Proposed Foodstore & Coffee Drive Thru, Holbeach Road, Spalding

Transport Assessment

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Commercial Development Projects Limited

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1 INTRODUCTION

1.1 OVERVIEW

1.1.1 Andrew Moseley Associates (AMA) has been commissioned by Commercial Development Projects Limited to prepare a Transport Assessment (TA) and Interim Travel Plan (ITP) in support of a full planning application for the development of site to provide a foodstore and drive-thru, along with all associated works and access located on land to the south of the A151 Holbeach Road, Spalding.

1.1.2 The Local Planning Authority (LPA) is South Holland District Council (SHDC), and the Local Highway Authority (LHA) is Lincolnshire County Council (LCC).

1.1.3 The application site consists of undeveloped land which does not generate any existing traffic. The application site benefits from extant planning permission (reference: H16-0397-04) for the erection of a hotel, pub/restaurant, restaurant and drive-thru restaurant with associated works. The application was approved in August 2005, and therefore the principle of development is considered acceptable in this location.

1.1.4 It is proposed that the application site will be accessed via a new ghost-island right turn junction from the A151 Holbeach Road with the right turn out prohibited. A separate left in only junction will be provided on the A16. All vehicles leaving the development will depart via a single point of egress onto the A151 via a 'left-only' exit. A detailed site layout plan is attached at **Appendix A**.

1.1.5 The purposed of this report is to review the local highway network and the sustainable accessibility of the proposed development and to assess the development proposals in a local transport context.

1.1.6 This TA has been prepared with reference to the Department for Communities and Local Government National Planning Policy Framework (NPPF) which was revised in July 2021, Planning Practice Guidance (PPG) and the Lincolnshire Local Transport Plan 4 (LTP4).

1.1.7 This TA will demonstrate that the site is well served by existing transport provision and is accessible to a range of key services and facilities.

1.1.8 The TA will also demonstrate that the traffic generated by the proposed development can be accommodated on the surrounding road network without resulting in a severe impact in accordance with the NPPF.

1.1.9 An ITP has also been prepared which sets out measures to encourage sustainable travel patterns and reduce the reliance on private car use.

1.2 REPORT STRUCTURE

1.2.1 The structure of the report is set out as follows:

- **Section 2** – outlines the policy background at a national and local level.
- **Section 3** – provides a description of the site location, highway network surrounding the site, and examines the accessibility of the site by sustainable modes of travel. This section also considers the accessibility of a range of key services and facilities as well as a review of personal injury collisions
- **Section 4** – describes the development proposals with regard to the proposed quantum of development, the proposed means of access to the site, servicing, parking provision and drive thru queue capacity.
- **Section 5** – summarises the assessment parameters and trips rates that have been adopted within this TA.
- **Section 6** – examines the impact of development traffic on the local highway network and presents the results of the future year junction assessments to determine the potential impact of the proposals.
- **Section 7** – provides a summary of the TA.

2 POLICY BACKGROUND

2.1 NATIONAL POLICY

2.1.1 The National Planning Policy Framework (NPPF) came into effect in 2012. The document was designed to supersede and simplify previous national planning documents and their policies.

2.1.2 The NPPF was revised in response to the proposed reforms to the NPPF and other changes to the Planning system consultation on 12 December 2024 and sets out the government's planning policies for England and how these are expected to be applied.

2.1.3 This version of the NPPF was amended on 7 February 2025 to correct cross-references from footnotes 7 and 8 and amend the end of the first sentence of paragraph 155 to make its intent clear. For the avoidance of doubt the amendment to paragraph 155 is not intended to constitute a change to the policy set out in the Framework as published on 12 December 2024.

2.1.4 This revised framework replaces the previous NPPF published in March 2012, revised in July 2018, updated in February 2012, revised in July 2021, updated in September 2023 and revised in December 2023.

2.1.5 The preparation of this TA is consistent with national transport policy guidance set out in the NPPF which advocates the submission of such documents to support applications for new developments which generate traffic movements.

2.1.6 The NPPF states under the subheading 'Considering development proposals', within the 'Promoting Sustainable Transport' chapter that:

> *115. In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:*
>
> *a) sustainable transport modes are prioritised taking account of the vision for the site, the type of development and its location;*
>
> *b) safe and suitable access to the site can be achieved for all users;*
>
> *c) the design of streets, parking areas, other transport elements and the content of associated standards reflects current national guidance, including the National Design Guide and the National Model Design Code48; and*
>
> *d) any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree through a vision-led approach*
>
> *116. Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network, following mitigation, would be severe, taking into account all reasonable future scenarios.*
>
> *117. Within this context, applications for development should:*
>
> *a) 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;*
>
> *b) address the needs of people with disabilities and reduced mobility in relation to all modes of transport;*

c) create places that are safe, secure and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;

d) allow for the efficient delivery of goods, and access by service and emergency vehicles; and

e) be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations.

118. All developments that will generate significant amounts of movement should be required to provide a travel plan, and the application should be supported by a vision-led transport statement or transport assessment so that the likely impacts of the proposal can be assessed and monitored.

2.1.7 **Section 3** of this report highlights the existing sustainable travel modes within the vicinity of the site and demonstrates that the development will be well suited to this location.

2.1.8 **Section 6** of this report assesses the traffic associated with the development on the surrounding road network and will identify mitigation measures where necessary to ensure that the impact of the development is not severe.

2.1.9 The Government's objectives set out in the revised NPPF are to ensure that new developments are provided in sustainable locations, where the need to travel is minimised and the use of sustainable modes can be maximised.

2.2 LOCAL POLICY

Lincolnshire Local Transport Plan 4 (LTP4)

2.2.1 The 4th Lincolnshire Local Transport Plan 2013 – 2023 is a statutory document which sets out the transport strategy and policies for Lincolnshire over a ten-year period and produced by LCC.

2.2.2 The Lincolnshire LTP4 is set within an overall vision, 'Vision for 2030', of how LCC envisages their transport system developing in the longer term. Key local objectives for the vision include;

- To assist the sustainable economic growth of Lincolnshire, and the wider region, through improvements to the transport network;
- To improve access to employment and key services by widening travel choices, especially for those without access to a car;
- To make travel for all modes safer and, in particular, reduce the number and severity of road casualties;
- To maintain the transport system to standards which allow safe and efficient movement of people and goods;
- To protect and enhance the built and natural environment of the county by reducing the adverse impacts of traffic, including HGVs;
- To improve the quality of public spaces for residents, workers and visitors by creating a safe, attractive and accessible environment;
- To improve the quality of life and health of residents and visitors by encouraging active travel and tackling air quality and noise problems; and
- To minimise carbon emissions from transport across the county.

3 EXISTING CONDITIONS AND SUSTAINABLE TRANSPORT

3.1 SITE LOCATION

3.1.1 The application site is bound to the north by the A151 Holbeach Road; to the east by Woodhouse Farm Lodge and grazing land; to the south by a public footpath and grazing land; and to the west by the A16 Low Road. The location of the site is illustrated in Figure 3-1.

3.1.2 The application site consists of undeveloped land which does not generate any existing traffic.

Figure 3-1 Site Location Plan



3.2 PLANNING CONTEXT

3.2.1 The application site benefits from extant planning permission (reference: H16-0397-04) for the erection of a hotel, pub/restaurant, restaurant and drive-thru restaurant with associated works. The application was approved in August 2005, and therefore the principle of development is considered acceptable in this location.

3.2.2 Within the application, the proposed trip generation was detailed and the level of impact on the local road network was accepted. Naturally, the background traffic conditions have changed since the application, as well as the recent upgrades to the Springfields Roundabout. Whilst this is the case, the general premise of this level of trip generation from the site was established at this point.

3.3 LOCAL HIGHWAY NETWORK

3.3.1 It is proposed that the site will be accessed via an upgraded northern entrance from the A151 Holbeach Road.

3.3.2 Forming the northern boundary to the application site, the A151 Holbeach Road is a single carriageway two-way road which is subject to a 40mph speed limit, is street lit and has a hard footway / cycleway present along the north-eastbound carriageway.

3.3.3 Fronting the application site, the development proposes an upgraded junction arrangement with the A151 Holbeach Road. As part of the existing access arrangement, a dedicated right turn ghost-island is provided for vehicles performing a right turn when accessing the Woodhouse Farm Lodge.

3.3.4 The A151 Holbeach Road runs in a general north-east / south-west alignment providing a key arterial route between the settlement of Holbeach (c. 10km) in the north-east and to the A16 (c. 100m) to the south-west of the site.

3.3.5 Located approximately 100m to the south-west of the site, the A151 Holbeach Road forms a priority four-armed roundabout junction with the A16 Low Road "Springfields Roundabout". This roundabout junction is currently undergoing improvement works to increase the size of the roundabout; adding additional entry and exit lanes on the A16; and improving entry and exit lanes on the A151.

3.3.6 'Springfields Roundabout' is subject to a national speed limit which is street lit and has footways present along both sides of each arm. Uncontrolled pedestrian crossing points are also present across each arm with a central refuge island. As part of the roundabout improvement works, dropped kerbs and tactile paving will be provided at each crossing location to assist the safe crossing for non-motorised users (NMUs).

3.3.7 Forming the northern and southern arms to the 'Springfields Roundabout' junction, the A16 Low Road is a single carriageway two-way road which is subject to the national speed limit. Running in a general north / south alignment, the A16 forms a by-pass around the eastern extents of Spalding town centre providing access to Boston in the north (c. 23km) and to Peterborough in the south (c. 32km).

3.3.8 Forming the western arm to the 'Springfields Roundabout' junction, A151 Holbeach Road is a single carriageway two-way road which is subject to a 30mph speed limit, is street lit and has footways present along both sides of the carriageway. The A151 runs in a general south-west alignment providing access to Springfields Outlet centre and later providing access to Spalding town centre (c. 3km).

3.3.9 It is therefore considered that the site is well located in terms of the local and regional road network.

3.4 WALKING ACCESSIBILITY

3.4.1 The Government's objectives set out in the NPPF are to ensure that new developments are provided in sustainable locations, where the need to travel is minimised and the use of sustainable modes can be maximised. Whilst superseded by the NPPF, the transport policies in the former PPG13 set out specific guidance related to walking:

> *"Walking is the most important mode of travel at the local level and offers the greatest potential to replace short car trips, particularly under 2 kilometres" (Para 74)*

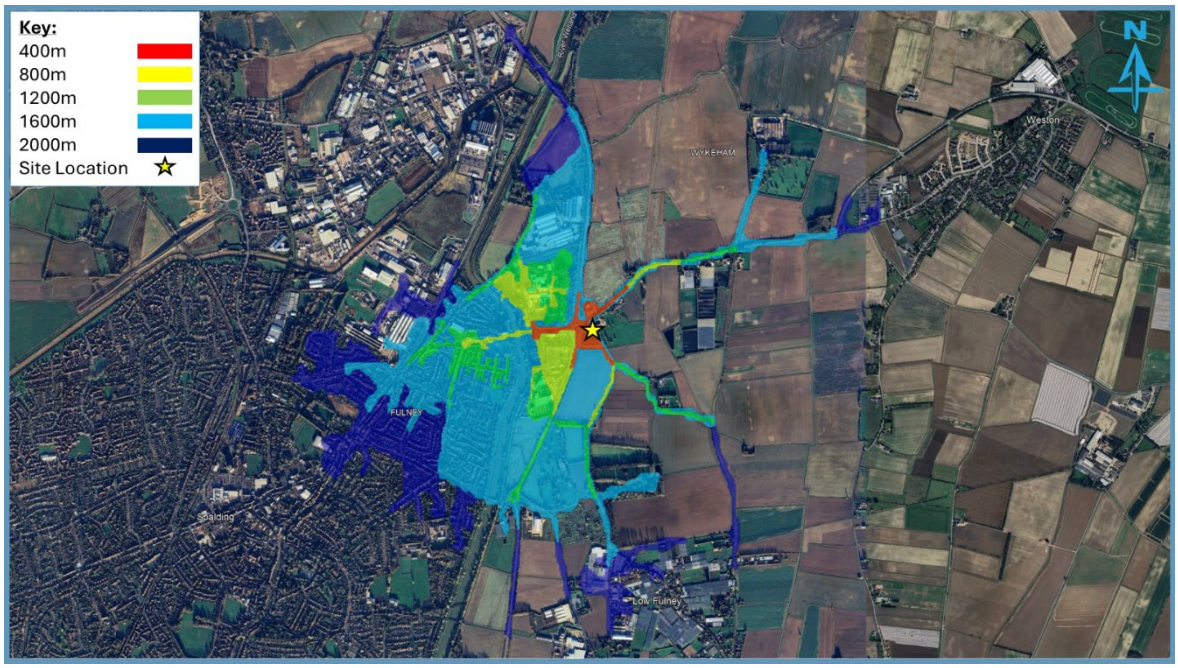
3.4.2 Figure 3-2 shows a 2km walking catchment area from the centre of the site. Its catchment includes the surrounding areas of Springfield Outlet Shopping and Leisure and the residential area of Fulney, providing access to a range of facilities, amenities and services as well as providing the existing residents of Epworth with a range of new services part of the proposed development.

3.4.3 A network of footways and footpaths are present on the local highway network which will connect the proposed development to nearby residential communities. Footways in the surrounding area meet standards, are generous along certain roads, and are equipped with dropped kerbs and tactile paving at appropriate junctions.

3.4.4 As part of the 'Springfields Roundabout' junction upgrades, the proposals include improvements to the existing pedestrian infrastructure and crossing facilities within the vicinity of the site. The pedestrian improvements will provide a safe route for both staff and customers walking to and from the site.

3.4.5 The site therefore provides potential for employees and customers to travel to and from the site on foot.

Figure 3-2 2km Walking Catchment Plan



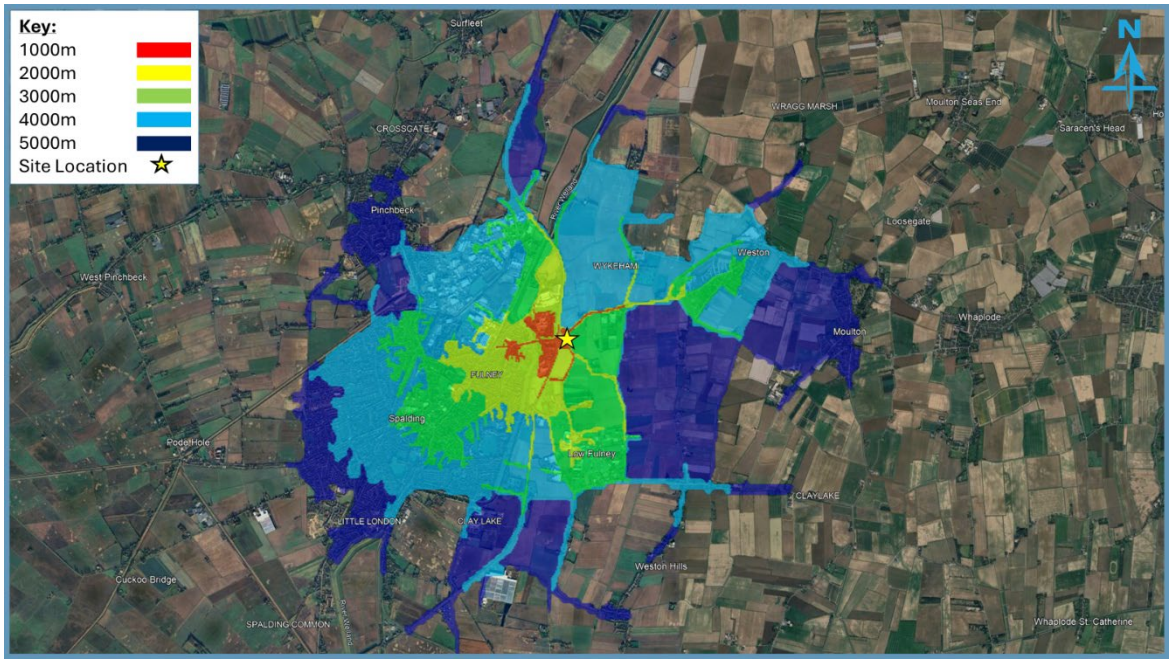
3.5 CYCLING ACCESSIBILITY

3.5.1 Whilst superseded by the NPPF, the transport policies in the former PPG13 set out specific guidance related to cycling:

> *"Cycling also has potential to substitute for short car trips, particularly those under 5 kilometres, and to form part of a longer journey by public transport" (Para 77)*

3.5.2 As such, all areas and facilities within a reasonable walking distance can also be considered to be within a reasonable cycling distance. Figure 3-3 shows a 5km cycling catchment area from the centre of the site which includes the surrounding residential settlements of Belton, Beltoft, Haxey and Owston Ferry. This provides a wide range of potential areas for employees and customers to travel to and from the site by cycle.

Figure 3-3 5km Cycling Catchment Plan



3.5.3 Cycling infrastructure is present within the vicinity of the application site, with an off-road cycle route shared with pedestrian footway is present along the north-eastern bound carriageway of the A151 Holbeach Road. This cycling infrastructure continues along the A151 Holbeach Road (W) towards Spalding town centre.

3.5.4 A review of the Sustrans interactive map identifies that the National Cycle Network (NCN) Route 12 is located approximately 2.5km (10minute cycle time) to the south-west of the site. The NCN Route 12 runs alongside the River Welland in a general north / south alignment providing access to Crowland. Details of the Sustrans cycling infrastructure present within the vicinity of the site is provided in **Figure 3-4**.

Figure 3-4 Cycle Network Map



3.5.5 The site therefore provides potential for employees and customers to travel to and from the site by bicycle.

3.6 PUBLIC TRANSPORT

Bus Services

3.6.1 In line with current local and national transport objectives, particularly of encouraging modal shift away from the private car and increasing accessibility through sustainable travel, public transport has a major role to play. The IHT's 'Guidelines for Planning for Public Transport in Developments' (IHT 1999) recommend that the maximum walking distance to bus routes should not exceed 400 metres. Measures to facilitate the use of public transport are therefore an integral part of good land use and transport planning.

3.6.2 Bus stops are situated outside of the recommended walking distance from the site. There are three bus stops situated approximately 650m from the northern site access; located on the A151 Holbeach Road (.c 600m) and within the Springfield's Outlet (c. 650m).

3.6.3 Although these stops are beyond the generally recommended 400m distance, this guidance should not be slavishly followed as bus stop accessibility should be based on the quality of the routes to these stops, as well as the facilities and frequency of services available. Stops are directly accessible via existing footway provision, therefore given the site's location these stops and services are considered to be feasible for use by those on site to travel to local and regional destinations.

3.6.4 The stops detailed are set out on the attached plan at **Figure 3-5**.

Figure 3-5 Public Transport Location Plan



3.6.5 Details of the mentioned bus services were obtained from recent timetables produced by various bus operators. Table 3-1 summarises local bus service details and route information.

Table 3-1 Local Bus Services

Services	Route	Weekday	Saturday	Sunday
37	Peterborough – Spalding	Every 60 mins	Every 60 mins	Every 120 mins
43	Sutton St James – Spalding	One AM service except Thursdays	-	-
301/302	Spalding – Stamford	Every 60 mins	Every 120 mins	-
505/B	Kings Lynn – Spalding	Every 30 mins	Every 30 mins	Every 60 mins
B3/X	Boston – Spalding	Every 60 mins	-	-
IT2	Spalding Circular	Every 45 mins	Every 45 mins	-

3.6.6 Table 3-1 sets out that the local bus stop provides access to six bus routes that provide a combined frequency of approximately six buses per hour towards Peterborough, Stamford, Kings Lynn, Boston and within Spalding.

3.7 PERSONAL INJURY COLLISION RECORDS

3.7.1 Personal Injury Collision (PIC) data for the local highway network in the vicinity of the site for the period January 2018 – December 2022 has been obtained from Lincolnshire County Council providing the latest 5 years accident data available.

3.7.2 The study area includes a 1km radius from the proposed site, extending to both the north and south of the A77 from the site access covering a total length of approximately 2km. Details of the study area are provided in Appendix B.

3.7.3 Details of the collisions are set out below;

A151 Holbeach Road

3.7.4 A total of 10 collisions were recorded along the A151 Holbeach Road totalling a length of 750m fronting the application site to the north. Details of the collisions are provided below:

- A collision resulting in slight injury occurred at the Sycamore Farm access, approximately 700m to the north-east of the application site. The collision occurred on 06/08/20 and resulted in a vehicle rear-shunting an HGV due to sudden braking. No non-motorised users were involved;
- A collision resulting in serious injury occurred on the A151 approximately 250m to the north-east of the application site, on 10/12/19. The collision was recorded as involving a single vehicle which resulted from a tree falling on the vehicle. No non-motorised users were involved;
- Two collisions, both resulting in slight injury, occurred at the 'Castlebuild Scaffolding Ltd' access on 01/04/19 and 13/08/19. Both collisions resulted from a rear-end shunt due to 'Careless / Reckless / In a hurry'. No non-motorised users were involved as part of either collision;
- A total of five collisions, all resulting in slight injury, occurred at the A151 / McDonald's access junction. The collision data description identifies that all five collisions resulted in a vehicle pulling out of the McDonald's access, failing to look properly, and colliding with an oncoming vehicle travelling on the A151. No non-motorised users were involved in any of the identified collisions; and
- A single collision occurred at the A151 / site access junction on 24/12/22. The collision was recorded as involving two vehicles, resulting from a vehicle failing to look properly and pulled out of the junction into oncoming traffic. No non-motorised users were involved.

'Springfield Roundabout' Junction

3.7.5 A total of three collisions were recorded at the 'Springfield Roundabout' junction within the most recent five-year period. Details of the collisions are provided below:

- A collision resulting in slight injury occurred on the circulatory carriageway of the roundabout on 12/05/19. The collision was recorded as involving two vehicles which when changing lane collided at a low speed which in turn has caused a motorcycle to fall onto its nearside. No non-motorised users were involved;
- A collision resulting in slight injury occurred on the southern exit arm on 25/12/23. The collision was recorded as involving a single vehicle which resulted from a suspected medical episode. No non-motorised users were involved; and
- A collision resulting in serious injury occurred on the circulatory carriageway of the roundabout on 11/10/22. The collision was recorded as involving a car which collided with a pedal cycle resulting from dangerous driving.

A151 Holbeach Road (W)

3.7.6 A total of four collisions were recorded along the A151 Holbeach Road (W) between its junction with 'Springfields Roundabout' and its junction with Queens Road. Details of the collisions are provided below:

- A collision resulting in slight injury occurred at the A151 Holbeach Road / Camel Gate roundabout junction. The collision occurred on 21/04/19 which involved a single motorcycle which misjudged the junction and collided with the kerb;
- A collision resulting in slight injury occurred on the A151 Holbeach Road upon the approach to Queens Road junction. The collision occurred on 02/05/21 and was recorded as a single vehicle which collided with a pedestrian crossing the road;
- A collision resulting in slight injury occurred on the A151 Holbeach Road upon the approach to Queens Road junction. The collision occurred on 04/08/19 which involved a single vehicle which reversed into a pedestrian; and

- A collision resulting in slight injury occurred on the A151 Holbeach Road to the west of the Queens Road junction. The collision occurred on 31/12/21 and involved a single vehicle which collided with a pedestrian who was waiting at the pedestrian island.

A16 (N)

3.7.7 There were no collisions recorded on the A16 northern arm.

A16 (S)

3.7.8 A total of two collisions were recorded along the A16 (S) carriageway, between Springfield Roundabout and Low Road roundabout. Details of the collisions are provided below:

- A collision resulting in slight injury occurred on the A16 travelling northbound towards the Springfield Roundabout junction on 29/12/20. The collision was recorded as involving a single vehicle which due to icy / frosty road collisions and defective breaks resulted in the vehicle losing control and collided into the offside verge. No non-motorised users were involved; and
- A collision resulting in slight injury occurred on the A16, approximately 450m to the north of the A16 / Low Road roundabout junction. The collision was recorded as involving two vehicles, one of which fell asleep at the wheel and collided with another vehicle. No non-motorised users were involved.

A16 / Low Road Roundabout

3.7.9 A total of three collisions were recorded at the A16 / Low Road / B1165 roundabout junction within the most recent five-year period. Details of the collisions are provided below:

- A collision resulting in slight injury occurred on the B1165 eastern arm on 09/12/19. The collision was recorded as involving two vehicles, one of which collided into the rear of a stationary vehicle waiting to pull out into the roundabout. No non-motorised users were involved;
- A collision resulting in serious injury occurred on the Low Road western arm on 13/01/20. The collision was recorded as involving a single vehicle which was driving in a careless / reckless manner when overtaking a pedal cycle and collided with the rider; and
- A collision resulting in slight injury occurred on the A16(S) arm upon approaching the roundabout junction. The collision occurred on 06/03/22 and identified that a vehicle braked slowly to allow an animal to cross the road, resulting in a second vehicle rear-shunting the first vehicle.

Summary

3.7.10 Over the latest five-year period a total of 22 collisions were recorded, of which; 19 were classified as slight in severity, three as serious in severity and zero resulting in fatal injury. Given the extent of the study area, the level and severity of collisions recorded across a five-year period is not considered to be a highways safety concern.

3.7.11 Of the three serious collisions, it was recorded that zero collisions involved a pedestrian, and two collisions involved a pedal cycle.

3.7.12 It is not considered that the data indicates any specific areas of concern in terms of road safety, and the number of collisions is broadly in line with the number expected for an area of this size and junctions of this type.

3.7.13 It is therefore concluded that there are no extant road safety issues on the highway network in the vicinity of the development site. The frequency of collisions that occurred on the wider network, given the extent of the search area assessed within this TA are considered to be low and no mitigation measures are proposed at this stage.

4 DEVELOPMENT PROPOSALS

4.1 DEVELOPMENT PROPOSALS AND SITE LAYOUT

4.1.1 The development proposals are for a mixed-use development comprising;

- Foodstore with a GIA of 2,005m^2; and
- Costa Coffee Dive-Thru with a GIA of 168m^2.

4.1.2 Details of the proposed development is provided within the site layout plan attached to this TA at **Appendix A**.

4.1.3 The internal access roads would be designed to achieve low vehicle speeds within the site, incorporating appropriate changes in the road alignment which assist in providing a safe environment for pedestrians and cyclists including a network of footways and footpaths across the site.

4.2 SITE ACCESS DESIGN AND VISIBILITY SPLAYS

4.2.1 Vehicular, walking and cycling access is proposed via an upgraded access which currently provides access to Woodhouse Farm Lodge. The access will form a proposed new ghost island right turn access with left out only egress. The existing access track for Woodhouse Farm Lodge will connect with the eastern extent of the proposed upgraded access arrangement.

4.2.2 A separate left in only junction will be provided on the A16. All vehicles leaving the development will depart via a single point of egress onto the A151 via a 'left-only' exit.

4.2.3 The access would be equipped with pedestrian crossing facilities across the central island, equipped with dropped kerbs and tactile paving. The wider pedestrian footway provision will connect with the existing pedestrian footways to the west of the site.

4.2.4 For the access on the A151, the ghost-island right turn facility will be supplemented with 'Keep Clear' markings to ensure queueing traffic (albeit not anticipated to be an issue) from the Springfields Road would not block turning traffic into the site. This ensures no queueing traffic will affect the free flow of traffic departing the Springfields Roundabout eastbound.

4.2.5 The access has been designed in line with LCC and Design Manual for Roads and Bridges (DMRB) standards for a 40mph carriageway, therefore visibility splays are provided at 2.4m x 120m each direction.

4.2.6 The proposed access designs are set out in Drawing No. AMA-22428-SK-003 P05 and AMA-22428-SK-008 P03 attached at **Appendix C** setting out the above-described access arrangement.

4.3 SERVICING ARRANGEMENTS

4.3.1 Servicing vehicles will only access the site via the left in only from the A16. To ensure the access is suitable for servicing and deliveries, a maximum legal swept path articulated vehicle has been tracked which informed the access design. Servicing vehicles will exit the site via the access on Holbeach Road. The swept path analysis is also set out in **Appendix C**. As detailed in the drawing, the vehicle can access and egress the site within the proposed carriageway and adopted highway boundary.

4.3.2 To ensure the internal layout and servicing areas are suitable, the max legal articulated vehicle has also been tracked within the proposed servicing area as detailed in Drawing No. AMA-22428-ATR-014 (1.2 / 2.2) as attached at **Appendix D**. As detailed, the vehicle can suitably access / egress the servicing area.

4.4 PARKING

4.4.1 Parking for the site is to be provided in line with the required South East Lincolnshire SPD. Within the SPD, the following policies are set out:

- Parking for residents, employees and visitors should be integral to the design and form of all new development, and should ensure that:
- parking spaces are fit for their intended use in terms of size and design;
- a. secure, covered, convenient storage for bicycles for employees should be provided close to an entrance to the building. Changing and shower facilities should be provided where possible;
- secure, covered bicycle storage for visitors are located close to the main entrance to the building;
- where more than 50 parking spaces are provided, at least one double electric vehicle charge point will be required (2 spaces). For each additional 50 parking spaces, one double charging point should be provided up to a maximum of three (6 spaces); and
- parking is well-integrated within the townscape or landscape, through an appropriate use of materials and landscaping;

4.4.2 The standards set out that a minimum parking provision should be provided of 1 space per 14m^2 for a retail site. Therefore, the following parking provision is proposed.

Food Store

- 165 parking spaces, including;
    - 3 staff parking spaces
    - 10 electric vehicle parking spaces
        - including 2 disabled parking spaces
    - 6 disabled parking spaces
    - 6 'parent and child' spaces

Coffee Drive Thru

- 20 parking spaces, including;
    - 2 disabled parking spaces.

4.4.3 Parking spaces will be provided at 2.4m x 4.8m across the site in line with the standard design details for car parks in line with the South East Lincolnshire SPD.

4.4.4 It is considered that the above parking provision meets the operational needs of the site whilst ensuring the requirements of the SPD are met.

5 ASSESSMENT PARAMETERS

5.1 INTRODUCTION

5.1.1 This section sets out the methodology and assessment parameters used in assessing the proposed development and its potential impact on the highway network.

5.2 BASE TRAFFIC SURVEYS

5.2.1 In order to understand the existing situation on the local highway network, full classified turning counts and queue length surveys were undertaken at the following junctions:

- Woodhouse Farm Lodge / A151 Holbeach Road – Priority Junction;
- A16/ A151 – 'Springfields Roundabout' - Priority Roundabout;
- A151/ Fulney Lane/ Camel Gate - Priority Roundabout;
- A151/ Queens Road – Priority T- Junction; and
- A16/ B1165/ Low Road – Priority Roundabout.

5.2.2 To determine the highway network peaks, traffic counts were undertaken on the local highway network at the junctions identified, including queue length surveys for validation during the typical network peaks. The surveys were undertaken across the following periods:

- Friday 26th April 2024 between 07:00 to 10:00 and 16:00 to 19:00; and
- Saturday 27th April 2024 between 11:00 and 14:00.

5.2.3 The resultant existing peak hour flows have been identified as below and are detailed in **Appendix E**:

- Weekday network AM peak hour between 08:15 and 09:15;
- Weekday network PM peak hour between 16:00 and 17:00; and
- Saturday network peak hour between 11:15 and 12:15.

5.3 ASSESSMENT YEARS

5.3.1 A base year of 2025 will be assessed as the year of submission. In line with national guidance, a horizon period five years to 2030 has been assessed within this TA.

5.4 TRAFFIC GROWTH

5.4.1 The National Traffic Model (NTM) within the TEMPRO software package has been interrogated to provide local growth factors for Middle Super Output Area (MSOA) area 'South Holland 007'.

5.4.2 The resultant growth factors are set out in **Table 5-1**.

Table 5-1 TEMPro Growth Factors – South Holland 007

Period	AM Peak	PM Peak	SAT Peak
2024 – 2025	1.014	1.014	1.015
2024 - 2030	1.052	1.052	1.041

5.4.3 Details of the resultant 2025 Base Year and 2030 Future Year base traffic flows are set out at **Appendix E** which sets out all traffic flow diagrams associated with the proposals.

5.5 DEVELOPMENT TRAFFIC GENERATION

5.5.1 The proposed development consists of foodstore and coffee drive-thru (Use Class E). To ensure a robust assessment trip rates were selected for the busiest peak hour for each land use.

Foodstore

5.5.2 The trip rates set out below in Table 5-2, have been derived from TRICS for similar sized Retail Food Superstore and an output is provided in Appendix F, the derived trip rates are applied to these vehicular trip rates for the proposed 2,005m2 GIA.

5.5.3 The trip rates shown below in Table 5-2 are for the Weekday AM and PM. Trip generation has been calculated by multiplying the trip rates by the floor area per 100m2.

Table 5-2 Foodstore – Peak Hour Trip Rates and Trip Generation

	AM Peak		PM Peak		SAT Peak	
	Arrival	Departure	Arrival	Departure	Arrival	Departure
Trip Rate	2.352	2.025	4.050	4.268	7.196	7.183
Trip Generation	47	41	81	86	144	144

Costa Coffee Drive Thru

5.5.4 The trip rates set out below in Table 5-2, have been derived from TRICS for similar sized coffee drive thru and an output is provided in Appendix G, the derived trip rates are applied to these vehicular trip rates for the proposed 168m2 GIA.

5.5.5 The trip rates shown below in Table 5-2 are for the Weekday AM and PM. Trip generation has been calculated by multiplying the trip rates by the floor area per 100m2.

Table 5-3 Costa Coffee Drive-Thru – Peak Hour Trip Rates and Trip Generation

	AM Peak		PM Peak		SAT Peak	
	Arrival	Departure	Arrival	Departure	Arrival	Departure
Trip Rate	18.361	16.459	9.246	10.951	22.809	22.809
Trip Generation	31	28	16	18	38	38

Total Development

5.5.6 The total development traffic flows are set out below in

Table 5-4 Total Development – Peak Hour Trip Rates and Trip Generation

	AM Peak		PM Peak		SAT Peak	
	Arrival	Departure	Arrival	Departure	Arrival	Departure
Trip Generation	78	69	97	104	182	182

5.5.7 On this basis, the trip generation of the proposed scheme will result in a worst-case of 364 trips to the local highway network in the Saturday peak period, equating to 4 trips every minute during the peak hours. The impact of these trips at the site access is set out in Section 6.2.

5.6 TRIP TYPE ASSUMPTIONS

5.6.1 For the purposes of the assessment, the following proportions for the supermarket land uses are:

- Weekday AM Peak Pass-By Trips 50%, Primary Trips 50%;
- Weekday PM Peak Pass-By Trips 50%, Primary Trips 50%; and
- Saturday Peak Pass-By Trips 50%, Primary Trips 50%.

5.6.2 The above trip types are considered to provide a robust analysis of the proposed development while ensuring that the assessment constitutes a realistic representation of future customer travel behaviour.

5.6.3 The proportion of trips based on the assumed trip rate types is summarised in Table 5-5.

Table 5-5 Proposed Development – Trip Types

	AM Peak		PM Peak		SAT Peak	
	Arrival	Departure	Arrival	Departure	Arrival	Departure
Foodstore						
Pass-by Trips	24	21	41	43	72	72
Primary Trips	24	21	41	43	72	72
Costa Coffee Drive-Thru						
Pass-by Trips	15	14	8	9	19	19
Primary Trips	15	14	8	9	19	19

5.6.4 Table 5-5 demonstrates that the development proposals are forecast to generate the following primary and pass-by trips during the highway network peak hours:

- Weekday AM Peak – 74 'Primary', 73 'Pass-By', and 147 Two-Way Trips;
- Weekday PM Peak – 101 'Primary'', 100 'Pass-By', and 201 Two-Way Trips; and
- Saturday Peak – 182 'Primary'', 182 'Pass-By', and 365 Two-Way Trips.

5.6.5 The trip generations identified in Table 5-5 will be assigned onto the surrounding network in order to consider the impact on the surrounding network.

5.7 DEVELOPMENT TRAFFIC DISTRIBUTION AND ASSIGNMENT

Primary Trips

5.7.1 In order to assess where customers will visit the site from, the distribution has been calculated using analysis to assess the level of housing density within a ten-minute drive time of the site.

5.7.2 The route choice of customers to access the proposed development from within a ten-minute drive time of the site are shown in Table 5-6 and the distribution diagram is attached at Appendix E.

Table 5-6 Development Traffic Distribution

Route	Distribution
Route A – A151 Holbeach Road (NE)	10%
Route B – A16 (N)	10%
Route C - A16 (S)	5%
Route D – Low Road	30%
Route E – Fulney Lane	5%
Route F – Camel Gate	5%
Route G – Queens Road	15%
Route H – A151 Holbeach Road (W)	20%
Total	100%

5.7.3 The primary transfer distribution diagram and the routing of the assigned primary transfer trips for the Friday AM, PM and Saturday peak are attached at the Appendix E.

5.8 PASS-BY TRIPS

5.8.1 It is assumed that the 'pass-by' and 'new' traffic arriving to the site will be evenly distributed between the two access points: 50% via the A151 entrance and 50% via the A16 entrance. All 100% of vehicles will depart the A151 exit and turn left towards the 'Springfields Roundabout'.

5.8.2 The total pass-by trips for the Friday AM, Friday PM peak and Saturday peak are attached at Appendix E.

5.9 SUMMARY

5.9.1 Trip generation for the proposed foodstore and coffee drive-thru (Use Class E) have been derived based on TRICS data and assigned to the local highway network.

5.9.2 The primary trips associated with the foodstore will transfer from other offerings within the surrounding area, therefore, during peak periods any 'new' trips are likely to be minimal.

5.9.3 In conclusion, the assumptions behind the proportions of primary and pass-by trips generated by the development are considered highly robust.

6 TRAFFIC MODELLING AND DEVELOPMENT IMPACTS

6.1 INTRODUCTION

6.1.1 To determine the impact of the proposed development traffic on the local highway network, the following junctions have been assessed:

- Woodhouse Farm Lodge (Site Access) / A151 Holbeach Road – Priority Junction;
- A16/ A151 – 'Springfields Roundabout' - Priority Roundabout;
- A151/ Fulney Lane/ Camel Gate - Priority Roundabout;
- A151/ Queens Road – Priority T- Junction; and
- A16/ B1165/ Low Road – Priority Roundabout.

6.1.2 Junctions9 software has been used to prepare models for the priority-controlled junctions. Junctions9 software analyses the traffic movements on each arm of the junction and assesses the junctions Ratio Flow to Capacity (RFC) and queue lengths in PCU's.

6.2 JUNCTION MODELLING RESULTS

Woodhouse Farm Lodge (Site Access) / A151 Holbeach Road T-Junction

6.2.1 Table 6-1 sets out the operational capacity at the Woodhouse Farm Lodge (Site Access) / A151 Holbeach Road T-Junction. The modelling output is attached at Appendix H.

Table 6-1 Woodhouse Farm Lodge (Site Access) / A151 Holbeach Road Modelling Summary

Arms	AM Peak		PM Peak		SAT Peak	
	RFC	Queue	RFC	Queue	RFC	Queue
2025 Base						
Woodhouse Farm Lodge	0.00	0	0.00	0	0.00	0
A151 Holbeach Road	0.00	0	0.00	0	0.00	0
2030 Base						
Woodhouse Farm Lodge	0.00	0	0.00	0	0.00	0
A151 Holbeach Road	0.00	0	0.00	0	0.00	0
2030 Base + Development Traffic						
Site Access	0.08	0	0.13	0	0.21	1
A151 Holbeach Road	0.06	0	0.08	0	0.13	0

6.2.2 Table 6-1 identifies that all arms at the proposed Woodhouse Farm Lodge (Site Access) / A151 Holbeach Road T-junction are predicted to operate well within their theoretical and operational capacity in both the 2030 Base and 2030 Base + Development scenarios.

Springfields Roundabout

6.2.3 Table 6-2 sets out the operational capacity at the A16/ A151 – 'Springfields Roundabout' – priority-controlled four-arm roundabout. The modelling output is attached at Appendix I.

Table 6-2 Springfields Roundabout Modelling Summary

Arms	AM Peak		PM Peak		SAT Peak	
	RFC	Queue	RFC	Queue	RFC	Queue
2025 Base						
A151 Holbeach Road (E)	0.52	1	0.55	1	0.52	1
A16 (S)	0.35	1	0.42	1	0.39	1
A151 Holbeach Road (W)	0.25	0	0.52	1	0.47	1
A16 (N)	0.36	1	0.52	1	0.40	1
2030 Base						
A151 Holbeach Road (E)	0.56	1	0.54	1	0.56	1
A16 (S)	0.38	1	0.45	1	0.41	1
A151 Holbeach Road (W)	0.27	0	0.56	1	0.51	1
A16 (N)	0.38	1	0.44	1	0.43	1
2030 Base + Development Traffic						
A151 Holbeach Road (E)	0.57	2	0.66	2	0.58	2
A16 (S)	0.43	1	0.52	1	0.41	1
A151 Holbeach Road (W)	0.34	1	0.65	2	0.50	1
A16 (N)	0.48	1	0.49	1	0.45	1

6.2.4 Table 6-2 identifies that all arms at the A16/ A151 – 'Springfields Roundabout' – priority-controlled four-arm roundabout operate within capacity. Within both the 2030 Base and 2030 Base + Development scenario, the roundabout is predicted to continue operating well within its theoretical capacity and would have little impact as a result of the development generated traffic.

Camelgate / A151 / Fulney Lane North Roundabout

6.2.5 Table 6-3 sets out the operational capacity at the Camelgate / A151 / Fulney Lane North priority-controlled four-arm roundabout. The modelling output is attached at Appendix J.

Table 6-3 Camelgate / A151 / Fulney Lane North Modelling Summary

Arms	AM Peak		PM Peak		SAT Peak	
	RFC	Queue	RFC	Queue	RFC	Queue
2025 Base						
Camelgate	0.07	0	0.28	0	0.31	0
A151 (E)	0.43	1	0.37	1	0.52	1
Fulney Lane North	0.03	0	0.08	0	0.03	0
A151 (W)	0.30	0	0.27	0	0.47	1
2030 Base						
Camelgate	0.08	0	0.29	0	0.33	1
A151 (E)	0.45	1	0.39	1	0.55	1
Fulney Lane North	0.03	0	0.09	0	0.03	0
A151 (W)	0.32	1	0.29	0	0.50	1
2030 Base + Development Traffic						
Camelgate	0.07	0	0.30	1	0.33	1
A151 (E)	0.46	1	0.41	1	0.57	2
Fulney Lane North	0.04	0	0.09	0	0.03	0
A151 (W)	0.33	1	0.30	1	0.52	1

6.2.6 Table 6-3 identifies that all arms at the Camelgate / A151 / Fulney Lane North priority-controlled four-arm roundabout operate within capacity. Within both the 2030 Base and 2030 Base + Development scenario, the roundabout is predicted to continue operating well within its theoretical capacity and would have little impact as a result of the development generated traffic.

A151 Holbeach / Queens Road T-junction

6.2.7 Table 6-4 sets out the operational capacity at the A151 Holbeach / Queens Road priority-controlled T-junction. The modelling output is attached at Appendix K.

Table 6-4 A151 Holbeach / Queens Road T-junction Modelling Summary

Arms	AM Peak		PM Peak		SAT Peak	
	RFC	Queue	RFC	Queue	RFC	Queue
2025 Base						
Queens Road	0.30	0	0.28	0	0.21	0
A151 Holbeach Road	0.18	0	0.35	1	0.22	0
2030 Base						
Queens Road	0.32	1	0.31	0	0.23	0
A151 Holbeach Road	0.19	0	0.38	1	0.23	0
2030 Base + Development Traffic						
Queens Road	0.32	1	0.32	1	0.24	0
A151 Holbeach Road	0.19	0	0.38	1	0.24	0

6.2.8 Table 6-4 identifies that all arms at the A151 Holbeach / Queens Road priority-controlled T-junction operate within capacity. Within both the 2030 Base and 2030 Base + Development scenario, the roundabout is predicted to continue operating well within its theoretical capacity and would have little impact as a result of the development generated traffic.

A16 Low Road / B1165 Low Road / Low Road Roundabout

6.2.9 Table 6-5 sets out the operational capacity at the A16 Low Road / B1165 Low Road / Low Road priority-controlled roundabout. The modelling output is attached at Appendix L.

Table 6-5 A16 Low Road / B1165 Low Road / Low Road Modelling Summary

Arms	AM Peak		PM Peak		SAT Peak	
	RFC	Queue	RFC	Queue	RFC	Queue
2025 Base						
A16 Low Road (N)	0.49	1	0.49	1	0.47	1
B1165 Low Road	0.35	1	0.39	1	0.32	1
A16 Low Road (S)	0.40	1	0.43	1	0.36	1
Low Road	0.24	0	0.38	1	0.20	0
2030 Base						
A16 Low Road (N)	0.51	1	0.52	1	0.50	1
B1165 Low Road	0.38	1	0.42	1	0.35	1
A16 Low Road (S)	0.43	1	0.46	1	0.38	1
Low Road	0.26	0	0.41	1	0.21	0
2030 Base + Development Traffic						
A16 Low Road (N)	0.52	1	0.53	1	0.50	1
B1165 Low Road	0.38	1	0.47	1	0.35	1
A16 Low Road (S)	0.43	1	0.47	1	0.38	1
Low Road	0.27	1	0.43	1	0.23	0

6.2.10 Table 6-5 identifies that all arms at the A16 Low Road / B1165 Low Road / Low Road priority-controlled roundabout operate within capacity. Within both the 2030 Base and 2030 Base + Development scenario, the roundabout is predicted to continue operating well within its theoretical capacity and would have little impact as a result of the development generated traffic.

6.3 SUMMARY

6.3.1 The impact of the development-generated traffic associated with the development proposals on the surrounding area has been shown to be negligible, with no junctions predicted to experience a notable impact as a result of the development generated traffic. It is therefore concluded that the development proposals could be accommodated without resulting in any significant detrimental impact upon existing road safety or the capacity of the highway network.

7 SUMMARY

7.1.1 AMA has prepared this Transport Assessment to accompany a planning application for a proposed full planning application comprising a foodstore and coffee drive-thru (Use Class E) located on land to the south of the A151 Holbeach Road, Spalding.

7.1.2 The following summarises the key points:

- The proposed development has been assessed for a proposed food store and drive through development. The site fully accords with both national and local transport policy;
- Future customers and employees of the development would have the opportunity to travel for all key journey purposes by modes other than the private car, including walking, cycling and public transport;
- The site access and internal road layout has been designed in accordance with the relevant LCC / South East Lincolnshire and DMRB standards;
- The development proposals are anticipated to generate 147 two-way trips in the AM peak hour, 164 two-way trips in the PM peak hours, and 164 two-way trips in the PM peak hour;
- The trips to the local highway network would not all be 'new', with an anticipate 50% of trips to the site being 'pass-by'.
- Operational assessments of the local highway network have been undertaken based on the 2024 survey data, growthed to a base year of 2025 as well as the future year of 2030 using TEMPro;
- The modelling outputs showed that all junctions within the vicinity of the site that would experience an increase in traffic as a result of the development would not see an adverse impact as a result of the additional traffic. Therefore, the operational assessments demonstrate that the local highway network has sufficient capacity to accommodate the predicted traffic generation associated with the traffic flows generated by the proposed development;
- Swept path analysis has been undertaken of the proposed site access and internal site layout to demonstrate that a servicing vehicle will be able to manoeuvre the site;
- Car parking and cycle parking will be provided to meet South East Lincolnshire SPD standards; and
- A Travel Plan has also been prepared which sets out measures to encourage sustainable travel patterns and reduce the reliance on private car use.

7.1.3 This TA has demonstrated that the traffic associated with the development proposals can be accommodated on surrounding highway network without having a severe impact in accordance with the NPPF.

7.1.4 Therefore, there are no overriding traffic and transportation reasons preventing the local highway authority from recognising that the proposals are acceptable nor why planning permission could not be granted.

APPENDICES

Appendix A Proposed Site Layout Plan

Appendix B Personal Injury Collision Data

Appendix C Proposed Site Access Design, Visibility Splays and Tracking

Appendix D Site Layout Servicing Vehicle Tracking

Appendix E Traffic Flow Diagrams

Appendix F Foodstore TRICS Report

Appendix G Coffee Drive Thru TRICS Report

Appendix H Woodhouse Farm Lodge (Site Access) / A151 Holbeach Road Modelling Output

Appendix I Springfields Roundabout Output

Appendix J Camelgate / A151 / Fulney Lane North Modelling Output

Appendix K A151 Holbeach / Queens Road T-junction Modelling Output

Appendix L A16 Low Road / B1165 Low Road / Low Road Modelling Output

Appendix A
Proposed Site Layout Plan

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Rev	Date	Description	Drawn	Chk'd
A	19.02.25	Roundabout updated to latest	BGL	JDB
B	03.06.25	Landscape plan + areas added	BGL	BL
C	23.06.25	Amended to comments	BGL	BL
D	09.07.25	Scheme updated to AMA layout	BGL	BL
E	17.09.25	Costa layout updated to latest	BGL	BL
F	24.10.25	Diversion added to plan	BL	BL
G	24.03.26	In only access added	BGL	BL
H	31.03.26	In only access amended	BGL	BL
I	15.04.26	Entrance to site updated to highway engineer drawings	LBo	BL



Key

+000.00 Existing Levels

+000.00 Proposed Levels

All levels subject to engineer details

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Client

Rothstone Estates Ltd & CPD

Project Title

Proposed Development

Holbeach Road
Spalding

Drawing Title

Proposed Site Masterplan

Drawn	Checked	Scale @ A1	BIM Status	Date
BGL	BL	1:500	NA	02.25

Drawing Status	Rev.	THP Project No.
Planning	I	19627

Project No.	Originator	Volume	Level	Type	Role	Number
19627	THPW	00	XX	DR	A	1000

Appendix B
Personal Injury Collision Data

The Lincolnshire Road Safety Partnership

A16/A151 Area Spalding - 5 Years (to 31/03/2024) Injury Collisions

Staying Alive! Lincolnshire Road Safety Partnership

Date Printed : 29/04/2024

THINK! Road Safety

DataDate : 31/03/2024



0 500 Metres

- Fatal Injury
- Serious Injury
- Slight Injury

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Appendix C
Proposed Site Access Design, Visibility Splays and Tracking

TO TIE IN TO EXISTING ROAD MARKINGS

TO TIE IN TO EXISTING ROAD MARKINGS

2.4m BY 120m VISIBILITY SPLAY

R. 15m

R. 1m

R. 1m

Existing access to be retained. Existing stone pillars to be re-located

2.4m BY 53m VISIBILITY SPLAY (TO JUNCTION)

20 no. Parking spaces (2.5m x 5m)

Proposed Site Entrance (Subject to Highway design and approval)

Existing Electric Telegraph Pole

Drain

El Sub Sta

Proposed timber knee rail fencing to boundary

Pax Veteres

Existing trees retained where possible

UNIT 1

168 sq.m/1,800 sq.ft GIA
198 sq.m GEA

10 no. EVs

DNO Access

Proposed subs

165 no. Parking spaces
Including 3 no. staff spaces and 10 no. EVs
(2.5m x 5m bays)

Assumed site boundary
DEVELOPMENT PLOT
3.30Acres
(1.34 Ha)

Plant area to potentially be acoustic fencing subject to acoustic report

Proposed timber knee rail fencing to boundary

Proposed close boarded timber fencing to boundary

P04	Updated following LHA comments	07.04.26	OHJ
P03	Updated following LHA comments	01.04.26	OHJ
P02	Updated to include roundabout scheme	23.04.25	OHJ
P01	Preliminary Issue	24.05.24	OHJ

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Project:

HOLBEACH ROAD, SPALDING

Client:

ROTHSTONE ESTATES LTD

Drawing:

PROPOSED SITE ACCESS

Drawn By: OHJ	Date: 24.05.2024	
Checked: MHT	Scale: 1:500	Paper: A3
Drawing No. AMA-22428-SK-003 1.1		Rev. P04

Edging realigned due to slope of batter

Proposed
DRIVE THRU
1,800 sq.ft
168 sq.m

178 no. Parking spaces
Including 6 no. staff spaces
(2.5m x 5m bays)

3 no. EVs

Portal
store
entrance

Glazed store front

46500

A16

15m

3m

3.5m

Proposed New
Road Layout by
Others (Subject
to Highways

R1m

R15m

In
Only

Access widened for property owner

P02	Updated following LHA comments	31.03.26	AMM
P01	Preliminary Issue	20.03.26	AMM

ANDREW MOSELEY ASSOCIATES

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HOLBEACH ROAD, SPALDING

Client:

COMMERCIAL DEVELOPMENT PROJECTS LTD

Drawing:

ACCESS ARRANGEMENT

Drawn By: OHJ	Date: 20.03.2026	
Checked: AMM	Scale: 1:500	Paper: A3
Drawing No. AMA-22428-SK-008 1.1		Rev. P02

Appendix D

Site Layout Servicing Vehicle Tracking

Proposed timber knee rail fencing to boundary

10 no. EVs

Existing trees retained where possible

Assumed site boundary
DEVELOPMENT PLOT
3.30Acres
(1.34 Ha)

DNO Access

Proposed subs

10no. EVCPs with Canopy over
(refer to drawing 1007 for reference)

Proposed timber knee rail fencing to boundary

Proposed close boarded timber fencing to boundary

Indicative pedestrian crossings (Subject to highways design)

TROLLEY BAY

Trees possibly removed

Store entrance

Subject to tenant requirement

Refuse/ Bin Store (400 sq.ft)

PORTA

Enclosed canopy over servicing

UNIT 2

2,007 sq.m/21,603 sq.ft GIA
2,075 sq.m GEA

40935

41560

6 no. staff parking

Service Point

25m Spin

Existing trees retained where possible

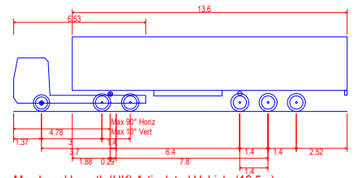
Proposed close boarded timber fencing to boundary

Proposed timber knee rail fencing to boundary

Estate Totem

161 no. Parking spaces
including 6 no. staff spaces and 10 no. EVs
(2.5m x 5m bays)

Proposed close boarded timber fencing to boundary



Max Legal Length (UK) Articulated Vehicle (16.5m)	
Overall Length	16.500m
Overall Width	2.550m
Overall Body Height	3.681m
Min Body Ground Clearance	0.411m
Max Track Width	2.500m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.530m

P01	Preliminary Issue	21.04.26	SA

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Project:

HOLBEACH ROAD, SPADLING

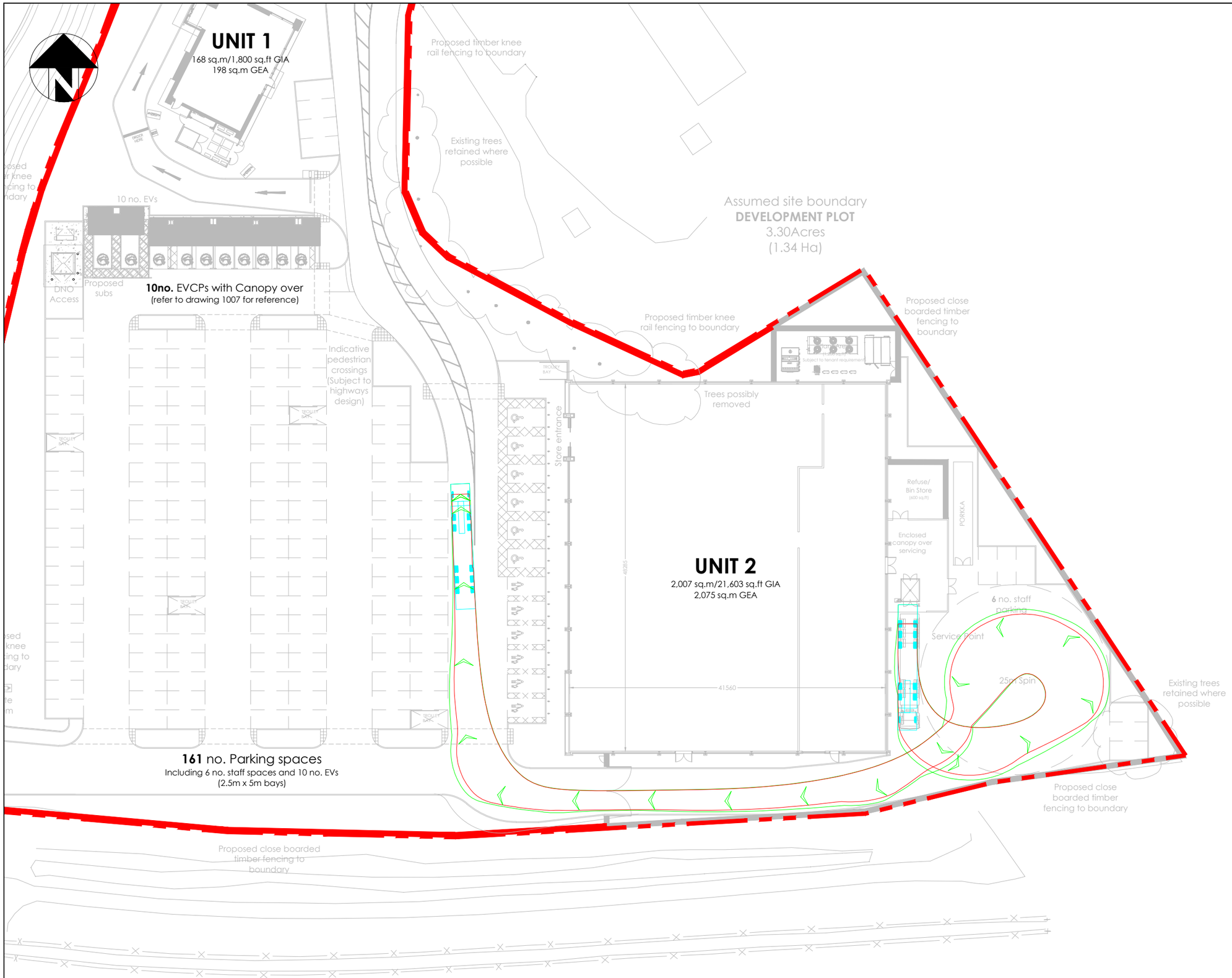
Client:

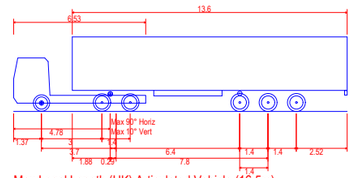
ROTHSTONE ESTATES LTD

Drawing:

16.50m ARTICULATED VEHICLE SWEPT PATH ANALYSIS - ACCESS

Drawn By:	Date:	
SA	21.04.2026	
Checked: AMM	Scale: 1:500	Paper: A3
Drawing No. AMA-22428-ATR-014-1.2		Rev. P01





Max Legal Length (UK) Articulated Vehicle (16.5m)	
Overall Length	16.500m
Overall Width	2.550m
Overall Body Height	3.681m
Min Body Ground Clearance	0.411m
Max Track Width	2.500m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.530m

P01	Preliminary Issue	21.04.26	SA

ANDREW MOSELEY ASSOCIATES
Transport & Infrastructure Consultants
15 St Paul's Street
Second Floor
Leeds
LS1 2JG
www.amatp.co.uk

Project:

HOLBEACH ROAD, SPADLING

Client:

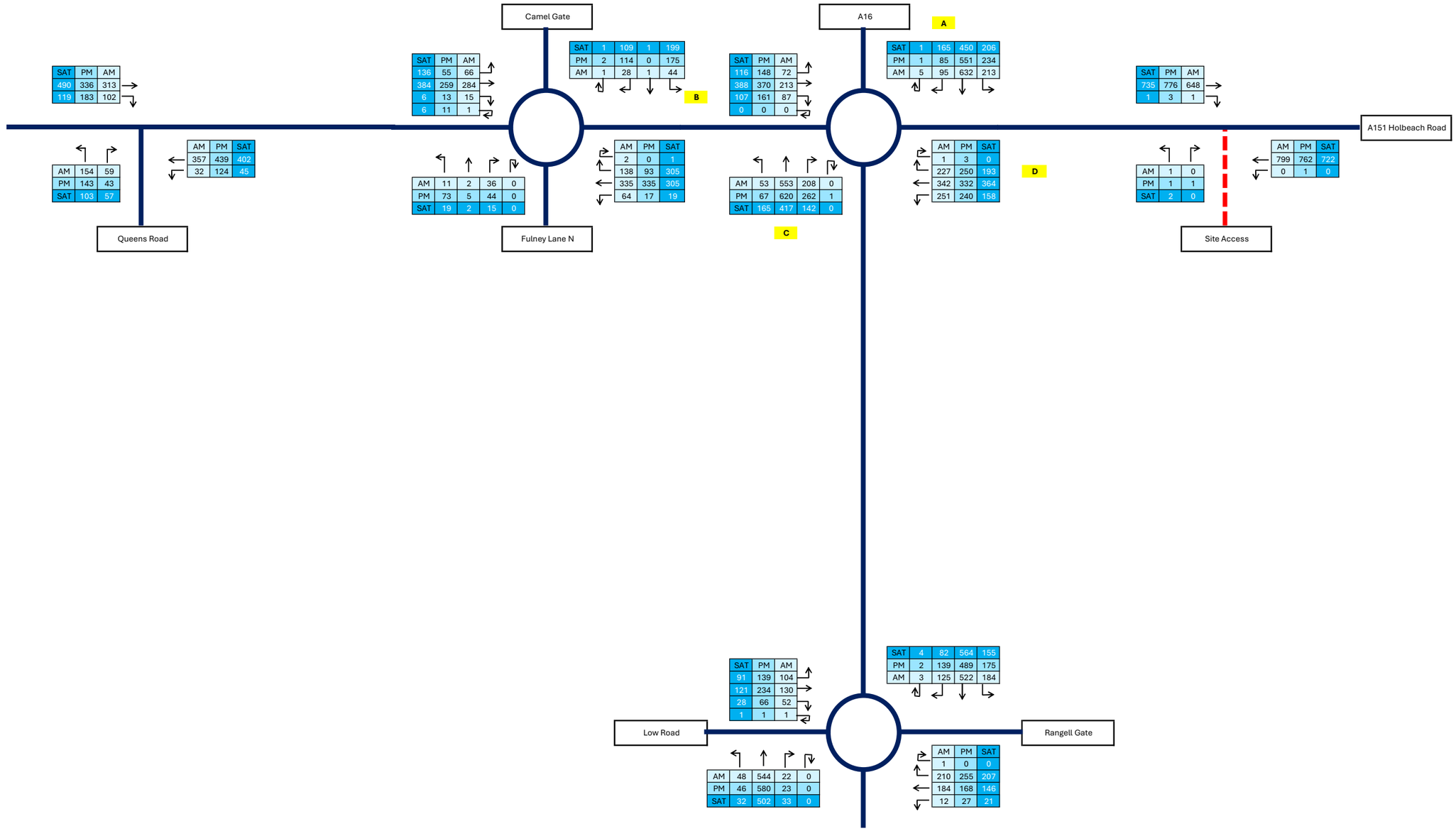
ROTHSTONE ESTATES LTD

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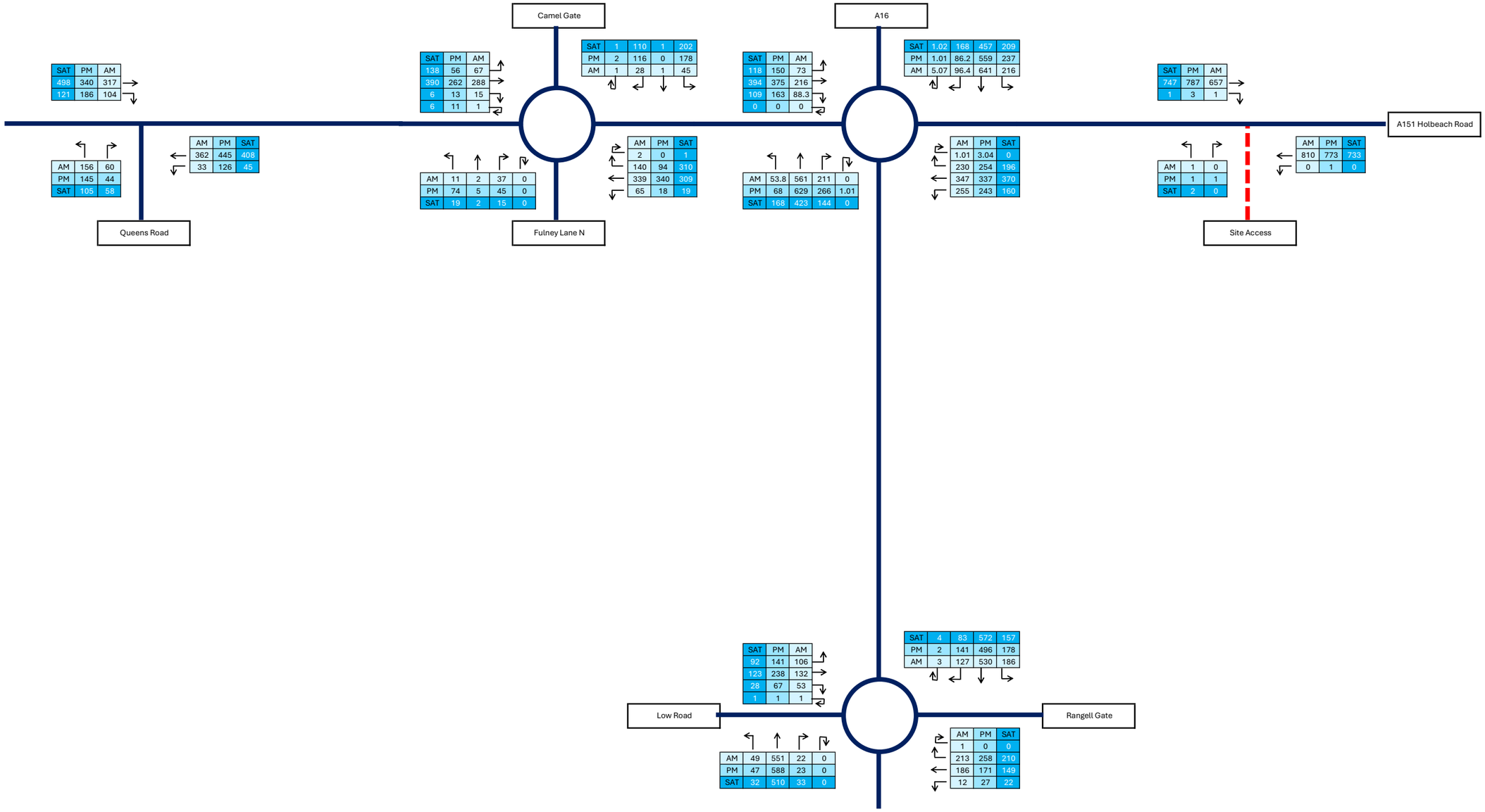
16.50m ARTICULATED VEHICLE SWEPT PATH ANALYSIS - EGRESS

Drawn By:	Date:	
SA	21.04.2026	
Checked:	Scale:	Paper:
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Drawing No.		Rev.
AMA-22428-ATR-014-2.2		P01

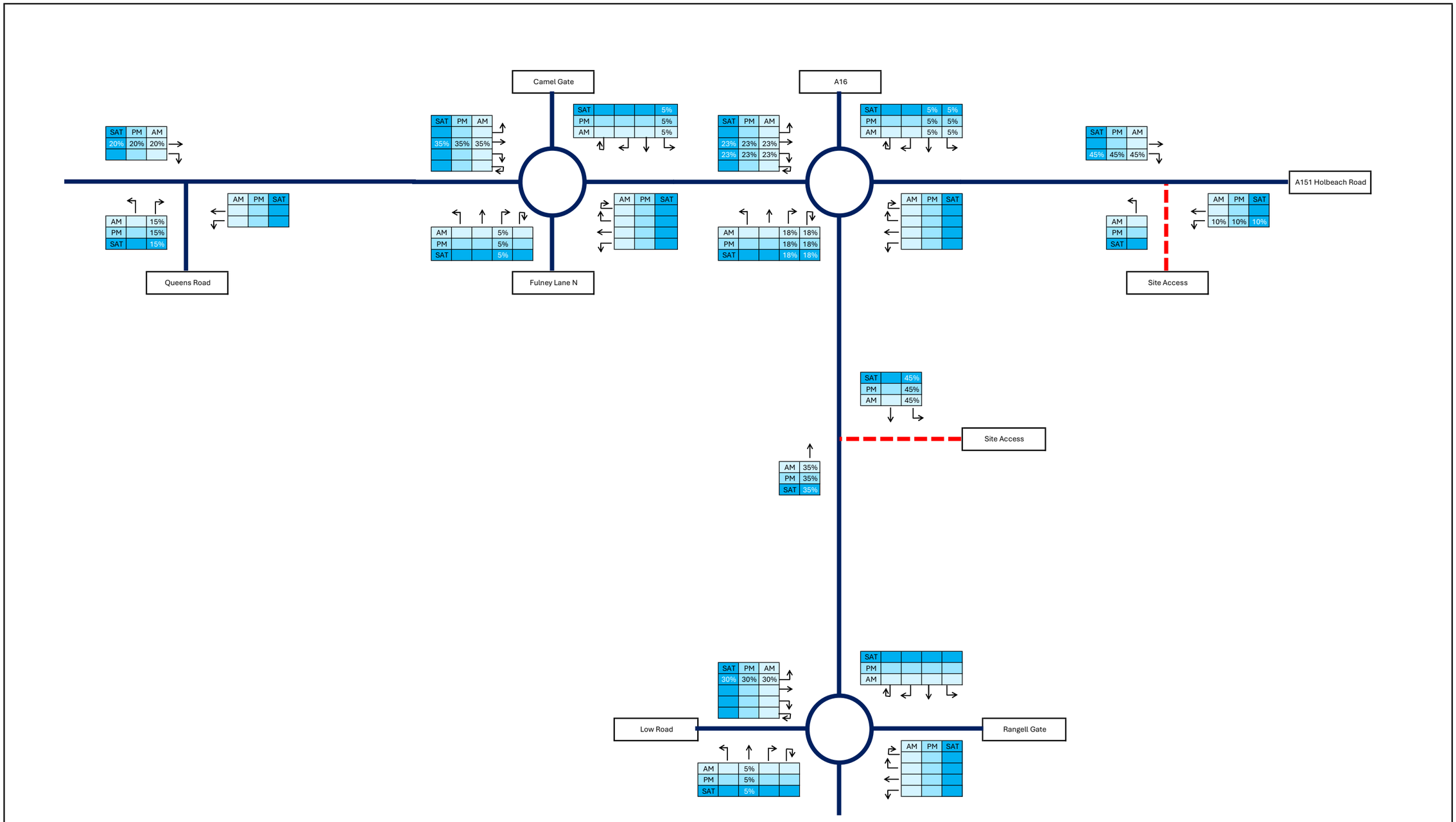
Appendix E
Traffic Flow Diagrams



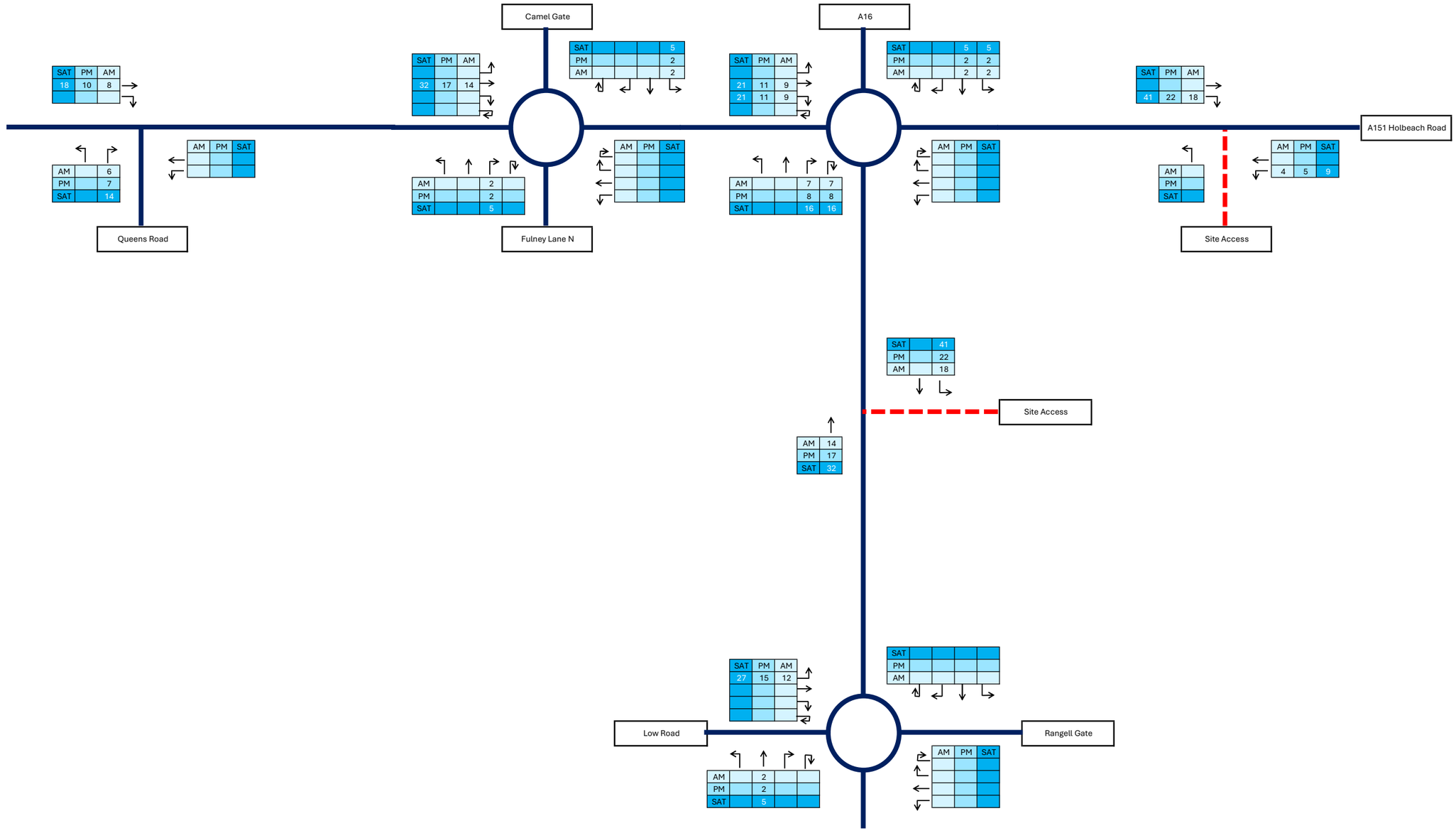
ANDREW MOSELEY ASSOCIATES TRANSPORT AND DEVELOPMENT PLANNING CONSULTANTS	**A151 Holbeach Road, Spalding**	**31/03/2026**
		Job Number - AMA/22428
	Base 2024 Traffic Flows	**Appendix E**



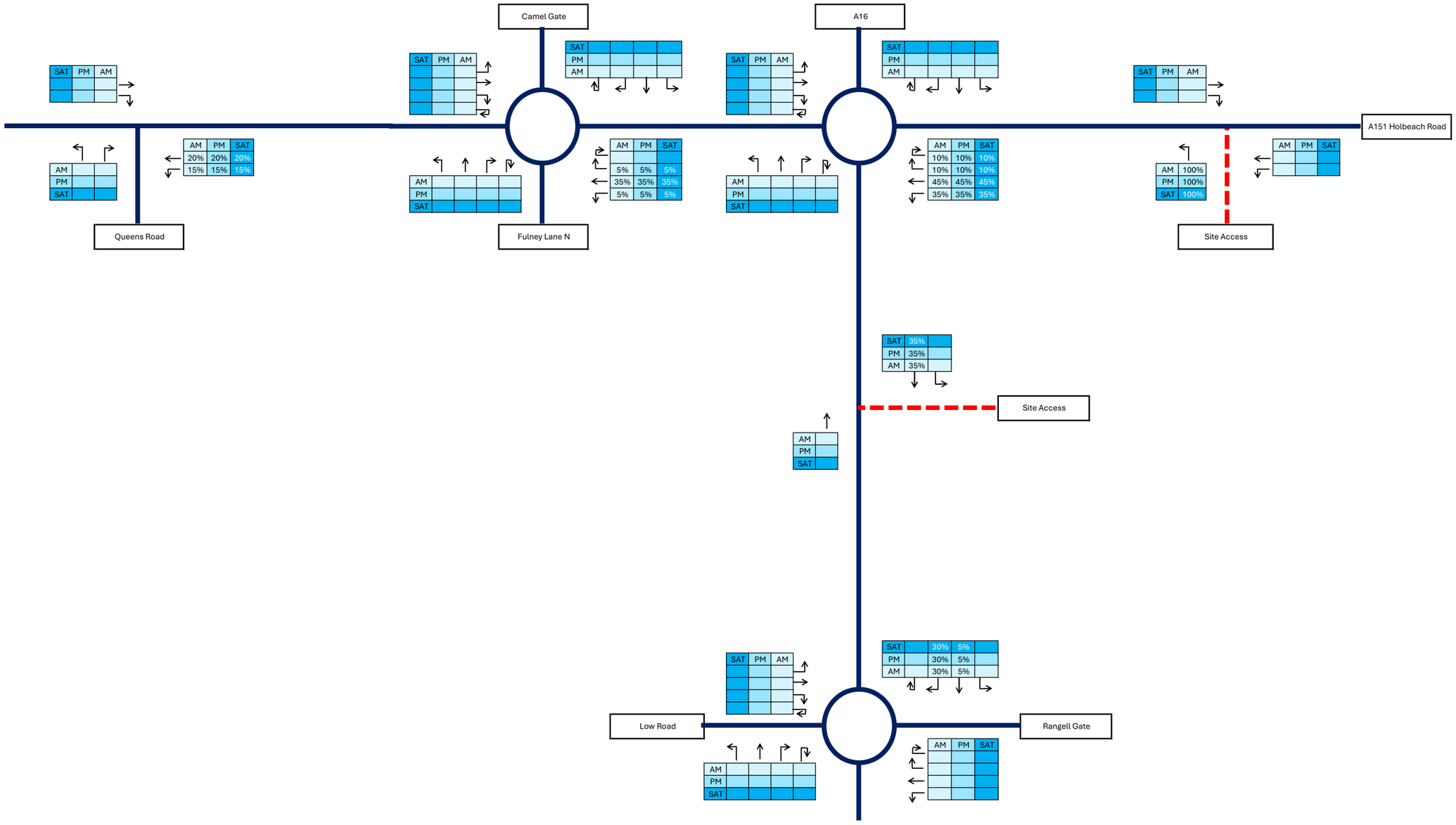
ANDREW MOSELEY ASSOCIATES TRANSPORT AND DEVELOPMENT PLANNING CONSULTANTS	**A151 Holbeach Road, Spalding**	**31/03/2026**
		Job Number - AMA/22428
	Base 2024 Traffic Flows	**Appendix E**



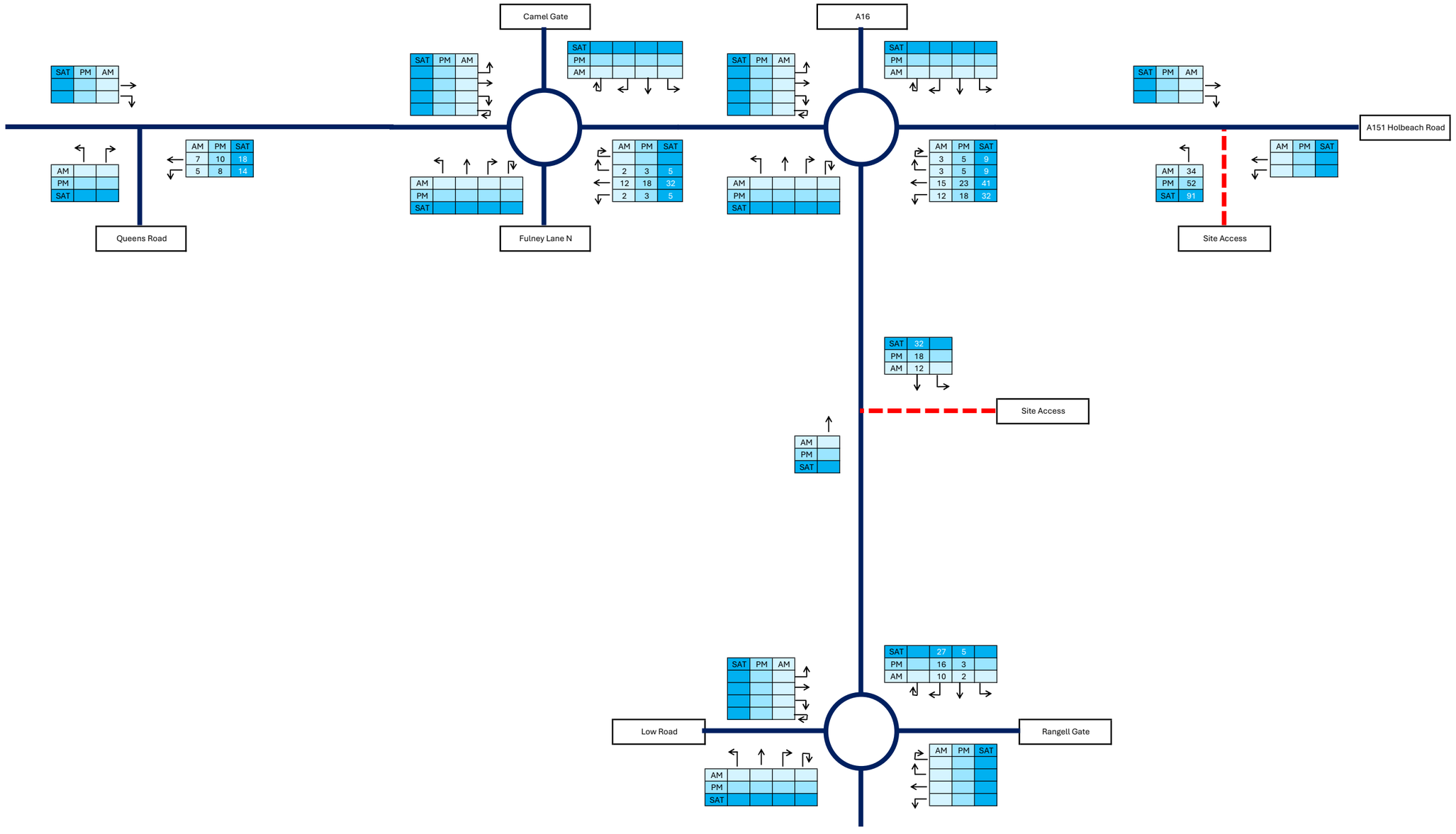
ANDREW MOSELEY ASSOCIATES TRANSPORT AND DEVELOPMENT PLANNING CONSULTANTS	**A151 Holbeach Road, Spalding**	**31/03/2026**
		Job Number - AMA/22428
	Primary Traffic Distribution - Arrivals	**Appendix E**



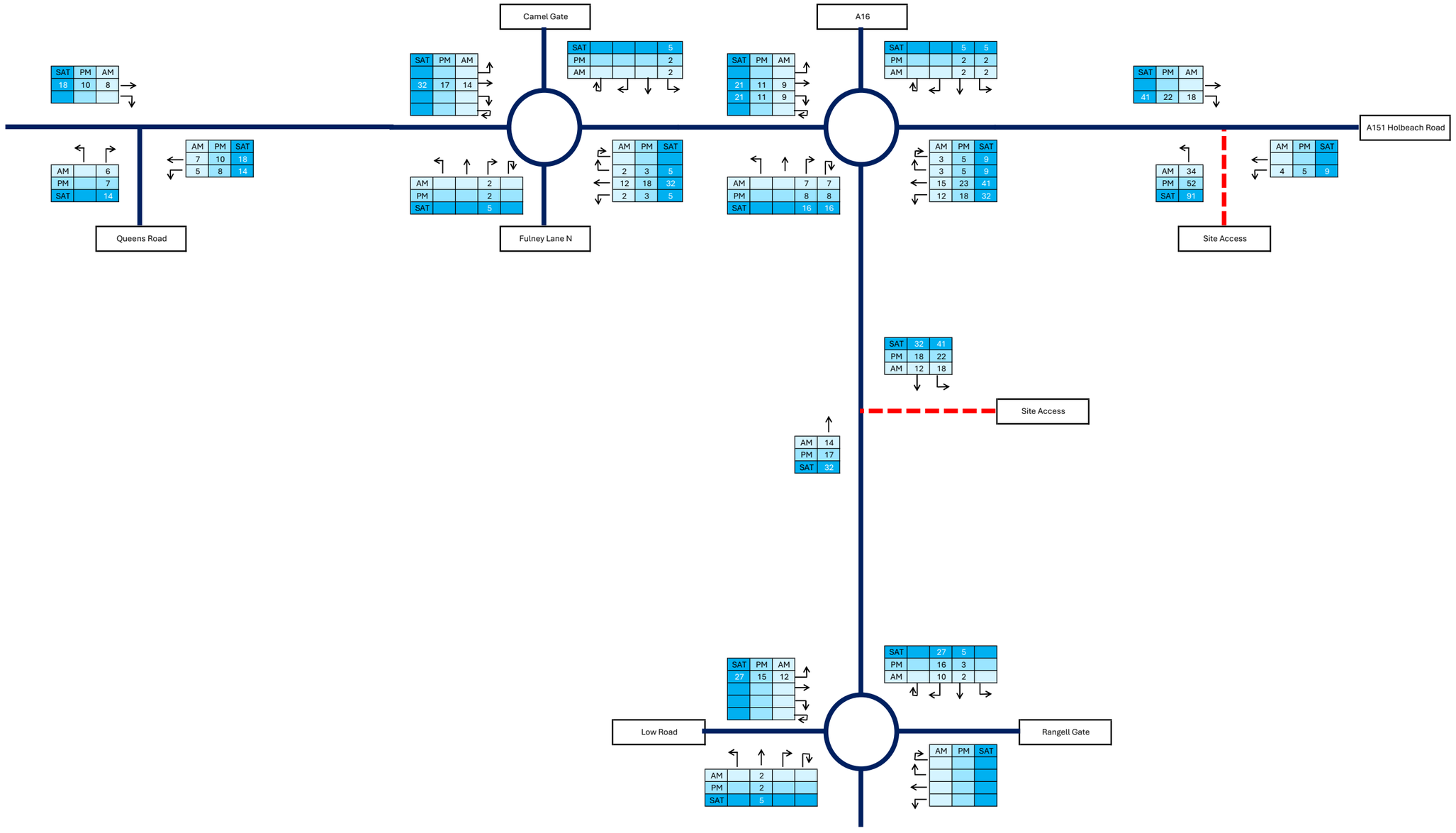
ANDREW MOSELEY ASSOCIATES TRANSPORT AND DEVELOPMENT PLANNING CONSULTANTS	**A151 Holbeach Road, Spalding**	**31/03/2026**
		Job Number - AMA/22428
	Primary Traffic Flows - Arrivals	**Appendix E**



ANDREW MOSELEY ASSOCIATES TRANSPORT AND DEVELOPMENT PLANNING CONSULTANTS	**A151 Holbeach Road, Spalding**	**31/03/2026**
		Job Number - AMA/22428
	Primary Traffic Distribution - Departures	**Appendix E**



ANDREW MOSELEY ASSOCIATES TRANSPORT AND DEVELOPMENT PLANNING CONSULTANTS	**A151 Holbeach Road, Spalding**	31/03/2026
		Job Number - AMA/00000000
	Primary Traffic Flows - Departures	Appendix E



ANDREW MOSELEY ASSOCIATES
TRANSPORT AND DEVELOPMENT PLANNING CONSULTANTS

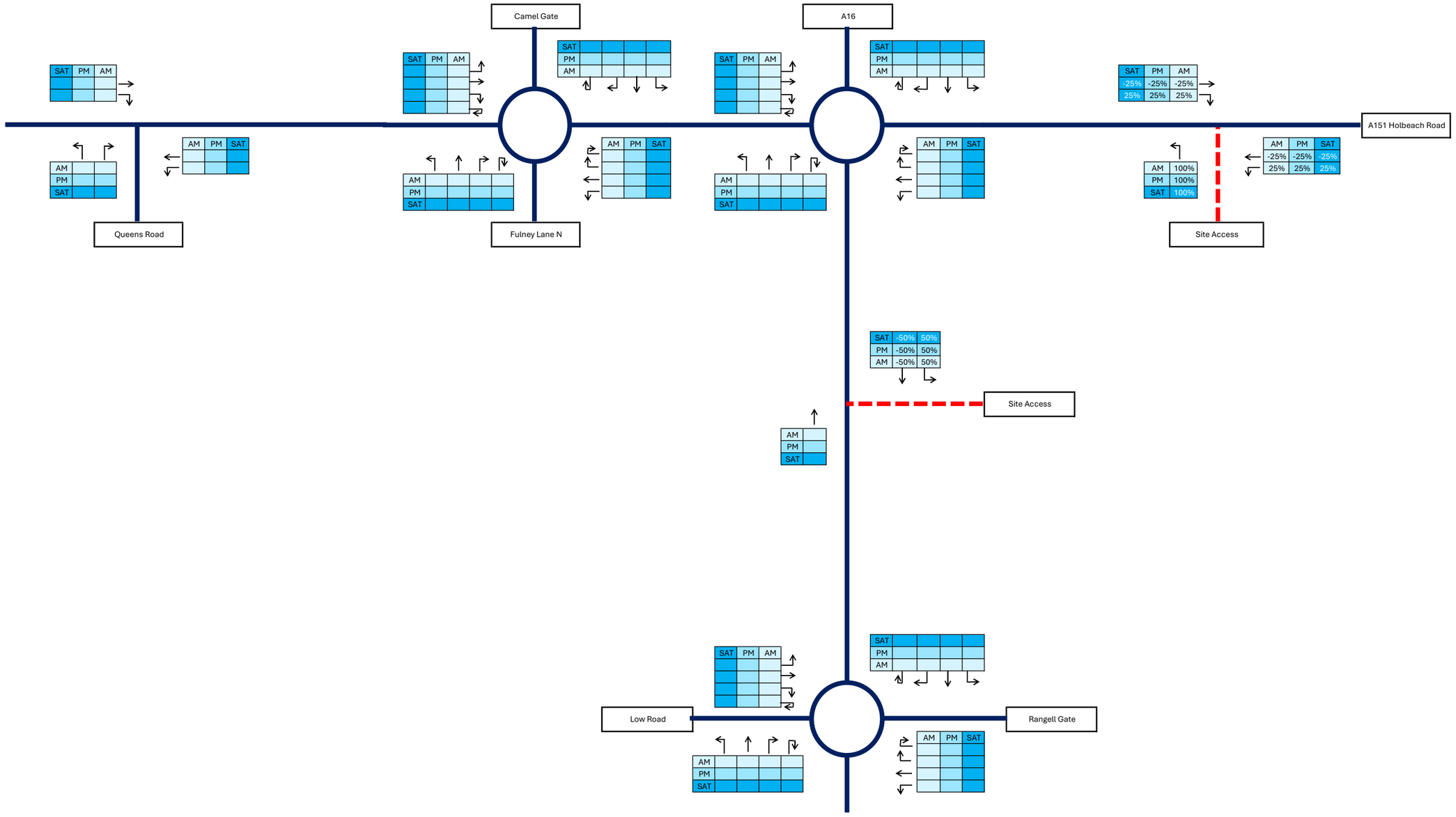
A151 Holbeach Road, Spalding

Primary Traffic Flows - Total

31/03/2026

Job Number - AMA/00000000

Appendix E



ANDREW MOSELEY ASSOCIATES
TRANSPORT AND DEVELOPMENT PLANNING CONSULTANTS

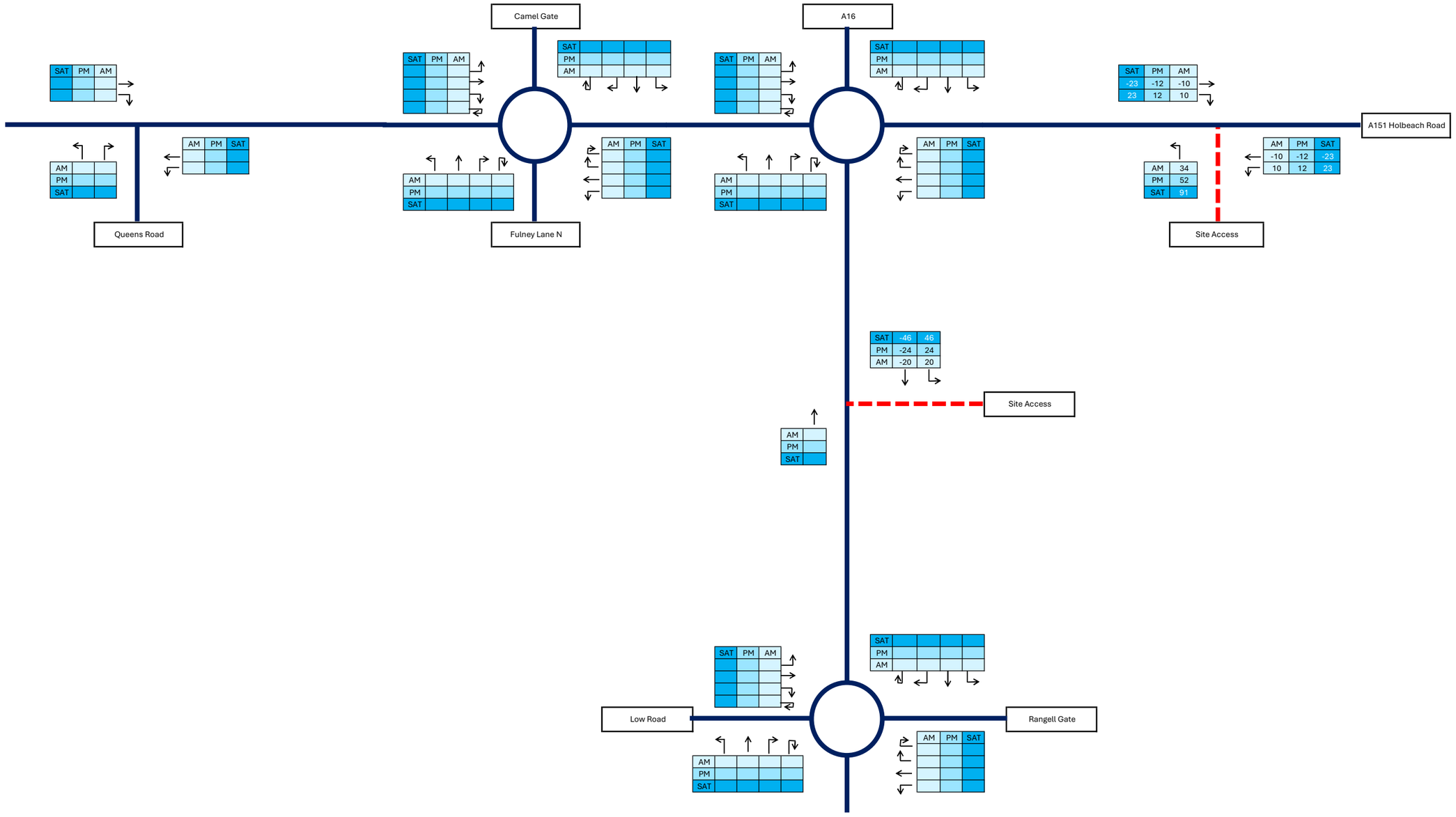
A151 Holbeach Road, Spalding

Pass-By Traffic Distribution

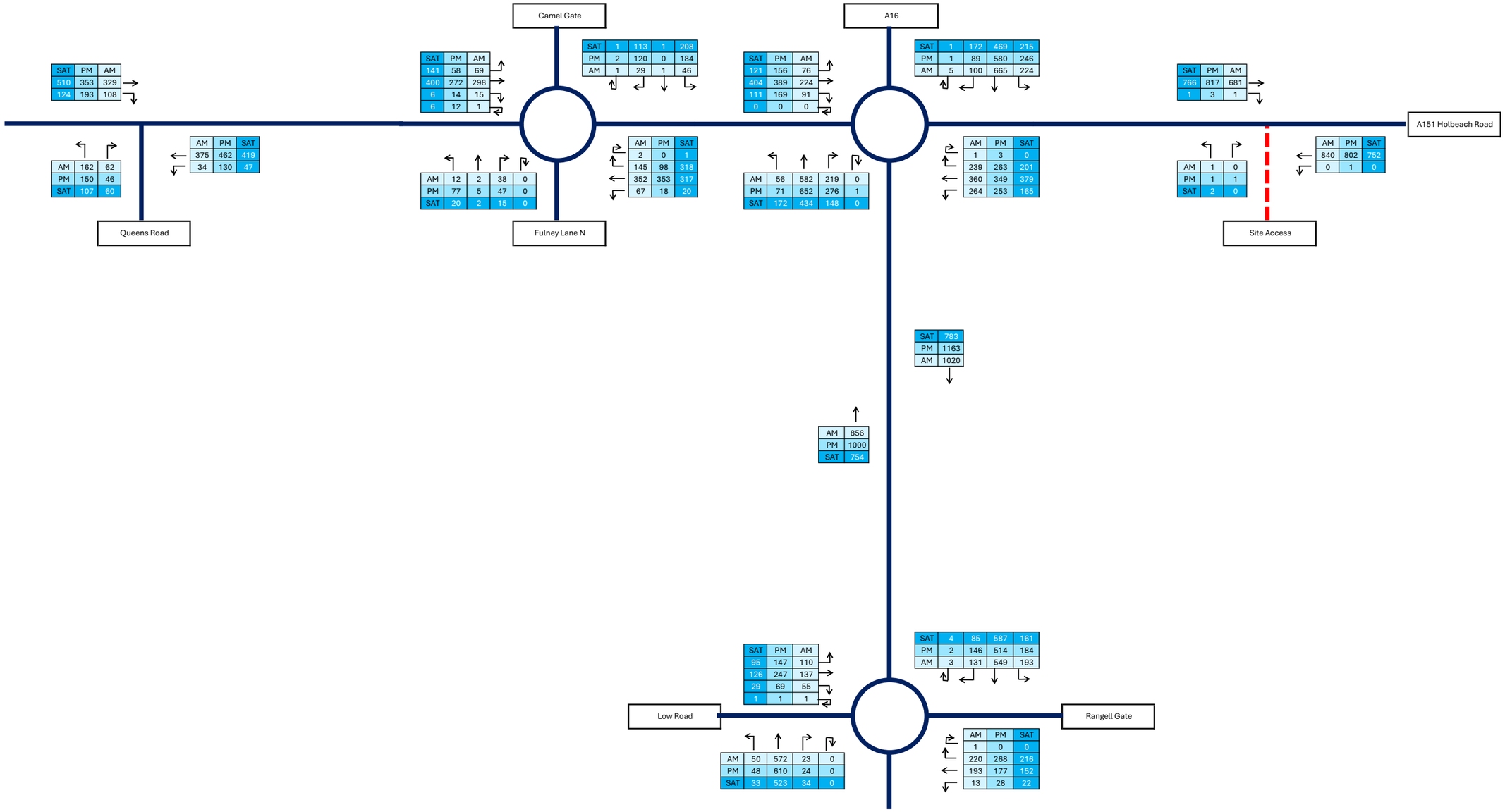
31/03/2026

Job Number - AMA/22428

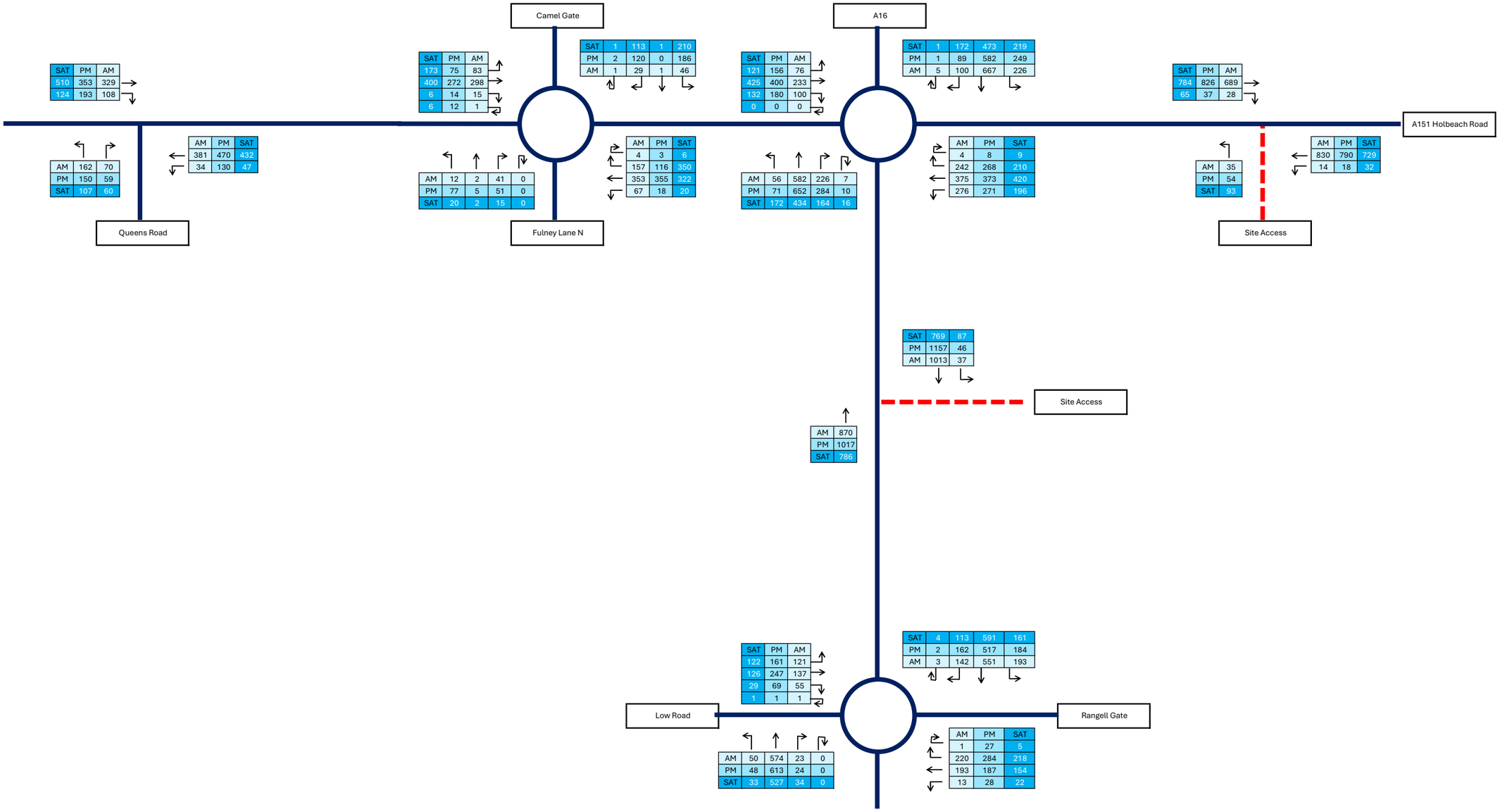
Appendix E



ANDREW MOSELEY ASSOCIATES TRANSPORT AND DEVELOPMENT PLANNING CONSULTANTS	**A151 Holbeach Road, Spalding**	**31/03/2026**
		Job Number - AMA/22428
	Pass-By Traffic Flows	**Appendix E**



ANDREW MOSELEY ASSOCIATES TRANSPORT AND DEVELOPMENT PLANNING CONSULTANTS	**A151 Holbeach Road, Spalding**	**31/03/2026**
		Job Number - AMA/22428
	Base 2030 Traffic Flows	**Appendix E**



ANDREW MOSELEY ASSOCIATES TRANSPORT AND DEVELOPMENT PLANNING CONSULTANTS	**A151 Holbeach Road, Spalding**	**31/03/2026**
		Job Number - AMA/22428
	Base 2030 + Development Traffic Flows	**Appendix E**

Appendix F
Foodstore TRICS Report

Calculation Reference: AUDIT-710001-240408-0420

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 01 - RETAIL
Category : A - FOOD SUPERSTORE

TOTAL VEHICLES

Selected regions and areas:

04	**EAST ANGLIA**		
	CA	CAMBRIDGESHIRE	1 days
	SF	SUFFOLK	1 days
06	**WEST MIDLANDS**		
	WO	WORCESTERSHIRE	1 days
08	**NORTH WEST**		
	GM	GREATER MANCHESTER	1 days
09	**NORTH**		
	TW	TYNE & WEAR	1 days

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

Primary Filtering selection:

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

Parameter:	Gross floor area
Actual Range:	1400 to 5600 (units: sqm)
Range Selected by User:	800 to 7000 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/16 to 17/05/23

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

Selected survey days:

Tuesday	1 days
Wednesday	2 days
Friday	2 days

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

Selected survey types:

Manual count	5 days
Directional ATC Count	0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre)	1
Edge of Town	2
Neighbourhood Centre (PPS6 Local Centre)	2

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

Selected Location Sub Categories:

Development Zone	1
Residential Zone	3
Built-Up Zone	1

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

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included	3 days - Selected
Servicing vehicles Excluded	2 days - Selected

Secondary Filtering selection:

Use Class:

E(a)	5 days

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

Population within 500m Range:
All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:

5,001 to 10,000	1 days
20,001 to 25,000	2 days
25,001 to 50,000	2 days

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

Population within 5 miles:

125,001 to 250,000	3 days
250,001 to 500,000	1 days
500,001 or More	1 days

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

Car ownership within 5 miles:

0.6 to 1.0	2 days
1.1 to 1.5	3 days

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

Petrol filling station:

PFS is present at the site and is included in the count	1 days
PFS is present at the site but is excluded from the count	0 days
There is no PFS at the site	4 days

This data displays the number of surveys within the selected set that include petrol filling station activity, and the number of surveys that do not.

Travel Plan:

No	5 days

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

PTAL Rating:

No PTAL Present	5 days

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

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

LIST OF SITES relevant to selection parameters

1	**CA-01-A-04**	**SAINSBURY'S**		**CAMBRIDGESHIRE**
	EDDINGTON AVENUE			
	CAMBRIDGE			
	EDDINGTON			
	Edge of Town			
	Development Zone			
	Total Gross floor area:		3231 sqm	
	Survey date: WEDNESDAY		*17/05/23*	*Survey Type: MANUAL*
2	**GM-01-A-27**	**TESCO**		**GREATER MANCHESTER**
	PARRS WOOD LANE			
	MANCHESTER			
	DIDSBURY			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Gross floor area:		5600 sqm	
	Survey date: WEDNESDAY		*20/04/22*	*Survey Type: MANUAL*
3	**SF-01-A-03**	**ASDA**		**SUFFOLK**
	STOKE PARK DRIVE			
	IPSWICH			
	Edge of Town			
	Residential Zone			
	Total Gross floor area:		4250 sqm	
	Survey date: FRIDAY		*25/09/20*	*Survey Type: MANUAL*
4	**TW-01-A-03**	**M&S FOOD HALL**		**TYNE & WEAR**
	HOLLYWOOD AVENUE			
	NEWCASTLE UPON TYNE			
	GOSFORTH			
	Neighbourhood Centre (PPS6 Local Centre)			
	Built-Up Zone			
	Total Gross floor area:		1400 sqm	
	Survey date: TUESDAY		*19/10/21*	*Survey Type: MANUAL*
5	**WO-01-A-02**	**WAITROSE**		**WORCESTERSHIRE**
	LONDON ROAD			
	WORCESTER			
	RED HILL			
	Neighbourhood Centre (PPS6 Local Centre)			
	Residential Zone			
	Total Gross floor area:		4780 sqm	
	Survey date: FRIDAY		*27/09/19*	*Survey Type: MANUAL*

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

TRIP RATE for Land Use 01 - RETAIL/A - FOOD SUPERSTORE

TOTAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	5600	0.143	1	5600	0.107	1	5600	0.250
06:00 - 07:00	2	4925	0.528	2	4925	0.325	2	4925	0.853
07:00 - 08:00	5	3852	1.288	5	3852	0.950	5	3852	2.238
08:00 - 09:00	5	3852	2.352	5	3852	2.025	5	3852	4.377
09:00 - 10:00	5	3852	3.094	5	3852	2.492	5	3852	5.586
10:00 - 11:00	5	3852	3.598	5	3852	3.074	5	3852	6.672
11:00 - 12:00	5	3852	3.780	5	3852	3.556	5	3852	7.336
12:00 - 13:00	**5**	**3852**	**4.673**	**5**	**3852**	**4.491**	**5**	**3852**	**9.164**
13:00 - 14:00	5	3852	4.055	5	3852	4.361	5	3852	8.416
14:00 - 15:00	5	3852	3.821	5	3852	3.935	5	3852	7.756
15:00 - 16:00	5	3852	4.211	5	3852	3.972	5	3852	8.183
16:00 - 17:00	5	3852	4.050	5	3852	4.268	5	3852	8.318
17:00 - 18:00	5	3852	3.930	5	3852	4.169	5	3852	8.099
18:00 - 19:00	5	3852	3.972	5	3852	4.304	5	3852	8.276
19:00 - 20:00	5	3852	2.788	5	3852	3.312	5	3852	6.100
20:00 - 21:00	5	3852	1.277	5	3852	1.781	5	3852	3.058
21:00 - 22:00	4	4465	0.873	4	4465	1.086	4	4465	1.959
22:00 - 23:00	3	4360	0.459	3	4360	0.734	3	4360	1.193
23:00 - 24:00	1	5600	0.411	1	5600	0.554	1	5600	0.965
Total Rates:			49.303			49.496			98.799

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

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

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Parameter summary

Trip rate parameter range selected:	1400 - 5600 (units: sqm)
Survey date date range:	01/01/16 - 17/05/23
Number of weekdays (Monday-Friday):	5
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

Calculation Reference: AUDIT-710001-240408-0459

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 01 - RETAIL
Category : A - FOOD SUPERSTORE

TOTAL VEHICLES

Selected regions and areas:

02	**SOUTH EAST**		
	BH	BRIGHTON & HOVE	1 days
03	**SOUTH WEST**		
	DV	DEVON	1 days
05	**EAST MIDLANDS**		
	LN	LINCOLNSHIRE	1 days
07	**YORKSHIRE & NORTH LINCOLNSHIRE**		
	NY	NORTH YORKSHIRE	1 days
08	**NORTH WEST**		
	GM	GREATER MANCHESTER	1 days

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

Primary Filtering selection:

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

Parameter:	Gross floor area
Actual Range:	850 to 6934 (units: sqm)
Range Selected by User:	800 to 7000 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/16 to 17/05/23

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

Selected survey days:

Saturday	5 days

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

Selected survey types:

Manual count	5 days
Directional ATC Count	0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre)	1
Edge of Town	3
Neighbourhood Centre (PPS6 Local Centre)	1

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

Selected Location Sub Categories:

Residential Zone	4
Out of Town	1

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

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included	3 days - Selected
Servicing vehicles Excluded	2 days - Selected

Secondary Filtering selection:

Use Class:

E(a)	5 days

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

Population within 500m Range:
All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:

1,001 to 5,000	1 days
15,001 to 20,000	2 days
25,001 to 50,000	2 days

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

Population within 5 miles:

5,001 to 25,000	1 days
125,001 to 250,000	2 days
250,001 to 500,000	1 days
500,001 or More	1 days

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

Car ownership within 5 miles:

0.5 or Less	1 days
0.6 to 1.0	3 days
1.1 to 1.5	1 days

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

Petrol filling station:

PFS is present at the site and is included in the count	2 days
PFS is present at the site but is excluded from the count	1 days
There is no PFS at the site	2 days

This data displays the number of surveys within the selected set that include petrol filling station activity, and the number of surveys that do not.

Travel Plan:

Yes	1 days
No	4 days

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

PTAL Rating:

No PTAL Present	5 days

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

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

LIST OF SITES relevant to selection parameters

1 **BH-01-A-08** **WAITROSE** **BRIGHTON & HOVE**
NEVILL ROAD
BRIGHTON
WEST BLATCHINGTON
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 4644 sqm
Survey date: SATURDAY *23/09/17* *Survey Type: MANUAL*

2 **DV-01-A-23** **SAINSBURY' S** **DEVON**
HILL BARTON ROAD
EXETER
WHIPTON
Edge of Town
Residential Zone
Total Gross floor area: 6934 sqm
Survey date: SATURDAY *30/03/19* *Survey Type: MANUAL*

3 **GM-01-A-26** **ASDA** **GREATER MANCHESTER**
HOLLYHEDGE ROAD
MANCHESTER
WYTHENSHAWE
Neighbourhood Centre (PPS6 Local Centre)
Residential Zone
Total Gross floor area: 850 sqm
Survey date: SATURDAY *01/05/21* *Survey Type: MANUAL*

4 **LN-01-A-07** **WAITROSE** **LINCOLNSHIRE**
SEARBY ROAD
LINCOLN
ERMINE EAST
Edge of Town
Residential Zone
Total Gross floor area: 6600 sqm
Survey date: SATURDAY *28/10/17* *Survey Type: MANUAL*

5 **NY-01-A-06** **ASDA** **NORTH YORKSHIRE**
PHEASANT FIELDS LANE
SKELTON IN CLEVELAND

Edge of Town
Out of Town
Total Gross floor area: 4625 sqm
Survey date: SATURDAY *17/09/16* *Survey Type: MANUAL*

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

TRIP RATE for Land Use 01 - RETAIL/A - FOOD SUPERSTORE

TOTAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	3	4136	1.023	3	4136	0.371	3	4136	1.394
07:00 - 08:00	5	4731	1.936	5	4731	1.340	5	4731	3.276
08:00 - 09:00	5	4731	3.534	5	4731	2.752	5	4731	6.286
09:00 - 10:00	5	4731	5.910	5	4731	4.629	5	4731	10.539
10:00 - 11:00	5	4731	6.938	5	4731	6.198	5	4731	13.136
11:00 - 12:00	5	4731	6.972	5	4731	6.942	5	4731	13.914
12:00 - 13:00	**5**	**4731**	**7.196**	**5**	**4731**	**7.183**	**5**	**4731**	**14.379**
13:00 - 14:00	5	4731	6.701	5	4731	7.115	5	4731	13.816
14:00 - 15:00	5	4731	6.380	5	4731	6.384	5	4731	12.764
15:00 - 16:00	5	4731	6.029	5	4731	6.523	5	4731	12.552
16:00 - 17:00	5	4731	6.084	5	4731	6.473	5	4731	12.557
17:00 - 18:00	5	4731	5.564	5	4731	5.834	5	4731	11.398
18:00 - 19:00	5	4731	4.380	5	4731	5.192	5	4731	9.572
19:00 - 20:00	5	4731	2.955	5	4731	3.467	5	4731	6.422
20:00 - 21:00	5	4731	1.577	5	4731	2.046	5	4731	3.623
21:00 - 22:00	5	4731	0.689	5	4731	1.078	5	4731	1.767
22:00 - 23:00	3	4136	0.492	3	4136	0.830	3	4136	1.322
23:00 - 24:00	1	4625	0.865	1	4625	1.038	1	4625	1.903
Total Rates:			75.225			75.395			150.620

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

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

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Parameter summary

Trip rate parameter range selected:	850 - 6934 (units: sqm)
Survey date date range:	01/01/16 - 17/05/23
Number of weekdays (Monday-Friday):	0
Number of Saturdays:	5
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

Appendix G

Coffee Drive Thru TRICS Report

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 06 - HOTEL, FOOD & DRINK
Category : J - DRIVE THROUGH COFFEE SHOP

TOTAL VEHICLES

Selected regions and areas:

02	**SOUTH EAST**		
	HC	HAMPSHIRE	1 days
04	**EAST ANGLIA**		
	SF	SUFFOLK	1 days
05	**EAST MIDLANDS**		
	NM	WEST NORTHAMPTONSHIRE	1 days
	NN	NORTH NORTHAMPTONSHIRE	1 days
06	**WEST MIDLANDS**		
	HE	HEREFORDSHIRE	1 days
	WO	WORCESTERSHIRE	1 days
11	**SCOTLAND**		
	PK	PERTH & KINROSS	1 days

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

Primary Filtering selection:

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

Parameter:	Gross floor area
Actual Range:	140 to 305 (units: sqm)
Range Selected by User:	125 to 420 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/16 to 16/05/23

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

Selected survey days:

Monday	1 days
Tuesday	1 days
Wednesday	1 days
Friday	4 days

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

Selected survey types:

Manual count	7 days
Directional ATC Count	0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre)	3
Edge of Town	4

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

Selected Location Sub Categories:

Industrial Zone	3
Residential Zone	1
Retail Zone	2
No Sub Category	1

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

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included	X days - Selected
Servicing vehicles Excluded	7 days - Selected

Secondary Filtering selection:

Use Class:

Not Known	7 days

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

Population within 500m Range:
All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:

1,000 or Less	1 days
1,001 to 5,000	3 days
15,001 to 20,000	1 days
20,001 to 25,000	1 days
25,001 to 50,000	1 days

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

Population within 5 miles:

5,001 to 25,000	2 days
25,001 to 50,000	1 days
50,001 to 75,000	1 days
100,001 to 125,000	1 days
125,001 to 250,000	1 days
250,001 to 500,000	1 days

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

Car ownership within 5 miles:

0.6 to 1.0	4 days
1.1 to 1.5	3 days

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

Travel Plan:

No	7 days

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

PTAL Rating:

No PTAL Present	7 days

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

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

LIST OF SITES relevant to selection parameters

1 **HC-06-J-01** **COSTA COFFEE** **HAMPSHIRE**
COTSWORTH ROAD
GOSPORT

Suburban Area (PPS6 Out of Centre)
Retail Zone
Total Gross floor area: 185 sqm
Survey date: MONDAY *27/09/21* *Survey Type: MANUAL*

2 **HE-06-J-01** **STARBUCKS** **HEREFORDSHIRE**
LEDBURY ROAD
ROSS-ON-WYE

Edge of Town
Retail Zone
Total Gross floor area: 305 sqm
Survey date: TUESDAY *24/11/20* *Survey Type: MANUAL*

3 **NM-06-J-01** **BEWICHED COFFEE** **WEST NORTHAMPTONSHIRE**
DARNELL WAY
NORTHAMPTON

Edge of Town
Industrial Zone
Total Gross floor area: 140 sqm
Survey date: FRIDAY *15/10/21* *Survey Type: MANUAL*

4 **NN-06-J-01** **STARBUCKS** **NORTH NORTHAMPTONSHIRE**
CORBY ROAD
CORBY
WELDON
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 236 sqm
Survey date: FRIDAY *23/10/20* *Survey Type: MANUAL*

5 **PK-06-J-01** **STARBUCKS** **PERTH & KINROSS**
THE TRIANGLE
PERTH
INVERALMOND
Edge of Town
Industrial Zone
Total Gross floor area: 219 sqm
Survey date: WEDNESDAY *20/04/22* *Survey Type: MANUAL*

6 **SF-06-J-01** **COSTA COFFEE** **SUFFOLK**
THORNEY WAY
STOWMARKET

Edge of Town
No Sub Category
Total Gross floor area: 200 sqm
Survey date: FRIDAY *25/09/20* *Survey Type: MANUAL*

7 **WO-06-J-01** **STARBUCKS** **WORCESTERSHIRE**
STOURPORT ROAD
KIDDERMINSTER

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 240 sqm
Survey date: FRIDAY *09/10/20* *Survey Type: MANUAL*

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

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/J - DRIVE THROUGH COFFEE SHOP
TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	3	192	0.694	3	192	0.000	3	192	0.694
06:00 - 07:00	6	214	4.202	6	214	3.735	6	214	7.937
07:00 - 08:00	7	218	13.836	7	218	12.656	7	218	26.492
08:00 - 09:00	7	218	18.361	7	218	16.459	7	218	34.820
09:00 - 10:00	**7**	**218**	**21.115**	**7**	**218**	**19.803**	**7**	**218**	**40.918**
10:00 - 11:00	7	218	16.066	7	218	16.590	7	218	32.656
11:00 - 12:00	7	218	15.016	7	218	15.475	7	218	30.491
12:00 - 13:00	7	218	17.311	7	218	16.525	7	218	33.836
13:00 - 14:00	7	218	15.607	7	218	16.459	7	218	32.066
14:00 - 15:00	7	218	12.459	7	218	12.787	7	218	25.246
15:00 - 16:00	7	218	11.738	7	218	10.885	7	218	22.623
16:00 - 17:00	7	218	11.541	7	218	12.852	7	218	24.393
17:00 - 18:00	7	218	9.246	7	218	10.951	7	218	20.197
18:00 - 19:00	7	218	6.426	7	218	7.148	7	218	13.574
19:00 - 20:00	6	214	5.058	6	214	4.981	6	214	10.039
20:00 - 21:00	6	214	2.490	6	214	3.424	6	214	5.914
21:00 - 22:00	3	181	1.654	3	181	2.206	3	181	3.860
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			182.820			182.936			365.756

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

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

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Parameter summary

Trip rate parameter range selected:	140 - 305 (units: sqm)
Survey date date range:	01/01/16 - 16/05/23
Number of weekdays (Monday-Friday):	7
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

Calculation Reference: AUDIT-710001-240408-0448

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 06 - HOTEL, FOOD & DRINK
Category : J - DRIVE THROUGH COFFEE SHOP
TOTAL VEHICLES

Selected regions and areas:

02	**SOUTH EAST**		
	BO	BEDFORD	1 days
03	**SOUTH WEST**		
	GS	GLOUCESTERSHIRE	1 days
08	**NORTH WEST**		
	GM	GREATER MANCHESTER	1 days
09	**NORTH**		
	CU	CUMBERLAND	1 days

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

Primary Filtering selection:

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

Parameter:	Gross floor area
Actual Range:	200 to 213 (units: sqm)
Range Selected by User:	125 to 420 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/16 to 16/05/23

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

Selected survey days:

Saturday	4 days

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

Selected survey types:

Manual count	4 days
Directional ATC Count	0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre)	1
Edge of Town	3

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

Selected Location Sub Categories:

Retail Zone	2
Out of Town	1
No Sub Category	1

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

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included	X days - Selected
Servicing vehicles Excluded	4 days - Selected

Secondary Filtering selection:

Use Class:

Not Known	4 days

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

Population within 500m Range:
All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:

1,001 to 5,000	2 days
15,001 to 20,000	1 days
25,001 to 50,000	1 days

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

Population within 5 miles:

75,001 to 100,000	1 days
125,001 to 250,000	2 days
500,001 or More	1 days

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

Car ownership within 5 miles:

0.6 to 1.0	1 days
1.1 to 1.5	3 days

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

Travel Plan:

No	4 days

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

PTAL Rating:

No PTAL Present	4 days

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

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

LIST OF SITES relevant to selection parameters

1 **BO-06-J-01** **COSTA COFFEE** **BEDFORD**
RILEY WAY
BEDFORD
KEMPSTON
Edge of Town
Retail Zone
Total Gross floor area: 213 sqm
Survey date: SATURDAY *17/10/20* *Survey Type: MANUAL*

2 **CU-06-J-01** **COSTA COFFEE** **CUMBERLAND**
PARKHOUSE ROAD
CARLISLE
GATEWAY 44
Edge of Town
No Sub Category
Total Gross floor area: 210 sqm
Survey date: SATURDAY *16/10/21* *Survey Type: MANUAL*

3 **GM-06-J-01** **COSTA COFFEE** **GREATER MANCHESTER**
CHESTER ROAD
MANCHESTER
OLD TRAFFORD
Suburban Area (PPS6 Out of Centre)
Retail Zone
Total Gross floor area: 200 sqm
Survey date: SATURDAY *01/05/21* *Survey Type: MANUAL*

4 **GS-06-J-01** **COSTA COFFEE** **GLOUCESTERSHIRE**
B4008
GLOUCESTER
HARDWICKE
Edge of Town
Out of Town
Total Gross floor area: 210 sqm
Survey date: SATURDAY *24/04/21* *Survey Type: MANUAL*

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

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/J - DRIVE THROUGH COFFEE SHOP
TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	2	205	1.220	2	205	1.220	2	205	2.440
06:00 - 07:00	4	208	3.001	4	208	2.761	4	208	5.762
07:00 - 08:00	4	208	10.444	4	208	8.643	4	208	19.087
08:00 - 09:00	4	208	16.206	4	208	16.567	4	208	32.773
09:00 - 10:00	4	208	21.128	4	208	18.848	4	208	39.976
10:00 - 11:00	**4**	**208**	**26.050**	4	208	23.529	**4**	**208**	**49.579**
11:00 - 12:00	4	208	24.490	**4**	**208**	**24.970**	4	208	49.460
12:00 - 13:00	4	208	22.809	4	208	22.809	4	208	45.618
13:00 - 14:00	4	208	20.648	4	208	21.609	4	208	42.257
14:00 - 15:00	4	208	20.648	4	208	21.008	4	208	41.656
15:00 - 16:00	4	208	18.247	4	208	18.367	4	208	36.614
16:00 - 17:00	4	208	15.966	4	208	15.486	4	208	31.452
17:00 - 18:00	4	208	12.245	4	208	13.445	4	208	25.690
18:00 - 19:00	4	208	8.043	4	208	9.844	4	208	17.887
19:00 - 20:00	4	208	4.322	4	208	5.762	4	208	10.084
20:00 - 21:00	2	207	5.085	2	207	5.811	2	207	10.896
21:00 - 22:00	1	200	3.000	1	200	3.000	1	200	6.000
22:00 - 23:00	1	200	0.000	1	200	1.000	1	200	1.000
23:00 - 24:00									
Total Rates:			233.552			234.679			468.231

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

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

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Parameter summary

Trip rate parameter range selected:	200 - 213 (units: sqm)
Survey date date range:	01/01/16 - 16/05/23
Number of weekdays (Monday-Friday):	0
Number of Saturdays:	4
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

Appendix H
Woodhouse Farm Lodge (Site Access) / A151 Holbeach Road Modelling Output

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.1.7462
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Filename: Site Access - A151 Holbeach Road T-Junction.j9
Path: C:\AMA\AMA\AMA - Documents\001 - Projects\22428 - Holbeach Road, Spalding\D Models and Drawings\JUNCTION MODELLING
Report generation date: 31/03/2026 13:44:28

»A151 Holbeach Road / Site Access - 2025 'Uplifted' Base, AM
»A151 Holbeach Road / Site Access - 2025 'Uplifted' Base, PM
»A151 Holbeach Road / Site Access - 2025 'Uplifted' Base, SAT
»A151 Holbeach Road / Site Access - 2030 Future, AM
»A151 Holbeach Road / Site Access - 2030 Future, PM
»A151 Holbeach Road / Site Access - 2030 Future, SAT
»A151 Holbeach Road / Site Access - 2030 Future + Development, AM
»A151 Holbeach Road / Site Access - 2030 Future + Development, PM
»A151 Holbeach Road / Site Access - 2030 Future + Development, SAT

Summary of junction performance

	AM					PM					SAT				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	A151 Holbeach Road / Site Access - 2025 'Uplifted' Base														
Stream B-C	D4	0.0	0.00	0.00	A	D5	0.0	0.00	0.00	A	D6	0.0	0.00	0.00	A
Stream B-A		0.0	0.00	0.00	A		0.0	0.00	0.00	A		0.0	0.00	0.00	A
Stream C-AB		0.0	6.59	0.00	A		0.0	6.53	0.00	A		0.0	6.51	0.00	A
	A151 Holbeach Road / Site Access - 2030 Future														
Stream B-C	D7	0.0	0.00	0.00	A	D8	0.0	0.00	0.00	A	D9	0.0	0.00	0.00	A
Stream B-A		0.0	0.00	0.00	A		0.0	0.00	0.00	A		0.0	0.00	0.00	A
Stream C-AB		0.0	6.74	0.00	A		0.0	6.68	0.00	A		0.0	6.67	0.00	A
	A151 Holbeach Road / Site Access - 2030 Future + Development														
Stream B-C	D10	0.1	8.44	0.08	A	D11	0.1	8.89	0.13	A	D12	0.3	9.31	0.21	A
Stream B-A		0.0	0.00	0.00	A		0.0	0.00	0.00	A		0.0	0.00	0.00	A
Stream C-AB		0.1	7.16	0.06	A		0.1	7.33	0.08	A		0.1	7.40	0.13	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	A151 Holbeach Road / Site Access
Location	Spalding
Site number	
Date	19/03/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	AzureAD\Modellinglaptop
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)
D4	2025 'Uplifted' Base	AM	ONE HOUR	00:00	01:30	15
D5	2025 'Uplifted' Base	PM	ONE HOUR	15:45	17:15	15
D6	2025 'Uplifted' Base	SAT	ONE HOUR	11:00	12:30	15
D7	2030 Future	AM	ONE HOUR	00:00	01:30	15
D8	2030 Future	PM	ONE HOUR	15:45	17:15	15
D9	2030 Future	SAT	ONE HOUR	11:00	12:30	15
D10	2030 Future + Development	AM	ONE HOUR	00:00	01:30	15
D11	2030 Future + Development	PM	ONE HOUR	15:45	17:15	15
D12	2030 Future + Development	SAT	ONE HOUR	11:00	12:30	15

Analysis Set Details

ID	Name	Network flow scaling factor (%)
A1	A151 Holbeach Road / Site Access	100.000

A151 Holbeach Road / Site Access - 2025 'Uplifted' Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Site Access - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	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	A151 Holbeach Road / Site Access	T-Junction	Two-way		0.01	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Holbeach Road (E)		Major
B	Site Access		Minor
C	Holbeach 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 - Holbeach Road (W)	8.70		✓	3.60	180.0	✓	5.00

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	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - Site Access	One lane plus flare	8.60	4.10	2.70	2.70	2.70	✓	1.00	45	41

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	528	0.085	0.214	0.135	0.306
B-C	734	0.099	0.251	-	-
C-B	782	0.267	0.267	-	-

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)
D4	2025 'Uplifted' Base	AM	ONE HOUR	00:00	01:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Holbeach Road (E)		✓	793	100.000
B - Site Access		✓	1	100.000
C - Holbeach Road (W)		✓	596	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Holbeach Road (E)	B - Site Access	C - Holbeach Road (W)
From	A - Holbeach Road (E)	0	0	793
	B - Site Access	0	0	1
	C - Holbeach Road (W)	594	2	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Holbeach Road (E)	B - Site Access	C - Holbeach Road (W)
From	A - Holbeach Road (E)	0	0	0
	B - Site Access	0	0	0
	C - Holbeach Road (W)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.00	0.00	0.0	A
B-A	0.00	0.00	0.0	A
C-AB	0.00	6.59	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	584	0.000	0	0.0	0.000	A
B-A	0	339	0.000	0	0.0	0.000	A
C-AB	2	622	0.002	1	0.0	5.801	A
C-A	447			447			
A-B	0			0			
A-C	597			597			

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	555	0.000	0	0.0	0.000	A
B-A	0	302	0.000	0	0.0	0.000	A
C-AB	2	591	0.003	2	0.0	6.108	A
C-A	534			534			
A-B	0			0			
A-C	713			713			

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	515	0.000	0	0.0	0.000	A
B-A	0	252	0.000	0	0.0	0.000	A
C-AB	2	548	0.004	2	0.0	6.592	A
C-A	654			654			
A-B	0			0			
A-C	873			873			

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	515	0.000	0	0.0	0.000	A
B-A	0	252	0.000	0	0.0	0.000	A
C-AB	2	548	0.004	2	0.0	6.592	A
C-A	654			654			
A-B	0			0			
A-C	873			873			

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	555	0.000	0	0.0	0.000	A
B-A	0	302	0.000	0	0.0	0.000	A
C-AB	2	591	0.003	2	0.0	6.109	A
C-A	534			534			
A-B	0			0			
A-C	713			713			

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	584	0.000	0	0.0	0.000	A
B-A	0	339	0.000	0	0.0	0.000	A
C-AB	2	622	0.002	2	0.0	5.803	A
C-A	447			447			
A-B	0			0			
A-C	597			597			

A151 Holbeach Road / Site Access - 2025 'Uplifted' Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Site Access - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	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	A151 Holbeach Road / Site Access	T-Junction	Two-way		0.00	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	2025 'Uplifted' Base	PM	ONE HOUR	15:45	17:15	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 - Holbeach Road (E)		✓	779	100.000
B - Site Access		✓	2	100.000
C - Holbeach Road (W)		✓	889	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Holbeach Road (E)	B - Site Access	C - Holbeach Road (W)
From	A - Holbeach Road (E)	0	0	779
	B - Site Access	0	0	2
	C - Holbeach Road (W)	888	1	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Holbeach Road (E)	B - Site Access	C - Holbeach Road (W)
From	A - Holbeach Road (E)	0	0	0
	B - Site Access	0	0	0
	C - Holbeach Road (W)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.00	0.00	0.0	A
B-A	0.00	0.00	0.0	A
C-AB	0.00	6.53	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

15:45 - 16:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	587	0.000	0	0.0	0.000	A
B-A	0	312	0.000	0	0.0	0.000	A
C-AB	0.75	625	0.001	0.75	0.0	5.768	A
C-A	669			669			
A-B	0			0			
A-C	586			586			

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	558	0.000	0	0.0	0.000	A
B-A	0	270	0.000	0	0.0	0.000	A
C-AB	0.90	594	0.002	0.90	0.0	6.065	A
C-A	798			798			
A-B	0			0			
A-C	700			700			

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	519	0.000	0	0.0	0.000	A
B-A	0	212	0.000	0	0.0	0.000	A
C-AB	1	552	0.002	1	0.0	6.530	A
C-A	978			978			
A-B	0			0			
A-C	858			858			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	519	0.000	0	0.0	0.000	A
B-A	0	212	0.000	0	0.0	0.000	A
C-AB	1	552	0.002	1	0.0	6.530	A
C-A	978			978			
A-B	0			0			
A-C	858			858			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	558	0.000	0	0.0	0.000	A
B-A	0	270	0.000	0	0.0	0.000	A
C-AB	0.90	594	0.002	0.90	0.0	6.067	A
C-A	798			798			
A-B	0			0			
A-C	700			700			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	587	0.000	0	0.0	0.000	A
B-A	0	312	0.000	0	0.0	0.000	A
C-AB	0.75	625	0.001	0.75	0.0	5.770	A
C-A	669			669			
A-B	0			0			
A-C	586			586			

A151 Holbeach Road / Site Access - 2025 'Uplifted' Base, SAT

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Site Access - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	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	A151 Holbeach Road / Site Access	T-Junction	Two-way		0.00	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	2025 'Uplifted' Base	SAT	ONE HOUR	11:00	12:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Holbeach Road (E)		✓	774	100.000
B - Site Access		✓	2	100.000
C - Holbeach Road (W)		✓	759	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Holbeach Road (E)	B - Site Access	C - Holbeach Road (W)
From	A - Holbeach Road (E)	0	0	774
	B - Site Access	0	0	2
	C - Holbeach Road (W)	758	1	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Holbeach Road (E)	B - Site Access	C - Holbeach Road (W)
From	A - Holbeach Road (E)	0	0	0
	B - Site Access	0	0	0
	C - Holbeach Road (W)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.00	0.00	0.0	A
B-A	0.00	0.00	0.0	A
C-AB	0.00	6.51	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

11:00 - 11:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	588	0.000	0	0.0	0.000	A
B-A	0	326	0.000	0	0.0	0.000	A
C-AB	0.75	626	0.001	0.75	0.0	5.758	A
C-A	571			571			
A-B	0			0			
A-C	583			583			

11:15 - 11:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	560	0.000	0	0.0	0.000	A
B-A	0	286	0.000	0	0.0	0.000	A
C-AB	0.90	596	0.002	0.90	0.0	6.052	A
C-A	681			681			
A-B	0			0			
A-C	696			696			

11:30 - 11:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	520	0.000	0	0.0	0.000	A
B-A	0	232	0.000	0	0.0	0.000	A
C-AB	1	554	0.002	1	0.0	6.512	A
C-A	835			835			
A-B	0			0			
A-C	852			852			

11:45 - 12:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	520	0.000	0	0.0	0.000	A
B-A	0	232	0.000	0	0.0	0.000	A
C-AB	1	554	0.002	1	0.0	6.512	A
C-A	835			835			
A-B	0			0			
A-C	852			852			

12:00 - 12:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	560	0.000	0	0.0	0.000	A
B-A	0	286	0.000	0	0.0	0.000	A
C-AB	0.90	596	0.002	0.90	0.0	6.052	A
C-A	681			681			
A-B	0			0			
A-C	696			696			

12:15 - 12:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	588	0.000	0	0.0	0.000	A
B-A	0	326	0.000	0	0.0	0.000	A
C-AB	0.75	626	0.001	0.75	0.0	5.761	A
C-A	571			571			
A-B	0			0			
A-C	583			583			

A151 Holbeach Road / Site Access - 2030 Future, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Site Access - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	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	A151 Holbeach Road / Site Access	T-Junction	Two-way		0.01	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	2030 Future	AM	ONE HOUR	00:00	01:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Holbeach Road (E)		✓	833	100.000
B - Site Access		✓	1	100.000
C - Holbeach Road (W)		✓	626	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Holbeach Road (E)	B - Site Access	C - Holbeach Road (W)
From	A - Holbeach Road (E)	0	0	833
	B - Site Access	0	0	1
	C - Holbeach Road (W)	624	2	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Holbeach Road (E)	B - Site Access	C - Holbeach Road (W)
From	A - Holbeach Road (E)	0	0	0
	B - Site Access	0	0	0
	C - Holbeach Road (W)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.00	0.00	0.0	A
B-A	0.00	0.00	0.0	A
C-AB	0.00	6.74	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	577	0.000	0	0.0	0.000	A
B-A	0	329	0.000	0	0.0	0.000	A
C-AB	2	614	0.002	1	0.0	5.877	A
C-A	470			470			
A-B	0			0			
A-C	627			627			

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	546	0.000	0	0.0	0.000	A
B-A	0	291	0.000	0	0.0	0.000	A
C-AB	2	581	0.003	2	0.0	6.210	A
C-A	561			561			
A-B	0			0			
A-C	749			749			

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	504	0.000	0	0.0	0.000	A
B-A	0	238	0.000	0	0.0	0.000	A
C-AB	2	536	0.004	2	0.0	6.737	A
C-A	687			687			
A-B	0			0			
A-C	917			917			

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	504	0.000	0	0.0	0.000	A
B-A	0	238	0.000	0	0.0	0.000	A
C-AB	2	536	0.004	2	0.0	6.737	A
C-A	687			687			
A-B	0			0			
A-C	917			917			

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	546	0.000	0	0.0	0.000	A
B-A	0	291	0.000	0	0.0	0.000	A
C-AB	2	581	0.003	2	0.0	6.210	A
C-A	561			561			
A-B	0			0			
A-C	749			749			

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	577	0.000	0	0.0	0.000	A
B-A	0	329	0.000	0	0.0	0.000	A
C-AB	2	614	0.002	2	0.0	5.877	A
C-A	470			470			
A-B	0			0			
A-C	627			627			

A151 Holbeach Road / Site Access - 2030 Future, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Site Access - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	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	A151 Holbeach Road / Site Access	T-Junction	Two-way		0.00	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	2030 Future	PM	ONE HOUR	15:45	17:15	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 - Holbeach Road (E)		✓	820	100.000
B - Site Access		✓	2	100.000
C - Holbeach Road (W)		✓	936	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Holbeach Road (E)	B - Site Access	C - Holbeach Road (W)
From	A - Holbeach Road (E)	0	0	820
	B - Site Access	0	0	2
	C - Holbeach Road (W)	935	1	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Holbeach Road (E)	B - Site Access	C - Holbeach Road (W)
From	A - Holbeach Road (E)	0	0	0
	B - Site Access	0	0	0
	C - Holbeach Road (W)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.00	0.00	0.0	A
B-A	0.00	0.00	0.0	A
C-AB	0.00	6.68	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

15:45 - 16:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	579	0.000	0	0.0	0.000	A
B-A	0	300	0.000	0	0.0	0.000	A
C-AB	0.75	617	0.001	0.75	0.0	5.845	A
C-A	704			704			
A-B	0			0			
A-C	617			617			

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	549	0.000	0	0.0	0.000	A
B-A	0	256	0.000	0	0.0	0.000	A
C-AB	0.90	585	0.002	0.90	0.0	6.167	A
C-A	841			841			
A-B	0			0			
A-C	737			737			

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	508	0.000	0	0.0	0.000	A
B-A	0	195	0.000	0	0.0	0.000	A
C-AB	1	540	0.002	1	0.0	6.676	A
C-A	1029			1029			
A-B	0			0			
A-C	903			903			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	508	0.000	0	0.0	0.000	A
B-A	0	195	0.000	0	0.0	0.000	A
C-AB	1	540	0.002	1	0.0	6.676	A
C-A	1029			1029			
A-B	0			0			
A-C	903			903			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	549	0.000	0	0.0	0.000	A
B-A	0	256	0.000	0	0.0	0.000	A
C-AB	0.90	585	0.002	0.90	0.0	6.169	A
C-A	841			841			
A-B	0			0			
A-C	737			737			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	579	0.000	0	0.0	0.000	A
B-A	0	300	0.000	0	0.0	0.000	A
C-AB	0.75	617	0.001	0.75	0.0	5.845	A
C-A	704			704			
A-B	0			0			
A-C	617			617			

A151 Holbeach Road / Site Access - 2030 Future, SAT

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Site Access - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	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	A151 Holbeach Road / Site Access	T-Junction	Two-way		0.00	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	2030 Future	SAT	ONE HOUR	11:00	12:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Holbeach Road (E)		✓	818	100.000
B - Site Access		✓	2	100.000
C - Holbeach Road (W)		✓	802	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Holbeach Road (E)	B - Site Access	C - Holbeach Road (W)
From	A - Holbeach Road (E)	0	0	818
	B - Site Access	0	0	2
	C - Holbeach Road (W)	801	1	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Holbeach Road (E)	B - Site Access	C - Holbeach Road (W)
From	A - Holbeach Road (E)	0	0	0
	B - Site Access	0	0	0
	C - Holbeach Road (W)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.00	0.00	0.0	A
B-A	0.00	0.00	0.0	A
C-AB	0.00	6.67	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

11:00 - 11:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	580	0.000	0	0.0	0.000	A
B-A	0	314	0.000	0	0.0	0.000	A
C-AB	0.75	617	0.001	0.75	0.0	5.841	A
C-A	603			603			
A-B	0			0			
A-C	616			616			

11:15 - 11:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	550	0.000	0	0.0	0.000	A
B-A	0	273	0.000	0	0.0	0.000	A
C-AB	0.90	585	0.002	0.90	0.0	6.162	A
C-A	720			720			
A-B	0			0			
A-C	735			735			

11:30 - 11:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	508	0.000	0	0.0	0.000	A
B-A	0	215	0.000	0	0.0	0.000	A
C-AB	1	541	0.002	1	0.0	6.668	A
C-A	882			882			
A-B	0			0			
A-C	901			901			

11:45 - 12:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	508	0.000	0	0.0	0.000	A
B-A	0	215	0.000	0	0.0	0.000	A
C-AB	1	541	0.002	1	0.0	6.668	A
C-A	882			882			
A-B	0			0			
A-C	901			901			

12:00 - 12:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	550	0.000	0	0.0	0.000	A
B-A	0	273	0.000	0	0.0	0.000	A
C-AB	0.90	585	0.002	0.90	0.0	6.164	A
C-A	720			720			
A-B	0			0			
A-C	735			735			

12:15 - 12:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	580	0.000	0	0.0	0.000	A
B-A	0	314	0.000	0	0.0	0.000	A
C-AB	0.75	617	0.001	0.75	0.0	5.843	A
C-A	603			603			
A-B	0			0			
A-C	616			616			

A151 Holbeach Road / Site Access - 2030 Future + Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Site Access - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	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	A151 Holbeach Road / Site Access	T-Junction	Two-way		0.31	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)
D10	2030 Future + Development	AM	ONE HOUR	00:00	01:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Holbeach Road (E)		✓	844	100.000
B - Site Access		✓	35	100.000
C - Holbeach Road (W)		✓	717	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Holbeach Road (E)	B - Site Access	C - Holbeach Road (W)
From	A - Holbeach Road (E)	0	14	830
	B - Site Access	0	0	35
	C - Holbeach Road (W)	689	28	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Holbeach Road (E)	B - Site Access	C - Holbeach Road (W)
From	A - Holbeach Road (E)	0	0	0
	B - Site Access	0	0	0
	C - Holbeach Road (W)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.08	8.44	0.1	A
B-A	0.00	0.00	0.0	A
C-AB	0.06	7.16	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	26	532	0.049	26	0.1	7.106	A
B-A	0	326	0.000	0	0.0	0.000	A
C-AB	21	612	0.034	21	0.0	6.091	A
C-A	519			519			
A-B	11			11			
A-C	625			625			

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	31	504	0.062	31	0.1	7.615	A
B-A	0	283	0.000	0	0.0	0.000	A
C-AB	25	579	0.043	25	0.0	6.502	A
C-A	619			619			
A-B	13			13			
A-C	746			746			

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	39	465	0.083	38	0.1	8.438	A
B-A	0	225	0.000	0	0.0	0.000	A
C-AB	31	533	0.058	31	0.1	7.165	A
C-A	759			759			
A-B	15			15			
A-C	914			914			

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	39	465	0.083	39	0.1	8.441	A
B-A	0	225	0.000	0	0.0	0.000	A
C-AB	31	533	0.058	31	0.1	7.165	A
C-A	759			759			
A-B	15			15			
A-C	914			914			

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	31	504	0.062	32	0.1	7.618	A
B-A	0	283	0.000	0	0.0	0.000	A
C-AB	25	579	0.043	25	0.0	6.503	A
C-A	619			619			
A-B	13			13			
A-C	746			746			

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	26	532	0.049	26	0.1	7.116	A
B-A	0	326	0.000	0	0.0	0.000	A
C-AB	21	612	0.034	21	0.0	6.097	A
C-A	519			519			
A-B	11			11			
A-C	625			625			

A151 Holbeach Road / Site Access - 2030 Future + Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Site Access - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	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	A151 Holbeach Road / Site Access	T-Junction	Two-way		0.43	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)
D11	2030 Future + Development	PM	ONE HOUR	15:45	17:15	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 - Holbeach Road (E)		✓	848	100.000
B - Site Access		✓	54	100.000
C - Holbeach Road (W)		✓	863	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Holbeach Road (E)	B - Site Access	C - Holbeach Road (W)
From	A - Holbeach Road (E)	0	18	830
	B - Site Access	0	0	54
	C - Holbeach Road (W)	826	37	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Holbeach Road (E)	B - Site Access	C - Holbeach Road (W)
From	A - Holbeach Road (E)	0	0	0
	B - Site Access	0	0	0
	C - Holbeach Road (W)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.13	8.89	0.1	A
B-A	0.00	0.00	0.0	A
C-AB	0.08	7.33	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

15:45 - 16:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	41	532	0.076	40	0.1	7.314	A
B-A	0	309	0.000	0	0.0	0.000	A
C-AB	28	611	0.046	28	0.0	6.171	A
C-A	622			622			
A-B	14			14			
A-C	625			625			

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	49	504	0.096	48	0.1	7.904	A
B-A	0	263	0.000	0	0.0	0.000	A
C-AB	33	578	0.058	33	0.1	6.610	A
C-A	743			743			
A-B	16			16			
A-C	746			746			

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	59	465	0.128	59	0.1	8.876	A
B-A	0	201	0.000	0	0.0	0.000	A
C-AB	41	532	0.077	41	0.1	7.326	A
C-A	909			909			
A-B	20			20			
A-C	914			914			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	59	465	0.128	59	0.1	8.885	A
B-A	0	201	0.000	0	0.0	0.000	A
C-AB	41	532	0.077	41	0.1	7.326	A
C-A	909			909			
A-B	20			20			
A-C	914			914			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	49	504	0.096	49	0.1	7.914	A
B-A	0	263	0.000	0	0.0	0.000	A
C-AB	33	578	0.058	33	0.1	6.614	A
C-A	743			743			
A-B	16			16			
A-C	746			746			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	41	532	0.076	41	0.1	7.326	A
B-A	0	309	0.000	0	0.0	0.000	A
C-AB	28	611	0.046	28	0.0	6.174	A
C-A	622			622			
A-B	14			14			
A-C	625			625			

A151 Holbeach Road / Site Access - 2030 Future + Development, SAT

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Site Access - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	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	A151 Holbeach Road / Site Access	T-Junction	Two-way		0.79	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)
D12	2030 Future + Development	SAT	ONE HOUR	11:00	12:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Holbeach Road (E)		✓	761	100.000
B - Site Access		✓	93	100.000
C - Holbeach Road (W)		✓	849	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Holbeach Road (E)	B - Site Access	C - Holbeach Road (W)
From	A - Holbeach Road (E)	0	32	729
	B - Site Access	0	0	93
	C - Holbeach Road (W)	784	65	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Holbeach Road (E)	B - Site Access	C - Holbeach Road (W)
From	A - Holbeach Road (E)	0	0	0
	B - Site Access	0	0	0
	C - Holbeach Road (W)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.21	9.31	0.3	A
B-A	0.00	0.00	0.0	A
C-AB	0.13	7.40	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

11:00 - 11:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	70	549	0.128	69	0.1	7.499	A
B-A	0	323	0.000	0	0.0	0.000	A
C-AB	49	628	0.078	49	0.1	6.206	A
C-A	590			590			
A-B	24			24			
A-C	549			549			

11:15 - 11:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	84	524	0.160	83	0.2	8.173	A
B-A	0	280	0.000	0	0.0	0.000	A
C-AB	58	599	0.098	58	0.1	6.662	A
C-A	705			705			
A-B	29			29			
A-C	655			655			

11:30 - 11:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	102	489	0.209	102	0.3	9.306	A
B-A	0	220	0.000	0	0.0	0.000	A
C-AB	72	558	0.128	71	0.1	7.402	A
C-A	863			863			
A-B	35			35			
A-C	803			803			

11:45 - 12:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	102	489	0.209	102	0.3	9.312	A
B-A	0	220	0.000	0	0.0	0.000	A
C-AB	72	558	0.128	72	0.1	7.405	A
C-A	863			863			
A-B	35			35			
A-C	803			803			

12:00 - 12:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	84	524	0.160	84	0.2	8.190	A
B-A	0	280	0.000	0	0.0	0.000	A
C-AB	58	599	0.098	59	0.1	6.668	A
C-A	705			705			
A-B	29			29			
A-C	655			655			

12:15 - 12:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	70	549	0.128	70	0.1	7.522	A
B-A	0	322	0.000	0	0.0	0.000	A
C-AB	49	628	0.078	49	0.1	6.213	A
C-A	590			590			
A-B	24			24			
A-C	549			549			

Appendix I
Springfields Roundabout Modelling Output

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.1.7462
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Filename: Springfield Roundabout - WSP Validation Approved Model.j9
Path: C:\AMA\AMA\AMA - Documents\001 - Projects\22428 - Holbeach Road, Spalding\D Models and Drawings\JUNCTION MODELLING
Report generation date: 31/03/2026 14:30:55

»2025 'Uplifted' Base, AM
»2025 'Uplifted' Base, PM
»2025 'Uplifted' Base, SAT
»2030 Future Base, AM
»2030 Future Base, PM
»2030 Future Base, SAT
»2030 Future Base + Development, AM
»2030 Future Base + Development, PM
»2030 Future Base + Development, SAT

Summary of junction performance

	AM					PM					SAT				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2025 'Uplifted' Base														
1 - A151 Holbeach Road (E)	D7	1.1	4.53	0.52	A	D8	1.2	5.27	0.55	A	D9	1.1	4.62	0.52	A
2 - A16 (S)		0.5	2.49	0.35	A		0.7	2.76	0.42	A		0.6	2.69	0.39	A
3 - A151 Holbeach Road (W)		0.3	3.34	0.25	A		1.1	5.41	0.52	A		0.9	4.52	0.47	A
4 - A16 (N)		0.6	2.38	0.36	A		1.1	3.50	0.52	A		0.7	2.69	0.40	A
	2030 Future Base														
1 - A151 Holbeach Road (E)	D10	1.3	4.96	0.56	A	D11	1.2	4.83	0.54	A	D12	1.3	5.11	0.56	A
2 - A16 (S)		0.6	2.60	0.38	A		0.8	2.93	0.45	A		0.7	2.86	0.41	A
3 - A151 Holbeach Road (W)		0.4	3.50	0.27	A		1.3	6.06	0.56	A		1.0	4.95	0.51	A
4 - A16 (N)		0.6	2.48	0.38	A		0.8	3.07	0.44	A		0.7	2.85	0.43	A
	2030 Future Base + Development														
1 - A151 Holbeach Road (E)	D13	1.3	5.52	0.57	A	D14	1.9	6.82	0.66	A	D15	1.4	5.41	0.58	A
2 - A16 (S)		0.7	2.80	0.43	A		1.1	3.45	0.52	A		0.7	2.89	0.41	A
3 - A151 Holbeach Road (W)		0.5	4.03	0.34	A		1.8	8.28	0.65	A		1.0	4.85	0.50	A
4 - A16 (N)		0.9	2.99	0.48	A		1.0	3.40	0.49	A		0.8	2.95	0.44	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.

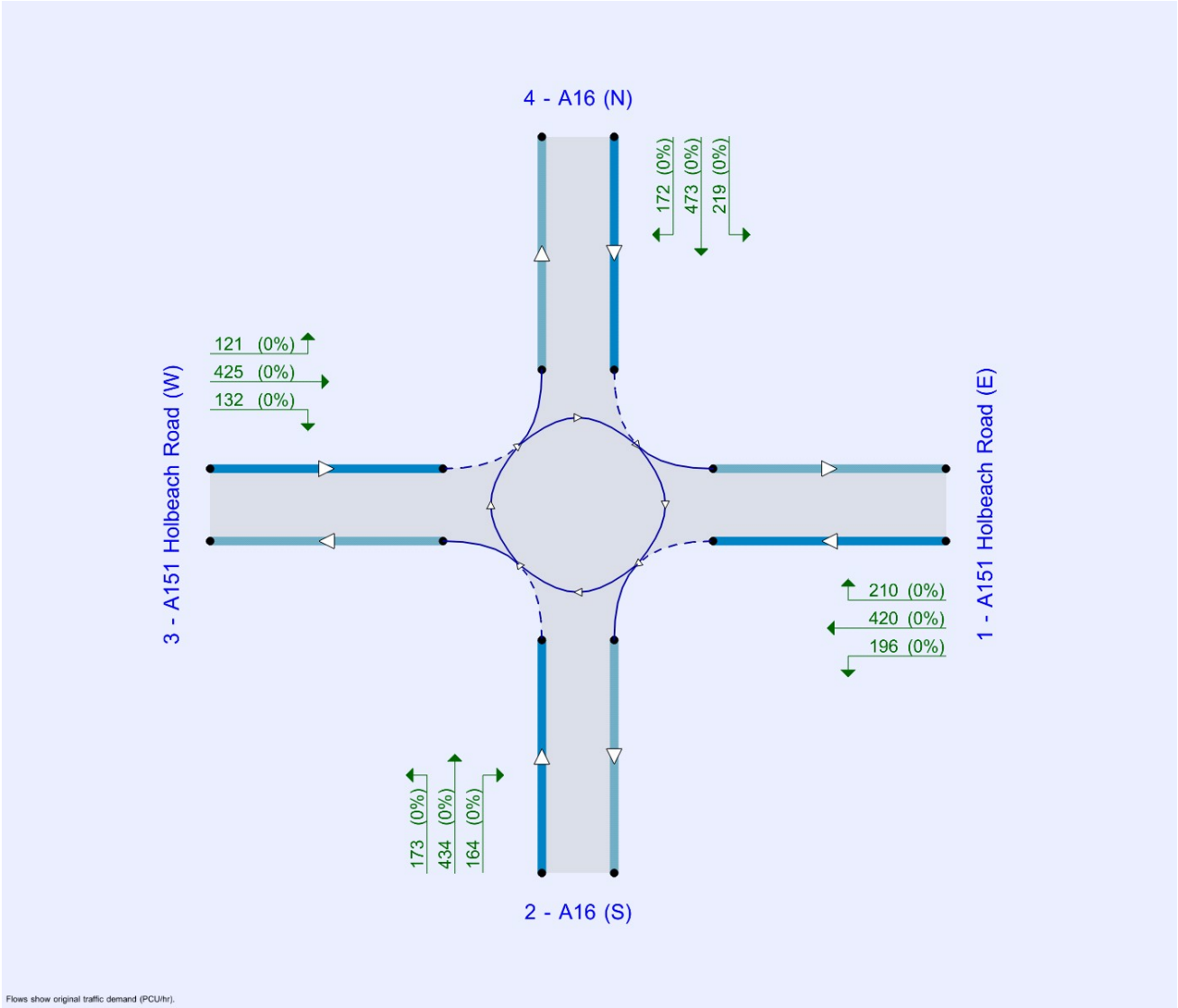
File summary

File Description

Title	
Location	
Site number	
Date	11/07/2024
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	AzureAD\Modellinglaptop
Description	

Units

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



The junction diagram reflects the last run of Junctions.

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2025 'Uplifted' Base	AM	ONE HOUR	07:30	09:00	15
D8	2025 'Uplifted' Base	PM	ONE HOUR	16:15	17:45	15
D9	2025 'Uplifted' Base	SAT	ONE HOUR	12:00	13:30	15
D10	2030 Future Base	AM	ONE HOUR	07:30	09:00	15
D11	2030 Future Base	PM	ONE HOUR	16:15	17:45	15
D12	2030 Future Base	SAT	ONE HOUR	12:00	13:30	15
D13	2030 Future Base + Development	AM	ONE HOUR	07:30	09:00	15
D14	2030 Future Base + Development	PM	ONE HOUR	16:15	17:45	15
D15	2030 Future Base + Development	SAT	ONE HOUR	12:00	13:30	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2025 'Uplifted' Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A151 Holbeach Road (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - A16 (S) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A151 Holbeach Road (W) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - A16 (N) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
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	untitled	Standard Roundabout		1, 2, 3, 4	3.18	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	A151 Holbeach Road (E)	
2	A16 (S)	
3	A151 Holbeach Road (W)	
4	A16 (N)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - A151 Holbeach Road (E)	3.84	6.88	82.8	34.0	68.0	19.0	
2 - A16 (S)	3.84	10.50	123.9	17.0	68.0	46.0	
3 - A151 Holbeach Road (W)	3.66	7.00	61.7	23.0	68.0	26.0	
4 - A16 (N)	3.60	10.50	102.2	24.0	68.0	41.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A151 Holbeach Road (E)	0.594	2104
2 - A16 (S)	0.659	2700
3 - A151 Holbeach Road (W)	0.570	2012
4 - A16 (N)	0.672	2726

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)
D7	2025 'Uplifted' Base	AM	ONE HOUR	07:30	09:00	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 - A151 Holbeach Road (E)		✓	797	100.000
2 - A16 (S)		✓	722	100.000
3 - A151 Holbeach Road (W)		✓	329	100.000
4 - A16 (N)		✓	782	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A151 Holbeach Road (E)	2 - A16 (S)	3 - A151 Holbeach Road (W)	4 - A16 (N)
From	1 - A151 Holbeach Road (E)	0	230	328	239
	2 - A16 (S)	185	0	51	486
	3 - A151 Holbeach Road (W)	226	64	0	39
	4 - A16 (N)	185	533	61	3

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A151 Holbeach Road (E)	2 - A16 (S)	3 - A151 Holbeach Road (W)	4 - A16 (N)
From	1 - A151 Holbeach Road (E)	0	0	0	0
	2 - A16 (S)	0	0	0	0
	3 - A151 Holbeach Road (W)	0	0	0	0
	4 - A16 (N)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A151 Holbeach Road (E)	0.52	4.53	1.1	A
2 - A16 (S)	0.35	2.49	0.5	A
3 - A151 Holbeach Road (W)	0.25	3.34	0.3	A
4 - A16 (N)	0.36	2.38	0.6	A

Main Results for each time segment

07:30 - 07:45

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 - A151 Holbeach Road (E)	600	497	1809	0.332	598	0.5	2.967	A
2 - A16 (S)	544	474	2388	0.228	542	0.3	1.949	A
3 - A151 Holbeach Road (W)	248	686	1621	0.153	247	0.2	2.618	A
4 - A16 (N)	589	357	2486	0.237	587	0.3	1.896	A

07:45 - 08:00

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 - A151 Holbeach Road (E)	716	594	1751	0.409	716	0.7	3.475	A
2 - A16 (S)	649	567	2327	0.279	649	0.4	2.145	A
3 - A151 Holbeach Road (W)	296	820	1544	0.192	296	0.2	2.882	A
4 - A16 (N)	703	427	2439	0.288	703	0.4	2.073	A

08:00 - 08:15

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 - A151 Holbeach Road (E)	878	727	1672	0.525	876	1.1	4.512	A
2 - A16 (S)	795	694	2243	0.354	794	0.5	2.483	A
3 - A151 Holbeach Road (W)	362	1004	1440	0.252	362	0.3	3.340	A
4 - A16 (N)	861	522	2375	0.363	860	0.6	2.375	A

08:15 - 08:30

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 - A151 Holbeach Road (E)	878	728	1672	0.525	877	1.1	4.532	A
2 - A16 (S)	795	695	2242	0.355	795	0.5	2.486	A
3 - A151 Holbeach Road (W)	362	1005	1439	0.252	362	0.3	3.342	A
4 - A16 (N)	861	523	2374	0.363	861	0.6	2.378	A

08:30 - 08:45

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 - A151 Holbeach Road (E)	716	595	1751	0.409	718	0.7	3.493	A
2 - A16 (S)	649	568	2325	0.279	650	0.4	2.148	A
3 - A151 Holbeach Road (W)	296	822	1543	0.192	296	0.2	2.886	A
4 - A16 (N)	703	428	2439	0.288	704	0.4	2.075	A

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 - A151 Holbeach Road (E)	600	498	1808	0.332	601	0.5	2.983	A
2 - A16 (S)	544	476	2387	0.228	544	0.3	1.953	A
3 - A151 Holbeach Road (W)	248	688	1620	0.153	248	0.2	2.626	A
4 - A16 (N)	589	358	2485	0.237	589	0.3	1.900	A

2025 'Uplifted' Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A151 Holbeach Road (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - A16 (S) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A151 Holbeach Road (W) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - A16 (N) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
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	untitled	Standard Roundabout		1, 2, 3, 4	4.09	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)
D8	2025 'Uplifted' Base	PM	ONE HOUR	16:15	17:45	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 - A151 Holbeach Road (E)		✓	746	100.000
2 - A16 (S)		✓	866	100.000
3 - A151 Holbeach Road (W)		✓	657	100.000
4 - A16 (N)		✓	1006	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A151 Holbeach Road (E)	2 - A16 (S)	3 - A151 Holbeach Road (W)	4 - A16 (N)
From	1 - A151 Holbeach Road (E)	4	224	314	204
	2 - A16 (S)	252	0	81	533
	3 - A151 Holbeach Road (W)	381	159	0	117
	4 - A16 (N)	248	671	86	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A151 Holbeach Road (E)	2 - A16 (S)	3 - A151 Holbeach Road (W)	4 - A16 (N)
From	1 - A151 Holbeach Road (E)	0	0	0	0
	2 - A16 (S)	0	0	0	0
	3 - A151 Holbeach Road (W)	0	0	0	0
	4 - A16 (N)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A151 Holbeach Road (E)	0.55	5.27	1.2	A
2 - A16 (S)	0.42	2.76	0.7	A
3 - A151 Holbeach Road (W)	0.52	5.41	1.1	A
4 - A16 (N)	0.52	3.50	1.1	A

Main Results for each time segment

16:15 - 16:30

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 - A151 Holbeach Road (E)	562	688	1695	0.331	560	0.5	3.165	A
2 - A16 (S)	652	457	2399	0.272	650	0.4	2.057	A
3 - A151 Holbeach Road (W)	495	746	1586	0.312	493	0.5	3.286	A
4 - A16 (N)	757	597	2324	0.326	755	0.5	2.291	A

16:30 - 16:45

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 - A151 Holbeach Road (E)	671	824	1615	0.415	670	0.7	3.805	A
2 - A16 (S)	779	547	2340	0.333	778	0.5	2.305	A
3 - A151 Holbeach Road (W)	591	893	1503	0.393	590	0.6	3.939	A
4 - A16 (N)	904	715	2246	0.403	904	0.7	2.681	A

16:45 - 17:00

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 - A151 Holbeach Road (E)	821	1008	1505	0.546	819	1.2	5.233	A
2 - A16 (S)	953	669	2259	0.422	953	0.7	2.754	A
3 - A151 Holbeach Road (W)	723	1093	1389	0.521	722	1.1	5.380	A
4 - A16 (N)	1108	875	2138	0.518	1106	1.1	3.484	A

17:00 - 17:15

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 - A151 Holbeach Road (E)	821	1010	1504	0.546	821	1.2	5.269	A
2 - A16 (S)	953	670	2258	0.422	953	0.7	2.758	A
3 - A151 Holbeach Road (W)	723	1094	1388	0.521	723	1.1	5.413	A
4 - A16 (N)	1108	876	2137	0.518	1108	1.1	3.496	A

17:15 - 17:30

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 - A151 Holbeach Road (E)	671	826	1613	0.416	673	0.7	3.835	A
2 - A16 (S)	779	549	2338	0.333	779	0.5	2.310	A
3 - A151 Holbeach Road (W)	591	895	1502	0.393	592	0.7	3.965	A
4 - A16 (N)	904	717	2244	0.403	906	0.7	2.693	A

17:30 - 17:45

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 - A151 Holbeach Road (E)	562	691	1694	0.332	562	0.5	3.187	A
2 - A16 (S)	652	459	2398	0.272	652	0.4	2.064	A
3 - A151 Holbeach Road (W)	495	749	1585	0.312	495	0.5	3.305	A
4 - A16 (N)	757	600	2323	0.326	758	0.5	2.301	A

2025 'Uplifted' Base, SAT

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A151 Holbeach Road (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - A16 (S) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A151 Holbeach Road (W) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - A16 (N) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
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	untitled	Standard Roundabout		1, 2, 3, 4	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)
D9	2025 'Uplifted' Base	SAT	ONE HOUR	12:00	13:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A151 Holbeach Road (E)		✓	775	100.000
2 - A16 (S)		✓	764	100.000
3 - A151 Holbeach Road (W)		✓	650	100.000
4 - A16 (N)		✓	810	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A151 Holbeach Road (E)	2 - A16 (S)	3 - A151 Holbeach Road (W)	4 - A16 (N)
From	1 - A151 Holbeach Road (E)	2	203	392	178
	2 - A16 (S)	155	1	148	460
	3 - A151 Holbeach Road (W)	387	123	0	140
	4 - A16 (N)	212	449	149	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A151 Holbeach Road (E)	2 - A16 (S)	3 - A151 Holbeach Road (W)	4 - A16 (N)
From	1 - A151 Holbeach Road (E)	0	0	0	0
	2 - A16 (S)	0	0	0	0
	3 - A151 Holbeach Road (W)	0	0	0	0
	4 - A16 (N)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A151 Holbeach Road (E)	0.52	4.62	1.1	A
2 - A16 (S)	0.39	2.69	0.6	A
3 - A151 Holbeach Road (W)	0.47	4.52	0.9	A
4 - A16 (N)	0.40	2.69	0.7	A

Main Results for each time segment

12:00 - 12:15

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 - A151 Holbeach Road (E)	583	542	1782	0.327	582	0.5	2.993	A
2 - A16 (S)	575	541	2343	0.245	574	0.3	2.033	A
3 - A151 Holbeach Road (W)	489	598	1671	0.293	488	0.4	3.038	A
4 - A16 (N)	610	501	2389	0.255	608	0.3	2.021	A

12:15 - 12:30

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 - A151 Holbeach Road (E)	697	649	1719	0.405	696	0.7	3.518	A
2 - A16 (S)	687	648	2273	0.302	686	0.4	2.268	A
3 - A151 Holbeach Road (W)	584	715	1604	0.364	584	0.6	3.525	A
4 - A16 (N)	728	600	2323	0.314	728	0.5	2.257	A

12:30 - 12:45

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 - A151 Holbeach Road (E)	853	794	1632	0.523	852	1.1	4.602	A
2 - A16 (S)	841	792	2178	0.386	840	0.6	2.690	A
3 - A151 Holbeach Road (W)	716	875	1513	0.473	714	0.9	4.500	A
4 - A16 (N)	892	734	2232	0.399	891	0.7	2.682	A

12:45 - 13:00

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 - A151 Holbeach Road (E)	853	795	1632	0.523	853	1.1	4.623	A
2 - A16 (S)	841	794	2177	0.386	841	0.6	2.694	A
3 - A151 Holbeach Road (W)	716	876	1512	0.473	716	0.9	4.518	A
4 - A16 (N)	892	735	2232	0.400	892	0.7	2.686	A

13:00 - 13:15

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 - A151 Holbeach Road (E)	697	650	1718	0.406	698	0.7	3.538	A
2 - A16 (S)	687	650	2272	0.302	688	0.4	2.272	A
3 - A151 Holbeach Road (W)	584	717	1603	0.364	586	0.6	3.543	A
4 - A16 (N)	728	602	2322	0.314	729	0.5	2.261	A

13:15 - 13:30

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 - A151 Holbeach Road (E)	583	544	1781	0.328	584	0.5	3.009	A
2 - A16 (S)	575	543	2342	0.246	576	0.3	2.039	A
3 - A151 Holbeach Road (W)	489	600	1670	0.293	490	0.4	3.054	A
4 - A16 (N)	610	503	2388	0.255	610	0.3	2.027	A

2030 Future Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A151 Holbeach Road (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - A16 (S) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A151 Holbeach Road (W) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - A16 (N) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
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	untitled	Standard Roundabout		1, 2, 3, 4	3.39	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	2030 Future Base	AM	ONE HOUR	07:30	09:00	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 - A151 Holbeach Road (E)		✓	838	100.000
2 - A16 (S)		✓	759	100.000
3 - A151 Holbeach Road (W)		✓	347	100.000
4 - A16 (N)		✓	822	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A151 Holbeach Road (E)	2 - A16 (S)	3 - A151 Holbeach Road (W)	4 - A16 (N)
From	1 - A151 Holbeach Road (E)	0	242	345	251
	2 - A16 (S)	194	0	54	511
	3 - A151 Holbeach Road (W)	238	68	0	41
	4 - A16 (N)	194	561	64	3

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A151 Holbeach Road (E)	2 - A16 (S)	3 - A151 Holbeach Road (W)	4 - A16 (N)
From	1 - A151 Holbeach Road (E)	0	0	0	0
	2 - A16 (S)	0	0	0	0
	3 - A151 Holbeach Road (W)	0	0	0	0
	4 - A16 (N)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A151 Holbeach Road (E)	0.56	4.96	1.3	A
2 - A16 (S)	0.38	2.60	0.6	A
3 - A151 Holbeach Road (W)	0.27	3.50	0.4	A
4 - A16 (N)	0.38	2.48	0.6	A

Main Results for each time segment

07:30 - 07:45

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 - A151 Holbeach Road (E)	631	523	1793	0.352	629	0.5	3.086	A
2 - A16 (S)	571	497	2372	0.241	570	0.3	1.997	A
3 - A151 Holbeach Road (W)	261	720	1601	0.163	260	0.2	2.683	A
4 - A16 (N)	619	375	2474	0.250	618	0.3	1.939	A

07:45 - 08:00

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 - A151 Holbeach Road (E)	753	625	1733	0.435	752	0.8	3.669	A
2 - A16 (S)	682	595	2308	0.296	682	0.4	2.214	A
3 - A151 Holbeach Road (W)	312	861	1521	0.205	312	0.3	2.977	A
4 - A16 (N)	739	449	2424	0.305	739	0.4	2.136	A

08:00 - 08:15

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 - A151 Holbeach Road (E)	923	766	1649	0.559	921	1.3	4.928	A
2 - A16 (S)	836	729	2220	0.376	835	0.6	2.598	A
3 - A151 Holbeach Road (W)	382	1055	1411	0.271	382	0.4	3.495	A
4 - A16 (N)	905	550	2356	0.384	904	0.6	2.478	A

08:15 - 08:30

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 - A151 Holbeach Road (E)	923	766	1649	0.560	923	1.3	4.956	A
2 - A16 (S)	836	730	2219	0.377	836	0.6	2.601	A
3 - A151 Holbeach Road (W)	382	1056	1410	0.271	382	0.4	3.500	A
4 - A16 (N)	905	551	2356	0.384	905	0.6	2.480	A

08:30 - 08:45

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 - A151 Holbeach Road (E)	753	626	1732	0.435	755	0.8	3.692	A
2 - A16 (S)	682	597	2306	0.296	683	0.4	2.218	A
3 - A151 Holbeach Road (W)	312	863	1520	0.205	312	0.3	2.981	A
4 - A16 (N)	739	450	2423	0.305	740	0.4	2.140	A

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 - A151 Holbeach Road (E)	631	524	1792	0.352	632	0.5	3.105	A
2 - A16 (S)	571	500	2371	0.241	572	0.3	2.001	A
3 - A151 Holbeach Road (W)	261	723	1600	0.163	261	0.2	2.691	A
4 - A16 (N)	619	377	2473	0.250	619	0.3	1.942	A

2030 Future Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A151 Holbeach Road (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - A16 (S) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A151 Holbeach Road (W) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - A16 (N) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
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	untitled	Standard Roundabout		1, 2, 3, 4	4.10	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)
D11	2030 Future Base	PM	ONE HOUR	16:15	17:45	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 - A151 Holbeach Road (E)		✓	786	100.000
2 - A16 (S)		✓	913	100.000
3 - A151 Holbeach Road (W)		✓	691	100.000
4 - A16 (N)		✓	849	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A151 Holbeach Road (E)	2 - A16 (S)	3 - A151 Holbeach Road (W)	4 - A16 (N)
From	1 - A151 Holbeach Road (E)	4	236	331	215
	2 - A16 (S)	266	0	86	561
	3 - A151 Holbeach Road (W)	401	167	0	123
	4 - A16 (N)	261	496	91	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A151 Holbeach Road (E)	2 - A16 (S)	3 - A151 Holbeach Road (W)	4 - A16 (N)
From	1 - A151 Holbeach Road (E)	0	0	0	0
	2 - A16 (S)	0	0	0	0
	3 - A151 Holbeach Road (W)	0	0	0	0
	4 - A16 (N)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A151 Holbeach Road (E)	0.54	4.83	1.2	A
2 - A16 (S)	0.45	2.93	0.8	A
3 - A151 Holbeach Road (W)	0.56	6.06	1.3	A
4 - A16 (N)	0.44	3.07	0.8	A

Main Results for each time segment

16:15 - 16:30

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 - A151 Holbeach Road (E)	592	567	1767	0.335	590	0.5	3.052	A
2 - A16 (S)	687	482	2383	0.288	686	0.4	2.119	A
3 - A151 Holbeach Road (W)	520	786	1564	0.333	518	0.5	3.438	A
4 - A16 (N)	639	629	2303	0.277	638	0.4	2.159	A

16:30 - 16:45

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 - A151 Holbeach Road (E)	707	678	1701	0.415	706	0.7	3.612	A
2 - A16 (S)	821	577	2320	0.354	820	0.5	2.400	A
3 - A151 Holbeach Road (W)	621	940	1476	0.421	620	0.7	4.203	A
4 - A16 (N)	763	752	2220	0.344	763	0.5	2.470	A

16:45 - 17:00

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 - A151 Holbeach Road (E)	865	830	1611	0.537	864	1.1	4.804	A
2 - A16 (S)	1005	706	2235	0.450	1004	0.8	2.921	A
3 - A151 Holbeach Road (W)	761	1151	1356	0.561	759	1.3	6.006	A
4 - A16 (N)	935	921	2107	0.444	934	0.8	3.064	A

17:00 - 17:15

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 - A151 Holbeach Road (E)	865	831	1610	0.537	865	1.2	4.832	A
2 - A16 (S)	1005	707	2234	0.450	1005	0.8	2.928	A
3 - A151 Holbeach Road (W)	761	1153	1355	0.561	761	1.3	6.057	A
4 - A16 (N)	935	923	2106	0.444	935	0.8	3.072	A

17:15 - 17:30

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 - A151 Holbeach Road (E)	707	680	1700	0.416	708	0.7	3.635	A
2 - A16 (S)	821	578	2319	0.354	822	0.6	2.407	A
3 - A151 Holbeach Road (W)	621	943	1475	0.421	623	0.7	4.239	A
4 - A16 (N)	763	755	2218	0.344	764	0.5	2.479	A

17:30 - 17:45

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 - A151 Holbeach Road (E)	592	569	1766	0.335	593	0.5	3.071	A
2 - A16 (S)	687	484	2381	0.289	688	0.4	2.126	A
3 - A151 Holbeach Road (W)	520	789	1562	0.333	521	0.5	3.460	A
4 - A16 (N)	639	632	2301	0.278	640	0.4	2.168	A

2030 Future Base, SAT

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A151 Holbeach Road (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - A16 (S) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A151 Holbeach Road (W) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - A16 (N) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
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	untitled	Standard Roundabout		1, 2, 3, 4	3.89	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)
D12	2030 Future Base	SAT	ONE HOUR	12:00	13:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A151 Holbeach Road (E)		✓	819	100.000
2 - A16 (S)		✓	807	100.000
3 - A151 Holbeach Road (W)		✓	687	100.000
4 - A16 (N)		✓	855	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A151 Holbeach Road (E)	2 - A16 (S)	3 - A151 Holbeach Road (W)	4 - A16 (N)
From	1 - A151 Holbeach Road (E)	2	215	414	188
	2 - A16 (S)	164	1	156	486
	3 - A151 Holbeach Road (W)	409	130	0	148
	4 - A16 (N)	224	474	157	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A151 Holbeach Road (E)	2 - A16 (S)	3 - A151 Holbeach Road (W)	4 - A16 (N)
From	1 - A151 Holbeach Road (E)	0	0	0	0
	2 - A16 (S)	0	0	0	0
	3 - A151 Holbeach Road (W)	0	0	0	0
	4 - A16 (N)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A151 Holbeach Road (E)	0.56	5.11	1.3	A
2 - A16 (S)	0.41	2.86	0.7	A
3 - A151 Holbeach Road (W)	0.51	4.95	1.0	A
4 - A16 (N)	0.43	2.85	0.7	A

Main Results for each time segment

12:00 - 12:15

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 - A151 Holbeach Road (E)	617	572	1764	0.350	614	0.5	3.126	A
2 - A16 (S)	608	571	2324	0.261	606	0.4	2.094	A
3 - A151 Holbeach Road (W)	517	632	1652	0.313	515	0.5	3.162	A
4 - A16 (N)	644	530	2370	0.272	642	0.4	2.081	A

12:15 - 12:30

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 - A151 Holbeach Road (E)	736	685	1697	0.434	735	0.8	3.738	A
2 - A16 (S)	725	683	2250	0.322	725	0.5	2.361	A
3 - A151 Holbeach Road (W)	618	755	1581	0.391	617	0.6	3.731	A
4 - A16 (N)	769	634	2300	0.334	768	0.5	2.350	A

12:30 - 12:45

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 - A151 Holbeach Road (E)	902	838	1606	0.561	900	1.3	5.080	A
2 - A16 (S)	889	836	2149	0.413	888	0.7	2.853	A
3 - A151 Holbeach Road (W)	756	925	1485	0.509	755	1.0	4.920	A
4 - A16 (N)	941	776	2205	0.427	940	0.7	2.847	A

12:45 - 13:00

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 - A151 Holbeach Road (E)	902	839	1606	0.562	902	1.3	5.112	A
2 - A16 (S)	889	838	2148	0.414	889	0.7	2.858	A
3 - A151 Holbeach Road (W)	756	926	1484	0.510	756	1.0	4.946	A
4 - A16 (N)	941	777	2204	0.427	941	0.7	2.851	A

13:00 - 13:15

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 - A151 Holbeach Road (E)	736	686	1697	0.434	738	0.8	3.766	A
2 - A16 (S)	725	686	2248	0.323	726	0.5	2.368	A
3 - A151 Holbeach Road (W)	618	757	1580	0.391	619	0.6	3.753	A
4 - A16 (N)	769	636	2298	0.334	770	0.5	2.355	A

13:15 - 13:30

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 - A151 Holbeach Road (E)	617	574	1763	0.350	618	0.5	3.147	A
2 - A16 (S)	608	574	2322	0.262	608	0.4	2.102	A
3 - A151 Holbeach Road (W)	517	634	1651	0.313	518	0.5	3.182	A
4 - A16 (N)	644	532	2368	0.272	644	0.4	2.088	A

2030 Future Base + Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A151 Holbeach Road (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - A16 (S) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A151 Holbeach Road (W) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - A16 (N) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
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	untitled	Standard Roundabout		1, 2, 3, 4	3.73	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)
D13	2030 Future Base + Development	AM	ONE HOUR	07:30	09:00	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 - A151 Holbeach Road (E)		✓	797	100.000
2 - A16 (S)		✓	871	100.000
3 - A151 Holbeach Road (W)		✓	409	100.000
4 - A16 (N)		✓	998	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A151 Holbeach Road (E)	2 - A16 (S)	3 - A151 Holbeach Road (W)	4 - A16 (N)
From	1 - A151 Holbeach Road (E)	4	276	275	242
	2 - A16 (S)	226	7	56	582
	3 - A151 Holbeach Road (W)	233	100	0	76
	4 - A16 (N)	226	667	100	5

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A151 Holbeach Road (E)	2 - A16 (S)	3 - A151 Holbeach Road (W)	4 - A16 (N)
From	1 - A151 Holbeach Road (E)	0	0	0	0
	2 - A16 (S)	0	0	0	0
	3 - A151 Holbeach Road (W)	0	0	0	0
	4 - A16 (N)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A151 Holbeach Road (E)	0.57	5.52	1.3	A
2 - A16 (S)	0.43	2.80	0.7	A
3 - A151 Holbeach Road (W)	0.34	4.03	0.5	A
4 - A16 (N)	0.48	2.99	0.9	A

Main Results for each time segment

07:30 - 07:45

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 - A151 Holbeach Road (E)	600	660	1712	0.351	598	0.5	3.226	A
2 - A16 (S)	656	470	2391	0.274	654	0.4	2.071	A
3 - A151 Holbeach Road (W)	308	800	1556	0.198	307	0.2	2.878	A
4 - A16 (N)	751	428	2438	0.308	750	0.4	2.130	A

07:45 - 08:00

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 - A151 Holbeach Road (E)	716	790	1635	0.438	716	0.8	3.911	A
2 - A16 (S)	783	562	2330	0.336	783	0.5	2.327	A
3 - A151 Holbeach Road (W)	368	958	1466	0.251	367	0.3	3.276	A
4 - A16 (N)	897	512	2382	0.377	897	0.6	2.422	A

08:00 - 08:15

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 - A151 Holbeach Road (E)	878	967	1530	0.574	875	1.3	5.480	A
2 - A16 (S)	959	688	2247	0.427	958	0.7	2.792	A
3 - A151 Holbeach Road (W)	450	1172	1344	0.335	450	0.5	4.023	A
4 - A16 (N)	1099	627	2305	0.477	1098	0.9	2.979	A

08:15 - 08:30

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 - A151 Holbeach Road (E)	878	968	1529	0.574	877	1.3	5.522	A
2 - A16 (S)	959	689	2246	0.427	959	0.7	2.796	A
3 - A151 Holbeach Road (W)	450	1174	1343	0.335	450	0.5	4.032	A
4 - A16 (N)	1099	628	2304	0.477	1099	0.9	2.985	A

08:30 - 08:45

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 - A151 Holbeach Road (E)	716	791	1634	0.438	719	0.8	3.941	A
2 - A16 (S)	783	564	2328	0.336	784	0.5	2.334	A
3 - A151 Holbeach Road (W)	368	960	1465	0.251	368	0.3	3.284	A
4 - A16 (N)	897	513	2381	0.377	898	0.6	2.429	A

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 - A151 Holbeach Road (E)	600	662	1711	0.351	601	0.5	3.246	A
2 - A16 (S)	656	472	2389	0.274	656	0.4	2.077	A
3 - A151 Holbeach Road (W)	308	803	1554	0.198	308	0.2	2.892	A
4 - A16 (N)	751	430	2437	0.308	752	0.4	2.136	A

2030 Future Base + Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A151 Holbeach Road (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - A16 (S) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A151 Holbeach Road (W) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - A16 (N) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
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	untitled	Standard Roundabout		1, 2, 3, 4	5.29	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)
D14	2030 Future Base + Development	PM	ONE HOUR	16:15	17:45	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 - A151 Holbeach Road (E)		✓	920	100.000
2 - A16 (S)		✓	1017	100.000
3 - A151 Holbeach Road (W)		✓	736	100.000
4 - A16 (N)		✓	921	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A151 Holbeach Road (E)	2 - A16 (S)	3 - A151 Holbeach Road (W)	4 - A16 (N)
From	1 - A151 Holbeach Road (E)	8	271	373	268
	2 - A16 (S)	284	10	71	652
	3 - A151 Holbeach Road (W)	400	180	0	156
	4 - A16 (N)	249	582	89	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A151 Holbeach Road (E)	2 - A16 (S)	3 - A151 Holbeach Road (W)	4 - A16 (N)
From	1 - A151 Holbeach Road (E)	0	0	0	0
	2 - A16 (S)	0	0	0	0
	3 - A151 Holbeach Road (W)	0	0	0	0
	4 - A16 (N)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A151 Holbeach Road (E)	0.66	6.82	1.9	A
2 - A16 (S)	0.52	3.45	1.1	A
3 - A151 Holbeach Road (W)	0.65	8.28	1.8	A
4 - A16 (N)	0.49	3.40	1.0	A

Main Results for each time segment

16:15 - 16:30

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 - A151 Holbeach Road (E)	693	647	1720	0.403	690	0.7	3.487	A
2 - A16 (S)	766	554	2335	0.328	764	0.5	2.288	A
3 - A151 Holbeach Road (W)	554	918	1489	0.372	552	0.6	3.833	A
4 - A16 (N)	693	662	2281	0.304	692	0.4	2.263	A

16:30 - 16:45

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 - A151 Holbeach Road (E)	827	774	1644	0.503	826	1.0	4.391	A
2 - A16 (S)	914	663	2263	0.404	914	0.7	2.666	A
3 - A151 Holbeach Road (W)	662	1098	1386	0.477	660	0.9	4.954	A
4 - A16 (N)	828	792	2194	0.377	827	0.6	2.632	A

16:45 - 17:00

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 - A151 Holbeach Road (E)	1013	947	1542	0.657	1009	1.9	6.721	A
2 - A16 (S)	1120	811	2166	0.517	1118	1.1	3.433	A
3 - A151 Holbeach Road (W)	810	1344	1246	0.650	807	1.8	8.124	A
4 - A16 (N)	1014	968	2076	0.489	1013	0.9	3.382	A

17:00 - 17:15

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 - A151 Holbeach Road (E)	1013	949	1540	0.658	1013	1.9	6.821	A
2 - A16 (S)	1120	814	2164	0.517	1120	1.1	3.447	A
3 - A151 Holbeach Road (W)	810	1347	1245	0.651	810	1.8	8.282	A
4 - A16 (N)	1014	971	2074	0.489	1014	1.0	3.397	A

17:15 - 17:30

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 - A151 Holbeach Road (E)	827	777	1643	0.503	831	1.0	4.453	A
2 - A16 (S)	914	667	2261	0.404	916	0.7	2.681	A
3 - A151 Holbeach Road (W)	662	1102	1384	0.478	665	0.9	5.034	A
4 - A16 (N)	828	796	2191	0.378	829	0.6	2.648	A

17:30 - 17:45

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 - A151 Holbeach Road (E)	693	650	1718	0.403	694	0.7	3.522	A
2 - A16 (S)	766	557	2333	0.328	766	0.5	2.299	A
3 - A151 Holbeach Road (W)	554	922	1487	0.373	555	0.6	3.873	A
4 - A16 (N)	693	665	2279	0.304	694	0.4	2.273	A

2030 Future Base + Development, SAT

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - A151 Holbeach Road (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	2 - A16 (S) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - A151 Holbeach Road (W) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	4 - A16 (N) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
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	untitled	Standard Roundabout		1, 2, 3, 4	3.99	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)
D15	2030 Future Base + Development	SAT	ONE HOUR	12:00	13:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A151 Holbeach Road (E)		✓	835	100.000
2 - A16 (S)		✓	787	100.000
3 - A151 Holbeach Road (W)		✓	678	100.000
4 - A16 (N)		✓	865	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A151 Holbeach Road (E)	2 - A16 (S)	3 - A151 Holbeach Road (W)	4 - A16 (N)
From	1 - A151 Holbeach Road (E)	9	196	420	210
	2 - A16 (S)	164	16	173	434
	3 - A151 Holbeach Road (W)	425	132	0	121
	4 - A16 (N)	219	473	172	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A151 Holbeach Road (E)	2 - A16 (S)	3 - A151 Holbeach Road (W)	4 - A16 (N)
From	1 - A151 Holbeach Road (E)	0	0	0	0
	2 - A16 (S)	0	0	0	0
	3 - A151 Holbeach Road (W)	0	0	0	0
	4 - A16 (N)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A151 Holbeach Road (E)	0.58	5.41	1.4	A
2 - A16 (S)	0.41	2.89	0.7	A
3 - A151 Holbeach Road (W)	0.50	4.85	1.0	A
4 - A16 (N)	0.44	2.95	0.8	A

Main Results for each time segment

12:00 - 12:15

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 - A151 Holbeach Road (E)	629	596	1750	0.359	626	0.6	3.197	A
2 - A16 (S)	592	609	2299	0.258	591	0.3	2.106	A
3 - A151 Holbeach Road (W)	510	626	1655	0.308	509	0.4	3.137	A
4 - A16 (N)	651	560	2350	0.277	650	0.4	2.115	A

12:15 - 12:30

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 - A151 Holbeach Road (E)	751	713	1680	0.447	750	0.8	3.864	A
2 - A16 (S)	707	729	2220	0.319	707	0.5	2.380	A
3 - A151 Holbeach Road (W)	610	749	1585	0.385	609	0.6	3.687	A
4 - A16 (N)	778	670	2276	0.342	777	0.5	2.402	A

12:30 - 12:45

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 - A151 Holbeach Road (E)	919	873	1585	0.580	917	1.4	5.367	A
2 - A16 (S)	867	892	2112	0.410	866	0.7	2.887	A
3 - A151 Holbeach Road (W)	746	917	1489	0.501	745	1.0	4.827	A
4 - A16 (N)	952	820	2175	0.438	951	0.8	2.939	A

12:45 - 13:00

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 - A151 Holbeach Road (E)	919	874	1585	0.580	919	1.4	5.408	A
2 - A16 (S)	867	894	2111	0.411	866	0.7	2.892	A
3 - A151 Holbeach Road (W)	746	918	1489	0.501	746	1.0	4.850	A
4 - A16 (N)	952	821	2174	0.438	952	0.8	2.946	A

13:00 - 13:15

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 - A151 Holbeach Road (E)	751	715	1679	0.447	753	0.8	3.895	A
2 - A16 (S)	707	732	2218	0.319	708	0.5	2.386	A
3 - A151 Holbeach Road (W)	610	751	1584	0.385	611	0.6	3.708	A
4 - A16 (N)	778	672	2274	0.342	779	0.5	2.410	A

13:15 - 13:30

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 - A151 Holbeach Road (E)	629	598	1749	0.360	630	0.6	3.221	A
2 - A16 (S)	592	612	2297	0.258	593	0.3	2.113	A
3 - A151 Holbeach Road (W)	510	629	1654	0.309	511	0.4	3.154	A
4 - A16 (N)	651	562	2348	0.277	652	0.4	2.124	A

Appendix J
Camelgate / A151 / Fulney Lane North
Modelling Output

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.1.7462
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Filename: Camel Gate - A151 - Fulney Lane North.j9
Path: C:\AMA\AMA\AMA - Documents\001 - Projects\22428 - Holbeach Road, Spalding\D Models and Drawings\JUNCTION MODELLING
Report generation date: 31/03/2026 13:50:40

»Camelgate / A151 / Fulney Lane North - 2025, AM
»Camelgate / A151 / Fulney Lane North - 2025, PM
»Camelgate / A151 / Fulney Lane North - 2025, SAT
»Camelgate / A151 / Fulney Lane North - 2030, AM
»Camelgate / A151 / Fulney Lane North - 2030, PM
»Camelgate / A151 / Fulney Lane North - 2030, SAT
»Camelgate / A151 / Fulney Lane North - 2030 + Dev, AM
»Camelgate / A151 / Fulney Lane North - 2030 + Dev, PM
»Camelgate / A151 / Fulney Lane North - 2030 + Dev, SAT

Summary of junction performance

	AM					PM					SAT				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
Camelgate / A151 / Fulney Lane North - 2025															
1 - Camelgate	D1	0.1	3.35	0.07	A	D2	0.4	4.28	0.28	A	D3	0.4	4.71	0.31	A
2 - A151 (E)		0.7	4.52	0.43	A		0.6	4.30	0.37	A		1.1	5.59	0.52	A
3 - Fulney Lane North		0.0	2.23	0.03	A		0.1	2.42	0.08	A		0.0	2.49	0.03	A
4 - A151 (W)		0.4	3.80	0.30	A		0.4	3.60	0.27	A		0.9	5.36	0.47	A
Camelgate / A151 / Fulney Lane North - 2030															
1 - Camelgate	D4	0.1	3.40	0.08	A	D5	0.4	4.44	0.29	A	D6	0.5	4.93	0.33	A
2 - A151 (E)		0.8	4.71	0.45	A		0.6	4.47	0.39	A		1.2	5.99	0.55	A
3 - Fulney Lane North		0.0	2.27	0.03	A		0.1	2.47	0.09	A		0.0	2.55	0.03	A
4 - A151 (W)		0.5	3.91	0.32	A		0.4	3.69	0.29	A		1.0	5.74	0.50	A
Camelgate / A151 / Fulney Lane North - 2030 + Dev															
1 - Camelgate	D7	0.1	3.40	0.07	A	D8	0.4	4.44	0.30	A	D9	0.5	4.88	0.33	A
2 - A151 (E)		0.8	4.79	0.46	A		0.7	4.58	0.41	A		1.3	6.32	0.57	A
3 - Fulney Lane North		0.0	2.28	0.04	A		0.1	2.50	0.09	A		0.0	2.59	0.03	A
4 - A151 (W)		0.5	4.01	0.33	A		0.4	3.81	0.30	A		1.1	6.15	0.52	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.

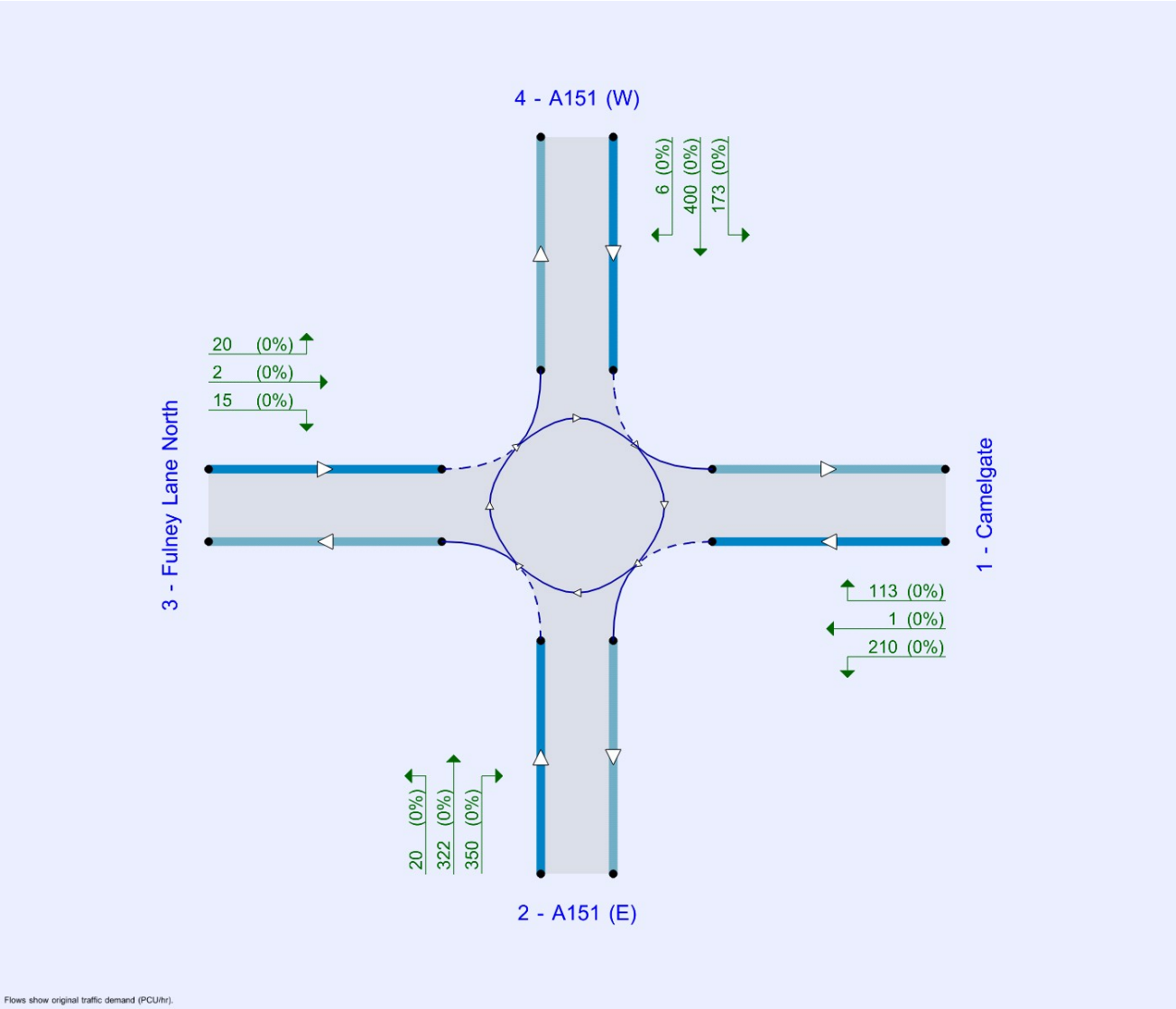
File summary

File Description

Title	Camelgate / A151 / Fulney Lane North
Location	Spalding
Site number	
Date	29/05/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	AzureAD\Modellinglaptop
Description	

Units

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



The junction diagram reflects the last run of Junctions.

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2025	AM	ONE HOUR	00:00	01:30	15
D2	2025	PM	ONE HOUR	00:00	01:30	15
D3	2025	SAT	ONE HOUR	00:00	01:30	15
D4	2030	AM	ONE HOUR	00:00	01:30	15
D5	2030	PM	ONE HOUR	00:00	01:30	15
D6	2030	SAT	ONE HOUR	00:00	01:30	15
D7	2030 + Dev	AM	ONE HOUR	00:00	01:30	15
D8	2030 + Dev	PM	ONE HOUR	00:00	01:30	15
D9	2030 + Dev	SAT	ONE HOUR	00:00	01:30	15

Analysis Set Details

ID	Name	Network flow scaling factor (%)
A1	Camelgate / A151 / Fulney Lane North	100.000

Camelgate / A151 / Fulney Lane North - 2025, 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	Camelgate / A151 / Fulney Lane North	Standard Roundabout		1, 2, 3, 4	4.07	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Camelgate	
2	A151 (E)	
3	Fulney Lane North	
4	A151 (W)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - Camelgate	3.54	6.12	4.5	23.1	38.0	26.0	
2 - A151 (E)	3.70	6.44	4.7	42.1	38.0	35.0	
3 - Fulney Lane North	5.60	6.90	12.0	22.8	38.0	19.0	
4 - A151 (W)	3.90	6.28	11.3	14.4	38.0	51.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Camelgate	0.587	1375
2 - A151 (E)	0.593	1421
3 - Fulney Lane North	0.736	2077
4 - A151 (W)	0.571	1464

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	2025	AM	ONE HOUR	00:00	01:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Camelgate		✓	74	100.000
2 - A151 (E)		✓	541	100.000
3 - Fulney Lane North		✓	49	100.000
4 - A151 (W)		✓	367	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Camelgate	2 - A151 (E)	3 - Fulney Lane North	4 - A151 (W)
From	1 - Camelgate	1	44	1	28
	2 - A151 (E)	139	2	64	336
	3 - Fulney Lane North	2	36	0	11
	4 - A151 (W)	66	285	15	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Camelgate	2 - A151 (E)	3 - Fulney Lane North	4 - A151 (W)
From	1 - Camelgate	0	0	0	0
	2 - A151 (E)	0	0	0	0
	3 - Fulney Lane North	0	0	0	0
	4 - A151 (W)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Camelgate	0.07	3.35	0.1	A
2 - A151 (E)	0.43	4.52	0.7	A
3 - Fulney Lane North	0.03	2.23	0.0	A
4 - A151 (W)	0.30	3.80	0.4	A

Main Results for each time segment

00:00 - 00:15

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 - Camelgate	56	254	1225	0.045	56	0.0	3.076	A
2 - A151 (E)	407	35	1401	0.291	406	0.4	3.610	A
3 - Fulney Lane North	37	380	1798	0.021	37	0.0	2.044	A
4 - A151 (W)	276	135	1387	0.199	275	0.2	3.235	A

00:15 - 00:30

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 - Camelgate	67	305	1196	0.056	66	0.1	3.186	A
2 - A151 (E)	486	41	1397	0.348	486	0.5	3.950	A
3 - Fulney Lane North	44	455	1742	0.025	44	0.0	2.119	A
4 - A151 (W)	330	162	1372	0.241	330	0.3	3.455	A

00:30 - 00:45

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 - Camelgate	81	373	1156	0.070	81	0.1	3.350	A
2 - A151 (E)	596	51	1391	0.428	595	0.7	4.515	A
3 - Fulney Lane North	54	557	1667	0.032	54	0.0	2.231	A
4 - A151 (W)	404	198	1351	0.299	404	0.4	3.798	A

00:45 - 01:00

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 - Camelgate	81	373	1156	0.071	81	0.1	3.350	A
2 - A151 (E)	596	51	1391	0.428	596	0.7	4.524	A
3 - Fulney Lane North	54	558	1667	0.032	54	0.0	2.231	A
4 - A151 (W)	404	198	1351	0.299	404	0.4	3.801	A

01:00 - 01:15

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 - Camelgate	67	305	1196	0.056	67	0.1	3.190	A
2 - A151 (E)	486	41	1397	0.348	487	0.5	3.961	A
3 - Fulney Lane North	44	457	1741	0.025	44	0.0	2.122	A
4 - A151 (W)	330	162	1371	0.241	330	0.3	3.461	A

01:15 - 01:30

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 - Camelgate	56	255	1225	0.045	56	0.0	3.078	A
2 - A151 (E)	407	35	1401	0.291	408	0.4	3.626	A
3 - Fulney Lane North	37	382	1796	0.021	37	0.0	2.046	A
4 - A151 (W)	276	136	1386	0.199	277	0.2	3.243	A

Camelgate / A151 / Fulney Lane North - 2025, 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	Camelgate / A151 / Fulney Lane North	Standard Roundabout		1, 2, 3, 4	3.91	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	2025	PM	ONE HOUR	00:00	01:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Camelgate		✓	293	100.000
2 - A151 (E)		✓	447	100.000
3 - Fulney Lane North		✓	123	100.000
4 - A151 (W)		✓	339	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Camelgate	2 - A151 (E)	3 - Fulney Lane North	4 - A151 (W)
From	1 - Camelgate	2	176	0	115
	2 - A151 (E)	93	0	17	337
	3 - Fulney Lane North	5	44	0	74
	4 - A151 (W)	55	260	13	11

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Camelgate	2 - A151 (E)	3 - Fulney Lane North	4 - A151 (W)
From	1 - Camelgate	0	0	0	0
	2 - A151 (E)	0	0	0	0
	3 - Fulney Lane North	0	0	0	0
	4 - A151 (W)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Camelgate	0.28	4.28	0.4	A
2 - A151 (E)	0.37	4.30	0.6	A
3 - Fulney Lane North	0.08	2.42	0.1	A
4 - A151 (W)	0.27	3.60	0.4	A

Main Results for each time segment

00:00 - 00:15

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 - Camelgate	221	246	1230	0.179	220	0.2	3.559	A
2 - A151 (E)	337	106	1359	0.248	335	0.3	3.512	A
3 - Fulney Lane North	93	418	1769	0.052	92	0.1	2.146	A
4 - A151 (W)	255	108	1402	0.182	254	0.2	3.135	A

00:15 - 00:30

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 - Camelgate	263	295	1202	0.219	263	0.3	3.835	A
2 - A151 (E)	402	127	1346	0.298	401	0.4	3.807	A
3 - Fulney Lane North	111	501	1709	0.065	111	0.1	2.252	A
4 - A151 (W)	305	129	1390	0.219	305	0.3	3.316	A

00:30 - 00:45

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 - Camelgate	323	361	1163	0.277	322	0.4	4.280	A
2 - A151 (E)	492	155	1329	0.370	492	0.6	4.296	A
3 - Fulney Lane North	135	614	1626	0.083	135	0.1	2.414	A
4 - A151 (W)	373	158	1374	0.272	373	0.4	3.598	A

00:45 - 01:00

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 - Camelgate	323	361	1163	0.277	323	0.4	4.284	A
2 - A151 (E)	492	155	1329	0.370	492	0.6	4.299	A
3 - Fulney Lane North	135	614	1625	0.083	135	0.1	2.415	A
4 - A151 (W)	373	159	1373	0.272	373	0.4	3.598	A

01:00 - 01:15

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 - Camelgate	263	295	1201	0.219	264	0.3	3.842	A
2 - A151 (E)	402	127	1346	0.299	402	0.4	3.816	A
3 - Fulney Lane North	111	502	1708	0.065	111	0.1	2.253	A
4 - A151 (W)	305	130	1390	0.219	305	0.3	3.318	A

01:15 - 01:30

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 - Camelgate	221	247	1230	0.179	221	0.2	3.571	A
2 - A151 (E)	337	106	1358	0.248	337	0.3	3.527	A
3 - Fulney Lane North	93	421	1768	0.052	93	0.1	2.148	A
4 - A151 (W)	255	109	1402	0.182	255	0.2	3.139	A

Camelgate / A151 / Fulney Lane North - 2025, SAT

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	Camelgate / A151 / Fulney Lane North	Standard Roundabout		1, 2, 3, 4	5.25	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	2025	SAT	ONE HOUR	00:00	01:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Camelgate		✓	312	100.000
2 - A151 (E)		✓	633	100.000
3 - Fulney Lane North		✓	36	100.000
4 - A151 (W)		✓	534	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Camelgate	2 - A151 (E)	3 - Fulney Lane North	4 - A151 (W)
From	1 - Camelgate	1	201	1	109
	2 - A151 (E)	307	1	19	306
	3 - Fulney Lane North	2	15	0	19
	4 - A151 (W)	136	386	6	6

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Camelgate	2 - A151 (E)	3 - Fulney Lane North	4 - A151 (W)
From	1 - Camelgate	0	0	0	0
	2 - A151 (E)	0	0	0	0
	3 - Fulney Lane North	0	0	0	0
	4 - A151 (W)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Camelgate	0.31	4.71	0.4	A
2 - A151 (E)	0.52	5.59	1.1	A
3 - Fulney Lane North	0.03	2.49	0.0	A
4 - A151 (W)	0.47	5.36	0.9	A

Main Results for each time segment

00:00 - 00:15

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 - Camelgate	235	310	1193	0.197	234	0.2	3.752	A
2 - A151 (E)	477	92	1367	0.349	474	0.5	4.025	A
3 - Fulney Lane North	27	547	1675	0.016	27	0.0	2.184	A
4 - A151 (W)	402	244	1324	0.304	400	0.4	3.888	A

00:15 - 00:30

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 - Camelgate	280	372	1157	0.243	280	0.3	4.107	A
2 - A151 (E)	569	110	1356	0.420	568	0.7	4.567	A
3 - Fulney Lane North	32	655	1595	0.020	32	0.0	2.303	A
4 - A151 (W)	480	293	1297	0.370	479	0.6	4.402	A

00:30 - 00:45

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 - Camelgate	344	455	1108	0.310	343	0.4	4.705	A
2 - A151 (E)	697	135	1341	0.520	696	1.1	5.563	A
3 - Fulney Lane North	40	802	1487	0.027	40	0.0	2.486	A
4 - A151 (W)	588	358	1259	0.467	587	0.9	5.343	A

00:45 - 01:00

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 - Camelgate	344	456	1107	0.310	344	0.4	4.713	A
2 - A151 (E)	697	135	1341	0.520	697	1.1	5.588	A
3 - Fulney Lane North	40	804	1486	0.027	40	0.0	2.488	A
4 - A151 (W)	588	359	1259	0.467	588	0.9	5.363	A

01:00 - 01:15

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 - Camelgate	280	373	1156	0.243	281	0.3	4.119	A
2 - A151 (E)	569	111	1356	0.420	570	0.7	4.592	A
3 - Fulney Lane North	32	658	1593	0.020	32	0.0	2.307	A
4 - A151 (W)	480	294	1296	0.370	481	0.6	4.422	A

01:15 - 01:30

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 - Camelgate	235	312	1191	0.197	235	0.2	3.767	A
2 - A151 (E)	477	93	1366	0.349	477	0.5	4.053	A
3 - Fulney Lane North	27	550	1672	0.016	27	0.0	2.187	A
4 - A151 (W)	402	246	1324	0.304	403	0.4	3.912	A

Camelgate / A151 / Fulney Lane North - 2030, 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	Camelgate / A151 / Fulney Lane North	Standard Roundabout		1, 2, 3, 4	4.21	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)
D4	2030	AM	ONE HOUR	00:00	01:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Camelgate		✓	79	100.000
2 - A151 (E)		✓	568	100.000
3 - Fulney Lane North		✓	52	100.000
4 - A151 (W)		✓	385	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Camelgate	2 - A151 (E)	3 - Fulney Lane North	4 - A151 (W)
From	1 - Camelgate	1	47	1	30
	2 - A151 (E)	146	2	67	353
	3 - Fulney Lane North	2	38	0	12
	4 - A151 (W)	70	299	15	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Camelgate	2 - A151 (E)	3 - Fulney Lane North	4 - A151 (W)
From	1 - Camelgate	0	0	0	0
	2 - A151 (E)	0	0	0	0
	3 - Fulney Lane North	0	0	0	0
	4 - A151 (W)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Camelgate	0.08	3.40	0.1	A
2 - A151 (E)	0.45	4.71	0.8	A
3 - Fulney Lane North	0.03	2.27	0.0	A
4 - A151 (W)	0.32	3.91	0.5	A

Main Results for each time segment

00:00 - 00:15

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 - Camelgate	59	266	1218	0.049	59	0.1	3.105	A
2 - A151 (E)	428	36	1400	0.305	426	0.4	3.689	A
3 - Fulney Lane North	39	400	1783	0.022	39	0.0	2.063	A
4 - A151 (W)	290	142	1383	0.210	289	0.3	3.287	A

00:15 - 00:30

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 - Camelgate	71	319	1188	0.060	71	0.1	3.223	A
2 - A151 (E)	511	43	1396	0.366	510	0.6	4.061	A
3 - Fulney Lane North	47	479	1725	0.027	47	0.0	2.144	A
4 - A151 (W)	346	170	1367	0.253	346	0.3	3.525	A

00:30 - 00:45

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 - Camelgate	87	390	1146	0.076	87	0.1	3.400	A
2 - A151 (E)	625	53	1390	0.450	624	0.8	4.696	A
3 - Fulney Lane North	57	586	1646	0.035	57	0.0	2.265	A
4 - A151 (W)	424	208	1345	0.315	423	0.5	3.903	A

00:45 - 01:00

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 - Camelgate	87	391	1145	0.076	87	0.1	3.400	A
2 - A151 (E)	625	53	1390	0.450	625	0.8	4.707	A
3 - Fulney Lane North	57	587	1646	0.035	57	0.0	2.266	A
4 - A151 (W)	424	208	1345	0.315	424	0.5	3.907	A

01:00 - 01:15

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 - Camelgate	71	320	1187	0.060	71	0.1	3.225	A
2 - A151 (E)	511	43	1396	0.366	512	0.6	4.077	A
3 - Fulney Lane North	47	480	1724	0.027	47	0.0	2.147	A
4 - A151 (W)	346	170	1367	0.253	347	0.3	3.532	A

01:15 - 01:30

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 - Camelgate	59	268	1218	0.049	60	0.1	3.110	A
2 - A151 (E)	428	36	1400	0.305	428	0.4	3.705	A
3 - Fulney Lane North	39	402	1782	0.022	39	0.0	2.065	A
4 - A151 (W)	290	142	1383	0.210	290	0.3	3.298	A

Camelgate / A151 / Fulney Lane North - 2030, 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	Camelgate / A151 / Fulney Lane North	Standard Roundabout		1, 2, 3, 4	4.04	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	2030	PM	ONE HOUR	00:00	01:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Camelgate		✓	308	100.000
2 - A151 (E)		✓	471	100.000
3 - Fulney Lane North		✓	129	100.000
4 - A151 (W)		✓	358	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Camelgate	2 - A151 (E)	3 - Fulney Lane North	4 - A151 (W)
From	1 - Camelgate	2	185	0	121
	2 - A151 (E)	98	0	18	355
	3 - Fulney Lane North	5	47	0	77
	4 - A151 (W)	58	274	14	12

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Camelgate	2 - A151 (E)	3 - Fulney Lane North	4 - A151 (W)
From	1 - Camelgate	0	0	0	0
	2 - A151 (E)	0	0	0	0
	3 - Fulney Lane North	0	0	0	0
	4 - A151 (W)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Camelgate	0.29	4.44	0.4	A
2 - A151 (E)	0.39	4.47	0.6	A
3 - Fulney Lane North	0.09	2.47	0.1	A
4 - A151 (W)	0.29	3.69	0.4	A

Main Results for each time segment

00:00 - 00:15

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 - Camelgate	232	260	1222	0.190	231	0.2	3.629	A
2 - A151 (E)	355	112	1355	0.262	353	0.4	3.588	A
3 - Fulney Lane North	97	441	1753	0.055	97	0.1	2.173	A
4 - A151 (W)	270	114	1399	0.193	269	0.2	3.182	A

00:15 - 00:30

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 - Camelgate	277	312	1192	0.232	277	0.3	3.933	A
2 - A151 (E)	423	134	1342	0.316	423	0.5	3.915	A
3 - Fulney Lane North	116	528	1689	0.069	116	0.1	2.288	A
4 - A151 (W)	322	137	1386	0.232	322	0.3	3.382	A

00:30 - 00:45

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 - Camelgate	339	382	1151	0.295	339	0.4	4.432	A
2 - A151 (E)	519	164	1324	0.392	518	0.6	4.461	A
3 - Fulney Lane North	142	647	1602	0.089	142	0.1	2.465	A
4 - A151 (W)	394	167	1368	0.288	394	0.4	3.691	A

00:45 - 01:00

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 - Camelgate	339	382	1150	0.295	339	0.4	4.436	A
2 - A151 (E)	519	164	1324	0.392	519	0.6	4.468	A
3 - Fulney Lane North	142	647	1601	0.089	142	0.1	2.467	A
4 - A151 (W)	394	167	1368	0.288	394	0.4	3.694	A

01:00 - 01:15

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 - Camelgate	277	312	1191	0.232	277	0.3	3.941	A
2 - A151 (E)	423	134	1342	0.316	424	0.5	3.925	A
3 - Fulney Lane North	116	529	1688	0.069	116	0.1	2.292	A
4 - A151 (W)	322	137	1386	0.232	322	0.3	3.385	A

01:15 - 01:30

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 - Camelgate	232	261	1221	0.190	232	0.2	3.642	A
2 - A151 (E)	355	112	1355	0.262	355	0.4	3.604	A
3 - Fulney Lane North	97	443	1751	0.055	97	0.1	2.177	A
4 - A151 (W)	270	115	1399	0.193	270	0.2	3.189	A

Camelgate / A151 / Fulney Lane North - 2030, SAT

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	Camelgate / A151 / Fulney Lane North	Standard Roundabout		1, 2, 3, 4	5.60	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	2030	SAT	ONE HOUR	00:00	01:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Camelgate		✓	329	100.000
2 - A151 (E)		✓	669	100.000
3 - Fulney Lane North		✓	38	100.000
4 - A151 (W)		✓	564	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Camelgate	2 - A151 (E)	3 - Fulney Lane North	4 - A151 (W)
From	1 - Camelgate	1	212	1	115
	2 - A151 (E)	324	1	20	324
	3 - Fulney Lane North	2	16	0	20
	4 - A151 (W)	144	408	6	6

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Camelgate	2 - A151 (E)	3 - Fulney Lane North	4 - A151 (W)
From	1 - Camelgate	0	0	0	0
	2 - A151 (E)	0	0	0	0
	3 - Fulney Lane North	0	0	0	0
	4 - A151 (W)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Camelgate	0.33	4.93	0.5	A
2 - A151 (E)	0.55	5.99	1.2	A
3 - Fulney Lane North	0.03	2.55	0.0	A
4 - A151 (W)	0.50	5.74	1.0	A

Main Results for each time segment

00:00 - 00:15

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 - Camelgate	248	328	1182	0.209	247	0.3	3.843	A
2 - A151 (E)	504	97	1364	0.369	501	0.6	4.162	A
3 - Fulney Lane North	29	578	1652	0.017	29	0.0	2.216	A
4 - A151 (W)	425	258	1317	0.322	423	0.5	4.019	A

00:15 - 00:30

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 - Camelgate	296	392	1144	0.258	295	0.3	4.237	A
2 - A151 (E)	601	116	1353	0.445	601	0.8	4.782	A
3 - Fulney Lane North	34	692	1568	0.022	34	0.0	2.346	A
4 - A151 (W)	507	309	1288	0.394	506	0.6	4.604	A

00:30 - 00:45

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 - Camelgate	362	480	1093	0.331	362	0.5	4.919	A
2 - A151 (E)	737	142	1337	0.551	735	1.2	5.959	A
3 - Fulney Lane North	42	847	1454	0.029	42	0.0	2.548	A
4 - A151 (W)	621	378	1248	0.498	620	1.0	5.716	A

00:45 - 01:00

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 - Camelgate	362	481	1092	0.332	362	0.5	4.930	A
2 - A151 (E)	737	142	1337	0.551	737	1.2	5.993	A
3 - Fulney Lane North	42	849	1453	0.029	42	0.0	2.550	A
4 - A151 (W)	621	379	1248	0.498	621	1.0	5.743	A

01:00 - 01:15

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 - Camelgate	296	394	1144	0.259	296	0.4	4.251	A
2 - A151 (E)	601	116	1352	0.445	603	0.8	4.813	A
3 - Fulney Lane North	34	695	1566	0.022	34	0.0	2.351	A
4 - A151 (W)	507	310	1287	0.394	508	0.7	4.631	A

01:15 - 01:30

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 - Camelgate	248	330	1181	0.210	248	0.3	3.858	A
2 - A151 (E)	504	97	1364	0.369	505	0.6	4.195	A
3 - Fulney Lane North	29	581	1650	0.017	29	0.0	2.220	A
4 - A151 (W)	425	259	1316	0.323	425	0.5	4.047	A

Camelgate / A151 / Fulney Lane North - 2030 + 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	Camelgate / A151 / Fulney Lane North	Standard Roundabout		1, 2, 3, 4	4.29	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	2030 + Dev	AM	ONE HOUR	00:00	01:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Camelgate		✓	77	100.000
2 - A151 (E)		✓	581	100.000
3 - Fulney Lane North		✓	55	100.000
4 - A151 (W)		✓	397	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Camelgate	2 - A151 (E)	3 - Fulney Lane North	4 - A151 (W)
From	1 - Camelgate	1	46	1	29
	2 - A151 (E)	157	4	67	353
	3 - Fulney Lane North	2	41	0	12
	4 - A151 (W)	83	298	15	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Camelgate	2 - A151 (E)	3 - Fulney Lane North	4 - A151 (W)
From	1 - Camelgate	0	0	0	0
	2 - A151 (E)	0	0	0	0
	3 - Fulney Lane North	0	0	0	0
	4 - A151 (W)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Camelgate	0.07	3.40	0.1	A
2 - A151 (E)	0.46	4.79	0.8	A
3 - Fulney Lane North	0.04	2.28	0.0	A
4 - A151 (W)	0.33	4.01	0.5	A

Main Results for each time segment

00:00 - 00:15

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 - Camelgate	58	269	1217	0.048	58	0.0	3.106	A
2 - A151 (E)	437	35	1400	0.312	436	0.5	3.725	A
3 - Fulney Lane North	41	409	1777	0.023	41	0.0	2.074	A
4 - A151 (W)	299	154	1376	0.217	298	0.3	3.335	A

00:15 - 00:30

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 - Camelgate	69	322	1185	0.058	69	0.1	3.224	A
2 - A151 (E)	522	42	1396	0.374	522	0.6	4.113	A
3 - Fulney Lane North	49	489	1717	0.029	49	0.0	2.158	A
4 - A151 (W)	357	184	1359	0.263	357	0.4	3.592	A

00:30 - 00:45

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 - Camelgate	85	395	1143	0.074	85	0.1	3.401	A
2 - A151 (E)	640	52	1391	0.460	639	0.8	4.781	A
3 - Fulney Lane North	61	599	1637	0.037	61	0.0	2.283	A
4 - A151 (W)	437	225	1335	0.327	437	0.5	4.004	A

00:45 - 01:00

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 - Camelgate	85	395	1143	0.074	85	0.1	3.402	A
2 - A151 (E)	640	52	1391	0.460	640	0.8	4.793	A
3 - Fulney Lane North	61	600	1636	0.037	61	0.0	2.284	A
4 - A151 (W)	437	226	1335	0.327	437	0.5	4.008	A

01:00 - 01:15

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 - Camelgate	69	323	1185	0.058	69	0.1	3.228	A
2 - A151 (E)	522	42	1396	0.374	523	0.6	4.128	A
3 - Fulney Lane North	49	491	1716	0.029	49	0.0	2.159	A
4 - A151 (W)	357	185	1359	0.263	357	0.4	3.599	A

01:15 - 01:30

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 - Camelgate	58	271	1216	0.048	58	0.1	3.108	A
2 - A151 (E)	437	35	1400	0.312	438	0.5	3.742	A
3 - Fulney Lane North	41	411	1775	0.023	41	0.0	2.077	A
4 - A151 (W)	299	155	1376	0.217	299	0.3	3.346	A

Camelgate / A151 / Fulney Lane North - 2030 + 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	Camelgate / A151 / Fulney Lane North	Standard Roundabout		1, 2, 3, 4	4.11	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	2030 + Dev	PM	ONE HOUR	00:00	01:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Camelgate		✓	308	100.000
2 - A151 (E)		✓	489	100.000
3 - Fulney Lane North		✓	133	100.000
4 - A151 (W)		✓	373	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Camelgate	2 - A151 (E)	3 - Fulney Lane North	4 - A151 (W)
From	1 - Camelgate	2	186	0	120
	2 - A151 (E)	116	0	18	355
	3 - Fulney Lane North	5	51	0	77
	4 - A151 (W)	75	272	14	12

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Camelgate	2 - A151 (E)	3 - Fulney Lane North	4 - A151 (W)
From	1 - Camelgate	0	0	0	0
	2 - A151 (E)	0	0	0	0
	3 - Fulney Lane North	0	0	0	0
	4 - A151 (W)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Camelgate	0.30	4.44	0.4	A
2 - A151 (E)	0.41	4.58	0.7	A
3 - Fulney Lane North	0.09	2.50	0.1	A
4 - A151 (W)	0.30	3.81	0.4	A

Main Results for each time segment

00:00 - 00:15

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 - Camelgate	232	262	1221	0.190	231	0.2	3.632	A
2 - A151 (E)	368	111	1356	0.272	367	0.4	3.636	A
3 - Fulney Lane North	100	454	1744	0.057	100	0.1	2.190	A
4 - A151 (W)	281	131	1389	0.202	280	0.3	3.241	A

00:15 - 00:30

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 - Camelgate	277	313	1191	0.233	277	0.3	3.937	A
2 - A151 (E)	440	133	1343	0.327	439	0.5	3.983	A
3 - Fulney Lane North	120	543	1678	0.071	120	0.1	2.310	A
4 - A151 (W)	335	156	1375	0.244	335	0.3	3.462	A

00:30 - 00:45

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 - Camelgate	339	384	1149	0.295	339	0.4	4.439	A
2 - A151 (E)	538	163	1325	0.406	538	0.7	4.568	A
3 - Fulney Lane North	146	665	1588	0.092	146	0.1	2.496	A
4 - A151 (W)	411	191	1355	0.303	410	0.4	3.809	A

00:45 - 01:00

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 - Camelgate	339	384	1149	0.295	339	0.4	4.443	A
2 - A151 (E)	538	163	1325	0.406	538	0.7	4.577	A
3 - Fulney Lane North	146	666	1587	0.092	146	0.1	2.498	A
4 - A151 (W)	411	192	1355	0.303	411	0.4	3.813	A

01:00 - 01:15

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 - Camelgate	277	314	1190	0.233	277	0.3	3.946	A
2 - A151 (E)	440	133	1342	0.327	440	0.5	3.995	A
3 - Fulney Lane North	120	545	1676	0.071	120	0.1	2.312	A
4 - A151 (W)	335	157	1374	0.244	336	0.3	3.466	A

01:15 - 01:30

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 - Camelgate	232	263	1220	0.190	232	0.2	3.645	A
2 - A151 (E)	368	112	1355	0.272	369	0.4	3.652	A
3 - Fulney Lane North	100	456	1742	0.057	100	0.1	2.192	A
4 - A151 (W)	281	131	1389	0.202	281	0.3	3.251	A

Camelgate / A151 / Fulney Lane North - 2030 + Dev, SAT

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	Camelgate / A151 / Fulney Lane North	Standard Roundabout		1, 2, 3, 4	5.89	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	2030 + Dev	SAT	ONE HOUR	00:00	01:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Camelgate		✓	325	100.000
2 - A151 (E)		✓	698	100.000
3 - Fulney Lane North		✓	37	100.000
4 - A151 (W)		✓	585	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Camelgate	2 - A151 (E)	3 - Fulney Lane North	4 - A151 (W)
From	1 - Camelgate	1	210	1	113
	2 - A151 (E)	350	6	20	322
	3 - Fulney Lane North	2	15	0	20
	4 - A151 (W)	173	400	6	6

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Camelgate	2 - A151 (E)	3 - Fulney Lane North	4 - A151 (W)
From	1 - Camelgate	0	0	0	0
	2 - A151 (E)	0	0	0	0
	3 - Fulney Lane North	0	0	0	0
	4 - A151 (W)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Camelgate	0.33	4.88	0.5	A
2 - A151 (E)	0.57	6.32	1.3	A
3 - Fulney Lane North	0.03	2.59	0.0	A
4 - A151 (W)	0.52	6.15	1.1	A

Main Results for each time segment

00:00 - 00:15

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 - Camelgate	245	325	1184	0.207	244	0.3	3.824	A
2 - A151 (E)	525	95	1365	0.385	523	0.6	4.264	A
3 - Fulney Lane North	28	598	1637	0.017	28	0.0	2.236	A
4 - A151 (W)	440	280	1304	0.338	438	0.5	4.150	A

00:15 - 00:30

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 - Camelgate	292	389	1147	0.255	292	0.3	4.212	A
2 - A151 (E)	627	114	1354	0.464	627	0.9	4.944	A
3 - Fulney Lane North	33	716	1550	0.021	33	0.0	2.372	A
4 - A151 (W)	526	336	1272	0.413	525	0.7	4.813	A

00:30 - 00:45

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 - Camelgate	358	476	1096	0.327	357	0.5	4.873	A
2 - A151 (E)	769	140	1339	0.574	767	1.3	6.272	A
3 - Fulney Lane North	41	877	1432	0.028	41	0.0	2.586	A
4 - A151 (W)	644	411	1229	0.524	643	1.1	6.118	A

00:45 - 01:00

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 - Camelgate	358	477	1095	0.327	358	0.5	4.883	A
2 - A151 (E)	769	140	1338	0.574	768	1.3	6.315	A
3 - Fulney Lane North	41	879	1431	0.028	41	0.0	2.588	A
4 - A151 (W)	644	412	1229	0.524	644	1.1	6.155	A

01:00 - 01:15

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 - Camelgate	292	390	1146	0.255	293	0.3	4.225	A
2 - A151 (E)	627	114	1354	0.464	629	0.9	4.983	A
3 - Fulney Lane North	33	719	1548	0.021	33	0.0	2.378	A
4 - A151 (W)	526	337	1271	0.414	527	0.7	4.849	A

01:15 - 01:30

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 - Camelgate	245	327	1183	0.207	245	0.3	3.838	A
2 - A151 (E)	525	96	1365	0.385	526	0.6	4.301	A
3 - Fulney Lane North	28	602	1635	0.017	28	0.0	2.240	A
4 - A151 (W)	440	282	1303	0.338	441	0.5	4.181	A

Appendix K
A151 Holbeach / Queens Road T-junction Modelling Output

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.1.7462
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Filename: A151 Holbeach Road - Queens Road T-Junction.j9
Path: C:\AMA\AMA\AMA - Documents\001 - Projects\22428 - Holbeach Road, Spalding\D Models and Drawings\JUNCTION MODELLING
Report generation date: 31/03/2026 13:54:50

»A151 Holbeach Road / Queens Road - 2025 'Uplifted' Base, AM
»A151 Holbeach Road / Queens Road - 2025 'Uplifted' Base, PM
»A151 Holbeach Road / Queens Road - 2025 'Uplifted' Base, SAT
»A151 Holbeach Road / Queens Road - 2030 Future, AM
»A151 Holbeach Road / Queens Road - 2030 Future, PM
»A151 Holbeach Road / Queens Road - 2030 Future, SAT
»A151 Holbeach Road / Queens Road - 2030 Future + Development, AM
»A151 Holbeach Road / Queens Road - 2030 Future + Development, PM
»A151 Holbeach Road / Queens Road - 2030 Future + Development, SAT

Summary of junction performance

	AM					PM					SAT				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	A151 Holbeach Road / Queens Road - 2025 'Uplifted' Base														
Stream B-C	D4	0.4	8.87	0.30	A	D5	0.4	9.06	0.28	A	D6	0.3	8.44	0.21	A
Stream B-A		0.3	15.61	0.22	C		0.3	19.38	0.21	C		0.3	17.78	0.24	C
Stream C-AB		0.2	7.01	0.18	A		0.5	9.72	0.35	A		0.3	7.56	0.22	A
	A151 Holbeach Road / Queens Road - 2030 Future														
Stream B-C	D7	0.5	9.31	0.32	A	D8	0.4	9.57	0.31	A	D9	0.3	8.82	0.23	A
Stream B-A		0.3	16.58	0.24	C		0.3	21.15	0.23	C		0.4	19.33	0.27	C
Stream C-AB		0.2	7.18	0.19	A		0.6	10.28	0.38	B		0.3	7.80	0.23	A
	A151 Holbeach Road / Queens Road - 2030 Future + Development														
Stream B-C	D10	0.5	9.59	0.32	A	D11	0.5	10.07	0.32	B	D12	0.3	9.63	0.24	A
Stream B-A		0.4	17.05	0.27	C		0.4	22.53	0.27	C		0.5	21.58	0.33	C
Stream C-AB		0.2	7.19	0.19	A		0.6	10.45	0.38	B		0.3	7.97	0.24	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.

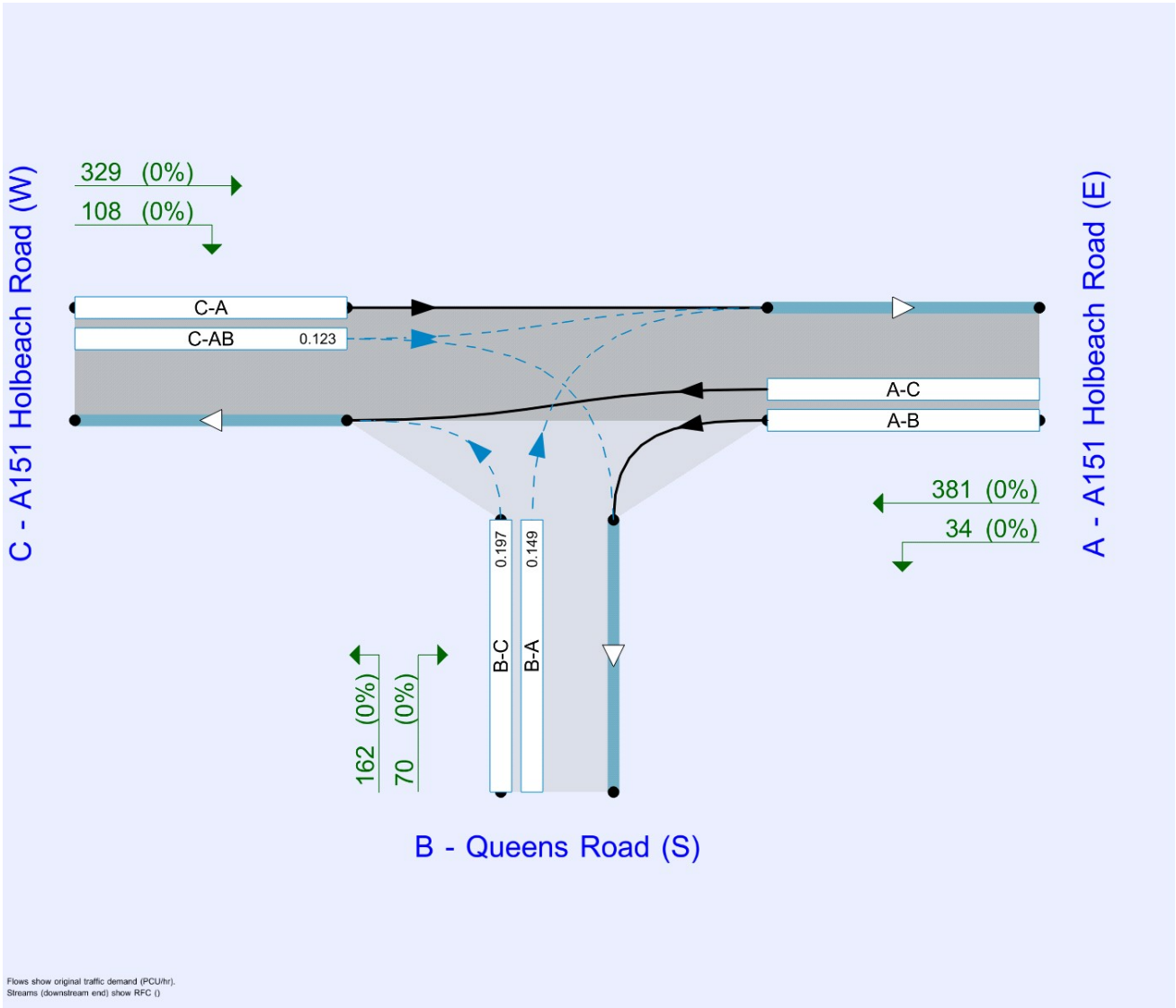
File summary

File Description

Title	A151 Holbeach Road / Queens Road
Location	Spalding
Site number	
Date	18/03/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	AzureAD\Modellinglaptop
Description	

Units

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



The junction diagram reflects the last run of Junctions.

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2025 'Uplifted' Base	AM	ONE HOUR	08:00	09:30	15
D5	2025 'Uplifted' Base	PM	ONE HOUR	15:45	17:15	15
D6	2025 'Uplifted' Base	SAT	ONE HOUR	11:00	12:30	15
D7	2030 Future	AM	ONE HOUR	08:00	09:30	15
D8	2030 Future	PM	ONE HOUR	15:45	17:15	15
D9	2030 Future	SAT	ONE HOUR	11:00	12:30	15
D10	2030 Future + Development	AM	ONE HOUR	08:00	09:30	15
D11	2030 Future + Development	PM	ONE HOUR	15:45	17:15	15
D12	2030 Future + Development	SAT	ONE HOUR	11:00	12:30	15

Analysis Set Details

ID	Name	Network flow scaling factor (%)
A1	A151 Holbeach Road / Queens Road	100.000

A151 Holbeach Road / Queens Road - 2025 'Uplifted' 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	A151 Holbeach Road / Queens Road	T-Junction	Two-way		2.97	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	A151 Holbeach Road (E)		Major
B	Queens Road (S)		Minor
C	A151 Holbeach 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 - A151 Holbeach Road (W)	6.20		✓	2.80	226.0	✓	5.00

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	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - Queens Road (S)	One lane plus flare	10.00	6.56	5.72	4.97	4.50		1.00	33	57

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	476	0.086	0.217	0.137	0.310
B-C	735	0.112	0.282	-	-
C-B	751	0.288	0.288	-	-

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)
D4	2025 'Uplifted' Base	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A151 Holbeach Road (E)		✓	391	100.000
B - Queens Road (S)		✓	215	100.000
C - A151 Holbeach Road (W)		✓	417	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A151 Holbeach Road (E)	B - Queens Road (S)	C - A151 Holbeach Road (W)
From	A - A151 Holbeach Road (E)	0	32	359
	B - Queens Road (S)	60	0	155
	C - A151 Holbeach Road (W)	314	103	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A151 Holbeach Road (E)	B - Queens Road (S)	C - A151 Holbeach Road (W)
From	A - A151 Holbeach Road (E)	0	0	0
	B - Queens Road (S)	0	0	0
	C - A151 Holbeach Road (W)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.30	8.87	0.4	A
B-A	0.22	15.61	0.3	C
C-AB	0.18	7.01	0.2	A
C-A				
A-B				
A-C				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	117	633	0.184	116	0.2	6.943	A
B-A	45	356	0.127	45	0.1	11.526	B
C-AB	78	666	0.116	77	0.1	6.107	A
C-A	236			236			
A-B	24			24			
A-C	270			270			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	139	611	0.228	139	0.3	7.625	A
B-A	54	332	0.163	54	0.2	12.934	B
C-AB	93	650	0.143	92	0.2	6.460	A
C-A	282			282			
A-B	29			29			
A-C	323			323			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	171	577	0.296	170	0.4	8.839	A
B-A	66	297	0.223	66	0.3	15.562	C
C-AB	113	627	0.181	113	0.2	7.006	A
C-A	346			346			
A-B	35			35			
A-C	395			395			

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-C	171	577	0.296	171	0.4	8.869	A
B-A	66	297	0.223	66	0.3	15.612	C
C-AB	113	627	0.181	113	0.2	7.011	A
C-A	346			346			
A-B	35			35			
A-C	395			395			

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-C	139	610	0.228	140	0.3	7.663	A
B-A	54	332	0.163	54	0.2	12.988	B
C-AB	93	650	0.143	93	0.2	6.470	A
C-A	282			282			
A-B	29			29			
A-C	323			323			

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-C	117	633	0.184	117	0.2	6.986	A
B-A	45	356	0.127	45	0.1	11.586	B
C-AB	78	666	0.116	78	0.1	6.122	A
C-A	236			236			
A-B	24			24			
A-C	270			270			

A151 Holbeach Road / Queens Road - 2025 'Uplifted' 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	A151 Holbeach Road / Queens Road	T-Junction	Two-way		3.10	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	2025 'Uplifted' Base	PM	ONE HOUR	15:45	17:15	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 - A151 Holbeach Road (E)		✓	565	100.000
B - Queens Road (S)		✓	187	100.000
C - A151 Holbeach Road (W)		✓	521	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A151 Holbeach Road (E)	B - Queens Road (S)	C - A151 Holbeach Road (W)
From	A - A151 Holbeach Road (E)	0	124	441
	B - Queens Road (S)	44	0	143
	C - A151 Holbeach Road (W)	337	184	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A151 Holbeach Road (E)	B - Queens Road (S)	C - A151 Holbeach Road (W)
From	A - A151 Holbeach Road (E)	0	0	0
	B - Queens Road (S)	0	0	0
	C - A151 Holbeach Road (W)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.28	9.06	0.4	A
B-A	0.21	19.38	0.3	C
C-AB	0.35	9.72	0.5	A
C-A				
A-B				
A-C				

Main Results for each time segment

15:45 - 16:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	108	623	0.173	107	0.2	6.960	A
B-A	33	310	0.107	33	0.1	12.960	B
C-AB	139	628	0.221	137	0.3	7.317	A
C-A	254			254			
A-B	93			93			
A-C	332			332			

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	129	596	0.216	128	0.3	7.692	A
B-A	40	279	0.142	39	0.2	15.044	C
C-AB	166	605	0.274	165	0.4	8.181	A
C-A	303			303			
A-B	111			111			
A-C	396			396			

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	157	555	0.284	157	0.4	9.025	A
B-A	48	234	0.207	48	0.3	19.288	C
C-AB	203	574	0.355	203	0.5	9.689	A
C-A	370			370			
A-B	137			137			
A-C	486			486			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	157	555	0.284	157	0.4	9.058	A
B-A	48	234	0.207	48	0.3	19.381	C
C-AB	203	574	0.355	203	0.5	9.723	A
C-A	370			370			
A-B	137			137			
A-C	486			486			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	129	595	0.216	129	0.3	7.727	A
B-A	40	278	0.142	40	0.2	15.128	C
C-AB	166	605	0.274	166	0.4	8.219	A
C-A	303			303			
A-B	111			111			
A-C	396			396			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	108	622	0.173	108	0.2	7.002	A
B-A	33	310	0.107	33	0.1	13.040	B
C-AB	139	628	0.221	139	0.3	7.363	A
C-A	254			254			
A-B	93			93			
A-C	332			332			

A151 Holbeach Road / Queens Road - 2025 'Uplifted' Base, SAT

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	A151 Holbeach Road / Queens Road	T-Junction	Two-way		2.30	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	2025 'Uplifted' Base	SAT	ONE HOUR	11:00	12:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A151 Holbeach Road (E)		✓	449	100.000
B - Queens Road (S)		✓	162	100.000
C - A151 Holbeach Road (W)		✓	613	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A151 Holbeach Road (E)	B - Queens Road (S)	C - A151 Holbeach Road (W)
From	A - A151 Holbeach Road (E)	0	45	404
	B - Queens Road (S)	58	0	104
	C - A151 Holbeach Road (W)	493	120	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A151 Holbeach Road (E)	B - Queens Road (S)	C - A151 Holbeach Road (W)
From	A - A151 Holbeach Road (E)	0	0	0
	B - Queens Road (S)	0	0	0
	C - A151 Holbeach Road (W)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.21	8.44	0.3	A
B-A	0.24	17.78	0.3	C
C-AB	0.22	7.56	0.3	A
C-A				
A-B				
A-C				

Main Results for each time segment

11:00 - 11:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	78	604	0.130	78	0.1	6.835	A
B-A	44	339	0.129	43	0.1	12.127	B
C-AB	90	653	0.138	90	0.2	6.380	A
C-A	371			371			
A-B	34			34			
A-C	304			304			

11:15 - 11:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	93	579	0.161	93	0.2	7.406	A
B-A	52	309	0.169	52	0.2	13.996	B
C-AB	108	635	0.170	108	0.2	6.832	A
C-A	443			443			
A-B	40			40			
A-C	363			363			

11:30 - 11:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	115	542	0.211	114	0.3	8.414	A
B-A	64	266	0.240	63	0.3	17.706	C
C-AB	132	609	0.217	132	0.3	7.547	A
C-A	543			543			
A-B	50			50			
A-C	445			445			

11:45 - 12:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	115	541	0.212	114	0.3	8.437	A
B-A	64	266	0.240	64	0.3	17.780	C
C-AB	132	609	0.217	132	0.3	7.555	A
C-A	543			543			
A-B	50			50			
A-C	445			445			

12:00 - 12:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	93	578	0.162	94	0.2	7.431	A
B-A	52	309	0.169	53	0.2	14.063	B
C-AB	108	635	0.170	108	0.2	6.844	A
C-A	443			443			
A-B	40			40			
A-C	363			363			

12:15 - 12:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	78	603	0.130	78	0.2	6.868	A
B-A	44	339	0.129	44	0.1	12.193	B
C-AB	90	653	0.138	91	0.2	6.399	A
C-A	371			371			
A-B	34			34			
A-C	304			304			

A151 Holbeach Road / Queens Road - 2030 Future, 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	A151 Holbeach Road / Queens Road	T-Junction	Two-way		3.10	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	2030 Future	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A151 Holbeach Road (E)		✓	411	100.000
B - Queens Road (S)		✓	226	100.000
C - A151 Holbeach Road (W)		✓	438	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A151 Holbeach Road (E)	B - Queens Road (S)	C - A151 Holbeach Road (W)
From	A - A151 Holbeach Road (E)	0	34	377
	B - Queens Road (S)	63	0	163
	C - A151 Holbeach Road (W)	330	108	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A151 Holbeach Road (E)	B - Queens Road (S)	C - A151 Holbeach Road (W)
From	A - A151 Holbeach Road (E)	0	0	0
	B - Queens Road (S)	0	0	0
	C - A151 Holbeach Road (W)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.32	9.31	0.5	A
B-A	0.24	16.58	0.3	C
C-AB	0.19	7.18	0.2	A
C-A				
A-B				
A-C				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	123	628	0.195	122	0.2	7.099	A
B-A	47	350	0.135	47	0.2	11.848	B
C-AB	81	662	0.123	81	0.1	6.192	A
C-A	248			248			
A-B	26			26			
A-C	284			284			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	147	604	0.243	146	0.3	7.864	A
B-A	57	324	0.175	56	0.2	13.438	B
C-AB	97	644	0.151	97	0.2	6.575	A
C-A	297			297			
A-B	31			31			
A-C	339			339			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	179	567	0.317	179	0.5	9.268	A
B-A	69	287	0.242	69	0.3	16.510	C
C-AB	119	620	0.192	119	0.2	7.171	A
C-A	363			363			
A-B	37			37			
A-C	415			415			

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-C	179	566	0.317	179	0.5	9.305	A
B-A	69	286	0.242	69	0.3	16.577	C
C-AB	119	620	0.192	119	0.2	7.177	A
C-A	363			363			
A-B	37			37			
A-C	415			415			

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-C	147	603	0.243	147	0.3	7.907	A
B-A	57	324	0.175	57	0.2	13.502	B
C-AB	97	644	0.151	97	0.2	6.585	A
C-A	297			297			
A-B	31			31			
A-C	339			339			

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-C	123	627	0.196	123	0.2	7.145	A
B-A	47	350	0.136	48	0.2	11.917	B
C-AB	81	662	0.123	81	0.1	6.208	A
C-A	248			248			
A-B	26			26			
A-C	284			284			

A151 Holbeach Road / Queens Road - 2030 Future, 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	A151 Holbeach Road / Queens Road	T-Junction	Two-way		3.29	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	2030 Future	PM	ONE HOUR	15:45	17:15	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 - A151 Holbeach Road (E)		✓	595	100.000
B - Queens Road (S)		✓	197	100.000
C - A151 Holbeach Road (W)		✓	549	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A151 Holbeach Road (E)	B - Queens Road (S)	C - A151 Holbeach Road (W)
From	A - A151 Holbeach Road (E)	0	131	464
	B - Queens Road (S)	46	0	151
	C - A151 Holbeach Road (W)	355	194	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A151 Holbeach Road (E)	B - Queens Road (S)	C - A151 Holbeach Road (W)
From	A - A151 Holbeach Road (E)	0	0	0
	B - Queens Road (S)	0	0	0
	C - A151 Holbeach Road (W)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.31	9.57	0.4	A
B-A	0.23	21.15	0.3	C
C-AB	0.38	10.28	0.6	B
C-A				
A-B				
A-C				

Main Results for each time segment

15:45 - 16:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	114	617	0.184	113	0.2	7.135	A
B-A	35	301	0.115	34	0.1	13.450	B
C-AB	146	622	0.235	145	0.3	7.530	A
C-A	267			267			
A-B	99			99			
A-C	349			349			

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	136	587	0.231	135	0.3	7.959	A
B-A	41	268	0.154	41	0.2	15.857	C
C-AB	175	597	0.292	174	0.4	8.499	A
C-A	319			319			
A-B	118			118			
A-C	417			417			

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	166	543	0.306	166	0.4	9.529	A
B-A	51	221	0.229	50	0.3	21.008	C
C-AB	215	565	0.380	214	0.6	10.231	B
C-A	390			390			
A-B	144			144			
A-C	511			511			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	166	542	0.307	166	0.4	9.574	A
B-A	51	221	0.229	51	0.3	21.145	C
C-AB	215	565	0.380	215	0.6	10.277	B
C-A	390			390			
A-B	144			144			
A-C	511			511			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	136	587	0.231	136	0.3	8.002	A
B-A	41	268	0.154	42	0.2	15.966	C
C-AB	175	597	0.292	175	0.4	8.547	A
C-A	319			319			
A-B	118			118			
A-C	417			417			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	114	616	0.185	114	0.2	7.180	A
B-A	35	301	0.115	35	0.1	13.545	B
C-AB	146	622	0.235	147	0.3	7.579	A
C-A	267			267			
A-B	99			99			
A-C	349			349			

A151 Holbeach Road / Queens Road - 2030 Future, SAT

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	A151 Holbeach Road / Queens Road	T-Junction	Two-way		2.42	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	2030 Future	SAT	ONE HOUR	11:00	12:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A151 Holbeach Road (E)		✓	475	100.000
B - Queens Road (S)		✓	170	100.000
C - A151 Holbeach Road (W)		✓	647	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A151 Holbeach Road (E)	B - Queens Road (S)	C - A151 Holbeach Road (W)
From	A - A151 Holbeach Road (E)	0	48	427
	B - Queens Road (S)	61	0	109
	C - A151 Holbeach Road (W)	521	126	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A151 Holbeach Road (E)	B - Queens Road (S)	C - A151 Holbeach Road (W)
From	A - A151 Holbeach Road (E)	0	0	0
	B - Queens Road (S)	0	0	0
	C - A151 Holbeach Road (W)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.23	8.82	0.3	A
B-A	0.27	19.33	0.4	C
C-AB	0.23	7.80	0.3	A
C-A				
A-B				
A-C				

Main Results for each time segment

11:00 - 11:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	82	597	0.137	81	0.2	6.974	A
B-A	46	331	0.139	45	0.2	12.580	B
C-AB	95	648	0.146	94	0.2	6.495	A
C-A	392			392			
A-B	36			36			
A-C	321			321			

11:15 - 11:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	98	570	0.172	98	0.2	7.614	A
B-A	55	299	0.184	55	0.2	14.740	B
C-AB	113	628	0.180	113	0.2	6.993	A
C-A	468			468			
A-B	43			43			
A-C	384			384			

11:30 - 11:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	120	529	0.227	120	0.3	8.794	A
B-A	67	253	0.265	67	0.4	19.230	C
C-AB	139	600	0.231	138	0.3	7.787	A
C-A	574			574			
A-B	53			53			
A-C	470			470			

11:45 - 12:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	120	528	0.227	120	0.3	8.824	A
B-A	67	253	0.265	67	0.4	19.328	C
C-AB	139	600	0.231	139	0.3	7.798	A
C-A	574			574			
A-B	53			53			
A-C	470			470			

12:00 - 12:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	98	569	0.172	98	0.2	7.647	A
B-A	55	299	0.184	55	0.2	14.826	B
C-AB	113	628	0.180	114	0.2	7.004	A
C-A	468			468			
A-B	43			43			
A-C	384			384			

12:15 - 12:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	82	596	0.138	82	0.2	7.010	A
B-A	46	331	0.139	46	0.2	12.658	B
C-AB	95	648	0.146	95	0.2	6.517	A
C-A	392			392			
A-B	36			36			
A-C	321			321			

A151 Holbeach Road / Queens Road - 2030 Future + Development, AM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A151 Holbeach Road / Queens Road	T-Junction	Two-way		3.25	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	2030 Future + Development	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A151 Holbeach Road (E)		✓	415	100.000
B - Queens Road (S)		✓	232	100.000
C - A151 Holbeach Road (W)		✓	437	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A151 Holbeach Road (E)	B - Queens Road (S)	C - A151 Holbeach Road (W)
From	A - A151 Holbeach Road (E)	0	34	381
	B - Queens Road (S)	70	0	162
	C - A151 Holbeach Road (W)	329	108	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A151 Holbeach Road (E)	B - Queens Road (S)	C - A151 Holbeach Road (W)
From	A - A151 Holbeach Road (E)	0	0	0
	B - Queens Road (S)	0	0	0
	C - A151 Holbeach Road (W)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.32	9.59	0.5	A
B-A	0.27	17.05	0.4	C
C-AB	0.19	7.19	0.2	A
C-A				
A-B				
A-C				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	122	619	0.197	121	0.2	7.219	A
B-A	53	353	0.149	52	0.2	11.926	B
C-AB	81	661	0.123	81	0.1	6.202	A
C-A	248			248			
A-B	26			26			
A-C	287			287			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	146	593	0.245	145	0.3	8.029	A
B-A	63	327	0.193	63	0.2	13.624	B
C-AB	97	643	0.151	97	0.2	6.587	A
C-A	296			296			
A-B	31			31			
A-C	343			343			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	178	554	0.322	178	0.5	9.546	A
B-A	77	288	0.267	77	0.4	16.978	C
C-AB	119	619	0.192	119	0.2	7.189	A
C-A	362			362			
A-B	37			37			
A-C	419			419			

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-C	178	554	0.322	178	0.5	9.591	A
B-A	77	288	0.267	77	0.4	17.048	C
C-AB	119	619	0.192	119	0.2	7.195	A
C-A	362			362			
A-B	37			37			
A-C	419			419			

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-C	146	593	0.246	146	0.3	8.075	A
B-A	63	327	0.193	63	0.2	13.700	B
C-AB	97	643	0.151	97	0.2	6.598	A
C-A	296			296			
A-B	31			31			
A-C	343			343			

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-C	122	618	0.197	122	0.2	7.268	A
B-A	53	353	0.149	53	0.2	12.005	B
C-AB	81	661	0.123	81	0.1	6.217	A
C-A	248			248			
A-B	26			26			
A-C	287			287			

A151 Holbeach Road / Queens Road - 2030 Future + Development, PM

Data Errors and Warnings

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

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A151 Holbeach Road / Queens Road	T-Junction	Two-way		3.45	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)
D11	2030 Future + Development	PM	ONE HOUR	15:45	17:15	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 - A151 Holbeach Road (E)		✓	614	100.000
B - Queens Road (S)		✓	204	100.000
C - A151 Holbeach Road (W)		✓	559	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A151 Holbeach Road (E)	B - Queens Road (S)	C - A151 Holbeach Road (W)
From	A - A151 Holbeach Road (E)	0	139	475
	B - Queens Road (S)	53	0	151
	C - A151 Holbeach Road (W)	365	194	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A151 Holbeach Road (E)	B - Queens Road (S)	C - A151 Holbeach Road (W)
From	A - A151 Holbeach Road (E)	0	0	0
	B - Queens Road (S)	0	0	0
	C - A151 Holbeach Road (W)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.32	10.07	0.5	B
B-A	0.27	22.53	0.4	C
C-AB	0.38	10.45	0.6	B
C-A				
A-B				
A-C				

Main Results for each time segment

15:45 - 16:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	114	604	0.188	113	0.2	7.308	A
B-A	40	301	0.132	39	0.1	13.704	B
C-AB	146	618	0.237	145	0.3	7.592	A
C-A	275			275			
A-B	105			105			
A-C	358			358			

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	136	573	0.237	135	0.3	8.213	A
B-A	48	267	0.178	47	0.2	16.367	C
C-AB	175	592	0.295	174	0.4	8.599	A
C-A	328			328			
A-B	125			125			
A-C	427			427			

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	166	524	0.317	166	0.5	10.015	B
B-A	58	218	0.267	58	0.4	22.353	C
C-AB	215	559	0.384	214	0.6	10.404	B
C-A	401			401			
A-B	153			153			
A-C	523			523			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	166	524	0.318	166	0.5	10.075	B
B-A	58	218	0.268	58	0.4	22.534	C
C-AB	215	559	0.384	215	0.6	10.453	B
C-A	401			401			
A-B	153			153			
A-C	523			523			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	136	572	0.237	136	0.3	8.270	A
B-A	48	267	0.179	48	0.2	16.510	C
C-AB	175	592	0.295	175	0.4	8.650	A
C-A	328			328			
A-B	125			125			
A-C	427			427			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	114	603	0.188	114	0.2	7.360	A
B-A	40	301	0.133	40	0.2	13.810	B
C-AB	146	618	0.237	147	0.3	7.646	A
C-A	275			275			
A-B	105			105			
A-C	358			358			

A151 Holbeach Road / Queens Road - 2030 Future + Development, SAT

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	A151 Holbeach Road / Queens Road	T-Junction	Two-way		2.71	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)
D12	2030 Future + Development	SAT	ONE HOUR	11:00	12:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A151 Holbeach Road (E)		✓	506	100.000
B - Queens Road (S)		✓	184	100.000
C - A151 Holbeach Road (W)		✓	665	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A151 Holbeach Road (E)	B - Queens Road (S)	C - A151 Holbeach Road (W)
From	A - A151 Holbeach Road (E)	0	61	445
	B - Queens Road (S)	75	0	109
	C - A151 Holbeach Road (W)	539	126	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A151 Holbeach Road (E)	B - Queens Road (S)	C - A151 Holbeach Road (W)
From	A - A151 Holbeach Road (E)	0	0	0
	B - Queens Road (S)	0	0	0
	C - A151 Holbeach Road (W)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.24	9.63	0.3	A
B-A	0.33	21.58	0.5	C
C-AB	0.24	7.97	0.3	A
C-A				
A-B				
A-C				

Main Results for each time segment

11:00 - 11:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	82	575	0.143	81	0.2	7.287	A
B-A	56	332	0.170	56	0.2	12.990	B
C-AB	95	641	0.148	94	0.2	6.575	A
C-A	406			406			
A-B	46			46			
A-C	335			335			

11:15 - 11:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	98	545	0.180	98	0.2	8.050	A
B-A	67	298	0.227	67	0.3	15.587	C
C-AB	113	620	0.183	113	0.2	7.099	A
C-A	485			485			
A-B	55			55			
A-C	400			400			

11:30 - 11:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	120	495	0.242	120	0.3	9.581	A
B-A	83	249	0.331	82	0.5	21.393	C
C-AB	139	591	0.235	138	0.3	7.957	A
C-A	593			593			
A-B	67			67			
A-C	490			490			

11:45 - 12:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	120	494	0.243	120	0.3	9.630	A
B-A	83	249	0.331	83	0.5	21.580	C
C-AB	139	591	0.235	139	0.3	7.967	A
C-A	593			593			
A-B	67			67			
A-C	490			490			

12:00 - 12:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	98	543	0.180	98	0.2	8.096	A
B-A	67	298	0.226	68	0.3	15.731	C
C-AB	113	620	0.183	114	0.2	7.118	A
C-A	485			485			
A-B	55			55			
A-C	400			400			

12:15 - 12:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	82	574	0.143	82	0.2	7.330	A
B-A	56	332	0.170	57	0.2	13.097	B
C-AB	95	641	0.148	95	0.2	6.598	A
C-A	406			406			
A-B	46			46			
A-C	335			335			

Appendix L
A16 Low Road / B1165 Low Road / Low Road Modelling Output

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.1.7462
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Filename: A16 Low Road - B1165.j9
Path: C:\AMA\AMA\AMA - Documents\001 - Projects\22428 - Holbeach Road, Spalding\D Models and Drawings\JUNCTION MODELLING
Report generation date: 31/03/2026 14:14:08

»A16 Low Road / B1165 Low Road / Low Road - 2025, AM
»A16 Low Road / B1165 Low Road / Low Road - 2025, PM
»A16 Low Road / B1165 Low Road / Low Road - 2025, SAT
»A16 Low Road / B1165 Low Road / Low Road - 2030, AM
»A16 Low Road / B1165 Low Road / Low Road - 2030, PM
»A16 Low Road / B1165 Low Road / Low Road - 2030, SAT
»A16 Low Road / B1165 Low Road / Low Road - 2030 + Dev, AM
»A16 Low Road / B1165 Low Road / Low Road - 2030 + Dev, PM
»A16 Low Road / B1165 Low Road / Low Road - 2030 + Dev, SAT

Summary of junction performance

	AM					PM					SAT				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
A16 Low Road / B1165 Low Road / Low Road - 2025															
1 - A16 Low Road (N)	D1	1.0	3.73	0.49	A	D2	1.0	3.91	0.49	A	D3	0.9	3.55	0.47	A
2 - B1165 Low Road (E)		0.5	4.41	0.35	A		0.6	4.67	0.39	A		0.5	4.16	0.32	A
3 - A16 Low Road (S)		0.7	3.54	0.40	A		0.8	3.79	0.43	A		0.6	3.21	0.36	A
4 - Low Road (W)		0.3	3.59	0.24	A		0.6	4.60	0.38	A		0.2	3.35	0.20	A
A16 Low Road / B1165 Low Road / Low Road - 2030															
1 - A16 Low Road (N)	D4	1.1	3.94	0.51	A	D5	1.1	4.17	0.52	A	D6	1.0	3.77	0.50	A
2 - B1165 Low Road (E)		0.6	4.65	0.38	A		0.7	4.96	0.42	A		0.5	4.40	0.35	A
3 - A16 Low Road (S)		0.7	3.73	0.43	A		0.8	4.04	0.46	A		0.6	3.37	0.38	A
4 - Low Road (W)		0.3	3.74	0.26	A		0.7	4.93	0.41	A		0.3	3.49	0.21	A
A16 Low Road / B1165 Low Road / Low Road - 2030 + Dev															
1 - A16 Low Road (N)	D7	1.1	3.99	0.52	A	D8	1.1	4.33	0.53	A	D9	1.0	3.82	0.50	A
2 - B1165 Low Road (E)		0.6	4.67	0.38	A		0.9	5.44	0.47	A		0.5	4.42	0.35	A
3 - A16 Low Road (S)		0.7	3.75	0.43	A		0.9	4.23	0.47	A		0.6	3.39	0.38	A
4 - Low Road (W)		0.4	3.78	0.27	A		0.8	5.20	0.43	A		0.3	3.55	0.23	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	A16 Low Road / B1165 Low Road / Low Road
Location	Spalding
Site number	
Date	29/05/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	AzureAD\Modellinglaptop
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	2025	AM	ONE HOUR	00:00	01:30	15
D2	2025	PM	ONE HOUR	00:00	01:30	15
D3	2025	SAT	ONE HOUR	00:00	01:30	15
D4	2030	AM	ONE HOUR	00:00	01:30	15
D5	2030	PM	ONE HOUR	00:00	01:30	15
D6	2030	SAT	ONE HOUR	00:00	01:30	15
D7	2030 + Dev	AM	ONE HOUR	00:00	01:30	15
D8	2030 + Dev	PM	ONE HOUR	00:00	01:30	15
D9	2030 + Dev	SAT	ONE HOUR	00:00	01:30	15

Analysis Set Details

ID	Name	Network flow scaling factor (%)
A1	A16 Low Road / B1165 Low Road / Low Road	100.000

A16 Low Road / B1165 Low Road / Low Road - 2025, 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	A16 Low Road / B1165 Low Road / Low Road	Standard Roundabout		1, 2, 3, 4	3.78	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	A16 Low Road (N)	
2	B1165 Low Road (E)	
3	A16 Low Road (S)	
4	Low Road (W)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - A16 Low Road (N)	4.40	7.70	25.0	21.5	64.0	33.0	
2 - B1165 Low Road (E)	3.25	7.50	29.2	19.4	64.0	62.0	
3 - A16 Low Road (S)	4.76	8.00	21.0	24.4	64.0	42.0	
4 - Low Road (W)	2.90	7.90	25.2	20.0	64.0	32.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A16 Low Road (N)	0.587	2022
2 - B1165 Low Road (E)	0.499	1654
3 - A16 Low Road (S)	0.582	2031
4 - Low Road (W)	0.549	1793

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	2025	AM	ONE HOUR	00:00	01:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A16 Low Road (N)		✓	838	100.000
2 - B1165 Low Road (E)		✓	407	100.000
3 - A16 Low Road (S)		✓	616	100.000
4 - Low Road (W)		✓	289	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A16 Low Road (N)	2 - B1165 Low Road (E)	3 - A16 Low Road (S)	4 - Low Road (W)
From	1 - A16 Low Road (N)	3	184	525	126
	2 - B1165 Low Road (E)	210	1	12	184
	3 - A16 Low Road (S)	546	22	0	48
	4 - Low Road (W)	105	131	52	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A16 Low Road (N)	2 - B1165 Low Road (E)	3 - A16 Low Road (S)	4 - Low Road (W)
From	1 - A16 Low Road (N)	0	0	0	0
	2 - B1165 Low Road (E)	0	0	0	0
	3 - A16 Low Road (S)	0	0	0	0
	4 - Low Road (W)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A16 Low Road (N)	0.49	3.73	1.0	A
2 - B1165 Low Road (E)	0.35	4.41	0.5	A
3 - A16 Low Road (S)	0.40	3.54	0.7	A
4 - Low Road (W)	0.24	3.59	0.3	A

Main Results for each time segment

00:00 - 00:15

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 - A16 Low Road (N)	631	155	1931	0.327	629	0.5	2.762	A
2 - B1165 Low Road (E)	306	531	1389	0.221	305	0.3	3.319	A
3 - A16 Low Road (S)	464	394	1801	0.257	462	0.3	2.686	A
4 - Low Road (W)	218	587	1471	0.148	217	0.2	2.869	A

00:15 - 00:30

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 - A16 Low Road (N)	753	186	1913	0.394	753	0.6	3.101	A
2 - B1165 Low Road (E)	366	635	1337	0.274	366	0.4	3.707	A
3 - A16 Low Road (S)	554	472	1756	0.315	553	0.5	2.993	A
4 - Low Road (W)	260	702	1407	0.185	260	0.2	3.136	A

00:30 - 00:45

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 - A16 Low Road (N)	923	228	1888	0.489	921	0.9	3.718	A
2 - B1165 Low Road (E)	448	777	1266	0.354	447	0.5	4.396	A
3 - A16 Low Road (S)	678	577	1695	0.400	677	0.7	3.534	A
4 - Low Road (W)	318	860	1321	0.241	318	0.3	3.589	A

00:45 - 01:00

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 - A16 Low Road (N)	923	228	1888	0.489	923	1.0	3.727	A
2 - B1165 Low Road (E)	448	778	1265	0.354	448	0.5	4.405	A
3 - A16 Low Road (S)	678	578	1694	0.400	678	0.7	3.542	A
4 - Low Road (W)	318	861	1320	0.241	318	0.3	3.591	A

01:00 - 01:15

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 - A16 Low Road (N)	753	186	1913	0.394	755	0.7	3.113	A
2 - B1165 Low Road (E)	366	637	1336	0.274	367	0.4	3.718	A
3 - A16 Low Road (S)	554	473	1756	0.315	555	0.5	3.001	A
4 - Low Road (W)	260	704	1406	0.185	260	0.2	3.140	A

01:15 - 01:30

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 - A16 Low Road (N)	631	156	1930	0.327	632	0.5	2.772	A
2 - B1165 Low Road (E)	306	533	1388	0.221	307	0.3	3.333	A
3 - A16 Low Road (S)	464	396	1800	0.258	464	0.3	2.696	A
4 - Low Road (W)	218	589	1469	0.148	218	0.2	2.876	A

A16 Low Road / B1165 Low Road / Low Road - 2025, 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	A16 Low Road / B1165 Low Road / Low Road	Standard Roundabout		1, 2, 3, 4	4.15	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)
D2	2025	PM	ONE HOUR	00:00	01:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A16 Low Road (N)		✓	809	100.000
2 - B1165 Low Road (E)		✓	452	100.000
3 - A16 Low Road (S)		✓	652	100.000
4 - Low Road (W)		✓	443	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A16 Low Road (N)	2 - B1165 Low Road (E)	3 - A16 Low Road (S)	4 - Low Road (W)
From	1 - A16 Low Road (N)	2	176	491	140
	2 - B1165 Low Road (E)	256	0	27	169
	3 - A16 Low Road (S)	583	23	0	46
	4 - Low Road (W)	140	236	66	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A16 Low Road (N)	2 - B1165 Low Road (E)	3 - A16 Low Road (S)	4 - Low Road (W)
From	1 - A16 Low Road (N)	0	0	0	0
	2 - B1165 Low Road (E)	0	0	0	0
	3 - A16 Low Road (S)	0	0	0	0
	4 - Low Road (W)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A16 Low Road (N)	0.49	3.91	1.0	A
2 - B1165 Low Road (E)	0.39	4.67	0.6	A
3 - A16 Low Road (S)	0.43	3.79	0.8	A
4 - Low Road (W)	0.38	4.60	0.6	A

Main Results for each time segment

00:00 - 00:15

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 - A16 Low Road (N)	609	245	1878	0.324	607	0.5	2.828	A
2 - B1165 Low Road (E)	340	525	1391	0.245	339	0.3	3.415	A
3 - A16 Low Road (S)	491	426	1783	0.275	489	0.4	2.781	A
4 - Low Road (W)	334	648	1437	0.232	332	0.3	3.256	A

00:15 - 00:30

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 - A16 Low Road (N)	727	293	1850	0.393	727	0.6	3.202	A
2 - B1165 Low Road (E)	406	629	1340	0.303	406	0.4	3.852	A
3 - A16 Low Road (S)	586	510	1734	0.338	586	0.5	3.133	A
4 - Low Road (W)	398	776	1367	0.291	398	0.4	3.712	A

00:30 - 00:45

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 - A16 Low Road (N)	891	358	1812	0.492	889	1.0	3.898	A
2 - B1165 Low Road (E)	498	770	1270	0.392	497	0.6	4.654	A
3 - A16 Low Road (S)	718	624	1667	0.431	717	0.8	3.784	A
4 - Low Road (W)	488	950	1272	0.384	487	0.6	4.583	A

00:45 - 01:00

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 - A16 Low Road (N)	891	359	1811	0.492	891	1.0	3.910	A
2 - B1165 Low Road (E)	498	771	1269	0.392	498	0.6	4.666	A
3 - A16 Low Road (S)	718	625	1667	0.431	718	0.8	3.792	A
4 - Low Road (W)	488	951	1271	0.384	488	0.6	4.596	A

01:00 - 01:15

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 - A16 Low Road (N)	727	294	1850	0.393	729	0.7	3.214	A
2 - B1165 Low Road (E)	406	630	1339	0.303	407	0.4	3.866	A
3 - A16 Low Road (S)	586	512	1733	0.338	587	0.5	3.143	A
4 - Low Road (W)	398	778	1366	0.292	399	0.4	3.725	A

01:15 - 01:30

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 - A16 Low Road (N)	609	246	1878	0.324	610	0.5	2.840	A
2 - B1165 Low Road (E)	340	528	1390	0.245	341	0.3	3.433	A
3 - A16 Low Road (S)	491	428	1781	0.276	491	0.4	2.793	A
4 - Low Road (W)	334	651	1435	0.232	334	0.3	3.271	A

A16 Low Road / B1165 Low Road / Low Road - 2025, SAT

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	A16 Low Road / B1165 Low Road / Low Road	Standard Roundabout		1, 2, 3, 4	3.55	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	2025	SAT	ONE HOUR	00:00	01:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A16 Low Road (N)		✓	809	100.000
2 - B1165 Low Road (E)		✓	376	100.000
3 - A16 Low Road (S)		✓	570	100.000
4 - Low Road (W)		✓	242	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A16 Low Road (N)	2 - B1165 Low Road (E)	3 - A16 Low Road (S)	4 - Low Road (W)
From	1 - A16 Low Road (N)	4	156	567	82
	2 - B1165 Low Road (E)	208	0	21	147
	3 - A16 Low Road (S)	505	33	0	32
	4 - Low Road (W)	91	122	28	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A16 Low Road (N)	2 - B1165 Low Road (E)	3 - A16 Low Road (S)	4 - Low Road (W)
From	1 - A16 Low Road (N)	0	0	0	0
	2 - B1165 Low Road (E)	0	0	0	0
	3 - A16 Low Road (S)	0	0	0	0
	4 - Low Road (W)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A16 Low Road (N)	0.47	3.55	0.9	A
2 - B1165 Low Road (E)	0.32	4.16	0.5	A
3 - A16 Low Road (S)	0.36	3.21	0.6	A
4 - Low Road (W)	0.20	3.35	0.2	A

Main Results for each time segment

00:00 - 00:15

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 - A16 Low Road (N)	609	138	1941	0.314	607	0.5	2.696	A
2 - B1165 Low Road (E)	283	512	1398	0.202	282	0.3	3.222	A
3 - A16 Low Road (S)	429	332	1838	0.234	428	0.3	2.551	A
4 - Low Road (W)	182	563	1484	0.123	182	0.1	2.762	A

00:15 - 00:30

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 - A16 Low Road (N)	727	165	1925	0.378	727	0.6	3.002	A
2 - B1165 Low Road (E)	338	613	1348	0.251	338	0.3	3.563	A
3 - A16 Low Road (S)	512	397	1800	0.285	512	0.4	2.796	A
4 - Low Road (W)	218	674	1423	0.153	217	0.2	2.985	A

00:30 - 00:45

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 - A16 Low Road (N)	891	202	1903	0.468	890	0.9	3.549	A
2 - B1165 Low Road (E)	414	750	1279	0.324	413	0.5	4.154	A
3 - A16 Low Road (S)	628	486	1748	0.359	627	0.6	3.210	A
4 - Low Road (W)	266	825	1340	0.199	266	0.2	3.351	A

00:45 - 01:00

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 - A16 Low Road (N)	891	203	1903	0.468	891	0.9	3.555	A
2 - B1165 Low Road (E)	414	751	1279	0.324	414	0.5	4.161	A
3 - A16 Low Road (S)	628	487	1747	0.359	628	0.6	3.213	A
4 - Low Road (W)	266	826	1340	0.199	266	0.2	3.353	A

01:00 - 01:15

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 - A16 Low Road (N)	727	166	1925	0.378	728	0.6	3.011	A
2 - B1165 Low Road (E)	338	614	1347	0.251	339	0.3	3.573	A
3 - A16 Low Road (S)	512	398	1799	0.285	513	0.4	2.802	A
4 - Low Road (W)	218	675	1422	0.153	218	0.2	2.991	A

01:15 - 01:30

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 - A16 Low Road (N)	609	139	1941	0.314	610	0.5	2.705	A
2 - B1165 Low Road (E)	283	514	1397	0.203	283	0.3	3.232	A
3 - A16 Low Road (S)	429	333	1837	0.234	430	0.3	2.560	A
4 - Low Road (W)	182	565	1483	0.123	182	0.1	2.770	A

A16 Low Road / B1165 Low Road / Low Road - 2030, 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	A16 Low Road / B1165 Low Road / Low Road	Standard Roundabout		1, 2, 3, 4	3.99	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	2030	AM	ONE HOUR	00:00	01:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A16 Low Road (N)		✓	880	100.000
2 - B1165 Low Road (E)		✓	429	100.000
3 - A16 Low Road (S)		✓	648	100.000
4 - Low Road (W)		✓	303	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A16 Low Road (N)	2 - B1165 Low Road (E)	3 - A16 Low Road (S)	4 - Low Road (W)
From	1 - A16 Low Road (N)	3	194	551	132
	2 - B1165 Low Road (E)	221	1	13	194
	3 - A16 Low Road (S)	574	23	0	51
	4 - Low Road (W)	110	137	55	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A16 Low Road (N)	2 - B1165 Low Road (E)	3 - A16 Low Road (S)	4 - Low Road (W)
From	1 - A16 Low Road (N)	0	0	0	0
	2 - B1165 Low Road (E)	0	0	0	0
	3 - A16 Low Road (S)	0	0	0	0
	4 - Low Road (W)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A16 Low Road (N)	0.51	3.94	1.1	A
2 - B1165 Low Road (E)	0.38	4.65	0.6	A
3 - A16 Low Road (S)	0.43	3.73	0.7	A
4 - Low Road (W)	0.26	3.74	0.3	A

Main Results for each time segment

00:00 - 00:15

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 - A16 Low Road (N)	663	163	1926	0.344	660	0.5	2.838	A
2 - B1165 Low Road (E)	323	557	1376	0.235	322	0.3	3.413	A
3 - A16 Low Road (S)	488	414	1790	0.273	486	0.4	2.760	A
4 - Low Road (W)	228	617	1454	0.157	227	0.2	2.932	A

00:15 - 00:30

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 - A16 Low Road (N)	791	195	1908	0.415	790	0.7	3.221	A
2 - B1165 Low Road (E)	386	666	1321	0.292	385	0.4	3.845	A
3 - A16 Low Road (S)	583	496	1742	0.334	582	0.5	3.101	A
4 - Low Road (W)	272	738	1388	0.196	272	0.2	3.227	A

00:30 - 00:45

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 - A16 Low Road (N)	969	239	1882	0.515	968	1.1	3.932	A
2 - B1165 Low Road (E)	472	816	1247	0.379	472	0.6	4.640	A
3 - A16 Low Road (S)	713	607	1678	0.425	713	0.7	3.727	A
4 - Low Road (W)	334	904	1297	0.257	333	0.3	3.733	A

00:45 - 01:00

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 - A16 Low Road (N)	969	239	1882	0.515	969	1.1	3.943	A
2 - B1165 Low Road (E)	472	817	1246	0.379	472	0.6	4.652	A
3 - A16 Low Road (S)	713	608	1677	0.425	713	0.7	3.735	A
4 - Low Road (W)	334	905	1296	0.257	334	0.3	3.739	A

01:00 - 01:15

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 - A16 Low Road (N)	791	195	1907	0.415	792	0.7	3.232	A
2 - B1165 Low Road (E)	386	668	1320	0.292	386	0.4	3.858	A
3 - A16 Low Road (S)	583	497	1741	0.335	583	0.5	3.110	A
4 - Low Road (W)	272	740	1387	0.196	273	0.2	3.232	A

01:15 - 01:30

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 - A16 Low Road (N)	663	164	1926	0.344	663	0.5	2.852	A
2 - B1165 Low Road (E)	323	559	1375	0.235	323	0.3	3.428	A
3 - A16 Low Road (S)	488	416	1789	0.273	488	0.4	2.769	A
4 - Low Road (W)	228	620	1453	0.157	228	0.2	2.939	A

A16 Low Road / B1165 Low Road / Low Road - 2030, 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	A16 Low Road / B1165 Low Road / Low Road	Standard Roundabout		1, 2, 3, 4	4.43	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	2030	PM	ONE HOUR	00:00	01:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A16 Low Road (N)		✓	851	100.000
2 - B1165 Low Road (E)		✓	475	100.000
3 - A16 Low Road (S)		✓	687	100.000
4 - Low Road (W)		✓	466	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A16 Low Road (N)	2 - B1165 Low Road (E)	3 - A16 Low Road (S)	4 - Low Road (W)
From	1 - A16 Low Road (N)	2	185	517	147
	2 - B1165 Low Road (E)	269	0	28	178
	3 - A16 Low Road (S)	614	24	0	49
	4 - Low Road (W)	147	248	70	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A16 Low Road (N)	2 - B1165 Low Road (E)	3 - A16 Low Road (S)	4 - Low Road (W)
From	1 - A16 Low Road (N)	0	0	0	0
	2 - B1165 Low Road (E)	0	0	0	0
	3 - A16 Low Road (S)	0	0	0	0
	4 - Low Road (W)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A16 Low Road (N)	0.52	4.17	1.1	A
2 - B1165 Low Road (E)	0.42	4.96	0.7	A
3 - A16 Low Road (S)	0.46	4.04	0.8	A
4 - Low Road (W)	0.41	4.93	0.7	A

Main Results for each time segment

00:00 - 00:15

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 - A16 Low Road (N)	641	257	1871	0.342	639	0.5	2.916	A
2 - B1165 Low Road (E)	358	553	1378	0.260	356	0.3	3.520	A
3 - A16 Low Road (S)	517	448	1770	0.292	516	0.4	2.866	A
4 - Low Road (W)	351	682	1419	0.247	350	0.3	3.362	A

00:15 - 00:30

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 - A16 Low Road (N)	765	308	1841	0.416	764	0.7	3.341	A
2 - B1165 Low Road (E)	427	662	1323	0.323	427	0.5	4.013	A
3 - A16 Low Road (S)	618	536	1719	0.359	617	0.6	3.266	A
4 - Low Road (W)	419	816	1345	0.312	418	0.4	3.884	A

00:30 - 00:45

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 - A16 Low Road (N)	937	377	1801	0.520	935	1.1	4.154	A
2 - B1165 Low Road (E)	523	810	1249	0.419	522	0.7	4.944	A
3 - A16 Low Road (S)	756	656	1649	0.459	755	0.8	4.024	A
4 - Low Road (W)	513	999	1244	0.412	512	0.7	4.910	A

00:45 - 01:00

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 - A16 Low Road (N)	937	378	1800	0.520	937	1.1	4.169	A
2 - B1165 Low Road (E)	523	811	1249	0.419	523	0.7	4.960	A
3 - A16 Low Road (S)	756	657	1648	0.459	756	0.8	4.036	A
4 - Low Road (W)	513	1001	1244	0.413	513	0.7	4.927	A

01:00 - 01:15

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 - A16 Low Road (N)	765	309	1841	0.416	766	0.7	3.358	A
2 - B1165 Low Road (E)	427	664	1322	0.323	428	0.5	4.030	A
3 - A16 Low Road (S)	618	538	1718	0.360	619	0.6	3.278	A
4 - Low Road (W)	419	819	1344	0.312	420	0.5	3.901	A

01:15 - 01:30

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 - A16 Low Road (N)	641	259	1870	0.343	641	0.5	2.931	A
2 - B1165 Low Road (E)	358	556	1376	0.260	358	0.4	3.536	A
3 - A16 Low Road (S)	517	450	1769	0.292	518	0.4	2.880	A
4 - Low Road (W)	351	685	1417	0.248	351	0.3	3.382	A

A16 Low Road / B1165 Low Road / Low Road - 2030, SAT

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	A16 Low Road / B1165 Low Road / Low Road	Standard Roundabout		1, 2, 3, 4	3.74	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	2030	SAT	ONE HOUR	00:00	01:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A16 Low Road (N)		✓	855	100.000
2 - B1165 Low Road (E)		✓	399	100.000
3 - A16 Low Road (S)		✓	602	100.000
4 - Low Road (W)		✓	256	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A16 Low Road (N)	2 - B1165 Low Road (E)	3 - A16 Low Road (S)	4 - Low Road (W)
From	1 - A16 Low Road (N)	4	165	599	87
	2 - B1165 Low Road (E)	220	0	23	156
	3 - A16 Low Road (S)	533	35	0	34
	4 - Low Road (W)	96	129	30	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A16 Low Road (N)	2 - B1165 Low Road (E)	3 - A16 Low Road (S)	4 - Low Road (W)
From	1 - A16 Low Road (N)	0	0	0	0
	2 - B1165 Low Road (E)	0	0	0	0
	3 - A16 Low Road (S)	0	0	0	0
	4 - Low Road (W)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A16 Low Road (N)	0.50	3.77	1.0	A
2 - B1165 Low Road (E)	0.35	4.40	0.5	A
3 - A16 Low Road (S)	0.38	3.37	0.6	A
4 - Low Road (W)	0.21	3.49	0.3	A

Main Results for each time segment

00:00 - 00:15

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 - A16 Low Road (N)	644	146	1936	0.332	642	0.5	2.778	A
2 - B1165 Low Road (E)	300	541	1384	0.217	299	0.3	3.317	A
3 - A16 Low Road (S)	453	351	1826	0.248	452	0.3	2.617	A
4 - Low Road (W)	193	594	1467	0.131	192	0.2	2.823	A

00:15 - 00:30

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 - A16 Low Road (N)	769	175	1919	0.401	768	0.7	3.125	A
2 - B1165 Low Road (E)	359	648	1330	0.270	358	0.4	3.703	A
3 - A16 Low Road (S)	541	420	1786	0.303	541	0.4	2.891	A
4 - Low Road (W)	230	711	1402	0.164	230	0.2	3.070	A

00:30 - 00:45

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 - A16 Low Road (N)	941	214	1896	0.496	940	1.0	3.761	A
2 - B1165 Low Road (E)	439	793	1258	0.349	439	0.5	4.389	A
3 - A16 Low Road (S)	663	515	1731	0.383	662	0.6	3.365	A
4 - Low Road (W)	282	871	1315	0.214	282	0.3	3.484	A

00:45 - 01:00

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 - A16 Low Road (N)	941	215	1896	0.497	941	1.0	3.770	A
2 - B1165 Low Road (E)	439	794	1258	0.349	439	0.5	4.399	A
3 - A16 Low Road (S)	663	515	1731	0.383	663	0.6	3.369	A
4 - Low Road (W)	282	872	1314	0.214	282	0.3	3.486	A

01:00 - 01:15

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 - A16 Low Road (N)	769	176	1919	0.401	770	0.7	3.138	A
2 - B1165 Low Road (E)	359	649	1330	0.270	359	0.4	3.711	A
3 - A16 Low Road (S)	541	421	1785	0.303	542	0.4	2.898	A
4 - Low Road (W)	230	713	1402	0.164	230	0.2	3.074	A

01:15 - 01:30

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 - A16 Low Road (N)	644	147	1936	0.333	644	0.5	2.788	A
2 - B1165 Low Road (E)	300	543	1382	0.217	301	0.3	3.331	A
3 - A16 Low Road (S)	453	353	1825	0.248	454	0.3	2.624	A
4 - Low Road (W)	193	597	1465	0.132	193	0.2	2.831	A

A16 Low Road / B1165 Low Road / Low Road - 2030 + 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	A16 Low Road / B1165 Low Road / Low Road	Standard Roundabout		1, 2, 3, 4	4.02	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	2030 + Dev	AM	ONE HOUR	00:00	01:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A16 Low Road (N)		✓	889	100.000
2 - B1165 Low Road (E)		✓	427	100.000
3 - A16 Low Road (S)		✓	647	100.000
4 - Low Road (W)		✓	314	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A16 Low Road (N)	2 - B1165 Low Road (E)	3 - A16 Low Road (S)	4 - Low Road (W)
From	1 - A16 Low Road (N)	3	193	551	142
	2 - B1165 Low Road (E)	220	1	13	193
	3 - A16 Low Road (S)	574	23	0	50
	4 - Low Road (W)	121	137	55	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A16 Low Road (N)	2 - B1165 Low Road (E)	3 - A16 Low Road (S)	4 - Low Road (W)
From	1 - A16 Low Road (N)	0	0	0	0
	2 - B1165 Low Road (E)	0	0	0	0
	3 - A16 Low Road (S)	0	0	0	0
	4 - Low Road (W)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A16 Low Road (N)	0.52	3.99	1.1	A
2 - B1165 Low Road (E)	0.38	4.67	0.6	A
3 - A16 Low Road (S)	0.43	3.75	0.7	A
4 - Low Road (W)	0.27	3.78	0.4	A

Main Results for each time segment

00:00 - 00:15

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 - A16 Low Road (N)	669	163	1926	0.347	667	0.5	2.854	A
2 - B1165 Low Road (E)	321	564	1372	0.234	320	0.3	3.420	A
3 - A16 Low Road (S)	487	420	1786	0.273	486	0.4	2.766	A
4 - Low Road (W)	236	616	1455	0.163	236	0.2	2.951	A

00:15 - 00:30

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 - A16 Low Road (N)	799	195	1908	0.419	798	0.7	3.244	A
2 - B1165 Low Road (E)	384	675	1317	0.292	383	0.4	3.856	A
3 - A16 Low Road (S)	582	503	1738	0.335	581	0.5	3.110	A
4 - Low Road (W)	282	737	1388	0.203	282	0.3	3.254	A

00:30 - 00:45

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 - A16 Low Road (N)	979	239	1882	0.520	977	1.1	3.973	A
2 - B1165 Low Road (E)	470	827	1241	0.379	469	0.6	4.660	A
3 - A16 Low Road (S)	712	616	1672	0.426	711	0.7	3.742	A
4 - Low Road (W)	346	903	1297	0.266	345	0.4	3.778	A

00:45 - 01:00

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 - A16 Low Road (N)	979	239	1882	0.520	979	1.1	3.986	A
2 - B1165 Low Road (E)	470	828	1240	0.379	470	0.6	4.672	A
3 - A16 Low Road (S)	712	617	1672	0.426	712	0.7	3.750	A
4 - Low Road (W)	346	904	1297	0.267	346	0.4	3.784	A

01:00 - 01:15

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 - A16 Low Road (N)	799	195	1907	0.419	801	0.7	3.256	A
2 - B1165 Low Road (E)	384	677	1316	0.292	385	0.4	3.871	A
3 - A16 Low Road (S)	582	504	1737	0.335	583	0.5	3.122	A
4 - Low Road (W)	282	739	1387	0.204	283	0.3	3.260	A

01:15 - 01:30

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 - A16 Low Road (N)	669	164	1926	0.348	670	0.5	2.869	A
2 - B1165 Low Road (E)	321	567	1371	0.235	322	0.3	3.432	A
3 - A16 Low Road (S)	487	422	1785	0.273	488	0.4	2.775	A
4 - Low Road (W)	236	619	1453	0.163	237	0.2	2.961	A

A16 Low Road / B1165 Low Road / Low Road - 2030 + 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	A16 Low Road / B1165 Low Road / Low Road	Standard Roundabout		1, 2, 3, 4	4.69	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	2030 + Dev	PM	ONE HOUR	00:00	01:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A16 Low Road (N)		✓	865	100.000
2 - B1165 Low Road (E)		✓	526	100.000
3 - A16 Low Road (S)		✓	685	100.000
4 - Low Road (W)		✓	478	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A16 Low Road (N)	2 - B1165 Low Road (E)	3 - A16 Low Road (S)	4 - Low Road (W)
From	1 - A16 Low Road (N)	2	184	517	162
	2 - B1165 Low Road (E)	284	27	28	187
	3 - A16 Low Road (S)	613	24	0	48
	4 - Low Road (W)	161	247	69	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A16 Low Road (N)	2 - B1165 Low Road (E)	3 - A16 Low Road (S)	4 - Low Road (W)
From	1 - A16 Low Road (N)	0	0	0	0
	2 - B1165 Low Road (E)	0	0	0	0
	3 - A16 Low Road (S)	0	0	0	0
	4 - Low Road (W)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A16 Low Road (N)	0.53	4.33	1.1	A
2 - B1165 Low Road (E)	0.47	5.44	0.9	A
3 - A16 Low Road (S)	0.47	4.23	0.9	A
4 - Low Road (W)	0.43	5.20	0.8	A

Main Results for each time segment

00:00 - 00:15

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 - A16 Low Road (N)	651	276	1860	0.350	649	0.5	2.968	A
2 - B1165 Low Road (E)	396	564	1372	0.289	394	0.4	3.674	A
3 - A16 Low Road (S)	516	497	1741	0.296	514	0.4	2.929	A
4 - Low Road (W)	360	713	1402	0.257	358	0.3	3.446	A

00:15 - 00:30

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 - A16 Low Road (N)	778	330	1828	0.425	777	0.7	3.423	A
2 - B1165 Low Road (E)	473	674	1317	0.359	472	0.6	4.259	A
3 - A16 Low Road (S)	616	595	1684	0.366	615	0.6	3.365	A
4 - Low Road (W)	430	853	1325	0.324	429	0.5	4.017	A

00:30 - 00:45

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 - A16 Low Road (N)	952	404	1785	0.534	951	1.1	4.310	A
2 - B1165 Low Road (E)	579	825	1242	0.466	578	0.9	5.413	A
3 - A16 Low Road (S)	754	729	1607	0.469	753	0.9	4.210	A
4 - Low Road (W)	526	1044	1220	0.431	525	0.8	5.173	A

00:45 - 01:00

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 - A16 Low Road (N)	952	405	1784	0.534	952	1.1	4.327	A
2 - B1165 Low Road (E)	579	827	1241	0.467	579	0.9	5.438	A
3 - A16 Low Road (S)	754	730	1606	0.470	754	0.9	4.226	A
4 - Low Road (W)	526	1046	1219	0.432	526	0.8	5.197	A

01:00 - 01:15

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 - A16 Low Road (N)	778	332	1827	0.426	779	0.7	3.441	A
2 - B1165 Low Road (E)	473	677	1316	0.359	474	0.6	4.281	A
3 - A16 Low Road (S)	616	597	1683	0.366	617	0.6	3.380	A
4 - Low Road (W)	430	856	1323	0.325	431	0.5	4.040	A

01:15 - 01:30

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 - A16 Low Road (N)	651	277	1859	0.350	652	0.5	2.983	A
2 - B1165 Low Road (E)	396	566	1371	0.289	397	0.4	3.695	A
3 - A16 Low Road (S)	516	500	1740	0.296	516	0.4	2.943	A
4 - Low Road (W)	360	716	1400	0.257	360	0.3	3.467	A

A16 Low Road / B1165 Low Road / Low Road - 2030 + Dev, SAT

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	A16 Low Road / B1165 Low Road / Low Road	Standard Roundabout		1, 2, 3, 4	3.77	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)
D9	2030 + Dev	SAT	ONE HOUR	00:00	01:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A16 Low Road (N)		✓	869	100.000
2 - B1165 Low Road (E)		✓	394	100.000
3 - A16 Low Road (S)		✓	594	100.000
4 - Low Road (W)		✓	278	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A16 Low Road (N)	2 - B1165 Low Road (E)	3 - A16 Low Road (S)	4 - Low Road (W)
From	1 - A16 Low Road (N)	4	161	591	113
	2 - B1165 Low Road (E)	218	0	22	154
	3 - A16 Low Road (S)	527	34	0	33
	4 - Low Road (W)	122	126	29	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - A16 Low Road (N)	2 - B1165 Low Road (E)	3 - A16 Low Road (S)	4 - Low Road (W)
From	1 - A16 Low Road (N)	0	0	0	0
	2 - B1165 Low Road (E)	0	0	0	0
	3 - A16 Low Road (S)	0	0	0	0
	4 - Low Road (W)	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A16 Low Road (N)	0.50	3.82	1.0	A
2 - B1165 Low Road (E)	0.35	4.42	0.5	A
3 - A16 Low Road (S)	0.38	3.39	0.6	A
4 - Low Road (W)	0.23	3.55	0.3	A

Main Results for each time segment

00:00 - 00:15

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 - A16 Low Road (N)	654	143	1938	0.338	652	0.5	2.791	A
2 - B1165 Low Road (E)	297	554	1377	0.215	296	0.3	3.325	A
3 - A16 Low Road (S)	447	368	1817	0.246	446	0.3	2.623	A
4 - Low Road (W)	209	588	1470	0.142	209	0.2	2.851	A

00:15 - 00:30

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 - A16 Low Road (N)	781	171	1922	0.407	781	0.7	3.153	A
2 - B1165 Low Road (E)	354	663	1323	0.268	354	0.4	3.715	A
3 - A16 Low Road (S)	534	440	1775	0.301	534	0.4	2.901	A
4 - Low Road (W)	250	703	1407	0.178	250	0.2	3.110	A

00:30 - 00:45

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 - A16 Low Road (N)	957	209	1899	0.504	955	1.0	3.809	A
2 - B1165 Low Road (E)	434	811	1249	0.347	433	0.5	4.410	A
3 - A16 Low Road (S)	654	539	1717	0.381	653	0.6	3.382	A
4 - Low Road (W)	306	861	1320	0.232	306	0.3	3.548	A

00:45 - 01:00

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 - A16 Low Road (N)	957	209	1899	0.504	957	1.0	3.819	A
2 - B1165 Low Road (E)	434	813	1248	0.348	434	0.5	4.420	A
3 - A16 Low Road (S)	654	539	1717	0.381	654	0.6	3.386	A
4 - Low Road (W)	306	862	1320	0.232	306	0.3	3.550	A

01:00 - 01:15

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 - A16 Low Road (N)	781	171	1922	0.407	783	0.7	3.165	A
2 - B1165 Low Road (E)	354	665	1322	0.268	355	0.4	3.723	A
3 - A16 Low Road (S)	534	441	1774	0.301	535	0.4	2.906	A
4 - Low Road (W)	250	705	1406	0.178	250	0.2	3.115	A

01:15 - 01:30

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 - A16 Low Road (N)	654	143	1938	0.338	655	0.5	2.809	A
2 - B1165 Low Road (E)	297	556	1376	0.216	297	0.3	3.339	A
3 - A16 Low Road (S)	447	369	1816	0.246	448	0.3	2.631	A
4 - Low Road (W)	209	590	1469	0.142	209	0.2	2.858	A

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