 258 | | | 258 | | | |
| A-C | 153 | | | 153 | | | |

### 09:30 - 09:45

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 209 | 465 | 0.450 | 209 | 0.8 | 14.081 | B |
| C-AB | 95 | 776 | 0.122 | 95 | 0.2 | 5.291 | A |
| C-A | 221 | | | 221 | | | |
| A-B | 258 | | | 258 | | | |
| A-C | 153 | | | 153 | | | |

### 09:45 - 10:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 171 | 485 | 0.352 | 172 | 0.6 | 11.534 | B |
| C-AB | 72 | 763 | 0.094 | 72 | 0.1 | 5.213 | A |
| C-A | 186 | | | 186 | | | |
| A-B | 210 | | | 210 | | | |
| A-C | 125 | | | 125 | | | |

### 10:00 - 10:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 143 | 500 | 0.286 | 144 | 0.4 | 10.128 | B |
| C-AB | 57 | 754 | 0.075 | 57 | 0.1 | 5.166 | A |
| C-A | 159 | | | 159 | | | |
| A-B | 176 | | | 176 | | | |
| A-C | 105 | | | 105 | | | |

# 2028 Base + Dev, AM

### Data Errors and Warnings

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

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Churchfields Road / Stephenson Road | T-Junction | Two-way | | 3.56 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D5 | 2028 Base + Dev | AM | ONE HOUR | 08:45 | 10:15 | 15 |

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

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| A - Churchfields Road (E) | | ✓ | 377 | 100.000 |
| B - Stephenson Road | | ✓ | 190 | 100.000 |
| C - Churchfields Road (W) | | ✓ | 331 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | A - Churchfields Road (E) | B - Stephenson Road | C - Churchfields Road (W) |
| From | A - Churchfields Road (E) | 0 | 234 | 143 |
| | B - Stephenson Road | 123 | 0 | 67 |
| | C - Churchfields Road (W) | 273 | 58 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | A - Churchfields Road (E) | B - Stephenson Road | C - Churchfields Road (W) |
| From | A - Churchfields Road (E) | 0 | 0 | 0 |
| | B - Stephenson Road | 0 | 0 | 0 |
| | C - Churchfields Road (W) | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| B-AC | 0.46 | 14.48 | 0.8 | B |
| C-AB | 0.13 | 5.11 | 0.2 | A |
| C-A | | | | |
| A-B | | | | |
| A-C | | | | |

## Main Results for each time segment

### 08:45 - 09:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 143 | 495 | 0.289 | 141 | 0.4 | 10.135 | B |
| C-AB | 59 | 775 | 0.077 | 59 | 0.1 | 5.028 | A |
| C-A | 190 | | | 190 | | | |
| A-B | 176 | | | 176 | | | |
| A-C | 108 | | | 108 | | | |

### 09:00 - 09:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 171 | 479 | 0.356 | 170 | 0.5 | 11.621 | B |
| C-AB | 76 | 788 | 0.096 | 76 | 0.2 | 5.057 | A |
| C-A | 222 | | | 222 | | | |
| A-B | 210 | | | 210 | | | |
| A-C | 129 | | | 129 | | | |

### 09:15 - 09:30

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 209 | 458 | 0.457 | 208 | 0.8 | 14.357 | B |
| C-AB | 102 | 807 | 0.127 | 102 | 0.2 | 5.111 | A |
| C-A | 262 | | | 262 | | | |
| A-B | 258 | | | 258 | | | |
| A-C | 157 | | | 157 | | | |

### 09:30 - 09:45

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 209 | 458 | 0.457 | 209 | 0.8 | 14.482 | B |
| C-AB | 102 | 807 | 0.127 | 102 | 0.2 | 5.115 | A |
| C-A | 262 | | | 262 | | | |
| A-B | 258 | | | 258 | | | |
| A-C | 157 | | | 157 | | | |

### 09:45 - 10:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 171 | 479 | 0.356 | 172 | 0.6 | 11.751 | B |
| C-AB | 76 | 788 | 0.096 | 76 | 0.2 | 5.063 | A |
| C-A | 222 | | | 222 | | | |
| A-B | 210 | | | 210 | | | |
| A-C | 129 | | | 129 | | | |

### 10:00 - 10:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 143 | 495 | 0.289 | 144 | 0.4 | 10.267 | B |
| C-AB | 60 | 775 | 0.077 | 60 | 0.1 | 5.038 | A |
| C-A | 190 | | | 190 | | | |
| A-B | 176 | | | 176 | | | |
| A-C | 108 | | | 108 | | | |

# 2021 Survey, PM

### Data Errors and Warnings

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

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Churchfields Road / Stephenson Road | T-Junction | Two-way | | 4.37 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D6 | 2021 Survey | PM | ONE HOUR | 13:45 | 15:15 | 15 |

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

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| A - Churchfields Road (E) | | ✓ | 382 | 100.000 |
| B - Stephenson Road | | ✓ | 213 | 100.000 |
| C - Churchfields Road (W) | | ✓ | 263 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | A - Churchfields Road (E) | B - Stephenson Road | C - Churchfields Road (W) |
| From | A - Churchfields Road (E) | 0 | 246 | 136 |
| | B - Stephenson Road | 131 | 0 | 82 |
| | C - Churchfields Road (W) | 194 | 69 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | A - Churchfields Road (E) | B - Stephenson Road | C - Churchfields Road (W) |
| From | A - Churchfields Road (E) | 0 | 0 | 0 |
| | B - Stephenson Road | 0 | 0 | 0 |
| | C - Churchfields Road (W) | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| B-AC | 0.50 | 15.20 | 1.0 | C |
| C-AB | 0.14 | 5.62 | 0.2 | A |
| C-A | | | | |
| A-B | | | | |
| A-C | | | | |

## Main Results for each time segment

### 13:45 - 14:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 160 | 506 | 0.317 | 159 | 0.5 | 10.318 | B |
| C-AB | 65 | 736 | 0.088 | 64 | 0.1 | 5.362 | A |
| C-A | 133 | | | 133 | | | |
| A-B | 185 | | | 185 | | | |
| A-C | 102 | | | 102 | | | |

### 14:00 - 14:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 191 | 491 | 0.390 | 191 | 0.6 | 11.954 | B |
| C-AB | 81 | 740 | 0.110 | 81 | 0.2 | 5.461 | A |
| C-A | 155 | | | 155 | | | |
| A-B | 221 | | | 221 | | | |
| A-C | 122 | | | 122 | | | |

### 14:15 - 14:30

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 235 | 471 | 0.498 | 233 | 1.0 | 15.033 | C |
| C-AB | 107 | 748 | 0.143 | 106 | 0.2 | 5.614 | A |
| C-A | 183 | | | 183 | | | |
| A-B | 271 | | | 271 | | | |
| A-C | 150 | | | 150 | | | |

### 14:30 - 14:45

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 235 | 471 | 0.498 | 234 | 1.0 | 15.197 | C |
| C-AB | 107 | 748 | 0.143 | 107 | 0.2 | 5.620 | A |
| C-A | 183 | | | 183 | | | |
| A-B | 271 | | | 271 | | | |
| A-C | 150 | | | 150 | | | |

### 14:45 - 15:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 191 | 491 | 0.390 | 193 | 0.7 | 12.116 | B |
| C-AB | 81 | 741 | 0.110 | 82 | 0.2 | 5.467 | A |
| C-A | 155 | | | 155 | | | |
| A-B | 221 | | | 221 | | | |
| A-C | 122 | | | 122 | | | |

### 15:00 - 15:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 160 | 506 | 0.317 | 161 | 0.5 | 10.473 | B |
| C-AB | 65 | 736 | 0.088 | 65 | 0.1 | 5.370 | A |
| C-A | 133 | | | 133 | | | |
| A-B | 185 | | | 185 | | | |
| A-C | 102 | | | 102 | | | |

# 2026 Base, PM

### Data Errors and Warnings

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

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Churchfields Road / Stephenson Road | T-Junction | Two-way | | 4.61 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D7 | 2026 Base | PM | ONE HOUR | 13:45 | 15:15 | 15 |

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

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| A - Churchfields Road (E) | | ✓ | 396 | 100.000 |
| B - Stephenson Road | | ✓ | 221 | 100.000 |
| C - Churchfields Road (W) | | ✓ | 273 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | A - Churchfields Road (E) | B - Stephenson Road | C - Churchfields Road (W) |
| From | A - Churchfields Road (E) | 0 | 255 | 141 |
| | B - Stephenson Road | 136 | 0 | 85 |
| | C - Churchfields Road (W) | 201 | 72 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | A - Churchfields Road (E) | B - Stephenson Road | C - Churchfields Road (W) |
| From | A - Churchfields Road (E) | 0 | 0 | 0 |
| | B - Stephenson Road | 0 | 0 | 0 |
| | C - Churchfields Road (W) | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| B-AC | 0.52 | 16.08 | 1.1 | C |
| C-AB | 0.15 | 5.66 | 0.2 | A |
| C-A | | | | |
| A-B | | | | |
| A-C | | | | |

## Main Results for each time segment

### 13:45 - 14:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 166 | 503 | 0.331 | 164 | 0.5 | 10.580 | B |
| C-AB | 68 | 736 | 0.093 | 68 | 0.1 | 5.380 | A |
| C-A | 137 | | | 137 | | | |
| A-B | 192 | | | 192 | | | |
| A-C | 106 | | | 106 | | | |

### 14:00 - 14:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 199 | 488 | 0.407 | 198 | 0.7 | 12.383 | B |
| C-AB | 86 | 741 | 0.116 | 86 | 0.2 | 5.491 | A |
| C-A | 160 | | | 160 | | | |
| A-B | 229 | | | 229 | | | |
| A-C | 127 | | | 127 | | | |

### 14:15 - 14:30

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 243 | 467 | 0.521 | 242 | 1.1 | 15.872 | C |
| C-AB | 113 | 749 | 0.150 | 112 | 0.2 | 5.655 | A |
| C-A | 188 | | | 188 | | | |
| A-B | 281 | | | 281 | | | |
| A-C | 155 | | | 155 | | | |

### 14:30 - 14:45

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 243 | 467 | 0.521 | 243 | 1.1 | 16.076 | C |
| C-AB | 113 | 749 | 0.151 | 113 | 0.2 | 5.662 | A |
| C-A | 188 | | | 188 | | | |
| A-B | 281 | | | 281 | | | |
| A-C | 155 | | | 155 | | | |

### 14:45 - 15:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 199 | 488 | 0.407 | 200 | 0.7 | 12.582 | B |
| C-AB | 86 | 742 | 0.116 | 86 | 0.2 | 5.496 | A |
| C-A | 160 | | | 160 | | | |
| A-B | 229 | | | 229 | | | |
| A-C | 127 | | | 127 | | | |

### 15:00 - 15:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 166 | 503 | 0.331 | 167 | 0.5 | 10.755 | B |
| C-AB | 68 | 737 | 0.093 | 69 | 0.1 | 5.392 | A |
| C-A | 137 | | | 137 | | | |
| A-B | 192 | | | 192 | | | |
| A-C | 106 | | | 106 | | | |

# 2026 Base + Dev, PM

### Data Errors and Warnings

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

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Churchfields Road / Stephenson Road | T-Junction | Two-way | | 4.61 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D8 | 2026 Base + Dev | PM | ONE HOUR | 13:45 | 15:15 | 15 |

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

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| A - Churchfields Road (E) | | ✓ | 442 | 100.000 |
| B - Stephenson Road | | ✓ | 221 | 100.000 |
| C - Churchfields Road (W) | | ✓ | 277 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | A - Churchfields Road (E) | B - Stephenson Road | C - Churchfields Road (W) |
| From | A - Churchfields Road (E) | 0 | 255 | 187 |
| | B - Stephenson Road | 136 | 0 | 85 |
| | C - Churchfields Road (W) | 205 | 72 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | A - Churchfields Road (E) | B - Stephenson Road | C - Churchfields Road (W) |
| From | A - Churchfields Road (E) | 0 | 0 | 0 |
| | B - Stephenson Road | 0 | 0 | 0 |
| | C - Churchfields Road (W) | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| B-AC | 0.54 | 17.07 | 1.1 | C |
| C-AB | 0.15 | 5.75 | 0.3 | A |
| C-A | | | | |
| A-B | | | | |
| A-C | | | | |

## Main Results for each time segment

### 13:45 - 14:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 166 | 494 | 0.337 | 164 | 0.5 | 10.859 | B |
| C-AB | 69 | 730 | 0.094 | 68 | 0.1 | 5.438 | A |
| C-A | 140 | | | 140 | | | |
| A-B | 192 | | | 192 | | | |
| A-C | 141 | | | 141 | | | |

### 14:00 - 14:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 199 | 477 | 0.416 | 198 | 0.7 | 12.849 | B |
| C-AB | 87 | 734 | 0.118 | 86 | 0.2 | 5.561 | A |
| C-A | 162 | | | 162 | | | |
| A-B | 229 | | | 229 | | | |
| A-C | 168 | | | 168 | | | |

### 14:15 - 14:30

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 243 | 454 | 0.536 | 242 | 1.1 | 16.816 | C |
| C-AB | 114 | 740 | 0.154 | 114 | 0.3 | 5.750 | A |
| C-A | 191 | | | 191 | | | |
| A-B | 281 | | | 281 | | | |
| A-C | 206 | | | 206 | | | |

### 14:30 - 14:45

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 243 | 454 | 0.536 | 243 | 1.1 | 17.067 | C |
| C-AB | 114 | 740 | 0.154 | 114 | 0.3 | 5.755 | A |
| C-A | 191 | | | 191 | | | |
| A-B | 281 | | | 281 | | | |
| A-C | 206 | | | 206 | | | |

### 14:45 - 15:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 199 | 477 | 0.416 | 200 | 0.7 | 13.077 | B |
| C-AB | 87 | 734 | 0.118 | 87 | 0.2 | 5.569 | A |
| C-A | 162 | | | 162 | | | |
| A-B | 229 | | | 229 | | | |
| A-C | 168 | | | 168 | | | |

### 15:00 - 15:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 166 | 494 | 0.337 | 167 | 0.5 | 11.051 | B |
| C-AB | 69 | 730 | 0.094 | 69 | 0.1 | 5.450 | A |
| C-A | 140 | | | 140 | | | |
| A-B | 192 | | | 192 | | | |
| A-C | 141 | | | 141 | | | |

# 2028 Base, PM

### Data Errors and Warnings

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

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Churchfields Road / Stephenson Road | T-Junction | Two-way | | 4.70 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D9 | 2028 Base | PM | ONE HOUR | 13:45 | 15:15 | 15 |

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

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| A - Churchfields Road (E) | | ✓ | 402 | 100.000 |
| B - Stephenson Road | | ✓ | 224 | 100.000 |
| C - Churchfields Road (W) | | ✓ | 277 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | A - Churchfields Road (E) | B - Stephenson Road | C - Churchfields Road (W) |
| From | A - Churchfields Road (E) | 0 | 259 | 143 |
| | B - Stephenson Road | 138 | 0 | 86 |
| | C - Churchfields Road (W) | 204 | 73 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | A - Churchfields Road (E) | B - Stephenson Road | C - Churchfields Road (W) |
| From | A - Churchfields Road (E) | 0 | 0 | 0 |
| | B - Stephenson Road | 0 | 0 | 0 |
| | C - Churchfields Road (W) | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| B-AC | 0.53 | 16.45 | 1.1 | C |
| C-AB | 0.15 | 5.67 | 0.3 | A |
| C-A | | | | |
| A-B | | | | |
| A-C | | | | |

## Main Results for each time segment

### 13:45 - 14:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 169 | 502 | 0.336 | 167 | 0.5 | 10.687 | B |
| C-AB | 69 | 737 | 0.094 | 69 | 0.1 | 5.387 | A |
| C-A | 139 | | | 139 | | | |
| A-B | 195 | | | 195 | | | |
| A-C | 108 | | | 108 | | | |

### 14:00 - 14:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 201 | 486 | 0.414 | 201 | 0.7 | 12.562 | B |
| C-AB | 87 | 742 | 0.118 | 87 | 0.2 | 5.498 | A |
| C-A | 162 | | | 162 | | | |
| A-B | 233 | | | 233 | | | |
| A-C | 129 | | | 129 | | | |

### 14:15 - 14:30

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 247 | 465 | 0.530 | 245 | 1.1 | 16.226 | C |
| C-AB | 115 | 750 | 0.153 | 115 | 0.3 | 5.669 | A |
| C-A | 190 | | | 190 | | | |
| A-B | 285 | | | 285 | | | |
| A-C | 157 | | | 157 | | | |

### 14:30 - 14:45

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 247 | 465 | 0.530 | 247 | 1.1 | 16.450 | C |
| C-AB | 115 | 750 | 0.153 | 115 | 0.3 | 5.674 | A |
| C-A | 190 | | | 190 | | | |
| A-B | 285 | | | 285 | | | |
| A-C | 157 | | | 157 | | | |

### 14:45 - 15:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 201 | 486 | 0.414 | 203 | 0.7 | 12.774 | B |
| C-AB | 87 | 742 | 0.118 | 88 | 0.2 | 5.506 | A |
| C-A | 162 | | | 162 | | | |
| A-B | 233 | | | 233 | | | |
| A-C | 129 | | | 129 | | | |

### 15:00 - 15:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 169 | 501 | 0.336 | 169 | 0.5 | 10.871 | B |
| C-AB | 70 | 737 | 0.094 | 70 | 0.1 | 5.401 | A |
| C-A | 139 | | | 139 | | | |
| A-B | 195 | | | 195 | | | |
| A-C | 108 | | | 108 | | | |

# 2028 Base + Dev, PM

### Data Errors and Warnings

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

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Churchfields Road / Stephenson Road | T-Junction | Two-way | | 4.72 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D10 | 2028 Base + Dev | PM | ONE HOUR | 13:45 | 15:15 | 15 |

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

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| A - Churchfields Road (E) | | ✓ | 449 | 100.000 |
| B - Stephenson Road | | ✓ | 224 | 100.000 |
| C - Churchfields Road (W) | | ✓ | 281 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | A - Churchfields Road (E) | B - Stephenson Road | C - Churchfields Road (W) |
| From | A - Churchfields Road (E) | 0 | 259 | 190 |
| | B - Stephenson Road | 138 | 0 | 86 |
| | C - Churchfields Road (W) | 208 | 73 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | A - Churchfields Road (E) | B - Stephenson Road | C - Churchfields Road (W) |
| From | A - Churchfields Road (E) | 0 | 0 | 0 |
| | B - Stephenson Road | 0 | 0 | 0 |
| | C - Churchfields Road (W) | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| B-AC | 0.55 | 17.51 | 1.2 | C |
| C-AB | 0.16 | 5.77 | 0.3 | A |
| C-A | | | | |
| A-B | | | | |
| A-C | | | | |

## Main Results for each time segment

### 13:45 - 14:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 169 | 493 | 0.342 | 167 | 0.5 | 10.978 | B |
| C-AB | 70 | 730 | 0.096 | 69 | 0.1 | 5.446 | A |
| C-A | 142 | | | 142 | | | |
| A-B | 195 | | | 195 | | | |
| A-C | 143 | | | 143 | | | |

### 14:00 - 14:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 201 | 476 | 0.423 | 201 | 0.7 | 13.050 | B |
| C-AB | 88 | 734 | 0.120 | 88 | 0.2 | 5.575 | A |
| C-A | 164 | | | 164 | | | |
| A-B | 233 | | | 233 | | | |
| A-C | 171 | | | 171 | | | |

### 14:15 - 14:30

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 247 | 452 | 0.546 | 245 | 1.2 | 17.234 | C |
| C-AB | 117 | 741 | 0.157 | 116 | 0.3 | 5.767 | A |
| C-A | 193 | | | 193 | | | |
| A-B | 285 | | | 285 | | | |
| A-C | 209 | | | 209 | | | |

### 14:30 - 14:45

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 247 | 452 | 0.546 | 247 | 1.2 | 17.510 | C |
| C-AB | 117 | 741 | 0.158 | 117 | 0.3 | 5.772 | A |
| C-A | 193 | | | 193 | | | |
| A-B | 285 | | | 285 | | | |
| A-C | 209 | | | 209 | | | |

### 14:45 - 15:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 201 | 475 | 0.424 | 203 | 0.8 | 13.297 | B |
| C-AB | 88 | 734 | 0.120 | 89 | 0.2 | 5.581 | A |
| C-A | 164 | | | 164 | | | |
| A-B | 233 | | | 233 | | | |
| A-C | 171 | | | 171 | | | |

### 15:00 - 15:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 169 | 492 | 0.342 | 170 | 0.5 | 11.180 | B |
| C-AB | 70 | 730 | 0.096 | 70 | 0.1 | 5.458 | A |
| C-A | 141 | | | 141 | | | |
| A-B | 195 | | | 195 | | | |
| A-C | 143 | | | 143 | | | |

# Junctions 9

## ARCADY 9 - Roundabout Module

Version: 9.5.1.7462
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**The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution**

**Filename:** 5. Churchfields Road - Mill Road [Mini Roudabout].j9
**Path:** C:\Users\BUR103205\Downloads\Modelling\Modelling
**Report generation date:** 27/09/2023 12:06:07

»2021 Survey, AM
»2026 Base, AM
»2026 Base + Dev, AM
»2028 Base, AM
»2028 Base + Dev, AM
»2021 Survey, PM
»2026 Base, PM
»2026 Base + Dev, PM
»2028 Base, PM
»2028 Base + Dev, PM

### Summary of junction performance

| | AM | | | | | PM | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Set ID | Queue (PCU) | Delay (s) | RFC | LOS | Set ID | Queue (PCU) | Delay (s) | RFC | LOS |
| | 2021 Survey | | | | | | | | | |
| 1 - Mill Road (N) | D1 | 0.4 | 6.08 | 0.31 | A | D8 | 0.5 | 6.07 | 0.32 | A |
| 2 - Mill Road (S) | | 0.5 | 5.27 | 0.33 | A | | 0.6 | 5.64 | 0.37 | A |
| 3 - Churchfields Road | | 1.0 | 8.82 | 0.51 | A | | 1.1 | 9.14 | 0.52 | A |
| | 2026 Base | | | | | | | | | |
| 1 - Mill Road (N) | D2 | 0.5 | 6.19 | 0.32 | A | D9 | 0.5 | 6.23 | 0.33 | A |
| 2 - Mill Road (S) | | 0.5 | 5.36 | 0.34 | A | | 0.3 | 4.59 | 0.22 | A |
| 3 - Churchfields Road | | 1.1 | 9.11 | 0.52 | A | | 0.9 | 7.51 | 0.47 | A |
| | 2026 Base + Dev | | | | | | | | | |
| 1 - Mill Road (N) | D3 | 0.5 | 6.36 | 0.33 | A | D10 | 0.6 | 6.54 | 0.37 | A |
| 2 - Mill Road (S) | | 0.5 | 5.39 | 0.34 | A | | 0.3 | 4.84 | 0.24 | A |
| 3 - Churchfields Road | | 1.4 | 10.42 | 0.58 | B | | 0.9 | 7.59 | 0.48 | A |
| | 2028 Base | | | | | | | | | |
| 1 - Mill Road (N) | D5 | 0.5 | 6.23 | 0.32 | A | D11 | 0.5 | 6.30 | 0.34 | A |
| 2 - Mill Road (S) | | 0.5 | 5.41 | 0.34 | A | | 0.3 | 4.62 | 0.22 | A |
| 3 - Churchfields Road | | 1.1 | 9.26 | 0.53 | A | | 0.9 | 7.63 | 0.48 | A |
| | 2028 Base + Dev | | | | | | | | | |
| 1 - Mill Road (N) | D7 | 0.5 | 6.40 | 0.33 | A | D12 | 0.6 | 6.61 | 0.37 | A |
| 2 - Mill Road (S) | | 0.5 | 5.44 | 0.35 | A | | 0.3 | 4.88 | 0.25 | A |
| 3 - Churchfields Road | | 1.4 | 10.61 | 0.59 | B | | 0.9 | 7.68 | 0.49 | 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** | Churchfields Road - Mill Road |
| **Location** | |
| **Site number** | |
| **Date** | 24/11/2021 |
| **Version** | A |
| **Status** | (new file) |
| **Identifier** | |
| **Client** | Royal Mail Group |
| **Jobnumber** | |
| **Enumerator** | MOTTMAC\MCM80211 |
| **Description** | Existing junction arrangement. |

## 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

| Mini-roundabout model | Calculate Queue Percentiles | Calculate residual capacity | RFC Threshold | Average Delay threshold (s) | Queue threshold (PCU) |
|---|---|---|---|---|---|
| JUNCTIONS 9 | | | 0.85 | 36.00 | 20.00 |

## Demand Set Summary

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| **D1** | 2021 Survey | AM | ONE HOUR | 08:45 | 10:15 | 15 |
| **D2** | 2026 Base | AM | ONE HOUR | 08:45 | 10:15 | 15 |
| **D3** | 2026 Base + Dev | AM | ONE HOUR | 08:45 | 10:15 | 15 |
| **D5** | 2028 Base | AM | ONE HOUR | 08:45 | 10:15 | 15 |
| **D7** | 2028 Base + Dev | AM | ONE HOUR | 08:45 | 10:15 | 15 |
| **D8** | 2021 Survey | PM | ONE HOUR | 13:45 | 15:15 | 15 |
| **D9** | 2026 Base | PM | ONE HOUR | 13:45 | 15:15 | 15 |
| **D10** | 2026 Base + Dev | PM | ONE HOUR | 13:45 | 15:15 | 15 |
| **D11** | 2028 Base | PM | ONE HOUR | 13:45 | 15:15 | 15 |
| **D12** | 2028 Base + Dev | PM | ONE HOUR | 13:45 | 15:15 | 15 |

## Analysis Set Details

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

# 2021 Survey, AM

### Data Errors and Warnings

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

## Junction Network

### Junctions

| Junction | Name | Junction type | Use circulating lanes | Arm order | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Churchfields Road - Mill Road | Mini-roundabout | | 1, 2, 3 | 6.95 | A |

### Junction Network Options

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

## Arms

### Arms

| Arm | Name | Description |
|---|---|---|
| 1 | Mill Road (N) | |
| 2 | Mill Road (S) | |
| 3 | Churchfields Road | |

### Mini Roundabout Geometry

| Arm | Approach road half-width (m) | Minimum approach road half-width (m) | Entry width (m) | Effective flare length (m) | Distance to next arm (m) | Entry corner kerb line distance (m) | Gradient over 50m (%) | Kerbed central island |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 3.50 | 3.50 | 3.50 | 0.0 | 15.00 | 13.90 | 0.0 | |
| 2 - Mill Road (S) | 3.70 | 3.70 | 5.50 | 4.5 | 9.40 | 6.80 | 0.0 | |
| 3 - Churchfields Road | 3.60 | 3.60 | 5.10 | 1.7 | 8.40 | 6.10 | 0.0 | |

### Slope / Intercept / Capacity

#### Roundabout Slope and Intercept used in model

| Arm | Final slope | Final intercept (PCU/hr) |
|---|---|---|
| 1 - Mill Road (N) | 0.623 | 975 |
| 2 - Mill Road (S) | 0.647 | 1152 |
| 3 - Churchfields Road | 0.628 | 912 |

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D1 | 2021 Survey | AM | ONE HOUR | 08:45 | 10:15 | 15 |

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

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| 1 - Mill Road (N) | | ✓ | 242 | 100.000 |
| 2 - Mill Road (S) | | ✓ | 305 | 100.000 |
| 3 - Churchfields Road | | ✓ | 384 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | 1 - Mill Road (N) | 2 - Mill Road (S) | 3 - Churchfields Road |
| From | 1 - Mill Road (N) | 0 | 56 | 186 |
| | 2 - Mill Road (S) | 118 | 0 | 187 |
| | 3 - Churchfields Road | 214 | 170 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | 1 - Mill Road (N) | 2 - Mill Road (S) | 3 - Churchfields Road |
| From | 1 - Mill Road (N) | 0 | 0 | 0 |
| | 2 - Mill Road (S) | 0 | 0 | 0 |
| | 3 - Churchfields Road | 0 | 0 | 0 |

## Results

### Results Summary for whole modelled period

| Arm | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| 1 - Mill Road (N) | 0.31 | 6.08 | 0.4 | A |
| 2 - Mill Road (S) | 0.33 | 5.27 | 0.5 | A |
| 3 - Churchfields Road | 0.51 | 8.82 | 1.0 | A |

### Main Results for each time segment

#### 08:45 - 09:00

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 182 | 127 | 896 | 0.203 | 181 | 0.3 | 5.030 | A |
| 2 - Mill Road (S) | 230 | 139 | 1062 | 0.216 | 229 | 0.3 | 4.316 | A |
| 3 - Churchfields Road | 289 | 88 | 857 | 0.337 | 287 | 0.5 | 6.298 | A |

#### 09:00 - 09:15

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 218 | 153 | 880 | 0.247 | 217 | 0.3 | 5.429 | A |
| 2 - Mill Road (S) | 274 | 167 | 1044 | 0.263 | 274 | 0.4 | 4.674 | A |
| 3 - Churchfields Road | 345 | 106 | 846 | 0.408 | 345 | 0.7 | 7.171 | A |

### 09:15 - 09:30

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 266 | 187 | 859 | 0.310 | 266 | 0.4 | 6.067 | A |
| 2 - Mill Road (S) | 336 | 204 | 1019 | 0.329 | 335 | 0.5 | 5.254 | A |
| 3 - Churchfields Road | 423 | 130 | 831 | 0.509 | 421 | 1.0 | 8.763 | A |

### 09:30 - 09:45

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 266 | 187 | 858 | 0.310 | 266 | 0.4 | 6.080 | A |
| 2 - Mill Road (S) | 336 | 205 | 1019 | 0.329 | 336 | 0.5 | 5.267 | A |
| 3 - Churchfields Road | 423 | 130 | 831 | 0.509 | 423 | 1.0 | 8.823 | A |

### 09:45 - 10:00

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 218 | 153 | 879 | 0.247 | 218 | 0.3 | 5.445 | A |
| 2 - Mill Road (S) | 274 | 168 | 1043 | 0.263 | 275 | 0.4 | 4.686 | A |
| 3 - Churchfields Road | 345 | 106 | 846 | 0.408 | 347 | 0.7 | 7.232 | A |

### 10:00 - 10:15

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 182 | 128 | 895 | 0.204 | 182 | 0.3 | 5.055 | A |
| 2 - Mill Road (S) | 230 | 140 | 1061 | 0.216 | 230 | 0.3 | 4.335 | A |
| 3 - Churchfields Road | 289 | 89 | 856 | 0.338 | 290 | 0.5 | 6.361 | A |

# 2026 Base, AM

### Data Errors and Warnings

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

## Junction Network

### Junctions

| Junction | Name | Junction type | Use circulating lanes | Arm order | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Churchfields Road - Mill Road | Mini-roundabout | | 1, 2, 3 | 7.12 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D2 | 2026 Base | AM | ONE HOUR | 08:45 | 10:15 | 15 |

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

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| 1 - Mill Road (N) | | ✓ | 249 | 100.000 |
| 2 - Mill Road (S) | | ✓ | 313 | 100.000 |
| 3 - Churchfields Road | | ✓ | 394 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | 1 - Mill Road (N) | 2 - Mill Road (S) | 3 - Churchfields Road |
| From | 1 - Mill Road (N) | 0 | 58 | 191 |
| | 2 - Mill Road (S) | 121 | 0 | 192 |
| | 3 - Churchfields Road | 220 | 174 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | 1 - Mill Road (N) | 2 - Mill Road (S) | 3 - Churchfields Road |
| From | 1 - Mill Road (N) | 0 | 0 | 0 |
| | 2 - Mill Road (S) | 0 | 0 | 0 |
| | 3 - Churchfields Road | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Arm | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| 1 - Mill Road (N) | 0.32 | 6.19 | 0.5 | A |
| 2 - Mill Road (S) | 0.34 | 5.36 | 0.5 | A |
| 3 - Churchfields Road | 0.52 | 9.11 | 1.1 | A |

## Main Results for each time segment

### 08:45 - 09:00

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 187 | 130 | 894 | 0.210 | 186 | 0.3 | 5.080 | A |
| 2 - Mill Road (S) | 236 | 143 | 1059 | 0.222 | 235 | 0.3 | 4.359 | A |
| 3 - Churchfields Road | 297 | 91 | 855 | 0.347 | 295 | 0.5 | 6.397 | A |

### 09:00 - 09:15

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 224 | 156 | 878 | 0.255 | 224 | 0.3 | 5.500 | A |
| 2 - Mill Road (S) | 281 | 171 | 1041 | 0.270 | 281 | 0.4 | 4.736 | A |
| 3 - Churchfields Road | 354 | 109 | 844 | 0.420 | 353 | 0.7 | 7.315 | A |

### 09:15 - 09:30

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 274 | 191 | 856 | 0.320 | 274 | 0.5 | 6.176 | A |
| 2 - Mill Road (S) | 345 | 210 | 1016 | 0.339 | 344 | 0.5 | 5.354 | A |
| 3 - Churchfields Road | 434 | 133 | 829 | 0.523 | 432 | 1.1 | 9.046 | A |

### 09:30 - 09:45

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 274 | 192 | 856 | 0.320 | 274 | 0.5 | 6.189 | A |
| 2 - Mill Road (S) | 345 | 210 | 1016 | 0.339 | 345 | 0.5 | 5.364 | A |
| 3 - Churchfields Road | 434 | 133 | 829 | 0.524 | 434 | 1.1 | 9.114 | A |

### 09:45 - 10:00

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 224 | 157 | 877 | 0.255 | 224 | 0.3 | 5.520 | A |
| 2 - Mill Road (S) | 281 | 172 | 1040 | 0.270 | 282 | 0.4 | 4.751 | A |
| 3 - Churchfields Road | 354 | 109 | 844 | 0.420 | 356 | 0.7 | 7.397 | A |

### 10:00 - 10:15

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 187 | 131 | 893 | 0.210 | 188 | 0.3 | 5.104 | A |
| 2 - Mill Road (S) | 236 | 144 | 1058 | 0.223 | 236 | 0.3 | 4.380 | A |
| 3 - Churchfields Road | 297 | 91 | 855 | 0.347 | 297 | 0.5 | 6.467 | A |

# 2026 Base + Dev, AM

### Data Errors and Warnings

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

## Junction Network

### Junctions

| Junction | Name | Junction type | Use circulating lanes | Arm order | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Churchfields Road - Mill Road | Mini-roundabout | | 1, 2, 3 | 7.83 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D3 | 2026 Base + Dev | AM | ONE HOUR | 08:45 | 10:15 | 15 |

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

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| 1 - Mill Road (N) | | ✓ | 251 | 100.000 |
| 2 - Mill Road (S) | | ✓ | 315 | 100.000 |
| 3 - Churchfields Road | | ✓ | 439 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | 1 - Mill Road (N) | 2 - Mill Road (S) | 3 - Churchfields Road |
| From | 1 - Mill Road (N) | 0 | 58 | 193 |
| | 2 - Mill Road (S) | 121 | 0 | 194 |
| | 3 - Churchfields Road | 245 | 194 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | 1 - Mill Road (N) | 2 - Mill Road (S) | 3 - Churchfields Road |
| From | 1 - Mill Road (N) | 0 | 0 | 0 |
| | 2 - Mill Road (S) | 0 | 0 | 0 |
| | 3 - Churchfields Road | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Arm | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| 1 - Mill Road (N) | 0.33 | 6.36 | 0.5 | A |
| 2 - Mill Road (S) | 0.34 | 5.39 | 0.5 | A |
| 3 - Churchfields Road | 0.58 | 10.42 | 1.4 | B |

## Main Results for each time segment

### 08:45 - 09:00

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 189 | 145 | 885 | 0.214 | 188 | 0.3 | 5.159 | A |
| 2 - Mill Road (S) | 237 | 144 | 1058 | 0.224 | 236 | 0.3 | 4.372 | A |
| 3 - Churchfields Road | 331 | 91 | 855 | 0.386 | 328 | 0.6 | 6.796 | A |

### 09:00 - 09:15

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 226 | 174 | 867 | 0.260 | 225 | 0.3 | 5.611 | A |
| 2 - Mill Road (S) | 283 | 173 | 1040 | 0.272 | 283 | 0.4 | 4.755 | A |
| 3 - Churchfields Road | 395 | 109 | 844 | 0.468 | 394 | 0.9 | 7.975 | A |

### 09:15 - 09:30

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 276 | 213 | 842 | 0.328 | 276 | 0.5 | 6.348 | A |
| 2 - Mill Road (S) | 347 | 212 | 1014 | 0.342 | 346 | 0.5 | 5.383 | A |
| 3 - Churchfields Road | 483 | 133 | 829 | 0.583 | 481 | 1.4 | 10.301 | B |

### 09:30 - 09:45

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 276 | 214 | 842 | 0.328 | 276 | 0.5 | 6.364 | A |
| 2 - Mill Road (S) | 347 | 212 | 1014 | 0.342 | 347 | 0.5 | 5.393 | A |
| 3 - Churchfields Road | 483 | 133 | 829 | 0.583 | 483 | 1.4 | 10.417 | B |

### 09:45 - 10:00

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 226 | 175 | 866 | 0.261 | 226 | 0.4 | 5.634 | A |
| 2 - Mill Road (S) | 283 | 174 | 1039 | 0.273 | 284 | 0.4 | 4.768 | A |
| 3 - Churchfields Road | 395 | 109 | 844 | 0.468 | 397 | 0.9 | 8.084 | A |

### 10:00 - 10:15

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 189 | 147 | 884 | 0.214 | 189 | 0.3 | 5.187 | A |
| 2 - Mill Road (S) | 237 | 146 | 1058 | 0.224 | 237 | 0.3 | 4.393 | A |
| 3 - Churchfields Road | 331 | 91 | 855 | 0.387 | 332 | 0.6 | 6.892 | A |

# 2028 Base, AM

### Data Errors and Warnings

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

## Junction Network

### Junctions

| Junction | Name | Junction type | Use circulating lanes | Arm order | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Churchfields Road - Mill Road | Mini-roundabout | | 1, 2, 3 | 7.21 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D5 | 2028 Base | AM | ONE HOUR | 08:45 | 10:15 | 15 |

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

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| 1 - Mill Road (N) | | ✓ | 251 | 100.000 |
| 2 - Mill Road (S) | | ✓ | 317 | 100.000 |
| 3 - Churchfields Road | | ✓ | 399 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | 1 - Mill Road (N) | 2 - Mill Road (S) | 3 - Churchfields Road |
| From | 1 - Mill Road (N) | 0 | 58 | 193 |
| | 2 - Mill Road (S) | 122 | 0 | 195 |
| | 3 - Churchfields Road | 223 | 176 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | 1 - Mill Road (N) | 2 - Mill Road (S) | 3 - Churchfields Road |
| From | 1 - Mill Road (N) | 0 | 0 | 0 |
| | 2 - Mill Road (S) | 0 | 0 | 0 |
| | 3 - Churchfields Road | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Arm | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| 1 - Mill Road (N) | 0.32 | 6.23 | 0.5 | A |
| 2 - Mill Road (S) | 0.34 | 5.41 | 0.5 | A |
| 3 - Churchfields Road | 0.53 | 9.26 | 1.1 | A |

## Main Results for each time segment

### 08:45 - 09:00

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 189 | 132 | 893 | 0.212 | 188 | 0.3 | 5.098 | A |
| 2 - Mill Road (S) | 239 | 144 | 1058 | 0.226 | 237 | 0.3 | 4.380 | A |
| 3 - Churchfields Road | 300 | 91 | 855 | 0.351 | 298 | 0.5 | 6.443 | A |

### 09:00 - 09:15

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 226 | 158 | 877 | 0.257 | 225 | 0.3 | 5.524 | A |
| 2 - Mill Road (S) | 285 | 173 | 1040 | 0.274 | 285 | 0.4 | 4.766 | A |
| 3 - Churchfields Road | 359 | 110 | 843 | 0.425 | 358 | 0.7 | 7.401 | A |

### 09:15 - 09:30

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 276 | 193 | 855 | 0.323 | 276 | 0.5 | 6.214 | A |
| 2 - Mill Road (S) | 349 | 212 | 1014 | 0.344 | 348 | 0.5 | 5.401 | A |
| 3 - Churchfields Road | 439 | 134 | 828 | 0.531 | 438 | 1.1 | 9.187 | A |

### 09:30 - 09:45

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 276 | 194 | 854 | 0.323 | 276 | 0.5 | 6.228 | A |
| 2 - Mill Road (S) | 349 | 212 | 1014 | 0.344 | 349 | 0.5 | 5.411 | A |
| 3 - Churchfields Road | 439 | 134 | 828 | 0.531 | 439 | 1.1 | 9.259 | A |

### 09:45 - 10:00

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 226 | 159 | 876 | 0.258 | 226 | 0.3 | 5.545 | A |
| 2 - Mill Road (S) | 285 | 174 | 1039 | 0.274 | 286 | 0.4 | 4.780 | A |
| 3 - Churchfields Road | 359 | 110 | 843 | 0.425 | 360 | 0.8 | 7.476 | A |

### 10:00 - 10:15

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 189 | 133 | 892 | 0.212 | 189 | 0.3 | 5.124 | A |
| 2 - Mill Road (S) | 239 | 146 | 1058 | 0.226 | 239 | 0.3 | 4.401 | A |
| 3 - Churchfields Road | 300 | 92 | 855 | 0.352 | 301 | 0.5 | 6.517 | A |

# 2028 Base + Dev, AM

### Data Errors and Warnings

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

## Junction Network

### Junctions

| Junction | Name | Junction type | Use circulating lanes | Arm order | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Churchfields Road - Mill Road | Mini-roundabout | | 1, 2, 3 | 7.94 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D7 | 2028 Base + Dev | AM | ONE HOUR | 08:45 | 10:15 | 15 |

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

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| 1 - Mill Road (N) | | ✓ | 253 | 100.000 |
| 2 - Mill Road (S) | | ✓ | 319 | 100.000 |
| 3 - Churchfields Road | | ✓ | 444 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | 1 - Mill Road (N) | 2 - Mill Road (S) | 3 - Churchfields Road |
| From | 1 - Mill Road (N) | 0 | 58 | 195 |
| | 2 - Mill Road (S) | 122 | 0 | 197 |
| | 3 - Churchfields Road | 248 | 196 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | 1 - Mill Road (N) | 2 - Mill Road (S) | 3 - Churchfields Road |
| From | 1 - Mill Road (N) | 0 | 0 | 0 |
| | 2 - Mill Road (S) | 0 | 0 | 0 |
| | 3 - Churchfields Road | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Arm | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| 1 - Mill Road (N) | 0.33 | 6.40 | 0.5 | A |
| 2 - Mill Road (S) | 0.35 | 5.44 | 0.5 | A |
| 3 - Churchfields Road | 0.59 | 10.61 | 1.4 | B |

## Main Results for each time segment

### 08:45 - 09:00

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 190 | 146 | 884 | 0.216 | 189 | 0.3 | 5.184 | A |
| 2 - Mill Road (S) | 240 | 146 | 1057 | 0.227 | 239 | 0.3 | 4.393 | A |
| 3 - Churchfields Road | 334 | 91 | 855 | 0.391 | 332 | 0.6 | 6.849 | A |

### 09:00 - 09:15

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 227 | 176 | 866 | 0.263 | 227 | 0.4 | 5.636 | A |
| 2 - Mill Road (S) | 287 | 175 | 1038 | 0.276 | 286 | 0.4 | 4.785 | A |
| 3 - Churchfields Road | 399 | 110 | 843 | 0.473 | 398 | 0.9 | 8.065 | A |

### 09:15 - 09:30

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 279 | 215 | 841 | 0.331 | 278 | 0.5 | 6.385 | A |
| 2 - Mill Road (S) | 351 | 214 | 1013 | 0.347 | 351 | 0.5 | 5.430 | A |
| 3 - Churchfields Road | 489 | 134 | 828 | 0.590 | 487 | 1.4 | 10.483 | B |

### 09:30 - 09:45

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 279 | 216 | 841 | 0.331 | 279 | 0.5 | 6.404 | A |
| 2 - Mill Road (S) | 351 | 215 | 1013 | 0.347 | 351 | 0.5 | 5.441 | A |
| 3 - Churchfields Road | 489 | 134 | 828 | 0.590 | 489 | 1.4 | 10.608 | B |

### 09:45 - 10:00

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 227 | 177 | 865 | 0.263 | 228 | 0.4 | 5.660 | A |
| 2 - Mill Road (S) | 287 | 176 | 1038 | 0.276 | 287 | 0.4 | 4.799 | A |
| 3 - Churchfields Road | 399 | 110 | 843 | 0.473 | 401 | 0.9 | 8.180 | A |

### 10:00 - 10:15

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 190 | 148 | 883 | 0.216 | 191 | 0.3 | 5.204 | A |
| 2 - Mill Road (S) | 240 | 147 | 1057 | 0.227 | 241 | 0.3 | 4.413 | A |
| 3 - Churchfields Road | 334 | 92 | 855 | 0.391 | 335 | 0.7 | 6.947 | A |

# 2021 Survey, PM

### Data Errors and Warnings

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

## Junction Network

### Junctions

| Junction | Name | Junction type | Use circulating lanes | Arm order | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Churchfields Road - Mill Road | Mini-roundabout | | 1, 2, 3 | 7.13 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D8 | 2021 Survey | PM | ONE HOUR | 13:45 | 15:15 | 15 |

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

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| 1 - Mill Road (N) | | ✓ | 254 | 100.000 |
| 2 - Mill Road (S) | | ✓ | 334 | 100.000 |
| 3 - Churchfields Road | | ✓ | 380 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | 1 - Mill Road (N) | 2 - Mill Road (S) | 3 - Churchfields Road |
| From | 1 - Mill Road (N) | 0 | 50 | 204 |
| | 2 - Mill Road (S) | 145 | 0 | 189 |
| | 3 - Churchfields Road | 230 | 150 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | 1 - Mill Road (N) | 2 - Mill Road (S) | 3 - Churchfields Road |
| From | 1 - Mill Road (N) | 0 | 0 | 0 |
| | 2 - Mill Road (S) | 0 | 0 | 0 |
| | 3 - Churchfields Road | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Arm | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| 1 - Mill Road (N) | 0.32 | 6.07 | 0.5 | A |
| 2 - Mill Road (S) | 0.37 | 5.64 | 0.6 | A |
| 3 - Churchfields Road | 0.52 | 9.14 | 1.1 | A |

## Main Results for each time segment

### 13:45 - 14:00

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 191 | 112 | 905 | 0.211 | 190 | 0.3 | 5.027 | A |
| 2 - Mill Road (S) | 251 | 153 | 1053 | 0.239 | 250 | 0.3 | 4.479 | A |
| 3 - Churchfields Road | 286 | 109 | 844 | 0.339 | 284 | 0.5 | 6.405 | A |

### 14:00 - 14:15

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 228 | 135 | 891 | 0.256 | 228 | 0.3 | 5.426 | A |
| 2 - Mill Road (S) | 300 | 183 | 1033 | 0.291 | 300 | 0.4 | 4.907 | A |
| 3 - Churchfields Road | 342 | 130 | 831 | 0.411 | 341 | 0.7 | 7.342 | A |

### 14:15 - 14:30

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 280 | 165 | 872 | 0.321 | 279 | 0.5 | 6.062 | A |
| 2 - Mill Road (S) | 368 | 224 | 1007 | 0.365 | 367 | 0.6 | 5.623 | A |
| 3 - Churchfields Road | 418 | 159 | 812 | 0.515 | 417 | 1.0 | 9.076 | A |

### 14:30 - 14:45

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 280 | 165 | 872 | 0.321 | 280 | 0.5 | 6.075 | A |
| 2 - Mill Road (S) | 368 | 225 | 1006 | 0.365 | 368 | 0.6 | 5.636 | A |
| 3 - Churchfields Road | 418 | 160 | 812 | 0.515 | 418 | 1.1 | 9.141 | A |

### 14:45 - 15:00

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 228 | 135 | 891 | 0.256 | 229 | 0.3 | 5.442 | A |
| 2 - Mill Road (S) | 300 | 184 | 1033 | 0.291 | 301 | 0.4 | 4.924 | A |
| 3 - Churchfields Road | 342 | 131 | 830 | 0.411 | 343 | 0.7 | 7.411 | A |

### 15:00 - 15:15

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 191 | 113 | 905 | 0.211 | 192 | 0.3 | 5.051 | A |
| 2 - Mill Road (S) | 251 | 154 | 1052 | 0.239 | 252 | 0.3 | 4.501 | A |
| 3 - Churchfields Road | 286 | 109 | 844 | 0.339 | 287 | 0.5 | 6.476 | A |

# 2026 Base, PM

### Data Errors and Warnings

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

## Junction Network

### Junctions

| Junction | Name | Junction type | Use circulating lanes | Arm order | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Churchfields Road - Mill Road | Mini-roundabout | | 1, 2, 3 | 6.44 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D9 | 2026 Base | PM | ONE HOUR | 13:45 | 15:15 | 15 |

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

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| 1 - Mill Road (N) | | ✓ | 264 | 100.000 |
| 2 - Mill Road (S) | | ✓ | 196 | 100.000 |
| 3 - Churchfields Road | | ✓ | 393 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | 1 - Mill Road (N) | 2 - Mill Road (S) | 3 - Churchfields Road |
| From | 1 - Mill Road (N) | 0 | 52 | 212 |
| | 2 - Mill Road (S) | 0 | 0 | 196 |
| | 3 - Churchfields Road | 238 | 155 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | 1 - Mill Road (N) | 2 - Mill Road (S) | 3 - Churchfields Road |
| From | 1 - Mill Road (N) | 0 | 0 | 0 |
| | 2 - Mill Road (S) | 0 | 0 | 0 |
| | 3 - Churchfields Road | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Arm | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| 1 - Mill Road (N) | 0.33 | 6.23 | 0.5 | A |
| 2 - Mill Road (S) | 0.22 | 4.59 | 0.3 | A |
| 3 - Churchfields Road | 0.47 | 7.51 | 0.9 | A |

## Main Results for each time segment

### 13:45 - 14:00

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 199 | 116 | 903 | 0.220 | 198 | 0.3 | 5.096 | A |
| 2 - Mill Road (S) | 148 | 159 | 1049 | 0.141 | 147 | 0.2 | 3.988 | A |
| 3 - Churchfields Road | 296 | 0 | 912 | 0.324 | 294 | 0.5 | 5.805 | A |

### 14:00 - 14:15

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 237 | 139 | 888 | 0.267 | 237 | 0.4 | 5.524 | A |
| 2 - Mill Road (S) | 176 | 190 | 1029 | 0.171 | 176 | 0.2 | 4.221 | A |
| 3 - Churchfields Road | 353 | 0 | 912 | 0.387 | 353 | 0.6 | 6.426 | A |

### 14:15 - 14:30

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 291 | 170 | 869 | 0.335 | 290 | 0.5 | 6.214 | A |
| 2 - Mill Road (S) | 216 | 233 | 1001 | 0.216 | 216 | 0.3 | 4.583 | A |
| 3 - Churchfields Road | 433 | 0 | 912 | 0.474 | 432 | 0.9 | 7.473 | A |

### 14:30 - 14:45

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 291 | 171 | 869 | 0.335 | 291 | 0.5 | 6.227 | A |
| 2 - Mill Road (S) | 216 | 233 | 1001 | 0.216 | 216 | 0.3 | 4.586 | A |
| 3 - Churchfields Road | 433 | 0 | 912 | 0.474 | 433 | 0.9 | 7.505 | A |

### 14:45 - 15:00

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 237 | 140 | 888 | 0.267 | 238 | 0.4 | 5.541 | A |
| 2 - Mill Road (S) | 176 | 191 | 1028 | 0.171 | 176 | 0.2 | 4.228 | A |
| 3 - Churchfields Road | 353 | 0 | 912 | 0.387 | 354 | 0.6 | 6.465 | A |

### 15:00 - 15:15

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 199 | 117 | 902 | 0.220 | 199 | 0.3 | 5.122 | A |
| 2 - Mill Road (S) | 148 | 160 | 1048 | 0.141 | 148 | 0.2 | 3.998 | A |
| 3 - Churchfields Road | 296 | 0 | 912 | 0.324 | 296 | 0.5 | 5.851 | A |

# 2026 Base + Dev, PM

### Data Errors and Warnings

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

## Junction Network

### Junctions

| Junction | Name | Junction type | Use circulating lanes | Arm order | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Churchfields Road - Mill Road | Mini-roundabout | | 1, 2, 3 | 6.59 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D10 | 2026 Base + Dev | PM | ONE HOUR | 13:45 | 15:15 | 15 |

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

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| 1 - Mill Road (N) | | ✓ | 288 | 100.000 |
| 2 - Mill Road (S) | | ✓ | 218 | 100.000 |
| 3 - Churchfields Road | | ✓ | 398 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | 1 - Mill Road (N) | 2 - Mill Road (S) | 3 - Churchfields Road |
| From | 1 - Mill Road (N) | 0 | 52 | 236 |
| | 2 - Mill Road (S) | 0 | 0 | 218 |
| | 3 - Churchfields Road | 241 | 157 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | 1 - Mill Road (N) | 2 - Mill Road (S) | 3 - Churchfields Road |
| From | 1 - Mill Road (N) | 0 | 0 | 0 |
| | 2 - Mill Road (S) | 0 | 0 | 0 |
| | 3 - Churchfields Road | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Arm | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| 1 - Mill Road (N) | 0.37 | 6.54 | 0.6 | A |
| 2 - Mill Road (S) | 0.24 | 4.84 | 0.3 | A |
| 3 - Churchfields Road | 0.48 | 7.59 | 0.9 | A |

## Main Results for each time segment

### 13:45 - 14:00

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 217 | 117 | 902 | 0.240 | 216 | 0.3 | 5.235 | A |
| 2 - Mill Road (S) | 164 | 177 | 1037 | 0.158 | 163 | 0.2 | 4.115 | A |
| 3 - Churchfields Road | 300 | 0 | 912 | 0.328 | 298 | 0.5 | 5.841 | A |

### 14:00 - 14:15

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 259 | 141 | 887 | 0.292 | 259 | 0.4 | 5.721 | A |
| 2 - Mill Road (S) | 196 | 212 | 1015 | 0.193 | 196 | 0.2 | 4.395 | A |
| 3 - Churchfields Road | 358 | 0 | 912 | 0.392 | 357 | 0.6 | 6.479 | A |

### 14:15 - 14:30

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 317 | 172 | 868 | 0.365 | 316 | 0.6 | 6.523 | A |
| 2 - Mill Road (S) | 240 | 259 | 984 | 0.244 | 240 | 0.3 | 4.835 | A |
| 3 - Churchfields Road | 438 | 0 | 912 | 0.480 | 437 | 0.9 | 7.560 | A |

### 14:30 - 14:45

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 317 | 173 | 867 | 0.366 | 317 | 0.6 | 6.541 | A |
| 2 - Mill Road (S) | 240 | 260 | 984 | 0.244 | 240 | 0.3 | 4.841 | A |
| 3 - Churchfields Road | 438 | 0 | 912 | 0.480 | 438 | 0.9 | 7.592 | A |

### 14:45 - 15:00

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 259 | 142 | 887 | 0.292 | 260 | 0.4 | 5.743 | A |
| 2 - Mill Road (S) | 196 | 213 | 1014 | 0.193 | 196 | 0.2 | 4.403 | A |
| 3 - Churchfields Road | 358 | 0 | 912 | 0.392 | 359 | 0.7 | 6.516 | A |

### 15:00 - 15:15

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 217 | 118 | 901 | 0.241 | 217 | 0.3 | 5.265 | A |
| 2 - Mill Road (S) | 164 | 178 | 1037 | 0.158 | 164 | 0.2 | 4.129 | A |
| 3 - Churchfields Road | 300 | 0 | 912 | 0.328 | 300 | 0.5 | 5.890 | A |

# 2028 Base, PM

### Data Errors and Warnings

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

## Junction Network

### Junctions

| Junction | Name | Junction type | Use circulating lanes | Arm order | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Churchfields Road - Mill Road | Mini-roundabout | | 1, 2, 3 | 6.53 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D11 | 2028 Base | PM | ONE HOUR | 13:45 | 15:15 | 15 |

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

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| 1 - Mill Road (N) | | ✓ | 268 | 100.000 |
| 2 - Mill Road (S) | | ✓ | 199 | 100.000 |
| 3 - Churchfields Road | | ✓ | 400 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | 1 - Mill Road (N) | 2 - Mill Road (S) | 3 - Churchfields Road |
| From | 1 - Mill Road (N) | 0 | 53 | 215 |
| | 2 - Mill Road (S) | 0 | 0 | 199 |
| | 3 - Churchfields Road | 242 | 158 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | 1 - Mill Road (N) | 2 - Mill Road (S) | 3 - Churchfields Road |
| From | 1 - Mill Road (N) | 0 | 0 | 0 |
| | 2 - Mill Road (S) | 0 | 0 | 0 |
| | 3 - Churchfields Road | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Arm | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| 1 - Mill Road (N) | 0.34 | 6.30 | 0.5 | A |
| 2 - Mill Road (S) | 0.22 | 4.62 | 0.3 | A |
| 3 - Churchfields Road | 0.48 | 7.63 | 0.9 | A |

## Main Results for each time segment

### 13:45 - 14:00

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 202 | 118 | 901 | 0.224 | 201 | 0.3 | 5.128 | A |
| 2 - Mill Road (S) | 150 | 161 | 1048 | 0.143 | 149 | 0.2 | 4.005 | A |
| 3 - Churchfields Road | 301 | 0 | 912 | 0.330 | 299 | 0.5 | 5.853 | A |

### 14:00 - 14:15

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 241 | 142 | 887 | 0.272 | 241 | 0.4 | 5.569 | A |
| 2 - Mill Road (S) | 179 | 193 | 1027 | 0.174 | 179 | 0.2 | 4.243 | A |
| 3 - Churchfields Road | 360 | 0 | 912 | 0.394 | 359 | 0.6 | 6.500 | A |

### 14:15 - 14:30

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 295 | 174 | 867 | 0.340 | 295 | 0.5 | 6.282 | A |
| 2 - Mill Road (S) | 219 | 236 | 999 | 0.219 | 219 | 0.3 | 4.614 | A |
| 3 - Churchfields Road | 440 | 0 | 912 | 0.483 | 439 | 0.9 | 7.592 | A |

### 14:30 - 14:45

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 295 | 174 | 867 | 0.340 | 295 | 0.5 | 6.297 | A |
| 2 - Mill Road (S) | 219 | 237 | 999 | 0.219 | 219 | 0.3 | 4.618 | A |
| 3 - Churchfields Road | 440 | 0 | 912 | 0.483 | 440 | 0.9 | 7.628 | A |

### 14:45 - 15:00

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 241 | 142 | 886 | 0.272 | 241 | 0.4 | 5.589 | A |
| 2 - Mill Road (S) | 179 | 194 | 1026 | 0.174 | 179 | 0.2 | 4.250 | A |
| 3 - Churchfields Road | 360 | 0 | 912 | 0.394 | 361 | 0.7 | 6.540 | A |

### 15:00 - 15:15

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 202 | 119 | 901 | 0.224 | 202 | 0.3 | 5.154 | A |
| 2 - Mill Road (S) | 150 | 162 | 1047 | 0.143 | 150 | 0.2 | 4.014 | A |
| 3 - Churchfields Road | 301 | 0 | 912 | 0.330 | 302 | 0.5 | 5.904 | A |

# 2028 Base + Dev, PM

### Data Errors and Warnings

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

## Junction Network

### Junctions

| Junction | Name | Junction type | Use circulating lanes | Arm order | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Churchfields Road - Mill Road | Mini-roundabout | | 1, 2, 3 | 6.66 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D12 | 2028 Base + Dev | PM | ONE HOUR | 13:45 | 15:15 | 15 |

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

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| 1 - Mill Road (N) | | ✓ | 292 | 100.000 |
| 2 - Mill Road (S) | | ✓ | 221 | 100.000 |
| 3 - Churchfields Road | | ✓ | 403 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | 1 - Mill Road (N) | 2 - Mill Road (S) | 3 - Churchfields Road |
| From | 1 - Mill Road (N) | 0 | 53 | 239 |
| | 2 - Mill Road (S) | 0 | 0 | 221 |
| | 3 - Churchfields Road | 244 | 159 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | 1 - Mill Road (N) | 2 - Mill Road (S) | 3 - Churchfields Road |
| From | 1 - Mill Road (N) | 0 | 0 | 0 |
| | 2 - Mill Road (S) | 0 | 0 | 0 |
| | 3 - Churchfields Road | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Arm | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| 1 - Mill Road (N) | 0.37 | 6.61 | 0.6 | A |
| 2 - Mill Road (S) | 0.25 | 4.88 | 0.3 | A |
| 3 - Churchfields Road | 0.49 | 7.68 | 0.9 | A |

## Main Results for each time segment

### 13:45 - 14:00

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 220 | 119 | 901 | 0.244 | 219 | 0.3 | 5.266 | A |
| 2 - Mill Road (S) | 166 | 179 | 1036 | 0.161 | 166 | 0.2 | 4.133 | A |
| 3 - Churchfields Road | 303 | 0 | 912 | 0.333 | 301 | 0.5 | 5.874 | A |

### 14:00 - 14:15

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 263 | 143 | 886 | 0.296 | 262 | 0.4 | 5.765 | A |
| 2 - Mill Road (S) | 199 | 215 | 1013 | 0.196 | 198 | 0.2 | 4.419 | A |
| 3 - Churchfields Road | 362 | 0 | 912 | 0.397 | 362 | 0.7 | 6.533 | A |

### 14:15 - 14:30

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 321 | 175 | 866 | 0.371 | 321 | 0.6 | 6.592 | A |
| 2 - Mill Road (S) | 243 | 263 | 982 | 0.248 | 243 | 0.3 | 4.870 | A |
| 3 - Churchfields Road | 444 | 0 | 912 | 0.486 | 443 | 0.9 | 7.646 | A |

### 14:30 - 14:45

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 321 | 175 | 866 | 0.371 | 321 | 0.6 | 6.611 | A |
| 2 - Mill Road (S) | 243 | 263 | 981 | 0.248 | 243 | 0.3 | 4.876 | A |
| 3 - Churchfields Road | 444 | 0 | 912 | 0.486 | 444 | 0.9 | 7.681 | A |

### 14:45 - 15:00

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 263 | 143 | 886 | 0.296 | 263 | 0.4 | 5.790 | A |
| 2 - Mill Road (S) | 199 | 215 | 1012 | 0.196 | 199 | 0.2 | 4.427 | A |
| 3 - Churchfields Road | 362 | 0 | 912 | 0.397 | 363 | 0.7 | 6.573 | A |

### 15:00 - 15:15

| Arm | Total Demand (PCU/hr) | Circulating flow (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|---|
| 1 - Mill Road (N) | 220 | 120 | 900 | 0.244 | 220 | 0.3 | 5.298 | A |
| 2 - Mill Road (S) | 166 | 180 | 1035 | 0.161 | 167 | 0.2 | 4.147 | A |
| 3 - Churchfields Road | 303 | 0 | 912 | 0.333 | 304 | 0.5 | 5.926 | A |

# Junctions 9

## PICADY 9 - Priority Intersection Module

Version: 9.5.1.7462
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**The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution**

**Filename:** 6. Wilton Road - Cherry Orchard Lane.j9
**Path:** C:\Users\BUR103205\Downloads\Modelling\Modelling
**Report generation date:** 27/09/2023 12:10:31

»2021 Survey, AM
»2026 Base, AM
»2026 Base + Dev, AM
»2028 Base, AM
»2028 Base + Dev, AM
»2021 Survey, PM
»2026 Base, PM
»2026 Base + Dev, PM
»2028 Base, PM
»2028 Base + Dev, PM

### Summary of junction performance

| | AM | | | | | PM | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Set ID | Queue (PCU) | Delay (s) | RFC | LOS | Set ID | Queue (PCU) | Delay (s) | RFC | LOS |
| | 2021 Survey | | | | | | | | | |
| Stream B-AC | D1 | 0.7 | 13.42 | 0.41 | B | D6 | 1.0 | 17.77 | 0.51 | C |
| Stream C-AB | | 0.7 | 10.13 | 0.40 | B | | 0.4 | 9.56 | 0.28 | A |
| | 2026 Base | | | | | | | | | |
| Stream B-AC | D2 | 0.7 | 13.95 | 0.42 | B | D7 | 1.2 | 19.46 | 0.54 | C |
| Stream C-AB | | 0.8 | 10.36 | 0.42 | B | | 0.4 | 9.85 | 0.30 | A |
| | 2026 Base + Dev | | | | | | | | | |
| Stream B-AC | D3 | 0.9 | 15.52 | 0.49 | C | D8 | 1.2 | 20.19 | 0.56 | C |
| Stream C-AB | | 0.8 | 10.44 | 0.42 | B | | 0.5 | 10.44 | 0.34 | B |
| | 2028 Base | | | | | | | | | |
| Stream B-AC | D4 | 0.8 | 14.43 | 0.43 | B | D9 | 1.2 | 20.09 | 0.55 | C |
| Stream C-AB | | 0.8 | 10.44 | 0.42 | B | | 0.4 | 9.98 | 0.30 | A |
| | 2028 Base + Dev | | | | | | | | | |
| Stream B-AC | D5 | 1.0 | 16.11 | 0.50 | C | D10 | 1.3 | 20.94 | 0.57 | C |
| Stream C-AB | | 0.8 | 10.52 | 0.43 | B | | 0.6 | 10.56 | 0.35 | B |

*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** | Wilton Road / Cherry Orchard Lane |
| **Location** | |
| **Site number** | |
| **Date** | 24/11/2021 |
| **Version** | 1 |
| **Status** | (new file) |
| **Identifier** | |
| **Client** | Royal Mail Group |
| **Jobnumber** | |
| **Enumerator** | MOTTMAC\MCM80211 |
| **Description** | Existing junction arrangement. |

## 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

| Calculate Queue Percentiles | Calculate residual capacity | RFC Threshold | Average Delay threshold (s) | Queue threshold (PCU) |
|---|---|---|---|---|
| | | 0.85 | 36.00 | 20.00 |

## Demand Set Summary

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| **D1** | 2021 Survey | AM | ONE HOUR | 08:45 | 10:15 | 15 |
| **D2** | 2026 Base | AM | ONE HOUR | 08:45 | 10:15 | 15 |
| **D3** | 2026 Base + Dev | AM | ONE HOUR | 08:45 | 10:15 | 15 |
| **D4** | 2028 Base | AM | ONE HOUR | 08:45 | 10:15 | 15 |
| **D5** | 2028 Base + Dev | AM | ONE HOUR | 08:45 | 10:15 | 15 |
| **D6** | 2021 Survey | PM | ONE HOUR | 13:45 | 15:15 | 15 |
| **D7** | 2026 Base | PM | ONE HOUR | 13:45 | 15:15 | 15 |
| **D8** | 2026 Base + Dev | PM | ONE HOUR | 13:45 | 15:15 | 15 |
| **D9** | 2028 Base | PM | ONE HOUR | 13:45 | 15:15 | 15 |
| **D10** | 2028 Base + Dev | PM | ONE HOUR | 13:45 | 15:15 | 15 |

## Analysis Set Details

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

# 2021 Survey, AM

### Data Errors and Warnings

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

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Wilton Road /Cherry Orchard Lane | T-Junction | Two-way | | 2.62 | A |

### Junction Network Options

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

## Arms

### Arms

| Arm | Name | Description | Arm type |
|---|---|---|---|
| A | Wilton Road (E) | | Major |
| B | Cherry Orchard Lane | | Minor |
| C | Wilton Road (W) | | Major |

### Major Arm Geometry

| Arm | Width of carriageway (m) | Has kerbed central reserve | Has right turn bay | Width for right turn (m) | Visibility for right turn (m) | Blocks? | Blocking queue (PCU) |
|---|---|---|---|---|---|---|---|
| C - Wilton Road (W) | 8.26 | | ✓ | 2.20 | 250.0 | ✓ | 3.00 |

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

### Minor Arm Geometry

| Arm | Minor arm type | Lane width (m) | Visibility to left (m) | Visibility to right (m) |
|---|---|---|---|---|
| B - Cherry Orchard Lane | One lane | 3.40 | 35 | 22 |

### Slope / Intercept / Capacity

#### Priority Intersection Slopes and Intercepts

| Stream | Intercept (PCU/hr) | Slope for A-B | Slope for A-C | Slope for C-A | Slope for C-B |
|---|---|---|---|---|---|
| B-A | 520 | 0.085 | 0.216 | 0.136 | 0.308 |
| B-C | 663 | 0.092 | 0.232 | - | - |
| C-B | 719 | 0.251 | 0.251 | - | - |

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

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

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

# Traffic Demand

## Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D1 | 2021 Survey | AM | ONE HOUR | 08:45 | 10:15 | 15 |

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

## Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| A - Wilton Road (E) | | ✓ | 622 | 100.000 |
| B - Cherry Orchard Lane | | ✓ | 167 | 100.000 |
| C - Wilton Road (W) | | ✓ | 881 | 100.000 |

# Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | A - Wilton Road (E) | B - Cherry Orchard Lane | C - Wilton Road (W) |
| From | A - Wilton Road (E) | 0 | 43 | 579 |
| | B - Cherry Orchard Lane | 15 | 0 | 152 |
| | C - Wilton Road (W) | 681 | 200 | 0 |

# Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | A - Wilton Road (E) | B - Cherry Orchard Lane | C - Wilton Road (W) |
| From | A - Wilton Road (E) | 0 | 0 | 0 |
| | B - Cherry Orchard Lane | 0 | 0 | 0 |
| | C - Wilton Road (W) | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| B-AC | 0.41 | 13.42 | 0.7 | B |
| C-AB | 0.40 | 10.13 | 0.7 | B |
| C-A | | | | |
| A-B | | | | |
| A-C | | | | |

## Main Results for each time segment

### 08:45 - 09:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 126 | 521 | 0.241 | 124 | 0.3 | 9.081 | A |
| C-AB | 153 | 609 | 0.250 | 151 | 0.3 | 7.838 | A |
| C-A | 511 | | | 511 | | | |
| A-B | 32 | | | 32 | | | |
| A-C | 436 | | | 436 | | | |

### 09:00 - 09:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 150 | 493 | 0.304 | 150 | 0.4 | 10.457 | B |
| C-AB | 186 | 597 | 0.311 | 185 | 0.5 | 8.735 | A |
| C-A | 606 | | | 606 | | | |
| A-B | 39 | | | 39 | | | |
| A-C | 521 | | | 521 | | | |

### 09:15 - 09:30

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 184 | 452 | 0.407 | 183 | 0.7 | 13.326 | B |
| C-AB | 240 | 596 | 0.403 | 239 | 0.7 | 10.071 | B |
| C-A | 730 | | | 730 | | | |
| A-B | 47 | | | 47 | | | |
| A-C | 637 | | | 637 | | | |

### 09:30 - 09:45

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 184 | 452 | 0.407 | 184 | 0.7 | 13.422 | B |
| C-AB | 240 | 596 | 0.403 | 240 | 0.7 | 10.125 | B |
| C-A | 730 | | | 730 | | | |
| A-B | 47 | | | 47 | | | |
| A-C | 637 | | | 637 | | | |

### 09:45 - 10:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 150 | 493 | 0.304 | 151 | 0.4 | 10.547 | B |
| C-AB | 186 | 597 | 0.311 | 187 | 0.5 | 8.799 | A |
| C-A | 606 | | | 606 | | | |
| A-B | 39 | | | 39 | | | |
| A-C | 521 | | | 521 | | | |

### 10:00 - 10:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 126 | 521 | 0.241 | 126 | 0.3 | 9.135 | A |
| C-AB | 153 | 609 | 0.250 | 153 | 0.3 | 7.902 | A |
| C-A | 511 | | | 511 | | | |
| A-B | 32 | | | 32 | | | |
| A-C | 436 | | | 436 | | | |

# 2026 Base, AM

### Data Errors and Warnings

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

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Wilton Road /Cherry Orchard Lane | T-Junction | Two-way | | 2.70 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D2 | 2026 Base | AM | ONE HOUR | 08:45 | 10:15 | 15 |

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

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| A - Wilton Road (E) | | ✓ | 640 | 100.000 |
| B - Cherry Orchard Lane | | ✓ | 171 | 100.000 |
| C - Wilton Road (W) | | ✓ | 906 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | A - Wilton Road (E) | B - Cherry Orchard Lane | C - Wilton Road (W) |
| From | A - Wilton Road (E) | 0 | 44 | 596 |
| | B - Cherry Orchard Lane | 15 | 0 | 156 |
| | C - Wilton Road (W) | 700 | 206 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | A - Wilton Road (E) | B - Cherry Orchard Lane | C - Wilton Road (W) |
| From | A - Wilton Road (E) | 0 | 0 | 0 |
| | B - Cherry Orchard Lane | 0 | 0 | 0 |
| | C - Wilton Road (W) | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| B-AC | 0.42 | 13.95 | 0.7 | B |
| C-AB | 0.42 | 10.36 | 0.8 | B |
| C-A | | | | |
| A-B | | | | |
| A-C | | | | |

## Main Results for each time segment

### 08:45 - 09:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 129 | 518 | 0.249 | 127 | 0.3 | 9.193 | A |
| C-AB | 157 | 607 | 0.259 | 156 | 0.4 | 7.961 | A |
| C-A | 525 | | | 525 | | | |
| A-B | 33 | | | 33 | | | |
| A-C | 449 | | | 449 | | | |

### 09:00 - 09:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 154 | 489 | 0.314 | 153 | 0.5 | 10.694 | B |
| C-AB | 192 | 595 | 0.322 | 191 | 0.5 | 8.903 | A |
| C-A | 622 | | | 622 | | | |
| A-B | 40 | | | 40 | | | |
| A-C | 536 | | | 536 | | | |

### 09:15 - 09:30

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 188 | 446 | 0.422 | 187 | 0.7 | 13.840 | B |
| C-AB | 250 | 598 | 0.419 | 249 | 0.8 | 10.295 | B |
| C-A | 747 | | | 747 | | | |
| A-B | 48 | | | 48 | | | |
| A-C | 656 | | | 656 | | | |

### 09:30 - 09:45

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 188 | 446 | 0.422 | 188 | 0.7 | 13.954 | B |
| C-AB | 250 | 598 | 0.419 | 250 | 0.8 | 10.360 | B |
| C-A | 747 | | | 747 | | | |
| A-B | 48 | | | 48 | | | |
| A-C | 656 | | | 656 | | | |

### 09:45 - 10:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 154 | 489 | 0.314 | 155 | 0.5 | 10.795 | B |
| C-AB | 192 | 595 | 0.322 | 193 | 0.5 | 8.979 | A |
| C-A | 622 | | | 622 | | | |
| A-B | 40 | | | 40 | | | |
| A-C | 536 | | | 536 | | | |

### 10:00 - 10:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 129 | 518 | 0.249 | 129 | 0.3 | 9.282 | A |
| C-AB | 157 | 607 | 0.259 | 158 | 0.4 | 8.030 | A |
| C-A | 525 | | | 525 | | | |
| A-B | 33 | | | 33 | | | |
| A-C | 449 | | | 449 | | | |

# 2026 Base + Dev, AM

### Data Errors and Warnings

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

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Wilton Road /Cherry Orchard Lane | T-Junction | Two-way | | 3.09 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D3 | 2026 Base + Dev | AM | ONE HOUR | 08:45 | 10:15 | 15 |

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

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| A - Wilton Road (E) | | ✓ | 644 | 100.000 |
| B - Cherry Orchard Lane | | ✓ | 201 | 100.000 |
| C - Wilton Road (W) | | ✓ | 908 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | A - Wilton Road (E) | B - Cherry Orchard Lane | C - Wilton Road (W) |
| From | A - Wilton Road (E) | 0 | 45 | 599 |
| | B - Cherry Orchard Lane | 15 | 0 | 186 |
| | C - Wilton Road (W) | 700 | 208 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | A - Wilton Road (E) | B - Cherry Orchard Lane | C - Wilton Road (W) |
| From | A - Wilton Road (E) | 0 | 0 | 0 |
| | B - Cherry Orchard Lane | 0 | 0 | 0 |
| | C - Wilton Road (W) | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| B-AC | 0.49 | 15.52 | 0.9 | C |
| C-AB | 0.42 | 10.44 | 0.8 | B |
| C-A | | | | |
| A-B | | | | |
| A-C | | | | |

## Main Results for each time segment

### 08:45 - 09:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 151 | 522 | 0.290 | 150 | 0.4 | 9.617 | A |
| C-AB | 159 | 607 | 0.262 | 158 | 0.4 | 7.997 | A |
| C-A | 525 | | | 525 | | | |
| A-B | 34 | | | 34 | | | |
| A-C | 451 | | | 451 | | | |

### 09:00 - 09:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 181 | 495 | 0.365 | 180 | 0.6 | 11.411 | B |
| C-AB | 194 | 595 | 0.326 | 194 | 0.5 | 8.954 | A |
| C-A | 622 | | | 622 | | | |
| A-B | 40 | | | 40 | | | |
| A-C | 538 | | | 538 | | | |

### 09:15 - 09:30

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 221 | 453 | 0.488 | 220 | 0.9 | 15.334 | C |
| C-AB | 254 | 599 | 0.424 | 253 | 0.8 | 10.365 | B |
| C-A | 746 | | | 746 | | | |
| A-B | 50 | | | 50 | | | |
| A-C | 660 | | | 660 | | | |

### 09:30 - 09:45

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 221 | 453 | 0.489 | 221 | 0.9 | 15.522 | C |
| C-AB | 254 | 599 | 0.424 | 254 | 0.8 | 10.436 | B |
| C-A | 746 | | | 746 | | | |
| A-B | 50 | | | 50 | | | |
| A-C | 660 | | | 660 | | | |

### 09:45 - 10:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 181 | 495 | 0.365 | 182 | 0.6 | 11.567 | B |
| C-AB | 194 | 595 | 0.326 | 195 | 0.5 | 9.032 | A |
| C-A | 622 | | | 622 | | | |
| A-B | 40 | | | 40 | | | |
| A-C | 538 | | | 538 | | | |

### 10:00 - 10:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 151 | 522 | 0.290 | 152 | 0.4 | 9.741 | A |
| C-AB | 159 | 607 | 0.262 | 160 | 0.4 | 8.069 | A |
| C-A | 525 | | | 525 | | | |
| A-B | 34 | | | 34 | | | |
| A-C | 451 | | | 451 | | | |

# 2028 Base, AM

### Data Errors and Warnings

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

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Wilton Road /Cherry Orchard Lane | T-Junction | Two-way | | 2.77 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D4 | 2028 Base | AM | ONE HOUR | 08:45 | 10:15 | 15 |

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

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| A - Wilton Road (E) | | ✓ | 647 | 100.000 |
| B - Cherry Orchard Lane | | ✓ | 174 | 100.000 |
| C - Wilton Road (W) | | ✓ | 916 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | A - Wilton Road (E) | B - Cherry Orchard Lane | C - Wilton Road (W) |
| From | A - Wilton Road (E) | 0 | 45 | 602 |
| | B - Cherry Orchard Lane | 16 | 0 | 158 |
| | C - Wilton Road (W) | 708 | 208 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | A - Wilton Road (E) | B - Cherry Orchard Lane | C - Wilton Road (W) |
| From | A - Wilton Road (E) | 0 | 0 | 0 |
| | B - Cherry Orchard Lane | 0 | 0 | 0 |
| | C - Wilton Road (W) | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| B-AC | 0.43 | 14.43 | 0.8 | B |
| C-AB | 0.42 | 10.44 | 0.8 | B |
| C-A | | | | |
| A-B | | | | |
| A-C | | | | |

## Main Results for each time segment

### 08:45 - 09:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 131 | 515 | 0.255 | 130 | 0.3 | 9.321 | A |
| C-AB | 159 | 606 | 0.263 | 158 | 0.4 | 8.005 | A |
| C-A | 530 | | | 530 | | | |
| A-B | 34 | | | 34 | | | |
| A-C | 453 | | | 453 | | | |

### 09:00 - 09:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 156 | 485 | 0.322 | 156 | 0.5 | 10.907 | B |
| C-AB | 194 | 595 | 0.327 | 194 | 0.5 | 8.964 | A |
| C-A | 629 | | | 629 | | | |
| A-B | 40 | | | 40 | | | |
| A-C | 541 | | | 541 | | | |

### 09:15 - 09:30

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 192 | 441 | 0.434 | 190 | 0.7 | 14.302 | B |
| C-AB | 254 | 599 | 0.424 | 253 | 0.8 | 10.375 | B |
| C-A | 754 | | | 754 | | | |
| A-B | 50 | | | 50 | | | |
| A-C | 663 | | | 663 | | | |

### 09:30 - 09:45

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 192 | 441 | 0.435 | 192 | 0.8 | 14.432 | B |
| C-AB | 254 | 599 | 0.424 | 254 | 0.8 | 10.444 | B |
| C-A | 754 | | | 754 | | | |
| A-B | 50 | | | 50 | | | |
| A-C | 663 | | | 663 | | | |

### 09:45 - 10:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 156 | 485 | 0.322 | 158 | 0.5 | 11.022 | B |
| C-AB | 194 | 595 | 0.327 | 195 | 0.5 | 9.041 | A |
| C-A | 629 | | | 629 | | | |
| A-B | 40 | | | 40 | | | |
| A-C | 541 | | | 541 | | | |

### 10:00 - 10:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 131 | 514 | 0.255 | 132 | 0.3 | 9.418 | A |
| C-AB | 159 | 606 | 0.263 | 160 | 0.4 | 8.076 | A |
| C-A | 530 | | | 530 | | | |
| A-B | 34 | | | 34 | | | |
| A-C | 453 | | | 453 | | | |

# 2028 Base + Dev, AM

### Data Errors and Warnings

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

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Wilton Road /Cherry Orchard Lane | T-Junction | Two-way | | 3.18 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D5 | 2028 Base + Dev | AM | ONE HOUR | 08:45 | 10:15 | 15 |

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

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| A - Wilton Road (E) | | ✓ | 651 | 100.000 |
| B - Cherry Orchard Lane | | ✓ | 204 | 100.000 |
| C - Wilton Road (W) | | ✓ | 918 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | A - Wilton Road (E) | B - Cherry Orchard Lane | C - Wilton Road (W) |
| From | A - Wilton Road (E) | 0 | 45 | 606 |
| | B - Cherry Orchard Lane | 16 | 0 | 188 |
| | C - Wilton Road (W) | 708 | 210 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | A - Wilton Road (E) | B - Cherry Orchard Lane | C - Wilton Road (W) |
| From | A - Wilton Road (E) | 0 | 0 | 0 |
| | B - Cherry Orchard Lane | 0 | 0 | 0 |
| | C - Wilton Road (W) | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| B-AC | 0.50 | 16.11 | 1.0 | C |
| C-AB | 0.43 | 10.52 | 0.8 | B |
| C-A | | | | |
| A-B | | | | |
| A-C | | | | |

## Main Results for each time segment

### 08:45 - 09:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 154 | 519 | 0.296 | 152 | 0.4 | 9.756 | A |
| C-AB | 161 | 606 | 0.265 | 159 | 0.4 | 8.040 | A |
| C-A | 530 | | | 530 | | | |
| A-B | 34 | | | 34 | | | |
| A-C | 456 | | | 456 | | | |

### 09:00 - 09:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 183 | 491 | 0.374 | 183 | 0.6 | 11.650 | B |
| C-AB | 196 | 595 | 0.330 | 196 | 0.5 | 9.015 | A |
| C-A | 629 | | | 629 | | | |
| A-B | 40 | | | 40 | | | |
| A-C | 545 | | | 545 | | | |

### 09:15 - 09:30

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 225 | 448 | 0.501 | 223 | 1.0 | 15.892 | C |
| C-AB | 258 | 600 | 0.429 | 256 | 0.8 | 10.446 | B |
| C-A | 753 | | | 753 | | | |
| A-B | 50 | | | 50 | | | |
| A-C | 667 | | | 667 | | | |

### 09:30 - 09:45

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 225 | 448 | 0.502 | 225 | 1.0 | 16.109 | C |
| C-AB | 258 | 600 | 0.429 | 258 | 0.8 | 10.518 | B |
| C-A | 753 | | | 753 | | | |
| A-B | 50 | | | 50 | | | |
| A-C | 667 | | | 667 | | | |

### 09:45 - 10:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 183 | 491 | 0.374 | 185 | 0.6 | 11.827 | B |
| C-AB | 196 | 595 | 0.330 | 198 | 0.5 | 9.095 | A |
| C-A | 629 | | | 629 | | | |
| A-B | 40 | | | 40 | | | |
| A-C | 545 | | | 545 | | | |

### 10:00 - 10:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 154 | 519 | 0.296 | 154 | 0.4 | 9.888 | A |
| C-AB | 161 | 606 | 0.265 | 161 | 0.4 | 8.115 | A |
| C-A | 530 | | | 530 | | | |
| A-B | 34 | | | 34 | | | |
| A-C | 456 | | | 456 | | | |

# 2021 Survey, PM

### Data Errors and Warnings

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

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Wilton Road /Cherry Orchard Lane | T-Junction | Two-way | | 2.85 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D6 | 2021 Survey | PM | ONE HOUR | 13:45 | 15:15 | 15 |

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

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| A - Wilton Road (E) | | ✓ | 756 | 100.000 |
| B - Cherry Orchard Lane | | ✓ | 193 | 100.000 |
| C - Wilton Road (W) | | ✓ | 696 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | A - Wilton Road (E) | B - Cherry Orchard Lane | C - Wilton Road (W) |
| From | A - Wilton Road (E) | 0 | 53 | 703 |
| | B - Cherry Orchard Lane | 25 | 0 | 168 |
| | C - Wilton Road (W) | 566 | 130 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | A - Wilton Road (E) | B - Cherry Orchard Lane | C - Wilton Road (W) |
| From | A - Wilton Road (E) | 0 | 0 | 0 |
| | B - Cherry Orchard Lane | 0 | 0 | 0 |
| | C - Wilton Road (W) | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| B-AC | 0.51 | 17.77 | 1.0 | C |
| C-AB | 0.28 | 9.56 | 0.4 | A |
| C-A | | | | |
| A-B | | | | |
| A-C | | | | |

## Main Results for each time segment

### 13:45 - 14:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 145 | 492 | 0.295 | 144 | 0.4 | 10.291 | B |
| C-AB | 98 | 578 | 0.170 | 97 | 0.2 | 7.480 | A |
| C-A | 426 | | | 426 | | | |
| A-B | 40 | | | 40 | | | |
| A-C | 529 | | | 529 | | | |

### 14:00 - 14:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 174 | 461 | 0.377 | 173 | 0.6 | 12.473 | B |
| C-AB | 118 | 553 | 0.213 | 118 | 0.3 | 8.263 | A |
| C-A | 508 | | | 508 | | | |
| A-B | 48 | | | 48 | | | |
| A-C | 632 | | | 632 | | | |

### 14:15 - 14:30

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 212 | 415 | 0.512 | 211 | 1.0 | 17.499 | C |
| C-AB | 147 | 524 | 0.281 | 147 | 0.4 | 9.538 | A |
| C-A | 619 | | | 619 | | | |
| A-B | 58 | | | 58 | | | |
| A-C | 774 | | | 774 | | | |

### 14:30 - 14:45

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 212 | 415 | 0.512 | 212 | 1.0 | 17.774 | C |
| C-AB | 147 | 524 | 0.281 | 147 | 0.4 | 9.563 | A |
| C-A | 619 | | | 619 | | | |
| A-B | 58 | | | 58 | | | |
| A-C | 774 | | | 774 | | | |

### 14:45 - 15:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 174 | 461 | 0.377 | 175 | 0.6 | 12.685 | B |
| C-AB | 118 | 553 | 0.213 | 118 | 0.3 | 8.292 | A |
| C-A | 508 | | | 508 | | | |
| A-B | 48 | | | 48 | | | |
| A-C | 632 | | | 632 | | | |

### 15:00 - 15:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 145 | 492 | 0.295 | 146 | 0.4 | 10.436 | B |
| C-AB | 98 | 578 | 0.170 | 99 | 0.2 | 7.515 | A |
| C-A | 426 | | | 426 | | | |
| A-B | 40 | | | 40 | | | |
| A-C | 529 | | | 529 | | | |

# 2026 Base, PM

### Data Errors and Warnings

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

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Wilton Road /Cherry Orchard Lane | T-Junction | Two-way | | 3.08 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D7 | 2026 Base | PM | ONE HOUR | 13:45 | 15:15 | 15 |

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

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| A - Wilton Road (E) | | ✓ | 783 | 100.000 |
| B - Cherry Orchard Lane | | ✓ | 200 | 100.000 |
| C - Wilton Road (W) | | ✓ | 722 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | A - Wilton Road (E) | B - Cherry Orchard Lane | C - Wilton Road (W) |
| From | A - Wilton Road (E) | 0 | 54 | 729 |
| | B - Cherry Orchard Lane | 26 | 0 | 174 |
| | C - Wilton Road (W) | 587 | 135 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | A - Wilton Road (E) | B - Cherry Orchard Lane | C - Wilton Road (W) |
| From | A - Wilton Road (E) | 0 | 0 | 0 |
| | B - Cherry Orchard Lane | 0 | 0 | 0 |
| | C - Wilton Road (W) | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| B-AC | 0.54 | 19.46 | 1.2 | C |
| C-AB | 0.30 | 9.85 | 0.4 | A |
| C-A | | | | |
| A-B | | | | |
| A-C | | | | |

## Main Results for each time segment

### 13:45 - 14:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 151 | 486 | 0.310 | 149 | 0.4 | 10.625 | B |
| C-AB | 102 | 573 | 0.178 | 101 | 0.2 | 7.613 | A |
| C-A | 441 | | | 441 | | | |
| A-B | 41 | | | 41 | | | |
| A-C | 549 | | | 549 | | | |

### 14:00 - 14:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 180 | 453 | 0.397 | 179 | 0.6 | 13.088 | B |
| C-AB | 123 | 548 | 0.224 | 122 | 0.3 | 8.455 | A |
| C-A | 526 | | | 526 | | | |
| A-B | 49 | | | 49 | | | |
| A-C | 655 | | | 655 | | | |

### 14:15 - 14:30

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 220 | 405 | 0.544 | 218 | 1.1 | 19.074 | C |
| C-AB | 154 | 519 | 0.296 | 153 | 0.4 | 9.824 | A |
| C-A | 641 | | | 641 | | | |
| A-B | 59 | | | 59 | | | |
| A-C | 803 | | | 803 | | | |

### 14:30 - 14:45

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 220 | 405 | 0.544 | 220 | 1.2 | 19.459 | C |
| C-AB | 154 | 519 | 0.296 | 154 | 0.4 | 9.854 | A |
| C-A | 641 | | | 641 | | | |
| A-B | 59 | | | 59 | | | |
| A-C | 803 | | | 803 | | | |

### 14:45 - 15:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 180 | 453 | 0.397 | 182 | 0.7 | 13.362 | B |
| C-AB | 123 | 548 | 0.224 | 123 | 0.3 | 8.489 | A |
| C-A | 526 | | | 526 | | | |
| A-B | 49 | | | 49 | | | |
| A-C | 655 | | | 655 | | | |

### 15:00 - 15:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 151 | 486 | 0.310 | 151 | 0.5 | 10.796 | B |
| C-AB | 102 | 573 | 0.178 | 102 | 0.2 | 7.650 | A |
| C-A | 441 | | | 441 | | | |
| A-B | 41 | | | 41 | | | |
| A-C | 549 | | | 549 | | | |

# 2026 Base + Dev, PM

### Data Errors and Warnings

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

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Wilton Road /Cherry Orchard Lane | T-Junction | Two-way | | 3.31 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D8 | 2026 Base + Dev | PM | ONE HOUR | 13:45 | 15:15 | 15 |

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

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| A - Wilton Road (E) | | ✓ | 793 | 100.000 |
| B - Cherry Orchard Lane | | ✓ | 202 | 100.000 |
| C - Wilton Road (W) | | ✓ | 745 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | A - Wilton Road (E) | B - Cherry Orchard Lane | C - Wilton Road (W) |
| From | A - Wilton Road (E) | 0 | 63 | 730 |
| | B - Cherry Orchard Lane | 26 | 0 | 176 |
| | C - Wilton Road (W) | 589 | 156 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | A - Wilton Road (E) | B - Cherry Orchard Lane | C - Wilton Road (W) |
| From | A - Wilton Road (E) | 0 | 0 | 0 |
| | B - Cherry Orchard Lane | 0 | 0 | 0 |
| | C - Wilton Road (W) | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| B-AC | 0.56 | 20.19 | 1.2 | C |
| C-AB | 0.34 | 10.44 | 0.5 | B |
| C-A | | | | |
| A-B | | | | |
| A-C | | | | |

## Main Results for each time segment

### 13:45 - 14:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 152 | 484 | 0.314 | 150 | 0.5 | 10.735 | B |
| C-AB | 118 | 573 | 0.206 | 117 | 0.3 | 7.886 | A |
| C-A | 443 | | | 443 | | | |
| A-B | 47 | | | 47 | | | |
| A-C | 550 | | | 550 | | | |

### 14:00 - 14:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 182 | 450 | 0.403 | 181 | 0.7 | 13.311 | B |
| C-AB | 143 | 549 | 0.260 | 142 | 0.4 | 8.842 | A |
| C-A | 527 | | | 527 | | | |
| A-B | 57 | | | 57 | | | |
| A-C | 656 | | | 656 | | | |

### 14:15 - 14:30

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 222 | 400 | 0.555 | 220 | 1.2 | 19.748 | C |
| C-AB | 181 | 526 | 0.344 | 180 | 0.5 | 10.394 | B |
| C-A | 639 | | | 639 | | | |
| A-B | 69 | | | 69 | | | |
| A-C | 804 | | | 804 | | | |

### 14:30 - 14:45

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 222 | 400 | 0.556 | 222 | 1.2 | 20.191 | C |
| C-AB | 181 | 526 | 0.344 | 181 | 0.5 | 10.436 | B |
| C-A | 639 | | | 639 | | | |
| A-B | 69 | | | 69 | | | |
| A-C | 804 | | | 804 | | | |

### 14:45 - 15:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 182 | 450 | 0.403 | 184 | 0.7 | 13.611 | B |
| C-AB | 143 | 549 | 0.260 | 143 | 0.4 | 8.891 | A |
| C-A | 527 | | | 527 | | | |
| A-B | 57 | | | 57 | | | |
| A-C | 656 | | | 656 | | | |

### 15:00 - 15:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 152 | 484 | 0.314 | 153 | 0.5 | 10.914 | B |
| C-AB | 118 | 573 | 0.206 | 119 | 0.3 | 7.934 | A |
| C-A | 443 | | | 443 | | | |
| A-B | 47 | | | 47 | | | |
| A-C | 550 | | | 550 | | | |

# 2028 Base, PM

### Data Errors and Warnings

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

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Wilton Road /Cherry Orchard Lane | T-Junction | Two-way | | 3.15 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D9 | 2028 Base | PM | ONE HOUR | 13:45 | 15:15 | 15 |

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

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| A - Wilton Road (E) | | ✓ | 795 | 100.000 |
| B - Cherry Orchard Lane | | ✓ | 202 | 100.000 |
| C - Wilton Road (W) | | ✓ | 733 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | A - Wilton Road (E) | B - Cherry Orchard Lane | C - Wilton Road (W) |
| From | A - Wilton Road (E) | 0 | 55 | 740 |
| | B - Cherry Orchard Lane | 26 | 0 | 176 |
| | C - Wilton Road (W) | 596 | 137 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | A - Wilton Road (E) | B - Cherry Orchard Lane | C - Wilton Road (W) |
| From | A - Wilton Road (E) | 0 | 0 | 0 |
| | B - Cherry Orchard Lane | 0 | 0 | 0 |
| | C - Wilton Road (W) | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| B-AC | 0.55 | 20.09 | 1.2 | C |
| C-AB | 0.30 | 9.98 | 0.4 | A |
| C-A | | | | |
| A-B | | | | |
| A-C | | | | |

## Main Results for each time segment

### 13:45 - 14:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 152 | 484 | 0.314 | 150 | 0.5 | 10.735 | B |
| C-AB | 104 | 571 | 0.181 | 103 | 0.2 | 7.673 | A |
| C-A | 448 | | | 448 | | | |
| A-B | 41 | | | 41 | | | |
| A-C | 557 | | | 557 | | | |

### 14:00 - 14:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 182 | 451 | 0.403 | 181 | 0.7 | 13.299 | B |
| C-AB | 125 | 546 | 0.228 | 124 | 0.3 | 8.538 | A |
| C-A | 534 | | | 534 | | | |
| A-B | 49 | | | 49 | | | |
| A-C | 665 | | | 665 | | | |

### 14:15 - 14:30

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 222 | 401 | 0.554 | 220 | 1.2 | 19.660 | C |
| C-AB | 156 | 517 | 0.302 | 156 | 0.4 | 9.949 | A |
| C-A | 651 | | | 651 | | | |
| A-B | 61 | | | 61 | | | |
| A-C | 815 | | | 815 | | | |

### 14:30 - 14:45

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 222 | 401 | 0.554 | 222 | 1.2 | 20.091 | C |
| C-AB | 156 | 517 | 0.302 | 156 | 0.4 | 9.980 | A |
| C-A | 651 | | | 651 | | | |
| A-B | 61 | | | 61 | | | |
| A-C | 815 | | | 815 | | | |

### 14:45 - 15:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 182 | 450 | 0.403 | 184 | 0.7 | 13.596 | B |
| C-AB | 125 | 546 | 0.228 | 125 | 0.3 | 8.575 | A |
| C-A | 534 | | | 534 | | | |
| A-B | 49 | | | 49 | | | |
| A-C | 665 | | | 665 | | | |

### 15:00 - 15:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 152 | 484 | 0.314 | 153 | 0.5 | 10.913 | B |
| C-AB | 104 | 571 | 0.181 | 104 | 0.2 | 7.710 | A |
| C-A | 448 | | | 448 | | | |
| A-B | 41 | | | 41 | | | |
| A-C | 557 | | | 557 | | | |

# 2028 Base + Dev, PM

### Data Errors and Warnings

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

## Junction Network

### Junctions

| Junction | Name | Junction type | Major road direction | Use circulating lanes | Junction Delay (s) | Junction LOS |
|---|---|---|---|---|---|---|
| 1 | Wilton Road /Cherry Orchard Lane | T-Junction | Two-way | | 3.41 | A |

### Junction Network Options

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

## Traffic Demand

### Demand Set Details

| ID | Scenario name | Time Period name | Traffic profile type | Start time (HH:mm) | Finish time (HH:mm) | Time segment length (min) |
|---|---|---|---|---|---|---|
| D10 | 2028 Base + Dev | PM | ONE HOUR | 13:45 | 15:15 | 15 |

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

### Demand overview (Traffic)

| Arm | Linked arm | Use O-D data | Average Demand (PCU/hr) | Scaling Factor (%) |
|---|---|---|---|---|
| A - Wilton Road (E) | | ✓ | 804 | 100.000 |
| B - Cherry Orchard Lane | | ✓ | 205 | 100.000 |
| C - Wilton Road (W) | | ✓ | 756 | 100.000 |

## Origin-Destination Data

### Demand (PCU/hr)

| | | To | | |
|---|---|---|---|---|
| | | A - Wilton Road (E) | B - Cherry Orchard Lane | C - Wilton Road (W) |
| From | A - Wilton Road (E) | 0 | 64 | 740 |
| | B - Cherry Orchard Lane | 26 | 0 | 179 |
| | C - Wilton Road (W) | 598 | 158 | 0 |

## Vehicle Mix

### Heavy Vehicle Percentages

| | | To | | |
|---|---|---|---|---|
| | | A - Wilton Road (E) | B - Cherry Orchard Lane | C - Wilton Road (W) |
| From | A - Wilton Road (E) | 0 | 0 | 0 |
| | B - Cherry Orchard Lane | 0 | 0 | 0 |
| | C - Wilton Road (W) | 0 | 0 | 0 |

# Results

## Results Summary for whole modelled period

| Stream | Max RFC | Max Delay (s) | Max Queue (PCU) | Max LOS |
|---|---|---|---|---|
| B-AC | 0.57 | 20.94 | 1.3 | C |
| C-AB | 0.35 | 10.56 | 0.6 | B |
| C-A | | | | |
| A-B | | | | |
| A-C | | | | |

## Main Results for each time segment

### 13:45 - 14:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 154 | 482 | 0.320 | 152 | 0.5 | 10.860 | B |
| C-AB | 120 | 571 | 0.210 | 119 | 0.3 | 7.944 | A |
| C-A | 449 | | | 449 | | | |
| A-B | 48 | | | 48 | | | |
| A-C | 557 | | | 557 | | | |

### 14:00 - 14:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 184 | 448 | 0.411 | 183 | 0.7 | 13.553 | B |
| C-AB | 145 | 547 | 0.264 | 144 | 0.4 | 8.927 | A |
| C-A | 535 | | | 535 | | | |
| A-B | 58 | | | 58 | | | |
| A-C | 665 | | | 665 | | | |

### 14:15 - 14:30

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 226 | 397 | 0.568 | 223 | 1.3 | 20.439 | C |
| C-AB | 184 | 525 | 0.350 | 183 | 0.6 | 10.518 | B |
| C-A | 648 | | | 648 | | | |
| A-B | 70 | | | 70 | | | |
| A-C | 815 | | | 815 | | | |

### 14:30 - 14:45

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 226 | 397 | 0.568 | 226 | 1.3 | 20.944 | C |
| C-AB | 184 | 525 | 0.350 | 184 | 0.6 | 10.564 | B |
| C-A | 648 | | | 648 | | | |
| A-B | 70 | | | 70 | | | |
| A-C | 815 | | | 815 | | | |

### 14:45 - 15:00

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 184 | 448 | 0.411 | 187 | 0.7 | 13.887 | B |
| C-AB | 145 | 547 | 0.264 | 145 | 0.4 | 8.980 | A |
| C-A | 535 | | | 535 | | | |
| A-B | 58 | | | 58 | | | |
| A-C | 665 | | | 665 | | | |

### 15:00 - 15:15

| Stream | Total Demand (PCU/hr) | Capacity (PCU/hr) | RFC | Throughput (PCU/hr) | End queue (PCU) | Delay (s) | Unsignalised level of service |
|---|---|---|---|---|---|---|---|
| B-AC | 154 | 482 | 0.320 | 155 | 0.5 | 11.049 | B |
| C-AB | 120 | 571 | 0.210 | 120 | 0.3 | 7.996 | A |
| C-A | 449 | | | 449 | | | |
| A-B | 48 | | | 48 | | | |
| A-C | 557 | | | 557 | | | |



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