


Traffic and Transport Assessment

FINGAL COUNTY COUNCIL - Residential Development “Mooretown Lands” Phase 1 at Mooretown, Swords, Co. Dublin.

May 2024

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Comments

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1. Introduction

1.1 Context

This Traffic and Transportation Assessment (TTA) has been prepared by Waterman Moylan on behalf of Fingal County Council as part of a design pack for a proposed local authority owned residential development in Mooretown, Swords, Co. Dublin.

This TTA has been produced to address any potential concerns that the local authority may have pertaining to the effect of the proposed development may generate upon the local transport network.

To produce an accurate account of the current traffic movements in the vicinity of the proposed development, traffic surveys have been commissioned. This information has been supplemented with third party historical data and information obtained from site audits of the local road network, thereby providing a holistic view on the traffic movements in the local environment.

The subject site for the proposed Phase 1 development is located on Lands in Mooretown, at the northwestern edge of the town of Swords, North County Dublin, approx. 2km from the town centre. The proposed Phase 1 development is 9.35 Ha in size, and seeks the construction of:

a. A total of 274 no. residential units including 187 no. houses, 37 no. duplex, and 50 no. apartment units, ranging from 2 – 5 storeys in height, in a mixed tenure development (18 no. 1-beds, 109 no. 2-beds, 128 no. 3-beds and 19 no. 4-beds)
b. Landscaping works including the provision of Class 2 Open Space of c.18,065 sq.m including riparian corridors, 8 no. pocket parks with a total area of c.2,900 sq.m, and new pedestrian and cycle connections into neighbouring residential lands to the west and connecting to the existing school access road along the western boundary.
c. A total of 415 no. car parking spaces consisting of 357 no. long-stay resident spaces, 58 no. short-stay and visitor spaces.
d. A total of 1,143 no. bicycle parking spaces consisting of 1,117 no. long-stay resident spaces and 26 no. short-stay visitor spaces.
e. Associated site and infrastructural works including the provision of foul and surface water drainage and associated connections, Sustainable Urban Drainage Systems including permeable paving, greens roofs, bio-retention planting and below ground tank storage.

The detailed breakdown of the proposed residential scheme is as follows:

Typology	1Bed	2Bed	3Bed	4Bed	Total
Houses		54	114	19	187
Duplexes	14	20	3		37
Apartments	4	35	11		50
Total	18	109	128	19	274

Table 1 *| Schedule of Accommodation*

1.2 Background

The proposed development forms part of the Mooretown lands in Swords, which were previously informed by the Oldtown-Mooretown Local Area Plan 2010-2016 (as extended to 2020) and are now subject to the

Fingal development Plan 2020. This phase of developing the lands has been designed and proposed within the spirit of the LAP and in compliance with the Fingal Development Plan alongside local and National policy.

The subject local authority owned housing development forms the first phase of development of these lands.

1.3 Scope

This TTA is a comprehensive review of all the potential transport impacts of the developments at Mooretown, Swords, including a detailed assessment of the existing and future transportation systems and the impact of the proposed development on the surrounding environment and transportation network.

This TTA also discusses the accessibility of the site for vehicles, pedestrian, cyclist, and local public transportation to achieve the sustainable travel targets.

1.4 Standards

This Traffic and Transport Assessment has been prepared in accordance with Section 14.17.4 (Objective DMSO117) of the Fingal Development Plan 2023 – 2029 and in accordance with the Traffic and Transport Assessment Guidelines published by Transport for Ireland (TII) / National Roads Authority (NRA) in May 2014.

1.5 Threshold for Transport Assessment

Section 2.1 of the Traffic and Transport Assessment Guidelines (May 2014) requires submission of a Transport Assessment where a proposed development meets one or more of the following criteria:

1) Traffic to and from the development exceeds 10% of the traffic flow on the adjoining road.
2) Traffic to and from the development exceeds 5% of the traffic flow on the adjoining road where congestion exists, or the location is sensitive.
3) Residential development in excess of 200 dwellings.
4) Retail and leisure development in excess of 1,000sqm.
5) Office, education, and hospital development in excess of 2,500sqm.
6) Industrial development in excess of 5,000sqm.
7) Distribution and warehousing in excess of 10,000sqm.

As the development has more than 200 dwellings, in the case of the subject development, threshold No. 3 is met.

1.6 Site Location

The proposed residential development is located south of the Rathbeale Road, Co. Dublin, and is approximately 20 kilometres north-northeast of Dublin City Centre.

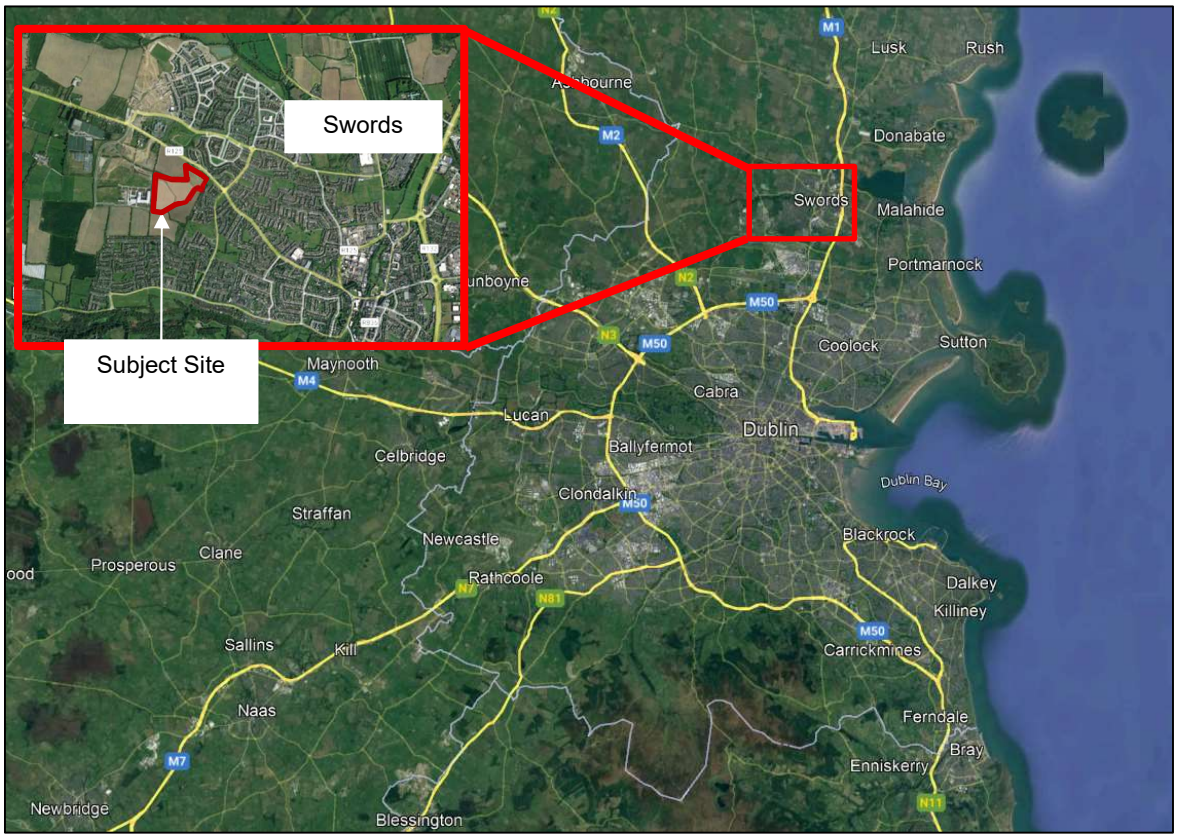


***Figure 1** | Site Location (Source: Google Earth).*

1.7 Programme

Based on the current programme, the first units in the development are expected to be occupied in Q4 2027.

1.8 Assessment Years

The years that have been assessed as part of this TTA are the following:

- Base Year: 2023 – Year of Traffic Survey
- Opening Year (With / Without Development): 2027.
- Opening Year + 5 Years Forecast (With / Without Development): 2032.
- Opening Year + 15 Years Forecast (With / Without Development): 2042.

These assessment years are in line with the 'Transport Assessment Guidelines (May 2014)'.

Details of each assessment year is presented later in this report.

1.9 Documents and public site Consulted

The following documents inter alia were consulted during the preparation of this Traffic and Transport Assessment:

1. Traffic and Transport Assessment Guidelines, TII/NRA, May 2014.
2. Fingal Development Plan 2023 – 2029.
3. Greater Dublin Area Transport Strategy 2022 – 2042.
4. GDA Cycle Network Plan, NTA, 2022.
5. Sustainable Urban Housing: Design Standards for New Apartments, July 2023
6. Planning applications portal of Fingal County Council.
7. Census Mapping 2022 of Central Statics office.

1.10 Report Structure

In accordance with Section 3.3 of the Traffic and Transport Assessment Guidelines (May 2014), the contents of this TTA include:

- **Policy Framework:** Latest Development Plans and Land Area Plans to guide the delivery and management of a package of integrated initiatives which ultimately seek to encourage sustainable travel practices of all residents and visitors travelling to/from the proposed development at Mooretown, Swords, Dublin County.
- **Site Assessment:** A description of the proposed development, description of the existing and proposed traffic/transportation conditions including information on the current traffic, critical junctions, pedestrians, cycle, and public transport facilities.
- **Travel Characteristics:** Review of existing local travel characteristics and modal split.
- **Transport Improvements:** Description of proposed transportation improvements to local roads, junctions, public transport, cycle, and pedestrian facilities.
- **Transportation Infrastructure:** Assessment of all potential impacts on transport infrastructure (road cycling, walking public transport), based on construction proposals and demand forecasts. The development impact upon any committed transport schemes should also be appraised. Design details should be incorporated where a proposal may have a direct impact upon transport infrastructure.
- **Trip Assignments and Distribution:** The traffic and transportation implications of the development including consideration of trip generation/attraction, mode choice and trip

distribution; as well as an analysis of under construction, permitted and potential future developments in the area.

- **Cumulative Impact:** The impact of the development on the surrounding road network including analysis of junction's capacity.
- **Parking Strategy:** Description of car and cycle parking requirements and provisions.
- **Road Safety:** Review of the historical data related to road safety.

2. Policy Framework

2.1 National Policies and Strategies

2.1.1 National Planning Framework

The National Planning Framework (NPF) was published in December 2020 and last updated in February 2023. It is the Government's strategic plan for shaping future growth and development in the country. To deliver the NPF vision and the ten National Strategic Outcomes, it is critical to integrate land use and transport planning and promote sustainable transport.

Over a period of 20 years, the National Planning Framework (NPF) provides a central planning policy strategy that guides future development and investment decisions and informs regional strategies and county development plans. The NPF adopts a strategic approach that promotes sustainable land use and transport strategies in both urban and rural areas. The aim of this approach is to reduce emissions, address the necessity of adapting to climate change, and protect the environment and its amenities.

The NPF aims to alleviate the environmental pressure caused by urban sprawl and its negative impact on key infrastructures and facilities. It encourages the development of compact, higher density infill and brownfield sites that are well-served by existing facilities, amenities, and public transport services.

Facilitating smart and sustainable growth within existing settlements can improve the liveability of urban areas. The physical format of urban development affects the public realm, traffic and parking, access to amenities, and public transport.

2.1.2 Sustainable Residential Development and Compact Settlements Guidelines for Planning Authorities (2024)

The Guidelines set out policy and guidance in relation to the planning and development of urban and rural settlements, with a focus on sustainable residential development and the creation of compact settlements.

These Guidelines replace the Sustainable Residential Development in Urban Areas Guidelines for Planning Authorities issued as Ministerial guidelines under Section 28 of the Act in 2009, which in turn replaced the Residential Density Guidelines issued in 1999.

They build on and update previous guidance to take account of current Government policy and economic, social, and environmental considerations. There is a renewed focus in the Guidelines on the renewal of existing settlements and on the interaction between residential density, housing standards and quality urban design and placemaking to support sustainable and compact growth.

The policies and objectives set out in the Guidelines are intended as a tool to guide the appropriate scale of development at different locations, rather than as a prescriptive methodology. Flexibility is offered so that planning authorities can operate a plan led approach and take the circumstances of a plan area or a site into account as part of the decision-making process.

These guidelines have introduced 4 no. Specific Planning Policy Requirements (SPPR) regarding separation distances (SPPR 1), private open space (SPPR 2), car parking (SPPR 3) and cycle parking

and storage (SPPR 4). Compliance with these SPPR 3 & SPPR4 is set out further in Section 10 of this report.

2.1.3 Smarter Travel

The Smarter Travel Policy, published in February 2009, outlined the Governments vision for achieving a sustainable transport system for Ireland by 2020. Smarter travel is currently outside its target period; however, it is a good reference for developments seeking to improve transport options. The document outlines a number of key policies to encourage a modal shift away from private car use and promote alternative travel modes such as public transport, walking and cycling.

Smarter Travel is a government policy which seeks to reduce the share of travel demand which is car dependant thus reducing reliance on fossils fuels and maximising the efficiency of the transport network. Its main objective is to promote a significant modal shift from private transport to public transport and sustainable transport modes. The policy sets out a target of 55% mode share for walking, cycling and public transport which it aims to achieve through several actions themed around the following:

- Encouraging Smarter Travel.
- Delivering Alternative Ways of Travelling.
- Improving the Efficiency of Motorised Transport.
- Ensuring Integrated Delivery of the Policy.

Aligning spatial planning and transport to address urban sprawl and urban-generated one-off housing in peri-urban areas is identified as a key area to encourage smarter travel. Specifically, the policy encourages good public transport connections with safe routes for walking and cycling to access and the use of local area plans and Strategic Development Zones (SDZs) within major urban areas as a way of improving the land use-transport integration.

2.1.4 Cycle Design Manual (2023)

The Cycle Design Manual (CDM) has been prepared by the National Transport Authority (NTA) and overseen by the Department of Transport. It replaces the previous National Cycle Manual, published by the NTA in 2011, which is now withdrawn.

The CDM draws on the experience of delivering cycling infrastructure across Ireland over the last decade, as well as learning from international best practice, and has been guided by the need to deliver safe cycle facilities for people of all ages and abilities.

The new manual places more emphasis on the range of cycles that cycle infrastructure will have to accommodate and the recommendations focus on segregating cyclists from traffic where speeds and volumes make roads unsuitable for sharing. There is also a general presumption towards segregating pedestrians and cyclists where possible.

The CDM includes a number of new types of infrastructure such as protected junctions, Dutch style cycle-friendly roundabouts, and parallel crossings which are commonly used in other countries and will now become an option for cycle infrastructure in Ireland. It should be noted that some newer features will require amendments to supporting Regulations and the Traffic Sign Manual so designers should consult

with the relevant approving authority prior to installing any of the newer features to ensure applicability of designs/solutions.

It is intended that manual will be a live document which will be updated and expanded as required to reflect emerging best practice and feedback from user experience of the manual. For this reason, the latest version of the guidance should always be accessed through the NTA website.

2.2 Regional Plans and Strategies

2.2.1 Regional Spatial and Economic Strategy 2019 - 2031

The Regional Spatial and Economic Strategy is a strategic plan which identifies regional assets, opportunities and pressures and provides appropriate policy responses in the form of Regional Policy Objectives. At this strategic level it provides a framework for investment to better manage spatial planning and economic development to sustainably grow the Region to 2031 and beyond.

The RSES provides a:

- Spatial Strategy – to manage future growth and ensure the creation of healthy and attractive places to live, work, study, visit and invest in.
- Economic Strategy – that builds on our strengths to sustain a strong economy and support the creation of quality jobs that ensure a good living standard for all.
- Metropolitan Plan – to ensure a supply of strategic development areas for the sustainable growth and continued success and competitiveness of the Dublin Metropolitan Area.
- Investment Framework – to prioritise the delivery of key enabling infrastructure and services by government and state agencies.
- Climate Action Strategy – to accelerate climate action, ensure a clean and healthy environment and to promote sustainable transport and strategic green infrastructure.

2.2.2 Greater Dublin Area Transport Strategy 2022-2042

The National Transport Authority has prepared and published the Transport Strategy for the Greater Dublin Area, 2022-2042 in accordance with Section 12 of the Dublin Transport Authority Act, 2008.

The strategy details the transportation development across the region, including Dublin, Meath, Wicklow, and Kildare, over the strategy period. It has received approval from the Minister for Transport in accordance with relevant legislation.

The strategy addresses challenges related to population growth, urbanization, and climate change. It presents four objectives: promoting walking, cycling, and public transport as alternatives to private car use for sustainable mobility; developing seamless connections between different transport modes for integrated networks; prioritizing low-carbon and environmentally friendly solutions for climate action; and aligning transport development with land-use planning for spatial planning and accessibility.

The strategy proposes measures to ensure equitable access to transport services. These measures include enhancing public transport services (bus, tram, rail), expanding cycling infrastructure and bike-sharing programs, improving pedestrian facilities, upgrading roads, and developing park-and-ride facilities, and implementing smart mobility solutions.

The strategy acknowledges the significance of land use and transport planning in shaping people's travel choices. It advocates the use of local land use planning principles, such as promoting walking, cycling,

and public transport by maximizing high-density residential development near local amenities, schools, and public transport.

In addition, the strategy sets out the requirements for new developments to prioritise walking, cycling and public transport and discourage the use of the private car. Maximum parking standards should be set for all new developments based on the level of public transport accessibility. The strategy therefore recommends that walking and cycling facilities should be easily accessible and retrofitted where practical.

2.2.3 New Dublin Area Bus Network – "BusConnects"

Following three rounds of public consultation which began in 2017, the National Transport Authority (NTA) published, in September 2020, the new Dublin Area bus network. This new bus network plan is the final version resulting from previous redesign proposals and with consideration given to issues raised by 72,000 submissions. The implementation of the New Network will take place on a phased basis over a number of years starting in 2021, subject to Government funding.

The new Dublin Area bus network will provide a more coherently planned, higher capacity, more understandable network, delivering a better overall bus system for the Dublin region. It will consist of spines radiating from the city centre. Spines are very frequent routes made up of individual bus services timetabled to work together along a corridor. At the end of the corridor, the individual services branch off to serve different areas. The network will also include orbitals across the North, West and South areas of Dublin, additional local area services, peak only and express services.

The new network will see increased evening and weekend services, with most frequent routes operating every 15 minutes or better on weekdays and Saturdays, most on Sundays also. There will be a number of routes that will operate 24 hours a day. These services will operate throughout the night to support the night-time economy across Dublin. Overall, the level of bus services in the Dublin network will increase by 23% as a result of the new network. Other benefits of the New Network include:

- A 23% overall increase in bus services.
- Increased capacity, particularly for all day services.
- A more easily understood city network.
- Better access to bus services for passengers.
- New connections to schools, hospitals, and other essential services.

2.2.4 Greater Dublin Area Cycle Network Plan (2022)

The Greater Dublin Area Cycle Network Plan sets out a strategy to expand the urban cycle network, links cities and towns of over 5,000 people with a safe, connected and inviting cycle network. The proposed cycle network of approximately 3,500km will connect over 200 settlements and 2.8 million people. The network will consist of primary routes (serving the highest demand), secondary and feeder routes (Forecast to have lower demand) as well as Greenway routes (through parks, along waterways etc.)

The Plan will provide many benefits for cyclists and communities across Ireland, including:

- Ensuring delivery of a high-quality cycle network which will promote safety, comfort, and increased participation in cycling.
- Improving sustainable connectivity nationally and providing links with other networks such as CycleConnects, EuroVelo and Northern Ireland networks.
- Supporting both urban and rural economies through increased leisure and tourism cycling.
- Improving public health through well documented benefits of active travel.

- Guiding how local authorities prioritise exchequer-funded investments in cycle infrastructure.
- Making use of existing infrastructure wherever possible including greenways, road infrastructure, and declassified roads where safe and inviting cycle experiences can be provided.

2.2.5 Spatial Planning and National Roads: Guidelines for Planning Authorities (Department of Environment, Community and Local Government, 2012)

Spatial Planning and National Roads: Guidelines for Planning Authorities set out planning policy considerations relating to development affecting national primary and secondary roads, including motorways and associated junctions, outside the 50-60 km/h speed limit zones for cities, towns, and villages.

The guidelines aim to facilitate a well-informed, integrated, and consistent approach that affords maximum support for the goal of achieving and maintaining a safe and network of national roads in the broader context of sustainable development strategies, thereby facilitating continued economic growth and development throughout the country.

The following Key Principles have informed these guidelines:

- Land-use and transportation policies are highly interdependent.
- Proper planning is central to ensuring road safety.
- Development should be plan-led.
- Development Management is the key to Plan Implementation.
- Planning Authorities and National Roads Authority and other public transport bodies must work closely together.

2.3 Local Plans and Strategies

2.3.1 Fingal Development Plan (2023 – 2029)

The Fingal Development Plan (2023 – 2029) sets out the authority's policies and objectives for the development of the County for the period of 2023 to 2029. The Plan seeks to develop and improve in a sustainable manner the social, economic, cultural and environments assets of the county. In the context of the subject development site and the proposed residential scheme a number of most relevant policies and objectives include:

(1) The Role of Transportation Policy in Addressing Climate Change

"Policy CMP1 – Decarbonisation of Motorised Transport: Support the decarbonisation of motorised transport and facilitate modal shift to walking, cycling and public transport and taking account of National and Regional policy and guidance, while supporting an efficient and effective transport system."

"Objective CMO1 – Transition to Sustainable Modes: Work with the NTA, TII and other transport agencies in facilitating the integrated set of transport objectives for the County as set out in this Plan, in line with National and Regional policy including the NTA's GDA Transport Strategy and any subsequent plan to encourage modal shift towards more sustainable modes of transport and patterns of commuting to reduce reliance on the private car."

"Objective CMO2 – Modal Shift: Work with the NTA to develop mode share targets for the County to achieve and monitor a transition to more sustainable modes including walking, cycling and public transport, during the lifetime of this Plan. This includes providing targeted infrastructure in the most appropriate locations and prioritising development at the most accessible locations in order to achieve the appropriate levels of integration and sustainable transport provision."

(2) Integrated Land Use and Transportation

"***Policy CMP3 – Integrated Land-Use and Transport Approach*** *Provide for an integrated approach to land-use and transportation aimed at minimising the demand for travel and prioritising sustainable modes of transport including walking, cycling and public transport."*

*"**Objective CMO3 – Integration of Public Transport and Development** Support and facilitate high-density, mixed-use development and trip intensive uses along public transport corridors and to ensure the integration of high-quality permeability links and public realm in conjunction with the delivery of public transport services through plan frameworks to generate and reinforce sustainable patterns of compact growth and development in the County."*

(3) Mobility Management

*"**Policy CMP5 – Mobility Management and Travel Planning** Promote best practice mobility management and travel planning through the requirement for proactive mobility strategies for developments focussed on prioritising sustainable modes of travel including walking, cycling and public transport."*

(4) A Sustainable and Integrated Transport Network

*"**Policy CMP6 – Integrated Transport Network:** Support and facilitate sustainable mobility objectives set out in the NPF, RSES, Smarter Travel and the NTA's GDA Transport Strategy and any subsequent plan to ensure the creation of a high-quality and integrated transport network to serves the needs of the County and the wider region."*

(5) Walking and Cycling

***"Policy CMP7 – Pedestrian and Cycling Network** Secure the development of a high-quality, connected and inclusive pedestrian and cycling network and provision of supporting facilities / infrastructure across the County, including the upgrade of the existing network and support the integration of walking, cycling and physical activity with placemaking including public realm improvements, in collaboration with the NTA, other relevant stakeholders, local communities and adjoining Local Authorities in the context of the impact of development schemes with cross boundary impacts and opportunities where appropriate. Routes within the network shall have regard to NTA and TII national standards and policies."*

*"**Policy CMP8 – Greenway Network** Secure the development of an expanded Greenway network in collaboration with relevant stakeholders including the NTA, adjoining landowners, local communities and adjoining Local Authorities where appropriate and encourage and facilitate opportunities for enhanced linkage and connectivity to adjoining towns and villages and their services, amenities, attractions and public transport nodes and to cross-County, Regional and National Greenway projects."*

*"**Policy CMP9 – Prioritisation of Pedestrians and Cyclists** Support the prioritisation of pedestrians and cyclists and the provision of improved public realm to make walking and cycling safer, healthier, quicker, more direct and more attractive."*

*"**Policy CMP10 – Bicycle Infrastructure** Improve bicycle priority measures and cycle parking infrastructure throughout the County in accordance with best accessibility practice."*

***"Objective CMO6 – Improvements to the Pedestrian and Cyclist Environment** Maintain and improve the pedestrian and cyclist environment and promote the development of a network of pedestrian/cycle routes which link residential areas with schools, employment, recreational destinations, and public transport stops to create a pedestrian/cyclist environment that is safe, accessible to all in accordance with best accessibility practice. "*

***"Objective CMO7 – Integration of Active Travel with Public Transport** Work with the relevant transport providers, agencies, and stakeholders to facilitate the integration of active travel (walking/cycling etc.) with public transport, ensuring ease of access for all. "*

*"**Objective CMO8 – Active Travel Strategy** Prepare an Active Travel Strategy to encourage active travel and modal shift to sustainable transport modes. "*

*"**Objective CMO9 – Active Travel Audits** Carry out active travel audits in towns and villages in collaboration with local communities and other relevant stakeholders to inform improvements to the public realm and the pedestrian and cycling network. "*

*"**Objective CMO10 – Bicycle Parking** Provide publicly accessible high-quality cycle parking spaces, both standard bicycle spaces and nonstandard for adapted and cargo bikes, in town and village centres and key destinations and near the entrance to all publicly accessible buildings as required. "*

***"Objective CMO11 – Walking and Cycling Infrastructure** Support the provision of walking and cycling infrastructure, including bike parking, bike repair and support services, to increase footfall and economic activity in town and village centres while reducing emissions and improving quality of life. "*

*"**Objective CMO12 – Walking and Cycling and Green Infrastructure Network** Ensure that new walking and cycling routes are designed, insofar as possible, to function as links in the County's green infrastructure network and that adequate replacement and additional planting of native species and pollinators is provided and that SuDS approaches are used to treat surface water run-off. "*

*"**Objective CMO13 – Walking and Cycling Network and Tourist Trail** Support the formulation and delivery of integrated pedestrian/cycle network plans which connect adjacent communities providing linkages to all modes of transport which will provide links to all destinations of the County creating the nucleus of a slow tourist trail. "*

(6) Public Transport

*"**Policy CMP18 – Public Transport** Support the provision of a high-quality public transportation system that is accessible to all to serve the needs of the County and to enable a significant shift from car-based travel to public transport. "*

*"**Objective CMO23 – Enabling Public Transport Projects** Support the delivery of key sustainable transport projects including MetroLink, BusConnects, DART+ and LUAS expansion programme so as to provide an integrated public transport network with efficient interchange between transport modes to*

serve needs of the County and the mid-east region in collaboration with the NTA, TII and Irish Rail and other relevant stakeholders. "

*"**Objective CMO24 – NTA Strategy** Support NTA and other stakeholders in implementing the NTA Strategy including MetroLink, BusConnects, DART +, LUAS and the GDA Cycle Network. "*

*"**Objective CMO25 – Level Crossings and Public Transport Schemes** Ensure that appropriate measures are put in place to mitigate the impacts of level crossing closures on the Maynooth rail line including protection measures for public transport and increased priority for cycling and walking."*

*"**Objective CMO26 – Orbital Public Transport** Undertake a feasibility study for the progression of an orbital public transport route linking the Dublin–Belfast rail line, Swords, Dublin Airport, Finglas, Blanchardstown and surrounding areas along the route, during the lifetime of the Plan in consultation with the NTA and other stakeholders."*

*"**Objective CMO27 – Public Transport Routes** Work with the NTA and other relevant national transport agencies to establish future public transport routes that will support the County's medium to long term development, including orbital routes to provide connectivity between key urban centres and outer suburban areas."*

*"**Objective CMO28 – Bus Connectivity** Work with relevant national transport agencies to create bus connectivity between Dublin 15, including the Blanchardstown Centre and Dublin Airport/Swords."*

*"**Objective CMO29 – Integration of Public Transport Services and Development** Work with the NTA, TII and other relevant national transport agencies to optimise accessibility to public transport, increase catchment and maximise permeability through the creation of high-quality walking and cycling routes linking to public transport stops."*

*"**Objective CMO30 – Cycling and Walking Links** Avail of the opportunities provided by any public transport infrastructure works to improve and provide new cycling and walking links, including crossings of motorways and major roads which currently represent major permeability barriers to active travel especially in South Fingal."*

*"**Objective CMO31 – South Fingal Transport Study** Implement the recommendations of the South Fingal Transport Study 2019 in consultation with the relevant stakeholders."*

(7) Park and ride

***"Policy CMP21 – Park and Ride** Support the provision of Park and Ride facilities in conjunction with supporting ancillary infrastructure to accommodate the transition to sustainable mobility modes at suitable locations in accordance with the large-scale transportation projects being delivered under the NTA Strategy."*

(8) Parking

*"**Policy CMP25 – Car Parking Management** Implement a balanced approach to the provision of car parking with the aim of using parking as a demand management measure to promote a transition towards more sustainable forms of transportation, while meeting the needs of businesses and communities."*

*"**Objective CMO32 – Car Parking Standards** Implement appropriate car parking standards for a range of land-use types, where provision is based on factors such as site location, level of public transport accessibility and impact of parking provision on local amenity."*

*"**Objective CMO33 – Accessible Car Parking** Promote appropriate parking arrangements for specific user requirements in town and district centres, public transport nodes and other destinations."*

(9) Roads and Street Design

*"**Policy CMP34 – Road and Street Design** Ensure that roads and streets within the County are designed to balance the needs of all road users, including children and other vulnerable road users and promote road safety, place-making and sustainable movement, providing a street environment that prioritises active travel and public transport whilst ensuring the needs of commercial servicing is accommodated."*

*"**Objective CMO45 – Design Manual for Urban Roads and Streets** Design new streets and roads within urban areas in accordance with the principles, approaches and standards contained within DMURS.*

- *Junctions will be designed with corner radii that reduce pedestrian crossing distances to the minimum allowable by DMURS wherever possible.*
- *The narrowest carriageway widths allowable by DMURS will be the default standard in Fingal wherever possible."*

*"**Objective CMO46 – Speed Limits and Traffic Calmed Areas** Expand the 30kph speed limits and traffic calmed areas at appropriate locations throughout the County including in towns and village areas where appropriate and to all residential developments and at schools."*

*"**Objective CMO47 – Road Safety and Rural Roads** Prioritise safety on rural roads and junctions, while having regard to the protection of biodiversity, Green Infrastructure and rural character present in roadside trees, hedgerows and banks."*

*"**Objective CMO48 – Roads and Streets and Green Infrastructure** New roads and streets to incorporate green Infrastructure elements such as sustainable drainage infrastructure, planting of native trees, hedgerows and pollinator species in medians and on roadside verges, as appropriate to the location."*

(10)Connectivity and Movement

"**Objective DMSO111 – Mobility Management Plan:** For all new developments which are likely to generate a significant demand for travel, require the preparation and submission of a Mobility Management Plan as part of the development management process. This requirement includes existing developments that are expanding or intensifying their use."

"**Objective DMSO113 – Traffic and Transport Assessment:** Require the provision of a Traffic and Transport Assessment where new development is likely to have a significant effect on travel demand and the capacity of the surrounding transport network including the road network and public transport services network."

3. Receiving Environment

3.1 Land use

The site is part of the residentially zoned Mooretown lands, as shown in the ***Figure 2*** below, taken from the *Fingal Development Plan 2023 – 2029 Zoning Map – Sheet 8*.

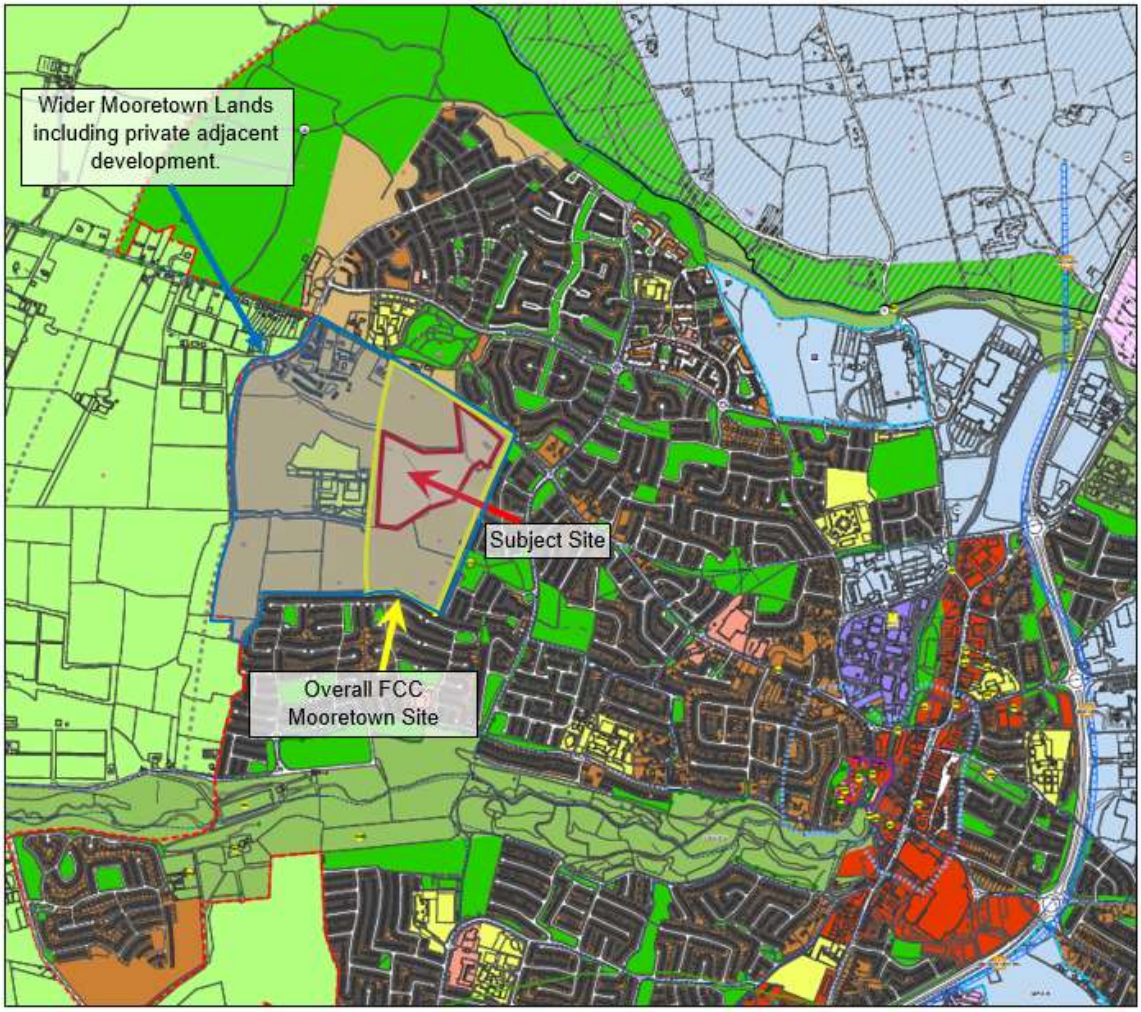


Figure 2 | *Extract of the Fingal Development Plan 2023-2029 Zoning Map – Sheet 8*

3.2 Location of Development

The area of the Mooretown Development lands is approximately 9,35 ha. The land is located approximately 1.9 km from the centre of Swords. The proposed development is in Mooretown, Swords, Co. Dublin, as shown in below.

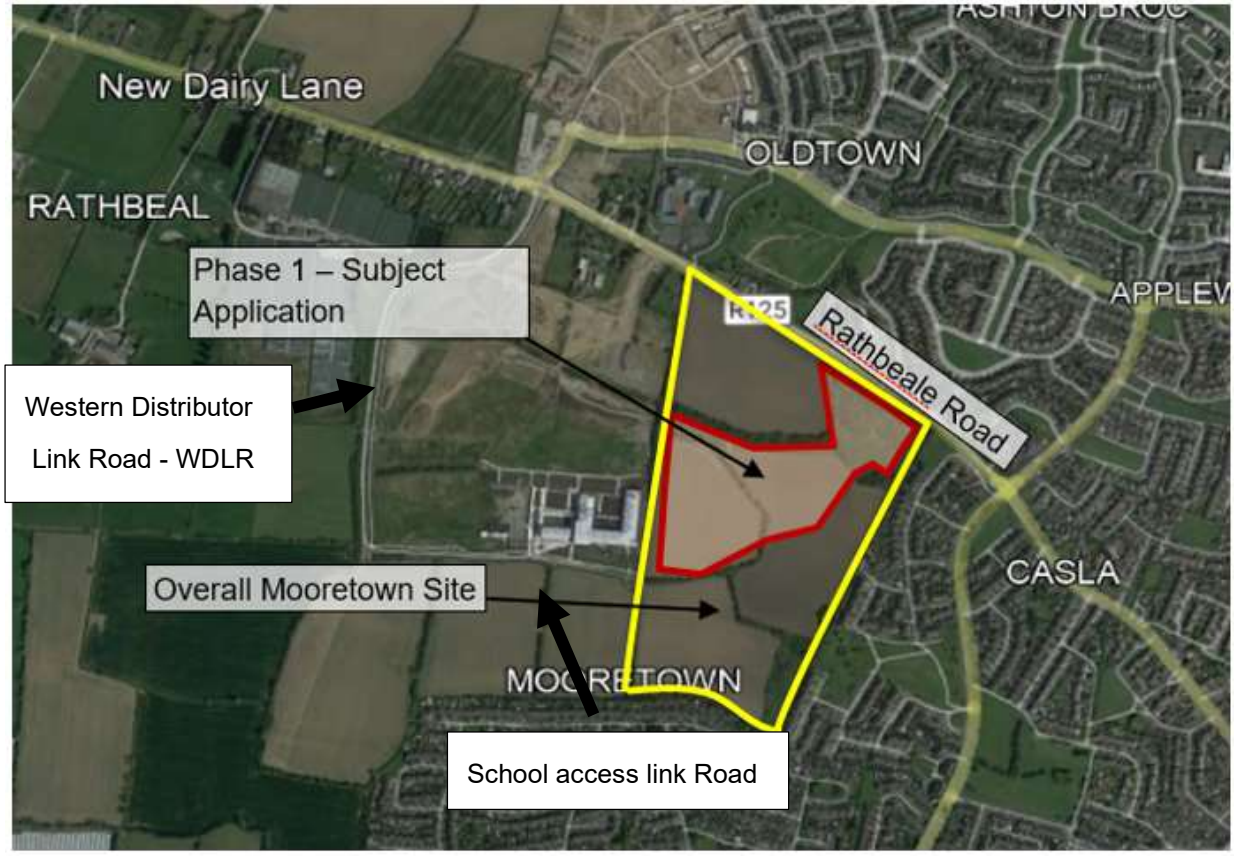


Figure 3 | *Site Location (Source: Google Earth)*

3.3 Existing Roads

The site is to be accessed from the R125 Rathbeale Road to the north of the subject site and via the constructed school access link road at the western extent of the subject site, that links in with the Western Distributor Link Road.

The Rathbeale Road (R125), has recently undergone extensive upgrade works, completed in 2020, so as to ensure its suitability for the increase in usage due to additional residents and construction works being undertaken as part of the local area development. It has a posted speed limit of 50 kph and is comprised of a 5m wide, 2-lane carriageway, a 1.8m wide pedestrian footpath & 2.25m cycleway on the northern side and a 3.5m shared surface for pedestrians/cyclists on the southern side. The upgraded Rathbeale Road offers a vastly improved and safer connection for the Mooretown development lands with the town of Swords and local schools in the area.

The nearest motorway is the M1, which can be joined at the Junction 3 of the Motorway, near Feltrim, approximately 3.75km southeast of the site.

3.4 Existing Junctions

The primary junctions in the local area surrounding the site are:

- **Junction 1:** An existing priority T-Junction between R125 Rathbeale Road and R108.
- **Junction 2:** An existing signalised crossroads junction between R125 Rathbeale Road and Western Distributor Link Road.
- **Junction 3:** An existing signalised crossroads between R125 Rathbeale Road and Murrough Road.
- **Junction 4:** A four-armed roundabout at Glen Ellan Road.
- **Junction 5:** A proposed signalised crossroads junction between R125 Rathbeale Road and Western Distributor Link Road, currently a T-junction.
- **Junction 6:** An existing priority T-Junction between R125 and road access to Planning 01B and Planning 02C.

The surrounding road network and the location of the junctions are shown in ***Figure 4***:

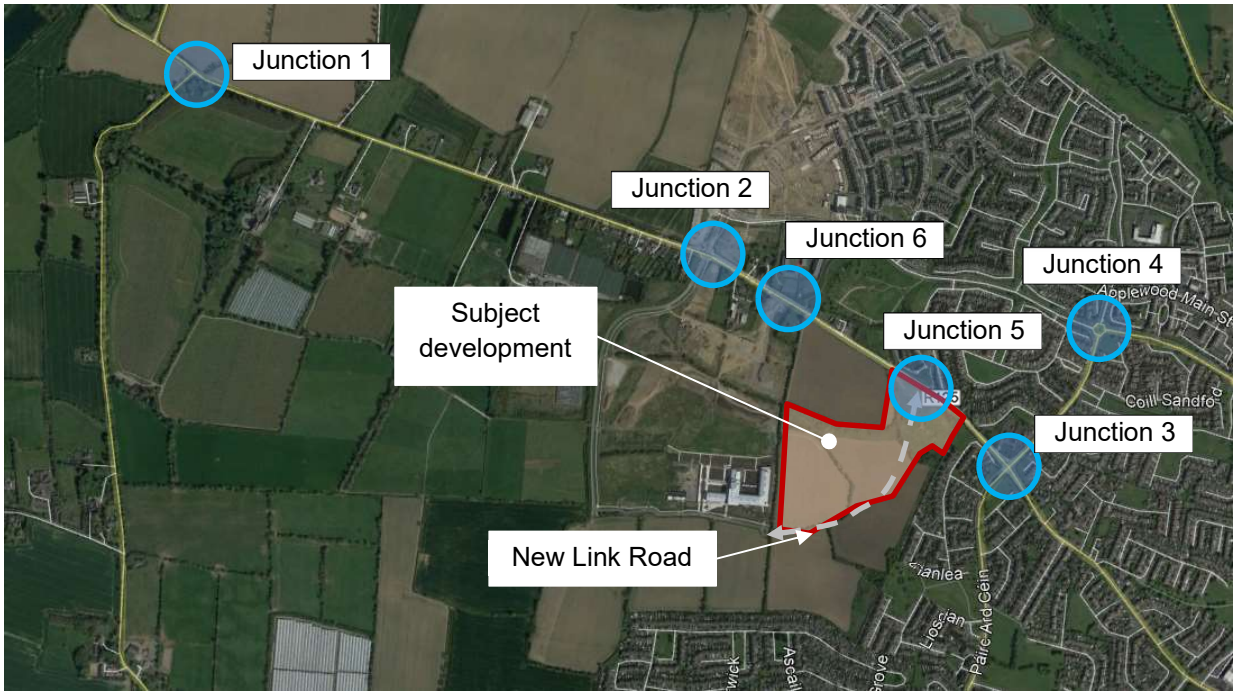


Figure 4 | *Existing Road Network and Junctions.*

3.5 Multi-modal Access to the Site

3.5.1 Walking Accessibility

The key to pedestrian accessibility is short, convenient, and safe links. Walking is the most widely used form of transport. Nearly all journeys involve some walking, therefore better pedestrian facilities can have a wide impact. The existing pedestrian facilities in the surrounding area comprise of an inter-connected network of footways linking the various neighbourhoods to each other, to the existing schools and to the surrounding public network.

As part of the development works that are now complete on the R125 Rathbeale Road, footpaths have been constructed along both sides of the road.

Figure 5 presents the significant extent of pedestrian catchments accessible from the proposed development for different walking times ranging from 15 minutes to 45 minutes.

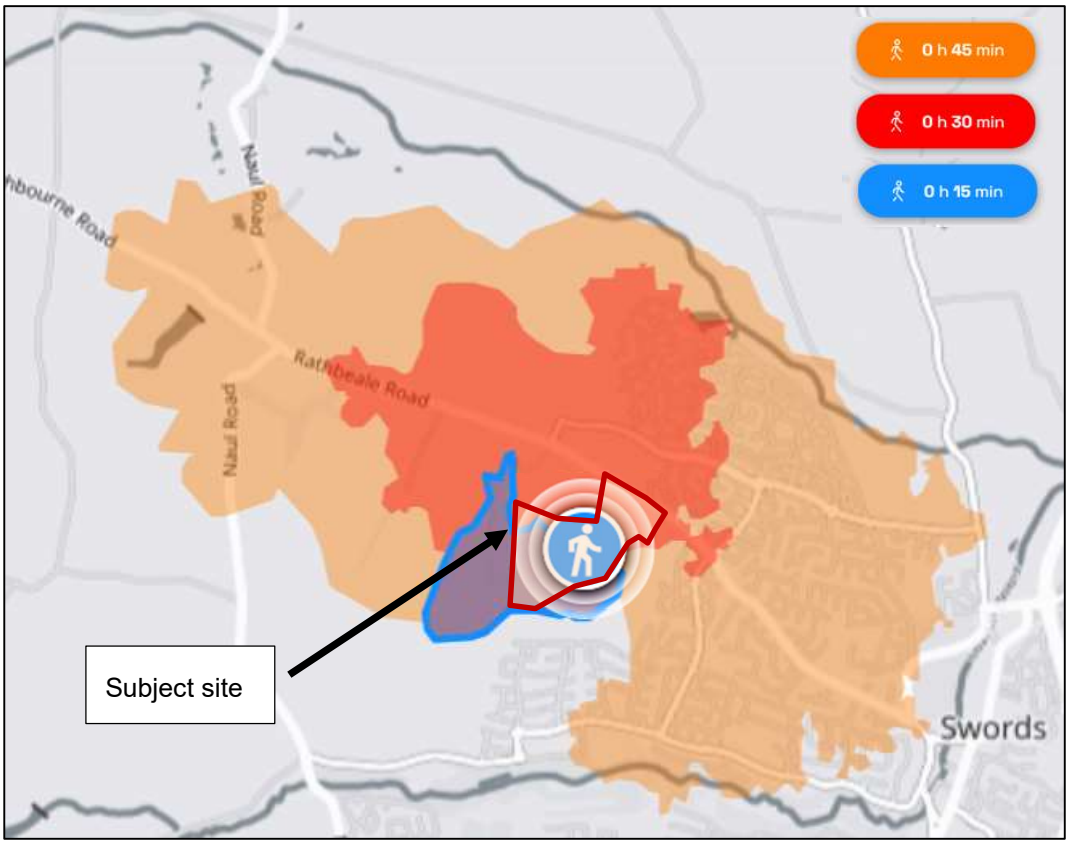


Figure 5 | *Isochrone map indicating Walking Accessibility from subject site*

3.5.2 Cycling Accessibility

As part of the development works that are now complete on the R125 Rathbeale Road within the Oldtown-Mooretown lands, cycle lanes have been constructed along both sides of the carriageway from the new signal-controlled junction with the Western Distributor Link Road (refer *Figure 3*) to the eastern edge of the development lands.

These road upgrade works were subject to a Part 8 planning application by FCC which are now complete and open to the public.

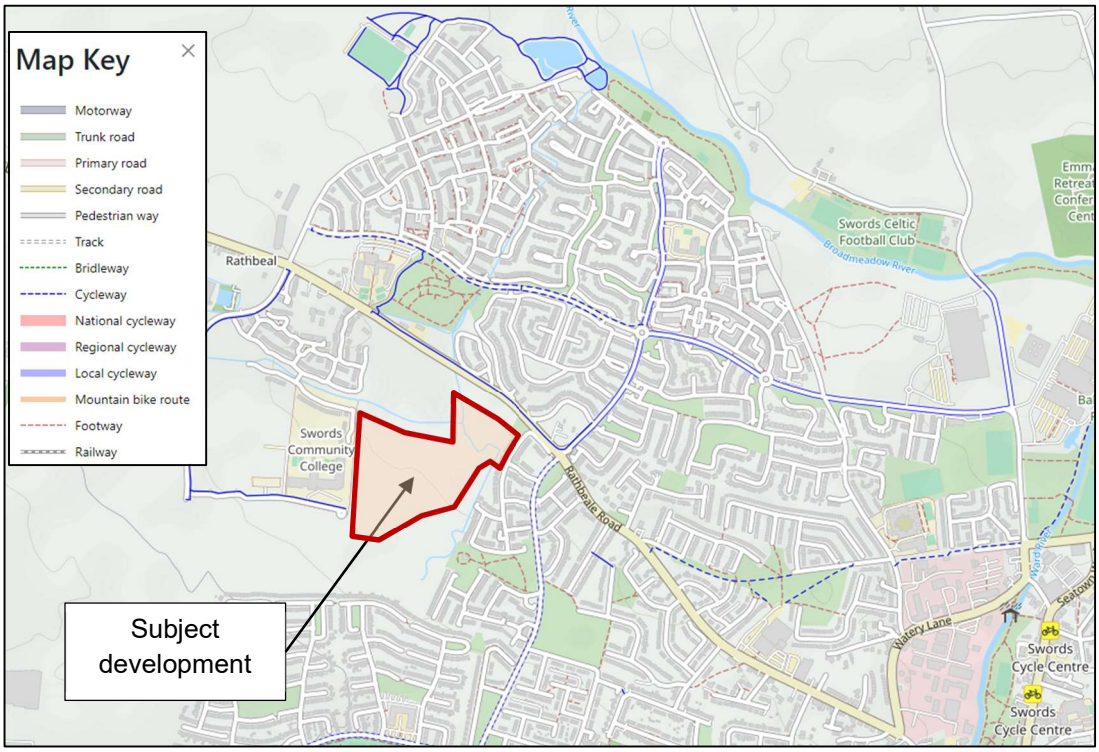


Figure 6 | *Existing Cycle Network (Source: Open Street Map).*

Figure 7 below presents the significant extent of cycling catchments accessible from the proposed development for different walking times ranging from 15 minutes to 45 minutes.

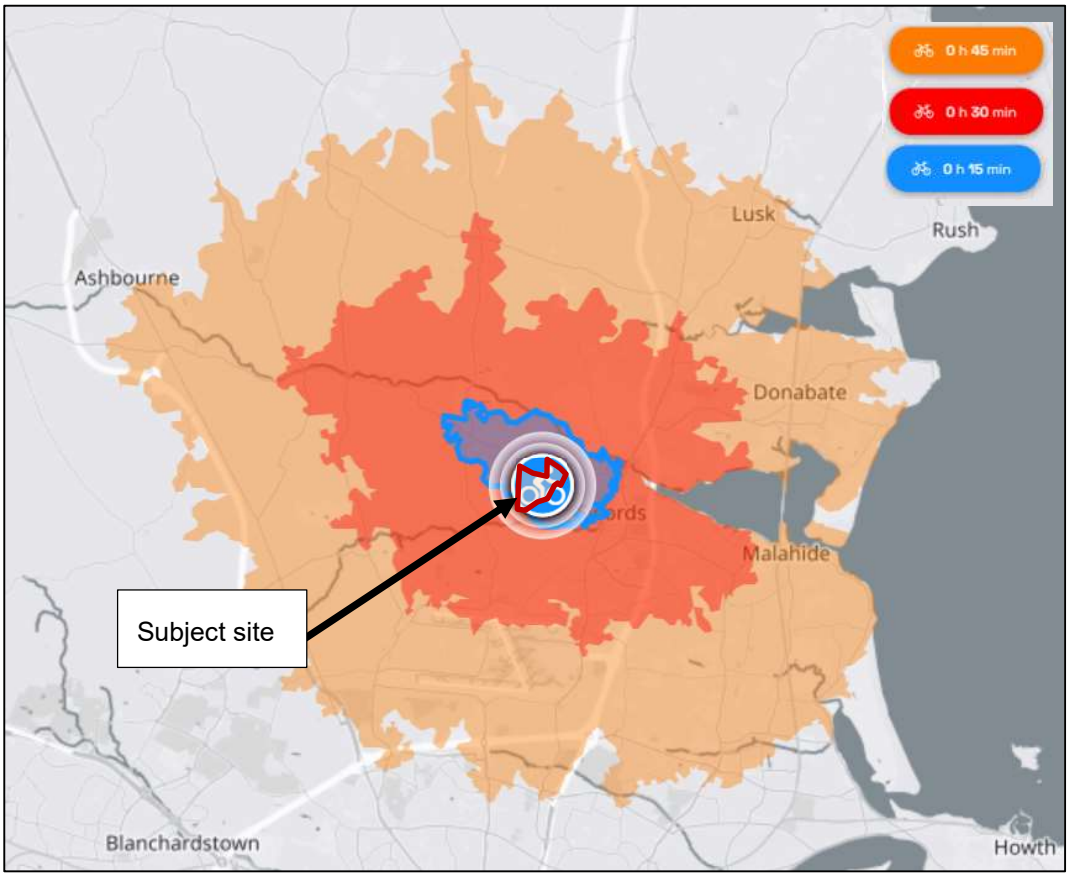


Figure 7 | *Isochrone map indicating Cycling Accessibility*

3.5.3 Existing Bus Network

The Mooretown Lands are currently served by bus services. The closest bus stops relative to the proposed development are situated along R125 Rathbeale Road. It is approximately 350m (4-minute walk) to the R125 Rathbeale Road from access road to the development or 700m (8-minute walk) to the R125 Rathbeale Road from the centre of the subject site.

There are two bus routes along this road, being Dublin Bus 41B and Go-Ahead Bus 197. A summary of the frequency of these routes is shown in ***Table 2*** below. Full timetables are contained in **Appendix A**.

Figure 8 below shows the walking distance from the subject site to the subject nearest bus stops.

Route	From	To	Weekday Frequency	Saturday Frequency	Sunday Frequency
197	Swords, Airside Ind. Estate	Ashbourne (Pillo Hotel)	17 Services Every 1 hour (07:00-00:00)	17 Services Every 1 hour (07:00-0:00)	17 Services Every 1 hour (08:00-00:00)

	Ashbourne (Pillo Hotel)	Swords, Airside Ind. Estate	17 Services Every 1 hour (06:00-23:00)	17 Services Every 1 hour (06:00-23:00)	17 Services Every 1 hour (07:00-23:00)
41B	Rowlestown	Lower Abbey Street (Dublin City Centre)	4 Services (07:30, 12:45, 17:45, 19:45)	4 Services (07:00, 09:25, 12:30, 18:15)	2 Services (12:45, 20:20)
	Lower Abbey Street (Dublin City Centre)	Rowlestown	4 Services (06:20, 11:35, 16:25, 18:35, 23:15)	4 Services (08:20, 11:20, 17:00, 23:15)	3 Services (11:40, 19:10, 23:15)

***Table 2** | Bus Routes 197 and 41B - Frequency Table.*

***Figure 8** | Walking Distance to Nearest Bus Stops.*

To the east of the proposed development site there are additional bus routes along Murrough Road and Glen Ellan Road. The bus stops serving these additional routes are approximately 450m (5-minute walk) away from the proposed development as shown in ***Figure 9*** below.

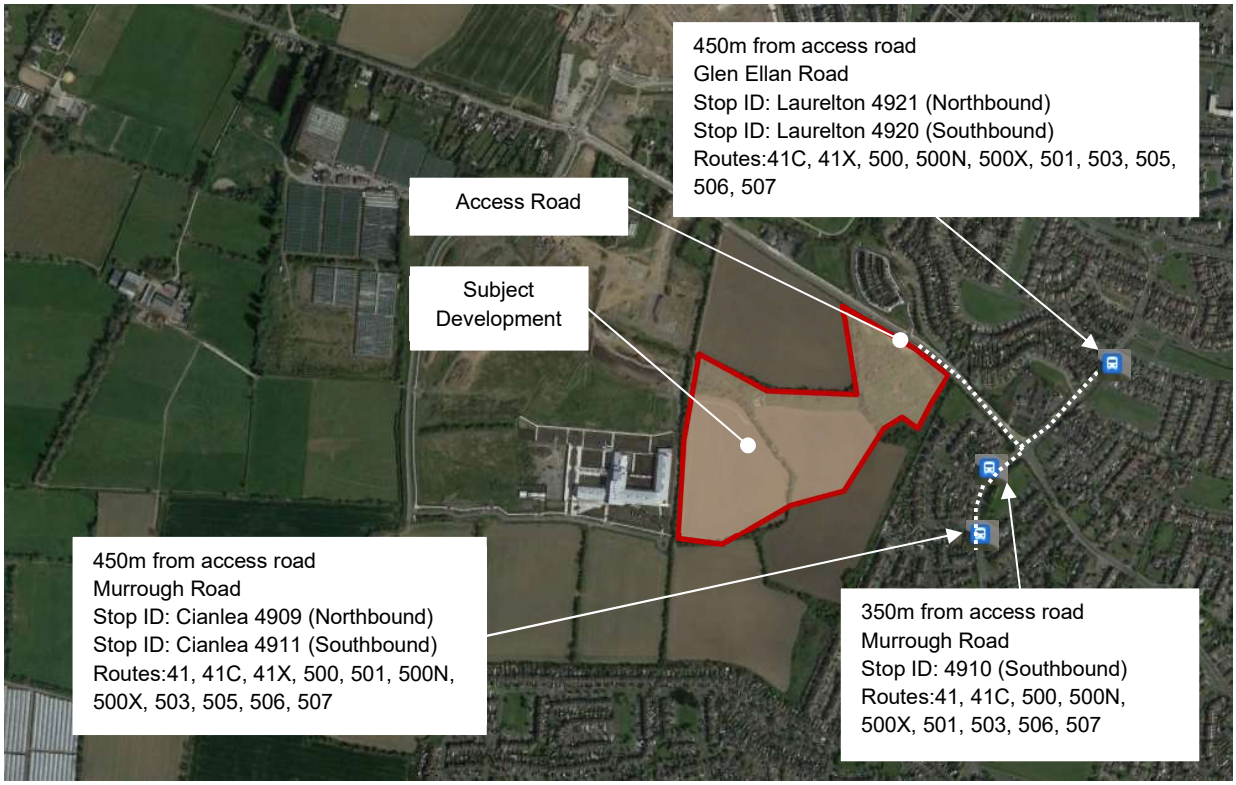


Figure 9 **|** *Walking Distances to Bus Stops on Murrough Road and Glen Ellan Road.*

The bus stops show in ***Figure 9*** above serve several routes to both Dublin and Swords. These are the Dublin Bus routes 41, 41C and 41X and Swords express routes 500, 500-N, 500-X, 501, 503, 505, 506 and 507. These routes and associated frequencies are summarised below.

- **Dublin Bus Route 41**: from/to Lower Abbey Street in Dublin City Centre, this route operates every 15 to 20 minutes during the AM (07:00 to 09:00) and PM (17:00 to 19:00) weekday peak periods.
- **Dublin Bus Route 41C**: from/to Abbey Street in Dublin City Centre, this route operates every 10 to 20 minutes during the AM and PM peak periods.
- **Dublin Bus Route 41X**: from/to UCD Belfield in South Dublin, this route operates Monday to Friday only, twice in the AM period (From Knocksedan) and twice in the PM Period (From UCD Belfield).
- **Swords Express Route 500**: to/from Edan Quay in Dublin City Centre, this route operates throughout the day between 07:00 and 00:00. The bus frequency is approximately every 40-60 minutes.
- **Swords Express Route 501**: to/from Edan Quay in Dublin City Centre, this route operates two-five times in the AM Peak from Swords, Pavilions to Dublin and once in the PM peak in the opposite direction from Dublin. Furthermore, it does not cover all stops.
- **Swords Express Route 503**: this route operates five times per day, three-four times in the AM peak period towards Marion Square in Dublin City Centre and two times in the PM peak period on the opposite direction – from Marion Square.

- **Swords Express Route 505**: this route operates five times per day, this route operates four-six times in the AM Peak from Swords, Rathingle Road, to Dublin and does not operate in the reverse direction from Dublin city to Swords.
- **Swords Express Route 506**: this route operates twice in the PM peak period towards Eden Quay in Dublin City Centre and does not operate in the reverse direction from Dublin city to Sword in the AM.
- **Swords Express Route 507**: this route operates three times per day, two times in the AM peak period (07:00 to 09:00) towards Eden Quay in Dublin City Centre and one time in the PM peak (17:00 to 19:00) on the opposite direction.
- **Swords Express Route 500X**: this route operates three times in the AM peak period (07:00 to 09:00) towards Eden Quay in Dublin City Centre and four times in the PM peak (17:00 to 19:00) on the opposite direction.
- **Swords Express Route 500N**: this route operates three times in the PM peak period towards Eden Quay in Dublin City Centre and does not operate in the reverse direction from Dublin city to Sword in the AM.

3.5.4 GoCar

There is one GoCar station in the vicinity of the proposed development located at an EuroSpar located in Braeburn Terrace, Applewood. The GoCar station is approximately 1.4km away from the proposed development (16-minute walk).

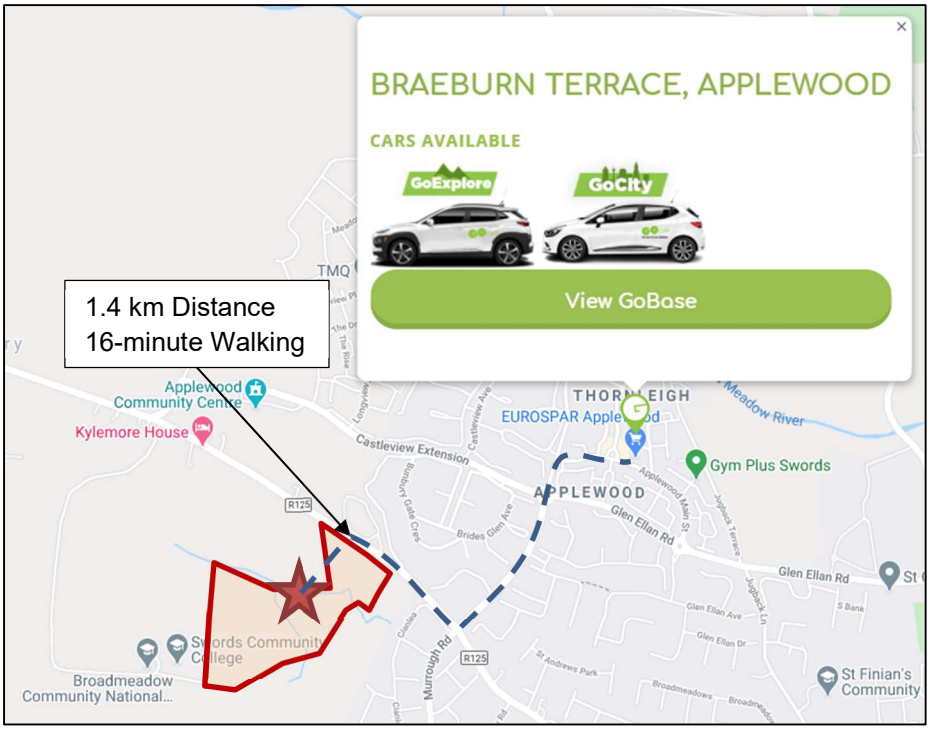


***Figure 10** | Location of Nearest GoCar Station.*

4. Transportation Improvements

4.1 Pedestrian Facilities

Additional pedestrian facilities, such as footpaths, dedicated pedestrian crossings and green routes connecting the public parks, are proposed to be provided at Mooretown as the development progresses.

All footpaths for the proposed development will be provided in accordance with Section 4.3.1 of the DMURS which suggests that a minimum 1.8m wide footpath should be provided.

4.2 GDA Cycle Network Plan – NTA, 2022

The National Transport Authority (NTA) published a 2022 version of the updated GDA Cycle Network Plan which supersedes the 2013 version. The proposed development site lies within the Swords, Malahide & Portmarnock area as outlined in the 2022 Plan. An extract of the updated cycle network is reproduced in ***Figure 11*** below.

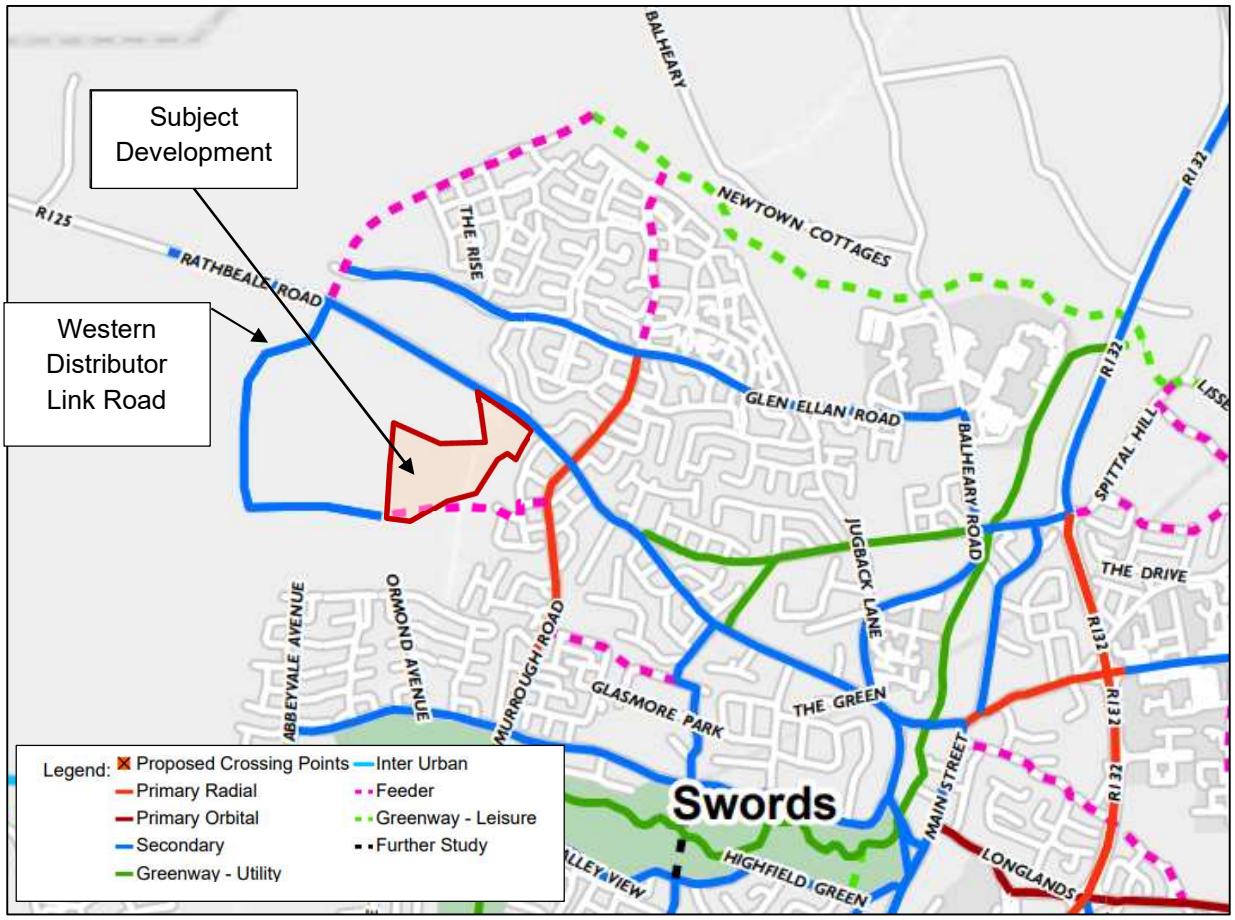


Figure 11 | *GDA Proposed Cycle Network Plan – NTA, 2022.*

The local cycle network comprises of an east-west secondary route along Glen Ellan Road (including its extension) and R125 Rathbeale Road, both of which are already in place. Additionally, there is a north-

south secondary route along the Western Distributor Link Road and the access road to the local school link road, which also has existing cycle infrastructure.

For further details of cycle network in the locality, please refer to Waterman Moylan Drawing *MTN-WMC-PH1-GF-DR-C-P1001 Cycle track Layout* accompanying the documentation package.

4.3 Public Transport - BusConnects

The Bus Connects project currently being promoted by the National Transport Assessment aims to deliver a much-enhanced bus service to the Greater Dublin Area (GDA). The emerging BusConnects Dublin Plan proposes revisions to Dublin's bus system through:

- Building a network of new bus corridors on the busiest bus routes to make bus journeys faster, predictable, and reliable.
- Completely redesigning the network of bus routes to provide a more efficient network, connecting more places, and carrying more passengers.
- Developing a state-of-the-art ticketing system using credit and debit cards or mobile phones to link with payment accounts and making payment much more convenient.
- Implementing a cashless payment system to vastly speed up passenger boarding times.
- Revamping the fare system to provide a similar fare structure, allowing seamless movement between different transport services without financial penalties.
- Implementing a new bus livery providing a modern look and feel to the new bus system.
- Rolling out new bus stops with better signage and information and increasing the provision of additional bus shelters.
- Transitioning – start now- to a new bus fleet using low emission vehicle technologies.

The bus services will be dominated by high frequency "Spine routes" that follow the main radial corridors in the city centre, and beyond. The proposed development is in close proximity to a branch route from a spine, local route and express route connecting to the city centre. The routes proposed to serve the proposed development site are the Local Route 197, Local Route L89 (Airside - Swords - Knocksedan - Toberburr – Finglas), Express Route X84 (Knocksedan - Swords Manor - City Centre – UCD) and Branch Route A4 from Spine A (Swords - City Centre – Dundrum).

***Figure 12** | BusConnects Routes – extract from BusConnects Revised Network Map.*

A summary of the frequency of these routes is shown in ***Table 3***. Service frequency of Route 197 will remain as it currently is (Refer to ***Table 2*** in previous section).

Bus Route	Monday – Friday	Saturday	Sunday
L89	Every 1 – 2 hours	Every 2 hours	Every 2 hours
X84	3 Buses at 07:00; 3 Buses at 17:00	-	-
A4	12-15 minutes	15-20 minutes	20-30 minutes

***Table 3** | Summary of BusConnects Routes Frequency.*

4.4 Public Transport - Metrolink

MetroLink is a proposed high-capacity, high-frequency rail line running from Swords to Charlemont. MetroLink is expected to carry up to 50 million passengers annually, current journey times from Swords to the city centre to 25 minutes.

Metrolink has been identified in a list of key projects in the National Development Plan 2021-2030. According to MetroLink website, "*Transport Infrastructure Ireland (TII) applied for a Railway Order for the project on 30 September 2022. The planning process with An Bord Pleanála is likely to take 12-18 months to complete. Once an Enforceable Railway Order has been granted, work can commence on site. It is anticipated that the construction work will take between 6-8 years to complete.*"

The Estuary Park & Ride station, which is also the northern terminus of the MetroLink is located approximately 2.5km east of the proposed site. This facility will offer 3,000 parking spaces and will facilitate and encourage a car-rail combined travel to be made. It is envisaged that the introduction of the MetroLink will see a significant modal shift towards public transport resulting in a lower dependence on

the private car. ***Figure 13*** shows the location of the MetroLink terminus in relation to the proposed development site.

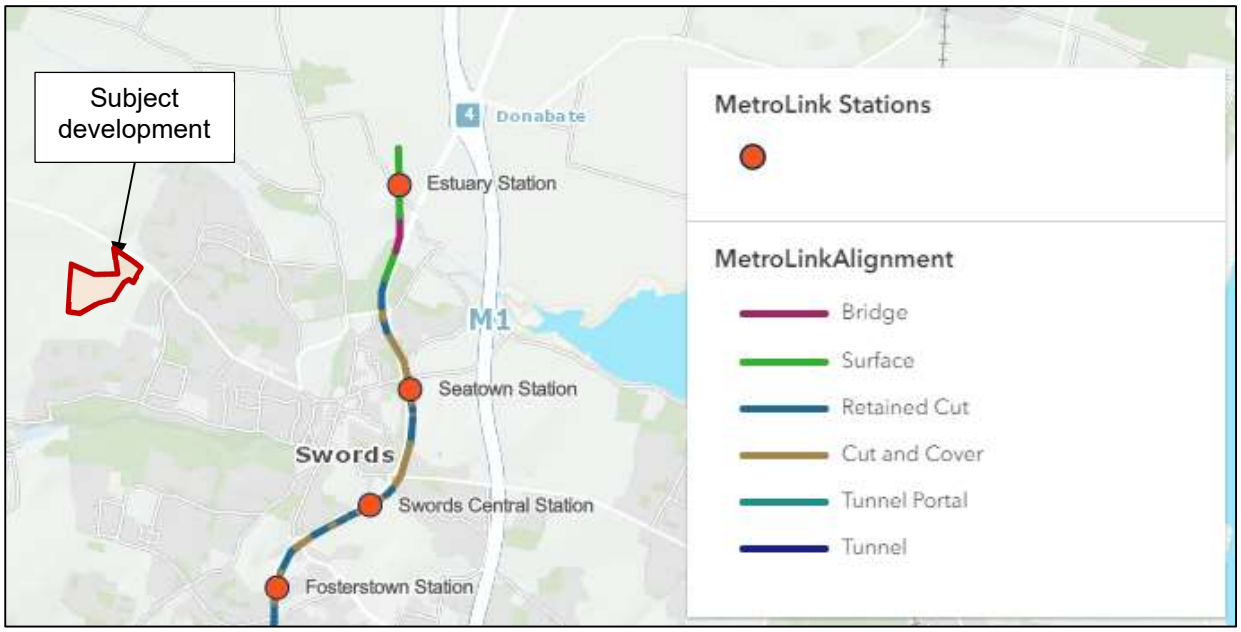


Figure 13 | *Location Map for MetroLink Station with 'Park n' Ride' facility.*

4.5 Road Improvements – Oldtown-Mooretown LAP - Expired

Road network improvements required as part of the expired Local Area Plan, both within and outside the LAP boundaries include:

- Development of a number of new roads/road links including the Wetsern Distributor Link Road and Rathbeale Road
- Enhancement of existing junctions and roads external to the lands.
- Redesign of Glen Ellan Road as a main urban street within the lands and design of a main street within Mooretown lands.
- Provision of a quality bus route to transport those living in northwest Swords into the Town Centre.
- Provision of pedestrian and cyclist networks, associated with green corridors both within and into adjoining areas.

The Western Distributor Link Road is substantially complete within the private Oldtown-Mooretown lands to the west of the subject site. These development works were undertaken as part of the previous phases of development of the LAP. Refer to *Figure 14* below.

***Figure 14** | Local Road Network Improvements and Upgrades.*

The road upgrades along the R125 Rathbeale Road, both within and outside the LAP boundaries, were subject to a Part 8 planning application by FCC. This planning application received approval in 2017 and the associated works are now complete and open to the public.

The Glen Ellan Road Extension works are complete as part of the previous phases of development of the Oldtown LAP lands.

4.6 South Fingal Transport Study (SFTS) – Swords Sub Report

To update and refine the development strategy in South Fingal in terms of transportation, in September 2017, Fingal County Council commissioned SYSTRA to carry out the South Fingal Transport Study. This study was published/completed in February 2019 and will form the basis for future transportation development to 2027 in Fingal County Council. As part of this study SYSTRA prepared a regional transportation model of the Swords Area.

This model includes the strategic transportation demand and infrastructure in the Swords Northwest area and as such provides the strategic traffic and transport assessments for the area in the medium and long terms. The SFTS model therefore forms basis of the local road infrastructure including the Swords Western Distributor Road (SWDR) and its northern and southern extensions.

The regional transportation modelling was carried out by SYSTRA using the NTA Eastern Regional Model (ERM). This is a sophisticated strategic model which includes all modes of transport (including active modes) and provides for extensive predictive modelling based on demand forecasting and supply changes in terms of new roads, cycle, and public transport infrastructure.

The model has been calibrated and used for predictive analysis of trip distributions by mode, network analysis to identify journey times, junction and road volumes, public transport line flows, etc. for various scenarios of development and infrastructure provision.

In addition, local area modelling was also carried out by SYSTRA to assess the impact of various scenarios of road infrastructure within the four study areas. The Mooretown lands fall within the Swords Northwest area.

Section 4.2 of the *South Fingal Transport Study – Swords Sub Report* sets out details of the Local Area Model (LAM) which was developed based on the Eastern Regional Model (ERM)demand and modal choice.

As set out in Section 4.3 of the same report, various infrastructure scenarios were tested using a combination of the ERM and the LAM. The tested scenarios are presented in ***Figure 15*** – extracted from *Figure 4.1 Table of Model Scenarios* within the SFTS – Swords Sub Report.

Scenario Name	DoMin 2016	DoMin 2027	GDA Strategy	GDA Strategy + MetroLink	CDP Roads
Growth / Schemes	No Growth (2016)	Recognised Housing	Recognised Housing	Recognised Housing	Recognised Housing
		Metro Intensification	Metro Intensification	Metro Intensification	Metro Intensification
Bus Connect			☑	☑	☑
Metro Link				☑	☑
CDP Roads					☑

Figure 15 | *Tested Scenarios – Extracted from Figure 4.1 of SFTS – Swords Sub Report.*

A description of the tested scenarios, as detailed in *Swords Sub Report*, are presented below:

> *"**DoMin** assumed no changes are made to the transport network; this scenario, therefore, represents what could happen on the transport network due to population and employment growth if no improvements were made to accommodate the increase travel.*
>
> ***GDA Strategy** assumes the NTA GDA Strategy is implemented with respect to its flagship bus network improvement programme, but without MetroLink or the GDA Cycle Network Plan in Swords.*

***CPD Roads** includes all potential future road schemes in the main strategic model run, on top of the GDA Strategy Scenario above."*

The road scheme tested includes the Swords Western Distributor Link Road (SWDLR) and its northern and southern extensions – as shown in Figure 5.1 of the *SFTS – Swords Sub Report*.

4.6.1 Swords Northwest – Trip Generation

It is recognised in the *SFTS – Swords Sub Report* that Swords Northwest is a key area due to the increased demands being placed on the network in the short term by Oldtown and Mooretown lands. It is also recognised in the study that R125 Rathbeale Road and Glen Ellan Road are two of the critical routes currently serving the area.

Section 4.4.2.1 of the *South Fingal Transport Study – Swords Sub Report* recognises that for the 2027 DoMin (without any network intervention in place), the Swords Northwest area will face a large increase in the use of car trips, which will result in increased pressures on Glen Ellan Road and R125 Rathbeale Road.

In the GDA Strategy scenario, with an enhanced bus network in place, the results indicate that car trips will reduce considerably whilst public transport will increase. This level of car trips, however, with no further interventions, will remain higher than the current levels.

In summary, the study recognises that, even with an enhanced bus network in place, the extra car trips generated by Oldtown/Mooretown will moderately increase pressures on Glen Ellan Road and R125 Rathbeale Road.

4.6.2 Swords Northwest – Trip Destination by Mode

Section 4.4.3.2 of the *South Fingal Transport Study – Swords Sub Report* sets out the general travel patterns of travel by mode from Swords Northwest within Swords and from the rest of the modelled area.

The general travel patterns estimates that "of trips originating from the Northwest area of Swords, the largest destination is within the same sector, i.e., the trip starts and ends in Swords Northwest area", and "within this sector, it is estimated that around 2,500 walk or cycle and nearly 2,000 are by car".

It is therefore recognised by SYSTRA that a key intervention on top of the enhanced bus network, that will potentially reduce car trips on the major links (Rathbeale Road and Glen Ellan Road) in Swords Northwest area, is the provision of high standards cycling infrastructure.

As presented earlier in the subject TTA, a cycle infrastructure on R125 Rathbeale Road is complete along both sides of the carriageway from the new signal-controlled junction with Western Distributor Link Road to the eastern edge of the development lands. A cycle infrastructure is also in place along the Glen Ellan Road and the Western Distributor Link Road.

4.6.3 Swords Western Distributor Road

It is recognised in the *South Fingal Transport Study – Swords Sub Report* that the northern extension of the Western Distributor Link Road, which forms a spine access route through the Oldtown and Mooretown areas, is a very important link for the area and should be progressed to enable access to the future Estuary

MetroLink Park and Ride Station, particularly to serve active travel to the station and to provide additional resilience to the local network in the context of diverting traffic from Main Street.

4.6.4 Swords Northwest - SFTS Recommendation

Based on the various modelling scenarios undertaken by SYSTRA, some recommendations for the Swords Northwest area have been outlined. These are:

***"SFTS Recommendation 1**: Increasing the number of traffic lanes on Balheary Road is not required in the short term. However, providing bus lanes to enable a high frequency service to run reliably and maintain bus priority through junctions is required to encourage bus use and to limit car use near to present day levels."*

***"SFTS Recommendation 2**: In addition, or complementary to the services outlines in the Bus Connects consultation document, a feeder service should be provided to Oldtown and Mooretown through the developments and onwards to Swords via the Glen Ellan Road."*

***"SFTS Recommendation 3**: Rathbeale and Brackenstown Roads should be prioritised to support the advancement of the GDA Cycle Network Plan in Swords. As primary cycle routes in Swords, they should be developed to the highest standards in accordance with the National Cycle Manual."*

***"SFTS Recommendation 5**: It is crucial to provide continuous high-quality bus and cycle priority along Ardcian Park to Castleview Ext./Glen Ellan Rd/Balheary Road route, and the sections of the Forest Road and Rathbeale Road that are subject to congestion, in order to provide the necessary priority to attract a sufficient share of trips by bus."*

***"SFTS Recommendation 6**: The Swords Western Distributor Road will form a crucial link from northwest Swords to the future Estuary MetroLink station and Park and Ride. From Oldtown-Mooretown to Estuary the road alignment should consider similar design principles as set out in the LAP/Masterplans. Its southern extension to Brackenstown Road/Ward River Valley should be considered as a pedestrian and cycling only route."*

4.6.5 South Fingal Transport Study – Summary

In summary, the *South Fingal Transport Study – Swords Sub Report* concludes that:

(1) There is a significant potential to increase walking and cycling modes of transport within Swords Northwest area by providing high standards and prioritised cycling infrastructures along Rathbeale Road, Glen Ellan Road, Brackenstown Road and Forest Road.

(2) It is crucial to provide continuous high-quality bus and cycle priority along key roads on the network.

(3) In addition to BusConnects, a feeder service should be provided to Oldtown and Mooretown through the development and onwards Swords via Glen Ellan Road.

(4) The Swords Western Distributor Road would provide additional resilience to the local network in the context of diverting traffic from Main Street, and in addition providing direct access to the MetroLink Park and Ride at Estuary station.

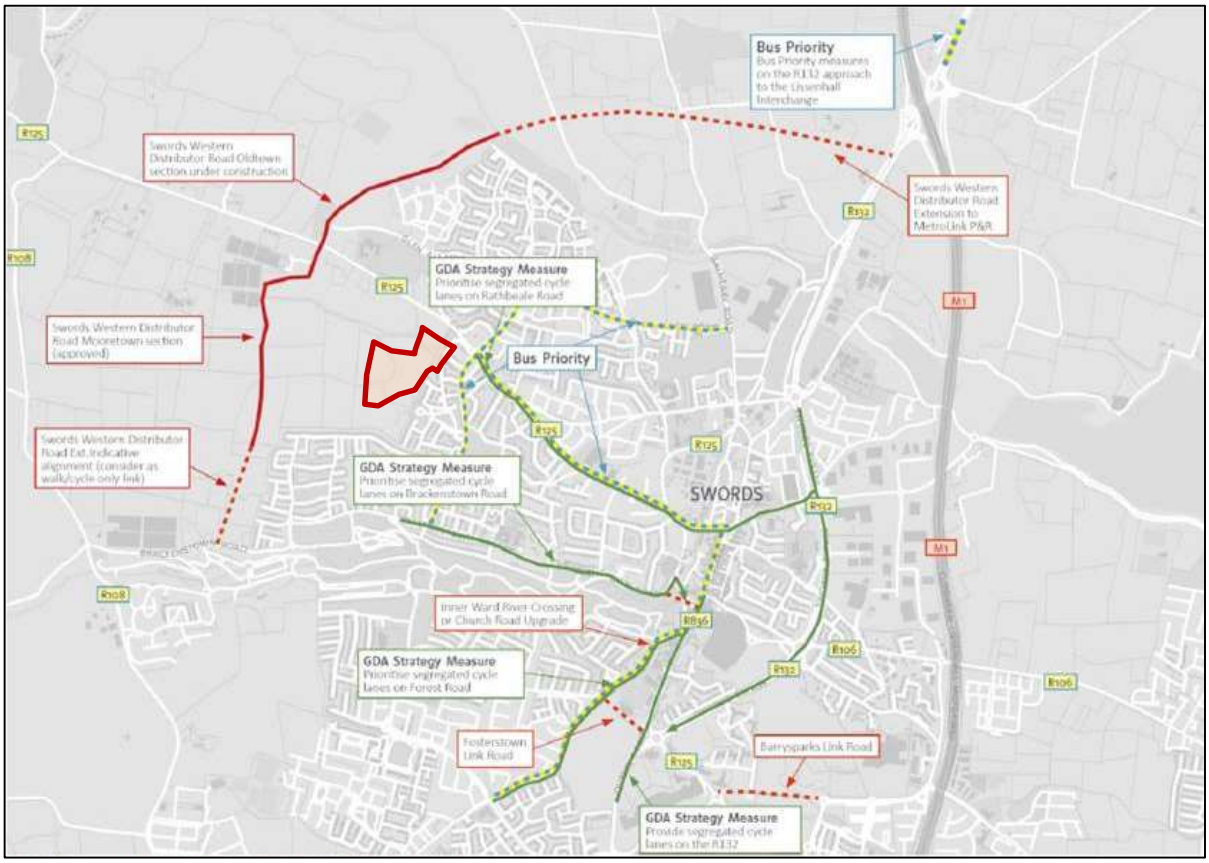


Figure 16 | *Swords Recommendation Summary Map – extracted from Figure 5.1 of the SFTS.*

4.7 GoCar Facilities

There are 3 No. GoCar facilities proposed for the subject proposed development, we refer you to the GoCar letter of support included as ***Appendix G*** of this report.

According to GoCar, *"Carsharing is a sustainable service. By allowing multiple people to use the same vehicle at different times, car sharing reduces car ownership, car dependency, congestion, noise, and air pollution. It frees up land which would otherwise be used for additional parking spaces. Most GoCar users only use a car when necessary and walk and use public transport more often than car owners."*

5. Proposed Development

5.1 Development Description

The subject site for the proposed Phase 1 development is located on Lands in Mooretown, at the northwestern edge of the town of Swords, North County Dublin, approx. 2km from the town centre. The proposed Phase 1 development is 9.35 Ha in size, and seeks the construction of:

a. A total of 274 no. residential units including 187 no. houses, 37 no. duplex, and 50 no. apartment units, ranging from 2 – 5 storeys in height, in a mixed tenure development (18 no. 1-beds, 109 no. 2-beds, 128 no. 3-beds and 19 no. 4-beds)
b. Landscaping works including the provision of Class 2 Open Space of c.18,065 sq.m including riparian corridors, 8 no. pocket parks with a total area of c.2,900 sq.m, and new pedestrian and cycle connections into neighbouring residential lands to the west and connecting to the existing school access road along the western boundary.
c. A total of 415 no. car parking spaces consisting of 357 no. long-stay resident spaces, 58 no. short-stay and visitor spaces.
d. A total of 1,143 no. bicycle parking spaces consisting of 1,117 no. long-stay resident spaces and 26 no. short-stay visitor spaces.
e. Associated site and infrastructural works including the provision of foul and surface water drainage and associated connections, Sustainable Urban Drainage Systems including permeable paving, greens roofs, bio-retention planting and below ground tank storage.

The detailed breakdown of the proposed residential scheme is as follows:

Typology	1Bed	2Bed	3Bed	4Bed	Total
Houses		54	114	19	187
Duplexes	14	20	3		37
Apartments	4	35	11		50
Total	18	109	128	19	274

Table 4 | *Schedule of Accommodation*

5.2 Vehicular Access Points

The main vehicular access to the subject development is proposed from the north, with a new signal-controlled junction on the R125 (see ***Figure 17*** and ***Figure 18*** below – Access Junction 5). There is currently an existing three-armed priority-controlled junction serving a c. 25 unit residential area to the north of the R125.As part of the current development, the existing three-armed priority-controlled junction will be upgraded to a new four-armed signal-controlled junction.

A secondary vehicular access is proposed from the west via the existing School Road Access. This additional access is proposed to primarily serve as connectivity point to the adjacent development and the primary school and post-primary school. When the current development opens, the hierarchy of this road will change from an access route to the school, to a link and access route between the Western Distributor Link Road on the adjacent lands to the west, and the Rathbeale Road R125 to the north of the subject site (see ***Figure 18*** below).

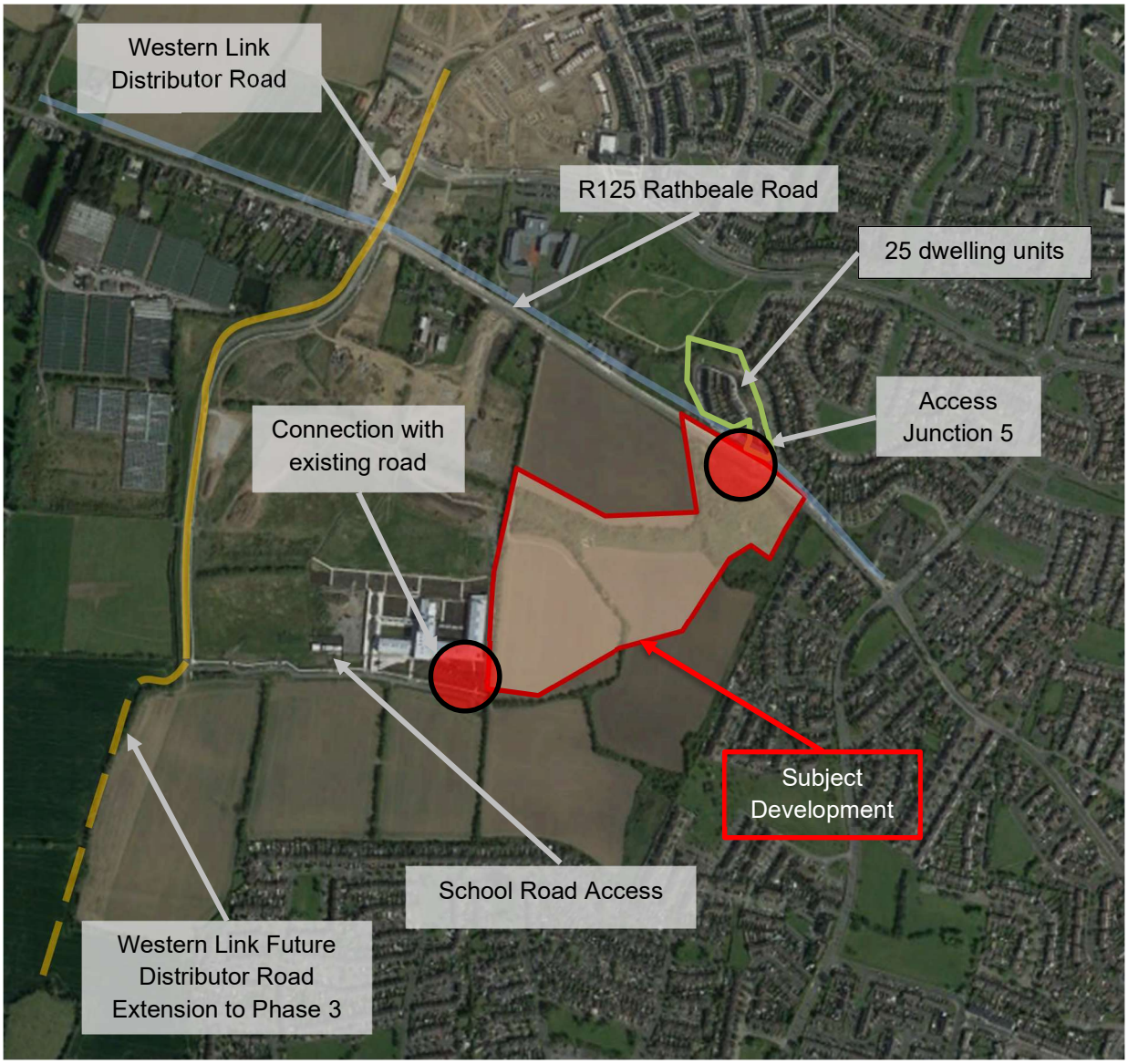


***Figure 17** | Proposed Development Site Access*

5.3 Internal Road Layout

All internal roads in the proposed development are designed for a speed limit of 30kph with typically 6.0m wide carriageways and footpaths along both sides. All intersections within the development itself will be priority junctions with raised tables where appropriate. The low design speeds and traffic calming measures will ensure the safe operation of these junctions and a safe/secure environment for pedestrians and cyclists.

The design and layout of the proposal has been prepared to fully comply with the current relevant design standards and specifications applicable to this form of development.

For general arrangement of internal roads, please refer to Waterman Moylan Drawings No's *MTN-WMC-PH1-GF-DR-C-P1100 Road General Arrangement* accompanying the subject application as part of the documentation package.

***Figure 18** | Proposed Development Internal Roads*

5.4 Access to Service Vehicles

The proposed development of Mooretown Phase 1 will be accessible for refuse vehicles. Swept path layout is shown on the Waterman Moylan Drawing No. *MTN-WMC-PH1-GF-DR-C-P1130 Vehicle Swept Path Analysis using a Refuse Vehicle* accompanying the documentation package.

5.5 Taken In Charge

It is proposed that all internal roads, parking and footpaths shall be taken in charge by FCC Roads. This is clarified in the OBB TIC Drawing accompanying the documentation package under separate cover.

5.6 Travel Characteristics

5.6.1 Small Area - Census 2022

To understand the vehicle ownership and mode of travel selection of the residents in the area, public information from the Census 2022 was used. The Census was conducted by the Central Statistics Office on 3rd April 2022, and distributed information in small areas that divide the territory.

For this report, 35 representative areas have been selected to reflect the subject's development. It is important to choose a range of areas to obtain an average value that will allow us to approximate the future behaviour of the inhabitants in the subject's development. The consulted Small Areas are illustrated in ***Figure 19*** below. The number of houses and respective population in each consulted Small Area is provided in **Appendix E**.

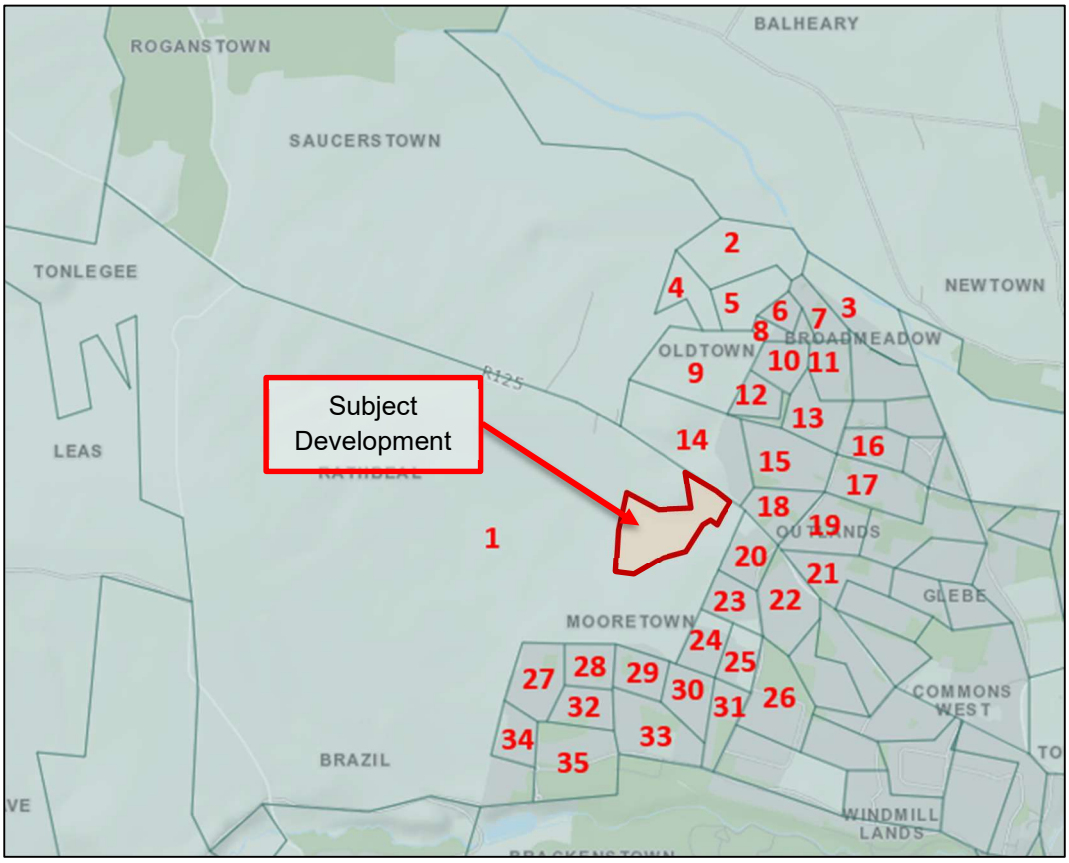


Figure 19 | *Consulted Small Areas - Census 2022.*

5.6.2 Modal Split and Car Ownership – Census 2022

The results of the consultation carried out during the Census 2022 show that the modal split in the selected small areas is 63% by car, 19,4% by public transport, 14,3% by walking, and 3,2% by cycling.

On the other hand, the survey found that the population of 11,631 people living in these areas had a car ownership of 5,426 vehicles, which equates to 1 car per 2.14 persons or 1.51 cars per dwelling unit.

The results of the survey on car ownership in the small areas surveyed are presented in **Appendix E**.

5.6.3 Modal Split – Swords Sub Area Report – South Fingal Transport Study

The Swords Sub Area Report, prepared by SYSTRA in 2019 as part of the overall South Fingal Transport Study, places emphasis on the NTA Statement of Strategy (2018 – 2022) which includes as a priority the promotion of more sustainable modes of transport (e.g. public transport and active modes of travel).

According to Section 2.3.1 of the Swords Sub Area Report, the proposed development of Mooretown Phase – and the overall Oldtown-Mooretown LAP lands, falls within the 'Northwest Sector' of Swords. See Figure 16 – extracted from '*Figure 2.2 Swords Sectors'* of the Swords Sub Area Report.

Section 4.2.2.1 of the Swords Sub Area Report provides a comparison between three distinct scenarios (DoMin 2016, DoMin2027 and GDA Strategy No Metro 2027) to identify potential future changes in modal choice for the 'Swords Northwest Sector' for the future year of 2027 with no intervention (DoMin 2027) and with the implementation of the GDA Strategy (2027 GDA Strategy No Metro). The GDA Strategy consists of NTA GDA Strategy improvements to the bus network and cycle facilities without the implementation of the MetroLink. Bus Connects Project is included as part of the NTA GDA Strategy.

The chart below – extracted from *'Figure 4.3 Trip Generation by Mode, Swords Northwest'* within Swords Sub Area Report of the *South Fingal Transport Study,* indicates that during Census 2016, the modal split in the Swords Northwest sector was 52% by Car, 27% by Public Transport, 18% by Walk and 2% by Cycle.

The chart also shows that for the 2027 DoMin, with the recognised housing in place (including the entire Oldtown-Mooretown development) without any intervention in the transportation network, the Swords Northwest area will face a large increase in the use of cars (to 62%), followed by a decrease in the use of Public Transport to 16%, 20% On Foot and the remaining 2% Cycle. This result was checked by comparing the DO-NOTHING scenario the Census 2022 result shown above.

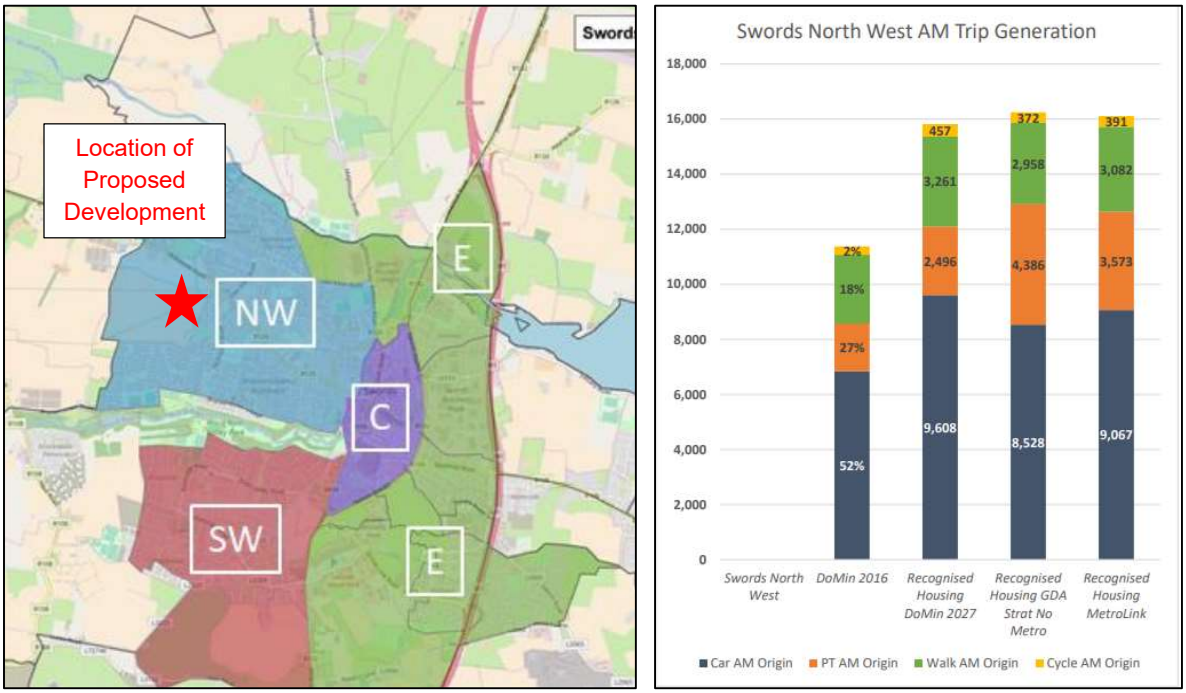


***Figure 20** | South Fingal Transport Study - Swords Northwest Modal Split.*

In the GDA Strategy scenario, with the recognised housing in place and an enhanced bus and cycle network (including Bus Connects), the results indicate that car trips in the northr west modal split will reduce considerably when compared to the 2027 DoMin, whilst public transport will increase.

However, the absolute level of car trips in this scenario, with no further interventions, will remain higher than the current levels (DoMin 2016), and the identified modal split is predicted as the same recorded during Census 2016 – 52% by Car (8,528 trips), 27% by Public Transport (4,386 trips), 18% by Walk (2,958 trips) and 3% by Cycle (372 trips). This indicates that improvements to the bus/cycle network, will avoid a percentage increase in the Car usage in Swords Northwest sector, however the total number of car trips will still be higher than the current values (DoMin 2016).

6. Planning Background

The surrounding lands are zoned for new residential area, subject to the provision of the necessary social and physical infrastructure. The vision is to ensure the provision of high quality new residential environments with good layout and design, with adequate public transport and cycle links and within walking distance of community facilities. To provide an appropriate mix of house sizes, types, and tenures to meet household needs and promote balanced communities.

6.1 Mooretown Planning

The locations of the approved new developments in Mooreown, Swords are shown below.

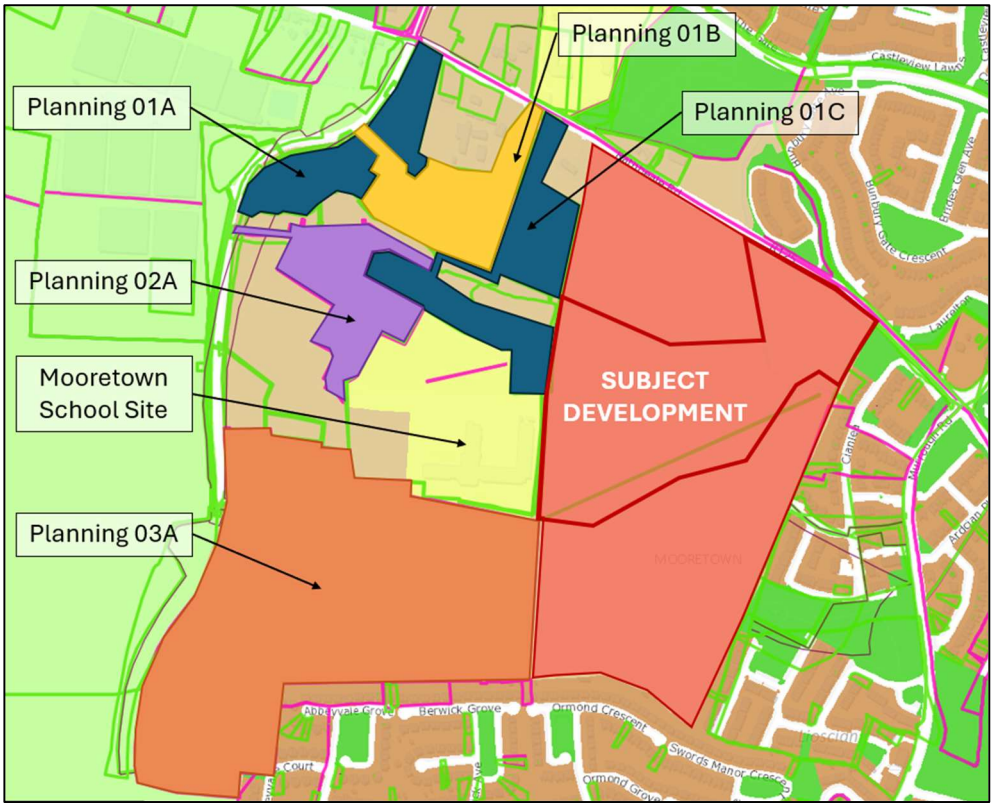


***Figure 21** | Mooretown Planning Applications from Planning Applications Portal of Fingal County Council*

6.2 Oldtown Planning

The locations of the approved new developments in Oldtown, Swords are shown below.

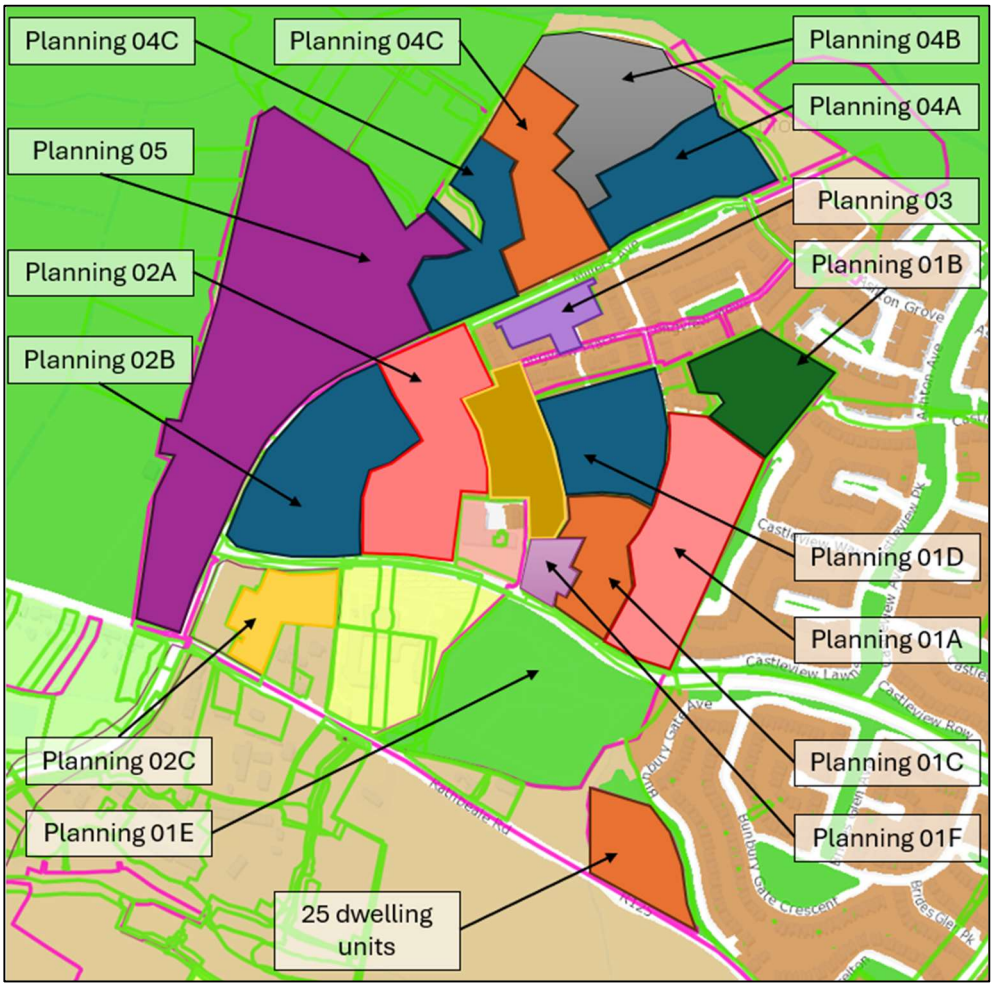


***Figure 22** | Oldtown Planning Applications from Planning Applications Portal of Fingal County Council.*

6.2.1 Overall Oldtown-Mooretown Development 2027

The development of the entire Oldtown site, considering the summary of the developed, consists of 1,614 residential units, 955 sqm of creche and a total of 1,672 sqm of retail/business area.

The Mooretown site, including all Mooretown planning, consists of 1,137 residential units and two schools for 1,624 pupils.

These developments, when summed with the developments in Oldtown lands, will equate to:

- 2,751 residential units (1,614 in Oldtown and 1,137 in Mooretown).
- 2,627 sqm of non-residential area in Oldtown (955 sqm Creche and 1,672 sqm commercial).
- 1,465 sqm of non-residential area in Mooretown (519 sqm Creche and 946 sqm commercial).
- School Site at Mooretown to attend 1,624 pupils.

For this assessment to make the results more robust, it has been assumed that the total Oldtown-Mooretown lands, including residential and non-residential, approved, proposed and potential future developments, will be fully constructed and occupied by 2027.

6.2.2 Overall Oldtown-Mooretown Population

During the 2022 Census, the resident population in the neighbourhoods to the east of Oldtown-Mooretown Lands (***Figure 19***) was 11,631 persons in 3,601 housing units equivalent to 3.23 persons per unit.

Based on 3,200 residential units (1,614 units on Oldtown Lands and c. 1,586 units on Mooretown Lands) and an average of 3.23 persons per unit as recorded by Census 2022, it is estimated that the overall Oldtown-Mooretown Lands will have a resident population of 11,342 persons when fully completed and occupied.

- Oldtown Lands: 1,614 units x 3.23 persons per unit: 5,214 persons
- Mooretown Lands: 1,586 units x 3.23 persons per unit: 5,123 persons
- **Overall Development**: 3,200 units x 3.23 person per unit: **11,342 persons**

7. Trip Generation and distribution

7.1 TRICS Vehicle Trip Rates

In order to assess the likely impact of the traffic generation arising from the new developments (proposed, approved & not constructed and under-construction), TRICS trip rates used to calculate trip generation for the previous approved applications for the Oldtown-Mooretown development lands have been used.

The output reports of TRICS indicated different AM&PM peak hours for each land use category. TRICS Peak Hours for the commercial use do not coincide with the peak hours identified in the Traffic Survey carried out for this assessment. Therefore, in order to represent a robust and more realistic trip generation of the new developments (approved, proposed, and potential future) at the Oldtown-Mooretown development area, the following bullet pointed peak hours have been selected as being the TRICS trip rates considered appropriate for each use in relation to the Traffic Surveys peak hours and were selected carefully to avoid any over or underestimation of trips.

Land Use Category	**AM Peak Hour**	**PM Peak Hour**
• Residential	08:00 to 09:00*	18:00 to 19:00*
• Commercial (Non-retail)	09:00 to 10:00**	18:00 to 19:00**
• Traffic Surveys	08:00 to 09:00	17:00 to 18:00

* Peak Hour indicated by TRICS consultation.
** Selected Peak Hour from TRICS

Land Use Category	AM Peak Hour		PM Peak Hour	
	Trip Rate IN	Trip Rate OUT	Trip Rate IN	Trip Rate OUT
Residential	**0.107** per unit	**0.284** per unit	**0.237** per unit	**0.136** per unit
Commercial (Non-retail)	**0.780** per 100 sqm	**0.314** per 100 sqm	**2.352** per 100 sqm	**1.874** per 100 sqm

Table 5 *| TRICS – Vehicle Trip Rates.*

7.2 Subject Development

The calculated vehicle trips for the subject development considers the total number of 600 units to be built in the Fingal County Council owned Mooretown subject lands, including Phase 1 (274 units) and future phases.

It is estimated that Phase 1 will be completed in 2027 and that the total development will be completed between 2030 and 2032. For the purposes of this TTA, it is assumed that the full development will be completed in 2027, which provides a more robust junctions assessment.

The table below shows the trips generated by the area with the subject development considering the above.

Subject Development	AM Peak Hour		PM Peak Hour	
	Car Trips IN	Car Trips OUT	Car Trips IN	Car Trips OUT
600 residential units **FCC Owned Mooretown Development (Full Build out – All Phases)**	64	170	142	82
Total	**234**		**224**	

Table 6 *| Trip Generation – Proposed Mooretown Lands.*

It is estimated that the area with the subject development will generate a total of 234 vehicle trips in the AM peak hour (64 inbound and 170 outbound) and a total of 224 vehicle trips in the PM peak hour (142 inbound and 82 outbound).

To determine the amount of new car trips expected to travel through each assessed junction in the local road network, the calculated car trips for the proposed development have been distributed. For this TTA, it was assumed that all traffic to/from the proposed development will access the site from R125 via Junction 5 - a signal-controlled junction - proposed as part of the subject development (see ***Figure 18*** above).

Based on the location of the subject site, it was considered that 80% of the overall trips generated by the proposed development will travel eastwards along R125, whilst the remaining 20% will make their way to west R125.

Trip distribution percentages for the remaining Junction 1 (R125 – R108, Signalised crossroads), Junction 3 (R125/Rathbeale Road – Glen Ellan Road, signalised crossroads) and Junction 4 (Glen Ellan Road Extension / Glen Ellan Road Extension / Ashton Distributor Road / Glen Ellan Read – Four-armed roundabout) were calculated using the base surveyed flows and associated turning movements.

Appendix F, **Figure M** shows the distribution of car trips during peak hours (AM and PM), while **Figure N** displays the trip generation. Both figures provide a clear representation of the data.

7.3 Other Developments

The vehicle trip generation calculation for the various developments in the wider Oldtown-Mooretown Development lands is shown below:

7.3.1 Private Mooretown Generation (adjacent subject FCC Mooretown Lands)

- Primary School development to cater for 624 pupils on site.
- Residential development (under construction, approved not constructed and proposed) comprising a total of 988 residential units.
- Potential residential development comprising a total of 149 residential units (Private Mooretown Phases 2B & 2C).
- Retail development with 946 sqm of area.

Note that the Creche elements were not included in the trip generation calculation as it is likely that these facilities will solely serve the residents area and therefore will not generate additional traffic.

The Mooretown School consist of one primary school (624 pupils) and one post-primary school (1,000 pupils) to cater for a total population of 1,624 pupils.

To understand the future travel patterns of the pupils attending these schools, the approved School Travel Plan (STP) prepared by Waterman Moylan for the school site (Reg. Ref: F18A/0163) has been consulted. In this consultation, it was identified two modal split scenarios of which trip generation calculation was based on, the Opening Modal Split, referent to the expected modal split during the opening year of the schools, and the Target Modal Split, which indicates a target pattern of commuting based on a reduced use of car which will be achieved through the methods described in the STP, such as promoting car-pooling / sharing, promoting private bus services, promoting of park and stride strategies and promoting walking and cycling.

For the Opening Modal Split, the usage of private car to commute to the school site was determined as 40%, which reduces to 35% for the Target Modal Split with the school fully operational.

As part of the STP, two other relevant commuting parameters were also used to calculate car trip generation for the schools during the opening and future years. These are showed below.

	Average Car Occupancy	% Early Drop Off
School Opening Year:	1.5	5%
Future Year:	1.75	10%

At the time of the traffic survey was carried out, the Post-Primary School (1,000 pupils) was currently fully occupied, therefore its associated trips – which are already on the road network, were surveyed in the 2023 Traffic Survey carried out in the subject application.

It is our understanding that by the year of 2027 (Opening Year of proposed development) the Primary School (624 pupils) is likely to also be operating at full capacity. Therefore, the trips associated with the Primary School have been included in in the 2027 scenario. The estimated car trips for the Primary School development are presented below.

Development	Population	% Car (Future Year)	Average Car Occupancy	% Early Drop Off	AM Peak Hour Trips	
					Trips IN	Trips OUT
Primary School	624 pupils	35%	1.75	10%	112	112

***Table 7** | AM Peak Hour Trip Generation – School Site – 2027*

As can be seen from above, based on the future travel patterns as indicated in the School Travel Plan for the Mooretown School, the site is estimated to generate a total of 224 car trips in the AM peak hour (112 inbound and 112 outbound). No PM peak hour trips were assumed for the school site, as the school collection period will not coincide with the road network peak hour.

The Trip generation calculation for all residential developments in Mooretown is shown below.

Land Use	Phase Reference	Dev. Size	AM Peak Hour		PM Peak Hour	
			Trips IN	Trips OUT	Trips IN	Trips OUT
Residential	Private Mooretown 01A, B&C	242 units	26	69	57	33
Residential	Private Mooretown 02A	96 units	10	27	23	13
Residential	Private Mooretown 02B	89 units	10	26	21	12
Residential	Private Mooretown 02C	60 units	6	17	14	8
Residential	Private Mooretown 03	650 units	70	185	154	88
Commercial	Private Mooretown 03	946 sqm	7	3	22	18

***Table 8** | AM and PM Peak Hour Trip Generation – Privately Developed Mooretown (adjacent to FCC Mooretown Lands).*

7.3.2 Mooretown Distribution

Driving behaviour was analysed for each development to predict vehicle movement in Mooretown. The first consideration is to assess which roads and which junctions the drivers from each development are likely to use, allowing us to make an initial analysis of the junctions. Given the nature and capacity of the R125, it is assumed that the trip will seek access to this road. ***Figure 23*** below shows the concept map with the different developments and movements considered.

- Planning 01A will use the Western Link Distributor to access the R125 via Junction 2.
- Planning 01B will use both the Western Link Distributor to access the R125, via Junction 2, and the Internal Link between Planning 01B and Planning 01C to reach the R125 via Junction 6. The 50% of the trips on each alternative have been considered.
- Planning 02 will use the Western Link Distributor to access the R125 via Junction 2.
- Planning 03 will use both the Western Link Distributor to access the R125, via Junction 2, and the New LInk Road (to be built within the subject development) to reach the R125 via Junction 6. The 25% of trips generated in Planning 03 will use the Junction 5, while the remaining 75% will use the Junction 2.

The Junction 2 is a Signalised Crossroads between the R125 Rathbeale Road and the Western Distributor Link Road (WDLR). Junction 6 is a priority-controlled T-junctions to provide access to Mooretown lands were also delivered on R125 Rathbeale Road, to provide an access via the Mooretown Phase 1 approved under Planning. Ref. F17A/0128. Junction 5 will be a Signalised Crossroads between the R125 and the New Link Road to be built with the present development.

Given the location of the Oldtown site (on the north-western edge of Swords), its position in relation to major employment and commercial centres, and the access routes to the R132 and M1 motorway to the

east, it was assumed that the main road chosen by drivers would be to the east and, to a lesser extent, to the west. The trip distribution at the junction is shown below.

- Junction 2: 70% of the vehicle arriving at this junction will turn right heading east, 10% will continue ahead and 20% will continue west along the R125 Rathbeale Road.
- Junction 5: The 100% of the vehicle that arrived at this Junction will turn right to the east Note that, according to the previous considerations, only the trips from the Planning 03A will arrive at this junction.
- Junction 6: 70% of the vehicle arriving at this junction will turn right to the east and 30% will turn left to the west.
- Junction 1: 75% of the vehicle arriving at this junction will continue ahead using R125 Rathbeale Road, and the 15% turn left to R108 Naul Road.
- Junction 3: Following the trip distribution (from the traffic survey) percentages for the signalised intersection between R125 Rathbeale Road and Murrough Road, it was determined that 80% of vehicles arriving at this intersection will continue on Rathbeale Road, 13% will turn left onto R125 and 7% will turn right onto Murrough Road.
- Junction 4: was determinate to give continued to the traffic.

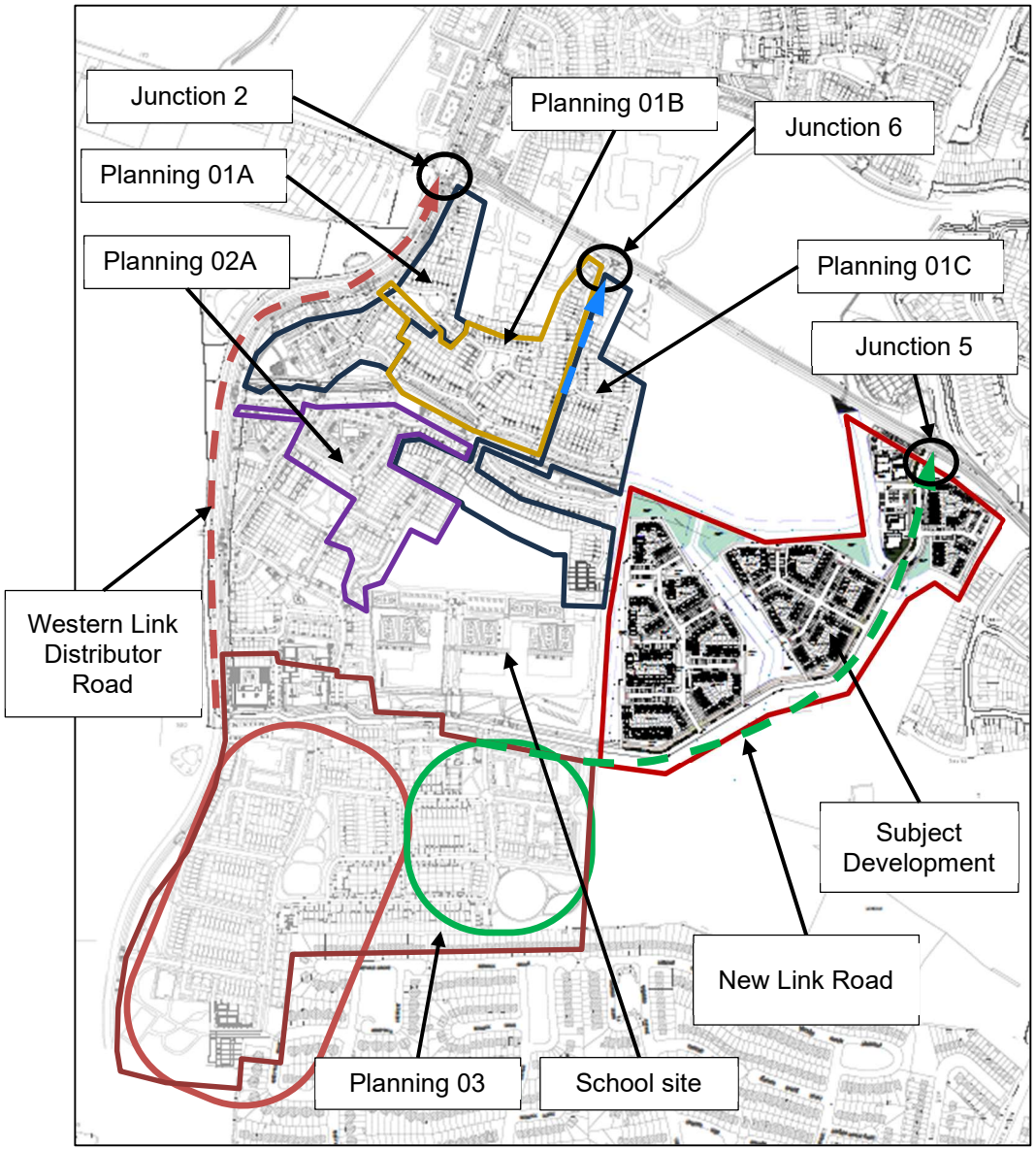


***Figure 23** | Mooretown – Vehicular movement of each Planning & the Subject Development.*

Figure 24 below shows conceptually the distribution of the considered trips. ***Appendix F***, ***Figure F, Figure G and Figure H***, shows the trip distribution of the Mooretown lads in detail.

Figure 24 | *Mooretown Lands - Trip Distribution.*

The distribution of trips is carried out using the trips shown in ***Table 8*** above, as indicated in above. In ***Appendix F, Figure I, Figure J*** and ***Figure K***, show the trip generation from Mooretown Lands for each Planning scheme.

7.3.3 Private Oldtown Lands Trip Generation

At the time of the traffic survey was carried out, the developments of Oldtown 01, Oldtown 02 (retail), 02A, 02B, Oldtown 04A, 04B, 04C, 04D and Oldtown 03A&D were fully constructed and occupied, which suggests that the trips associated with these developments already exist on the road network when traffic survey was carried out, and the calculation of trip generation are not necessary. Therefore, the additional trips considered are those from Oldtown 02C and Oldtown 05 and the trip generation calculation for all residential developments in Oldtown is shown below and should be considered as part of the wider junction impact assessment.

Land Use	Phase Reference	Dev. Size	AM Peak Hour		PM Peak Hour	
			Trips IN	Trips OUT	Trips IN	Trips OUT
Residential	Oldtown 02C	57 units	6	16	14	8
Residential	Oldtown 05	377 units	40	107	89	51
		Total	**46**	**123**	**103**	**59**

Table 9 | *AM and PM Peak Hour Trip Generation – Oldtown.*

For the 25 Oldtown dwelling units, a different approach is necessary due to the junction between its road access and the R125 in the same area as the subject development's junction. It is important to consider this in addition to the previously mentioned characteristics. Therefore, the additional trips considered are those from 25 Oldtown dwelling units and the trip generation calculation is shown below.

Land Use	Phase Reference	Dev. Size	AM Peak Hour		PM Peak Hour	
			Trips IN	Trips OUT	Trips IN	Trips OUT
Residential	Oldtown 25 Dwelling Units	25 units	3	7	6	3

***Table 10** | AM and PM Peak Hour Trip Generation – Oldtown 25 Dwelling Units.*

7.3.4 Oldtown Distribution – Future Phase 5 & 2C

Access from Oldtown Phase 5 & 2C future development lands shall provided via the recently constructed Signalised Crossroads between the R125 Rathbeale Road and the Western Distributor Link Road (WDLR), and via the Existing Four-armed Roundabout between the Glen Ellan Road and the Glen Ellan Road Western Extension.

Given the location of these lands (at the north-western edge of Swords), its position in relation to major employment and commercial centres, and the access routes to the R132 and the M1 motorway to the east, it was assumed that 80% of trips will make their way to the east.

Of the 80% traveling east, 40% was assumed to leave via the Glen Ellan Road and 40% via the R125 Rathbeale Road. Whilst the remaining 20% will travel westwards along R125 Rathbeale Road.

Figure 25 below shows conceptually the distribution of the considered trips. ***In Appendix F**, **Figure B and Figure C***, shows the trip distribution and trip generation of the Oldtown lands in detail.

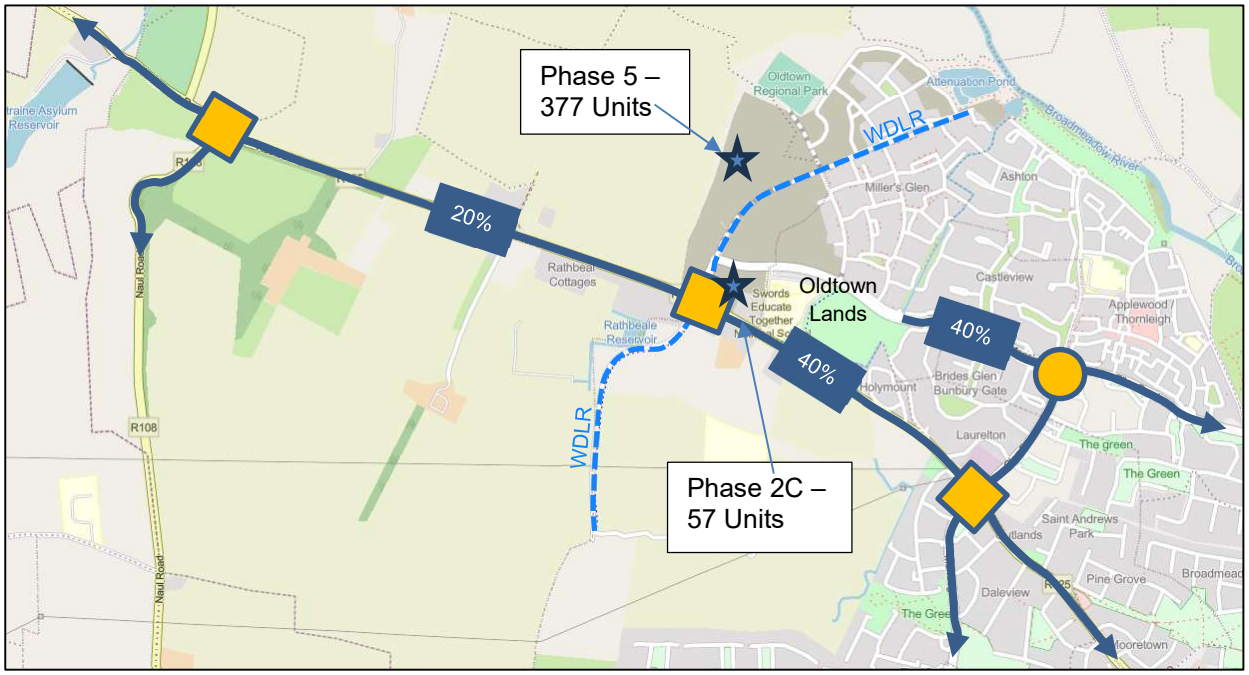


***Figure 25** | Oldtown Lands – Future Trip Distribution.*

The distribution of trips is carried out using the trips shown in ***Table 9*** above, as indicated above. In ***Appendix F, Figure D and Figure E***, shows the trip generation from Oldtown lands.

7.4 Forecast Traffic

7.4.1 Traffic Survey

To determine the volume of traffic movements at key points on the road network surrounding the subject site, traffic count was analysed for the following four junctions in the vicinity of the site, and them as shown in ***Figure 26***.

- **Junction 1 (Priority T-junction):** R125 Rathbeale Road / R108 Naul Road.
- **Junction 2 (Signalised Crossroads):** R125 Rathbeale Road / Western Distributor Link Road.
- **Junction 3 (Signalised Crossroads**): R125 Rathbeale Road / Murrough Road.
- **Junction 4 (Four-armed Roundabout):** Glen Ellan Road / Glen Ellan Road Extension.

The survey was carried out by IDASO on Thursday 11th May 2023. The survey identified the peak hours within the 24-hour period for all junctions. The results identified the AM peak hour as 08h00 - 09h00 and the PM peak hour as 17h00 – 18h00 for all junctions surveyed. The full Traffic Survey is presented in Appendix B.

Figure 26 | *Location of Surveyed Junctions.*

The next figure shows the results of the surveyed Junctions. The same figure can be seen in ***Appendix F***, ***Figure A***.

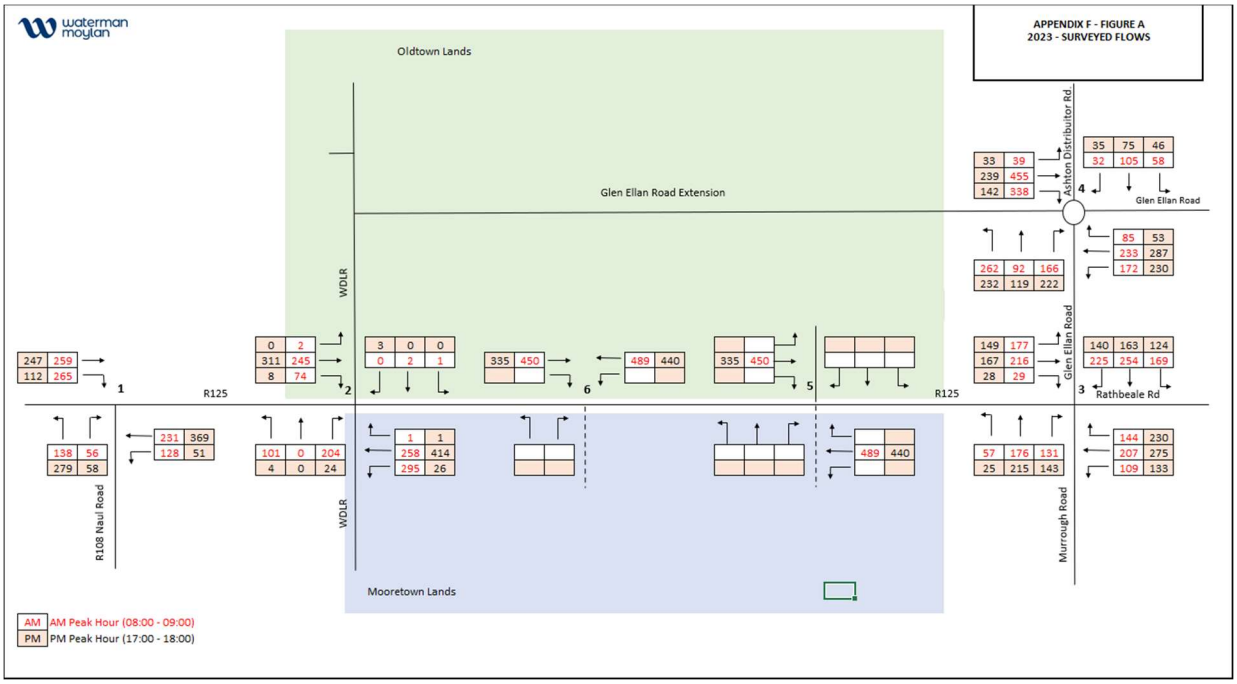


***Figure 27** | 2023 Surveyed Flows.*

7.4.2 Traffic Growth Rates

It has been assumed within this Traffic and Transport Assessment that the subject development will be constructed over a period of 3 years starting in 2024. Therefore, the assumed year of opening is 2027. In line with the 'Traffic and Transport Assessment Guidelines (May 2014)' which this TTA is based on, the surveyed junctions were also assessed for the future design years of 2031 (Opening Year +5 Years) and 2041 (Opening Year +15 Years).

The background traffic growth rates used are in accordance with the 'Figure 6.1 Dublin Metropolitan Area" and the '*Table 6.1: Link-Based Growth Rates: Metropolitan Area Annual Growth Rates'* within the TII Publications – Project Appraisal Guidelines for National Roads Unit 5.3 – Travel Demand Projections (October 2021). Due to the characteristics of the region, the observed level of growth and the potential future growth, growth rates corresponding to a core growth area have been considered. Traffic Growth Rates are shown below:

- Base year: 2023 – Traffic Survey Carried Out
- Opening Year: 2027 = 1.066 growth factor from 2023 to 2027.
- Opening Year + 5: 2032 = 1.131 growth factor from 2023 to 2032.
- Opening Year + 15: 2042 = 1.188 growth factor from 2023 to 2042.

It is recognised that the wider Oldtown-Mooretown resindentailly zoned lands (principally Mooretown) is one of the largest undeveloped areas in the North-West Sector of Swords with high potential of producing

a large number of trips specially during the AM and PM peak hours – this level of trips was detailed in the previous sections of this TTA.

As many trips in the local area are expected to be generated by these lands and the potential level of trips associated with them is detailed under the Trip Generation section of this report, it was considered reasonable to use central growth rates to factor up the future baseline traffic. These growth rates account for any other future development (apart from those already accounted for in this report) that may be approved and constructed in the area.

8. Junction Assessment

8.1 Assessed Junctions

The following junctions have been assessed in the subject report:

- **Junction 1**: R125 Rathbeale Road / R108 Naul Road (Priority T-junction).
- **Junction 2**: R125 Rathbeale Road / Western Distributor Link Road (Signalised Crossroads).
- **Junction 3**: R125 Rathbeale Road / Murrough Road (Signalised Crossroads).
- **Junction 4**: Glen Ellan Road / Glen Ellan Road Extension (Four-armed Roundabout).
- **Junction 5**: R125 Rathbeale Road / New Distributor Road (Signalised Crossroads).
- **Junction 6:** R125 / Internal link to P01B-P01C (Priority T-Junction).

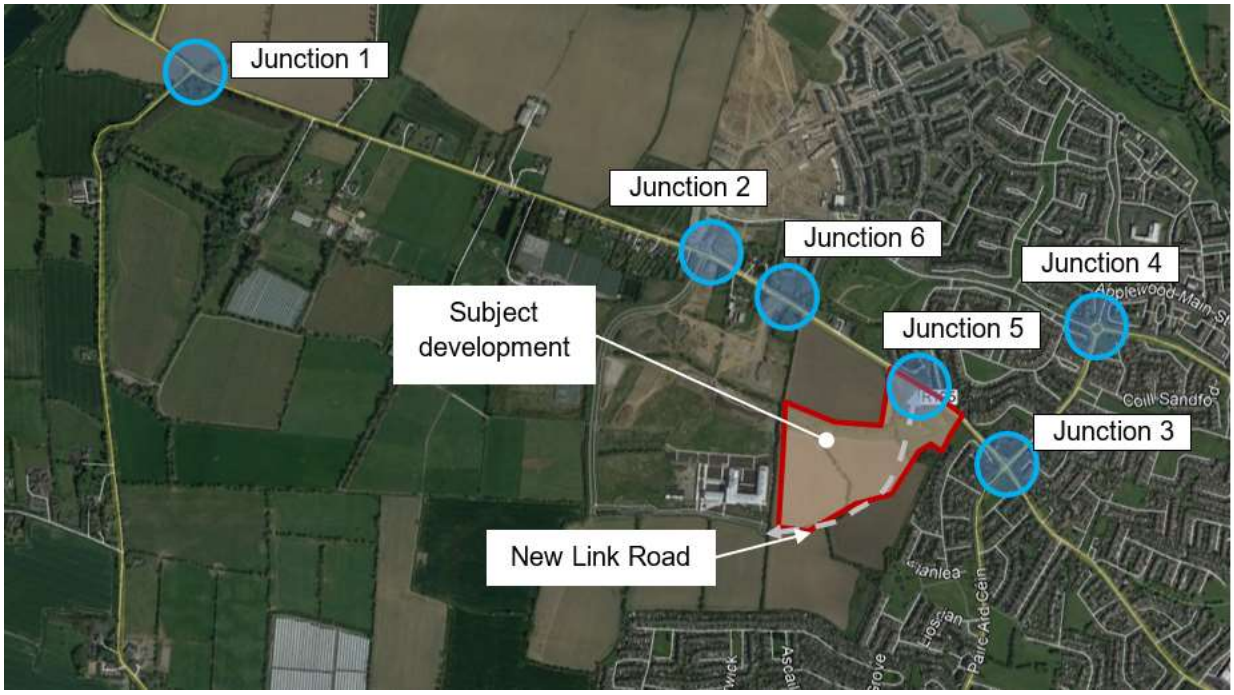


Figure 28 | *Location of Assessed Junctions*

8.2 Modelling Background

There are various modelling software packages available to assess every type of junction. Waterman Moylan uses ARCADY, TRANSYT and PICADY to analyse roundabouts, signalised and priority junctions, respectively.

ARCADY is a software for modelling roundabouts. This programme utilises roundabouts geometry and traffic flows input by the user to determine Ratio of Flow to Capacity (RFC) and queue length for each link on the roundabout.

TRANSYT (Traffic Network Study Tool) software is a widely accepted software for modelling signalled controlled junctions. This programme utilises the phases input by the user and optimises their timings over a cycle time. The outputs of a TRANSYT assessment include a Degree of Saturation percentage (DOS%) figure and queue length for each link on the road network.

PICADY is a software for modelling priority-controlled junctions. This programme utilises junction's geometry and traffic flows input by the user to determine Ratio of Flow to Capacity (RFC) and queue length for each link on the junction.

Typically, a junction is said to be working satisfactorily when the DOS% or RFC of each link does not exceed 90%/0.9. Acceptable DOS% or RFC values are considered to be in the range of 80%/0.8 to 100%/1.0 with higher values indicating restrained movements.

8.3 Assessment Scenarios

The performance of the junctions has been analysed for the critical AM Peak Hour and PM Peak Hour (08:00 - 09:00 and 17:00 - 18:00 / 18:00 - 19:00) for the following scenarios:

- **BASE YEAR 2023**: with 2023 Surveyed Flows (***Figure 27*** above, also in ***Figure A – Appendix F***).
- **DO NOTHINGS 2027:** (DN-2027): with 2023 baseline traffic flows factored up + Mooretown and Oldtown development (***Figure O – Appendix F***)
- **DO NOTHINGS 2032:** (DN-2032): with 2023 baseline traffic flows factored up + Mooretown and Oldtown development (***Figure P – Appendix F***)
- **DO NOTHINGS 2042:** (DN-2042): with 2023 baseline traffic flows factored up + Mooretown and Oldtown development (***Figure Q – Appendix F***)
- **DO SOMETHINGS 2027:** (DS-2027): DN-2027 + traffic to/from the proposed development (***Figure R – Appendix F***)
- **DO SOMETHINGS 2032:** (DS-2032): DN-2032 + traffic to/from the proposed development (***Figure S – Appendix F***)
- **DO SOMETHINGS 2042:** (DS-2042): DN-2042 + traffic to/from the proposed development (***Figure T – Appendix F***)

8.4 Modelling Results

8.4.1 Junction 1: R125 Rathbeale Road / R108 Naul Road

Junction 1 is an existing three-armed priority-controlled junction located to the northwest of the proposed development site. This junction has been modelled based on its current configuration and the PICADY analysis results are summarise in Table below. The arms of the junction were labelled as follows within the PICADY model:

- Arm A: R125 Rathbeale Road (E).
- Arm B: R108 Naul Road (S).
- Arm C: R125 Rathbeale Road (W).

Stream	AM Peak (08:00 to 09:00)		PM Peak (17:00 to 18:00)	
	Queue (veh.)	RFC	Queue (veh.)	RFC
2023 Base Year				
Stream B-C	0.4	0.27	1.1	0.52
Stream B-A	0.2	0.20	0.3	0.20
Stream C-AB	3.1	0.71	0.6	0.29
2027 Do Nothing				
Stream B-C	0.5	0.31	1.5	0.61
Stream B-A	0.4	0.28	0.5	0.33
Stream C-AB	6.2	0.84	0.8	0.34
2027 Do Something				
Stream B-C	0.5	0.32	1.6	0.63
Stream B-A	0.4	0.31	0.6	0.37
Stream C-AB	7.2	0.86	0.9	0.35
2032 Do Nothing				
Stream B-C	0.5	0.34	1.9	0.66
Stream B-A	0.5	0.32	0.6	0.38
Stream C-AB	10.4	0.91	1	0.38
2032 Do Something				
Stream B-C	0.5	0.36	2.1	0.69
Stream B-A	0.5	0.35	0.7	0.43
Stream C-AB	12.8	0.94	1.0	0.39
2042 Do Nothing				
Stream B-C	0.6	0.37	2.5	0.72
Stream B-A	0.6	0.37	0.8	0.45
Stream C-AB	17.7	0.97	1.1	0.41
2042 Do Something				
Stream B-C	0.6	0.39	2.8	0.75
Stream B-A	0.7	0.41	1.0	0.51
Stream C-AB	21.3	0.99	1.2	0.42

Table 11 | *Junction 1 - PICADY Analysis Results.*

The analysis results as summarised above indicate that Junction 1 is currently operating within level of capacity in both peak hours and would continue to do so for the 2042 Do Something scenario with the highest RFC at 0.99 and a corresponding queue of 21.3 vehicles recorded on R125 Rathbeale Road (W) in the AM and with the highest RFC at 0.75 and a corresponding queue of 2.8 vehicles recorded on R108 Naul Road (S) in the PM.

Full modelling results are provided in ***Appendix D***.

8.4.2 Junction 2: R125 Rathbeale Road / Western Distributor Link Road

Junction 2 is a recently constructed signalised crossroads located to the east of the proposed development site. This junction has been modelled based on its current configuration and the TRANSYT analysis results are summarise in table below. The arms of the junction were labelled as follows within the TRANSYT model:

- Arm A: R125 Rathbeale Road (E).
- Arm B: WDLR (S).
- Arm C: R125 Rathbeale Road (W).
- Arm D: WDLR (N).

Arm	Mov.	AM Peak (08:00 to 09:00)		PM Peak (17:00 to 18:00)	
		DOS	Queue (Veh)	DOS	Queue (Veh)
2023 Base Year					
A	S/L	65	14.74 +	39	7.58
	R	0	0.02	0	0.01
B	S/L	19	2.55	2	0.12
	R	39	5.36	11	1.67
C	S/L	29	5.21 +	28	4.89 +
	R	27	1.84	2	0.1
D	S/L	3	0	0	0
	R	0	0	2	0.09
2027 Do Nothing					
A	S/L	79	20.25 +	56	12.76 +
	R	7	1.67	12	1.68
B	S/L	35	4.06	21	1.38
	R	74	9.43 +	54	3.86
C	S/L	34	6.10 +	32	5.94 +
	R	36	1.89	16	1.8
D	S/L	67	2.64	58	2.71
	R	27	1.72	12	0.48
2027 Do Something					
A	S/L	83	22.29 +	57	13.31 +
	R	7	1.67	12	1.68
B	S/L	35	4.06	21	1.38
	R	74	9.43 +	54	3.86
C	S/L	35	6.45 +	35	6.53 +
	R	36	1.89	16	1.8
D	S/L	67	2.64	58	2.71
	R	27	1.72	12	0.48
2032 Do Nothing					
A	S/L	83	22.29 +	58	13.57 +
	R	7	1.67	12	1.68

B	S/L	35	4.06	21	1.38
	R	74	9.43 +	55	3.94
C	S/L	35	6.45 +	34	6.38 +
	R	36	1.89	16	1.8
D	S/L	67	2.64	58	2.71
	R	27	1.72	12	0.48
2032 Do Something					
A	S/L	87	25.00 +	60	14.11 +
	R	7	1.67	12	1.68
B	S/L	36	4.09	21	1.38
	R	77	9.64 +	55	3.94
C	S/L	37	6.91 +	37	6.99 +
	R	38	1.9	16	1.8
D	S/L	67	2.64	58	2.71
	R	27	1.72	12	0.48
2042 Do Nothing					
A	S/L	87	24.88 +	61	14.51 +
	R	7	1.67	12	1.68
B	S/L	37	4.09	21	1.38
	R	79	9.88 +	55	3.98
C	S/L	37	6.93 +	36	6.80 +
	R	40	1.92	16	1.8
D	S/L	67	2.64	58	2.71
	R	27	1.72	12	0.48
2042 Do Something					
A	S/L	91	27.89 +	62	15.07 +
	R	7	1.67	12	1.68
B	S/L	37	4.09	21	1.38
	R	79	9.88 +	55	3.98
C	S/L	39	7.23 +	38	7.40 +
	R	40	1.92	16	1.8
D	S/L	67	2.64	58	2.71
	R	27	1.72	12	0.48

Table 12 | *Junction 2 - TRANSYT Analysis Results*

The analysis results as summarised above indicate that Junction 2 is currently operating within satisfactory level of capacity in both peak hours and would continue for the 2042 Do Something scenario with the highest DOS at 91% and a corresponding queue of 27.89 vehicles recorded on R125 Rathbeale Road (E) in the AM and with the highest DOS at 62% and a corresponding queue of 15.07 vehicles also recorded on R125 Rathbeale Road (E) in the PM. Full modelling results are provided in ***Appendix D***.

8.4.3 Junction 3: R125 Rathbeale Road / Murrough Road

Junction 3 is an existing signalised crossroads located east of the proposed development site. The junction has been modelled based on its current layout and the TRANSYT analysis results are summarise in the tables below. The arms of the junction were labelled as follows within the TRANSYT model:

- Arm A: Glen Ellan Road (NE).
- Arm B: R125 Rathbeale Road (SE).
- Arm C: Murrough Road (SW).
- Arm D: R125 Rathbeale Road (NE).

Arm	Mov.	AM Peak (08:00 to 09:00)		PM Peak (17:00 to 18:00)	
		DOS	Queue (Veh)	DOS	Queue (Veh)
2023 Base Year					
A	S/L	94	18.84	77	10.12
	R	75	7.8	62	4.77
B	S/L	66	9.93	78	13.66
	R	71	4.26	70	6.03
C	S/L	52	6.52	64	7.22
	R	44	4.06	64	5.05
D	S	45	6.12	32	4.39
	R	16	0.64	9	0.53
	L	74	6.34 +	57	4.55 +

Table 13 | *Junction 3 - TRANSYT Analysis Results - 2023.*

The analysis results as summarised above indicate that Junction 3 is currently operating at capacity in the AM peak hour with the highest DOS at 94% and a corresponding queue of 18.84 vehicles recorded on Glen Ellan Road (NE), and within capacity in the PM peak hour with the highest RFC at 78% and a corresponding queue of 13.66 vehicles also occurring on Glen Ellan Road (NE).

For the 2027 and 2032 scenarios (Do Nothing and Do Something) the results in ***Table 14*** below, even without the inclusion of the proposed development trips, indicate that Junction 3 would operate above capacity during both peak hours. In the 2032 Do Nothing scenario has the highest DOS at 104% and a corresponding queue of 30.88 vehicles recorded on Glen Ellan Road (NE) in the AM and with the highest DOS at 129% and a corresponding queue of 95.02 vehicles recorded on R125 Rathbeale Road (SE) in the PM. For the 2032 Do Something scenario, the highest DOS is recorded at 121% on R125 Rathbeale Road (NE) in the AM peak hour and at 144% on R125 Rathbeale Road (SE) in the PM peak hour.

Arm	Mov.	AM Peak (08:00 to 09:00)		PM Peak (17:00 to 18:00)	
		DOS	Queue (Veh)	DOS	Queue (Veh)
2027 Do Nothing					
A	S/L	104	30.96 +	84	12.08
	R	84	9.24 +	80	7.26
B	S/L	90	17.33	124	82.34 +
	R	77	5.02	76	7.06
C	S/L	58	7.07	77	7.98
	R	47	4.35	68	5.3
D	S	98	23.93	58	9.01
	R	31	1.24	14	0.77
	L	92	10.75 +	67	5.84 +

2027 Do Something					
A	S/L	101	25.96	84	12.08
	R	85	9.33 +	89	10.62 +
B	S/L	98	23.09	139	120.61 +
	R	77	5.02	76	7.06
C	S/L	60	7.12	80	8.41 +
	R	47	4.31	68	5.3
D	S	118	60.97	66	10.83
	R	40	1.67	17	0.95
	L	103	17.26 +	72	6.50 +
2032 Do Nothing					
A	S/L	104	30.88 +	89	13.7
	R	84	9.25 +	84	8.29 +
B	S/L	94	20.11	129	95.02 +
	R	81	5.85	81	8.06 +
C	S/L	62	7.17	81	8.45 +
	R	49	4.53	72	5.82
D	S	101	27.72	60	9.46
	R	32	1.29	14	0.81
	L	97	13.26 +	71	6.36 +
2032 Do Something					
A	S/L	101	26.58 +	89	13.7
	R	85	9.35 +	93	13.92 +
B	S/L	102	28.92	144	133.47 +
	R	81	5.85	81	8.06 +
C	S/L	63	7.21	84	9.16 +
	R	49	4.5	72	5.89
D	S	121	67.64	69	11.34
	R	41	1.73	17	0.97
	L	108	21.16 +	75	7.04 +

Table 14 | *Junction 3 - TRANSYT Analysis Results – 2027 & 2032*

The Oldtown-Mooretown LAP acknowledged that, at the time of preparing the LAP document in 2010, this junction was already operating at capacity with the critical arm operating at 89% of the available capacity and sets out plan to modify this junction.

It is recognised by the Council that R125 Rathbeale Road is one of the critical routes currently serving the Swords Northwest area, including the Oldtown and Mooretown lands.

It is understanding that the development of Oldtown and Mooretown lands without any intervention to the transportation infrastructure is likely to increase the current pressures on R125 Rathbeale Road and consequently oversaturate its intersections with other important links, which are currently working at or above their capacities. Rathbeale Road / Murrough Road (Junction 3) is one of the most affected junctions.

With the objective to update and refine the development strategy in the overall South Fingal area in terms of transportation, Fingal County Council commissioned SYSTRA to carry out the South Fingal Transport Study. This study, which includes extensive assessment and modelling of the Swords Northwest area, was published in February 2019, and forms the basis for future transportation development in the medium and long terms. The transportation modelling carried out by SYSTRA included all modes of transport

(including active modes) and provided for extensive predictive modelling based on demand forecasting and supply changes in terms of new roads, cycle, and public transport infrastructure.

In summary, to provide the necessary priority to attract a sufficient share of trips by bus and active modes, SYSTRA indicated that it is crucial to provide continuous high-quality bus and cycle priority along major roads in the area (including R125 Rathbeale Road which is subject to congestion) and also recommended Rathbeale and Brackenstown Roads to be prioritised to support the advancement of the GDA Cycle Network Plan in Swords.

With the recommendations included as part of the SYSTRA assessment of the Swords Northwest area (presented in Section 4.6 of the subject TTA), it is estimated that the overall traffic increase and impact will not be of a scale that would indicate a requirement for additional road capacity at Junction 3.

It is noted that Junction 3 has been part upgraded as part of the LIHAF funded works to the R125 Rathbeale Road via the provision of a new right hand turn lane on the western approach to the existing Murrough Road Junction.

Full modelling results for Junction 3, including 2042 Do Nothing and 2042 Do Something scenarios, are provided in ***Appendix D***.

8.4.4 Junction 4: Glen Ellan Road / Glen Ellan Road Extension

Junction 4 is an existing four-armed priority-controlled roundabout located northeast of the proposed development site. This roundabout has been modelled based on its current configuration and the ARCADY analysis results are summarise in Table 17 below. Full traffic modelling results are attached in Appendix C. The arms of the roundabout were labelled as follows within the ARCADY model:

- Arm 1: Glen Ellan Road (E).
- Arm 2: Glen Ellan Road (S).
- Arm 3: Glen Ellan Road (W).
- Arm 4: Northern Arm (N).

Arm	AM Peak (08:00 to 09:00)		PM Peak (18:00 to 19:00)	
	Queue (veh.)	RFC	Queue (veh.)	RFC
2023 Base Year				
Arm 1	0.7	0.42	0.8	0.44
Arm 2	0.6	0.39	0.8	0.43
Arm 3	1.7	0.64	0.5	0.32
Arm 4	0.4	0.27	0.2	0.17
2027 Do Nothing				
Arm 1	1.0	0.49	0.9	0.47
Arm 2	0.8	0.45	0.9	0.48
Arm 3	3.0	0.75	0.6	0.38
Arm 4	0.5	0.34	0.2	0.19
2027 Do Something				
Arm 1	1.0	0.5	0.9	0.48
Arm 2	0.9	0.47	1	0.5
Arm 3	3.2	0.76	0.6	0.39
Arm 4	0.6	0.36	0.3	0.22
2032 Do Nothing				
Arm 1	1.1	0.53	1	0.5

Arm 2	0.9	0.48	1.1	0.52
Arm 3	4.0	0.81	0.7	0.41
Arm 4	0.6	0.38	0.3	0.21
2032 Do Something				
Arm 1	1.1	0.53	1	0.5
Arm 2	1.0	0.51	1.1	0.53
Arm 3	4.3	0.82	0.7	0.41
Arm 4	0.7	0.41	0.3	0.24
2042 Do Nothing				
Arm 1	1.3	0.56	1.1	0.53
Arm 2	1.0	0.51	1.2	0.55
Arm 3	5.4	0.85	0.8	0.43
Arm 4	0.7	0.42	0.3	0.23
2042 Do Something				
Arm 1	1.3	0.57	1.1	0.53
Arm 2	1.1	0.53	1.3	0.56
Arm 3	5.8	0.86	0.8	0.44
Arm 4	0.8	0.45	0.3	0.25

Table 15 | *Junction 4 - ARCADY Analysis Results.*

The analysis results indicate that Junction 4 is currently operating within capacity during both peak hours and would continue to do so for the 2042 Do Something scenario with the highest RFC at 0.86 and a corresponding queue of 5.8 vehicles occurring on Glen Ellan Road (W) in the AM and with the highest RFC at 0.56 and a corresponding queue of 1.3 vehicle recorded on Glen Ellan Road (E) in the PM. Full modelling results are provided in ***Appendix D***.

8.4.5 Junction 5: R125 Rathbeale Road / New Distributor Road

Junction 5 is a new signalised crossroads located to the north of the proposed development site. This junction has been modelled based on the proposed design and the TRANSYT analysis results are summarise in table below. The arms of the junction were labelled as follows within the TRANSYT model:

- Arm A: R125 Rathbeale Road (E).
- Arm B: New Distributor Road(S).
- Arm C: R125 Rathbeale Road (W).
- Arm D: Internal Lin to 25 Dwelling Units (N).

Arm	Mov.	AM Peak (08:00 to 09:00)		PM Peak (17:00 to 18:00)	
		DOS	Queue (Veh)	DOS	Queue (Veh)
2023 Base Year					
A	S/L/R	51	10.59	41	7.84
B	S/L/R	0	0	0	0
C	S/L/R	47	9.46	31	5.47
D	S/L/R	42	1.74	0	0
2027 Do Nothing					
A	S/L/R	63	14.35	59	13.63
B	S/L/R	17	1.38	18	0.85
C	S/L/R	76	19.91	45	8.96

D	S/L/R	8	0.28	4	0.16
2027 Do Something					
A	S/L/R	68	16.44	70	18.03
B	S/L/R	80	8.45	72	4.37
C	S/L/R	77	20.56	48	9.78
D	S/L/R	8	0.28	4	0.16
2032 Do Nothing					
A	S/L/R	66	15.7	62	14.65
B	S/L/R	17	1.38	18	0.85
C	S/L/R	79	21.55	47	9.52
D	S/L/R	8	0.28	4	0.16
2032 Do Something					
A	S/L/R	71	17.91	73	19.24
B	S/L/R	80	8.45	72	4.37
C	S/L/R	80	22.25	50	10.37
D	S/L/R	8	0.28	4	0.16
2042 Do Nothing					
A	S/L/R	69	16.85	64	15.66
B	S/L/R	17	1.38	18	0.85
C	S/L/R	81	22.99	49	10.04
D	S/L/R	8	0.28	4	0.16
2042 Do Something					
A	S/L/R	74	19.18	75	20.68
B	S/L/R	80	8.45	72	4.37
C	S/L/R	83	23.97	51	10.91
D	S/L/R	8	0.28	4	0.16

Table 16 | *Junction 5 - TRANSYT Analysis Results.*

The analysis results as summarised above indicate that Junction 5 is currently operating within satisfactory level of capacity in both peak hours and would continue for the 2042 Do Something scenario with the highest DOS at 83% and a corresponding queue of 23.97 vehicles recorded on R125 Rathbeale Road (w) in the AM and with the highest DOS at 75% and a corresponding queue of 20.68 vehicles recorded on R125 Rathbeale Road (E) in the PM. Full modelling results are provided in ***Appendix D***.

8.4.6 Junction 6: R125 Rathbeale Road / R108 Naul Road

Junction 6 is an existing three-armed priority-controlled junction located to the northwest of the proposed development site. This junction has been modelled based on its current configuration and the PICADY analysis results are summarise in Table below. The arms of the junction were labelled as follows within the PICADY model:

- Arm A: R125 Rathbeale Road (E).
- Arm B: Internal Link to P01B-P01C (S).
- Arm C: R125 Rathbeale Road (W).

Stream	AM Peak (08:00 to 09:00)		PM Peak (17:00 to 18:00)	
	Queue (veh)	RFC	Queue (veh)	RFC
2023 Base Year				
Stream B-AC	0.0	0.00	0.0	0.00
Stream C-AB	0.0	0.00	0.0	0.00
2027 Do Nothing				
Stream B-AC	0.2	0.13	0.1	0.06
Stream C-AB	0.0	0.02	0.0	0.03
2027 Do Something				
Stream B-AC	0.2	0.14	0.1	0.06
Stream C-AB	0.0	0.02	0.0	0.03
2032 Do Nothing				
Stream B-AC	0.2	0.14	0.1	0.06
Stream C-AB	0.0	0.02	0.0	0.03
2032 Do Something				
Stream B-AC	0.2	0.14	0.1	0.07
Stream C-AB	0.0	0.02	0.0	0.03
2042 Do Nothing				
Stream B-AC	0.2	0.14	0.1	0.07
Stream C-AB	0.0	0.02	0.0	0.03
2042 Do Something				
Stream B-AC	0.2	0.15	0.1	0.07
Stream C-AB	0.0	0.02	0.0	0.03

Table 17 | *Junction 6 - PICADY Analysis Results.*

The analysis results as summarised above indicate that Junction 6 is currently operating within satisfactory level of capacity in both peak hours and would continue to do so for the 2042 Do Something scenario with the highest RFC at 0.15 and a corresponding queue of 0.2 vehicles recorded on Internal Link to P01B-P01C (S) in the AM and with the highest RFC at 0.07 and a corresponding queue of 0.1 vehicles recorded on the same road in the PM.

Full modelling results are provided in **Appendix D**.

9. Public Transport Capacity Assessment

9.1 Background and Methodology

The aim of this chapter is to identify the potential demand for public transport users, based on existing statistical information and considering current and surrounding developments. This information is then used to analyse the impact on the existing public transport system.

For the purposes of this report, public transport services have been surveyed on all routes passing in the vicinity of the development (see ***Figure 8*** and ***Figure 9***).

9.2 Future Passenger Demand

9.2.1 Future Passenger Demand – Mooretown

There are two ways of determining the modal split. The first is to use the result of the Census 2022, which indicates that 19.4% of the trips generated in the small areas considered (see ***Figure 19***) were made by public transport. The second option is to use the modal split from chapter 5.6.3 of this TTA, in which case the modal split indicates that 27% of the trips generated in the area were made by public transport. For the purposes of this report, in order to provide more robust results, the 27% is used.

The time distribution of the trips is considering the distribution of the census 2022 (see ***Appendix E***), which indicate that the 30,4% of the trips from the small areas (see ***Figure 19***) are made between 7AM and 8AM.

Census 2022 indicates that the housing in the neighbourhoods to the east of the Oldtown-Mooretown lands had an average of 3.23 residents per unit. Based on that the future residents in the new proposed, permitted, and potential future developments in Mooretown have been estimated.

Private Mooretown 1 A, B & C:	242 units x 3.23 residents/unit	: 782 residents
Private Mooretown 2 A, B & C:	245 units x 3.23 residents/unit	: 792 residents
Private Mooretown 3:	650 units x 3.23 residents/unit	: 2,100 residents
Subject FCC Development:	600 units x 3.23 residents/unit	: 1,938 residents
Total Mooretown:	1,737 units x 3.23 residents/unit	: 5,612 residents

Based on the modal split, 27% of the residential population, equivalent to 1,516 residents, are expected to use public transport for commuting during the weekday.

Of these, 30,4% (461 people) are expected to travel during the AM Peak Hour between 7:00 and 8:00.

Based on the analysis of the behaviour observed during the surveys conducted, it can be assumed that 95% of the users (438 people) will travel south to Dublin and 5% (23 people) will travel in the other direction.

9.2.2 Future Passenger Demand – Oldtown

Using the same 3.23 residents/unit average as outlined above, the future residents in the permitted developments in Oldtown have been estimated.

Oldtown Phase 2C:	57 units x 3.23 residents/unit	: 184 residents
Oldtown Phase 5:	377 units x 3.23 residents/unit	: 1,218 residents
Total Oldtown:	434 units x 3.23 residents/unit	: 1,402 residents

Based on the modal split, 27% of the residential population equivalent to 379 people are expects to use public transport for commuter during weekday.

Of these, 30,4% (116 people) are expected to travel during the AM Peak Hour between 7:00 and 8:00.

Based on the analysis of the behaviour observed during the surveys conducted, it can be assumed that 95% of the users (111 people) will travel south to Dublin and 5% (6 people) will travel in the other direction.

9.2.3 Future Passenger Demand – Summary

The overall future passenger demand for the combined Mooretown and Oldtown developments during the 3-hour peak period and the AM peak hour is summarised in the table below.

Source	AM Peak Hour 7.00 – 8.00	
	Southbound (95%)	Northbound (5%)
Mooretown	438	23
Oldtown	111	6
Total	**549**	**29**
	578	

***Table 18** | Future Passenger Demand – Summary*

Once the potential demand for public transport has been determined, the capacity of each transport system available in the subject Mooretown area is analysed.

9.3 Public Transport Survey

As part of the public transport assessment, bus stops in the vicinity of the proposed development were surveyed. Waterman Moylan conducted bus capacity surveys during the morning peak hour at three bus stops: Stop No. 4910 Southbound, Stop No. 4921 Northbound and Stop No. 3884 Eastbound. Bus stop 3884 Eastbound (located East of the Subject Development) was considered as it serves the bus that passes in front of the subject development via Rathbeale Road and the buses from the Glen Ellan

The survey was carried out on 22 April 2024 between 6.30am and 8.30am.

The survey aimed to record the number of services passing through each bus stop, as well as the number of users and passengers boarding and disembarking each means of transport, and the available capacity of each unit.

The table below presents the results of the survey carried out.

Hour arrival	Route No.	Deck	Capacity (seating + standing)	No. passenger Boarding	No. passenger disembarking	No. Passenger upon departure	Spare Capacity
Bus Stop 4910 Southbound							
7:01	*41*	*Double*	*96*	*0*	*0*	*5*	*91*
7:06	*41b*	*Double*	*96*	*0*	*0*	*4*	*92*
7:46	*41*	*Double*	*96*	*0*	*1*	*4*	*92*
8:04	*41*	*Double*	*96*	*0*	*1*	*3*	*93*
Bus Stop 4921 Northbound							
6:34	41c	Double	96	6	0	8	88
6:51	41c	Double	96	5	0	10	86
6:58	500x	Single	47	8	0	20	27
6:58	500x	Single	47	0	0	0	47
7:06	*41c*	*Double*	*96*	*0*	*0*	*9*	*87*
7:10	*41c*	*Double*	*96*	*4*	*0*	*4*	*92*
7:26	*500x*	*Single*	*47*	*6*	*0*	*16*	*31*
7:41	*41c*	*Double*	*96*	*4*	*2*	*9*	*87*
8:01	500x	Single	47	2	0	8	39
8:03	41c	Double	96	14	0	28	68
8:08	500x	Single	47	3	1	4	43
8:19	41c	Double	96	20	0	28	68
Bus Stop 3884 Eastbound							
6:35	41	Double	96	0	0	8	88
7:01	*41*	*Double*	*96*	*0*	*0*	*6*	*90*
7:16	*41*	*Double*	*96*	*3*	*0*	*13*	*83*
7:30	*41*	*Double*	*96*	*0*	*0*	*14*	*82*
7:30	*41x*	*Double*	*96*	*0*	*0*	*40*	*56*
7:35	*41x*	*Double*	*96*	*9*	*1*	*27*	*69*
7:38	*41b*	*Double*	*96*	*0*	*0*	*20*	*76*
7:42	*41*	*Double*	*96*	*0*	*0*	*16*	*80*
7:51	*41x*	*Double*	*96*	*0*	*0*	*20*	*76*
7:52	*41x*	*Double*	*96*	*4*	*0*	*5*	*91*

7:54	*41*	*Double*	*96*	*0*	*0*	*13*	*83*
8:12	41	Double	96	0	0	38	58

Table 19 | *Bus Survey Result*

9.4 Public Transport Conclusion

The spare capacity was 1358 passengers (***Table 19*** above), which is sufficient to cover the potential future passenger demand of 578 passengers shown in ***Table 18***. Therefore, the additional demand from the developments can be accommodated within the existing services.

In the future, more services will be covered by BusConnects (see chapter 4). There will also be more than enough capacity shall be supplied on the further improved local services.

10. Parking Strategy

10.1 Car Parking

To determine the appropriate amount of car and cycle parking for the proposed development, reference will be made to the following guidelines/policies:

- Sustainable Residential Development and Compact Settlements Guidelines for Planning Authorities (2024) (only for car parking)
- National Transport Authority Greater Dublin Area Transport Strategy 2022-2042
- Sustainable Urban Housing: Design Standards for New Apartments (July 2023)
- Fingal County Council Development Plan 2023-2029

10.1.1 Sustainable Residential Development and Compact Settlements Guidelines for Planning Authorities (2024)

The Sustainable Residential Development and Compact Settlements Guidelines for Planning Authorities set national planning policy and guidance in relation to the planning and development of urban and rural settlements, with a focus on sustainable residential development and the creation of compact settlements.

The chapter 5.3.4 Car Parking – Quantum, Form and Location. In this chapter considerate three areas:

(i) In city centres and urban neighbourhoods of the five cities, defined in Chapter 3 of that document (Table 3.1 and Table 3.2) car-parking provision should be minimised, substantially reduced, or wholly eliminated. The maximum rate of car parking provision for residential development at these locations, where such provision is justified to the satisfaction of the planning authority, shall be 1 no. space per dwelling.

(ii) In accessible locations, defined in Chapter 3 of that document (Table 3.8) car- parking provision should be substantially reduced. The maximum rate of car parking provision for residential development, where such provision is justified to the satisfaction of the planning authority, shall be 1.5 no. spaces per dwelling.

(iii) In intermediate and peripheral locations, defined in Chapter 3 of that document (Table 3.8) the maximum rate of car parking provision for residential development, where such provision is justified to the satisfaction of the planning authority, shall be 2 no. spaces per dwelling.

The table 3.1 of Sustainable Residential Development and Compact Settlements Guidelines for Planning Authorities define:

City – Centre: The city centres of Dublin and Cork, comprising the city core and immediately surrounding neighbourhoods, are the most central and accessible urban locations nationally with the greatest intensity of land uses, including higher order employment, recreation, cultural, education, commercial and retail uses. It is a policy and objective of these Guidelines that residential densities in the range 100 dph to 300 dph (net) shall generally be applied in the centres of Dublin and Cork.

City - Urban Neighbourhoods: The city urban neighbourhoods category includes: (i) the compact medium density residential neighbourhoods around the city centre that have evolved overtime to

include a greater range of land uses, (ii) strategic and sustainable development locations, (iii) town centres designated in a statutory development plan, and (iv) lands around existing or planned high-capacity public transport nodes or interchanges (defined in Table 3.8) – all within the city and suburbs area. These are highly accessible urban locations with good access to employment, education and institutional uses and public transport. It is a policy and objective of these Guidelines that residential densities in the range 50 dph to 250 dph (net) shall generally be applied in urban neighbourhoods of Dublin and Cork.

City - Suburban/Urban Extension: Suburban areas are the lower density car-orientated residential suburbs constructed at the edge of cities in the latter half of the 20th and early 21st century, while urban extension refers to the greenfield lands at the edge of the existing built-up footprint that are zoned for residential or mixed-use (including residential) development. It is a policy and objective of these Guidelines that residential densities in the range 40 dph to 80 dph (net) shall generally be applied at suburban and urban extension locations in Dublin and Cork, and that densities of up to 150 dph (net) shall be open for consideration at 'accessible' suburban / urban extension locations (as defined in Table 3.8).

The table 3.8 of Sustainable Residential Development and Compact Settlements Guidelines for Planning Authorities indicate:

High-Capacity Public Transport Node or Interchange: Lands within 1,000 metres (1km) walking distance of an existing or planned high-capacity urban public transport node or interchange, namely an interchange or node that includes DART, high frequency Commuter Rail, light rail or MetroLink services; or locations within 500 metres walking distance of an existing or planned BusConnects 'Core Bus Corridor'12 stop.

Accessible Location: Lands within 500 metres (i.e. up to 5–6-minute walk) of existing or planned high frequency (i.e. 10-minute peak hour frequency) urban bus services.

Intermediate Location: Lands within 500-1,000 metres (i.e. 10–12-minute walk) of existing or planned high frequency (i.e. 10-minute peak hour frequency) urban bus services; and Lands within 500 metres (i.e. 6-minute walk) of a reasonably frequent (minimum 15-minute peak hour frequency) urban bus service.

Peripheral: Lands that do not meet the proximity or accessibility criteria detailed above. This includes all lands in Small and Medium Sized Towns and in Rural Towns and Villages.

From the above description and considering the information in ***Chapter 3*** of this TTA, the current development is in an *Intermediate Location* as there is a proposed high frequency (12-15 min peak hour) bus service with a bus stop less than 500m away from the development entrance.

SPPR 3 of the compact settlement guidelines calls for a maximum provision 2 spaces per dwelling fro Intermediate Locations. This 2 No. spaces/dwelling allowance includes provision for visitor parking, but excludes car share, short stay, EV and accessible spaces.

The table below summarises the number of car parking spaces at a rate of 1.5/unit provides (not including electric or accessible spaces).

Land Use	Required parking space	Sustainable Residential Development and Compact Settlements Guidelines for Planning Authorities Car Parking spaces required
		Resident / Visitor
274 Houses	1.5	411

Table 20 | *Sustainable Residential Development and Compact Settlements Guidelines for Planning Authorities - Car Parking Spaces Required*

10.1.2 Greater Dublin Area Transport Strategy (2022 – 2042) Standards

In January 2023, the National Transport Authority (NTA) issued the GDA Transport Strategy 2022 – 2042.

Figure 19.2 identifies the subject site as being located between the metropolitan boundary and the M50.

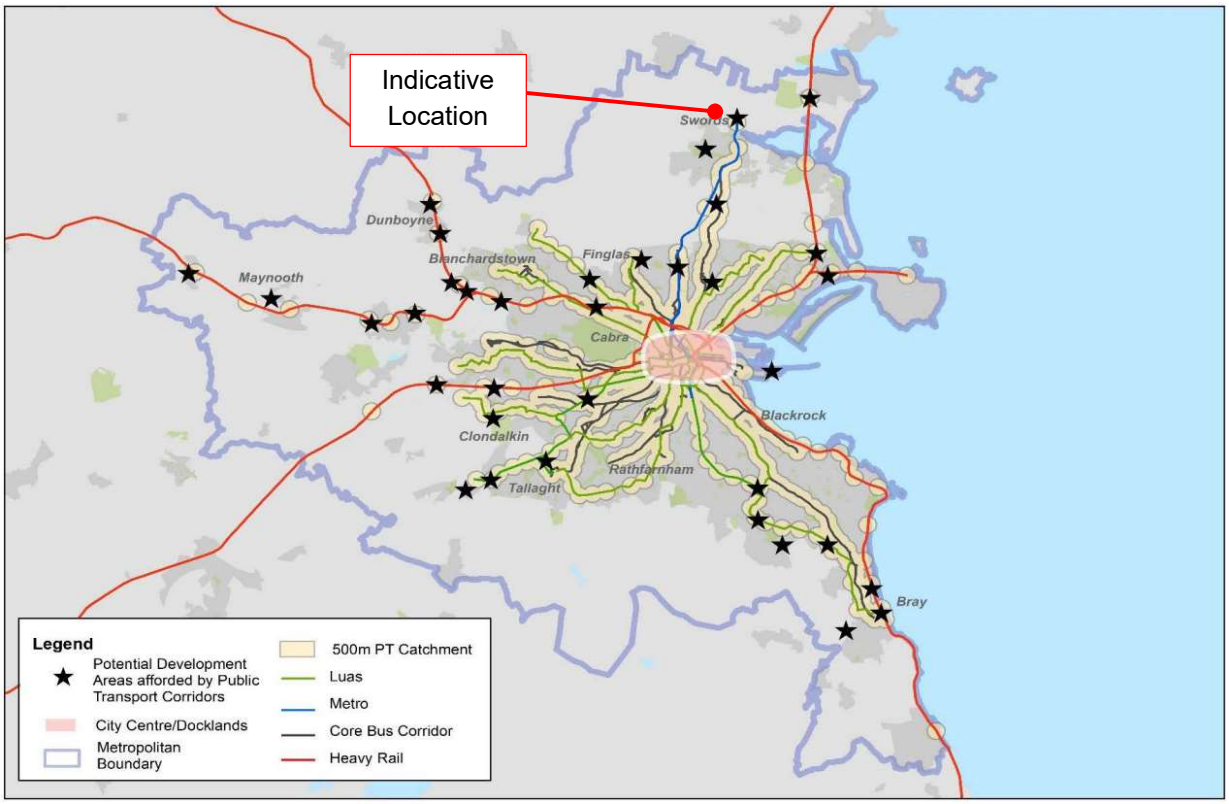


Figure 29 *| Areas Afforded by PT Corridors in the Metropolitan Area (Source: Figure 19.2 GDATS).*

Figure 14.1 of the Transport Strategy sets out the proposed maximum residential parking standards for areas within the GDA including locations between the metropolitan boundary and the M50, where the subject proposed development is situated. This is reproduced below.

Location	Maximum Parking Provision
Central Dublin (Inside Canals and including Docklands)	Zero to 0.5 spaces per unit
Locations between the M50 and Canals	Zero to 1.5 spaces per unit
Locations Between the Metropolitan Boundary and the M50	**Up to 1.5 space per unit**
Hinterland Towns	Up to 2 spaces per unit
Small Settlements / Areas with low accessibility levels	Subject to local assessment

Table 21 | *Greater Dublin Area Transport Strategy (2022 – 2042) Standards - Car parking standard*

The table below summarises the number of car parking spaces required.

Land Use	Required parking space	Greater Dublin Area Transport Strategy (2022 – 2042) Standards – Car Parking Spaces Standard Car Parking spaces required
		Resident / Visitor
274 Houses	1.5	411

Table 22 | *Greater Dublin Area Transport Strategy (2022 – 2042) Standards - Car Parking Spaces Required*

10.1.3 Sustainable Urban Housing: Design Standards for New Apartments (July 2023)

Only to have a reference for the number of parking spaces associated with the plan "Sustainable Urban Housing: Design Standards for New Apartments' (DSNA) (July 2023 version), the parking requirements are assessed below.

Chapter 2 of the Design Standard for New Apartments sets out the following “types of location” which are defined by site’s accessibility and proximity to public transport and town/city centres:

1) Central and/or Accessible Urban Locations

- Sites within walking distance (i.e., up to 15 minutes or 1,000-1,500m), of principal city centres, or significant employment locations, that may include hospitals and third level institutions.
- Sites within reasonable walking distance (i.e., up to 10 minutes or 800-1,000m) to/from high-capacity urban public transport stops (such as DART or Luas).

- Sites within easy walking distance (i.e., up to 5 minutes or 400-500m) to/from high frequency (i.e., min 10-minute peak hour frequency) urban bus service.

2) Intermediate Urban Locations

- Sites within or close to i.e., within reasonable walking distance (i.e., up to 10 minutes or 800-1,000m), of principal town or suburban centres or employment locations, that may include hospitals and third level institutions.
- Sites within walking distance (i.e., between 10-15 minutes or 1,000-1,500m) of high-capacity urban public transport stops (such as DART, commuter rail or Luas) or within reasonable walking distance (i.e., between 5-10 minutes or up to 1,000m) of high frequency (i.e., min 10 minutes peak hour frequency) urban bus services or where such services can be provided.
- Sites within easy walking distance (i.e., up to 5 minutes or 400-500m) of reasonably frequent (min 15-minute peak hour frequency) urban bus services.

3) Peripheral and/or Less Accessible Urban Locations

- Sites in suburban development areas that do not meet proximity or accessibility criteria.
- Sites in small towns or villages.

Chapter 4 of the Design Standard for New Apartments sets out the quantum of car parking or the requirement for any such provision for apartment developments.

1) Central and/or Accessible Urban Locations

In larger scale and higher density developments, comprising wholly of apartments in more central locations that are well served by public transport, the default policy is for car parking provision to be minimised, substantially reduced, or wholly eliminated in certain circumstances. The policies above would be particularly applicable in highly accessible areas such as in or adjoining city cores or at a confluence of public transport systems such rail and bus stations located in proximity.

2) Intermediate Urban Locations

In suburban/urban locations served by public transport or close to town centres or employment areas and particularly for housing schemes with more than 45 dwellings per hectare net (18 per acre), planning authorities must consider a reduced overall car parking standard and apply an appropriate maximum car parking standard.

3) Peripheral and/or Less Accessible Urban Locations

As a benchmark guideline for apartments in relatively peripheral or less accessible urban locations, one car parking space per unit, together with an element of visitor parking, such as one space for every 3-4 apartments, should generally be required.

Based on the above description and considering the information in ***Chapter 3*** and ***4*** of this TTA, it is considered that the present development is in an *Intermediate Urban Locations* as there is a proposed high frequency bus service with a bus stop less than 500m away.

Considering the above, it is necessary to reduce overall car parking standard and apply an appropriate maximum car parking standard.

10.1.4 Fingal Development Plan 2023 – 2029 Standards

This current Fingal Development Plan provides for the creation of two distinct parking zones to ensure adequate residential parking provision and the control of destination car parking. This approach also allows greater flexibility in the application of car parking standards on sites in areas with varying levels of road and public transport provision. The two zones are:

Zone 1: Relates to developments within 800m of Bus Connects spine route, or 1600m of an existing or planned Luas/Dart/Metro Rail station or within an area covered by a Section 49 scheme, or in lands zoned Major Town Centre.

Zone 2: Relates to all other areas within the County.

The table below shows the standards for car parking in new developments as set out in Table 14.19 of the Fingal Development Plan 2023 – 2029:

Description	Zone 1	Zone 2
Residential (1 – 2 Bedroom)	0.5 resident space per unit without visitor spaces **(Maximum)**	1 resident space per unit 1 visitor space per 5 units **(Norm)**
Residential (3 – 3+Bedroom)	1 resident space per unit without visitor spaces **(Maximum)**	2 resident space per unit 1 visitor space per 5 units **(Norm)**

Table 23 | *Fingal Development Plan 2023-2029 - Car Parking Standards*

The development is located in zone 2 since it does not meet the requirements indicated in the standards to be part of Zone 1.

The table below outlines the required parking for the proposed development based on the FCC standards.

Land Use	No. of Units	Car Parking Standard (norm)		Car Parking required	
		Resident	Visitor	Resident	Visitor
2-bed houses	54	1	1 / 5 unts	54	11
3-bed houses	114	2	1 / 5 unts	228	22
4-bed houses	19	2	1 / 5 unts	38	4
1-bed duplexes	14	1	1 / 5 unts	14	3
2-bed duplexes	20	1	1 / 5 unts	20	4

3-bes duplexes	3	2	1 / 5 unts	6	1
1-bed apartments	4	1	1 / 5 unts	4	1
2-bed apartments	35	1	1 / 5 unts	35	7
3-bed apartments	11	2	1 / 5 unts	22	2
Total	**274**			**421**	**55**

***Table 24** | Fingal Development Plan 2023-2029 - Car Parking Required*

In addition to the above, the current Fingal Development Plan also sets out the following with regards to car parking:

- **Motorcycle Parking:** Parking spaces should be provided based on one motorcycle parking bay per 10 car parking spaces provided for non-residential developments and apartment developments.
- **Electric Vehicle Parking:** All multi-unit residential developments shall incorporate EV charging points at 20% of the proposed parking spaces and appropriate infrastructure (e.g. ducting) to allow for future fit out of a charging point at all parking spaces. Non-residential development shall be required to provide functioning EV charging points at a minimum of 10% of all spaces and all other spaces shall incorporate appropriate infrastructure (ducting) to allow for future fit out of a charging point at all spaces.

10.1.5 Car Parking Proposed

Based on the above guidelines/policies, it is considered that the *Fingal Development Plan 2023-2029* Standards are the most representative standard for the subject development and is the reference for determining the proposed car parking. It is also considered that the number of car parking spaces for a 3-bed house be reduced from 2 to 1.5 in accordance with *Sustainable Urban Housing: Design Standards for New Apartments*. With this consideration, the different standard assessment will be satisfied.

The proposed parking layout for the subject development is shown in the table below, and it meets the requirements of all applicable standards.

Land Use	No. of Units	Car Parking ratio		Car Parking Proposed	
		Resident	Visitor	Resident	Visitor
2-bed houses	54	1	1 / 5 units	54	11
3-bed houses	114	1.5	1 / 5 units	171	22
4-bed houses	19	2	1 / 5 units	38	4
1-bed duplexes	14	1	1 / 5 units	14	3

2-bed duplexes	20	1	1 / 5 units	20	4
3-bes duplexes	3	1.5	1 / 5 units	4	1
1-bed apartments	4	1	1 / 5 units	4	1
2-bed apartments	35	1	1 / 5 units	35	7
3-bed apartments	11	1.5	1 / 5 units	17	2
Total	**274**			**357**	**55**

***Table 25** | Car Parking Spaces Proposed*

In total, it is proposed 412 car parking spaces to serve the proposed development, at an overall ratio of 1.5 car parking spaces per unit.

This number of parking spaces meets the standards presented previously, including the *Design Standards for New Apartments and National Transport Authority Greater Dublin Area Transport Strategy 2022-2042*, which requires a reduction in the total number of parking spaces.

Following the guidelines indicate in Fingal Development Plan 2023 – 2029, it is proposed that the development have the following parking spaces:

- **Accessible Car Parking:** 13 No. Accessible spaces shall be afforded as close as reasonably possible to building entrance points and allocated and suitably sign posted for convenient access.
- **Motorcycle Parking:** 6 parking spaces for motorcycles parking spaces shall be supplied to the apartment units at rate of 1 per 10 car parking spaces.
- **Electric Vehicle Parking:** EV parking spaces shall be provided to 20% of the overall car parking provision, with ducting provision to make live the balance of parking spaces.

10.2 Cycle Parking

10.2.1 Sustainable Residential Development and Compact Settlements Guidelines for Planning Authorities (2024)

The Sustainable Residential Development and Compact Settlements Guidelines for Planning Authorities set national planning policy and guidance in relation to the planning and development of urban and rural settlements, with a focus on sustainable residential development and the creation of compact settlements.

The chapter *5.3.5 Bicycle Parking and Storage* indicate that in areas of high and medium accessibility, planning authorities must ensure that new residential developments have high quality cycle parking and cycle storage facilities for both residents and visitors.

SPPR4 stipulates that it is a specific planning policy requirement of these Guidelines that all new housing schemes (including mixed-use schemes that include housing) include safe and secure cycle storage facilities to meet the needs of residents and visitors. The following requirements for cycle parking and storage are recommended:

(i) **Quantity** – in the case of residential units that do not have ground level open space or have smaller terraces, a general minimum standard of 1 cycle storage space per bedroom should be applied. Visitor cycle parking should also be provided. Any deviation from these standards shall be at the discretion of the planning authority and shall be justified with respect to factors such as location, quality of facilities proposed, flexibility for future enhancement/ enlargement, etc. It will be important to make provision for a mix of bicycle parking types including larger/heavier cargo and electric bikes and for individual lockers.

(ii) **Design** – cycle storage facilities should be provided in a dedicated facility of permanent construction, within the building footprint or, where not feasible, within an adjacent or adjoining purpose-built structure of permanent construction. Cycle parking areas shall be designed so that cyclists feel safe. It is best practice that either secure cycle cage/compound or preferably locker facilities are provided.

For the bicycle parking proposal, the recommendations indicated above will be followed.

10.2.2 Sustainable Urban Housing: Design Standards for New Apartments (July 2023)

Only to have a reference for the number of cycle spaces associated with the plan "Sustainable Urban Housing: Design Standards for New Apartments' (DSNA) (July 2023 version), the parking requirements are assessed below. The following extract from the standard summarises the bicycle parking guidelines for new apartments:

> "*Quantity – a general minimum standard of 1 cycle storage space per bedroom shall be applied. For studio units, at least 1 cycle storage space shall be provided. Visitor cycle parking shall also be provided at a standard of 1 space per 2 residential units. Any deviation from these standards shall be at the discretion of the planning authority and shall be justified with respect to factors such as location, quality of facilities proposed, flexibility for future enhancement/enlargement, etc.*"

The table below outlines the required parking for the proposed development based on the *Sustainable Urban Housing: Design Standards for New Apartments (July 2023)*.

Land Use	No. of Units	Cycle Parking Standard		Cycle Parking required	
		Resident	**Visitor**	**Resident**	**Visitor**
2-bed houses	54	2	0.5	108	27
3-bed houses	114	3	0.5	342	57
4-bed houses	19	4	0.5	76	9
1-bed duplexes	14	1	0.5	14	7
2-bed duplexes	20	2	0.5	40	10
3-bes duplexes	3	3	0.5	9	1

1-bed apartments	4	1	0.5	4	2
2-bed apartments	35	2	0.5	70	17
3-bed apartments	11	3	0.5	33	5
Total	**274**			**696**	**135**

***Table 26** | Sustainable Urban Housing: Design Standards for New Apartments (July 2023) - Cycle Parking Required*

10.2.3 Fingal Development Plan 2023 – 2029 Standards

Standards for cycle parking in new developments are set out in Table 14.17 of the Fingal Development plan 2023-2029. The cycle parking standards relevant to the proposed development are listed in the table below.

Land Use	Long Stay	Short Stay
Residential (1 or 2 bedrooms)	1, plus 1 per bedroom	0.5 per unit (For apartment blocks only)
Residential (3 or more bedrooms)	2, plus 1 per bedroom	0.5 per unit (For apartment blocks only)

***Table 27** | Fingal Development Plan 2023 – 2029 - Cycle Parking Standards*

The table below outlines the required cycle parking spaces for the proposed development based on the FCC standard.

Land Use	No. of Units	Cycle Parking Standard minimum		Cycle Parking required	
		Resident	**Visitor**	**Resident**	**Visitor**
2-bed houses	54	3	0	162	0
3-bed houses	114	5	0	570	0
4-bed houses	19	6	0	114	0
1-bed duplexes	14	2	0	28	0
2-bed duplexes	20	3	0	60	0
3-bes duplexes	3	5	0	15	0
1-bed apartments	4	2	0.5	8	2
2-bed apartments	35	3	0.5	105	18
3-bed apartments	11	5	0.5	55	6
Total	**274**			**1117**	**26**

***Table 28** | Fingal Development Plan 2023 – 2029 - Cycle Parking Required*

10.2.4 Cycle Parking Proposed

Based on the guidelines/policies indicated above, it is considered that the *Fingal Development Plan 2023-2029 Standards* are the most restrictive standard for the subject development and is the reference for determining the proposed the cycle parking. Adhering to these standards will satisfy the requirements of other standards.

The table below outlines the cycle parking spaces proposed to serve the subject development.

Land Use	No. of Units	FCCDP Requirement		Proposed Cycle Parking	
		Long Stay	Short Stay	Long Stay	Short Stay
2-bed houses	54	3	0	162	
3-bed houses	114	5	0	570	
4-bed houses	19	6	0	114	
1-bed duplexes	14	2	0	28	
2-bed duplexes	20	3	0	60	
3-bes duplexes	3	5	0	15	
1-bed apartments	4	2	0.5	8	
2-bed apartments	35	3	0.5	105	
3-bed apartments	11	5	0.5	55	
TOTAL	**274**			**1,117**	**26**

Table 29 | *Cycle Parking Proposed.*

The proposed cycle parking spaces for the houses, duplexes and apartment units are in line with the Fingal Development Plan requirements for both long-stay and short-stay.

10.3 Parking Review

The proposed developments on-site car parking spaces will be public spaces, offered for taking in charge.

It considered that the proposed provision of parking spaces, at the proposed development is appropriate due to the following:

- The proposed development is located in an area served by public transport which, as planned under BusConnects programme, is projected to be upgraded with more frequent and reliable routes.
- High quality and frequent public transport services available in close proximity to the subject site (less than 5-minute walk)

- Cycle and pedestrian facilities in the locality are new (along R125 Rathbeale Road, Western Distributor Road and Glen Ellan Road) with good connections to bus stops and local amenities. Within the 15-minute cycle band from the site there are several retail, leisure, sports, and employment facilities available.
- The availability of car share vehicles in the locality and additional GoCar facilities to become available in Mooretown.
- The low levels of car ownership based on location (1.51 car per residential unit according to the Census 2022 data – See chapter 5.6.2).
- The existence of a robust and achievable Travel Plan encouraging sustainable travel modes.

11. Road Safety

11.1 Accidents

Traffic collision data has been reviewed for the period 2005-2016 from the Road Safety Authority (RSA) traffic collision database. This review will assist to identify any potential safety concerns in relation to the existing road network. These incidents are categorised into class of severity, which includes minor, serious (S), or fatal (F) collisions. The analysis is shown in Figure 30.

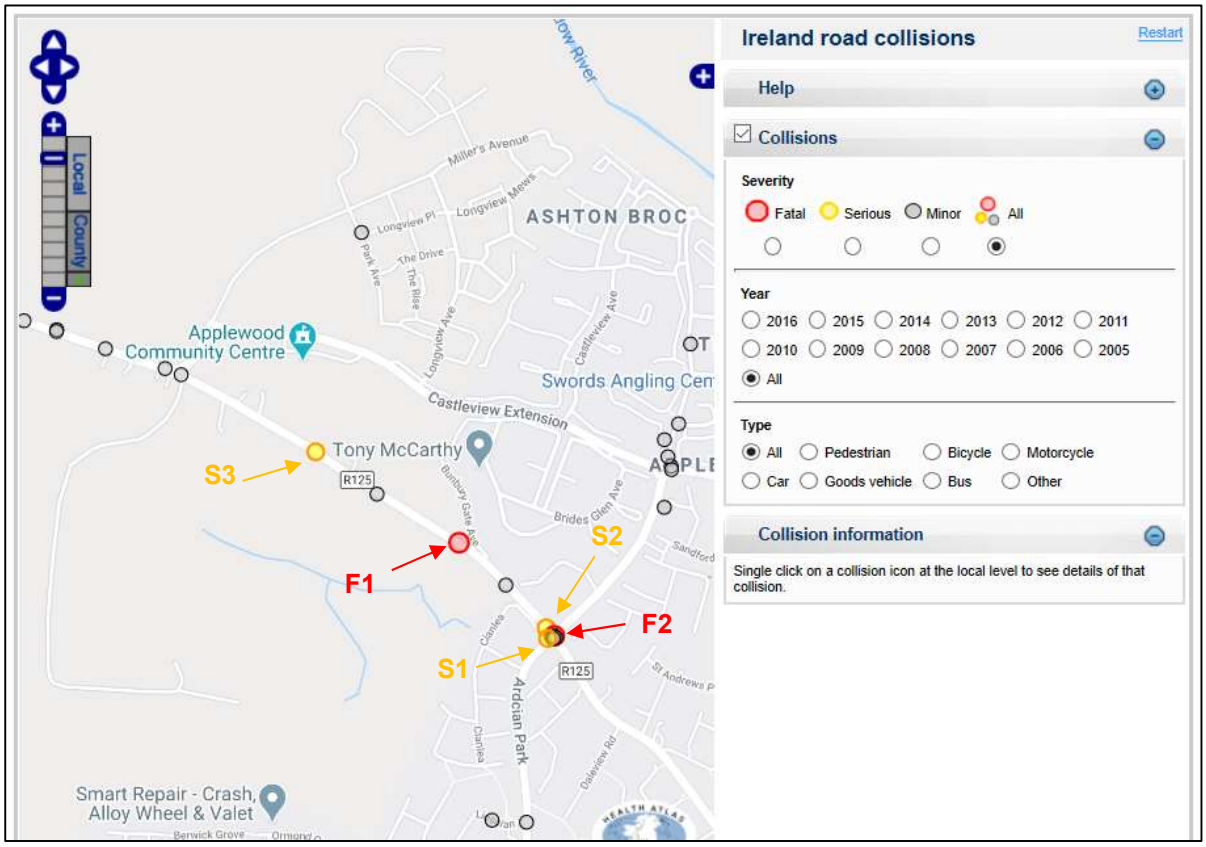


***Figure 30** | RSA Traffic Collision Data 2005 – 2016.*

The analysis showed that some minor, three serious and two fatal incidents occurred on R125 Rathbeale Road in the vicinity of the proposed development site. A summary of these incidents is presented below.

Reference	Year	Vehicle	Circumstances	Day of Week	Times	Speed Limit
S1	2005	Car	Pedestrian	Friday	07:00-10:00	50kph
S2	2016	Bicycle	Other	Monday	03:00-07:00	50kph
S3	2016	Car	Head-on conflict	Tuesday	07:00-10:00	80kph
F1	2005	Motorcycle	Read end, right turn	Saturday	16:00-19:00	60kph
F2	2013	Goods vehicle	Other	Wednesday	23:00-03:00	60kph

***Table 30** | Summary of Local Serious and Fatal Collisions.*

12. Summary and Conclusion

12.1 Summary

Waterman Moylan has been appointed to prepare this Traffic and Transport Assessment on the Fingal County owned residential development Mooretown lands, Swords, Co. Dublin.

The proposed development consists of 274 residential units comprising of 187 Houses, 37 duplexes and 50 Apartments. The proposed development is estimated to be constructed and operational by 2027. The main vehicle access route to the site will be via a signalised junction from the R125, Rathbeale Road.

This Traffic and Transport Assessment has outlined the key stages as stated earlier in the report including (but not limited to):

- Policy Review
- Site Assessment
- Travel Characteristics
- Transport Improvements
- Transportation Infrastructure
- Trip Assignments and Distribution
- Cumulative Impact
- Parking Strategy and
- Road Safety

12.2 Conclusion

Public Transport Assessment

The proposed development will be ideally situated to benefit from an inclusive range of public transport, bus and rail connections thereby providing very high levels of accessibility. Additionally, the range and proximity of future public transport services will, when implemented, further improve the accessibility of the proposed development.

The provision of additional footpaths and cycle lanes as indicated in The NTA's Cycle Network Plan for the Greater Dublin Area will enhance the attraction of walking and cycling in the vicinity of the proposed development.

The spare capacity was 1358 passengers, which is sufficient to cover the potential future passenger demand of 578 passenger. Therefore, the additional demand from the developments can be accommodated within the existing services.

In the future, more services will be covered by BusConnects (see chapter 4). There will also be more than enough capacity on the further improved local services.

Parking Assessment

The proposed development has made provision for adequate, and safe, parking spaces. 412 car parking spaces (357 car parking spaces for residents and 55 car parking spaces for visitors) and 1,143 bicycle parking spaces (1,117 cycle parking spaces for long stay and 26 parking spaces for short stay) are proposed.

Road Network Assessment

The following junctions were assessed as part of this TTA:

- **Junction 1**: R125 Rathbeale Road / R108 Naul Road (Priority T-junction).
- **Junction 2**: R125 Rathbeale Road / Western Distributor Link Road (Signalised Crossroads).
- **Junction 3**: R125 Rathbeale Road / Murrough Road (Signalised Crossroads).
- **Junction 4**: Glen Ellan Road / Glen Ellan Road Extension (Four-armed Roundabout).
- **Junction 5**: R125 Rathbeale Road / New Distributor Road (Signalised Crossroads).
- **Junction 6:** R125 / Internal link to P01B-P01C (Priority T-Junction).

It is estimated that the area with the subject development will generate a total of 234 vehicle trips in the AM peak hour (64 inbound and 170 outbound) and a total of 224 vehicle trips in the PM peak hour (142 inbound and 82 outbound). The calculated vehicle trips for the subject development considers the total number of units to be built in the area, including Phase 1 (current) and future phases. A total of 600 units are assumed to be built.

As part of the subject assessment the trip generation for some under-construction, permitted and potential future developments within the Oldtown-Mooretown LAP lands were also included in the analysis.

The modelled scenarios are the following:

- **BASE YEAR 2023**: with 2023 Surveyed Flows.
- **DO NOTHINGS 2027:** (DN-2027): with 2023 baseline traffic flows factored up + Mooretown and Oldtown development.
- **DO NOTHINGS 2032:** (DN-2032): with 2023 baseline traffic flows factored up + Mooretown and Oldtown development.
- **DO NOTHINGS 2042:** (DN-2042): with 2023 baseline traffic flows factored up + Mooretown and Oldtown development.
- **DO SOMETHINGS 2027:** (DS-2027): DN-2027 + traffic to/from the proposed development.
- **DO SOMETHINGS 2032:** (DS-2032): DN-2032 + traffic to/from the proposed development.
- **DO SOMETHINGS 2042:** (DS-2042): DN-2042 + traffic to/from the proposed development.

The analysis results for Junctions 1, 2, 4, 5 and 6 indicate that they are currently operating within satisfactory capacity during both peak hours and would continue to do so for the 2042 Do Something scenario.

For Junction 3, the results indicate that it is currently operating at capacity in the AM peak hour and within capacity in the PM peak hour. For the 2027 scenarios (Do Nothing and Do Something) the results indicate that Junction 3 would continue to operate at capacity in the AM peak hour and within capacity during the PM peak hour.

The results for the 2032 Do Nothing scenario, even without the inclusion of the proposed development trips, indicate that Junction 3 would operate above capacity during both peak hours. For the 2032 Do Something scenario, the operational capacity of Junction 3 would be further slightly reduced.

The Oldtown-Mooretown LAP acknowledged that, at the time of preparing the LAP document in 2010, Junction 3 was already operating at capacity and sets out plan to modify this junction. It is recognised by the Council that R125 Rathbeale Road is one of the critical routes currently serving the Swords Northwest area, including the Oldtown and Mooretown lands.

Therefore, it is understanding that the development Mooretown lands without any intervention to the transportation infrastructure is likely to increase the current pressures on R125 Rathbeale Road and consequently oversaturate its intersections with other important links, which are currently working at or above their capacities. Rathbeale Road / Murrough Road (Junction 3) is one of the most affected junctions.

With the objective to update and refine the development strategy in the overall South Fingal area in terms of transportation, Fingal County Council commissioned SYSTRA to carry out the South Fingal Transport Study. This study, which includes extensive assessment and modelling of the Swords Northwest area, was published in February 2019, and forms the basis for future transportation development in the medium and long terms. The transportation modelling carried out by SYSTRA included all modes of transport (including active modes) and provided for extensive predictive modelling based on demand forecasting and supply changes in terms of new roads, cycle, and public transport infrastructure.

In summary, to provide the necessary priority to attract a sufficient share of trips by bus and active modes, SYSTRA indicated that it is crucial to provide continuous high-quality bus and cycle priority along major roads in the area (including R125 Rathbeale Road which is subject to congestion) and also recommended Rathbeale and Brackenstown Roads to be prioritised to support the advancement of the GDA Cycle Network Plan in Swords.

With the recommendations included as part of the SYSTRA assessment of the Swords Northwest area (presented in Section 4.6 of the subject TTA), it is estimated that the overall traffic increase and impact will not be of a scale that would indicate a requirement for additional road capacity at Junction 3.

It is noted that Junction 3 has been part upgraded as part of the LIHAF funded works to the R125 Rathbeale Road via the provision of a new right hand turn lane on the western approach to the existing Murrough Road Junction.

APPENDICES

A. Bus Timetables

A A A

41b

Buses from/to
From Lwr Abbey St. To Rolestown
Operative Date: 26/10/2021
Version: TT 20.1

From Lwr. Abbey St. Towards Rolestown

Sráid na Mainistreach Íochtarach , Sráid Ghairdinéir Uachtarach , Stáisiún Dhroim Conrach , Ionad Siopadóireachta Omni , Bóthar Shoird (ALSAA) , Sráidbhaile Shoird , Baile Róil

Buses leave terminus at:

Monday to Friday				Saturday				Sunday		
06:20	11:35	16:25	18:35	08:20	11:20	17:00	23:15v	11:40	19:10	23:15v
23:15v										

Route Variations
v Via River Valley

Lwr. Abbey St. >> 3mins >> Upr. Gardiner St. >> 12mins >> Drumcondra Rail Station >> 15mins >> Omni Shopping Centre >> 10mins >> Swords Rd. (ALSAA) >> 16mins >> Swords Village >> 16mins >> Rolestown

All times are off peak estimates

From Rolestown Towards Lwr. Abbey St.

Baile Róil , Sráidbhaile Shoird , Bóthar Shoird (ALSAA) , Ionad Siopadóireachta Omni , Stáisiún Dhroim Conrach , Sráid Ghairdinéir Uachtarach , Sráid na Mainistreach Íochtarach

Buses leave terminus at:

Monday to Friday				Saturday				Sunday	
07:30	12:45	17:45	19:45	07:00	09:25	12:30	18:15	12:45	20:20

Rolestown >> 16mins >> Swords Village >> 16mins >> Swords Rd. (ALSAA) >> 10mins >> Omni Shopping Centre >> 15mins >> Drumcondra Rail Station >> 12mins >> Upr. Gardiner St. >> 3mins >> Lwr. Abbey St.

All times are off peak estimates

Fare Stages

75	25	Lwr. Abbey St.	
76	24	Mountjoy Sq. / Dorset St. (North Fredrick St.)	
77	23	Dorset St. (North Circular Rd.)	
78	22	Drumcondra Rail Station	
79	21	Drumcondra Rd. Upr. (Clonturk Park)	
80	20	Swords Rd. (Griffith Ave.)	
81	19	Swords Rd. (Collins Ave.)	
82	18	Swords Rd. (Shanowen Rd.)	
83	17	Swords Rd. (Lorcan Rd.)	
84	16	Swords Rd. (Santry Ave.)	
85	15	Swords Rd. (Santry Stadium)	
86	14	Swords Rd. (Turnapin Lane)	
87	13	Cloghran Service Station	
88	12	Corner Collinstown Rd.	
89	11	Kealy's Pub	
90	10	North Rd. to Airport	
91	09	Coachman's Inn	
92	08	Swords Rd. (Kettles Lane)	
93	07	Swords Rd. (Kilronan House)	
94	06	Swords Rd. (Pinnock Hill House)	
95	05	Swords Rd. (Malahide / Feltrim Roundabout)	
96	04	Swords Main St.	
97	03	Rathbeale Rd. (Shopping Centre)	
98	02	Holy Stud House	
99	01	Broadmeadows	
00	00	Kylemore House	
01	99	Rathbeale Cottages	
02	98	Rathbeale Hall	
03	97	Rathbeale Cross	
04	96	Lispopple (Lubber Wood)	
05	95	Lispopple Cross	
06	94	Rath Lane	
07	93	Sandyhill (The Pump)	
08	92	Rolestown	

from **29/01/2023**

Ashbourne - Swords via Rolestown — 197

Mondays to Fridays except Public Holidays

	Route Number	197	197	197	197	197	197	197	197	197	197	197	197	197	197	197	197	197
stop 135731	**Ashbourne, Pillo Hotel**	**06:00**	**07:00**	**08:00**	**09:00**	**10:00**	**11:00**	**12:00**	**13:00**	**14:00**	**15:00**	**16:15**	**17:30**	**18:30**	**19:30**	**20:30**	**21:30**	**22:30**
stop 101041	**St John's Wood Court**	06:01	07:02	08:03	09:02	10:02	11:02	12:02	13:02	14:02	15:02	16:17	17:32	18:32	19:32	20:31	21:31	22:31
stop 101051	**Ashbourne CU**	06:02	07:03	08:04	09:03	10:03	11:03	12:03	13:03	14:03	15:03	16:18	17:33	18:33	19:33	20:32	21:32	22:32
stop 152421	**Ashbourne, Kelly's Bar**	06:03	07:04	08:06	09:04	10:04	11:04	12:04	13:04	14:04	15:05	16:20	17:34	18:34	19:34	20:33	21:33	22:33
stop 101851	**Bourne Avenue**	06:04	07:05	08:07	09:05	10:05	11:05	12:05	13:05	14:05	15:06	16:21	17:35	18:35	19:35	20:34	21:34	22:34
stop 137091	**Ashbourne Comm Coll**	06:06	07:07	08:09	09:07	10:06	11:07	12:07	13:07	14:07	15:08	16:23	17:37	18:37	19:37	20:36	21:36	22:36
stop 106531	**Hickey's Lane**	06:07	07:08	08:12	09:08	10:08	11:08	12:08	13:08	14:08	15:10	16:25	17:38	18:38	19:38	20:37	21:37	22:37
stop 101061	**Ninemilestone, B&B**	06:07	07:08	08:12	09:08	10:08	11:08	12:08	13:08	14:08	15:10	16:25	17:38	18:38	19:38	20:37	21:37	22:37
stop 10379	**Rolestown**	06:16	07:18	08:26	09:18	10:17	11:17	12:17	13:18	14:19	15:21	16:36	17:49	18:48	19:48	20:46	21:46	22:46
stop 3881	**New Dairy Lane**	06:21	07:23	08:32	09:24	10:22	11:22	12:22	13:24	14:24	15:27	16:42	17:55	18:53	19:53	20:51	21:51	22:51
stop 5096	**Rathbeale Road**	06:21	07:23	08:32	09:24	10:22	11:22	12:22	13:24	14:24	15:27	16:42	17:55	18:53	19:53	20:51	21:51	22:51
stop 7145	**Rathbeale Cottages**	06:21	07:23	08:32	09:24	10:22	11:22	12:22	13:24	14:24	15:27	16:42	17:55	18:53	19:53	20:51	21:51	22:51
stop 10380	**Applewood CC**	06:22	07:24	08:33	09:25	10:23	11:23	12:23	13:25	14:25	15:28	16:43	17:56	18:54	19:54	20:52	21:52	22:52
stop 10381	**Bunbury Gate Avenue**	06:22	07:24	08:33	09:25	10:23	11:23	12:23	13:25	14:25	15:28	16:43	17:56	18:54	19:54	20:52	21:52	22:52
stop 3884	**Pine Grove Park**	06:23	07:25	08:35	09:27	10:25	11:25	12:25	13:27	14:27	15:30	16:45	17:58	18:55	19:55	20:53	21:53	22:53
stop 3686	**Rathbeale Crescent**	06:24	07:26	08:37	09:29	10:27	11:27	12:27	13:29	14:29	15:32	16:47	18:00	18:56	19:56	20:54	21:54	22:54
stop 5077	**Brackenstown Ave**	06:24	07:27	08:38	09:31	10:29	11:29	12:29	13:31	14:31	15:34	16:49	18:02	18:57	19:57	20:54	21:54	22:54
stop 5078	**Watery Lane**	06:25	07:28	08:39	09:32	10:30	11:30	12:30	13:32	14:32	15:35	16:50	18:03	18:58	19:58	20:55	21:55	22:55
stop 3689	**Swords, Fingal CC Offices**	06:26	07:29	08:41	09:33	10:31	11:31	12:31	13:33	14:33	15:36	16:51	18:04	18:59	19:59	20:56	21:56	22:56
stop 3690	**St Colmcille's Ct**	06:27	07:30	08:42	09:34	10:32	11:32	12:32	13:34	14:34	15:37	16:52	18:05	19:00	20:00	20:57	21:57	22:57
stop 6117	**Swords, opp Pavillions Centre**	06:28	07:31	08:43	09:35	10:33	11:33	12:33	13:35	14:35	15:38	16:53	18:06	19:01	20:01	20:58	21:58	22:58
stop 5079	**Swords Pavilions**	06:29	07:32	08:44	09:36	10:34	11:34	12:34	13:36	14:36	15:39	16:54	18:08	19:02	20:02	20:59	21:59	22:59
stop 3694	**Pinnock Hill**	06:30	07:33	08:46	09:38	10:35	11:35	12:35	13:38	14:38	15:41	16:56	18:09	19:03	20:03	21:00	22:00	23:00
stop 3695	**Airside**	06:31	07:34	08:47	09:39	10:36	11:36	12:36	13:39	14:39	15:42	16:57	18:10	19:04	20:04	21:01	22:01	23:00
stop 7115	**Nevinstown Lane**	06:32	07:35	08:48	09:40	10:37	11:37	12:37	13:40	14:40	15:43	16:58	18:11	19:05	20:05	21:02	22:02	23:01
stop 7002	**Swords Airside, opp TGI Friday**	06:32	07:35	08:48	09:40	10:37	11:37	12:37	13:40	14:40	15:43	16:58	18:11	19:05	20:05	21:02	22:02	23:01

from **29/01/2023**

Swords - Ashbourne via Rolestown — 197

Mondays to Fridays except Public Holidays

	Route Number	197	197	197	197	197	197	197	197	197	197	197	197	197	197	197	197	197
stop 7210	**Swords Airside, opp McDonalds**	**07:02**	**08:02**	**09:02**	**10:02**	**11:02**	**12:02**	**13:02**	**14:02**	**15:03**	**16:18**	**17:32**	**18:32**	**19:32**	**20:32**	**21:32**	**22:32**	**23:32**
stop 3676	**Airside**	07:03	08:03	09:03	10:03	11:03	12:03	13:03	14:03	15:04	16:19	17:33	18:33	19:33	20:33	21:33	22:33	23:33
stop 5073	**Pinnockhill**	07:04	08:04	09:04	10:04	11:04	12:04	13:04	14:04	15:05	16:20	17:34	18:34	19:34	20:34	21:34	22:34	23:34
stop 5074	**Swords Pavilions**	07:05	08:06	09:05	10:05	11:06	12:06	13:06	14:06	15:07	16:22	17:36	18:36	19:35	20:35	21:35	22:35	23:35
stop 6054	**Longlands**	07:06	08:07	09:06	10:06	11:07	12:07	13:07	14:07	15:09	16:23	17:37	18:37	19:36	20:36	21:36	22:36	23:36
stop 4330	**Swords, Pavillion Centre**	07:06	08:07	09:06	10:06	11:07	12:07	13:07	14:07	15:09	16:23	17:37	18:37	19:36	20:36	21:36	22:36	23:36
stop 3679	**Swords, opp Fingal CC Offices**	07:08	08:09	09:08	10:08	11:09	12:09	13:09	14:09	15:10	16:25	17:39	18:39	19:38	20:38	21:38	22:38	23:38
stop 5075	**Rathbeale Road**	07:09	08:11	09:09	10:09	11:11	12:11	13:11	14:11	15:12	16:28	17:42	18:40	19:39	20:39	21:39	22:39	23:39
stop 5076	**Brackenstown Ave**	07:10	08:12	09:10	10:10	11:12	12:12	13:12	14:12	15:14	16:30	17:44	18:41	19:40	20:40	21:40	22:40	23:40
stop 3682	**Glasmore Park**	07:10	08:12	09:10	10:10	11:12	12:12	13:12	14:13	15:15	16:31	17:46	18:42	19:40	20:40	21:40	22:40	23:40
stop 3684	**Abbylea Close**	07:11	08:13	09:11	10:11	11:13	12:13	13:13	14:14	15:17	16:32	17:48	18:43	19:41	20:41	21:41	22:41	23:41
stop 3685	**Daleview Road**	07:12	08:14	09:12	10:12	11:14	12:14	13:14	14:15	15:19	16:33	17:50	18:44	19:42	20:42	21:41	22:41	23:41
stop 7133	**Bunbury Gate Avenue**	07:13	08:15	09:13	10:13	11:15	12:15	13:15	14:17	15:21	16:35	17:52	18:45	19:43	20:43	21:42	22:42	23:42
stop 10377	**Applewood CC**	07:16	08:16	09:14	10:14	11:16	12:16	13:16	14:16	15:22	16:36	17:53	18:46	19:44	20:44	21:42	22:42	23:42
stop 7134	**Rathbeale Cottages**	07:15	08:17	09:15	10:15	11:17	12:17	13:17	14:19	15:24	16:38	17:55	18:47	19:45	20:45	21:43	22:43	23:43
stop 3867	**New Dairy Lane**	07:15	08:17	09:15	10:15	11:17	12:17	13:17	14:19	15:24	16:38	17:55	18:47	19:45	20:45	21:43	22:43	23:43
stop 7135	**Lispopple**	07:20	08:22	09:20	10:20	11:22	12:22	13:22	14:24	15:28	16:42	17:59	18:52	19:48	20:48	21:46	22:46	23:46
stop 7136	**Oakhill**	07:22	08:24	09:22	10:22	11:24	12:24	13:24	14:26	15:30	16:45	18:02	18:54	19:50	20:50	21:48	22:48	23:48
stop 10378	**Rolestown**	07:23	08:25	09:23	10:23	11:25	12:25	13:25	14:27	15:31	16:46	18:03	18:55	19:51	20:51	21:49	22:49	23:49
stop 133941	**Ninemilestone, opp B&B**	07:32	08:34	09:32	10:32	11:34	12:34	13:34	14:36	15:40	16:55	18:14	19:04	20:00	21:00	21:58	22:56	23:56
stop 106521	**Hickey's Lane**	07:32	08:34	09:32	10:32	11:34	12:34	13:34	14:36	15:40	16:55	18:14	19:04	20:00	21:00	21:58	22:56	23:56
stop 100961	**Alderbrook**	07:34	08:36	09:34	10:34	11:36	12:36	13:36	14:38	15:42	16:57	18:16	19:06	20:02	21:01	21:59	22:57	23:57
stop 101221	**Bourne Avenue**	07:35	08:37	09:35	10:35	11:37	12:37	13:37	14:39	15:43	16:59	18:18	19:08	20:03	21:02	22:00	22:58	23:58
stop 133631	**Ashbourne, Town Centre, AIB**	07:36	08:38	09:36	10:36	11:38	12:38	13:38	14:40	15:44	17:00	18:19	19:09	20:04	21:03	22:01	22:59	23:59
stop 100981	**Ashbourne CU**	07:37	08:39	09:37	10:37	11:39	12:39	13:39	14:41	15:45	17:01	18:20	19:10	20:05	21:04	22:02	23:00	00:00
stop 100991	**St John's Wood Court**	07:38	08:40	09:38	10:38	11:40	12:40	13:40	14:42	15:46	17:02	18:21	19:11	20:06	21:05	22:03	23:01	00:01
stop 101001	**Ashbourne, opp Pillo Hotel**	07:40	08:42	09:40	10:40	11:42	12:42	13:42	14:44	15:48	17:04	18:23	19:13	20:08	21:06	22:04	23:02	00:02

from **29/01/2023**

Ashbourne - Swords via Rolestown — 197

Saturdays

	Route Number	197	197	197	197	197	197	197	197	197	197	197	197	197	197	197	197	197
stop 135731	**Ashbourne, Pillo Hotel**	**06:00**	**07:00**	**08:00**	**09:00**	**10:00**	**11:00**	**12:00**	**13:00**	**14:00**	**15:00**	**16:15**	**17:30**	**18:30**	**19:30**	**20:30**	**21:30**	**22:30**
stop 101041	**St John's Wood Court**	06:01	07:01	08:01	09:01	10:02	11:02	12:02	13:02	14:02	15:02	16:17	17:32	18:32	19:32	20:31	21:31	22:31
stop 101051	**Ashbourne CU**	06:02	07:02	08:02	09:02	10:03	11:03	12:03	13:03	14:03	15:03	16:18	17:33	18:33	19:33	20:32	21:32	22:32
stop 152421	**Ashbourne, Kelly's Bar**	06:03	07:03	08:03	09:03	10:04	11:04	12:04	13:04	14:04	15:04	16:19	17:34	18:34	19:34	20:33	21:33	22:33
stop 101851	**Bourne Avenue**	06:04	07:04	08:04	09:04	10:05	11:05	12:05	13:05	14:05	15:05	16:20	17:35	18:35	19:35	20:34	21:34	22:34
stop 137091	**Ashbourne Comm Coll**	06:05	07:05	08:05	09:05	10:07	11:07	12:07	13:07	14:07	15:07	16:22	17:37	18:37	19:37	20:35	21:35	22:35
stop 106531	**Hickey's Lane**	06:06	07:06	08:06	09:06	10:08	11:08	12:08	13:08	14:08	15:08	16:23	17:38	18:38	19:38	20:36	21:36	22:36
stop 101061	**Ninemilestone, B&B**	06:06	07:06	08:06	09:06	10:08	11:08	12:08	13:08	14:08	15:08	16:23	17:38	18:38	19:38	20:36	21:36	22:36
stop 10379	**Rolestown**	06:14	07:14	08:15	09:15	10:17	11:17	12:18	13:19	14:18	15:18	16:33	17:47	18:47	19:46	20:44	21:44	22:44
stop 3881	**New Dairy Lane**	06:19	07:19	08:20	09:20	10:22	11:22	12:23	13:24	14:23	15:23	16:38	17:52	18:52	19:51	20:49	21:49	22:49
stop 5096	**Rathbeale Road**	06:19	07:19	08:20	09:20	10:22	11:22	12:23	13:24	14:23	15:23	16:38	17:52	18:52	19:51	20:49	21:49	22:49
stop 7145	**Rathbeale Cottages**	06:19	07:19	08:20	09:20	10:22	11:22	12:23	13:24	14:23	15:23	16:38	17:52	18:52	19:51	20:49	21:49	22:49
stop 10380	**Applewood CC**	06:20	07:20	08:21	09:21	10:23	11:23	12:24	13:25	14:24	15:24	16:39	17:53	18:53	19:52	20:50	21:50	22:50
stop 10381	**Bunbury Gate Avenue**	06:20	07:20	08:21	09:21	10:23	11:23	12:25	13:25	14:24	15:24	16:39	17:53	18:53	19:52	20:50	21:50	22:50
stop 3884	**Pine Grove Park**	06:21	07:21	08:23	09:23	10:25	11:25	12:27	13:27	14:26	15:26	16:41	17:55	18:55	19:54	20:52	21:52	22:52
stop 3686	**Rathbeale Crescent**	06:22	07:22	08:24	09:24	10:27	11:27	12:29	13:29	14:28	15:28	16:43	17:57	18:57	19:56	20:53	21:53	22:53
stop 5077	**Brackenstown Ave**	06:22	07:22	08:24	09:24	10:28	11:28	12:30	13:31	14:30	15:30	16:45	17:59	18:59	19:58	20:54	21:54	22:54
stop 5078	**Watery Lane**	06:23	07:23	08:25	09:25	10:30	11:30	12:32	13:33	14:31	15:31	16:46	18:00	19:00	19:59	20:55	21:55	22:55
stop 3689	**Swords, Fingal CC Offices**	06:24	07:24	08:26	09:26	10:32	11:32	12:34	13:35	14:33	15:33	16:48	18:02	19:02	20:00	20:56	21:56	22:56
stop 3690	**St Colmcille's Ct**	06:25	07:25	08:27	09:27	10:33	11:33	12:35	13:36	14:34	15:34	16:49	18:03	19:03	20:01	20:57	21:57	22:57
stop 6117	**Swords, opp Pavillions Centre**	06:26	07:26	08:28	09:28	10:34	11:34	12:36	13:39	14:35	15:35	16:50	18:04	19:04	20:02	20:58	21:58	22:58
stop 5079	**Swords Pavilions**	06:27	07:27	08:29	09:29	10:35	11:35	12:37	13:40	14:36	15:36	16:51	18:05	19:05	20:03	20:59	21:59	22:59
stop 3694	**Pinnock Hill**	06:28	07:28	08:30	09:30	10:36	11:36	12:39	13:42	14:38	15:38	16:53	18:06	19:06	20:04	21:00	22:00	23:00
stop 3695	**Airside**	06:29	07:29	08:31	09:31	10:37	11:37	12:40	13:43	14:39	15:39	16:54	18:07	19:07	20:05	21:01	22:01	23:00
stop 7115	**Nevinstown Lane**	06:30	07:30	08:32	09:32	10:38	11:38	12:41	13:44	14:40	15:40	16:55	18:08	19:08	20:06	21:02	22:02	23:01
stop 7002	**Swords Airside, opp TGI Friday**	06:30	07:30	08:32	09:32	10:38	11:38	12:41	13:44	14:40	15:40	16:55	18:08	19:08	20:06	21:02	22:02	23:01

from **29/01/2023**

Swords - Ashbourne via Rolestown — 197

Saturdays

	Route Number	197	197	197	197	197	197	197	197	197	197	197	197	197	197	197	197	197
stop 7210	**Swords Airside, opp McDonalds**	**07:02**	**08:02**	**09:02**	**10:02**	**11:02**	**12:02**	**13:02**	**14:02**	**15:02**	**16:17**	**17:32**	**18:32**	**19:32**	**20:32**	**21:32**	**22:32**	**23:32**
stop 3676	**Airside**	07:03	08:03	09:03	10:03	11:03	12:03	13:03	14:03	15:03	16:18	17:33	18:33	19:33	20:33	21:33	22:33	23:33
stop 5073	**Pinnockhill**	07:04	08:04	09:04	10:04	11:04	12:04	13:04	14:04	15:04	16:19	17:34	18:34	19:34	20:34	21:34	22:34	23:34
stop 5074	**Swords Pavilions**	07:05	08:05	09:05	10:05	11:06	12:06	13:06	14:06	15:06	16:21	17:36	18:36	19:35	20:35	21:35	22:35	23:35
stop 6054	**Longlands**	07:06	08:06	09:06	10:06	11:07	12:07	13:07	14:07	15:07	16:23	17:38	18:37	19:36	20:36	21:36	22:36	23:36
stop 4330	**Swords, Pavillion Centre**	07:06	08:06	09:06	10:06	11:07	12:07	13:07	14:07	15:07	16:23	17:38	18:37	19:36	20:36	21:36	22:36	23:36
stop 3679	**Swords, opp Fingal CC Offices**	07:08	08:08	09:08	10:08	11:09	12:09	13:09	14:09	15:09	16:24	17:39	18:39	19:36	20:38	21:38	22:38	23:38
stop 5075	**Rathbeale Road**	07:09	08:09	09:09	10:09	11:10	12:11	13:11	14:11	15:11	16:26	17:41	18:40	19:37	20:39	21:39	22:39	23:39
stop 5076	**Brackenstown Ave**	07:10	08:10	09:10	10:10	11:11	12:12	13:12	14:12	15:12	16:27	17:42	18:41	19:38	20:40	21:40	22:40	23:40
stop 3682	**Glasmore Park**	07:10	08:10	09:10	10:10	11:12	12:13	13:13	14:13	15:13	16:28	17:43	18:42	19:39	20:40	21:40	22:40	23:40
stop 3684	**Abbylea Close**	07:11	08:11	09:11	10:11	11:13	12:14	13:14	14:14	15:14	16:29	17:44	18:43	19:40	20:41	21:41	22:41	23:41
stop 3685	**Daleview Road**	07:11	08:11	09:11	10:11	11:14	12:15	13:15	14:15	15:15	16:30	17:45	18:44	19:41	20:41	21:41	22:41	23:41
stop 7133	**Bunbury Gate Avenue**	07:12	08:12	09:12	10:13	11:16	12:17	13:17	14:17	15:17	16:32	17:47	18:46	19:43	20:43	21:42	22:42	23:42
stop 10377	**Applewood CC**	07:13	08:13	09:13	10:14	11:17	12:18	13:18	14:18	15:18	16:33	17:48	18:47	19:44	20:44	21:43	22:43	23:43
stop 7134	**Rathbeale Cottages**	07:14	08:14	09:14	10:15	11:18	12:19	13:19	14:19	15:19	16:34	17:49	18:48	19:45	20:45	21:44	22:44	23:44
stop 3867	**New Dairy Lane**	07:14	08:14	09:14	10:15	11:18	12:19	13:19	14:20	15:20	16:34	17:49	18:48	19:45	20:45	21:44	22:44	23:44
stop 7135	**Lispopple**	07:18	08:18	09:18	10:19	11:22	12:23	13:23	14:24	15:24	16:38	17:53	18:51	19:48	20:48	21:47	22:47	23:46
stop 7136	**Oakhill**	07:19	08:19	09:19	10:20	11:23	12:24	13:24	14:26	15:26	16:39	17:54	18:52	19:49	20:49	21:48	22:48	23:47
stop 10378	**Rolestown**	07:20	08:20	09:20	10:21	11:24	12:25	13:25	14:27	15:27	16:44	17:59	18:53	19:50	20:51	21:49	22:49	23:48
stop 133941	**Ninemilestone, opp B&B**	07:26	08:27	09:28	10:30	11:33	12:35	13:35	14:37	15:37	16:50	18:05	19:02	19:59	21:00	21:58	22:56	23:55
stop 106521	**Hickey's Lane**	07:26	08:27	09:28	10:30	11:33	12:35	13:35	14:37	15:37	16:50	18:05	19:02	19:59	21:00	21:58	22:56	23:55
stop 100961	**Alderbrook**	07:27	08:28	09:30	10:32	11:35	12:37	13:37	14:39	15:39	16:52	18:07	19:04	20:01	21:01	21:59	22:57	23:56
stop 101221	**Bourne Avenue**	07:28	08:29	09:31	10:33	11:37	12:39	13:39	14:41	15:41	16:54	18:09	19:05	20:02	21:02	22:00	22:58	23:57
stop 133631	**Ashbourne, Town Centre, AIB**	07:29	08:30	09:32	10:34	11:38	12:40	13:40	14:42	15:42	16:55	18:10	19:06	20:03	21:03	22:01	22:59	23:58
stop 100981	**Ashbourne CU**	07:30	08:31	09:33	10:35	11:39	12:41	13:41	14:43	15:43	16:56	18:11	19:07	20:04	21:04	22:02	23:00	23:59
stop 100991	**St John's Wood Court**	07:31	08:32	09:34	10:36	11:40	12:42	13:42	14:44	15:44	16:57	18:12	19:08	20:05	21:05	22:03	23:01	00:00
stop 101001	**Ashbourne, opp Pillo Hotel**	07:32	08:33	09:36	10:38	11:42	12:44	13:44	14:46	15:46	16:59	18:14	19:10	20:07	21:06	22:04	23:02	00:02

from **29/01/2023**

Ashbourne - Swords via Rolestown — 197

Sundays & Bank Holiday Mondays

	Route Number	197	197	197	197	197	197	197	197	197	197	197	197	197	197	197	197
stop 135731	**Ashbourne, Pillo Hotel**	**07:00**	**08:00**	**09:00**	**10:00**	**11:00**	**12:00**	**13:00**	**14:00**	**15:00**	**16:15**	**17:30**	**18:30**	**19:30**	**20:30**	**21:30**	**22:30**
stop 101041	**St John's Wood Court**	07:01	08:01	09:01	10:01	11:02	12:02	13:02	14:02	15:02	16:17	17:32	18:32	19:32	20:31	21:31	22:31
stop 101051	**Ashbourne CU**	07:02	08:02	09:02	10:02	11:03	12:03	13:03	14:03	15:03	16:18	17:33	18:33	19:33	20:32	21:32	22:32
stop 152421	**Ashbourne, Kelly's Bar**	07:03	08:03	09:03	10:03	11:04	12:04	13:04	14:04	15:04	16:19	17:34	18:34	19:33	20:33	21:33	22:33
stop 101851	**Bourne Avenue**	07:04	08:04	09:04	10:04	11:05	12:05	13:05	14:05	15:05	16:20	17:35	18:35	19:34	20:34	21:34	22:34
stop 137091	**Ashbourne Comm Coll**	07:05	08:05	09:05	10:05	11:07	12:07	13:07	14:07	15:07	16:22	17:37	18:37	19:35	20:35	21:35	22:35
stop 106531	**Hickey's Lane**	07:06	08:06	09:06	10:06	11:08	12:08	13:08	14:08	15:08	16:23	17:38	18:38	19:36	20:36	21:36	22:36
stop 101061	**Ninemilestone, B&B**	07:06	08:06	09:06	10:06	11:08	12:08	13:08	14:08	15:08	16:23	17:38	18:38	19:36	20:36	21:36	22:36
stop 10379	**Rolestown**	07:15	08:15	09:15	10:15	11:18	12:19	13:19	14:19	15:18	16:33	17:48	18:48	19:46	20:46	21:44	22:44
stop 3881	**New Dairy Lane**	07:20	08:20	09:20	10:20	11:23	12:24	13:24	14:24	15:23	16:38	17:53	18:53	19:51	20:51	21:49	22:49
stop 5096	**Rathbeale Road**	07:20	08:20	09:20	10:20	11:23	12:24	13:24	14:24	15:23	16:38	17:53	18:53	19:51	20:51	21:49	22:49
stop 7145	**Rathbeale Cottages**	07:20	08:20	09:20	10:20	11:23	12:24	13:24	14:24	15:23	16:38	17:53	18:53	19:51	20:51	21:49	22:49
stop 10380	**Applewood CC**	07:21	08:21	09:21	10:21	11:24	12:25	13:25	14:25	15:24	16:39	17:54	18:54	19:52	20:52	21:50	22:50
stop 10381	**Bunbury Gate Avenue**	07:21	08:21	09:21	10:21	11:24	12:25	13:25	14:25	15:24	16:39	17:54	18:54	19:52	20:52	21:50	22:50
stop 3884	**Pine Grove Park**	07:22	08:22	09:22	10:22	11:26	12:27	13:27	14:27	15:26	16:41	17:57	18:56	19:54	20:54	21:51	22:51
stop 3686	**Rathbeale Crescent**	07:23	08:23	09:23	10:23	11:28	12:28	13:28	14:28	15:27	16:42	17:59	18:57	19:55	20:55	21:52	22:53
stop 5077	**Brackenstown Ave**	07:23	08:23	09:23	10:23	11:29	12:29	13:29	14:29	15:27	16:42	18:00	18:57	19:55	20:55	21:52	22:53
stop 5078	**Watery Lane**	07:24	08:24	09:24	10:24	11:31	12:31	13:31	14:31	15:28	16:43	18:02	18:58	19:56	20:56	21:53	22:54
stop 3689	**Swords, Fingal CC Offices**	07:25	08:25	09:25	10:25	11:33	12:33	13:33	14:33	15:29	16:44	18:04	18:59	19:57	20:57	21:54	22:55
stop 3690	**St Colmcille's Ct**	07:26	08:26	09:26	10:26	11:34	12:34	13:34	14:34	15:30	16:45	18:05	19:00	19:58	20:58	21:55	22:56
stop 6117	**Swords, opp Pavillions Centre**	07:27	08:27	09:27	10:27	11:35	12:35	13:35	14:35	15:31	16:46	18:06	19:01	19:59	20:59	21:56	22:57
stop 5079	**Swords Pavilions**	07:28	08:28	09:28	10:28	11:36	12:36	13:36	14:36	15:32	16:47	18:07	19:02	20:00	21:00	21:57	22:58
stop 3694	**Pinnock Hill**	07:29	08:29	09:29	10:29	11:37	12:38	13:38	14:38	15:33	16:48	18:08	19:03	20:01	21:01	21:57	22:59
stop 3695	**Airside**	07:30	09:30	09:30	10:30	11:38	12:39	13:39	14:39	15:34	16:49	18:09	19:04	20:02	21:02	21:59	22:59
stop 7115	**Nevinstown Lane**	07:31	08:31	09:31	10:31	11:39	12:40	13:40	14:40	15:35	16:50	18:10	19:05	20:03	21:03	22:00	23:00
stop 7002	**Swords Airside, opp TGI Friday**	07:31	08:31	09:31	10:31	11:39	12:40	13:40	14:40	15:35	16:50	18:10	19:05	20:03	21:03	22:00	23:00

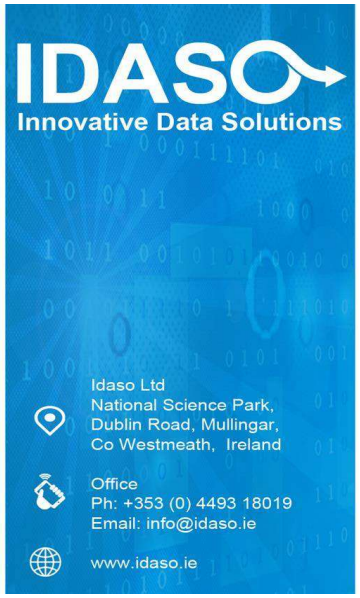
from **29/01/2023**

Swords - Ashbourne via Rolestown — 197

Sundays & Bank Holiday Mondays

	Route Number	197	197	197	197	197	197	197	197	197	197	197	197	197	197	197	197
stop 7210	Swords Airside, opp McDonalds	08:02	09:02	10:02	11:02	12:02	13:02	14:02	15:02	16:17	17:32	18:32	19:32	20:32	21:32	22:32	23:32
stop 3676	Airside	08:03	09:03	10:03	11:03	12:03	13:03	14:03	15:03	16:18	17:33	18:33	19:33	20:33	21:33	22:33	23:33
stop 5073	Pinnockhill	08:04	09:04	10:04	11:04	12:04	13:04	14:04	15:04	16:19	17:34	18:35	19:34	20:34	21:34	22:34	23:35
stop 5074	Swords Pavilions	08:05	09:05	10:05	11:05	12:05	13:05	14:06	15:06	16:21	17:36	18:36	19:35	20:35	21:35	22:35	23:35
stop 6054	Longlands	08:06	09:06	10:06	11:06	12:06	13:06	14:07	15:07	16:22	17:37	18:37	19:36	20:36	21:36	22:36	23:36
stop 4330	Swords, Pavillion Centre	08:06	09:06	10:06	11:06	12:06	13:06	14:07	15:07	16:22	17:37	18:37	19:36	20:36	21:36	22:36	23:36
stop 3679	Swords, opp Fingal CC Offices	08:08	09:08	10:08	11:08	12:08	13:08	14:09	15:09	16:24	17:39	18:39	19:38	20:38	21:38	22:38	23:38
stop 5075	Rathbeale Road	08:09	09:09	10:09	11:09	12:09	13:09	14:11	15:11	16:26	17:41	18:41	19:39	20:39	21:39	22:39	23:39
stop 5076	Brackenstown Ave	08:10	09:10	10:10	11:10	12:10	13:10	14:12	15:12	16:27	17:42	18:42	19:40	20:40	21:40	22:40	23:40
stop 3682	Glasmore Park	08:10	09:10	10:10	11:10	12:11	13:11	14:13	15:13	16:28	17:43	18:43	19:41	20:41	21:40	22:40	23:40
stop 3684	Abbylea Close	08:11	09:11	10:11	11:11	12:12	13:12	14:15	15:15	16:30	17:45	18:45	19:42	20:42	21:41	22:41	23:41
stop 3685	Daleview Road	08:11	09:11	10:11	11:11	12:12	13:12	14:15	15:15	16:30	17:45	18:45	19:42	20:42	21:41	22:41	23:41
stop 7133	Bunbury Gate Avenue	08:13	09:13	10:13	11:13	12:14	13:14	14:18	15:18	16:32	17:47	18:48	19:44	20:44	21:42	22:43	23:43
stop 10377	Applewood CC	08:14	09:14	10:14	11:14	12:15	13:15	14:19	15:19	16:33	17:48	18:49	19:45	20:45	21:43	22:44	23:44
stop 7134	Rathbeale Cottages	08:15	09:15	10:15	11:15	12:16	13:16	14:20	15:20	16:35	17:50	18:50	19:46	20:46	21:44	22:45	23:45
stop 3867	New Dairy Lane	08:15	09:15	10:15	11:15	12:16	13:16	14:20	15:20	16:35	17:50	18:50	19:46	20:46	21:44	22:45	23:45
stop 7135	Lispopple	08:19	09:19	10:19	11:19	12:20	13:20	14:23	15:23	16:38	17:53	18:53	19:50	20:49	21:47	22:47	23:47
stop 7136	Oakhill	08:20	09:20	10:20	11:20	12:21	13:21	14:24	15:24	16:39	17:54	18:54	19:51	20:50	21:48	22:48	23:48
stop 10378	Rolestown	08:21	09:21	10:21	11:21	12:22	13:22	14:25	15:25	16:44	17:59	18:55	19:52	20:51	21:49	22:49	23:49
stop 133941	Ninemilestone, opp B&B	08:29	09:29	10:29	11:29	12:32	13:32	14:35	15:35	16:50	18:05	19:04	20:01	21:00	21:58	22:56	23:56
stop 106521	Hickey's Lane	08:29	09:29	10:29	11:29	12:32	13:32	14:35	15:35	16:50	18:05	19:04	20:01	21:00	21:58	22:56	23:56
stop 100961	Alderbrook	08:31	09:31	10:31	11:31	12:34	13:34	14:37	15:37	16:52	18:07	19:06	20:03	21:02	21:59	22:57	23:57
stop 101221	Bourne Avenue	08:32	09:32	10:32	11:32	12:35	13:35	14:38	15:38	16:53	18:08	19:07	20:04	21:03	22:00	22:58	23:58
stop 133631	Ashbourne, Town Centre, AIB	08:33	09:33	10:33	11:33	12:36	13:36	14:39	15:39	16:54	18:09	19:08	20:05	21:04	22:01	22:59	23:59
stop 100981	Ashbourne CU	08:34	09:34	10:34	11:34	12:37	13:37	14:40	15:40	16:55	18:10	19:09	20:06	21:05	22:02	23:00	00:00
stop 100991	St John's Wood Court	08:35	09:35	10:35	11:35	12:38	13:38	14:41	15:41	16:56	18:11	19:10	20:07	21:06	22:03	23:01	00:01
stop 101001	Ashbourne, opp Pillo Hotel	08:37	09:37	10:37	11:37	12:40	13:40	14:43	15:43	16:58	18:13	19:12	20:09	21:07	22:04	23:02	00:02

B. Traffic Survey



Data Analysis Services
Traffic-Transportation- Commercial-Innovation

159 23259 - Traffic Survey at 16-032 Mooretown Phase 2, Dublin Co

with compliments

IDASO

Survey Name: 159 23259 - Traffic Survey at 16-032 Mooretown Phase 2, Dublin Co
Date: Thu 11 May 2023

IDASO

Survey Name: 159 23259 - Traffic Survey at 16-032 Mooretown Phase 2, Dublin Co
Site: JTC 1
Location: R125 Rathbeale Road / R108 Naul Road
Date: Thu 11-May-2023

	A => A								A => B								A => C								B => A								B => B								B => C			
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV
00:00	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4	0	0	2	0	0	0	0	2	2	0	0	7	1	0	0	1	9	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:15	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	1	8	9	0	0	1	0	0	0	0	1	1	0	0	4	1	0	1	0	6	7.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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00:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	3	0	0	0	0	3	3	0	0	5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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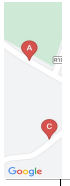
H/TOT	0	0	0	0	0	0	0	0	0	1	1	156	17	4	4	2	185	192.8	0	0	65	9	6	7	0	87	99.1	0	0	166	24	4	4	1	199	207.2	0	0	0	0	0	0	0	0	0	0	0	35	3	1	0	0



	C => A										C => B										C => C									
TIME	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
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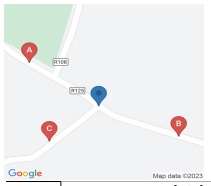
00:15	0	0	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:30	1	1	0	0	8	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:45	0	0	0	0	4	0	0	0	0	4	4	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
H/TOT	1	1	0	0	20	0	0	0	0	20	20	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
01:00	1	1	0	0	4	0	0	0	0	4	4	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
01:15	1	1	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30	1	1.5	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45	1	1	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	4	4.5	0	0	11	0	0	0	0	11	11	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	1	0	1	0	0	2	2.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	1	0	0	1	0	2	3.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	1	1	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	1	1	0	0	4	0	1	1	0	6	7.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15	1	1	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30	1	1	0	0	0	0	1	0	0	1	1.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	2	2	0	0	2	0	1	0	0	3	3.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30	1	1	0	0	2	0	0	0	1	3	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	2	2	0	0	4	0	0	0	1	5	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	1	1	0	0	1	0	0	1	0	2	3.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15	2	2.5	0	0	2	0	0	0	0	2	2	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
05:30	1	1	0	0	5	1	1	0	0	7	7.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45	1	1	0	0	3	2	0	1	0	6	7.3	0	0	1	1	0	0	1	3	4	0	0	0	0	0	0	0	0	0	0
H/TOT	5	5.5	0	0	11	3	1	2	0	17	20.1	0	0	3	1	0	0	1	5	6	0	0	0	0	0	0	0	0	0	0
06:00	3	3	0	0	2	0	0	1	0	3	4.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15	4	4	0	0	8	1	1	2	0	12	15.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30	5	5	0	0	4	1	0	2	0	7	9.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45	8	7.2	2	0	6	1	0	1	0	10	9.7	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
H/TOT	20	19.2	2	0	20	3	1	6	0	32	38.7	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
07:00	13	13	0	0	6	2	2	1	0	11	13.3	0	0	2	1	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0
07:15	16	18.3	1	0	9	2	1	0	3	16	18.7	0	0	2	1	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0
07:30	19	19	0	0	17	3	1	1	0	22	23.8	0	0	4	2	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0
07:45	21	21	0	0	20	3	0	4	0	27	32.2	0	0	7	0	0	0	2	9	11	0	0	0	0	0	0	0	0	0	0
H/TOT	69	71.3	1	0	52	10	4	6	3	76	88	0	0	15	4	0	0	2	21	23	0	0	0	0	0	0	0	0	0	0
08:00	19	22.3	0	0	21	2	1	2	1	27	31.1	0	0	31	1	1	0	0	33	33.5	0	0	0	0	0	0	0	0	0	0
08:15	49	50	0	0	26	2	0	1	0	29	30.3	0	0	7	2	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0
08:30	31	31	0	0	42	2	0	2	0	46	48.6	0	0	4	3	0	1	0	8	9.3	0	0	0	0	0	0	0	0	0	0
08:45	29	29	0	0	25	2	4	4	1	36	44.2	0	0	4	1	1	0	0	6	6.5	0	0	0	0	0	0	0	0	0	0
H/TOT	128	132.3	0	0	114	8	5	9	2	138	154.2	0	0	46	7	2	1	0	56	58.3	0	0	0	0	0	0	0	0	0	0
09:00	23	25.5	0	0	18	4	0	1	0	23	24.3	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0
09:15	13	13	0	0	23	5	2	2	0	32	35.6	0	0	3	2	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0
09:30	6	6.5	0	0	22	2	0	0	0	24	24	0	0	2	1	0	1	0	4	5.3	0	0	0	0	0	0	0	0	0	0
09:45	7	8.3	0	0	18	2	2	2	0	24	27.6	0	0	2	1	1	0	0	4	4.5	0	0	0	0	0	0	0	0	0	0
H/TOT	49	53.3	0	0	81	13	4	5	0	103	111.5	0	0	10	4	1	1	0	16	17.8	0	0	0	0	0	0	0	0	0	0
10:00	10	10.5	1	0	11	3	2	0	0	17	17.2	0	0	5	3	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0
10:15	8	8	0	0	9	5	1	2	0	17	20.1	0	0	6	1	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0
10:30	10	10.5	0	0	13	5	1	0	0	19	19.5	0	0	6	0	1	1	0	8	9.8	0	0	0	0	0	0	0	0	0	0
10:45	6	6.5	0	0	18	3	1	1	0	23	24.8	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0
H/TOT	34	35.5	1	0	51	16	5	3	0	76	81.6	0	0	20	4	1	1	0	26	27.8	0	0	0	0	0	0	0	0	0	0
11:00	12	12.5	0	0	15	7	1	1	0	24	25.8	0	0	2	2	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0
11:15	7	8.3	0	0	15	3	3	1	0	22	24.8	0	0	1	3	2	0	0	6	7	0	0	0	0	0	0	0	0	0	0
11:30	5	5	0	0	12	4	2	1	0	19	21.3	0	0	7	1	2	0	0	10	11	0	0	0	0	0	0	0	0	0	0
11:45	8	9	0	0	14	2	2	1	0	19	21.3	0	0	2	1	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0
H/TOT	32	34.8	0	0	56	16	8	4	0	84	93.2	0	0	12	7	4	0	0	23	25	0	0	0	0	0	0	0	0	0	0
12:00	11	12.3	0	0	13	4	2	0	0	19	20	0	0	3	1	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0
12:15	8	8	0	0	12	4	2	1	0	19	21.3	0	0	6	2	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0
12:30	7	7.5	0	0	17	4	1	1	0	23	24.8	0	0	4	3	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0
12:45	5	5	0	0	21	4	4	1	0	30	33.3	0	0	8	3	0	0	0	11	11	0	0	0	0	0	0	0	0	0	0
H/TOT	31	32.8	0	0	63	16	9	3	0	91	99.4	0	0	21	9	0	0	0	30	30	0	0	0	0	0	0	0	0	0	0
13:00	9	9	0	0	19	1	0	3	0	23	26.9	0	0	10	0	0	0	0	10	10	0	0	0	0	0	0	0	0	0	0
13:15	11	11	0	0	13	3	0	2	0	18	20.6	0	0	9	3	1	0	0	13	13.5	0	0	0	0	0	0	0	0	0	0
13:30	12	12.5	0	0	26	5	1	0	0	32	32.5	0	0	5	2	0	1	0	8	9.3	0	0	0	0	0	0	0	0	0	0
13:45	7	7	0	0	19	1	4	2	0	26	30.6	0	0	9	0	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0
H/TOT	39	39.5	0	0	77	10	5	7	0	99	110.6	0	0	33	5	1	1	0	40	41.8	0	0	0	0	0	0	0	0	0	0
14:00	5	5	0	0	28	4	2	2	1	37	41.6	0	0	7	0	0	0	2	9	11	0	0	0	0	0	0	0	0	0	0



IDASO

Survey Name: 159 23259 - Traffic Survey at 16-032 Mooretown Phase 2, Dublin Co
Site: JTC 1
Location: R125 Rathbeale Road / R108 Naul Road
Date: Thu 11-May-2023

	A => A								A => B								A => C								B => A								B => B								B => C			
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV
14:15	0	0	0	0	0	0	0	0	0	0	0	40	5	2	1	1	49	52.3	0	0	14	1	0	1	0	16	17.3	0	0	49	7	2	0	0	58	59	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	0	0	45	3	0	0	0	48	48	0	0	37	3	0	1	0	41	42.3	0	0	46	7	0	0	2	55	57	0	0	0	0	0	0	0	0	0	0	0	9	1	0	0	0
14:45	0	0	0	0	0	0	0	0	0	0	0	51	2	0	2	0	55	57.6	0	0	28	2	1	2	0	33	36.1	0	0	40	9	1	1	0	51	52.8	0	0	1	0	0	0	0	1	1	0	0	8	1	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	180	13	5	5	2	205	216	0	0	94	14	2	5	0	115	122.5	0	0	172	28	4	2	2	208	214.6	0	0	1	0	0	0	0	1	1	0	0	31	2	0	0	0
15:00	0	0	0	0	0	0	0	0	0	1	0	53	1	2	1	0	58	59.5	0	0	18	1	1	1	0	21	22.8	0	1	52	6	1	1	0	61	62.2	0	0	0	0	0	0	0	0	0	0	0	9	1	1	1	0
15:15	0	0	0	0	0	0	0	0	0	0	0	43	7	3	1	2	56	60.8	0	0	25	2	2	0	1	30	32	0	0	53	9	2	0	0	64	65	0	0	0	0	0	0	0	0	0	0	0	25	2	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0	0	34	9	1	0	0	44	44.5	0	0	29	3	3	2	0	37	41.1	0	0	68	14	3	0	1	86	88.5	0	0	1	0	0	0	0	1	1	0	0	41	3	1	0	1
15:45	0	0	0	0	0	0	0	0	0	0	0	47	3	1	1	0	52	53.8	0	0	20	6	1	1	0	28	29.8	0	0	63	10	2	0	0	75	76	0	0	0	0	0	0	0	0	0	0	0	7	2	0	0	0
H/TOT	0	0	0	0	0	0	0	0	1	0	177	20	7	3	2	210	218.6	0	0	92	12	7	4	1	116	125.7	0	1	236	39	8	1	1	286	291.7	0	0	1	0	0	0	0	1	1	0	0	82	8	2	1	1
16:00	0	0	0	0	0	0	0	0	0	0	0	46	8	0	0	1	55	56	0	0	30	0	0	4	0	34	39.2	0	0	72	10	0	0	0	82	82	0	0	0	0	0	0	0	0	0	0	0	10	4	0	1	2
16:15	0	0	0	0	0	0	0	0	0	0	1	47	1	0	1	0	50	50.7	0	0	20	5	0	1	0	26	27.3	0	0	90	13	1	0	1	105	106.5	0	0	0	0	0	0	0	0	0	0	0	12	4	0	0	0
16:30	0	0	0	0	0	0	0	0	0	1	0	44	7	0	0	1	53	53.2	0	0	39	1	0	2	0	42	44.6	0	0	79	19	1	0	1	100	101.5	0	0	0	0	0	0	0	0	0	1	0	15	2	1	0	0
16:45	0	0	0	0	0	0	0	0	0	1	0	47	6	1	0	0	55	54.7	0	0	18	3	0	0	0	21	21	0	0	74	12	2	1	0	89	91.3	0	0	0	0	0	0	0	0	0	0	0	18	2	0	0	0
H/TOT	0	0	0	0	0	0	0	0	2	1	184	22	1	1	2	213	214.6	0	0	107	9	0	7	0	123	132.1	0	0	315	54	4	1	2	376	381.3	0	0	0	0	0	0	0	0	0	1	0	55	12	1	1	2
17:00	0	0	0	0	0	0	0	0	0	0	0	54	6	0	0	0	60	60	0	0	19	5	1	2	0	27	30.1	0	0	98	6	0	0	0	104	104	0	0	0	0	0	0	0	0	0	0	0	13	2	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	61	6	0	1	0	68	69.3	0	0	18	6	2	1	0	27	29.3	0	0	82	9	0	0	0	91	91	0	0	0	0	0	0	0	0	0	0	0	7	3	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	57	3	1	0	0	61	61.5	0	0	23	3	0	0	0	26	26	0	0	73	10	1	1	1	86	88.8	0	0	0	0	0	0	0	0	0	0	0	11	2	1	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	53	2	0	1	2	58	61.3	0	0	30	2	0	0	0	32	32	0	0	74	12	1	0	1	88	89.5	0	0	0	0	0	0	0	0	0	0	0	11	1	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	225	17	1	2	2	247	252.1	0	0	90	16	3	3	0	112	117.4	0	0	327	37	2	1	2	369	373.3	0	0	0	0	0	0	0	0	0	0	0	42	8	1	0	0
18:00	0	0	0	0	0	0	0	0	0	0	0	61	4	1	0	0	66	66.5	0	0	26	3	0	0	0	29	29	0	0	60	3	0	0	0	63	63	0	0	0	0	0	0	0	0	0	0	0	9	2	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	54	4	0	1	0	59	60.3	0	0	27	2	0	1	0	30	31.3	1	0	62	7	0	1	0	71	71.5	0	0	0	0	0	0	0	0	0	0	0	15	2	0	0	0
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18:45	0	0	0	0	0	0	0	0	1	0	43	3	0	0	1	48	48.2	1	0	20	2	0	1	0	24	24.5	0	0	47	2	1	0	1	51	52.5	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	1	0	210	14	1	1	1	228	230	1	0	96	8	0	2	0	107	108.8	1	0	222	13	4	1	1	242	245.5	0	0	0	0	0	0	0	0	0	0	0	46	6	0	0	0
19:00	0	0	0	0	0	0	0	0	0	0	0	49	1	1	0	0	51	51.5	2	0	14	0	1	1	0	18	18.2	0	0	44	5	0	0	0	49	49	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0
19:15	0	0	0	0	0	0	0	0	0	0	0	24	4	0	1	0	29	30.3	0	0	21	2	0	2	0	25	27.6	0	0	51	3	0	2	0	56	58.6	0	0	0	0	0	0	0	0	0	0	1	6	2	0	0	0
19:30	0	0	0	0	0	0	0	0	0	0	0	30	6	0	0	1	37	38	0	0	15	3	0	2	1	21	24.6	0	0	39	3	0	0	1	43	44	0	0	0	0	0	0	0	0	0	0	0	8	2	0	0	0
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H/TOT	0	0	0	0	0	0	0	0	1	0	136	13	1	1	3	155	159	2	0	72	5	1	5	1	86	92.4	2	0	162	12	0	3	2	181	185.3	0	0	0	0	0	0	0	0	0	0	1	25	4	0	0	0
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H/TOT	0	0	0	0	0	0	0	0	0	1	120	3	0	6	1	131	139.2	2	1	58	7	0	2	0	70	70.4	1	0	169	8	0	3	1	182	186.1	0	0	0	0	0	0	0	0	0	0	1	0	17	0	0	0	0
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H/TOT	0	0	0	0	0	0	0	0	0	0	71	4	0	3	1	79	83.9	0	0	47	5	0	4	0	56	61.2	0	2	131	3	0	4	1	141	146	0	0	0	0	0	0	0	0	0	0	0	40	0	0	0	0
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H/TOT	0	0	0	0	0	0	0	0	0	0	0	41	2	0	3	1	47	51.9	0	0	31	3	0	0	0	34	34	0	0	70	0	0	2	1	73	76.6	0	0	0	0	0	0	0	0	0	0	0	12	1	0	0	0
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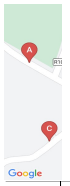
23:45	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4	0	0	1	0	0	0	0	1	1	0	0	8	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	34	0	0	1	0	35	36.3	0	0	14	0	0	2	0	16	18.6	0	0	30	0	0	1	1	32	34.3	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0
24 TOT	0	0	0	0	0	0	0	0	0	6	4	2680	272	56	58	27	3103	3226.2	8	5	1568	224	71	77	8	1961	2095.2	9	12	3005	347	60	47	30	3510	3616.7	0	0	2	0	0	0	0	2	2	3	1	700	86	18	7	8



			C => A									C => B								C => C								
TIME	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
14:15	9	9	0	0	25	5	1	0	0	31	31.5	0	0	12	1	0	0	0	13	13	0	0	0	0	0	0	0	0	0
14:30	10	10	0	0	25	1	1	0	0	27	27.5	0	0	8	0	1	1	0	10	11.8	0	0	0	0	0	0	0	0	0
14:45	9	9	0	0	23	2	0	1	0	26	27.3	0	0	19	1	1	0	0	21	21.5	0	0	0	0	0	0	0	0	0
H/TOT	33	33	0	0	101	12	4	3	1	121	127.9	0	0	46	2	2	1	2	53	57.3	0	0	0	0	0	0	0	0	0
15:00	12	13.8	0	0	26	1	2	0	0	29	30	0	0	11	2	0	0	1	14	15	0	0	0	0	0	0	0	0	0
15:15	27	27	0	0	28	3	4	2	0	37	41.6	0	0	5	2	0	0	0	7	7	0	0	0	0	0	0	0	0	0
15:30	46	47.5	0	0	29	4	2	1	0	36	38.3	0	0	9	1	0	0	0	10	10	0	0	0	0	0	0	0	0	0
15:45	9	9	0	0	31	5	3	3	0	42	47.4	0	0	9	2	0	0	0	11	11	0	0	0	0	0	0	0	0	0
H/TOT	94	97.3	0	0	114	13	11	6	0	144	157.3	0	0	34	7	0	0	1	42	43	0	0	0	0	0	0	0	0	0
16:00	17	20.3	0	1	36	4	1	1	1	44	46.2	0	0	6	0	0	0	0	6	6	0	0	0	0	0	0	0	0	0
16:15	16	16	0	0	50	12	1	2	0	65	68.1	0	0	10	1	0	0	1	12	13	0	0	0	0	0	0	0	0	0
16:30	19	18.7	0	1	47	8	3	3	0	62	66.8	0	0	17	1	0	0	0	18	18	0	0	0	0	0	0	0	0	0
16:45	20	20	0	0	47	9	1	2	0	59	62.1	0	0	8	2	0	0	0	10	10	0	0	0	0	0	0	0	0	0
H/TOT	72	75	0	2	180	33	6	8	1	230	243.2	0	0	41	4	0	0	1	46	47	0	0	0	0	0	0	0	0	0
17:00	15	15	0	0	50	8	0	1	1	60	62.3	1	0	9	3	0	0	0	13	12.2	0	0	0	0	0	0	0	0	0
17:15	10	10	0	0	63	7	2	0	0	72	73	0	0	18	2	0	0	0	20	20	0	0	0	0	0	0	0	0	0
17:30	14	14.5	1	1	50	8	1	1	0	62	62.4	0	0	6	1	1	0	0	8	8.5	0	0	0	0	0	0	0	0	0
17:45	12	12	0	0	70	11	3	1	0	85	87.8	0	0	14	3	0	0	0	17	17	0	0	0	0	0	0	0	0	0
H/TOT	51	51.5	1	1	233	34	6	3	1	279	285.5	1	0	47	9	1	0	0	58	57.7	0	0	0	0	0	0	0	0	0
18:00	11	11	0	0	62	7	1	4	0	74	79.7	1	0	15	3	0	0	0	19	18.2	0	0	0	0	0	0	0	0	0
18:15	17	17	1	0	40	5	1	1	0	48	49	0	1	16	1	0	0	0	18	17.4	0	0	0	0	0	0	0	0	0
18:30	13	13	0	0	24	4	1	3	0	32	36.4	0	0	12	3	0	0	0	15	15	0	0	0	0	0	0	0	0	0
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H/TOT	52	52	1	0	164	18	3	8	0	194	205.1	2	1	54	7	1	0	0	65	63.3	0	0	0	0	0	0	0	0	0
19:00	6	6	0	0	35	8	0	1	0	44	45.3	0	0	5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0
19:15	9	8.4	0	0	25	1	0	0	1	27	28	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0
19:30	10	10	0	0	19	4	0	0	0	23	23	0	0	6	1	0	0	0	7	7	0	0	0	0	0	0	0	0	0
19:45	5	5	0	0	14	1	0	0	0	15	15	0	0	4	1	0	0	0	5	5	0	0	0	0	0	0	0	0	0
H/TOT	30	29.4	0	0	93	14	0	1	1	109	111.3	0	0	19	2	0	0	0	21	21	0	0	0	0	0	0	0	0	0
20:00	6	6	0	1	17	0	0	0	0	18	17.4	0	0	8	1	0	0	0	9	9	0	0	0	0	0	0	0	0	0
20:15	4	4	0	0	22	0	0	1	0	23	24.3	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0
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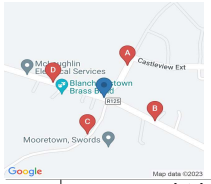
H/TOT	18	17.2	0	2	72	3	0	1	0	78	78.1	2	0	25	2	0	0	0	29	27.4	0	0	0	0	0	0	0	0	0
21:00	7	7	0	0	5	0	1	0	0	6	6.5	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
21:15	19	19	0	0	9	0	0	0	0	9	9	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0
21:30	13	13	0	0	13	2	0	0	0	15	15	0	0	3	1	0	0	0	4	4	0	0	0	0	0	0	0	0	0
21:45	1	1	0	0	5	0	0	1	0	6	7.3	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0
H/TOT	40	40	0	0	32	2	1	1	0	36	37.8	0	0	12	1	0	0	0	13	13	0	0	0	0	0	0	0	0	0
22:00	5	5	0	0	11	0	0	0	0	11	11	0	0	1	1	0	0	0	2	2	0	0	0	0	0	0	0	0	0
22:15	2	2	0	0	10	0	0	0	0	10	10	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
22:30	3	3	0	0	5	0	0	0	0	5	5	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0
22:45	3	3	0	0	1	0	0	0	0	1	1	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0
H/TOT	13	13	0	0	27	0	0	0	0	27	27	0	0	9	1	0	0	0	10	10	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	8	0	0	1	0	9	10.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:15	2	2	0	0	5	1	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:30	0	0	0	0	2	0	0	0	0	2	2	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
23:45	1	1	0	0	4	0	0	0	0	4	4	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
H/TOT	3	3	0	0	19	1	0	1	0	21	22.3	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
24 TOT	823	846.1	6	5	1601	225	75	78	10	2000	2141.1	5	1	453	76	13	5	7	560	575.4	0	0	0	0	0	0	0	0	0



IDASO

Survey Name: 159 23259 - Traffic Survey at 16-032 Mooretown Phase 2, Dublin Co
Site: JTC 2
Location: R125 Rathbeale Road / Western Distributor Link Road
Date: Thu 11-May-2023

	A => A								A => B								A => C								A => D								B => A								B => B			
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV
00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	B => C										B => D										C => A										C => B										C => C										C => D					
TIME	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1
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H/TOT	2	2.5	0	0	20	3	2	1	0	26	28.3	1	7	186	16	5	2	2	219	221.1	0	0	3	0	0	0	0	3	3	0	0	23	3	3	0	0	29	30.5	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0
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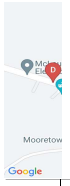

	D => A												D => B										D => C										D => D									
TIME	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
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H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	3	0	10	13.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	6	9.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	1	0	5	6.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	1	0	5	6.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	1	0	26	6	1	2	1	37	40.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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H/TOT	0	0	3	3.5	0	0	1	0	0	0	0	1	1	0	0	64	16	4	2	1	87	92.6	0	0	5	5	0	0	0	10	10	0	0	0	0	0	0	0	0	0	0
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H/TOT	1	0	7	8.3	0	0	0	0	0	0	0	0	0	0	0	151	43	2	2	2	200	205.6	0	0	24	6	0	0	1	31	32	0	0	0	0	0	0	0	0	0	0
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H/TOT	0	2	101	103.5	0	0	2	0	0	0	0	2	2	0	0	215	19	6	2	3	245	253.6	0	0	70	4	0	0	0	74	74	0	0	0	0	0	0	0	0	0	0
09:00	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	50	6	1	0	0	57	57.5	0	0	0	0	2	0	0	2	3	0	0	0	0	0	0	0	0	0	0
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H/TOT	0	0	7	7	0	0	1	0	1	0	0	2	2.5	0	0	176	15	10	3	1	205	214.9	0	0	4	3	1	0	0	8	8.5	0	0	0	0	0	0	0	0	0	0
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H/TOT	0	0	7	7.5	0	0	0	0	0	0	0	0	0	0	0	153	21	5	2	1	182	188.1	0	0	5	0	3	0	0	8	9.5	0	0	0	0	0	0	0	0	0	0
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H/TOT	0	0	3	3	0	0	1	0	0	0	0	1	1	1	0	166	16	4	4	1	192	199.4	0	0	3	2	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0
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13:15	0	0	4	4	0	0	1	0	0	0	0	1	1	0	0	47	4	1	2	1	55	59.1	0	0	3	1	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0
13:30	0	0	2	2	0	0	0	0	0	0	0	0	0	1	1	37	3	2	1	0	45	45.9	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
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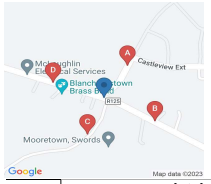
H/TOT	0	0	12	12	0	0	1	0	0	0	0	1	1	1	1	182	15	5	4	2	210	218.3	0	0	6	2	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0
14:00	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	53	7	4	3	3	70	78.9	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0



IDASO

Survey Name: 159 23259 - Traffic Survey at 16-032 Mooretown Phase 2, Dublin Co
Site: JTC 2
Location: R125 Rathbeale Road / Western Distributor Link Road
Date: Thu 11-May-2023

	A => A								A => B								A => C								A => D								B => A								B => B							
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV
14:15	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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H/TOT	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0
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H/TOT	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	2	0	1	0	0	3	3.5	0	0	1	0	1	0	0	2	2.5	0	0	0	0	1	0	0	1	1.5	0	0	2	0	0	0
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H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	2	2.5	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0
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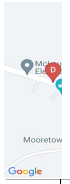
24 TOT	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	13	13	0	0	11	3	6	0	0	20	23	0	0	6	0	2	0	0	8	9	0	0	15	0	1	0	0	16	16.5	0	0	2	1	1	0	0



	B => C										B => D										C => A										C => B										C => C										C => D				
TIME	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1
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H/TOT	0	0	1	0	20	1	0	0	0	22	21.2	1	0	348	49	4	1	4	407	413.5	0	0	1	0	1	0	0	2	2.5	1	0	24	5	2	0	0	32	32.2	0	0	0	0	0	0	0	0	0	0	0	21	13	0
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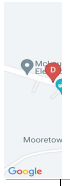
H/TOT	0	0	0	0	4	0	0	0	0	4	4	0	0	25	2	0	1	1	29	31.3	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 TOT	4	4.5	67	0	865	58	14	4	4	1012	974.6	17	11	3450	381	72	50	35	4016	4131.8	0	0	10	1	6	0	0	17	20	68	0	790	48	19	3	3	931	893	0	0	1	0	0	0	0	1	1	0	0	288	40	4



	D => A												D => B										D => C										D => D									
TIME	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
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H/TOT	0	0	11	11	0	0	0	0	0	0	0	0	0	0	0	206	18	9	5	4	242	257	0	0	23	1	0	0	0	24	24	0	0	0	0	0	0	0	0	0
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15:15	0	0	37	37	0	0	0	0	0	0	0	0	0	0	0	39	8	3	1	2	53	57.8	0	0	7	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0
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H/TOT	0	1	78	79	0	0	0	0	0	0	0	0	0	2	0	206	22	5	3	2	240	246.8	0	0	17	0	0	0	1	18	19	0	0	0	0	0	0	0	0	0
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H/TOT	0	0	4	4.5	0	0	0	0	0	0	0	0	0	3	0	275	30	0	2	1	311	312.2	0	0	8	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0
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H/TOT	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	50	3	0	3	1	57	61.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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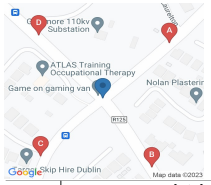
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	36	1	0	1	0	39	39.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 TOT	1	3	336	342.3	0	0	6	0	1	0	0	7	7.5	21	4	2955	308	62	59	32	3441	3561.5	0	0	223	25	7	0	2	257	262.5	0	0	0	1	0	0	0	1	1



IDASO

Survey Name: 159 23259 - Traffic Survey at 16-032 Mooretown Phase 2, Dublin Co
Site: JTC 3
Location: R125 Rathbeale Road / Murrough Road
Date: Thu 11-May-2023

	A => A								A => B								A => C								A => D								B => A								B => B							
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV
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H/TOT	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	9	9	0	0	5	0	0	0	0	5	5	0	0	4	0	0	0	0	4	4	0	0	21	0	0	0	0	21	21	0	0	0	0	0	0	0
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H/TOT	0	0	0	0	0	0	0	0	0	0	164	5	0	0	0	169	169	1	0	239	9	1	1	3	254	258	0	0	212	12	1	0	0	225	225.5	0	0	139	4	1	0	0	144	144.5	0	0	0	0	0	0	0
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H/TOT	0	0	0	0	0	0	0	0	0	1	67	5	1	0	0	74	73.9	0	0	69	3	1	1	5	79	85.8	0	0	53	6	3	5	0	67	75	0	0	99	3	2	0	0	104	105	0	0	0	0	0	0	0
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H/TOT	0	0	0	0	0	0	0	0	1	0	93	4	0	0	0	98	97.2	0	0	81	6	2	0	4	93	98	0	0	61	4	4	2	0	71	75.6	0	0	123	10	1	0	0	134	134.5	0	0	0	0	0	0	0
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H/TOT	0	0	0	0	0	0	0	0	0	0	122	7	0	0	0	129	129	1	0	117	0	0	0	5	123	127.2	0	0	87	6	2	3	0	98	102.9	0	0	135	6	2	0	0	143	144	0	0	0	0	0	0	0
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	B => C										B => D										C => A										C => B										C => C										C => D				
TIME	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1
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H/TOT	0	0	0	0	4	1	0	0	2	7	9	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	3	5	0	0	0	0	0	0	0	0	0	0	0	1	0	0
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H/TOT	0	0	1	0	40	9	0	0	6	56	61.2	5	0	114	20	2	1	5	147	150.3	0	0	47	12	0	0	17	76	93	0	0	52	9	2	0	8	71	80	0	0	0	0	0	0	0	0	0	0	3	0	27	7	1
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H/TOT	0	0	5	0	86	6	6	1	5	109	114.3	0	0	185	18	3	0	1	207	209.5	0	0	155	9	2	0	10	176	187	0	0	119	6	2	0	4	131	136	0	0	0	0	0	0	0	0	0	0	6	0	46	4	0
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H/TOT	0	0	0	0	83	5	1	1	5	95	101.8	1	0	138	21	4	1	1	166	169.5	1	1	70	5	2	1	5	85	90.9	0	0	86	8	0	0	5	99	104	0	0	0	0	0	0	0	0	0	0	1	0	13	4	0
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H/TOT	0	0	0	0	110	6	2	0	4	122	127	0	6	137	13	3	1	2	162	163.2	0	0	103	6	2	0	6	117	124	0	0	118	3	6	0	5	132	140	0	0	0	0	0	0	0	0	0	0	1	0	11	0	1
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H/TOT	0	0	0	0	99	8	1	0	3	111	114.5	0	0	131	16	3	1	1	152	155.8	1	0	111	12	3	0	6	133

	D => A												D => B										D => C										D => D									
TIME	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
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H/TOT	0	0	3	3	0	0	5	0	0	0	0	5	5	0	0	11	1	0	2	1	15	18.6	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0
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H/TOT	0	0	1	1	0	0	5	0	0	0	0	5	5	0	0	4	0	0	3	0	7	10.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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H/TOT	0	0	1	1	0	0	2	0	0	0	0	2	2	0	0	1	0	0	3	0	4	7.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45	0	0	2	2	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	2	2	0	0	2	0	0	0	0	2	2	0	0	1	0	0	1	0	2	3.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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H/TOT	0	0	2	2	0	0	1	1	0	0	0	2	2	0	0	4	0	0	1	0	5	6.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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H/TOT	0	0	6	5.2	0	0	8	2	0	0	0	10	10	0	0	19	3	1	2	0	25	28.1	0	0	1	0	0	0	1	2	3	0	0	0	0	0	0	0	0	0	0	0
06:00	0	0	3	3	0	0	5	1	0	0	0	6	6	1	0	1	1	1	0	0	4	3.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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H/TOT	0	0	13	13	0	0	17	3	2	0	0	22	23	1	0	49	11	2	2	1	66	69.8	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0
07:00	0	0	7	7	0	0	5	4	0	0	0	9	9	0	0	18	2	0	0	0	20	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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H/TOT	0	0	38	36.1	0	0	54	17	0	1	0	72	73.3	1	0	123	20	1	1	3	149	153	0	0	5	6	1	0	0	12	12.5	0	0	0	0	0	0	0	0	0	0	0
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H/TOT	0	1	57	53.2	0	0	163	9	4	0	1	177	180	5	0	198	9	2	0	2	216	215	0	0	26	1	1	1	0	29	30.8	0	0	0	0	0	0	0	0	0	0	0
09:00	0	0	6	6.5	0	0	29	3	1	1	0	34	35.8	0	0	61	5	0	0	0	66	66	0	0	6	1	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0	0
09:15	0	0	8	8	0	0	15	2	1	1	0	19	20.8	0	0	32	2	1	0	1	36	37.5	0	0	7	1	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	0
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H/TOT	0	0	22	23	0	0	60	12	4	3	0	79	84.9	0	0	175	10	5	0	1	191	194.5	0	0	20	3	0	0	0	23	23	0	0	0	0	0	0	0	0	0	0	0
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H/TOT	0	0	14	14	0	0	43	9	5	1	0	58	61.8	0	0	143	13	8	2	1	167	174.6	0	0	12	2	1	0	0	15	15.5	0	0	0	0	0	0	0	0	0	0	0
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H/TOT	0	0	18	17.2	0	0	42	3	5	1	0	51	54.8	0	0	125	18	4	1	1	149	153.3	0	0	11	1	0	0	0	12	12	0	0	0	0	0	0	0	0	0	0	0
12:00	0	0	1	1	0	0	25	2	1	0	0	28	28.5	0	0	27	2	1	2	0	32	35.1	1	0	2	0	0	0	0	3	2.2	0	0	0	0	0	0	0	0	0	0	0
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12:45	0	0	3	3	0	0	22	6	0	1	0	29	30.3	0	0	30	4	0	0	0	34	34	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	13	12.7	1	0	68	11	4	3	0	87	92.1	1	0	123	13	3	2	1	143	147.3	1	0	7	1	1	0	0	10	9.7	0	0	0	0	0	0	0	0	0	0	0
13:00	0	0	6	6	0	0	20	1	2	0	0	23	24	0	0	35	3	1	0	1	40	41.5	0	0	3	1	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0
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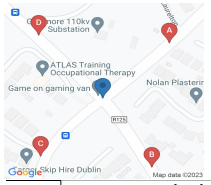
13:45	0	0	6	6	0	0	22	1	0	2	0	25	27.6	0	0	36	2	1	0	0	39	39.5	0	0	4	1	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	26	26	0	0	88	9	3	3	0	103	108.4	1	1	123	12	4	1	2	144	147.9	0	0	17	3	0	0	0	20	20	0	0	0	0	0	0	0	0	0	0	0
14:00	1	0	6	7.3	0	0	19	4	2	3	3	31	38.9	1	0	32	3	3	0	0	39	39.7	0	0	3	1	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0



IDASO

Survey Name: 159 23259 - Traffic Survey at 16-032 Mooretown Phase 2, Dublin Co
Site: JTC 3
Location: R125 Rathbeale Road / Murrough Road
Date: Thu 11-May-2023

	A => A								A => B								A => C								A => D								B => A								B => B							
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV
14:15	0	0	0	0	0	0	0	0	0	0	0	41	1	0	0	0	42	42	0	0	47	1	2	0	0	50	51	0	0	30	4	1	0	0	35	35.5	0	0	45	0	0	0	0	45	45	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	0	0	47	0	0	0	0	47	47	1	0	71	1	1	0	3	77	79.7	0	0	28	2	1	0	1	32	33.5	0	0	37	1	0	0	0	38	38	0	0	0	0	0	0	0
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H/TOT	0	0	0	0	0	0	0	0	0	0	0	138	3	1	0	1	143	144.5	1	0	163	5	4	0	6	179	186.2	0	0	112	15	4	1	1	133	137.3	2	0	185	3	0	1	0	191	190.7	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0	0	0	0	19	1	0	0	0	20	20	0	0	28	1	0	0	2	31	33	0	0	39	3	2	1	0	45	47.3	0	0	33	3	0	0	0	36	36	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0	0	0	0	27	3	0	0	0	30	30	0	0	25	4	0	0	0	29	29	0	0	34	4	0	0	0	38	38	0	0	33	2	1	0	0	36	36.5	0	0	0	0	0	0	0
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15:45	0	0	0	0	0	0	0	0	0	0	0	30	0	0	0	0	30	30	0	0	34	1	0	0	1	36	37	0	0	27	5	2	0	0	34	35	0	0	40	0	0	0	0	40	40	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	105	5	0	0	0	110	110	0	0	117	8	0	0	6	131	137	0	0	129	17	5	2	0	153	158.1	0	0	133	5	2	0	0	140	141	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0	0	0	25	1	1	0	0	27	27.5	0	0	25	2	0	0	2	29	31	0	0	28	4	0	0	0	32	32	0	1	42	2	0	0	0	45	44.4	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	20	3	0	0	0	23	23	0	0	19	1	1	0	2	23	25.5	0	0	30	5	0	0	0	35	35	0	0	47	3	1	0	0	51	51.5	0	0	0	0	0	0	0
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H/TOT	0	0	0	0	0	0	0	0	2	0	0	105	9	1	0	0	117	115.9	0	1	95	7	1	0	10	114	123.9	0	0	140	22	2	0	0	164	165	0	1	163	12	2	0	0	178	178.4	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	20	1	0	0	0	21	21	1	0	32	2	0	0	3	38	40.2	0	0	36	3	0	0	0	39	39	0	0	62	3	0	0	0	65	65	0	0	0	0	0	0	0
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17:45	0	0	0	0	0	0	0	0	0	0	0	38	2	1	0	0	41	41.5	0	0	44	6	0	0	2	52	54	0	0	30	3	1	0	0	34	34.5	0	0	56	1	0	0	0	57	57	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	2	0	0	117	3	2	0	0	124	123.4	1	0	137	12	2	0	11	163	174.2	0	0	118	20	2	0	0	140	141	1	0	219	10	0	0	0	230	229.2	0	0	0	0	0	0	0
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H/TOT	0	0	0	0	0	0	0	0	2	0	0	127	3	0	0	0	132	130.4	0	0	110	5	2	0	13	130	144	0	0	118	7	0	1	0	126	127.3	4	0	160	10	0	0	0	174	170.8	0	0	0	0	0	0	0
19:00	0	0	0	0	0	0	0	0	0	0	0	41	0	0	0	0	41	41	1	0	31	1	0	0	3	36	38.2	0	0	18	3	0	0	0	21	21	0	0	51	2	0	0	0	53	53	0	0	0	0	0	0	0
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H/TOT	0	0	0	0	0	0	0	0	0	0	0	123	2	0	0	0	125	125	2	0	115	9	1	0	8	135	141.9	3	0	60	5	0	2	0	70	70.2	0	0	179	7	0	0	0	186	186	0	0	0	0	0	0	0
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H/TOT	0	0	0	0	0	0	0	0	1	0	0	67	4	0	0	0	72	71.2	2	0	104	7	1	0	5	119	122.9	0	0	58	0	0	1	0	59	60.3	0	0	144	9	0	0	0	153	153	0	0	0	0	0	0	0
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H/TOT	0	0	0	0	0	0	0	0	2	0	0	36	1	0	0	0	39	37.4	2	0	78	5	2	0	3	90	92.4	0	0	53	4	0	1	0	58	59.3	1	0	88	5	0	0	0	94	93.2	0	0	0	0	0	0	0
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H/TOT	0	0	0	0	0	0	0	0	1	0	0	29	1	0	0	0	31	30.2	3	0	46	3	0	0	4	56	57.6	0	0	29	1	1	0	0	31	31.5	1	0	59	3	0	0	0	63	62.2	0	0	0	0	0	0	0
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H/TOT	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	13	13	1	1	9	0	0	0	4	15	17.6	0	0	6	0	0	0	0	6	6	0	0	30	0	0	0	0	30	30	0	0	0	0	0	0	0
24 TOT	0	0	0	0	0	0	0	0	0	17	1	1571	74	6	0	2	1671	1661.8	24	4	1876	119	25	3	103	2154	2251.8	7	0	1555	167	38	25	7	1799	1851.9	10	2	2168	102	13	1	0	2296	2294.6	0	0	0	0	0	0	0

			B => C									B => D								C => A								C => B								C => C								C => D			
TIME	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1
14:15	0	0	0	0	35	3	1	0	1	40	41.5	0	0	20	0	1	0	1	22	23.5	0	0	23	3	1	0	2	29	31.5	0	0	15	2	0	0	1	18	19	0	0	0	0	0	0	0	0	0	0	0	6	1	1
14:30	0	0	0	0	23	1	1	0	1	26	27.5	0	0	38	3	0	0	0	41	41	2	1	26	3	0	0	1	33	31.8	0	0	21	0	0	0	1	22	23	0	0	0	0	0	0	0	0	0	0	0	10	1	0
14:45	0	0	0	0	28	0	0	0	2	30	32	0	0	46	3	0	0	0	49	49	1	0	70	1	0	0	2	74	75.2	0	0	35	3	0	0	3	41	44	0	0	0	0	0	0	0	0	0	1	0	9	1	0
H/TOT	0	0	0	0	114	5	2	0	4	125	130	0	0	134	9	2	0	1	146	148	3	1	148	9	1	0	6	168	171.5	0	0	97	7	0	0	6	110	116	0	0	0	0	0	0	0	0	0	1	0	30	3	1
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H/TOT	0	0	1	0	124	15	1	0	4	145	148.7	0	0	218	18	4	0	2	242	246	4	0	133	7	5	0	6	155	160.3	0	0	105	5	0	1	6	117	124.3	0	0	0	0	0	0	0	0	0	0	0	24	3	0
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H/TOT	0	0	0	1	113	12	2	0	3	131	134.4	0	0	222	33	1	0	4	260	264.5	0	0	144	15	1	0	6	166	172.5	0	0	112	8	1	0	4	125	129.5	0	0	0	0	0	0	0	0	0	0	0	22	2	1
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H/TOT	0	0	2	1	110	14	1	0	5	133	136.3	0	0	244	27	1	1	2	275	278.8	0	1	197	11	1	0	5	215	219.9	0	0	129	9	1	0	4	143	147.5	0	0	0	0	0	0	0	0	0	0	0	23	2	0
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H/TOT	0	0	2	0	134	6	0	0	8	150	156.4	2	0	219	10	3	0	1	235	235.9	0	1	158	10	2	0	5	176	181.4	0	0	127	9	1	0	4	141	145.5	0	0	0	0	0	0	0	0	0	0	0	38	1	1
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H/TOT	0	0	1	0	121	5	0	0	4	131	134.2	1	1	135	11	2	3	2	155	160.5	3	0	138	7	2	0	3	153	154.6	0	0	79	3	1	0	4	87	91.5	0	0	0	0	0	0	0	0	0	0	0	12	1	0
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H/TOT	0	0	0	1	119	5	0	0	2	127	128.4	1	0	135	6	0	1	1	144	145.5	1	0	92	4	1	0	4	102	105.7	0	0	67	2	0	0	3	72	75	0	0	0	0	0	0	0	0	0	0	0	19	0	0
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H/TOT	0	0	0	0	84	3	0	0	3	90	93	1	0	92	5	0	2	1	101	103.8	1	0	74	3	0	0	3	81	83.2	0	0	30	0	0	0	2	32	34	0	0	0	0	0	0	0	0	0	0	0	19	1	0
22:00	0	0	0	0	18	0	0	0	0	18	18	0	0	13	2	0	1	0	16	17.3	0	0	13	0	0	0	1	14	15	0	0	14	0	0	0	1	15	16	0	0	0	0	0	0	0	0	0	0	0	1	0	0
22:15	0	0	0	0	16	1	0	0	1	18	19	0	0	14	1	0	1	0	16	17.3	0	0	8	0	0	0	1	9	10	0	0	7	0	0	0	1	8	9	0	0	0	0	0	0	0	0	0	0	0	4	0	0
22:30	0	0	0	0	11	0	0	0	0	11	11	0	0	14	2	0	0	1	17	18	1	0	5	0	0	0	0	6	5.2	0	0	12	0	0	0	2	14	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:45	0	0	0	0	7	1	0	0	1	9	10	0	0	12	0	0	0	0	12	12	0	0	7	0	0	0	1	8	9	0	0	4	1	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	52	2	0	0	2	56	58	0	0	53	5	0	2	1	61	64.6	1	0	33	0	0	0	3	37	39.2	0	0	37	1	0	0	4	42	46	0	0	0	0	0	0	0	0	0	0	0	5	0	0
23:00	0	0	0	0	9	0	0	0	1	10	11	1	0	7	0	0	0	0	8	7.2	1	0	4	1	0	0	0	6	5.2	0	0	3	0	0	0	1	4	5	0	0	0	0	0	0	0	0	0	0	0	1	0	0
23:15	0	0	0	0	3	0	0	0	0	3	3	0	0	9	0	0	1	0	10	11.3	0	0	5	0	0	0	1	6	7	0	0	7	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:30	0	0	0	0	4	1	0	0	1	6	7	0	0	4	0	0	0	1	5	6	0	0	2	0	0	0	0	2	2	0	0	2	0	0	0	2	4	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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H/TOT	0	0	0	0	23	1	0	0	2	26	28	1	0	25	0	0	1	2	29	31.5	1	0	15	1	0	0	1	18	18.2	0	0	12	0	0	0	3	15	18	0	0	0	0	0	0	0	0	0	0	0	1	0	0
24 TOT	0	0	13	3	1640	126	20	2	90	1894	1984.4	13	7	2462	242	46	27	31	2828	2902.5	18	4	1847	129	29	1	102	2130	2231	2	0	1494	90	16	1	88	1691	1786.7	0	0	0	0	0	0	0	0	0	0	0	13	0	364	41	7

	D => A												D => B										D => C										D => D									
TIME	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
14:15	0	0	8	8.5	0	0	23	2	0	0	0	25	25	0	0	40	3	2	0	1	46	48	0	0	2	0	1	0	0	3	3.5	0	0	0	0	0	0	0	0	0
14:30	0	0	11	11	0	0	17	3	2	2	0	24	27.6	0	0	37	5	0	0	0	42	42	0	0	5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0
14:45	0	0	11	10.2	0	0	20	0	0	1	0	21	22.3	0	0	44	0	0	0	0	44	44	0	0	6	0	0	0	0	6	6	0	0	0	0	0	0	0	0	0
H/TOT	1	0	36	37	0	0	79	9	4	6	3	101	113.8	1	0	153	11	5	0	1	171	173.7	0	0	16	1	1	0	0	18	18.5	0	0	0	0	0	0	0	0	0
15:00	0	1	9	10	1	0	16	2	0	1	0	20	20.5	3	0	39	1	1	1	0	45	44.4	1	0	1	0	0	0	0	2	1.2	0	0	0	0	0	0	0	0	0
15:15	0	0	6	6	0	0	43	4	1	1	1	50	52.8	0	0	45	3	2	0	1	51	53	5	0	9	1	0	0	0	15	11	0	0	0	0	0	0	0	0	0
15:30	0	0	10	10	0	0	74	4	1	0	1	80	81.5	0	0	47	4	0	0	1	52	53	0	0	8	1	0	0	0	9	9	0	0	0	0	0	0	0	0	0
15:45	0	0	3	3	0	0	34	2	0	0	0	36	36	0	0	53	3	0	0	0	56	56	0	0	7	1	1	0	0	9	9.5	0	0	0	0	0	0	0	0	0
H/TOT	0	1	28	29	1	0	167	12	2	2	2	186	190.8	3	0	184	11	3	1	2	204	206.4	6	0	25	3	1	0	0	35	30.7	0	0	0	0	0	0	0	0	0
16:00	0	0	5	5	0	0	21	4	0	1	1	27	29.3	0	0	25	3	0	0	0	28	28	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0
16:15	0	0	6	6	0	1	16	1	1	0	1	20	20.9	0	0	33	6	1	1	0	41	42.8	0	0	6	0	0	0	0	6	6	0	0	0	0	0	0	0	0	0
16:30	1	0	12	13.8	0	0	22	7	0	0	0	29	29	2	0	32	4	0	0	0	38	36.4	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
16:45	0	0	3	3	0	0	27	3	1	0	0	31	31.5	2	0	37	4	0	0	1	44	43.4	0	0	6	0	0	0	0	6	6	0	0	0	0	0	0	0	0	0
H/TOT	1	0	26	27.8	0	1	86	15	2	1	2	107	110.7	4	0	127	17	1	1	1	151	150.6	0	0	18	0	0	0	0	18	18	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	28	4	0	0	0	32	32	0	0	35	2	0	0	0	37	37	0	0	5	2	0	0	0	7	7	0	0	0	0	0	0	0	0	0
17:15	0	0	6	6	0	0	43	4	0	1	0	48	49.3	0	0	44	3	0	0	0	47	47	0	0	7	2	0	0	0	9	9	0	0	0	0	0	0	0	0	0
17:30	0	0	7	7	0	0	31	1	0	0	0	32	32	0	0	36	5	0	0	0	41	41	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0
17:45	0	0	12	12	0	0	32	4	0	1	0	37	38.3	0	0	37	4	0	0	1	42	43	0	0	9	0	0	0	0	9	9	0	0	0	0	0	0	0	0	0
H/TOT	0	0	25	25	0	0	134	13	0	2	0	149	151.6	0	0	152	14	0	0	1	167	168	0	0	24	4	0	0	0	28	28	0	0	0	0	0	0	0	0	0
18:00	0	0	6	6	0	0	29	3	1	0	0	33	33.5	1	0	40	4	0	0	1	46	46.2	0	0	7	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0
18:15	0	0	15	15	0	0	26	0	0	0	0	26	26	0	0	36	3	0	1	0	40	41.3	0	1	4	0	0	0	0	5	4.4	0	0	0	0	0	0	0	0	0
18:30	0	0	14	14.5	0	0	28	0	0	0	0	28	28	0	0	35	4	0	0	0	39	39	0	0	7	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0
18:45	0	0	5	5	0	0	21	3	0	0	0	24	24	0	0	44	1	0	0	1	46	47	0	0	7	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0
H/TOT	0	0	40	40.5	0	0	104	6	1	0	0	111	111.5	1	0	155	12	0	1	2	171	173.5	0	1	25	0	0	0	0	26	25.4	0	0	0	0	0	0	0	0	0
19:00	0	0	3	3	0	0	20	0	0	0	0	20	20	0	0	32	4	1	0	0	37	37.5	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0
19:15	0	0	3	3	0	0	16	1	1	0	0	18	18.5	0	0	13	1	0	1	0	15	16.3	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0
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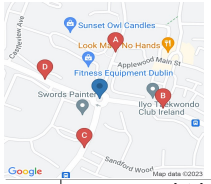
H/TOT	0	0	13	13	0	0	62	7	1	0	0	70	70.5	0	0	96	9	3	1	3	112	117.8	0	0	18	1	0	0	0	19	19	0	0	0	0	0	0	0	0	0
20:00	0	0	7	7	0	0	10	1	0	0	0	11	11	0	0	26	1	0	0	0	27	27	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0
20:15	0	0	5	5	0	0	17	1	0	0	0	18	18	0	0	25	0	0	2	0	27	29.6	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
20:30	0	0	3	3	0	0	16	0	0	0	0	16	16	1	1	20	0	0	1	0	23	22.9	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
20:45	0	0	4	4	0	0	11	3	0	2	0	16	18.6	0	0	22	0	0	1	1	24	26.3	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0
H/TOT	0	0	19	19	0	0	54	5	0	2	0	61	63.6	1	1	93	1	0	4	1	101	105.8	0	0	8	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0
21:00	0	0	5	5	0	0	14	0	0	0	0	14	14	0	0	14	1	0	0	0	15	15	0	0	3	1	0	0	0	4	4	0	0	0	0	0	0	0	0	0
21:15	0	0	8	8	0	0	33	2	0	0	0	35	35	0	0	34	2	0	0	0	36	36	0	0	11	0	0	0	0	11	11	0	0	0	0	0	0	0	0	0
21:30	0	0	5	5	0	0	40	1	0	0	0	41	41	0	0	30	1	0	0	0	31	31	0	0	12	1	0	0	0	13	13	0	0	0	0	0	0	0	0	0
21:45	0	0	2	2	0	0	7	0	0	1	0	8	9.3	0	0	11	0	0	2	1	14	17.6	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
H/TOT	0	0	20	20	0	0	94	3	0	1	0	98	99.3	0	0	89	4	0	2	1	96	99.6	0	0	27	2	0	0	0	29	29	0	0	0	0	0	0	0	0	0
22:00	0	0	1	1	0	0	5	0	0	0	0	5	5	0	0	6	0	0	1	0	7	8.3	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
22:15	0	0	4	4	0	0	7	1	0	1	0	9	10.3	0	0	8	1	0	0	0	9	9	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
22:30	0	0	0	0	0	0	6	2	0	0	0	8	8	0	0	7	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:45	0	0	0	0	0	0	6	0	0	0	0	6	6	0	0	7	0	0	1	1	9	11.3	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
H/TOT	0	0	5	5	0	0	24	3	0	1	0	28	29.3	0	0	28	1	0	2	1	32	35.6	0	0	5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0
23:00	0	0	1	1	0	0	4	0	0	0	0	4	4	0	0	6	1	0	1	0	8	9.3	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
23:15	0	0	0	0	0	0	4	0	0	0	0	4	4	0	0	6	0	0	0	0	6	6	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
23:30	0	0	0	0	0	0	1	1	0	0	0	2	2	0	0	7	0	0	0	0	7	7	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
23:45	0	0	0	0	0	0	3	0	0	0	0	3	3	0	0	5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	1	1	0	0	12	1	0	0	0	13	13	0	0	24	1	0	1	0	26	27.3	0	0	5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0
24 TOT	2	2	429	426.7	2	1	1374	150	37	27	8	1599	1658.4	19	2	2200	191	42	34	26	2514	2588.8	7	1	273	28	6	1	1	317	316.1	0	0	0	0	0	0	0	0	0



IDASO

Survey Name: 159 23259 - Traffic Survey at 16-032 Mooretown Phase 2, Dublin Co
Site: JTC 4
Location: Glen Ellan Road / Glen Ellan Road Extension
Date: Thu 11-May-2023

	A => A								A => B								A => C								A => D								B => A								B => B							
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV
00:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0
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H/TOT	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0	0	3	0	0	0	0	3	3	0	0	1	0	0	0	0	1	1	0	0	10	10	0	0	0	0	0	0	0	0	0	0
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H/TOT	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	4	4	0	0	5	0	0	0	0	5	5	0	0	1	1	0	0	0	2	2	0	0	3	3	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
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H/TOT	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0
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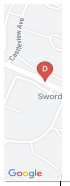

	B => C										B => D										C => A										C => B										C => C										C => D				
TIME	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1
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H/TOT	0	0	0	0	109	10	4	2	4	129	137.6	0	0	152	10	5	0	0	167	169.5	1	0	70	6	1	0	0	78	77.7	0	0	117	16	4	3	6	146	157.9	0	0	0	0	0	0	0	0	0	0	0	137	11	2
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H/TOT	0	0	2	0	117	6	3	2	5	135	142.5	0	1	176	11	2	0	1	191	192.4	0	0	63	7	1	0	0	71	71.5	0	0	83	15	4	2	6	110	120.6	0	0	0	0	0	0	1	0	1	2.3	0	0	186	11	0
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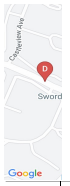

	D => A												D => B										D => C										D => D									
TIME	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
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H/TOT	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	4	0	1	0	0	5	5.5	0	0	5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0
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H/TOT	0	0	5	5	0	0	1	0	0	0	0	1	1	0	0	17	2	0	0	0	19	19	1	0	5	2	0	0	0	8	7.2	0	0	0	0	0	0	0	0	0
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H/TOT	0	0	8	8	0	0	0	0	0	0	0	0	0	2	0	44	3	0	0	0	49	47.4	3	0	18	3	0	0	0	24	21.6	0	0	0	0	0	0	0	0	0
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H/TOT	0	0	14	14	0	0	6	1	0	0	0	7	7	1	0	155	23	1	0	0	180	179.7	1	0	50	9	1	0	0	61	60.7	0	0	0	0	0	0	0	0	0
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H/TOT	0	2	63	65	0	0	4	1	0	0	0	5	5	4	0	238	28	1	0	1	272	270.3	0	1	132	10	0	0	1	144	144.4	0	0	1	0	0	0	1	1	1
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H/TOT	0	2	262	265	0	0	37	2	0	0	0	39	39	4	0	424	23	2	1	1	455	455.1	0	1	325	11	0	0	1	338	338.4	0	0	1	0	0	0	1	1	1
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H/TOT	0	0	130	130.2	0	0	15	3	0	0	0	18	18	1	1	215	18	5	0	1	241	243.1	1	0	118	8	3	0	1	131	132.7	0	0	0	0	0	0	0	0	0
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H/TOT	0	0	71	70.9	0	0	12	5	0	0	0	17	17	0	0	106	13	0	0	0	119	119	0	0	64	12	1	0	0	77	77.5	0	0	0	0	0	0	0	0	0
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H/TOT	0	0	79	79.5	0	0	6	3	0	0	0	9	9	0	0	109	9	0	0	0	118	118	0	0	77	4	2	0	0	83	84	0	0	0	0	0	0	0	0	0
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H/TOT	0	0	150	151	0	0	17	3	1	0	0	21	21.5	0	0	132	18	3	0	0	153	154.5	0	0	79	3	1	0	0	83	83.5	0	0	0	0	0	0	0	0	0
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H/TOT	0	0	197	197	0	0	24	2	0	0	0	26	26	0	2	184	6	4	0	0	196	196.8	0	0	124	9	0	0	0	133	133	0	0	0	0	0	0	0	0	0
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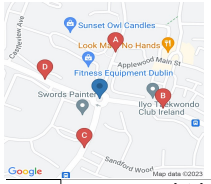

IDASO

Survey Name: 159 23259 - Traffic Survey at 16-032 Mooretown Phase 2, Dublin Co
Site: JTC 4
Location: Glen Ellan Road / Glen Ellan Road Extension
Date: Thu 11-May-2023

	A => A								A => B								A => C								A => D								B => A								B => B							
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV
14:15	0	0	0	0	0	0	0	0	0	0	0	8	2	0	0	0	10	10	0	0	18	0	0	0	0	18	18	0	0	11	0	0	0	0	11	11	2	0	8	0	0	0	0	10	8.4	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	0	0	10	1	0	0	0	11	11	1	0	18	1	0	0	0	20	19.2	0	0	4	0	0	0	0	4	4	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0
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H/TOT	0	0	0	0	0	0	0	0	0	1	0	33	6	1	0	0	41	40.9	1	0	65	3	1	0	0	70	69.7	0	0	30	0	0	0	0	30	30	3	0	26	0	0	0	0	29	26.6	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	9	9	0	0	13	0	0	0	0	13	13	0	0	8	0	0	0	0	8	8	1	0	0	1	0	0	0	2	1.2	0	0	0	0	0	0	0
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H/TOT	0	0	0	0	0	0	0	0	0	0	0	62	2	0	0	0	64	64	0	0	72	3	0	0	0	75	75	0	0	21	1	0	0	0	22	22	1	0	31	4	1	0	0	37	36.7	0	0	2	0	0	0	0
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H/TOT	0	0	1	0	0	0	0	1	1	0	0	35	1	0	0	0	36	36	0	1	58	5	1	0	0	65	64.9	0	0	33	2	0	0	0	35	35	1	1	44	3	0	0	0	49	47.6	0	0	2	0	0	0	0
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H/TOT	0	0	0	0	0	0	0	0	0	0	0	41	4	1	0	0	46	46.5	0	0	71	4	0	0	0	75	75	0	0	31	4	0	0	0	35	35	1	0	45	7	0	0	0	53	52.2	0	0	0	0	0	0	0
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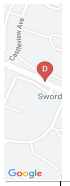
24 TOT	0	0	1	0	0	0	0	1	1	0	1	647	61	9	1	1	720	726.2	8	2	984	68	7	0	0	1069	1064.9	3	0	345	22	2	0	0	372	370.6	21	1	604	47	5	0	0	678	663.1	0	0	12	0	1	0	1



	B => C										B => D										C => A										C => B										C => C										C => D				
TIME	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1
14:15	0	0	0	0	29	3	3	0	0	35	36.5	0	0	56	3	2	0	0	61	62	0	0	15	2	0	0	0	17	17	0	0	18	4	1	0	2	25	27.5	0	0	0	0	0	0	0	0	0	0	0	59	2	0
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H/TOT	0	0	1	0	138	14	6	0	5	164	171.2	2	0	204	12	2	0	0	220	219.4	3	1	89	3	0	0	0	96	93	0	0	101	10	5	6	7	129	146.3	0	0	1	0	0	1	0	2	3.3	0	0	225	7	0
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H/TOT	2	2	0	0	150	22	4	2	5	183	192.6	0	1	163	21	0	0	0	185	184.4	0	0	83	7	2	0	0	92	93	0	0	159	26	6	2	8	201	214.6	0	0	1	0	0	0	0	1	1	0	0	185	5	1
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H/TOT	0	0	2	0	137	4	1	2	8	154	163.5	0	0	257	17	0	0	0	274	274	0	0	63	4	0	0	0	67	67	0	0	139	9	4	0	4	156	162	0	0	1	0	0	0	0	1	1	0	0	156	9	1
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H/TOT	0	0	1	0	82	6	1	1	3	94	98	0	0	112	5	1	0	0	118	118.5	0	0	55	1	0	0	0	56	56	0	0	81	5	0	1	3	90	94.3	0	0	0	0	0	0	0	0	0	0	0	115	9	0
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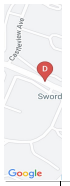
22:45	0	0	1	0	7	0	0	0	1	9	9.2	0	0	5	1	0	0	0	6	6	0	0	9	0	0	0	0	9	9	0	0	8	0	0	0	1	9	10	0	0	0	0	0	0	0	0	0	0	0	14	0	0
H/TOT	2	2	3	1	63	1	1	0	4	73	74.5	0	0	67	2	0	0	0	69	69	0	0	26	2	0	0	0	28	28	0	0	41	2	0	1	3	47	51.3	0	0	0	0	0	0	0	0	0	1	0	44	2	0
23:00	0	0	0	1	3	0	0	0	2	6	7.4	0	1	13	0	0	1	0	15	15.7	0	0	4	0	0	0	0	4	4	0	1	1	1	0	0	0	3	2.4	0	0	0	0	0	0	0	0	0	0	0	10	0	0
23:15	0	0	0	0	5	0	0	0	0	5	5	0	0	9	0	0	0	0	9	9	0	0	8	0	0	0	0	8	8	0	0	3	0	0	0	1	4	5	0	0	0	0	0	0	0	0	0	0	0	5	0	0
23:30	0	0	0	0	6	0	0	0	1	7	8	0	0	8	0	0	0	0	8	8	0	0	2	0	0	0	0	2	2	0	0	3	1	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	4	0	0
23:45	0	0	0	0	4	0	0	0	1	5	6	0	0	8	0	0	0	0	8	8	0	0	4	0	0	0	0	4	4	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	6	0	0
H/TOT	0	0	0	1	18	0	0	0	4	23	26.4	0	1	38	0	0	1	0	40	40.7	0	0	18	0	0	0	0	18	18	0	1	11	2	0	0	1	15	15.4	0	0	0	0	0	0	0	0	0	0	0	25	0	0
24 TOT	14	15.5	18	6	2023	191	50	25	106	2419	2564.5	6	4	2706	219	22	3	6	2966	2979.7	6	2	1133	90	12	0	1	1244	1245	2	5	1914	199	54	26	103	2303	2462.2	0	0	13	3	0	3	0	19	22.9	2	1	2413	137	13



	D => A												D => B										D => C										D => D									
TIME	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
14:15	0	0	61	61	0	0	11	1	0	0	0	12	12	2	0	61	0	1	0	0	64	62.9	0	0	81	2	0	0	0	83	83	0	0	0	0	0	0	0	0	0
14:30	0	0	45	45	0	0	5	1	0	0	0	6	6	0	0	77	5	0	0	1	83	84	0	0	76	3	1	0	2	82	84.5	0	0	0	0	0	0	0	0	0
14:45	0	0	67	67	0	0	4	0	0	0	0	4	4	0	0	48	1	0	0	0	49	49	0	0	40	5	1	0	0	46	46.5	0	0	0	0	0	0	0	0	0
H/TOT	0	2	234	236	0	0	21	2	0	0	0	23	23	2	0	226	8	1	0	1	238	237.9	0	0	216	15	2	0	3	236	240	0	0	0	0	0	0	0	0	0
15:00	0	0	44	44	0	0	5	0	0	0	0	5	5	0	0	44	4	0	0	0	48	48	0	0	33	1	0	0	0	34	34	0	0	0	0	0	0	0	0	0
15:15	0	0	37	37	1	0	2	2	0	0	0	5	4.2	0	0	49	2	0	0	0	51	51	0	0	39	3	0	0	1	43	44	0	0	0	0	0	0	0	0	0
15:30	0	0	62	62.5	1	0	2	1	0	0	0	4	3.2	0	0	44	5	2	0	0	51	52	1	0	18	1	0	0	0	20	19.2	0	0	0	0	0	0	0	0	0
15:45	0	0	48	48	0	0	3	0	0	0	0	3	3	1	0	40	4	0	0	0	45	44.2	0	0	26	1	0	0	0	27	27	0	0	0	0	0	0	0	0	0
H/TOT	0	0	191	191.5	2	0	12	3	0	0	0	17	15.4	1	0	177	15	2	0	0	195	195.2	1	0	116	6	0	0	1	124	124.2	0	0	0	0	0	0	0	0	0
16:00	0	0	39	39	0	0	5	0	0	0	0	5	5	0	0	33	5	0	0	0	38	38	0	0	25	2	0	0	0	27	27	0	0	0	0	0	0	0	0	0
16:15	0	0	40	40	0	0	5	0	0	0	0	5	5	0	0	34	1	0	0	0	35	35	0	0	29	1	0	0	0	30	30	0	0	0	0	0	0	0	0	0
16:30	0	0	63	63.5	0	0	4	0	0	0	0	4	4	0	0	45	4	0	0	0	49	49	0	0	30	2	0	0	0	32	32	0	0	0	0	0	0	0	0	0
16:45	0	0	49	49.5	3	0	6	0	0	0	0	9	6.6	1	0	64	0	1	0	0	66	65.7	0	0	29	7	0	0	0	36	36	0	0	1	0	0	0	0	1	1
H/TOT	0	0	191	192	3	0	20	0	0	0	0	23	20.6	1	0	176	10	1	0	0	188	187.7	0	0	113	12	0	0	0	125	125	0	0	1	0	0	0	0	1	1
17:00	0	0	52	52	0	0	6	1	0	0	0	7	7	0	0	46	0	1	0	0	47	47.5	0	1	26	6	1	0	1	35	35.9	0	0	0	0	0	0	0	0	0
17:15	0	0	60	60	0	0	6	0	0	0	0	6	6	0	1	52	1	1	0	0	55	54.9	1	0	28	0	0	0	0	29	28.2	0	0	0	0	0	0	0	0	0
17:30	0	0	59	59	1	0	6	1	0	0	0	8	7.2	0	0	58	0	0	0	0	58	58	1	0	31	5	0	0	0	37	36.2	0	0	0	0	0	0	0	0	0
17:45	0	0	61	61	0	0	12	0	0	0	0	12	12	0	0	79	0	0	0	0	79	79	0	0	36	5	0	0	0	41	41	0	0	0	0	0	0	0	0	0
H/TOT	0	0	232	232	1	0	30	2	0	0	0	33	32.2	0	1	235	1	2	0	0	239	239.4	2	1	121	16	1	0	1	142	141.3	0	0	0	0	0	0	0	0	0
18:00	0	0	48	48	0	0	8	0	0	0	0	8	8	0	0	73	1	0	0	0	74	74	0	0	39	2	0	0	0	41	41	0	0	0	0	0	0	0	0	0
18:15	0	0	49	49	0	0	8	0	0	0	0	8	8	0	0	52	3	0	0	0	55	55	0	0	38	1	0	0	0	39	39	0	0	0	0	0	0	0	0	0
18:30	0	0	50	50	0	0	5	1	0	0	0	6	6	1	0	61	5	0	0	0	67	66.2	0	0	35	1	0	0	0	36	36	0	0	0	0	0	0	0	0	0
18:45	0	0	54	54	0	0	7	1	0	0	0	8	8	0	0	82	2	0	0	0	84	84	1	0	30	0	0	0	0	31	30.2	0	0	0	0	0	0	0	0	0
H/TOT	0	0	201	201	0	0	28	2	0	0	0	30	30	1	0	268	11	0	0	0	280	279.2	1	0	142	4	0	0	0	147	146.2	0	0	0	0	0	0	0	0	0
19:00	0	0	52	52.5	0	0	6	1	0	0	0	7	7	0	0	58	2	0	0	0	60	60	0	0	36	1	0	0	1	38	39	0	0	0	0	0	0	0	0	0
19:15	0	0	35	35	0	0	10	2	0	0	0	12	12	0	0	40	0	1	0	0	41	41.5	0	0	26	5	0	0	0	31	31	0	0	0	0	0	0	0	0	0
19:30	0	0	32	32	0	0	7	0	0	0	0	7	7	1	0	41	1	0	0	0	43	42.2	0	0	28	2	0	0	0	30	30	0	0	0	0	0	0	0	0	0
19:45	0	0	47	47	0	0	7	0	0	0	0	7	7	0	0	36	5	0	0	0	41	41	0	0	23	0	0	0	0	23	23	0	0	0	0	0	0	0	0	0
H/TOT	0	0	166	166.5	0	0	30	3	0	0	0	33	33	1	0	175	8	1	0	0	185	184.7	0	0	113	8	0	0	1	122	123	0	0	0	0	0	0	0	0	0
20:00	0	0	38	38	0	0	4	1	0	0	0	5	5	1	0	44	0	0	0	0	45	44.2	0	0	32	1	0	0	0	33	33	0	0	0	0	0	0	0	0	0
20:15	0	0	31	31	0	0	9	0	0	0	0	9	9	0	0	25	2	0	0	0	27	27	0	0	24	1	0	0	0	25	25	0	0	0	0	0	0	0	0	0
20:30	0	0	37	37.5	0	0	5	0	0	0	0	5	5	0	0	16	3	0	0	0	19	19	0	0	21	1	1	0	0	23	23.5	0	0	0	0	0	0	0	0	0
20:45	0	0	46	46	0	0	3	0	0	0	0	3	3	0	1	29	1	0	0	0	31	30.4	0	0	10	0	0	0	0	10	10	0	0	0	0	0	0	0	0	0
H/TOT	0	0	152	152.5	0	0	21	1	0	0	0	22	22	1	1	114	6	0	0	0	122	120.6	0	0	87	3	1	0	0	91	91.5	0	0	0	0	0	0	0	0	0
21:00	0	0	39	39	0	0	7	0	0	0	0	7	7	0	0	21	1	0	0	0	22	22	0	0	31	1	0	0	0	32	32	0	0	0	0	0	0	0	0	0
21:15	0	0	29	29	0	0	4	0	0	0	0	4	4	0	0	14	0	0	0	0	14	14	0	0	23	1	1	0	0	25	25.5	0	0	0	0	0	0	0	0	0
21:30	0	0	35	35	0	0	5	0	0	0	0	5	5	0	0	16	1	0	0	0	17	17	1	0	12	0	0	0	0	13	12.2	0	0	0	0	0	0	0	0	0
21:45	0	0	21	21	0	0	3	0	0	0	0	3	3	0	0	14	1	0	0	0	15	15	0	0	10	1	0	0	0	11	11	0	0	0	0	0	0	0	0	0
H/TOT	0	0	124	124	0	0	19	0	0	0	0	19	19	0	0	65	3	0	0	0	68	68	1	0	76	3	1	0	0	81	80.7	0	0	0	0	0	0	0	0	0
22:00	0	0	14	14	1	0	1	0	0	0	0	2	1.2	1	0	9	1	0	0	0	11	10.2	0	0	17	2	0	0	0	19	19	0	0	0	0	0	0	0	0	0
22:15	0	0	13	13	0	0	2	0	0	0	0	2	2	0	0	11	0	0	0	0	11	11	0	1	4	0	0	0	0	5	4.4	0	0	0	0	0	0	0	0	0
22:30	0	0	6	5.2	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	11	11	0	0	7	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0
22:45	0	0	14	14	0	0	1	0	0	0	0	1	1	0	0	8	0	0	0	0	8	8	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
H/TOT	0	0	47	46.2	1	0	4	0	0	0	0	5	4.2	1	0	39	1	0	0	0	41	40.2	0	1	30	2	0	0	0	33	32.4	0	0	0	0	0	0	0	0	0
23:00	0	0	10	10	0	0	1	0	0	0	0	1	1	0	0	5	0	0	0	0	5	5	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0
23:15	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0
23:30	0	0	4	4	0	0	1	0	0	0	0	1	1	0	0	5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:45	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0
H/TOT	0	0	25	25	0	0	2	0	0	0	0	2	2	0	0	20	0	0	0	0	20	20	0	0	11	0	0	0	0	11	11	0	0	0	0	0	0	0	0	0
24 TOT	0	6	2572	2582.3	7	0	312	33	1	0	0	353	347.9	20	5	3139	206	24	1	4	3399	3397.3	11	4	2033	141	13	0	9	2211	2215.3	0	0	3	0	0	0	0	3	3

C. TRICS consultation

Calculation Reference: AUDIT-561501-210330-0317

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : K - MIXED PRIV HOUS (FLATS AND HOUSES)
TOTAL VEHICLES

Selected regions and areas:

12	CONNAUGHT		
	CS	SLIGO	1 days
13	MUNSTER		
	CR	CORK	2 days
15	GREATER DUBLIN		
	DL	DUBLIN	3 days

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

Primary Filtering selection:

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

Parameter: No of Dwellings
Actual Range: 47 to 322 (units:)
Range Selected by User: 47 to 538 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/12 to 27/05/19

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

Selected survey days:

Monday	1 days
Tuesday	2 days
Wednesday	1 days
Friday	2 days

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

Selected survey types:

Manual count	6 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	2
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:

Industrial Zone	1
Residential Zone	4
Village	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.

Secondary Filtering selection:

Use Class:

C3	6 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:

All Surveys Included

Population within 1 mile:

1,001 to 5,000	1 days
5,001 to 10,000	1 days
10,001 to 15,000	1 days
25,001 to 50,000	2 days
50,001 to 100,000	1 days

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

Population within 5 miles:

25,001 to 50,000	1 days
100,001 to 125,000	1 days
125,001 to 250,000	1 days
500,001 or More	3 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	5 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.

Travel Plan:

No	6 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	6 days

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

LIST OF SITES relevant to selection parameters

1 CR-03-K-02 SEMI-DET. & FLATS CORK
SKEHARD ROAD
CORK
BALLINURE
Edge of Town
Residential Zone
Total No of Dwellings: 116
Survey date: FRIDAY *20/06/14* *Survey Type: MANUAL*

2 CR-03-K-03 TERRACED & FLATS CORK
SKEHARD ROAD
CORK
LAHARN
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 47
Survey date: FRIDAY *23/03/18* *Survey Type: MANUAL*

3 CS-03-K-01 FLATS & MIXED HOUSES SLIGO
STATION ROAD
BALLISODARE

Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 322
Survey date: MONDAY *27/05/19* *Survey Type: MANUAL*

4 DL-03-K-02 HOUSES & FLATS DUBLIN
MILLTOWN ROAD
DUBLIN
MILLTOWN
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 68
Survey date: TUESDAY *10/09/13* *Survey Type: MANUAL*

5 DL-03-K-03 HOUSES & FLATS DUBLIN
CHARLESTOWN
DUBLIN

Edge of Town
Industrial Zone
Total No of Dwellings: 322
Survey date: WEDNESDAY *11/09/13* *Survey Type: MANUAL*

6 DL-03-K-04 FLATS AND DUPLEXES DUBLIN
ALL HALLOWS SQUARE
DUBLIN
DRUMCONDRA
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 76
Survey date: TUESDAY *22/11/16* *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 03 - RESIDENTIAL/K - MIXED PRIV HOUS (FLATS AND HOUSES)
TOTAL VEHICLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	6	159	0.046	6	159	0.184	6	159	0.230
08:00 - 09:00	6	159	0.107	6	159	0.284	6	159	0.391
09:00 - 10:00	6	159	0.109	6	159	0.138	6	159	0.247
10:00 - 11:00	6	159	0.077	6	159	0.100	6	159	0.177
11:00 - 12:00	6	159	0.085	6	159	0.102	6	159	0.187
12:00 - 13:00	6	159	0.100	6	159	0.108	6	159	0.208
13:00 - 14:00	6	159	0.212	6	159	0.172	6	159	0.384
14:00 - 15:00	6	159	0.161	6	159	0.147	6	159	0.308
15:00 - 16:00	6	159	0.149	6	159	0.111	6	159	0.260
16:00 - 17:00	6	159	0.174	6	159	0.124	6	159	0.298
17:00 - 18:00	6	159	0.237	6	159	0.136	6	159	0.373
18:00 - 19:00	6	159	0.213	6	159	0.131	6	159	0.344
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.670			1.737			3.407

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.*

Parameter summary

Trip rate parameter range selected:	47 - 322 (units:)
Survey date date range:	01/01/12 - 27/05/19
Number of weekdays (Monday-Friday):	6
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-561501-210331-0304

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 01 - RETAIL
Category : I - SHOPPING CENTRE - LOCAL SHOPS
TOTAL VEHICLES

Selected regions and areas:

14	LEINSTER		
	WX	WEXFORD	1 days
15	GREATER DUBLIN		
	DL	DUBLIN	1 days
16	ULSTER (REPUBLIC OF IRELAND)		
	DN	DONEGAL	2 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:	856 to 3394 (units: sqm)
Range Selected by User:	504 to 4650 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/13 to 23/03/18

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:

Wednesday	1 days
Friday	1 days
Saturday	1 days
Sunday	1 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:

Town Centre	1
Edge of Town Centre	1
Suburban Area (PPS6 Out of 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:

Residential Zone	1
No Sub Category	3

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.

Secondary Filtering selection:

Use Class:

n/a	4 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 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:

10,001 to 15,000	1 days
15,001 to 20,000	3 days

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

Population within 5 miles:

25,001 to 50,000	3 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	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.

Petrol filling station:

Included in the survey count	0 days
Excluded from count or no filling station	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	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.

LIST OF SITES relevant to selection parameters

1	DL-01-I-07 DUNDRUM ROAD DUBLIN WINDY ARBOUR	LOCAL SHOPS		DUBLIN
	Suburban Area (PPS6 Out of Centre) No Sub Category Total Gross floor area:		1034 sqm	
	Survey date: WEDNESDAY		*01/10/14*	*Survey Type: MANUAL*
2	DN-01-I-01 PEARSE ROAD LETTERKENNY	LOCAL SHOPS		DONEGAL
	Edge of Town Centre No Sub Category Total Gross floor area:		856 sqm	
	Survey date: SATURDAY		*27/09/14*	*Survey Type: MANUAL*
3	DN-01-I-02 PEARSE ROAD LETTERKENNY	LOCAL SHOPS		DONEGAL
	Town Centre No Sub Category Total Gross floor area:		3394 sqm	
	Survey date: FRIDAY		*26/09/14*	*Survey Type: MANUAL*
4	WX-01-I-01 ST AIDAN'S ROAD WEXFORD	LOCAL SHOPS		WEXFORD
	Suburban Area (PPS6 Out of Centre) Residential Zone Total Gross floor area:		3060 sqm	
	Survey date: SUNDAY		*28/09/14*	*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/I - SHOPPING CENTRE - LOCAL SHOPS
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									
06:00 - 07:00									
07:00 - 08:00	3	1761	0.227	3	1761	0.246	3	1761	0.473
08:00 - 09:00	4	2086	0.551	4	2086	0.336	4	2086	0.887
09:00 - 10:00	4	2086	2.373	4	2086	1.594	4	2086	3.967
10:00 - 11:00	4	2086	2.565	4	2086	2.121	4	2086	4.686
11:00 - 12:00	4	2086	2.876	4	2086	2.505	4	2086	5.381
12:00 - 13:00	4	2086	2.972	4	2086	3.176	4	2086	6.148
13:00 - 14:00	4	2086	2.912	4	2086	2.948	4	2086	5.860
14:00 - 15:00	4	2086	2.984	4	2086	3.032	4	2086	6.016
15:00 - 16:00	4	2086	2.481	4	2086	2.709	4	2086	5.190
16:00 - 17:00	4	2086	2.888	4	2086	2.792	4	2086	5.680
17:00 - 18:00	4	2086	2.637	4	2086	2.912	4	2086	5.549
18:00 - 19:00	4	2086	1.342	4	2086	1.942	4	2086	3.284
19:00 - 20:00	2	2047	2.174	2	2047	2.467	2	2047	4.641
20:00 - 21:00	2	2047	1.466	2	2047	2.125	2	2047	3.591
21:00 - 22:00	2	2047	0.635	2	2047	0.684	2	2047	1.319
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			31.083			31.589			62.672

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.*

Parameter summary

Trip rate parameter range selected:	856 - 3394 (units: sqm)
Survey date date range:	01/01/13 - 23/03/18
Number of weekdays (Monday-Friday):	2
Number of Saturdays:	1
Number of Sundays:	1
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-561501-210407-0446

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 07 - LEISURE
Category : O - LEISURE PARK
TOTAL VEHICLES

Selected regions and areas:
08 NORTH WEST
LC LANCASHIRE 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: 7950 to 7950 (units: sqm)
Range Selected by User: 4050 to 30000 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/13 to 22/06/19

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 1 days

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

Selected survey types:
Manual count 1 days
Directional ATC Count 0 days

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

Selected Locations:
Town Centre 1

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

Selected Location Sub Categories:
Built-Up Zone 1

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

Secondary Filtering selection:

Use Class:
n/a 1 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 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:
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:
125,001 to 250,000 1 days

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

Car ownership within 5 miles:
0.6 to 1.0 1 days

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

Travel Plan:
No 1 days

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

PTAL Rating:
No PTAL Present 1 days

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

LIST OF SITES relevant to selection parameters

1 LC-07-O-04 LEISURE PARK LANCASHIRE
MAYSON STREET
BLACKBURN

Town Centre
Built-Up Zone
Total Gross floor area: 7950 sqm
Survey date: SATURDAY *22/06/19* *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 07 - LEISURE/O - LEISURE PARK
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									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00	1	7950	0.428	1	7950	0.214	1	7950	0.642
09:00 - 10:00	1	7950	0.780	1	7950	0.314	1	7950	1.094
10:00 - 11:00	1	7950	0.906	1	7950	0.541	1	7950	1.447
11:00 - 12:00	1	7950	1.258	1	7950	0.931	1	7950	2.189
12:00 - 13:00	1	7950	1.723	1	7950	1.182	1	7950	2.905
13:00 - 14:00	1	7950	1.648	1	7950	1.321	1	7950	2.969
14:00 - 15:00	1	7950	1.535	1	7950	1.786	1	7950	3.321
15:00 - 16:00	1	7950	1.811	1	7950	1.572	1	7950	3.383
16:00 - 17:00	1	7950	1.736	1	7950	1.472	1	7950	3.208
17:00 - 18:00	1	7950	1.522	1	7950	1.786	1	7950	3.308
18:00 - 19:00	1	7950	2.352	1	7950	1.874	1	7950	4.226
19:00 - 20:00	1	7950	1.522	1	7950	1.597	1	7950	3.119
20:00 - 21:00	1	7950	1.233	1	7950	1.635	1	7950	2.868
21:00 - 22:00	1	7950	0.767	1	7950	1.421	1	7950	2.188
22:00 - 23:00	1	7950	0.805	1	7950	1.447	1	7950	2.252
23:00 - 24:00	1	7950	0.327	1	7950	0.503	1	7950	0.830
Total Rates:			20.353			19.596			39.949

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.*

Parameter summary

Trip rate parameter range selected:	7950 - 7950 (units: sqm)
Survey date date range:	01/01/13 - 22/06/19
Number of weekdays (Monday-Friday):	0
Number of Saturdays:	1
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.

D. Modelling Output Reports

Junctions 9

PICADY 9 - Priority Intersection Module

Filename: Junction 1 - AM-PM.j9
Path: M:\Projects\23\23-102 Mooretown\Design\Traffic\2024-02 - Modelling\Junction 1
Report generation date: 05/03/2024 12:02:48

Generated on 05/03/2024 12:03:22 using Junctions 9 (9.5.1.7462)

Summary of junction performance

	AM			PM		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
	Junction 1 - 2023 Base Year					
Stream B-C	0.4	8.70	0.27	1.1	12.82	0.52
Stream B-A	0.2	14.47	0.20	0.3	14.44	0.20
Stream C-AB	3.1	18.10	0.71	0.6	7.37	0.29
	Junction 1 - 2027 Do Nothing					
Stream B-C	0.5	10.14	0.31	1.5	17.06	0.61
Stream B-A	0.4	18.98	0.28	0.5	20.23	0.33
Stream C-AB	6.2	31.53	0.84	0.8	7.45	0.34
	Junction 1 - 2027 Do Something					
Stream B-C	0.5	10.58	0.32	1.6	18.36	0.63
Stream B-A	0.4	20.43	0.31	0.6	22.34	0.37
Stream C-AB	7.2	36.07	0.86	0.9	7.42	0.35
	Junction 1 - 2032 Do Nothing					
Stream B-C	0.5	10.90	0.34	1.9	20.36	0.66
Stream B-A	0.5	21.66	0.32	0.6	24.24	0.38
Stream C-AB	10.4	51.46	0.91	1.0	7.77	0.38
	Junction 1 - 2032 Do Something					
Stream B-C	0.5	11.54	0.36	2.1	22.62	0.69
Stream B-A	0.5	23.87	0.35	0.7	27.79	0.43
Stream C-AB	12.8	62.17	0.94	1.0	7.76	0.39
	Junction 1 - 2042 Do Nothing					
Stream B-C	0.6	11.91	0.37	2.5	25.31	0.72
Stream B-A	0.6	25.42	0.37	0.8	30.53	0.45
Stream C-AB	17.7	84.80	0.97	1.1	8.07	0.41
	Junction 1 - 2042 Do Something					
Stream B-C	0.6	12.73	0.39	2.8	29.08	0.75
Stream B-A	0.7	28.50	0.41	1.0	36.48	0.51
Stream C-AB	21.3	100.86	1.00	1.2	8.07	0.42

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

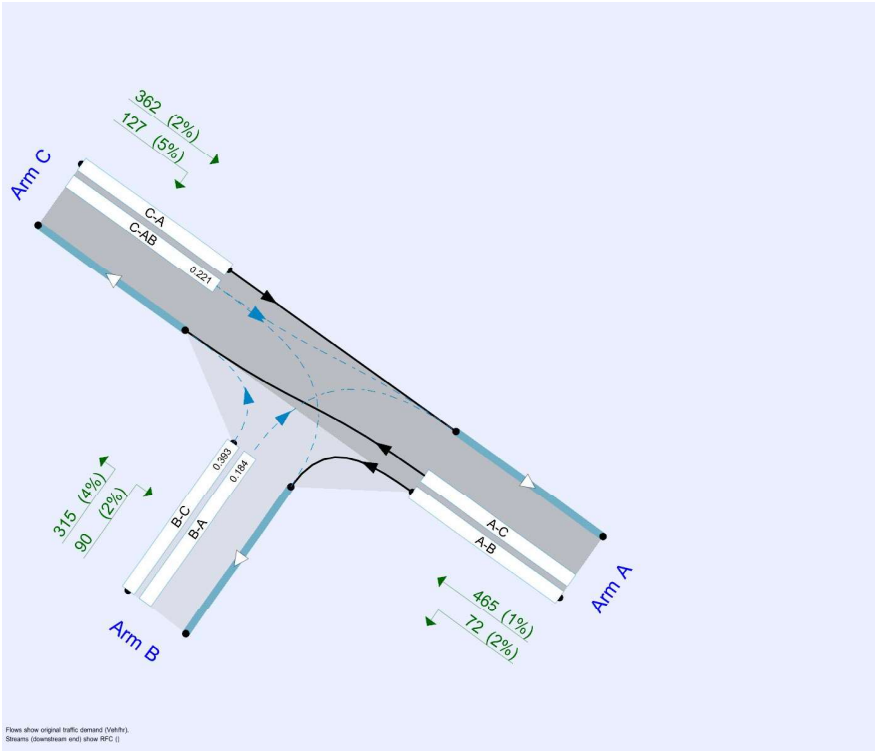
File summary

File Description

Title	Junction 1
Location	Mooretown
Site number	
Date	05/03/2024
Version	2
Status	
Identifier	
Client	
Jobnumber	23-102
Enumerator	DOMAIN\f.maio
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	Veh	Veh	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)
		0.90	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	2023 Base Year	AM	ONE HOUR	08:00	09:30	15
D2	2023 Base Year	PM	ONE HOUR	17:00	18:30	15
D3	2027 Do Nothing	AM	ONE HOUR	08:00	09:30	15
D4	2027 Do Nothing	PM	ONE HOUR	17:00	18:30	15
D5	2027 Do Something	AM	ONE HOUR	08:00	09:30	15
D6	2027 Do Something	PM	ONE HOUR	17:00	18:30	15
D7	2032 Do Nothing	AM	ONE HOUR	08:00	09:30	15
D8	2032 Do Nothing	PM	ONE HOUR	17:00	18:30	15
D9	2032 Do Something	AM	ONE HOUR	08:00	09:30	15
D10	2032 Do Something	PM	ONE HOUR	17:00	18:30	15
D11	2042 Do Nothing	AM	ONE HOUR	08:00	09:30	15
D12	2042 Do Nothing	PM	ONE HOUR	17:00	18:30	15
D13	2042 Do Something	AM	ONE HOUR	08:00	09:30	15
D14	2042 Do Something	PM	ONE HOUR	17:00	18:30	15

Generated on 05/03/2024 12:03:22 using Junctions 9 (9.5.1.7462)

Analysis Set Details

ID	Name	Network flow scaling factor (%)
A1	Junction 1	100.000

Junction 1 - 2023 Base Year, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		9.01	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	R125 Rathbeale Road (E)		Major
B	R108 Naul Road (S)		Minor
C	R125 Rathbeale Road (W)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	7.00			100.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B	One lane plus flare	10.00	6.00	4.10	3.30	3.00	✓	1.00	80	120

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	582	0.101	0.256	0.161	0.366
B-C	766	0.112	0.284	-	-
C-B	632	0.234	0.234	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2023 Base Year	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 (Veh/hr)	Scaling Factor (%)
A		✓	359	100.000
B		✓	194	100.000
C		✓	524	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	128	231
	B	56	0	138
	C	259	265	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	3	3
	B	5	0	12
	C	2	9	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-C	0.27	8.70	0.4	A
B-A	0.20	14.47	0.2	B
C-AB	0.71	18.10	3.1	C
C-A				
A-B				
A-C				

Junction 1 - 2023 Base Year, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		5.15	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	2023 Base Year	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	420	100.000
B		✓	337	100.000
C		✓	359	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	51	369
	B	58	0	279
	C	247	112	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	2	1
	B	2	0	4
	C	2	5	0

Generated on 05/03/2024 12:03:22 using Junctions 9 (9.5.1.7462)

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-C	0.52	12.82	1.1	B
B-A	0.20	14.44	0.3	B
C-AB	0.29	7.37	0.6	A
C-A				
A-B				
A-C				

Junction 1 - 2027 Do Nothing, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		14.49	B

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	2027 Do Nothing	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 (Veh/hr)	Scaling Factor (%)
A		✓	475	100.000
B		✓	215	100.000
C		✓	587	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	157	318
	B	68	0	147
	C	304	283	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	3	3
	B	5	0	12
	C	2	9	0

Generated on 05/03/2024 12:03:22 using Junctions 9 (9.5.1.7462)

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-C	0.31	10.14	0.5	B
B-A	0.28	18.98	0.4	C
C-AB	0.84	31.53	6.2	D
C-A				
A-B				
A-C				

Junction 1 - 2027 Do Nothing, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		6.34	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2027 Do Nothing	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	495	100.000
B		✓	377	100.000
C		✓	444	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	65	430
	B	79	0	298
	C	325	119	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	2	1
	B	2	0	4
	C	2	5	0

Generated on 05/03/2024 12:03:22 using Junctions 9 (9.5.1.7462)

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-C	0.61	17.06	1.5	C
B-A	0.33	20.23	0.5	C
C-AB	0.34	7.45	0.8	A
C-A				
A-B				
A-C				

Junction 1 - 2027 Do Something, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		16.20	C

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	2027 Do Something	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 (Veh/hr)	Scaling Factor (%)
A		✓	508	100.000
B		✓	218	100.000
C		✓	597	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	165	343
	B	71	0	147
	C	314	283	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	3	3
	B	5	0	12
	C	2	9	0

Generated on 05/03/2024 12:03:22 using Junctions 9 (9.5.1.7462)

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-C	0.32	10.58	0.5	B
B-A	0.31	20.43	0.4	C
C-AB	0.86	36.07	7.2	E
C-A				
A-B				
A-C				

Junction 1 - 2027 Do Something, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		6.69	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)
D6	2027 Do Something	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	511	100.000
B		✓	384	100.000
C		✓	466	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	69	442
	B	86	0	298
	C	347	119	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	2	1
	B	2	0	4
	C	2	5	0

Generated on 05/03/2024 12:03:22 using Junctions 9 (9.5.1.7462)

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-C	0.63	18.36	1.6	C
B-A	0.37	22.34	0.6	C
C-AB	0.35	7.42	0.9	A
C-A				
A-B				
A-C				

Junction 1 - 2032 Do Nothing, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		23.33	C

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	2032 Do Nothing	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 (Veh/hr)	Scaling Factor (%)
A		✓	497	100.000
B		✓	227	100.000
C		✓	621	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	165	332
	B	71	0	156
	C	321	300	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	3	3
	B	5	0	12
	C	2	9	0

Generated on 05/03/2024 12:03:22 using Junctions 9 (9.5.1.7462)

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-C	0.34	10.90	0.5	B
B-A	0.32	21.66	0.5	C
C-AB	0.91	51.46	10.4	F
C-A				
A-B				
A-C				

Junction 1 - 2032 Do Nothing, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		7.44	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	2032 Do Nothing	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	521	100.000
B		✓	397	100.000
C		✓	468	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	68	453
	B	82	0	315
	C	341	127	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	2	1
	B	2	0	4
	C	2	5	0

Generated on 05/03/2024 12:03:22 using Junctions 9 (9.5.1.7462)

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-C	0.66	20.36	1.9	C
B-A	0.38	24.24	0.6	C
C-AB	0.38	7.77	1.0	A
C-A				
A-B				
A-C				

Junction 1 - 2032 Do Something, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		27.61	D

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	2032 Do Something	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 (Veh/hr)	Scaling Factor (%)
A		✓	531	100.000
B		✓	231	100.000
C		✓	630	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	173	358
	B	75	0	156
	C	330	300	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	3	3
	B	5	0	12
	C	2	9	0

Generated on 05/03/2024 12:03:22 using Junctions 9 (9.5.1.7462)

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-C	0.36	11.54	0.5	B
B-A	0.35	23.87	0.5	C
C-AB	0.94	62.17	12.8	F
C-A				
A-B				
A-C				

Junction 1 - 2032 Do Something, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		8.11	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)
D10	2032 Do Something	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	537	100.000
B		✓	405	100.000
C		✓	489	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	72	465
	B	90	0	315
	C	362	127	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	2	1
	B	2	0	4
	C	2	5	0

Generated on 05/03/2024 12:03:22 using Junctions 9 (9.5.1.7462)

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-C	0.69	22.62	2.1	C
B-A	0.43	27.79	0.7	D
C-AB	0.39	7.76	1.0	A
C-A				
A-B				
A-C				

Junction 1 - 2042 Do Nothing, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		38.30	E

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	2042 Do Nothing	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 (Veh/hr)	Scaling Factor (%)
A		✓	518	100.000
B		✓	239	100.000
C		✓	650	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	172	346
	B	75	0	164
	C	335	315	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	3	3
	B	5	0	12
	C	2	9	0

Generated on 05/03/2024 12:03:22 using Junctions 9 (9.5.1.7462)

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-C	0.37	11.91	0.6	B
B-A	0.37	25.42	0.6	D
C-AB	0.97	84.80	17.7	F
C-A				
A-B				
A-C				

Junction 1 - 2042 Do Nothing, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		9.07	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	2042 Do Nothing	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	545	100.000
B		✓	417	100.000
C		✓	488	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	71	474
	B	86	0	331
	C	355	133	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	2	1
	B	2	0	4
	C	2	5	0

Generated on 05/03/2024 12:03:22 using Junctions 9 (9.5.1.7462)

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-C	0.72	25.31	2.5	D
B-A	0.45	30.53	0.8	D
C-AB	0.41	8.07	1.1	A
C-A				
A-B				
A-C				

Junction 1 - 2042 Do Something, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		44.77	E

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	2042 Do Something	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 (Veh/hr)	Scaling Factor (%)
A		✓	552	100.000
B		✓	242	100.000
C		✓	660	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	181	371
	B	78	0	164
	C	345	315	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	3	3
	B	5	0	12
	C	2	9	0

Generated on 05/03/2024 12:03:22 using Junctions 9 (9.5.1.7462)

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-C	0.39	12.73	0.6	B
B-A	0.41	28.50	0.7	D
C-AB	1.00	100.86	21.3	F
C-A				
A-B				
A-C				

Junction 1 - 2042 Do Something, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		10.21	B

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	2042 Do Something	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	562	100.000
B		✓	424	100.000
C		✓	510	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	75	487
	B	93	0	331
	C	377	133	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	2	1
	B	2	0	4
	C	2	5	0

Generated on 05/03/2024 12:03:22 using Junctions 9 (9.5.1.7462)

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-C	0.75	29.08	2.8	D
B-A	0.51	36.48	1.0	E
C-AB	0.42	8.07	1.2	A
C-A				
A-B				
A-C				

TRANSYT 16

Version: 16.0.1.8473

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

Filename: Junction 2 - AM.t16
Path: M:\Projects\23\23-102 Mooretown\Design\Traffic\2024-02 - Modelling\Junction 2
Report generation date: 05/03/2024 12:17:50

»A1 - Junction 2 : D1 - 2023 Base Year, AM :
»A1 - Junction 2 : D2 - 2027 Do Nothing, AM :
»A1 - Junction 2 : D3 - 2027 Do Something, AM :
»A1 - Junction 2 : D4 - 2032 Do Nothing, AM :
»A1 - Junction 2 : D5 - 2032 Do Something, AM :
»A1 - Junction 2 : D6 - 2042 Do Nothing, AM :
»A1 - Junction 2 : D7 - 2042 Do Something, AM :

Summary of network performance

	AM				
	Set ID	PI (£ per hr)	Total delay (PCU-hr/hr)	Highest DOS	Number oversaturated
	Junction 2 - 2023 Base Year				
Network	D1	236.45	15.89	65% (TS A/1)	0 (0%)
	Junction 2 - 2027 Do Nothing				
Network	D2	8156.69	25.18	79% (TS A/1)	0 (0%)
	Junction 2 - 2027 Do Something				
Network	D3	8172.27	26.22	83% (TS A/1)	0 (0%)
	Junction 2 - 2032 Do Nothing				
Network	D4	14141.13	26.89	83% (TS A/1)	0 (0%)
	Junction 2 - 2032 Do Something				
Network	D5	14161.78	28.27	87% (TS A/1)	0 (0%)
	Junction 2 - 2042 Do Nothing				
Network	D6	22259.17	28.79	87% (TS A/1)	0 (0%)
	Junction 2 - 2042 Do Something				
Network	D7	22288.14	30.74	91% (TS A/1)	0 (0%)

Generated on 05/03/2024 12:18:18 using TRANSYT 16 (16.0.1.8473)

File summary

File description

File title	Junction 2
Location	Mooretown
Site number	
UTCRegion	
Driving side	Left
Date	01/03/2024
Version	1
Status	(new file)
Identifier	AM
Client	
Jobnumber	23-102
Enumerator	DOMAIN\f.silva
Description	

Model and Results

Enable controller offsets	Enable fuel consumption	Enable quick flares	Display journey time results	Display OD matrix distances	Display level of service results	Display blocking and starvation results	Display end of red and green queue results	Display excess queue results	Display separate uniform and random results	Display unweighted results	Display TRANSYT 12 style timings	Display effective greens in results	Display Red-With-Amber	Display End-Of-Green Amber	c m
			✓			✓		✓	✓						

Units

Cost units	Speed units	Distance units	Fuel economy units	Fuel rate units	Mass units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
£	kph	m	mpg	l/h	kg	PCU	PCU	perHour	s	-Hour	perHour

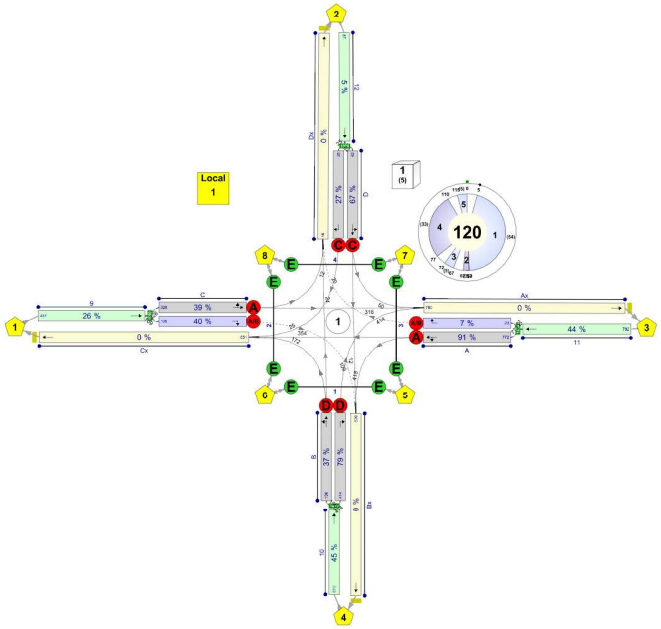
Sorting

Show names instead of IDs	Sorting direction	Sorting type	Ignore prefixes when sorting	Analysis/demand set sorting	Link grouping	Source grouping	Colour Analysis/Demand Sets
	Ascending	Numerical		ID	Normal	Normal	✓

Simulation options

Criteria type	Stop criteria (%)	Stop criteria time (s)	Stop criteria number of trials	Random seed	Results refresh speed (s)	Average animation capture interval (s)	Use quick response	Do flow sampling	Uniform vehicle generation	Last run random seed	Last run number of trials	Last run time taken (s)
Delay	3.00	999	200	-1	3	60	✓			0	0	0.00

Network Diagrams



Junction 2
Diagram produced using TRANSYT 16.0.1.8473

A1 - Junction 2
D1 - 2023 Base Year, AM

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item wi wors unsignal PRC
1	05/03/2024 12:17:35	05/03/2024 12:17:35	0.76	08:00	120	236.45	15.89	65.22	A/1	0	0	A/1	11/1

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set(s)	Specific Demand Set (s)	Optimise specific Demand Set(s)	Demand Set(s) to optimise	Include in report	Locked
Junction 2			✓	D1,D2,D3,D4,D5,D6,D7	✓	D7	✓	

Demand Set Details

Scenario name	Time Period name	Description	Composite	Demand sets	Start time (HH:mm)	Locked	Run automatically
2023 Base Year	AM	(untitled)			08:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120	120	120		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)	Missing stage transition options
10000.00	10000.00	10000.00	2	Assume banned

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from traffic model	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓			Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy (%)	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Standard accuracy Hill Climb	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

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Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
9			1
10			1
11			1
12			1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Auto-calculate cell saturation flow	Cell saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			60.00	✓	Sum of lanes	1850			✓		Normal	
	2				60.00	✓	Sum of lanes	1850	✓	1800	✓	✓	Normal	
Ax	1	(untitled)			300.00								Normal	
B	1	(untitled)			45.00	✓	Sum of lanes	1850			✓		Normal	
	2				45.00	✓	Sum of lanes	1850	✓	1800	✓		Normal	
Bx	1	(untitled)			300.00								Normal	
C	1	(untitled)			14.00	✓	Sum of lanes	1850			✓		Normal	
	2				14.00	✓	Sum of lanes	1850	✓	1800	✓	✓	Normal	
Cx	1	(untitled)			300.00								Normal	
D	1	(untitled)			20.00	✓	Sum of lanes	1850			✓		Normal	
	2				20.00	✓	Sum of lanes	1850	✓	1800	✓		Normal	
Dx	1	(untitled)			100.00								Normal	
9	1				300.00	✓	Sum of lanes	1800					Normal	
10	1				300.00	✓	Sum of lanes	1800					Normal	
11	1				300.00	✓	Sum of lanes	1800					Normal	
12	1				100.00	✓	Sum of lanes	1800					Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1850
	2	1	(untitled)			1850
Ax	1	1	(untitled)			
B	1	1	(untitled)			1850
	2	1	(untitled)			1850
Bx	1	1	(untitled)			
C	1	1	(untitled)			1850
	2	1	(untitled)			1850
Cx	1	1	(untitled)			
D	1	1	(untitled)			1850
	2	1	(untitled)			1850
Dx	1	1	(untitled)			
9	1	1	(untitled)			1800
10	1	1	(untitled)			1800
11	1	1	(untitled)			1800
12	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Queue limit (PCU)	Excess queue penalty (£)	Has degree of saturation limit
A	1	NetworkDefault	100	100	100		0.00				
	2	CTM	100	100	100		12.00	✓	12.00	99999.00	
Ax	1	NetworkDefault	100	100	100		0.00				
B	1	NetworkDefault	100	100	100		0.00				
	2	CTM	100	100	100		9.00	✓	9.00	99999.00	
Bx	1	NetworkDefault	100	100	100		0.00				
C	1	NetworkDefault	100	100	100		0.00				
	2	CTM	100	100	100		3.00	✓	3.00	99999.00	
Cx	1	NetworkDefault	100	100	100		0.00				
D	1	NetworkDefault	100	100	100		0.00				
	2	CTM	100	100	100		4.00	✓	4.00	99999.00	
Dx	1	NetworkDefault	100	100	100		0.00				
9	1	NetworkDefault	100	100	100		0.00				
10	1	NetworkDefault	100	100	100		0.00				
11	1	NetworkDefault	100	100	100		0.00				
12	1	NetworkDefault	100	100	100		0.00				

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
A	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	12.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Ax	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
B	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	9.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Bx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
C	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	3.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Cx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
D	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	4.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Dx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
9	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
10	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
11	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
12	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
A	1	553	553
	2	1	1
Ax	1	450	450
B	1	101	101
	2	204	204
Bx	1	371	371
C	1	247	247
	2	74	74
Cx	1	359	359
D	1	3	3
	2	0	0
Dx	1	3	3
9	1	321	321
10	1	305	305
11	1	554	554
12	1	3	3

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	A		
	2	1	A	✓	B
B	1	1	D		
	2	1	D		
C	1	1	A		
	2	1	A	✓	B
D	1	1	C		
	2	1	C		

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
9	1	36.00	30.00
10	1	36.00	30.00
11	1	36.00	30.00
12	1	12.00	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A	1	1	11/1	A/1	7.20	30.00	✓	Straight	Straight Movement
	2	1	11/1	A/2	7.20	30.00	✓	Straight	Straight Movement
Ax	1	1	C/1	Ax/1	36.00	30.00	✓	Straight	Straight Movement
B	1	1	10/1	B/1	5.40	30.00	✓	Straight	Straight Movement
	2	1	10/1	B/2	5.40	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	36.00	30.00	✓	Nearside	38.43
C	1	1	9/1	C/1	1.68	30.00	✓	Straight	Straight Movement
	2	1	9/1	C/2	1.68	30.00	✓	Straight	Straight Movement
Cx	1	1	A/1	Cx/1	36.00	30.00	✓	Straight	Straight Movement
D	1	1	12/1	D/1	2.40	30.00	✓	Straight	Straight Movement
	2	1	12/1	D/2	2.40	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	12.00	30.00	✓	Nearside	39.36
Ax	1	2	D/1	Ax/1	36.00	30.00	✓	Nearside	39.61
Bx	1	2	D/1	Bx/1	36.00	30.00	✓	Straight	Straight Movement
Cx	1	2	B/1	Cx/1	36.00	30.00	✓	Nearside	43.43
Dx	1	2	B/1	Dx/1	12.00	30.00	✓	Straight	Straight Movement
Ax	1	3	B/2	Ax/1	36.00	30.00	✓	Offside	47.56
Bx	1	3	C/2	Bx/1	36.00	30.00	✓	Offside	52.89
Cx	1	3	D/2	Cx/1	36.00	30.00	✓	Offside	51.21
Dx	1	3	A/2	Dx/1	12.00	30.00	✓	Offside	47.76

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
(ALL)	2	AllTraffic		

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible
2		TrafficStream	C/1	100	0.00	
		TrafficStream	A/1	100	0.00	

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Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	12.00	8.00	5.40
2	(untitled)		1		Farside	10.00	6.67	5.40
3	(untitled)		1		Farside	12.00	8.00	5.40
4	(untitled)		1		Farside	13.00	8.67	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25				

Normal Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	2	245	74	0	0	0	0
	2	0	0	1	2	0	0	0	0
	3	258	1	0	295	0	0	0	0
	4	101	0	204	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	9/1	Cx/1	#0000FF
	2	(untitled)	12/1	Dx/1	#FF0000
	3	(untitled)	11/1	Ax/1	#00FF00
	4	(untitled)	10/1	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#008000
	7	(untitled)	4:2E, 3:1E	4:2X, 3:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	19		3	4	11/1, A/1, Bx/1	Normal	295
	20		4	1	10/1, B/1, Cx/1	Normal	101
	45		1	2	9/1, C/1, Dx/1	Normal	2
	46		1	3	9/1, C/1, Ax/1	Normal	245
	47		1	4	9/1, C/2, Bx/1	Normal	74
	48		4	3	10/1, B/2, Ax/1	Normal	204
	49		4	2	10/1, B/1, Dx/1	Normal	0
	50		3	2	11/1, A/2, Dx/1	Normal	1
	51		3	1	11/1, A/1, Cx/1	Normal	258
	52		2	1	12/1, D/2, Cx/1	Normal	0
	53		2	3	12/1, D/1, Ax/1	Normal	1
	54		2	4	12/1, D/1, Bx/1	Normal	2

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	7	4:1E, 4:2X	Normal	50
	18		8	6	2:2E, 2:1X	Normal	50
	22		5	7	3:2E, 3:1X	Normal	50
	23		5	6	1:1E, 1:2X	Normal	50
	34		6	8	2:1E, 2:2X	Normal	50
	35		6	5	1:2E, 1:1X	Normal	50
	41		7	8	4:2E, 4:1X	Normal	50
	42		7	5	3:1E, 3:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)	Minimum possible cycle time (s)
1	(untitled)		1	NetworkDefault	120	120

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Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	54	300	0	0	Traffic	
	B	(untitled)	3	3	0	0	Traffic	
	C	(untitled)	5	300	0	0	Traffic	
	D	(untitled)	33	33	0	0	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	3

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)	Run every N cycles	Probability of running (%)
1	1	A	1	1	100
	2	B	1	1	100
	3	C	1	1	100
	4	D	1	1	100
	5	E	1	1	100

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)	Single	1, 2, 3, 4, 5	59, 62, 72, 110, 0	120	
	2	(untitled)	Single	1, 2, 3, 5, 4	22, 45, 72, 98, 125	120	
	3	(untitled)	Single	1, 2, 4, 3, 5	22, 45, 72, 99, 125	120	
	4	(untitled)	Single	1, 2, 4, 5, 3	22, 45, 72, 98, 125	120	
	5	(untitled)	Single	1, 2, 5, 3, 4	22, 45, 71, 98, 125	120	
	6	(untitled)	Single	1, 2, 5, 4, 3	22, 45, 71, 98, 125	120	
	7	(untitled)	Single	1, 3, 2, 4, 5	21, 47, 74, 100, 125	125	
	8	(untitled)	Single	1, 3, 2, 5, 4	21, 47, 74, 99, 125	125	
	9	(untitled)	Single	1, 3, 4, 2, 5	21, 47, 73, 100, 125	125	
	10	(untitled)	Single	1, 3, 4, 5, 2	22, 49, 76, 102, 0	120	

Intergreen Matrix for Controller Stream 1

		To					
		A	B	C	D	E	
From	A		0	5	5	5	
	B	0		5	5	5	
	C	5	5		5	5	
	D	5	5	5		5	
	E	5	5	5	5		

Banned Stage transitions for Controller Stream 1

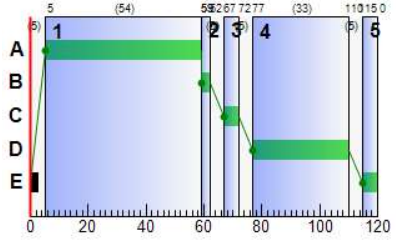
		To					
		1	2	3	4	5	
From	1						
	2						
	3						
	4						
	5						

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	A	5	59	54
A	2	1	1	A	5	59	54
B	1	1	1	D	77	110	33
B	2	1	1	D	77	110	33
C	1	1	1	A	5	59	54
C	2	1	1	A	5	59	54
D	1	1	1	C	67	72	5
D	2	1	1	C	67	72	5

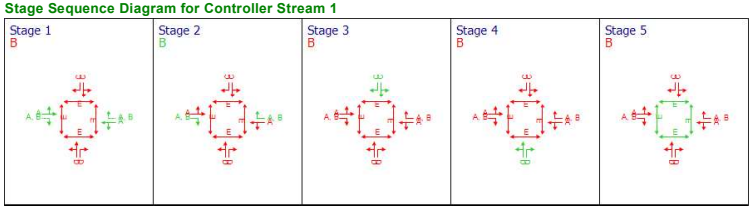
Phase Timings Diagram

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

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Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	65	53	553	1850	54	29.06	14.74	141.24	63.39	5.45	68.83
		2	0	27442	1	570	57	960.85	0.02	0.14	3.79	0.01	3.80
	Ax	1	0	Unrestricted	450	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	19	419	101	1850	33	33.42	2.55	32.56	13.31	0.95	14.26
		2	39	157	204	1850	33	39.03	5.36	59.52	31.40	2.01	33.41
	Bx	1	0	Unrestricted	371	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	29	243	247	1850	54	21.19	5.21	213.80	20.64	1.90	22.55
		2	27	272	74	570	57	22.26	1.84	61.17	6.50	0.50	7.00
	Cx	1	0	Unrestricted	359	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	3	2983	3	1850	5	55.28	0.00	0.02	0.65	0.04	0.69
		2	0	Unrestricted	0	1850	5	0.00	0.00	0.00	1.23	0.00	1.23
	Dx	1	0	Unrestricted	3	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	18	461	321	1800	120	0.22	0.02	0.04	0.27	0.00	0.27
	10	1	17	490	305	1800	120	0.20	0.02	0.03	0.25	0.00	0.25
	11	1	31	225	554	1800	120	0.44	0.07	0.13	0.97	0.00	0.97
	12	1	0	59900	3	1800	120	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow (PCU/hr)	Calculated capacity (PCU/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	A	1	553	553	0		1850	848	65		53	0.00	54
		2	1	1	0		570	275	0		27442	0.00	57
	Ax	1	450	450	0		Unrestricted	Unrestricted	0		Unrestricted	0.55	120
	B	1	101	101	0		1850	524	19		419	0.00	33
		2	204	204	0		1850	524	39		157	0.00	33
	Bx	1	371	371	0		Unrestricted	Unrestricted	0		Unrestricted	0.89	120
	C	1	247	247	0		1850	848	29		243	0.00	54
		2	74	74	0		570	275	27		272	0.00	57
	Cx	1	359	359	0		Unrestricted	Unrestricted	0		Unrestricted	0.54	120
	D	1	3	3	0		1850	93	3		2983	0.00	5
		2	0	0	0		1850	93	0		Unrestricted	0.00	5
	Dx	1	3	3	0		Unrestricted	Unrestricted	0		Unrestricted	1.01	120
	9	1	321	321	0		1800	1800	18		461	0.00	120
	10	1	305	305	0		1800	1800	17		490	0.00	120
	11	1	554	554	0		1800	1800	31		225	0.00	120
	12	1	3	3	0		1800	1800	0		59900	0.00	120

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	7.20	29.06	3.86	0.61	63.39	78.53	416.24	18.04	5.45
		2	7.20	960.85	0.00	0.26	3.79	51.69	0.52	0.00	0.01
	Ax	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	5.40	33.42	0.91	0.02	13.31	74.70	74.75	0.69	0.95
		2	5.40	39.03	1.96	0.25	31.40	78.56	156.56	3.72	2.01
	Bx	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	1.68	21.19	1.39	0.06	20.64	61.43	149.94	1.79	1.90
		2	1.68	22.26	0.39	0.07	6.50	53.66	38.23	1.48	0.50
	Cx	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	2.40	55.28	0.05	0.00	0.65	94.01	2.82	0.00	0.04
		2	0.00	0.00	0.00	0.09	1.23	0.00	0.00	0.00	0.00
	Dx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	36.00	0.22	0.00	0.02	0.27	0.00	0.00	0.00	0.00
	10	1	36.00	0.20	0.00	0.02	0.25	0.00	0.00	0.00	0.00
	11	1	36.00	0.44	0.00	0.07	0.97	0.00	0.00	0.00	0.00
	12	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Average storage excess queue (PCU)	Average limit excess queue (PCU)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	14.74	10.43	141.24	0.52	0.00	0.00	0.00	0.00	0.00	
		2	12.00	0.02	12.00	0.14	0.00	0.00	0.00	57.00	0.00	57.00	
	Ax	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	1.00	0.00	1.00	
	B	1	0.00	2.55	7.83	32.56	0.00	0.00	0.00	0.00	0.00	0.00	
		2	9.00	5.36	9.00	59.52	0.00	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	43.00	0.00	43.00	
	C	1	0.00	5.21	2.43	213.80	0.48	0.00	0.00	0.00	0.00	0.00	
		2	3.00	1.84	3.00	61.17	0.00	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	6.00	0.00	6.00	
	D	1	0.00	0.00	3.48	0.02	0.00	0.00	0.00	5.00	0.00	5.00	
		2	4.00	0.00	4.00	0.00	0.00	0.00	0.00	6.00	0.00	6.00	
	Dx	1	0.00	0.00	17.39	0.00	0.00	0.00	0.00	120.00	0.00	120.00	
	9	1	0.00	0.02	52.17	0.04	0.00	0.00	0.00	0.00	41.00	41.00	
	10	1	0.00	0.02	52.17	0.03	0.00	0.00	0.00	0.00	0.00	0.00	
	11	1	0.00	0.07	52.17	0.13	0.00	0.00	0.00	0.00	29.00	29.00	
	12	1	0.00	0.00	17.39	0.00	0.00	0.00	0.00	120.00	0.00	120.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	33.18	5.57	5.96	36.26
		2	0.06	0.01	9.19	23.50
	Ax	1	135.00	4.50	30.00	36.00
	B	1	4.55	1.09	4.17	38.82
		2	9.18	2.39	3.83	42.26
	Bx	1	111.30	3.71	30.00	36.00
	C	1	3.46	1.57	2.20	22.87
		2	1.04	0.47	2.20	22.89
	Cx	1	107.70	3.59	30.00	36.00
	D	1	0.06	0.05	1.25	57.68
		2	0.00	0.00	0.00	0.00
	Dx	1	0.30	0.01	30.00	12.00
	9	1	96.30	3.23	29.82	36.22
	10	1	91.50	3.07	29.83	36.20
	11	1	166.20	5.61	29.63	36.44
	12	1	0.30	0.01	30.00	12.00

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (PCU)	Mean End of Green Queue EoTS (PCU)	Mean End of Red Queue EoTS (PCU)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	14.74	0.61	10.59	1.00	0.00	68.83
		2	0.00	0.00	✓	0.02	0.00	0.02	1.00	0.00	3.80
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	2.55	0.02	2.44	1.00	0.00	14.26
		2	0.00	0.00	✓	5.36	0.12	5.15	1.00	0.00	33.41
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	5.21	0.06	4.52	1.00	0.00	22.55
		2	0.00	0.00	✓	1.84	0.05	1.32	1.00	0.00	7.00
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	0.00	0.00	0.00	1.00	0.00	0.69
		2	0.00	0.00	✓	0.00	0.00	0.00	1.00	0.00	1.23
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	9	1	0.00	0.00	✓	0.02			1.00	0.00	0.27
	10	1	0.00	0.00	✓	0.02			1.00	0.00	0.25
	11	1	0.00	0.00	✓	0.07			1.00	0.00	0.97
	12	1	0.00	0.00	✓	0.00			1.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	(ALL)	(ALL)	7	50	11000	5	52.73	1.56	10.40	10.40

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	(ALL)	(ALL)	50	50	0		11000	733	7		1367	0.00	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	9.00	52.73	0.73	0.00	10.40
		2	9.00	52.73	0.73	0.00	10.40
	2	1	7.67	52.73	0.73	0.00	10.40
		2	7.67	52.73	0.73	0.00	10.40
	3	1	9.00	52.73	0.73	0.00	10.40
		2	9.00	52.73	0.73	0.00	10.40
	4	1	9.67	52.73	0.73	0.00	10.40
		2	9.67	52.73	0.73	0.00	10.40

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	(ALL)	(ALL)	1.56	10.00	15.56	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	0.65	0.86	0.76	61.73
		2	0.65	0.86	0.76	61.73
	2	1	0.55	0.84	0.66	60.40
		2	0.55	0.84	0.66	60.40
	3	1	0.65	0.86	0.76	61.73
		2	0.65	0.86	0.76	61.73
	4	1	0.70	0.87	0.81	62.40
		2	0.70	0.87	0.81	62.40

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	(ALL)	(ALL)	0.00	0.00	1.56	1.00	0.00	10.40

Collections

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	71.1	95.1	95.1	0.0	0.0	0.0	0.0
	2	0.0	0.0	105.7	105.7	0.0	0.0	0.0	0.0
	3	108.7	71.9	0.0	108.7	0.0	0.0	0.0	0.0
	4	111.0	0.0	114.5	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	61.7	61.7	0.0
	6	0.0	0.0	0.0	0.0	61.7	0.0	0.0	60.4
	7	0.0	0.0	0.0	0.0	61.7	0.0	0.0	62.4
	8	0.0	0.0	0.0	0.0	0.0	60.4	62.4	0.0

Generated on 05/03/2024 12:18:18 using TRANSYT 16 (16.0.1.8473)

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Normal journey dist (m)	Bus journeydist (m)	Tram journey dist (m)	Pedestrian journey dist (m)	Calculated Total Flow (PCU/hr)	Avg journey time (s)	Avg journey dist (m)
17	8	7		50		62.40	14.00	14.00	14.00	14.00	50	62.40	14.00
18	8	6		50		60.40	11.00	11.00	11.00	11.00	50	60.40	11.00
19	3	4	295		108.70		660.00	0.00	0.00	0.00	295	108.70	660.00
20	4	1	101		111.02		645.00	0.00	0.00	0.00	101	111.02	645.00
22	5	7		50		61.73	13.00	13.00	13.00	13.00	50	61.73	13.00
23	5	6		50		61.73	13.00	13.00	13.00	13.00	50	61.73	13.00
34	6	8		50		60.40	11.00	11.00	11.00	11.00	50	60.40	11.00
35	6	5		50		61.73	13.00	13.00	13.00	13.00	50	61.73	13.00
41	7	8		50		62.40	14.00	14.00	14.00	14.00	50	62.40	14.00
42	7	5		50		61.73	13.00	13.00	13.00	13.00	50	61.73	13.00
45	1	2	2		71.09		414.00	0.00	0.00	0.00	2	71.09	414.00
46	1	3	245		95.09		614.00	0.00	0.00	0.00	245	95.09	614.00
47	1	4	74		95.11		614.00	0.00	0.00	0.00	74	95.11	614.00
48	4	3	204		114.46		645.00	0.00	0.00	0.00	204	114.46	645.00
49	4	2	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00
50	3	2	1		71.94		460.00	0.00	0.00	0.00	1	71.94	460.00
51	3	1	258		108.70		660.00	0.00	0.00	0.00	258	108.70	660.00
52	2	1	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00
53	2	3	1		105.68		420.00	0.00	0.00	0.00	1	105.68	420.00
54	2	4	2		105.68		420.00	0.00	0.00	0.00	2	105.68	420.00

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			Q
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	A		553 <	1850	54	0.00	65	53	36.26	29.06	78.53	
	2		1	1	A	B	1	570	57	57.00	0	27442	23.50	960.85	51.69	
Ax	1	(untitled)					450	Unrestricted	120	1.00	0	Unrestricted	36.00	0.00	0.00	
B	1	(untitled)	1	1	D		101	1850	33	0.00	19	419	38.82	33.42	74.70	
	2		1	1	D		204	1850	33	0.00	39	157	42.26	39.03	78.56	
Bx	1	(untitled)					371	Unrestricted	120	43.00	0	Unrestricted	36.00	0.00	0.00	
C	1	(untitled)	1	1	A		247 <	1850	54	0.00	29	243	22.87	21.19	61.43	
	2		1	1	A	B	74	570	57	0.00	27	272	22.89	22.26	53.66	
Cx	1	(untitled)					359	Unrestricted	120	6.00	0	Unrestricted	36.00	0.00	0.00	
D	1	(untitled)	1	1	C		3	1850	5	5.00	3	2983	57.68	55.28	94.01	
	2		1	1	C		0	1850	5	6.00	0	Unrestricted	0.00	0.00	0.00	
Dx	1	(untitled)					3	Unrestricted	120	120.00	0	Unrestricted	12.00	0.00	0.00	
9	1		1				321	1800	120	41.00	18	461	36.22	0.22	0.00	
10	1		1				305	1800	120	0.00	17	490	36.20	0.20	0.00	
11	1		1				554	1800	120	29.00	31	225	36.44	0.44	0.00	
12	1		1				3	1800	120	120.00	0	59900	12.00	0.00	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)	1	1	E	50	11000	5	7	1367	61.73	52.73	1.56	100	0
	2	(untitled)	1	1	E	50	11000	5	7	1367	61.73	52.73	1.56	100	0
2	1	(untitled)	1	1	E	50	11000	5	7	1367	60.40	52.73	1.56	100	0
	2	(untitled)	1	1	E	50	11000	5	7	1367	60.40	52.73	1.56	100	0
3	1	(untitled)	1	1	E	50	11000	5	7	1367	61.73	52.73	1.56	100	0
	2	(untitled)	1	1	E	50	11000	5	7	1367	61.73	52.73	1.56	100	0
4	1	(untitled)	1	1	E	50	11000	5	7	1367	62.40	52.73	1.56	100	0
	2	(untitled)	1	1	E	50	11000	5	7	1367	62.40	52.73	1.56	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	760.12	34.87	21.80	8.57	1.46	142.41	10.84	0.00	153.25
Bus									
Tram									
Pedestrians	5.10	6.84	0.75	5.86	0.00	83.20	0.00	0.00	83.20
TOTAL	765.22	41.71	18.34	14.43	1.46	225.61	10.84	0.00	236.45

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

Generated on 05/03/2024 12:18:18 using TRANSYT 16 (16.0.1.8473)

A1 - Junction 2
D2 - 2027 Do Nothing, AM

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item wi wors unsignal PRC
1	05/03/2024 12:17:35	05/03/2024 12:17:35	0.94	08:00	120	8156.69	25.18	79.02	A/1	0	0	A/1	10/1

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set(s)	Specific Demand Set (s)	Optimise specific Demand Set(s)	Demand Set(s) to optimise	Include in report	Locked
Junction 2			✓	D1,D2,D3,D4,D5,D6,D7	✓	D7	✓	

Demand Set Details

Scenario name	Time Period name	Description	Composite	Demand sets	Start time (HH:mm)	Locked	Run automatically
2027 Do Nothing	AM	(untitled)			08:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120	120	120		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)	Missing stage transition options
10000.00	10000.00	10000.00	2	Assume banned

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from traffic model	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓			Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy (%)	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Standard accuracy Hill Climb	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

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Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
9			1
10			1
11			1
12			1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Auto-calculate cell saturation flow	Cell saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			60.00	✓	Sum of lanes	1850			✓		Normal	
	2				60.00	✓	Sum of lanes	1850	✓	1800	✓	✓	Normal	
Ax	1	(untitled)			300.00								Normal	
B	1	(untitled)			45.00	✓	Sum of lanes	1850			✓		Normal	
	2				45.00	✓	Sum of lanes	1850	✓	1800	✓		Normal	
Bx	1	(untitled)			300.00								Normal	
C	1	(untitled)			14.00	✓	Sum of lanes	1850			✓		Normal	
	2				14.00	✓	Sum of lanes	1850	✓	1800	✓	✓	Normal	
Cx	1	(untitled)			300.00								Normal	
D	1	(untitled)			20.00	✓	Sum of lanes	1850			✓		Normal	
	2				20.00	✓	Sum of lanes	1850	✓	1800	✓		Normal	
Dx	1	(untitled)			100.00								Normal	
9	1				300.00	✓	Sum of lanes	1800					Normal	
10	1				300.00	✓	Sum of lanes	1800					Normal	
11	1				300.00	✓	Sum of lanes	1800					Normal	
12	1				100.00	✓	Sum of lanes	1800					Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1850
	2	1	(untitled)			1850
Ax	1	1	(untitled)			
B	1	1	(untitled)			1850
	2	1	(untitled)			1850
Bx	1	1	(untitled)			
C	1	1	(untitled)			1850
	2	1	(untitled)			1850
Cx	1	1	(untitled)			
D	1	1	(untitled)			1850
	2	1	(untitled)			1850
Dx	1	1	(untitled)			
9	1	1	(untitled)			1800
10	1	1	(untitled)			1800
11	1	1	(untitled)			1800
12	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Queue limit (PCU)	Excess queue penalty (£)	Has degree of saturation limit
A	1	NetworkDefault	100	100	100		0.00				
	2	CTM	100	100	100		12.00	✓	12.00	99999.00	
Ax	1	NetworkDefault	100	100	100		0.00				
B	1	NetworkDefault	100	100	100		0.00				
	2	CTM	100	100	100		9.00	✓	9.00	99999.00	
Bx	1	NetworkDefault	100	100	100		0.00				
C	1	NetworkDefault	100	100	100		0.00				
	2	CTM	100	100	100		3.00	✓	3.00	99999.00	
Cx	1	NetworkDefault	100	100	100		0.00				
D	1	NetworkDefault	100	100	100		0.00				
	2	CTM	100	100	100		4.00	✓	4.00	99999.00	
Dx	1	NetworkDefault	100	100	100		0.00				
9	1	NetworkDefault	100	100	100		0.00				
10	1	NetworkDefault	100	100	100		0.00				
11	1	NetworkDefault	100	100	100		0.00				
12	1	NetworkDefault	100	100	100		0.00				

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
A	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	12.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Ax	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
B	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	9.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Bx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
C	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	3.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Cx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
D	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	4.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Dx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
9	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
10	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
11	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
12	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
A	1	670	670
	2	20	20
Ax	1	713	713
B	1	184	184
	2	389	389
Bx	1	494	494
C	1	285	285
	2	100	100
Cx	1	473	473
D	1	62	62
	2	25	25
Dx	1	55	55
9	1	385	385
10	1	573	573
11	1	690	690
12	1	87	87

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	A		
	2	1	A	✓	B
B	1	1	D		
	2	1	D		
C	1	1	A		
	2	1	A	✓	B
D	1	1	C		
	2	1	C		

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
9	1	36.00	30.00
10	1	36.00	30.00
11	1	36.00	30.00
12	1	12.00	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A	1	1	11/1	A/1	7.20	30.00	✓	Straight	Straight Movement
	2	1	11/1	A/2	7.20	30.00	✓	Straight	Straight Movement
Ax	1	1	C/1	Ax/1	36.00	30.00	✓	Straight	Straight Movement
B	1	1	10/1	B/1	5.40	30.00	✓	Straight	Straight Movement
	2	1	10/1	B/2	5.40	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	36.00	30.00	✓	Nearside	38.43
C	1	1	9/1	C/1	1.68	30.00	✓	Straight	Straight Movement
	2	1	9/1	C/2	1.68	30.00	✓	Straight	Straight Movement
Cx	1	1	A/1	Cx/1	36.00	30.00	✓	Straight	Straight Movement
D	1	1	12/1	D/1	2.40	30.00	✓	Straight	Straight Movement
	2	1	12/1	D/2	2.40	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	12.00	30.00	✓	Nearside	39.36
Ax	1	2	D/1	Ax/1	36.00	30.00	✓	Nearside	39.61
Bx	1	2	D/1	Bx/1	36.00	30.00	✓	Straight	Straight Movement
Cx	1	2	B/1	Cx/1	36.00	30.00	✓	Nearside	43.43
Dx	1	2	B/1	Dx/1	12.00	30.00	✓	Straight	Straight Movement
Ax	1	3	B/2	Ax/1	36.00	30.00	✓	Offside	47.56
Bx	1	3	C/2	Bx/1	36.00	30.00	✓	Offside	52.89
Cx	1	3	D/2	Cx/1	36.00	30.00	✓	Offside	51.21
Dx	1	3	A/2	Dx/1	12.00	30.00	✓	Offside	47.76

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
(ALL)	2	AllTraffic		

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible
2		TrafficStream	C/1	100	0.00	
		TrafficStream	A/1	100	0.00	

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Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	12.00	8.00	5.40
2	(untitled)		1		Farside	10.00	6.67	5.40
3	(untitled)		1		Farside	12.00	8.00	5.40
4	(untitled)		1		Farside	13.00	8.67	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25				

Normal Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	11	274	100	0	0	0	0
	2	25	0	50	12	0	0	0	0
	3	288	20	0	382	0	0	0	0
	4	160	24	389	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	9/1	Cx/1	#0000FF
	2	(untitled)	12/1	Dx/1	#FF0000
	3	(untitled)	11/1	Ax/1	#00FF00
	4	(untitled)	10/1	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#008000
	7	(untitled)	4:2E, 3:1E	4:2X, 3:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	19		3	4	11/1, A/1, Bx/1	Normal	382
	20		4	1	10/1, B/1, Cx/1	Normal	160
	45		1	2	9/1, C/1, Dx/1	Normal	11
	46		1	3	9/1, C/1, Ax/1	Normal	274
	47		1	4	9/1, C/2, Bx/1	Normal	100
	48		4	3	10/1, B/2, Ax/1	Normal	389
	49		4	2	10/1, B/1, Dx/1	Normal	24
	50		3	2	11/1, A/2, Dx/1	Normal	20
	51		3	1	11/1, A/1, Cx/1	Normal	288
	52		2	1	12/1, D/2, Cx/1	Normal	25
	53		2	3	12/1, D/1, Ax/1	Normal	50
	54		2	4	12/1, D/1, Bx/1	Normal	12

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	7	4:1E, 4:2X	Normal	50
	18		8	6	2:2E, 2:1X	Normal	50
	22		5	7	3:2E, 3:1X	Normal	50
	23		5	6	1:1E, 1:2X	Normal	50
	34		6	8	2:1E, 2:2X	Normal	50
	35		6	5	1:2E, 1:1X	Normal	50
	41		7	8	4:2E, 4:1X	Normal	50
	42		7	5	3:1E, 3:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)	Minimum possible cycle time (s)
1	(untitled)		1	NetworkDefault	120	120

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Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	54	300	0	0	Traffic	
	B	(untitled)	3	3	0	0	Traffic	
	C	(untitled)	5	300	0	0	Traffic	
	D	(untitled)	33	33	0	0	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	3

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)	Run every N cycles	Probability of running (%)
1	1	A	1	1	100
	2	B	1	1	100
	3	C	1	1	100
	4	D	1	1	100
	5	E	1	1	100

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)	Single	1, 2, 3, 4, 5	59, 62, 72, 110, 0	120	
	2	(untitled)	Single	1, 2, 3, 5, 4	22, 45, 72, 98, 125	120	
	3	(untitled)	Single	1, 2, 4, 3, 5	22, 45, 72, 99, 125	120	
	4	(untitled)	Single	1, 2, 4, 5, 3	22, 45, 72, 98, 125	120	
	5	(untitled)	Single	1, 2, 5, 3, 4	22, 45, 71, 98, 125	120	
	6	(untitled)	Single	1, 2, 5, 4, 3	22, 45, 71, 98, 125	120	
	7	(untitled)	Single	1, 3, 2, 4, 5	21, 47, 74, 100, 125	125	
	8	(untitled)	Single	1, 3, 2, 5, 4	21, 47, 74, 99, 125	125	
	9	(untitled)	Single	1, 3, 4, 2, 5	21, 47, 73, 100, 125	125	
	10	(untitled)	Single	1, 3, 4, 5, 2	22, 49, 76, 102, 0	120	

Intergreen Matrix for Controller Stream 1

		To					
		A	B	C	D	E
From	A		0	5	5	5
	B	0		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

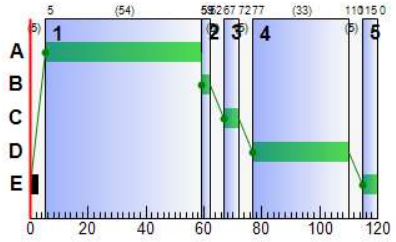
		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	A	5	59	54
A	2	1	1	A	5	59	54
B	1	1	1	D	77	110	33
B	2	1	1	D	77	110	33
C	1	1	1	A	5	59	54
C	2	1	1	A	5	59	54
D	1	1	1	C	67	72	5
D	2	1	1	C	67	72	5

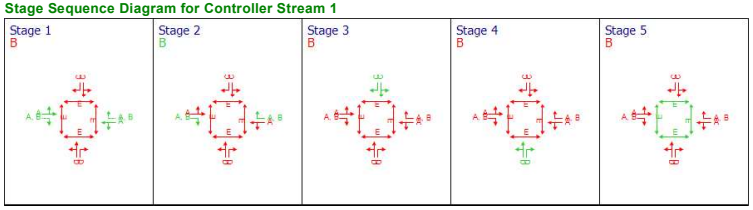
Phase Timings Diagram

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

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Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	79	27	670	1850	54	35.40	20.25	194.05	93.55	7.48	101.03
		2	7	1277	20	570	57	67.94	1.67	13.91	5.36	0.13	5.49
	Ax	1	0	Unrestricted	713	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	35	185	184	1850	33	34.87	4.06	51.93	25.31	1.53	26.84
		2	74	35	389	1850	33	48.22	9.43	104.80	73.98	3.54	7857.72
	Bx	1	0	Unrestricted	494	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	34	198	285	1850	54	21.88	6.10	250.60	24.60	2.26	26.85
		2	36	175	100	570	57	24.62	1.89	62.99	9.71	0.69	10.40
	Cx	1	0	Unrestricted	473	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	67	49	62	1850	5	92.50	2.64	75.99	22.62	0.97	23.59
		2	27	270	25	1850	5	78.88	1.72	42.93	7.78	0.32	8.10
	Dx	1	0	Unrestricted	55	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	22	361	385	1800	120	0.29	0.24	0.47	0.44	0.03	0.46
	10	1	40	149	573	1800	120	4.12	5.86	11.24	9.32	1.98	11.30
	11	1	38	161	690	1800	120	0.62	0.12	0.23	1.69	0.00	1.69
	12	1	5	1969	87	1800	120	0.05	0.00	0.01	0.02	0.00	0.02

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow (PCU/hr)	Calculated capacity (PCU/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	A	1	670	670	0		1850	848	79		27	0.00	54
		2	20	20	0		570	275	7		1277	0.00	57
	Ax	1	713	713	0		Unrestricted	Unrestricted	0		Unrestricted	0.52	120
	B	1	184	184	0		1850	524	35		185	0.34	33
		2	389	389	0		1850	524	74		35	0.35	33
	Bx	1	494	494	0		Unrestricted	Unrestricted	0		Unrestricted	0.85	120
	C	1	285	285	0		1850	848	34		198	0.01	54
		2	100	100	0		570	275	36		175	0.01	57
	Cx	1	473	473	0		Unrestricted	Unrestricted	0		Unrestricted	0.36	120
	D	1	62	62	0		1850	93	67		49	0.00	5
		2	25	25	0		1850	93	27		270	0.00	5
	Dx	1	55	55	0		Unrestricted	Unrestricted	0		Unrestricted	0.74	120
	9	1	385	385	0		1800	1775	22		361	0.00	120
	10	1	573	573	0		1800	1429	40		149	0.00	120
	11	1	690	690	0		1800	1800	38		161	0.00	120
	12	1	87	87	0		1800	1800	5		1969	0.00	120

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	7.20	35.40	5.14	1.45	93.55	89.07	553.92	42.84	7.48
		2	7.20	67.94	0.09	0.28	5.36	52.09	10.33	0.09	0.13
	Ax	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	5.40	34.87	1.69	0.09	25.31	66.25	119.07	2.83	1.53
		2	5.40	48.22	3.89	1.32	73.98	72.57	250.00	32.28	3.54
	Bx	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	1.68	21.88	1.65	0.08	24.60	63.16	177.46	2.54	2.26
		2	1.68	24.62	0.56	0.13	9.71	54.76	51.67	3.10	0.69
	Cx	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	2.40	92.50	0.97	0.63	22.62	124.71	59.84	17.48	0.97
		2	2.40	78.88	0.38	0.17	7.78	100.98	23.75	1.49	0.32
	Dx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	36.00	0.29	0.00	0.03	0.44	0.54	1.19	0.90	0.03
	10	1	36.00	4.12	0.52	0.13	9.32	27.58	153.99	4.01	1.98
	11	1	36.00	0.62	0.00	0.12	1.69	0.00	0.00	0.00	0.00
	12	1	12.00	0.05	0.00	0.00	0.02	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Average storage excess queue (PCU)	Average limit excess queue (PCU)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	20.25	10.43	194.05	2.20	0.00	0.00	0.00	0.00	0.00	
		2	12.00	1.67	12.00	13.91	0.00	0.00	0.00	55.00	0.00	55.00	
	Ax	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	B	1	0.00	4.06	7.83	51.93	0.00	0.00	0.00	4.00	0.00	4.00	
		2	9.00	9.43	9.00	104.80	0.08	0.08	7780.20	0.00	0.00	0.00	
	Bx	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	36.00	0.00	36.00	
	C	1	0.00	6.10	2.43	250.60	0.72	0.00	0.00	0.00	0.00	0.00	
		2	3.00	1.89	3.00	62.99	0.00	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	D	1	0.00	2.64	3.48	75.99	0.00	0.00	0.00	0.00	0.00	0.00	
		2	4.00	1.72	4.00	42.93	0.00	0.00	0.00	4.00	0.00	4.00	
	Dx	1	0.00	0.00	17.39	0.00	0.00	0.00	0.00	88.00	0.00	88.00	
	9	1	0.00	0.24	52.17	0.47	0.00	0.00	0.00	0.00	47.00	47.00	
	10	1	0.00	5.86	52.17	11.24	0.00	0.00	0.00	0.00	24.73	24.73	
	11	1	0.00	0.12	52.17	0.23	0.00	0.00	0.00	0.00	53.00	53.00	
	12	1	0.00	0.00	17.39	0.01	0.00	0.00	0.00	0.00	0.00	0.00	

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Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	40.20	7.93	5.07	42.60
		2	1.20	0.14	8.85	24.42
	Ax	1	213.90	7.13	30.00	36.00
	B	1	8.28	2.06	4.02	40.27
		2	17.51	5.57	3.14	51.54
	Bx	1	148.20	4.94	30.00	36.00
	C	1	3.99	1.87	2.14	23.56
		2	1.40	0.71	1.98	25.45
	Cx	1	141.90	4.73	30.00	36.00
	D	1	1.24	1.63	0.76	94.90
		2	0.50	0.45	1.11	64.65
	Dx	1	5.50	0.18	30.00	12.00
	9	1	115.50	3.88	29.76	36.29
	10	1	171.90	6.39	26.92	40.12
	11	1	207.00	7.02	29.49	36.62
	12	1	8.70	0.29	29.87	12.05

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (PCU)	Mean End of Green Queue EoTS (PCU)	Mean End of Red Queue EoTS (PCU)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	20.27	1.47	13.57	1.00	0.00	101.03
		2	0.00	0.00	✓	1.67	0.00	0.35	1.00	0.00	5.49
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	4.06	0.09	4.06	1.00	0.00	26.84
		2	0.00	0.00	✓	9.42	1.08	9.42	1.00	7780.20	7857.72
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	6.10	0.09	5.23	1.00	0.00	26.85
		2	0.00	0.00	✓	1.89	0.10	1.83	1.00	0.00	10.40
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	2.67	0.65	2.62	1.00	0.00	23.59
		2	0.00	0.00	✓	1.72	0.05	0.84	1.00	0.00	8.10
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	9	1	0.00	0.00	✓	0.24			1.00	0.00	0.46
	10	1	0.00	0.00	✓	5.86			1.00	0.00	11.30
	11	1	0.00	0.00	✓	0.12			1.00	0.00	1.69
	12	1	0.00	0.00	✓	0.00			1.00	0.00	0.02

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	(ALL)	(ALL)	7	50	11000	5	52.73	1.56	10.40	10.40

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	(ALL)	(ALL)	50	50	0		11000	733	7		1367	0.00	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	9.00	52.73	0.73	0.00	10.40
		2	9.00	52.73	0.73	0.00	10.40
	2	1	7.67	52.73	0.73	0.00	10.40
		2	7.67	52.73	0.73	0.00	10.40
	3	1	9.00	52.73	0.73	0.00	10.40
		2	9.00	52.73	0.73	0.00	10.40
	4	1	9.67	52.73	0.73	0.00	10.40
		2	9.67	52.73	0.73	0.00	10.40

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	(ALL)	(ALL)	1.56	10.00	15.56	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	0.65	0.86	0.76	61.73
		2	0.65	0.86	0.76	61.73
	2	1	0.55	0.84	0.66	60.40
		2	0.55	0.84	0.66	60.40
	3	1	0.65	0.86	0.76	61.73
		2	0.65	0.86	0.76	61.73
	4	1	0.70	0.87	0.81	62.40
		2	0.70	0.87	0.81	62.40

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	(ALL)	(ALL)	0.00	0.00	1.56	1.00	0.00	10.40

Collections

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	71.8	95.8	97.7	0.0	0.0	0.0	0.0
	2	112.7	0.0	143.0	143.0	0.0	0.0	0.0	0.0
	3	115.2	73.0	0.0	115.2	0.0	0.0	0.0	0.0
	4	116.4	92.4	127.7	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	61.7	61.7	0.0
	6	0.0	0.0	0.0	0.0	61.7	0.0	0.0	60.4
	7	0.0	0.0	0.0	0.0	61.7	0.0	0.0	62.4
	8	0.0	0.0	0.0	0.0	0.0	60.4	62.4	0.0

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Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Normal journey dist (m)	Bus journeydist (m)	Tram journey dist (m)	Pedestrian journey dist (m)	Calculated Total Flow (PCU/hr)	Avg journey time (s)	Avg journey dist (m)
17	8	7		50		62.40	14.00	14.00	14.00	14.00	50	62.40	14.00
18	8	6		50		60.40	11.00	11.00	11.00	11.00	50	60.40	11.00
19	3	4	382		115.22		660.00	0.00	0.00	0.00	382	115.22	660.00
20	4	1	160		116.39		645.00	0.00	0.00	0.00	160	116.39	645.00
22	5	7		50		61.73	13.00	13.00	13.00	13.00	50	61.73	13.00
23	5	6		50		61.73	13.00	13.00	13.00	13.00	50	61.73	13.00
34	6	8		50		60.40	11.00	11.00	11.00	11.00	50	60.40	11.00
35	6	5		50		61.73	13.00	13.00	13.00	13.00	50	61.73	13.00
41	7	8		50		62.40	14.00	14.00	14.00	14.00	50	62.40	14.00
42	7	5		50		61.73	13.00	13.00	13.00	13.00	50	61.73	13.00
45	1	2	11		71.85		414.00	0.00	0.00	0.00	11	71.85	414.00
46	1	3	274		95.85		614.00	0.00	0.00	0.00	274	95.85	614.00
47	1	4	100		97.73		614.00	0.00	0.00	0.00	100	97.73	614.00
48	4	3	389		127.66		645.00	0.00	0.00	0.00	389	127.66	645.00
49	4	2	24		92.39		445.00	0.00	0.00	0.00	24	92.39	445.00
50	3	2	20		73.04		460.00	0.00	0.00	0.00	20	73.04	460.00
51	3	1	288		115.22		660.00	0.00	0.00	0.00	288	115.22	660.00
52	2	1	25		112.70		420.00	0.00	0.00	0.00	25	112.70	420.00
53	2	3	50		142.95		420.00	0.00	0.00	0.00	50	142.95	420.00
54	2	4	12		142.95		420.00	0.00	0.00	0.00	12	142.95	420.00

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			Q
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	A		670 <	1850	54	0.00	79	27	42.60	35.40	89.07	
	2		1	1	A	B	20	570	57	55.00	7	1277	24.42	67.94	52.09	
Ax	1	(untitled)					713	Unrestricted	120	0.00	0	Unrestricted	36.00	0.00	0.00	
B	1	(untitled)	1	1	D		184	1850	33	4.00	35	185	40.27	34.87	66.25	
	2		1	1	D		389 <	1850	33	0.00	74	35	51.54	48.22	72.57	
Bx	1	(untitled)					494	Unrestricted	120	36.00	0	Unrestricted	36.00	0.00	0.00	
C	1	(untitled)	1	1	A		285 <	1850	54	0.00	34	198	23.56	21.88	63.16	
	2		1	1	A	B	100	570	57	0.00	36	175	25.45	24.62	54.76	
Cx	1	(untitled)					473	Unrestricted	120	0.00	0	Unrestricted	36.00	0.00	0.00	
D	1	(untitled)	1	1	C		62	1850	5	0.00	67	49	94.90	92.50	124.71	
	2		1	1	C		25	1850	5	4.00	27	270	64.65	78.88	100.98	
Dx	1	(untitled)					55	Unrestricted	120	88.00	0	Unrestricted	12.00	0.00	0.00	
9	1		1				385	1800	120	47.00	22	361	36.29	0.29	0.54	
10	1		1				573	1800	120	24.73	40	149	40.12	4.12	27.58	
11	1		1				690	1800	120	53.00	38	161	36.62	0.62	0.00	
12	1		1				87	1800	120	0.00	5	1969	12.05	0.05	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)	1	1	E	50	11000	5	7	1367	61.73	52.73	1.56	100	0
	2	(untitled)	1	1	E	50	11000	5	7	1367	61.73	52.73	1.56	100	0
2	1	(untitled)	1	1	E	50	11000	5	7	1367	60.40	52.73	1.56	100	0
	2	(untitled)	1	1	E	50	11000	5	7	1367	60.40	52.73	1.56	100	0
3	1	(untitled)	1	1	E	50	11000	5	7	1367	61.73	52.73	1.56	100	0
	2	(untitled)	1	1	E	50	11000	5	7	1367	61.73	52.73	1.56	100	0
4	1	(untitled)	1	1	E	50	11000	5	7	1367	62.40	52.73	1.56	100	0
	2	(untitled)	1	1	E	50	11000	5	7	1367	62.40	52.73	1.56	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	1086.92	54.91	19.80	14.88	4.45	274.37	18.92	7780.20	8073.49
Bus									
Tram									
Pedestrians	5.10	6.84	0.75	5.86	0.00	83.20	0.00	0.00	83.20
TOTAL	1092.02	61.75	17.69	20.74	4.45	357.57	18.92	7780.20	8156.69

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

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A1 - Junction 2
D3 - 2027 Do Something, AM

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item wi wors unsignal PRC
1	05/03/2024 12:17:35	05/03/2024 12:17:36	1.13	08:00	120	8172.27	26.22	83.03	A/1	0	0	A/1	11/1

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set(s)	Specific Demand Set (s)	Optimise specific Demand Set(s)	Demand Set(s) to optimise	Include in report	Locked
Junction 2			✓	D1,D2,D3,D4,D5,D6,D7	✓	D7	✓	

Demand Set Details

Scenario name	Time Period name	Description	Composite	Demand sets	Start time (HH:mm)	Locked	Run automatically
2027 Do Something	AM	(untitled)			08:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120	120	120		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)	Missing stage transition options
10000.00	10000.00	10000.00	2	Assume banned

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from traffic model	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓			Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy (%)	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Standard accuracy Hill Climb	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

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Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
9			1
10			1
11			1
12			1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Auto-calculate cell saturation flow	Cell saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			60.00	✓	Sum of lanes	1850			✓		Normal	
	2				60.00	✓	Sum of lanes	1850	✓	1800	✓	✓	Normal	
Ax	1	(untitled)			300.00								Normal	
B	1	(untitled)			45.00	✓	Sum of lanes	1850			✓		Normal	
	2				45.00	✓	Sum of lanes	1850	✓	1800	✓		Normal	
Bx	1	(untitled)			300.00								Normal	
C	1	(untitled)			14.00	✓	Sum of lanes	1850			✓		Normal	
	2				14.00	✓	Sum of lanes	1850	✓	1800	✓	✓	Normal	
Cx	1	(untitled)			300.00								Normal	
D	1	(untitled)			20.00	✓	Sum of lanes	1850			✓		Normal	
	2				20.00	✓	Sum of lanes	1850	✓	1800	✓		Normal	
Dx	1	(untitled)			100.00								Normal	
9	1				300.00	✓	Sum of lanes	1800					Normal	
10	1				300.00	✓	Sum of lanes	1800					Normal	
11	1				300.00	✓	Sum of lanes	1800					Normal	
12	1				100.00	✓	Sum of lanes	1800					Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1850
	2	1	(untitled)			1850
Ax	1	1	(untitled)			
B	1	1	(untitled)			1850
	2	1	(untitled)			1850
Bx	1	1	(untitled)			
C	1	1	(untitled)			1850
	2	1	(untitled)			1850
Cx	1	1	(untitled)			
D	1	1	(untitled)			1850
	2	1	(untitled)			1850
Dx	1	1	(untitled)			
9	1	1	(untitled)			1800
10	1	1	(untitled)			1800
11	1	1	(untitled)			1800
12	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Queue limit (PCU)	Excess queue penalty (£)	Has degree of saturation limit
A	1	NetworkDefault	100	100	100		0.00				
	2	CTM	100	100	100		12.00	✓	12.00	99999.00	
Ax	1	NetworkDefault	100	100	100		0.00				
B	1	NetworkDefault	100	100	100		0.00				
	2	CTM	100	100	100		9.00	✓	9.00	99999.00	
Bx	1	NetworkDefault	100	100	100		0.00				
C	1	NetworkDefault	100	100	100		0.00				
	2	CTM	100	100	100		3.00	✓	3.00	99999.00	
Cx	1	NetworkDefault	100	100	100		0.00				
D	1	NetworkDefault	100	100	100		0.00				
	2	CTM	100	100	100		4.00	✓	4.00	99999.00	
Dx	1	NetworkDefault	100	100	100		0.00				
9	1	NetworkDefault	100	100	100		0.00				
10	1	NetworkDefault	100	100	100		0.00				
11	1	NetworkDefault	100	100	100		0.00				
12	1	NetworkDefault	100	100	100		0.00				

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
A	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	12.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Ax	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
B	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	9.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Bx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
C	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	3.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Cx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
D	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	4.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Dx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
9	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
10	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
11	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
12	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
A	1	704	704
	2	20	20
Ax	1	725	725
B	1	184	184
	2	389	389
Bx	1	494	494
C	1	297	297
	2	100	100
Cx	1	507	507
D	1	62	62
	2	25	25
Dx	1	55	55
9	1	397	397
10	1	573	573
11	1	724	724
12	1	87	87

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	A		
	2	1	A	✓	B
B	1	1	D		
	2	1	D		
C	1	1	A		
	2	1	A	✓	B
D	1	1	C		
	2	1	C		

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
9	1	36.00	30.00
10	1	36.00	30.00
11	1	36.00	30.00
12	1	12.00	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A	1	1	11/1	A/1	7.20	30.00	✓	Straight	Straight Movement
	2	1	11/1	A/2	7.20	30.00	✓	Straight	Straight Movement
Ax	1	1	C/1	Ax/1	36.00	30.00	✓	Straight	Straight Movement
B	1	1	10/1	B/1	5.40	30.00	✓	Straight	Straight Movement
	2	1	10/1	B/2	5.40	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	36.00	30.00	✓	Nearside	38.43
C	1	1	9/1	C/1	1.68	30.00	✓	Straight	Straight Movement
	2	1	9/1	C/2	1.68	30.00	✓	Straight	Straight Movement
Cx	1	1	A/1	Cx/1	36.00	30.00	✓	Straight	Straight Movement
D	1	1	12/1	D/1	2.40	30.00	✓	Straight	Straight Movement
	2	1	12/1	D/2	2.40	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	12.00	30.00	✓	Nearside	39.36
Ax	1	2	D/1	Ax/1	36.00	30.00	✓	Nearside	39.61
Bx	1	2	D/1	Bx/1	36.00	30.00	✓	Straight	Straight Movement
Cx	1	2	B/1	Cx/1	36.00	30.00	✓	Nearside	43.43
Dx	1	2	B/1	Dx/1	12.00	30.00	✓	Straight	Straight Movement
Ax	1	3	B/2	Ax/1	36.00	30.00	✓	Offside	47.56
Bx	1	3	C/2	Bx/1	36.00	30.00	✓	Offside	52.89
Cx	1	3	D/2	Cx/1	36.00	30.00	✓	Offside	51.21
Dx	1	3	A/2	Dx/1	12.00	30.00	✓	Offside	47.76

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
(ALL)	2	AllTraffic		

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible
2		TrafficStream	C/1	100	0.00	
		TrafficStream	A/1	100	0.00	

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Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	12.00	8.00	5.40
2	(untitled)		1		Farside	10.00	6.67	5.40
3	(untitled)		1		Farside	12.00	8.00	5.40
4	(untitled)		1		Farside	13.00	8.67	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25				

Normal Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	11	286	100	0	0	0	0
	2	25	0	50	12	0	0	0	0
	3	322	20	0	382	0	0	0	0
	4	160	24	389	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	9/1	Cx/1	#0000FF
	2	(untitled)	12/1	Dx/1	#FF0000
	3	(untitled)	11/1	Ax/1	#00FF00
	4	(untitled)	10/1	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#008000
	7	(untitled)	4:2E, 3:1E	4:2X, 3:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	19		3	4	11/1, A/1, Bx/1	Normal	382
	20		4	1	10/1, B/1, Cx/1	Normal	160
	45		1	2	9/1, C/1, Dx/1	Normal	11
	46		1	3	9/1, C/1, Ax/1	Normal	286
	47		1	4	9/1, C/2, Bx/1	Normal	100
	48		4	3	10/1, B/2, Ax/1	Normal	389
	49		4	2	10/1, B/1, Dx/1	Normal	24
	50		3	2	11/1, A/2, Dx/1	Normal	20
	51		3	1	11/1, A/1, Cx/1	Normal	322
	52		2	1	12/1, D/2, Cx/1	Normal	25
	53		2	3	12/1, D/1, Ax/1	Normal	50
	54		2	4	12/1, D/1, Bx/1	Normal	12

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	7	4:1E, 4:2X	Normal	50
	18		8	6	2:2E, 2:1X	Normal	50
	22		5	7	3:2E, 3:1X	Normal	50
	23		5	6	1:1E, 1:2X	Normal	50
	34		6	8	2:1E, 2:2X	Normal	50
	35		6	5	1:2E, 1:1X	Normal	50
	41		7	8	4:2E, 4:1X	Normal	50
	42		7	5	3:1E, 3:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)	Minimum possible cycle time (s)
1	(untitled)		1	NetworkDefault	120	120

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Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	54	300	0	0	Traffic	
	B	(untitled)	3	3	0	0	Traffic	
	C	(untitled)	5	300	0	0	Traffic	
	D	(untitled)	33	33	0	0	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	3

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)	Run every N cycles	Probability of running (%)
1	1	A	1	1	100
	2	B	1	1	100
	3	C	1	1	100
	4	D	1	1	100
	5	E	1	1	100

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)	Single	1, 2, 3, 4, 5	59, 62, 72, 110, 0	120	
	2	(untitled)	Single	1, 2, 3, 5, 4	22, 45, 72, 98, 125	120	
	3	(untitled)	Single	1, 2, 4, 3, 5	22, 45, 72, 99, 125	120	
	4	(untitled)	Single	1, 2, 4, 5, 3	22, 45, 72, 98, 125	120	
	5	(untitled)	Single	1, 2, 5, 3, 4	22, 45, 71, 98, 125	120	
	6	(untitled)	Single	1, 2, 5, 4, 3	22, 45, 71, 98, 125	120	
	7	(untitled)	Single	1, 3, 2, 4, 5	21, 47, 74, 100, 125	125	
	8	(untitled)	Single	1, 3, 2, 5, 4	21, 47, 74, 99, 125	125	
	9	(untitled)	Single	1, 3, 4, 2, 5	21, 47, 73, 100, 125	125	
	10	(untitled)	Single	1, 3, 4, 5, 2	22, 49, 76, 102, 0	120	

Intergreen Matrix for Controller Stream 1

		To					
		A	B	C	D	E
From	A		0	5	5	5
	B	0		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

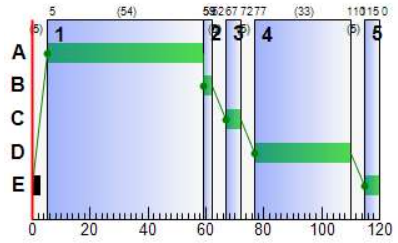
		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	A	5	59	54
A	2	1	1	A	5	59	54
B	1	1	1	D	77	110	33
B	2	1	1	D	77	110	33
C	1	1	1	A	5	59	54
C	2	1	1	A	5	59	54
D	1	1	1	C	67	72	5
D	2	1	1	C	67	72	5

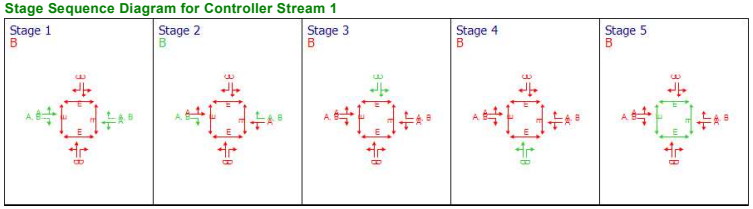
Phase Timings Diagram

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

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Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	83	20	704	1850	54	38.42	22.29	213.64	106.68	8.23	114.91
		2	7	1277	20	570	57	67.94	1.67	13.91	5.36	0.13	5.49
	Ax	1	0	Unrestricted	725	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	35	185	184	1850	33	34.87	4.06	51.93	25.31	1.53	26.84
		2	74	35	389	1850	33	48.22	9.43	104.80	73.98	3.54	7857.72
	Bx	1	0	Unrestricted	494	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	35	185	297	1850	54	22.11	6.45	264.78	25.91	2.38	28.29
		2	36	175	100	570	57	24.62	1.89	62.99	9.71	0.69	10.40
	Cx	1	0	Unrestricted	507	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	67	49	62	1850	5	92.50	2.64	75.99	22.62	0.97	23.59
		2	27	270	25	1850	5	78.88	1.72	42.93	7.78	0.32	8.10
	Dx	1	0	Unrestricted	55	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	22	347	397	1800	120	0.30	0.25	0.48	0.47	0.03	0.49
	10	1	40	149	573	1800	120	4.12	5.86	11.24	9.32	1.98	11.30
	11	1	40	149	724	1800	120	0.67	0.14	0.26	1.92	0.00	1.92
	12	1	5	1969	87	1800	120	0.05	0.00	0.01	0.02	0.00	0.02

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow (PCU/hr)	Calculated capacity (PCU/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	A	1	704	704	0		1850	848	83		20	0.00	54
		2	20	20	0		570	275	7		1277	0.00	57
	Ax	1	725	725	0		Unrestricted	Unrestricted	0		Unrestricted	0.51	120
	B	1	184	184	0		1850	524	35		185	0.34	33
		2	389	389	0		1850	524	74		35	0.35	33
	Bx	1	494	494	0		Unrestricted	Unrestricted	0		Unrestricted	0.84	120
	C	1	297	297	0		1850	848	35		185	0.01	54
		2	100	100	0		570	275	36		175	0.01	57
	Cx	1	507	507	0		Unrestricted	Unrestricted	0		Unrestricted	0.37	120
	D	1	62	62	0		1850	93	67		49	0.00	5
		2	25	25	0		1850	93	27		270	0.00	5
	Dx	1	55	55	0		Unrestricted	Unrestricted	0		Unrestricted	0.73	120
	9	1	397	397	0		1800	1775	22		347	0.00	120
	10	1	573	573	0		1800	1429	40		149	0.00	120
	11	1	724	724	0		1800	1800	40		149	0.00	120
	12	1	87	87	0		1800	1800	5		1969	0.00	120

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	7.20	38.42	5.56	1.96	106.68	93.29	599.29	57.45	8.23
		2	7.20	67.94	0.09	0.28	5.36	52.09	10.33	0.09	0.13
	Ax	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	5.40	34.87	1.69	0.09	25.31	66.25	119.07	2.83	1.53
		2	5.40	48.22	3.89	1.32	73.98	72.57	250.00	32.28	3.54
	Bx	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	1.68	22.11	1.73	0.09	25.91	63.90	186.96	2.82	2.38
		2	1.68	24.62	0.56	0.13	9.71	54.76	51.67	3.10	0.69
	Cx	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	2.40	92.50	0.97	0.63	22.62	124.71	59.84	17.48	0.97
		2	2.40	78.88	0.38	0.17	7.78	100.98	23.75	1.49	0.32
	Dx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	36.00	0.30	0.00	0.03	0.47	0.55	1.23	0.97	0.03
	10	1	36.00	4.12	0.52	0.13	9.32	27.58	153.99	4.01	1.98
	11	1	36.00	0.67	0.00	0.14	1.92	0.00	0.00	0.00	0.00
	12	1	12.00	0.05	0.00	0.00	0.02	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Average storage excess queue (PCU)	Average limit excess queue (PCU)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	22.29	10.43	213.64	3.05	0.00	0.00	0.00	0.00	0.00	
		2	12.00	1.67	12.00	13.91	0.00	0.00	0.00	55.00	0.00	55.00	
	Ax	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	B	1	0.00	4.06	7.83	51.93	0.00	0.00	0.00	4.00	0.00	4.00	
		2	9.00	9.43	9.00	104.80	0.08	0.08	7780.20	0.00	0.00	0.00	
	Bx	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	36.00	0.00	36.00	
	C	1	0.00	6.45	2.43	264.78	0.83	0.00	0.00	0.00	0.00	0.00	
		2	3.00	1.89	3.00	62.99	0.00	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	D	1	0.00	2.64	3.48	75.99	0.00	0.00	0.00	0.00	0.00	0.00	
		2	4.00	1.72	4.00	42.93	0.00	0.00	0.00	4.00	0.00	4.00	
	Dx	1	0.00	0.00	17.39	0.00	0.00	0.00	0.00	88.00	0.00	88.00	
	9	1	0.00	0.25	52.17	0.48	0.00	0.00	0.00	0.00	49.00	49.00	
	10	1	0.00	5.86	52.17	11.24	0.00	0.00	0.00	0.00	24.73	24.73	
	11	1	0.00	0.14	52.17	0.26	0.00	0.00	0.00	0.00	61.00	61.00	
	12	1	0.00	0.00	17.39	0.01	0.00	0.00	0.00	0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	42.24	8.92	4.74	45.62
		2	1.20	0.14	8.85	24.42
	Ax	1	217.50	7.25	30.00	36.00
	B	1	8.28	2.06	4.02	40.27
		2	17.51	5.57	3.14	51.54
	Bx	1	148.20	4.94	30.00	36.00
	C	1	4.16	1.96	2.12	23.79
		2	1.40	0.71	1.98	25.45
	Cx	1	152.10	5.07	30.00	36.00
	D	1	1.24	1.63	0.76	94.90
		2	0.50	0.45	1.11	64.65
	Dx	1	5.50	0.18	30.00	12.00
	9	1	119.10	4.00	29.75	36.30
	10	1	171.90	6.39	26.92	40.12
	11	1	217.20	7.38	29.45	36.67
	12	1	8.70	0.29	29.87	12.05

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (PCU)	Mean End of Green Queue EoTS (PCU)	Mean End of Red Queue EoTS (PCU)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	22.33	1.99	14.70	1.00	0.00	114.91
		2	0.00	0.00	✓	1.67	0.00	0.35	1.00	0.00	5.49
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	4.06	0.09	4.06	1.00	0.00	26.84
		2	0.00	0.00	✓	9.42	1.08	9.42	1.00	7780.20	7857.72
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	6.45	0.09	5.46	1.00	0.00	28.29
		2	0.00	0.00	✓	1.89	0.10	1.83	1.00	0.00	10.40
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	2.67	0.65	2.62	1.00	0.00	23.59
		2	0.00	0.00	✓	1.72	0.05	0.84	1.00	0.00	8.10
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	9	1	0.00	0.00	✓	0.25			1.00	0.00	0.49
	10	1	0.00	0.00	✓	5.86			1.00	0.00	11.30
	11	1	0.00	0.00	✓	0.14			1.00	0.00	1.92
	12	1	0.00	0.00	✓	0.00			1.00	0.00	0.02

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	(ALL)	(ALL)	7	50	11000	5	52.73	1.56	10.40	10.40

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	(ALL)	(ALL)	50	50	0		11000	733	7		1367	0.00	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	9.00	52.73	0.73	0.00	10.40
		2	9.00	52.73	0.73	0.00	10.40
	2	1	7.67	52.73	0.73	0.00	10.40
		2	7.67	52.73	0.73	0.00	10.40
	3	1	9.00	52.73	0.73	0.00	10.40
		2	9.00	52.73	0.73	0.00	10.40
	4	1	9.67	52.73	0.73	0.00	10.40
		2	9.67	52.73	0.73	0.00	10.40

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	(ALL)	(ALL)	1.56	10.00	15.56	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	0.65	0.86	0.76	61.73
		2	0.65	0.86	0.76	61.73
	2	1	0.55	0.84	0.66	60.40
		2	0.55	0.84	0.66	60.40
	3	1	0.65	0.86	0.76	61.73
		2	0.65	0.86	0.76	61.73
	4	1	0.70	0.87	0.81	62.40
		2	0.70	0.87	0.81	62.40

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	(ALL)	(ALL)	0.00	0.00	1.56	1.00	0.00	10.40

Collections

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	72.1	96.1	97.7	0.0	0.0	0.0	0.0
	2	112.7	0.0	143.0	143.0	0.0	0.0	0.0	0.0
	3	118.3	73.1	0.0	118.3	0.0	0.0	0.0	0.0
	4	116.4	92.4	127.7	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	61.7	61.7	0.0
	6	0.0	0.0	0.0	0.0	61.7	0.0	0.0	60.4
	7	0.0	0.0	0.0	0.0	61.7	0.0	0.0	62.4
	8	0.0	0.0	0.0	0.0	0.0	60.4	62.4	0.0

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Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Normal journey dist (m)	Bus journeydist (m)	Tram journey dist (m)	Pedestrian journey dist (m)	Calculated Total Flow (PCU/hr)	Avg journey time (s)	Avg journey dist (m)
17	8	7		50		62.40	14.00	14.00	14.00	14.00	50	62.40	14.00
18	8	6		50		60.40	11.00	11.00	11.00	11.00	50	60.40	11.00
19	3	4	382		118.29		660.00	0.00	0.00	0.00	382	118.29	660.00
20	4	1	160		116.39		645.00	0.00	0.00	0.00	160	116.39	645.00
22	5	7		50		61.73	13.00	13.00	13.00	13.00	50	61.73	13.00
23	5	6		50		61.73	13.00	13.00	13.00	13.00	50	61.73	13.00
34	6	8		50		60.40	11.00	11.00	11.00	11.00	50	60.40	11.00
35	6	5		50		61.73	13.00	13.00	13.00	13.00	50	61.73	13.00
41	7	8		50		62.40	14.00	14.00	14.00	14.00	50	62.40	14.00
42	7	5		50		61.73	13.00	13.00	13.00	13.00	50	61.73	13.00
45	1	2	11		72.09		414.00	0.00	0.00	0.00	11	72.09	414.00
46	1	3	286		96.09		614.00	0.00	0.00	0.00	286	96.09	614.00
47	1	4	100		97.74		614.00	0.00	0.00	0.00	100	97.74	614.00
48	4	3	389		127.66		645.00	0.00	0.00	0.00	389	127.66	645.00
49	4	2	24		92.39		445.00	0.00	0.00	0.00	24	92.39	445.00
50	3	2	20		73.09		460.00	0.00	0.00	0.00	20	73.09	460.00
51	3	1	322		118.29		660.00	0.00	0.00	0.00	322	118.29	660.00
52	2	1	25		112.70		420.00	0.00	0.00	0.00	25	112.70	420.00
53	2	3	50		142.95		420.00	0.00	0.00	0.00	50	142.95	420.00
54	2	4	12		142.95		420.00	0.00	0.00	0.00	12	142.95	420.00

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			Q
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	A		704 <	1850	54	0.00	83	20	45.62	38.42	93.29	
	2		1	1	A	B	20	570	57	55.00	7	1277	24.42	67.94	52.09	
Ax	1	(untitled)					725	Unrestricted	120	0.00	0	Unrestricted	36.00	0.00	0.00	
B	1	(untitled)	1	1	D		184	1850	33	4.00	35	185	40.27	34.87	66.25	
	2		1	1	D		389 <	1850	33	0.00	74	35	51.54	48.22	72.57	
Bx	1	(untitled)					494	Unrestricted	120	36.00	0	Unrestricted	36.00	0.00	0.00	
C	1	(untitled)	1	1	A		297 <	1850	54	0.00	35	185	23.79	22.11	63.90	
	2		1	1	A	B	100	570	57	0.00	36	175	25.45	24.62	54.76	
Cx	1	(untitled)					507	Unrestricted	120	0.00	0	Unrestricted	36.00	0.00	0.00	
D	1	(untitled)	1	1	C		62	1850	5	0.00	67	49	94.90	92.50	124.71	
	2		1	1	C		25	1850	5	4.00	27	270	64.65	78.88	100.98	
Dx	1	(untitled)					55	Unrestricted	120	88.00	0	Unrestricted	12.00	0.00	0.00	
9	1		1				397	1800	120	49.00	22	347	36.30	0.30	0.55	
10	1		1				573	1800	120	24.73	40	149	40.12	4.12	27.58	
11	1		1				724	1800	120	61.00	40	149	36.67	0.67	0.00	
12	1		1				87	1800	120	0.00	5	1969	12.05	0.05	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)	1	1	E	50	11000	5	7	1367	61.73	52.73	1.56	100	0
	2	(untitled)	1	1	E	50	11000	5	7	1367	61.73	52.73	1.56	100	0
2	1	(untitled)	1	1	E	50	11000	5	7	1367	60.40	52.73	1.56	100	0
	2	(untitled)	1	1	E	50	11000	5	7	1367	60.40	52.73	1.56	100	0
3	1	(untitled)	1	1	E	50	11000	5	7	1367	61.73	52.73	1.56	100	0
	2	(untitled)	1	1	E	50	11000	5	7	1367	61.73	52.73	1.56	100	0
4	1	(untitled)	1	1	E	50	11000	5	7	1367	62.40	52.73	1.56	100	0
	2	(untitled)	1	1	E	50	11000	5	7	1367	62.40	52.73	1.56	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	1116.72	56.94	19.61	15.38	4.98	289.07	19.79	7780.20	8089.07
Bus									
Tram									
Pedestrians	5.10	6.84	0.75	5.86	0.00	83.20	0.00	0.00	83.20
TOTAL	1121.82	63.78	17.59	21.24	4.98	372.27	19.79	7780.20	8172.27

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

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A1 - Junction 2
D4 - 2032 Do Nothing, AM

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item wi wors unsignal PRC
1	05/03/2024 12:17:36	05/03/2024 12:17:36	0.55	08:00	120	14141.13	26.89	83.26	A/1	0	0	A/1	10/1

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set(s)	Specific Demand Set (s)	Optimise specific Demand Set(s)	Demand Set(s) to optimise	Include in report	Locked
Junction 2			✓	D1,D2,D3,D4,D5,D6,D7	✓	D7	✓	

Demand Set Details

Scenario name	Time Period name	Description	Composite	Demand sets	Start time (HH:mm)	Locked	Run automatically
2032 Do Nothing	AM	(untitled)			08:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120	120	120		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)	Missing stage transition options
10000.00	10000.00	10000.00	2	Assume banned

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from traffic model	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓			Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy (%)	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Standard accuracy Hill Climb	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

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Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
9			1
10			1
11			1
12			1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Auto-calculate cell saturation flow	Cell saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			60.00	✓	Sum of lanes	1850			✓		Normal	
	2				60.00	✓	Sum of lanes	1850	✓	1800	✓	✓	Normal	
Ax	1	(untitled)			300.00								Normal	
B	1	(untitled)			45.00	✓	Sum of lanes	1850			✓		Normal	
	2				45.00	✓	Sum of lanes	1850	✓	1800	✓		Normal	
Bx	1	(untitled)			300.00								Normal	
C	1	(untitled)			14.00	✓	Sum of lanes	1850			✓		Normal	
	2				14.00	✓	Sum of lanes	1850	✓	1800	✓	✓	Normal	
Cx	1	(untitled)			300.00								Normal	
D	1	(untitled)			20.00	✓	Sum of lanes	1850			✓		Normal	
	2				20.00	✓	Sum of lanes	1850	✓	1800	✓		Normal	
Dx	1	(untitled)			100.00								Normal	
9	1				300.00	✓	Sum of lanes	1800					Normal	
10	1				300.00	✓	Sum of lanes	1800					Normal	
11	1				300.00	✓	Sum of lanes	1800					Normal	
12	1				100.00	✓	Sum of lanes	1800					Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1850
	2	1	(untitled)			1850
Ax	1	1	(untitled)			
B	1	1	(untitled)			1850
	2	1	(untitled)			1850
Bx	1	1	(untitled)			
C	1	1	(untitled)			1850
	2	1	(untitled)			1850
Cx	1	1	(untitled)			
D	1	1	(untitled)			1850
	2	1	(untitled)			1850
Dx	1	1	(untitled)			
9	1	1	(untitled)			1800
10	1	1	(untitled)			1800
11	1	1	(untitled)			1800
12	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Queue limit (PCU)	Excess queue penalty (£)	Has degree of saturation limit
A	1	NetworkDefault	100	100	100		0.00				
	2	CTM	100	100	100		12.00	✓	12.00	99999.00	
Ax	1	NetworkDefault	100	100	100		0.00				
B	1	NetworkDefault	100	100	100		0.00				
	2	CTM	100	100	100		9.00	✓	9.00	99999.00	
Bx	1	NetworkDefault	100	100	100		0.00				
C	1	NetworkDefault	100	100	100		0.00				
	2	CTM	100	100	100		3.00	✓	3.00	99999.00	
Cx	1	NetworkDefault	100	100	100		0.00				
D	1	NetworkDefault	100	100	100		0.00				
	2	CTM	100	100	100		4.00	✓	4.00	99999.00	
Dx	1	NetworkDefault	100	100	100		0.00				
9	1	NetworkDefault	100	100	100		0.00				
10	1	NetworkDefault	100	100	100		0.00				
11	1	NetworkDefault	100	100	100		0.00				
12	1	NetworkDefault	100	100	100		0.00				

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
A	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	12.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Ax	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
B	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	9.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Bx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
C	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	3.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Cx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
D	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	4.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Dx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
9	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
10	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
11	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
12	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
A	1	706	706
	2	20	20
Ax	1	741	741
B	1	191	191
	2	402	402
Bx	1	517	517
C	1	301	301
	2	104	104
Cx	1	497	497
D	1	62	62
	2	25	25
Dx	1	56	56
9	1	405	405
10	1	593	593
11	1	726	726
12	1	87	87

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	A		
	2	1	A	✓	B
B	1	1	D		
	2	1	D		
C	1	1	A		
	2	1	A	✓	B
D	1	1	C		
	2	1	C		

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
9	1	36.00	30.00
10	1	36.00	30.00
11	1	36.00	30.00
12	1	12.00	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A	1	1	11/1	A/1	7.20	30.00	✓	Straight	Straight Movement
	2	1	11/1	A/2	7.20	30.00	✓	Straight	Straight Movement
Ax	1	1	C/1	Ax/1	36.00	30.00	✓	Straight	Straight Movement
B	1	1	10/1	B/1	5.40	30.00	✓	Straight	Straight Movement
	2	1	10/1	B/2	5.40	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	36.00	30.00	✓	Nearside	38.43
C	1	1	9/1	C/1	1.68	30.00	✓	Straight	Straight Movement
	2	1	9/1	C/2	1.68	30.00	✓	Straight	Straight Movement
Cx	1	1	A/1	Cx/1	36.00	30.00	✓	Straight	Straight Movement
D	1	1	12/1	D/1	2.40	30.00	✓	Straight	Straight Movement
	2	1	12/1	D/2	2.40	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	12.00	30.00	✓	Nearside	39.36
Ax	1	2	D/1	Ax/1	36.00	30.00	✓	Nearside	39.61
Bx	1	2	D/1	Bx/1	36.00	30.00	✓	Straight	Straight Movement
Cx	1	2	B/1	Cx/1	36.00	30.00	✓	Nearside	43.43
Dx	1	2	B/1	Dx/1	12.00	30.00	✓	Straight	Straight Movement
Ax	1	3	B/2	Ax/1	36.00	30.00	✓	Offside	47.56
Bx	1	3	C/2	Bx/1	36.00	30.00	✓	Offside	52.89
Cx	1	3	D/2	Cx/1	36.00	30.00	✓	Offside	51.21
Dx	1	3	A/2	Dx/1	12.00	30.00	✓	Offside	47.76

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
(ALL)	2	AllTraffic		

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible
2		TrafficStream	C/1	100	0.00	
		TrafficStream	A/1	100	0.00	

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Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	12.00	8.00	5.40
2	(untitled)		1		Farside	10.00	6.67	5.40
3	(untitled)		1		Farside	12.00	8.00	5.40
4	(untitled)		1		Farside	13.00	8.67	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25				

Normal Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	12	289	104	0	0	0	0
	2	25	0	50	12	0	0	0	0
	3	305	20	0	401	0	0	0	0
	4	167	24	402	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	9/1	Cx/1	#0000FF
	2	(untitled)	12/1	Dx/1	#FF0000
	3	(untitled)	11/1	Ax/1	#00FF00
	4	(untitled)	10/1	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#008000
	7	(untitled)	4:2E, 3:1E	4:2X, 3:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	19		3	4	11/1, A/1, Bx/1	Normal	401
	20		4	1	10/1, B/1, Cx/1	Normal	167
	45		1	2	9/1, C/1, Dx/1	Normal	12
	46		1	3	9/1, C/1, Ax/1	Normal	289
	47		1	4	9/1, C/2, Bx/1	Normal	104
	48		4	3	10/1, B/2, Ax/1	Normal	402
	49		4	2	10/1, B/1, Dx/1	Normal	24
	50		3	2	11/1, A/2, Dx/1	Normal	20
	51		3	1	11/1, A/1, Cx/1	Normal	305
	52		2	1	12/1, D/2, Cx/1	Normal	25
	53		2	3	12/1, D/1, Ax/1	Normal	50
	54		2	4	12/1, D/1, Bx/1	Normal	12

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	7	4:1E, 4:2X	Normal	50
	18		8	6	2:2E, 2:1X	Normal	50
	22		5	7	3:2E, 3:1X	Normal	50
	23		5	6	1:1E, 1:2X	Normal	50
	34		6	8	2:1E, 2:2X	Normal	50
	35		6	5	1:2E, 1:1X	Normal	50
	41		7	8	4:2E, 4:1X	Normal	50
	42		7	5	3:1E, 3:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)	Minimum possible cycle time (s)
1	(untitled)		1	NetworkDefault	120	120

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Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	54	300	0	0	Traffic	
	B	(untitled)	3	3	0	0	Traffic	
	C	(untitled)	5	300	0	0	Traffic	
	D	(untitled)	33	33	0	0	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	3

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)	Run every N cycles	Probability of running (%)
1	1	A	1	1	100
	2	B	1	1	100
	3	C	1	1	100
	4	D	1	1	100
	5	E	1	1	100

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)	Single	1, 2, 3, 4, 5	59, 62, 72, 110, 0	120	
	2	(untitled)	Single	1, 2, 3, 5, 4	22, 45, 72, 98, 125	120	
	3	(untitled)	Single	1, 2, 4, 3, 5	22, 45, 72, 99, 125	120	
	4	(untitled)	Single	1, 2, 4, 5, 3	22, 45, 72, 98, 125	120	
	5	(untitled)	Single	1, 2, 5, 3, 4	22, 45, 71, 98, 125	120	
	6	(untitled)	Single	1, 2, 5, 4, 3	22, 45, 71, 98, 125	120	
	7	(untitled)	Single	1, 3, 2, 4, 5	21, 47, 74, 100, 125	125	
	8	(untitled)	Single	1, 3, 2, 5, 4	21, 47, 74, 99, 125	125	
	9	(untitled)	Single	1, 3, 4, 2, 5	21, 47, 73, 100, 125	125	
	10	(untitled)	Single	1, 3, 4, 5, 2	22, 49, 76, 102, 0	120	

Intergreen Matrix for Controller Stream 1

		To					
		A	B	C	D	E
From	A		0	5	5	5
	B	0		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

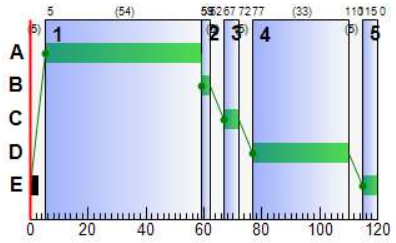
		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	A	5	59	54
A	2	1	1	A	5	59	54
B	1	1	1	D	77	110	33
B	2	1	1	D	77	110	33
C	1	1	1	A	5	59	54
C	2	1	1	A	5	59	54
D	1	1	1	C	67	72	5
D	2	1	1	C	67	72	5

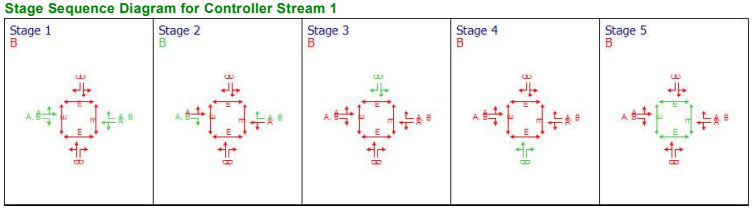
Phase Timings Diagram

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

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Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	83	20	706	1850	54	38.63	22.58	216.43	107.56	8.28	115.85
		2	7	1277	20	570	57	67.94	1.67	13.91	5.36	0.13	5.49
	Ax	1	0	Unrestricted	741	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	36	174	191	1850	33	34.74	4.09	52.31	26.17	1.54	27.71
		2	77	30	402	1850	33	49.37	9.64	107.12	78.28	3.61	13820.75
	Bx	1	0	Unrestricted	517	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	35	182	301	1850	54	22.14	6.54	268.43	26.29	2.41	28.70
		2	38	165	104	570	57	25.00	1.90	63.36	10.25	0.71	10.96
	Cx	1	0	Unrestricted	497	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	67	49	62	1850	5	92.50	2.64	75.99	22.62	0.97	23.59
		2	27	270	25	1850	5	78.88	1.72	42.93	7.78	0.32	8.10
	Dx	1	0	Unrestricted	56	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	23	329	405	1800	120	0.37	0.60	1.15	0.59	0.13	0.72
	10	1	42	136	593	1800	120	5.04	6.75	12.93	11.80	2.31	14.11
	11	1	40	148	726	1800	120	0.68	0.14	0.26	1.93	0.00	1.93
	12	1	5	1969	87	1800	120	0.05	0.00	0.01	0.02	0.00	0.02

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow (PCU/hr)	Calculated capacity (PCU/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	A	1	706	706	0		1850	848	83		20	0.00	54
		2	20	20	0		570	275	7		1277	0.00	57
	Ax	1	741	741	0		Unrestricted	Unrestricted	0		Unrestricted	0.50	120
	B	1	191	191	0		1850	524	36		174	0.38	33
		2	402	402	0		1850	524	77		30	0.39	33
	Bx	1	517	517	0		Unrestricted	Unrestricted	0		Unrestricted	0.84	120
	C	1	301	301	0		1850	848	35		182	0.03	54
		2	104	104	0		570	275	38		165	0.04	57
	Cx	1	497	497	0		Unrestricted	Unrestricted	0		Unrestricted	0.34	120
	D	1	62	62	0		1850	93	67		49	0.00	5
		2	25	25	0		1850	93	27		270	0.00	5
	Dx	1	56	56	0		Unrestricted	Unrestricted	0		Unrestricted	0.72	120
	9	1	405	405	0		1800	1737	23		329	0.00	120
	10	1	593	593	0		1800	1397	42		136	0.00	120
	11	1	726	726	0		1800	1800	40		148	0.00	120
	12	1	87	87	0		1800	1800	5		1969	0.00	120

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	7.20	38.63	5.58	1.99	107.56	93.57	602.10	58.51	8.28
		2	7.20	67.94	0.09	0.28	5.36	52.09	10.33	0.09	0.13
	Ax	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	5.40	34.74	1.74	0.10	26.17	64.29	119.68	3.11	1.54
		2	5.40	49.37	3.97	1.54	78.28	71.71	250.00	38.28	3.61
	Bx	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	1.68	22.14	1.75	0.10	26.29	63.97	189.63	2.92	2.41
		2	1.68	25.00	0.58	0.14	10.25	54.24	52.98	3.43	0.71
	Cx	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	2.40	92.50	0.97	0.63	22.62	124.71	59.84	17.48	0.97
		2	2.40	78.88	0.38	0.17	7.78	100.98	23.75	1.49	0.32
	Dx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	36.00	0.37	0.01	0.04	0.59	2.48	8.98	1.06	0.13
	10	1	36.00	5.04	0.67	0.16	11.80	31.11	179.80	4.68	2.31
	11	1	36.00	0.68	0.00	0.14	1.93	0.00	0.00	0.00	0.00
	12	1	12.00	0.05	0.00	0.00	0.02	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Average storage excess queue (PCU)	Average limit excess queue (PCU)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	22.58	10.43	216.43	3.19	0.00	0.00	0.00	0.00	0.00	
		2	12.00	1.67	12.00	13.91	0.00	0.00	0.00	55.00	0.00	55.00	
	Ax	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	B	1	0.00	4.09	7.83	52.31	0.00	0.00	0.00	4.00	0.00	4.00	
		2	9.00	9.64	9.00	107.12	0.14	0.14	13738.85	0.00	0.00	0.00	
	Bx	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	36.00	0.00	36.00	
	C	1	0.00	6.54	2.43	268.43	0.85	0.00	0.00	0.00	0.00	0.00	
		2	3.00	1.90	3.00	63.36	0.00	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	D	1	0.00	2.64	3.48	75.99	0.00	0.00	0.00	0.00	0.00	0.00	
		2	4.00	1.72	4.00	42.93	0.00	0.00	0.00	4.00	0.00	4.00	
	Dx	1	0.00	0.00	17.39	0.00	0.00	0.00	0.00	85.00	0.00	85.00	
	9	1	0.00	0.60	52.17	1.15	0.00	0.00	0.00	0.00	50.00	50.00	
	10	1	0.00	6.75	52.17	12.93	0.00	0.00	0.00	0.00	26.87	26.87	
	11	1	0.00	0.14	52.17	0.26	0.00	0.00	0.00	0.00	62.00	62.00	
	12	1	0.00	0.00	17.39	0.01	0.00	0.00	0.00	0.00	0.00	0.00	

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Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	42.36	8.99	4.71	45.83
		2	1.20	0.14	8.85	24.42
	Ax	1	222.30	7.41	30.00	36.00
	B	1	8.60	2.13	4.04	40.14
		2	18.09	5.88	3.07	52.69
	Bx	1	155.10	5.17	30.00	36.00
	C	1	4.21	1.99	2.12	23.82
		2	1.46	0.75	1.95	25.84
	Cx	1	149.10	4.97	30.00	36.00
	D	1	1.24	1.63	0.76	94.90
		2	0.50	0.45	1.11	64.65
	Dx	1	5.60	0.19	30.00	12.00
	9	1	121.50	4.09	29.69	36.37
	10	1	177.90	6.76	26.31	41.04
	11	1	217.80	7.40	29.45	36.68
	12	1	8.70	0.29	29.87	12.05

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (PCU)	Mean End of Green Queue EoTS (PCU)	Mean End of Red Queue EoTS (PCU)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	22.62	2.03	14.78	1.00	0.00	115.85
		2	0.00	0.00	✓	1.67	0.00	0.35	1.00	0.00	5.49
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	4.09	0.10	4.09	1.00	0.00	27.71
		2	0.00	0.00	✓	9.62	1.28	9.62	1.00	13738.85	13820.75
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	6.54	0.10	5.48	1.00	0.00	28.70
		2	0.00	0.00	✓	1.90	0.11	1.88	1.00	0.00	10.96
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	2.67	0.65	2.62	1.00	0.00	23.59
		2	0.00	0.00	✓	1.72	0.05	0.84	1.00	0.00	8.10
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	9	1	0.00	0.00	✓	0.60			1.00	0.00	0.72
	10	1	0.00	0.00	✓	6.75			1.00	0.00	14.11
	11	1	0.00	0.00	✓	0.14			1.00	0.00	1.93
	12	1	0.00	0.00	✓	0.00			1.00	0.00	0.02

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	(ALL)	(ALL)	7	50	11000	5	52.73	1.56	10.40	10.40

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	(ALL)	(ALL)	50	50	0		11000	733	7		1367	0.00	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	9.00	52.73	0.73	0.00	10.40
		2	9.00	52.73	0.73	0.00	10.40
	2	1	7.67	52.73	0.73	0.00	10.40
		2	7.67	52.73	0.73	0.00	10.40
	3	1	9.00	52.73	0.73	0.00	10.40
		2	9.00	52.73	0.73	0.00	10.40
	4	1	9.67	52.73	0.73	0.00	10.40
		2	9.67	52.73	0.73	0.00	10.40

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	(ALL)	(ALL)	1.56	10.00	15.56	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	0.65	0.86	0.76	61.73
		2	0.65	0.86	0.76	61.73
	2	1	0.55	0.84	0.66	60.40
		2	0.55	0.84	0.66	60.40
	3	1	0.65	0.86	0.76	61.73
		2	0.65	0.86	0.76	61.73
	4	1	0.70	0.87	0.81	62.40
		2	0.70	0.87	0.81	62.40

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	(ALL)	(ALL)	0.00	0.00	1.56	1.00	0.00	10.40

Collections

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	72.2	96.2	98.2	0.0	0.0	0.0	0.0
	2	112.7	0.0	143.0	143.0	0.0	0.0	0.0	0.0
	3	118.5	73.1	0.0	118.5	0.0	0.0	0.0	0.0
	4	117.2	93.2	129.7	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	61.7	61.7	0.0
	6	0.0	0.0	0.0	0.0	61.7	0.0	0.0	60.4
	7	0.0	0.0	0.0	0.0	61.7	0.0	0.0	62.4
	8	0.0	0.0	0.0	0.0	0.0	60.4	62.4	0.0

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Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Normal journey dist (m)	Bus journeydist (m)	Tram journey dist (m)	Pedestrian journey dist (m)	Calculated Total Flow (PCU/hr)	Avg journey time (s)	Avg journey dist (m)
17	8	7		50		62.40	14.00	14.00	14.00	14.00	50	62.40	14.00
18	8	6		50		60.40	11.00	11.00	11.00	11.00	50	60.40	11.00
19	3	4	401		118.50		660.00	0.00	0.00	0.00	401	118.50	660.00
20	4	1	167		117.18		645.00	0.00	0.00	0.00	167	117.18	645.00
22	5	7		50		61.73	13.00	13.00	13.00	13.00	50	61.73	13.00
23	5	6		50		61.73	13.00	13.00	13.00	13.00	50	61.73	13.00
34	6	8		50		60.40	11.00	11.00	11.00	11.00	50	60.40	11.00
35	6	5		50		61.73	13.00	13.00	13.00	13.00	50	61.73	13.00
41	7	8		50		62.40	14.00	14.00	14.00	14.00	50	62.40	14.00
42	7	5		50		61.73	13.00	13.00	13.00	13.00	50	61.73	13.00
45	1	2	12		72.19		414.00	0.00	0.00	0.00	12	72.19	414.00
46	1	3	289		96.19		614.00	0.00	0.00	0.00	289	96.19	614.00
47	1	4	104		98.21		614.00	0.00	0.00	0.00	104	98.21	614.00
48	4	3	402		129.73		645.00	0.00	0.00	0.00	402	129.73	645.00
49	4	2	24		93.18		445.00	0.00	0.00	0.00	24	93.18	445.00
50	3	2	20		73.10		460.00	0.00	0.00	0.00	20	73.10	460.00
51	3	1	305		118.50		660.00	0.00	0.00	0.00	305	118.50	660.00
52	2	1	25		112.70		420.00	0.00	0.00	0.00	25	112.70	420.00
53	2	3	50		142.95		420.00	0.00	0.00	0.00	50	142.95	420.00
54	2	4	12		142.95		420.00	0.00	0.00	0.00	12	142.95	420.00

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			Q
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	A		706 <	1850	54	0.00	83	20	45.83	38.63	93.57	
	2		1	1	A	B	20	570	57	55.00	7	1277	24.42	67.94	52.09	
Ax	1	(untitled)					741	Unrestricted	120	0.00	0	Unrestricted	36.00	0.00	0.00	
B	1	(untitled)	1	1	D		191	1850	33	4.00	36	174	40.14	34.74	64.29	
	2		1	1	D		402 <	1850	33	0.00	77	30	52.69	49.37	71.71	
Bx	1	(untitled)					517	Unrestricted	120	36.00	0	Unrestricted	36.00	0.00	0.00	
C	1	(untitled)	1	1	A		301 <	1850	54	0.00	35	182	23.82	22.14	63.97	
	2		1	1	A	B	104	570	57	0.00	38	165	25.84	25.00	54.24	
Cx	1	(untitled)					497	Unrestricted	120	0.00	0	Unrestricted	36.00	0.00	0.00	
D	1	(untitled)	1	1	C		62	1850	5	0.00	67	49	94.90	92.50	124.71	
	2		1	1	C		25	1850	5	4.00	27	270	64.65	78.88	100.98	
Dx	1	(untitled)					56	Unrestricted	120	85.00	0	Unrestricted	12.00	0.00	0.00	
9	1		1				405	1800	120	50.00	23	329	36.37	0.37	2.48	
10	1		1				593	1800	120	26.87	42	136	41.04	5.04	31.11	
11	1		1				726	1800	120	62.00	40	148	36.68	0.68	0.00	
12	1		1				87	1800	120	0.00	5	1969	12.05	0.05	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)	1	1	E	50	11000	5	7	1367	61.73	52.73	1.56	100	0
	2	(untitled)	1	1	E	50	11000	5	7	1367	61.73	52.73	1.56	100	0
2	1	(untitled)	1	1	E	50	11000	5	7	1367	60.40	52.73	1.56	100	0
	2	(untitled)	1	1	E	50	11000	5	7	1367	60.40	52.73	1.56	100	0
3	1	(untitled)	1	1	E	50	11000	5	7	1367	61.73	52.73	1.56	100	0
	2	(untitled)	1	1	E	50	11000	5	7	1367	61.73	52.73	1.56	100	0
4	1	(untitled)	1	1	E	50	11000	5	7	1367	62.40	52.73	1.56	100	0
	2	(untitled)	1	1	E	50	11000	5	7	1367	62.40	52.73	1.56	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	1135.66	58.23	19.50	15.75	5.28	298.66	20.41	13738.85	14057.93
Bus									
Tram									
Pedestrians	5.10	6.84	0.75	5.86	0.00	83.20	0.00	0.00	83.20
TOTAL	1140.76	65.07	17.53	21.61	5.28	381.86	20.41	13738.85	14141.13

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

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A1 - Junction 2
D5 - 2032 Do Something, AM

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item wi wors unsignal PRC
1	05/03/2024 12:17:36	05/03/2024 12:17:36	0.76	08:00	120	14161.78	28.27	87.27	A/1	0	0	A/1	10/1

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set(s)	Specific Demand Set (s)	Optimise specific Demand Set(s)	Demand Set(s) to optimise	Include in report	Locked
Junction 2			✓	D1,D2,D3,D4,D5,D6,D7	✓	D7	✓	

Demand Set Details

Scenario name	Time Period name	Description	Composite	Demand sets	Start time (HH:mm)	Locked	Run automatically
2032 Do Something	AM	(untitled)			08:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120	120	120		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)	Missing stage transition options
10000.00	10000.00	10000.00	2	Assume banned

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from traffic model	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓			Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy (%)	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Standard accuracy Hill Climb	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

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Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
9			1
10			1
11			1
12			1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Auto-calculate cell saturation flow	Cell saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			60.00	✓	Sum of lanes	1850			✓		Normal	
	2				60.00	✓	Sum of lanes	1850	✓	1800	✓	✓	Normal	
Ax	1	(untitled)			300.00								Normal	
B	1	(untitled)			45.00	✓	Sum of lanes	1850			✓		Normal	
	2				45.00	✓	Sum of lanes	1850	✓	1800	✓		Normal	
Bx	1	(untitled)			300.00								Normal	
C	1	(untitled)			14.00	✓	Sum of lanes	1850			✓		Normal	
	2				14.00	✓	Sum of lanes	1850	✓	1800	✓	✓	Normal	
Cx	1	(untitled)			300.00								Normal	
D	1	(untitled)			20.00	✓	Sum of lanes	1850			✓		Normal	
	2				20.00	✓	Sum of lanes	1850	✓	1800	✓		Normal	
Dx	1	(untitled)			100.00								Normal	
9	1				300.00	✓	Sum of lanes	1800					Normal	
10	1				300.00	✓	Sum of lanes	1800					Normal	
11	1				300.00	✓	Sum of lanes	1800					Normal	
12	1				100.00	✓	Sum of lanes	1800					Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1850
	2	1	(untitled)			1850
Ax	1	1	(untitled)			
B	1	1	(untitled)			1850
	2	1	(untitled)			1850
Bx	1	1	(untitled)			
C	1	1	(untitled)			1850
	2	1	(untitled)			1850
Cx	1	1	(untitled)			
D	1	1	(untitled)			1850
	2	1	(untitled)			1850
Dx	1	1	(untitled)			
9	1	1	(untitled)			1800
10	1	1	(untitled)			1800
11	1	1	(untitled)			1800
12	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Queue limit (PCU)	Excess queue penalty (£)	Has degree of saturation limit
A	1	NetworkDefault	100	100	100		0.00				
	2	CTM	100	100	100		12.00	✓	12.00	99999.00	
Ax	1	NetworkDefault	100	100	100		0.00				
B	1	NetworkDefault	100	100	100		0.00				
	2	CTM	100	100	100		9.00	✓	9.00	99999.00	
Bx	1	NetworkDefault	100	100	100		0.00				
C	1	NetworkDefault	100	100	100		0.00				
	2	CTM	100	100	100		3.00	✓	3.00	99999.00	
Cx	1	NetworkDefault	100	100	100		0.00				
D	1	NetworkDefault	100	100	100		0.00				
	2	CTM	100	100	100		4.00	✓	4.00	99999.00	
Dx	1	NetworkDefault	100	100	100		0.00				
9	1	NetworkDefault	100	100	100		0.00				
10	1	NetworkDefault	100	100	100		0.00				
11	1	NetworkDefault	100	100	100		0.00				
12	1	NetworkDefault	100	100	100		0.00				

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
A	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	12.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Ax	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
B	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	9.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Bx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
C	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	3.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Cx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
D	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	4.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Dx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
9	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
10	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
11	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
12	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
A	1	740	740
	2	20	20
Ax	1	754	754
B	1	191	191
	2	402	402
Bx	1	517	517
C	1	314	314
	2	104	104
Cx	1	531	531
D	1	62	62
	2	25	25
Dx	1	56	56
9	1	418	418
10	1	593	593
11	1	760	760
12	1	87	87

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	A		
	2	1	A	✓	B
B	1	1	D		
	2	1	D		
C	1	1	A		
	2	1	A	✓	B
D	1	1	C		
	2	1	C		

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
9	1	36.00	30.00
10	1	36.00	30.00
11	1	36.00	30.00
12	1	12.00	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A	1	1	11/1	A/1	7.20	30.00	✓	Straight	Straight Movement
	2	1	11/1	A/2	7.20	30.00	✓	Straight	Straight Movement
Ax	1	1	C/1	Ax/1	36.00	30.00	✓	Straight	Straight Movement
B	1	1	10/1	B/1	5.40	30.00	✓	Straight	Straight Movement
	2	1	10/1	B/2	5.40	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	36.00	30.00	✓	Nearside	38.43
C	1	1	9/1	C/1	1.68	30.00	✓	Straight	Straight Movement
	2	1	9/1	C/2	1.68	30.00	✓	Straight	Straight Movement
Cx	1	1	A/1	Cx/1	36.00	30.00	✓	Straight	Straight Movement
D	1	1	12/1	D/1	2.40	30.00	✓	Straight	Straight Movement
	2	1	12/1	D/2	2.40	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	12.00	30.00	✓	Nearside	39.36
Ax	1	2	D/1	Ax/1	36.00	30.00	✓	Nearside	39.61
Bx	1	2	D/1	Bx/1	36.00	30.00	✓	Straight	Straight Movement
Cx	1	2	B/1	Cx/1	36.00	30.00	✓	Nearside	43.43
Dx	1	2	B/1	Dx/1	12.00	30.00	✓	Straight	Straight Movement
Ax	1	3	B/2	Ax/1	36.00	30.00	✓	Offside	47.56
Bx	1	3	C/2	Bx/1	36.00	30.00	✓	Offside	52.89
Cx	1	3	D/2	Cx/1	36.00	30.00	✓	Offside	51.21
Dx	1	3	A/2	Dx/1	12.00	30.00	✓	Offside	47.76

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
(ALL)	2	AllTraffic		

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible
2		TrafficStream	C/1	100	0.00	
		TrafficStream	A/1	100	0.00	

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Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	12.00	8.00	5.40
2	(untitled)		1		Farside	10.00	6.67	5.40
3	(untitled)		1		Farside	12.00	8.00	5.40
4	(untitled)		1		Farside	13.00	8.67	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25				

Normal Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	12	302	104	0	0	0	0
	2	25	0	50	12	0	0	0	0
	3	339	20	0	401	0	0	0	0
	4	167	24	402	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	9/1	Cx/1	#0000FF
	2	(untitled)	12/1	Dx/1	#FF0000
	3	(untitled)	11/1	Ax/1	#00FF00
	4	(untitled)	10/1	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#008000
	7	(untitled)	4:2E, 3:1E	4:2X, 3:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	19		3	4	11/1, A/1, Bx/1	Normal	401
	20		4	1	10/1, B/1, Cx/1	Normal	167
	45		1	2	9/1, C/1, Dx/1	Normal	12
	46		1	3	9/1, C/1, Ax/1	Normal	302
	47		1	4	9/1, C/2, Bx/1	Normal	104
	48		4	3	10/1, B/2, Ax/1	Normal	402
	49		4	2	10/1, B/1, Dx/1	Normal	24
	50		3	2	11/1, A/2, Dx/1	Normal	20
	51		3	1	11/1, A/1, Cx/1	Normal	339
	52		2	1	12/1, D/2, Cx/1	Normal	25
	53		2	3	12/1, D/1, Ax/1	Normal	50
	54		2	4	12/1, D/1, Bx/1	Normal	12

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	7	4:1E, 4:2X	Normal	50
	18		8	6	2:2E, 2:1X	Normal	50
	22		5	7	3:2E, 3:1X	Normal	50
	23		5	6	1:1E, 1:2X	Normal	50
	34		6	8	2:1E, 2:2X	Normal	50
	35		6	5	1:2E, 1:1X	Normal	50
	41		7	8	4:2E, 4:1X	Normal	50
	42		7	5	3:1E, 3:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)	Minimum possible cycle time (s)
1	(untitled)		1	NetworkDefault	120	120

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Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	54	300	0	0	Traffic	
	B	(untitled)	3	3	0	0	Traffic	
	C	(untitled)	5	300	0	0	Traffic	
	D	(untitled)	33	33	0	0	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	3

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)	Run every N cycles	Probability of running (%)
1	1	A	1	1	100
	2	B	1	1	100
	3	C	1	1	100
	4	D	1	1	100
	5	E	1	1	100

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)	Single	1, 2, 3, 4, 5	59, 62, 72, 110, 0	120	
	2	(untitled)	Single	1, 2, 3, 5, 4	22, 45, 72, 98, 125	120	
	3	(untitled)	Single	1, 2, 4, 3, 5	22, 45, 72, 99, 125	120	
	4	(untitled)	Single	1, 2, 4, 5, 3	22, 45, 72, 98, 125	120	
	5	(untitled)	Single	1, 2, 5, 3, 4	22, 45, 71, 98, 125	120	
	6	(untitled)	Single	1, 2, 5, 4, 3	22, 45, 71, 98, 125	120	
	7	(untitled)	Single	1, 3, 2, 4, 5	21, 47, 74, 100, 125	125	
	8	(untitled)	Single	1, 3, 2, 5, 4	21, 47, 74, 99, 125	125	
	9	(untitled)	Single	1, 3, 4, 2, 5	21, 47, 73, 100, 125	125	
	10	(untitled)	Single	1, 3, 4, 5, 2	22, 49, 76, 102, 0	120	

Intergreen Matrix for Controller Stream 1

		To					
		A	B	C	D	E
From	A		0	5	5	5
	B	0		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

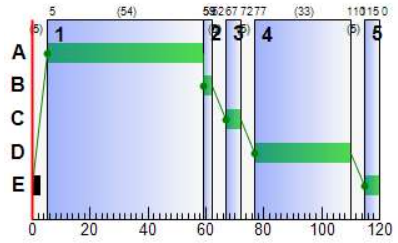
		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	A	5	59	54
A	2	1	1	A	5	59	54
B	1	1	1	D	77	110	33
B	2	1	1	D	77	110	33
C	1	1	1	A	5	59	54
C	2	1	1	A	5	59	54
D	1	1	1	C	67	72	5
D	2	1	1	C	67	72	5

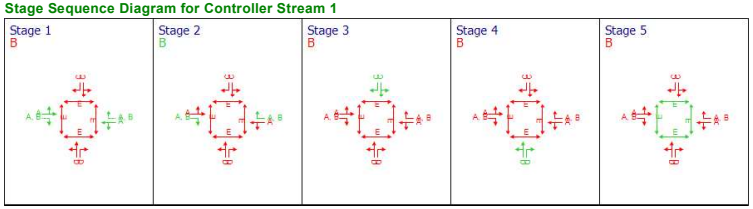
Phase Timings Diagram

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

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Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	87	15	740	1850	54	42.97	25.00	239.60	125.43	9.19	134.61
		2	7	1277	20	570	57	67.94	1.67	13.91	5.36	0.13	5.49
	Ax	1	0	Unrestricted	754	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	36	174	191	1850	33	34.74	4.09	52.31	26.17	1.54	27.71
		2	77	30	402	1850	33	49.37	9.64	107.12	78.28	3.61	13820.75
	Bx	1	0	Unrestricted	517	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	37	170	314	1850	54	22.40	6.91	283.89	27.74	2.55	30.29
		2	38	165	104	570	57	25.00	1.90	63.36	10.25	0.71	10.96
	Cx	1	0	Unrestricted	531	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	67	49	62	1850	5	92.50	2.64	75.99	22.62	0.97	23.59
		2	27	270	25	1850	5	78.88	1.72	42.93	7.78	0.32	8.10
	Dx	1	0	Unrestricted	56	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	24	316	418	1800	120	0.38	0.62	1.19	0.63	0.13	0.76
	10	1	42	136	593	1800	120	5.04	6.75	12.93	11.80	2.31	14.11
	11	1	42	137	760	1800	120	0.73	0.15	0.30	2.19	0.00	2.19
	12	1	5	1969	87	1800	120	0.05	0.00	0.01	0.02	0.00	0.02

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow (PCU/hr)	Calculated capacity (PCU/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	A	1	740	740	0		1850	848	87		15	0.00	54
		2	20	20	0		570	275	7		1277	0.00	57
	Ax	1	754	754	0		Unrestricted	Unrestricted	0		Unrestricted	0.50	120
	B	1	191	191	0		1850	524	36		174	0.38	33
		2	402	402	0		1850	524	77		30	0.39	33
	Bx	1	517	517	0		Unrestricted	Unrestricted	0		Unrestricted	0.83	120
	C	1	314	314	0		1850	848	37		170	0.03	54
		2	104	104	0		570	275	38		165	0.04	57
	Cx	1	531	531	0		Unrestricted	Unrestricted	0		Unrestricted	0.35	120
	D	1	62	62	0		1850	93	67		49	0.00	5
		2	25	25	0		1850	93	27		270	0.00	5
	Dx	1	56	56	0		Unrestricted	Unrestricted	0		Unrestricted	0.72	120
	9	1	418	418	0		1800	1737	24		316	0.00	120
	10	1	593	593	0		1800	1397	42		136	0.00	120
	11	1	760	760	0		1800	1800	42		137	0.00	120

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	7.20	42.97	6.03	2.80	125.43	98.99	650.85	81.71	9.19
		2	7.20	67.94	0.09	0.28	5.36	52.09	10.33	0.09	0.13
	Ax	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	5.40	34.74	1.74	0.10	26.17	64.29	119.68	3.11	1.54
		2	5.40	49.37	3.97	1.54	78.28	71.71	250.00	38.28	3.61
	Bx	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	1.68	22.40	1.84	0.11	27.74	64.68	199.85	3.25	2.55
		2	1.68	25.00	0.58	0.14	10.25	54.24	52.98	3.43	0.71
	Cx	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	2.40	92.50	0.97	0.63	22.62	124.71	59.84	17.48	0.97
		2	2.40	78.88	0.38	0.17	7.78	100.98	23.75	1.49	0.32
	Dx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	36.00	0.38	0.01	0.04	0.63	2.49	9.27	1.14	0.13
	10	1	36.00	5.04	0.67	0.16	11.80	31.11	179.80	4.68	2.31
	11	1	36.00	0.73	0.00	0.15	2.19	0.00	0.00	0.00	0.00
	12	1	12.00	0.05	0.00	0.00	0.02	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Average storage excess queue (PCU)	Average limit excess queue (PCU)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	25.00	10.43	239.60	4.36	0.00	0.00	0.00	0.00	0.00	
		2	12.00	1.67	12.00	13.91	0.00	0.00	0.00	55.00	0.00	55.00	
	Ax	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	B	1	0.00	4.09	7.83	52.31	0.00	0.00	0.00	4.00	0.00	4.00	
		2	9.00	9.64	9.00	107.12	0.14	0.14	13738.85	0.00	0.00	0.00	
	Bx	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	35.00	0.00	35.00	
	C	1	0.00	6.91	2.43	283.89	0.97	0.00	0.00	0.00	0.00	0.00	
		2	3.00	1.90	3.00	63.36	0.00	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	D	1	0.00	2.64	3.48	75.99	0.00	0.00	0.00	0.00	0.00	0.00	
		2	4.00	1.72	4.00	42.93	0.00	0.00	0.00	4.00	0.00	4.00	
	Dx	1	0.00	0.00	17.39	0.00	0.00	0.00	0.00	85.00	0.00	85.00	
	9	1	0.00	0.62	52.17	1.19	0.00	0.00	0.00	0.00	52.00	52.00	
	10	1	0.00	6.75	52.17	12.93	0.00	0.00	0.00	0.00	26.87	26.87	
	11	1	0.00	0.15	52.17	0.30	0.00	0.00	0.00	0.00	71.00	71.00	
	12	1	0.00	0.00	17.39	0.01	0.00	0.00	0.00	0.00	0.00	0.00	

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Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	44.40	10.31	4.31	50.17
		2	1.20	0.14	8.85	24.42
	Ax	1	226.20	7.54	30.00	36.00
	B	1	8.60	2.13	4.04	40.14
		2	18.09	5.88	3.07	52.69
	Bx	1	155.10	5.17	30.00	36.00
	C	1	4.40	2.10	2.09	24.08
		2	1.46	0.75	1.95	25.84
	Cx	1	159.30	5.31	30.00	36.00
	D	1	1.24	1.63	0.76	94.90
		2	0.50	0.45	1.11	64.65
	Dx	1	5.60	0.19	30.00	12.00
	9	1	125.40	4.22	29.68	36.38
	10	1	177.90	6.76	26.31	41.04
	11	1	228.00	7.75	29.40	36.73
	12	1	8.70	0.29	29.87	12.05

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (PCU)	Mean End of Green Queue EoTS (PCU)	Mean End of Red Queue EoTS (PCU)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	25.09	2.89	16.25	1.00	0.00	134.61
		2	0.00	0.00	✓	1.67	0.00	0.35	1.00	0.00	5.49
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	4.09	0.10	4.09	1.00	0.00	27.71
		2	0.00	0.00	✓	9.62	1.28	9.62	1.00	13738.85	13820.75
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	6.91	0.11	5.72	1.00	0.00	30.29
		2	0.00	0.00	✓	1.90	0.11	1.88	1.00	0.00	10.96
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	2.67	0.65	2.62	1.00	0.00	23.59
		2	0.00	0.00	✓	1.72	0.05	0.84	1.00	0.00	8.10
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	9	1	0.00	0.00	✓	0.62			1.00	0.00	0.76
	10	1	0.00	0.00	✓	6.75			1.00	0.00	14.11
	11	1	0.00	0.00	✓	0.15			1.00	0.00	2.19
	12	1	0.00	0.00	✓	0.00			1.00	0.00	0.02

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	(ALL)	(ALL)	7	50	11000	5	52.73	1.56	10.40	10.40

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	(ALL)	(ALL)	50	50	0		11000	733	7		1367	0.00	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	9.00	52.73	0.73	0.00	10.40
		2	9.00	52.73	0.73	0.00	10.40
	2	1	7.67	52.73	0.73	0.00	10.40
		2	7.67	52.73	0.73	0.00	10.40
	3	1	9.00	52.73	0.73	0.00	10.40
		2	9.00	52.73	0.73	0.00	10.40
	4	1	9.67	52.73	0.73	0.00	10.40
		2	9.67	52.73	0.73	0.00	10.40

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	(ALL)	(ALL)	1.56	10.00	15.56	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	0.65	0.86	0.76	61.73
		2	0.65	0.86	0.76	61.73
	2	1	0.55	0.84	0.66	60.40
		2	0.55	0.84	0.66	60.40
	3	1	0.65	0.86	0.76	61.73
		2	0.65	0.86	0.76	61.73
	4	1	0.70	0.87	0.81	62.40
		2	0.70	0.87	0.81	62.40

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	(ALL)	(ALL)	0.00	0.00	1.56	1.00	0.00	10.40

Collections

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	72.5	96.5	98.2	0.0	0.0	0.0	0.0
	2	112.7	0.0	143.0	143.0	0.0	0.0	0.0	0.0
	3	122.9	73.2	0.0	122.9	0.0	0.0	0.0	0.0
	4	117.2	93.2	129.7	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	61.7	61.7	0.0
	6	0.0	0.0	0.0	0.0	61.7	0.0	0.0	60.4
	7	0.0	0.0	0.0	0.0	61.7	0.0	0.0	62.4
	8	0.0	0.0	0.0	0.0	0.0	60.4	62.4	0.0

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Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Normal journey dist (m)	Bus journeydist (m)	Tram journey dist (m)	Pedestrian journey dist (m)	Calculated Total Flow (PCU/hr)	Avg journey time (s)	Avg journey dist (m)
17	8	7		50		62.40	14.00	14.00	14.00	14.00	50	62.40	14.00
18	8	6		50		60.40	11.00	11.00	11.00	11.00	50	60.40	11.00
19	3	4	401		122.90		660.00	0.00	0.00	0.00	401	122.90	660.00
20	4	1	167		117.18		645.00	0.00	0.00	0.00	167	117.18	645.00
22	5	7		50		61.73	13.00	13.00	13.00	13.00	50	61.73	13.00
23	5	6		50		61.73	13.00	13.00	13.00	13.00	50	61.73	13.00
34	6	8		50		60.40	11.00	11.00	11.00	11.00	50	60.40	11.00
35	6	5		50		61.73	13.00	13.00	13.00	13.00	50	61.73	13.00
41	7	8		50		62.40	14.00	14.00	14.00	14.00	50	62.40	14.00
42	7	5		50		61.73	13.00	13.00	13.00	13.00	50	61.73	13.00
45	1	2	12		72.46		414.00	0.00	0.00	0.00	12	72.46	414.00
46	1	3	302		96.46		614.00	0.00	0.00	0.00	302	96.46	614.00
47	1	4	104		98.22		614.00	0.00	0.00	0.00	104	98.22	614.00
48	4	3	402		129.73		645.00	0.00	0.00	0.00	402	129.73	645.00
49	4	2	24		93.18		445.00	0.00	0.00	0.00	24	93.18	445.00
50	3	2	20		73.15		460.00	0.00	0.00	0.00	20	73.15	460.00
51	3	1	339		122.90		660.00	0.00	0.00	0.00	339	122.90	660.00
52	2	1	25		112.70		420.00	0.00	0.00	0.00	25	112.70	420.00
53	2	3	50		142.95		420.00	0.00	0.00	0.00	50	142.95	420.00
54	2	4	12		142.95		420.00	0.00	0.00	0.00	12	142.95	420.00

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			Q
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	A		740 <	1850	54	0.00	87	15	50.17	42.97	98.99	
	2		1	1	A	B	20	570	57	55.00	7	1277	24.42	67.94	52.09	
Ax	1	(untitled)					754	Unrestricted	120	0.00	0	Unrestricted	36.00	0.00	0.00	
B	1	(untitled)	1	1	D		191	1850	33	4.00	36	174	40.14	34.74	64.29	
	2		1	1	D		402 <	1850	33	0.00	77	30	52.69	49.37	71.71	
Bx	1	(untitled)					517	Unrestricted	120	35.00	0	Unrestricted	36.00	0.00	0.00	
C	1	(untitled)	1	1	A		314 <	1850	54	0.00	37	170	24.08	22.40	64.68	
	2		1	1	A	B	104	570	57	0.00	38	165	25.84	25.00	54.24	
Cx	1	(untitled)					531	Unrestricted	120	0.00	0	Unrestricted	36.00	0.00	0.00	
D	1	(untitled)	1	1	C		62	1850	5	0.00	67	49	94.90	92.50	124.71	
	2		1	1	C		25	1850	5	4.00	27	270	64.65	78.88	100.98	
Dx	1	(untitled)					56	Unrestricted	120	85.00	0	Unrestricted	12.00	0.00	0.00	
9	1		1				418	1800	120	52.00	24	316	36.38	0.38	2.49	
10	1		1				593	1800	120	26.87	42	136	41.04	5.04	31.11	
11	1		1				760	1800	120	71.00	42	137	36.73	0.73	0.00	
12	1		1				87	1800	120	0.00	5	1969	12.05	0.05	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)	1	1	E	50	11000	5	7	1367	61.73	52.73	1.56	100	0
	2	(untitled)	1	1	E	50	11000	5	7	1367	61.73	52.73	1.56	100	0
2	1	(untitled)	1	1	E	50	11000	5	7	1367	60.40	52.73	1.56	100	0
	2	(untitled)	1	1	E	50	11000	5	7	1367	60.40	52.73	1.56	100	0
3	1	(untitled)	1	1	E	50	11000	5	7	1367	61.73	52.73	1.56	100	0
	2	(untitled)	1	1	E	50	11000	5	7	1367	61.73	52.73	1.56	100	0
4	1	(untitled)	1	1	E	50	11000	5	7	1367	62.40	52.73	1.56	100	0
	2	(untitled)	1	1	E	50	11000	5	7	1367	62.40	52.73	1.56	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	1166.08	60.63	19.23	16.29	6.12	318.27	21.45	13738.85	14078.58
Bus									
Tram									
Pedestrians	5.10	6.84	0.75	5.86	0.00	83.20	0.00	0.00	83.20
TOTAL	1171.18	67.47	17.36	22.15	6.12	401.47	21.45	13738.85	14161.78

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

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A1 - Junction 2
D6 - 2042 Do Nothing, AM

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item wi wors unsignal PRC
1	05/03/2024 12:17:36	05/03/2024 12:17:37	1.12	08:00	120	22259.17	28.79	87.04	A/1	0	0	A/1	10/1

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set(s)	Specific Demand Set (s)	Optimise specific Demand Set(s)	Demand Set(s) to optimise	Include in report	Locked
Junction 2			✓	D1,D2,D3,D4,D5,D6,D7	✓	D7	✓	

Demand Set Details

Scenario name	Time Period name	Description	Composite	Demand sets	Start time (HH:mm)	Locked	Run automatically
2042 Do Nothing	AM	(untitled)			08:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120	120	120		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)	Missing stage transition options
10000.00	10000.00	10000.00	2	Assume banned

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from traffic model	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓			Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy (%)	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Standard accuracy Hill Climb	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

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Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
9			1
10			1
11			1
12			1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Auto-calculate cell saturation flow	Cell saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			60.00	✓	Sum of lanes	1850			✓		Normal	
	2				60.00	✓	Sum of lanes	1850	✓	1800	✓	✓	Normal	
Ax	1	(untitled)			300.00								Normal	
B	1	(untitled)			45.00	✓	Sum of lanes	1850			✓		Normal	
	2				45.00	✓	Sum of lanes	1850	✓	1800	✓		Normal	
Bx	1	(untitled)			300.00								Normal	
C	1	(untitled)			14.00	✓	Sum of lanes	1850			✓		Normal	
	2				14.00	✓	Sum of lanes	1850	✓	1800	✓	✓	Normal	
Cx	1	(untitled)			300.00								Normal	
D	1	(untitled)			20.00	✓	Sum of lanes	1850			✓		Normal	
	2				20.00	✓	Sum of lanes	1850	✓	1800	✓		Normal	
Dx	1	(untitled)			100.00								Normal	
9	1				300.00	✓	Sum of lanes	1800					Normal	
10	1				300.00	✓	Sum of lanes	1800					Normal	
11	1				300.00	✓	Sum of lanes	1800					Normal	
12	1				100.00	✓	Sum of lanes	1800					Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1850
	2	1	(untitled)			1850
Ax	1	1	(untitled)			
B	1	1	(untitled)			1850
	2	1	(untitled)			1850
Bx	1	1	(untitled)			
C	1	1	(untitled)			1850
	2	1	(untitled)			1850
Cx	1	1	(untitled)			
D	1	1	(untitled)			1850
	2	1	(untitled)			1850
Dx	1	1	(untitled)			
9	1	1	(untitled)			1800
10	1	1	(untitled)			1800
11	1	1	(untitled)			1800
12	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Queue limit (PCU)	Excess queue penalty (£)	Has degree of saturation limit
A	1	NetworkDefault	100	100	100		0.00				
	2	CTM	100	100	100		12.00	✓	12.00	99999.00	
Ax	1	NetworkDefault	100	100	100		0.00				
B	1	NetworkDefault	100	100	100		0.00				
	2	CTM	100	100	100		9.00	✓	9.00	99999.00	
Bx	1	NetworkDefault	100	100	100		0.00				
C	1	NetworkDefault	100	100	100		0.00				
	2	CTM	100	100	100		3.00	✓	3.00	99999.00	
Cx	1	NetworkDefault	100	100	100		0.00				
D	1	NetworkDefault	100	100	100		0.00				
	2	CTM	100	100	100		4.00	✓	4.00	99999.00	
Dx	1	NetworkDefault	100	100	100		0.00				
9	1	NetworkDefault	100	100	100		0.00				
10	1	NetworkDefault	100	100	100		0.00				
11	1	NetworkDefault	100	100	100		0.00				
12	1	NetworkDefault	100	100	100		0.00				

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
A	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	12.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Ax	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
B	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	9.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Bx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
C	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	3.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Cx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
D	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	4.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Dx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
9	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
10	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
11	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
12	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
A	1	738	738
	2	20	20
Ax	1	767	767
B	1	196	196
	2	414	414
Bx	1	539	539
C	1	315	315
	2	109	109
Cx	1	517	517
D	1	62	62
	2	25	25
Dx	1	56	56
9	1	424	424
10	1	610	610
11	1	758	758
12	1	87	87

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	A		
	2	1	A	✓	B
B	1	1	D		
	2	1	D		
C	1	1	A		
	2	1	A	✓	B
D	1	1	C		
	2	1	C		

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
9	1	36.00	30.00
10	1	36.00	30.00
11	1	36.00	30.00
12	1	12.00	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A	1	1	11/1	A/1	7.20	30.00	✓	Straight	Straight Movement
	2	1	11/1	A/2	7.20	30.00	✓	Straight	Straight Movement
Ax	1	1	C/1	Ax/1	36.00	30.00	✓	Straight	Straight Movement
B	1	1	10/1	B/1	5.40	30.00	✓	Straight	Straight Movement
	2	1	10/1	B/2	5.40	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	36.00	30.00	✓	Nearside	38.43
C	1	1	9/1	C/1	1.68	30.00	✓	Straight	Straight Movement
	2	1	9/1	C/2	1.68	30.00	✓	Straight	Straight Movement
Cx	1	1	A/1	Cx/1	36.00	30.00	✓	Straight	Straight Movement
D	1	1	12/1	D/1	2.40	30.00	✓	Straight	Straight Movement
	2	1	12/1	D/2	2.40	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	12.00	30.00	✓	Nearside	39.36
Ax	1	2	D/1	Ax/1	36.00	30.00	✓	Nearside	39.61
Bx	1	2	D/1	Bx/1	36.00	30.00	✓	Straight	Straight Movement
Cx	1	2	B/1	Cx/1	36.00	30.00	✓	Nearside	43.43
Dx	1	2	B/1	Dx/1	12.00	30.00	✓	Straight	Straight Movement
Ax	1	3	B/2	Ax/1	36.00	30.00	✓	Offside	47.56
Bx	1	3	C/2	Bx/1	36.00	30.00	✓	Offside	52.89
Cx	1	3	D/2	Cx/1	36.00	30.00	✓	Offside	51.21
Dx	1	3	A/2	Dx/1	12.00	30.00	✓	Offside	47.76

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
(ALL)	2	AllTraffic		

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible
2		TrafficStream	C/1	100	0.00	
		TrafficStream	A/1	100	0.00	

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Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	12.00	8.00	5.40
2	(untitled)		1		Farside	10.00	6.67	5.40
3	(untitled)		1		Farside	12.00	8.00	5.40
4	(untitled)		1		Farside	13.00	8.67	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25				

Normal Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	12	303	109	0	0	0	0
	2	25	0	50	12	0	0	0	0
	3	320	20	0	418	0	0	0	0
	4	172	24	414	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	9/1	Cx/1	#0000FF
	2	(untitled)	12/1	Dx/1	#FF0000
	3	(untitled)	11/1	Ax/1	#00FF00
	4	(untitled)	10/1	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#008000
	7	(untitled)	4:2E, 3:1E	4:2X, 3:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	19		3	4	11/1, A/1, Bx/1	Normal	418
	20		4	1	10/1, B/1, Cx/1	Normal	172
	45		1	2	9/1, C/1, Dx/1	Normal	12
	46		1	3	9/1, C/1, Ax/1	Normal	303
	47		1	4	9/1, C/2, Bx/1	Normal	109
	48		4	3	10/1, B/2, Ax/1	Normal	414
	49		4	2	10/1, B/1, Dx/1	Normal	24
	50		3	2	11/1, A/2, Dx/1	Normal	20
	51		3	1	11/1, A/1, Cx/1	Normal	320
	52		2	1	12/1, D/2, Cx/1	Normal	25
	53		2	3	12/1, D/1, Ax/1	Normal	50
	54		2	4	12/1, D/1, Bx/1	Normal	12

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	7	4:1E, 4:2X	Normal	50
	18		8	6	2:2E, 2:1X	Normal	50
	22		5	7	3:2E, 3:1X	Normal	50
	23		5	6	1:1E, 1:2X	Normal	50
	34		6	8	2:1E, 2:2X	Normal	50
	35		6	5	1:2E, 1:1X	Normal	50
	41		7	8	4:2E, 4:1X	Normal	50
	42		7	5	3:1E, 3:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)	Minimum possible cycle time (s)
1	(untitled)		1	NetworkDefault	120	120

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Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	54	300	0	0	Traffic	
	B	(untitled)	3	3	0	0	Traffic	
	C	(untitled)	5	300	0	0	Traffic	
	D	(untitled)	33	33	0	0	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	3

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)	Run every N cycles	Probability of running (%)
1	1	A	1	1	100
	2	B	1	1	100
	3	C	1	1	100
	4	D	1	1	100
	5	E	1	1	100

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)	Single	1, 2, 3, 4, 5	59, 62, 72, 110, 0	120	
	2	(untitled)	Single	1, 2, 3, 5, 4	22, 45, 72, 98, 125	120	
	3	(untitled)	Single	1, 2, 4, 3, 5	22, 45, 72, 99, 125	120	
	4	(untitled)	Single	1, 2, 4, 5, 3	22, 45, 72, 98, 125	120	
	5	(untitled)	Single	1, 2, 5, 3, 4	22, 45, 71, 98, 125	120	
	6	(untitled)	Single	1, 2, 5, 4, 3	22, 45, 71, 98, 125	120	
	7	(untitled)	Single	1, 3, 2, 4, 5	21, 47, 74, 100, 125	125	
	8	(untitled)	Single	1, 3, 2, 5, 4	21, 47, 74, 99, 125	125	
	9	(untitled)	Single	1, 3, 4, 2, 5	21, 47, 73, 100, 125	125	
	10	(untitled)	Single	1, 3, 4, 5, 2	22, 49, 76, 102, 0	120	

Intergreen Matrix for Controller Stream 1

		To					
		A	B	C	D	E
From	A		0	5	5	5
	B	0		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

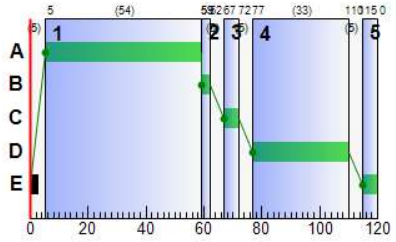
		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	A	5	59	54
A	2	1	1	A	5	59	54
B	1	1	1	D	77	110	33
B	2	1	1	D	77	110	33
C	1	1	1	A	5	59	54
C	2	1	1	A	5	59	54
D	1	1	1	C	67	72	5
D	2	1	1	C	67	72	5

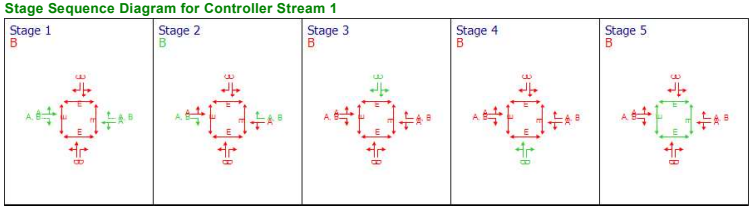
Phase Timings Diagram

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

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Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	87	15	738	1850	54	42.66	24.88	238.45	124.19	9.12	133.32
		2	7	1277	20	570	57	67.94	1.67	13.91	5.36	0.13	5.49
	Ax	1	0	Unrestricted	767	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	37	167	196	1850	33	34.58	4.09	52.28	26.73	1.54	28.27
		2	79	27	414	1850	33	50.74	9.88	109.82	82.87	3.70	21914.97
	Bx	1	0	Unrestricted	539	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	37	169	315	1850	54	22.28	6.93	284.81	27.68	2.55	30.23
		2	40	153	109	570	57	25.41	1.92	63.87	10.92	0.72	11.64
	Cx	1	0	Unrestricted	517	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	67	49	62	1850	5	92.50	2.64	75.99	22.62	0.97	23.59
		2	27	270	25	1850	5	78.88	1.72	42.93	7.78	0.32	8.10
	Dx	1	0	Unrestricted	56	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	25	298	424	1800	120	0.56	1.10	2.11	0.93	0.29	1.22
	10	1	45	124	610	1800	120	5.95	7.47	14.31	14.32	2.63	16.95
	11	1	42	137	758	1800	120	0.73	0.15	0.29	2.17	0.00	2.17
	12	1	5	1969	87	1800	120	0.05	0.00	0.01	0.02	0.00	0.02

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow (PCU/hr)	Calculated capacity (PCU/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	A	1	738	738	0		1850	848	87		15	0.00	54
		2	20	20	0		570	275	7		1277	0.00	57
	Ax	1	767	767	0		Unrestricted	Unrestricted	0		Unrestricted	0.49	120
	B	1	196	196	0		1850	524	37		167	0.42	33
		2	414	414	0		1850	524	79		27	0.43	33
	Bx	1	539	539	0		Unrestricted	Unrestricted	0		Unrestricted	0.84	120
	C	1	315	315	0		1850	848	37		169	0.08	54
		2	109	109	0		570	275	40		153	0.08	57
	Cx	1	517	517	0		Unrestricted	Unrestricted	0		Unrestricted	0.33	120
	D	1	62	62	0		1850	93	67		49	0.00	5
		2	25	25	0		1850	93	27		270	0.00	5
	Dx	1	56	56	0		Unrestricted	Unrestricted	0		Unrestricted	0.70	120
	9	1	424	424	0		1800	1688	25		298	0.00	120
	10	1	610	610	0		1800	1366	45		124	0.00	120
	11	1	758	758	0		1800	1800	42		137	0.00	120
	12	1	87	87	0		1800	1800	5		1969	0.00	120

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	7.20	42.66	6.00	2.74	124.19	98.59	647.57	80.01	9.12
		2	7.20	67.94	0.09	0.28	5.36	52.09	10.33	0.09	0.13
	Ax	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	5.40	34.58	1.77	0.11	26.73	62.61	119.40	3.33	1.54
		2	5.40	50.74	4.05	1.79	82.87	71.31	250.00	45.23	3.70
	Bx	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	1.68	22.28	1.84	0.11	27.68	64.65	200.36	3.28	2.55
		2	1.68	25.41	0.61	0.16	10.92	52.57	53.42	3.88	0.72
	Cx	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	2.40	92.50	0.97	0.63	22.62	124.71	59.84	17.48	0.97
		2	2.40	78.88	0.38	0.17	7.78	100.98	23.75	1.49	0.32
	Dx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	36.00	0.56	0.02	0.04	0.93	5.46	21.90	1.26	0.29
	10	1	36.00	5.95	0.83	0.18	14.32	34.44	204.68	5.38	2.63
	11	1	36.00	0.73	0.00	0.15	2.17	0.00	0.00	0.00	0.00
	12	1	12.00	0.05	0.00	0.00	0.02	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Average storage excess queue (PCU)	Average limit excess queue (PCU)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	24.88	10.43	238.45	4.30	0.00	0.00	0.00	0.00	0.00	
		2	12.00	1.67	12.00	13.91	0.00	0.00	0.00	55.00	0.00	55.00	
	Ax	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	B	1	0.00	4.09	7.83	52.28	0.00	0.00	0.00	4.00	0.00	4.00	
		2	9.00	9.88	9.00	109.82	0.22	0.22	21828.40	0.00	0.00	0.00	
	Bx	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	35.00	0.00	35.00	
	C	1	0.00	6.93	2.43	284.81	0.97	0.00	0.00	0.00	0.00	0.00	
		2	3.00	1.92	3.00	63.87	0.00	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	D	1	0.00	2.64	3.48	75.99	0.00	0.00	0.00	0.00	0.00	0.00	
		2	4.00	1.72	4.00	42.93	0.00	0.00	0.00	4.00	0.00	4.00	
	Dx	1	0.00	0.00	17.39	0.00	0.00	0.00	0.00	85.00	0.00	85.00	
	9	1	0.00	1.10	52.17	2.11	0.00	0.00	0.00	0.00	52.00	52.00	
	10	1	0.00	7.47	52.17	14.31	0.00	0.00	0.00	0.00	28.91	28.91	
	11	1	0.00	0.15	52.17	0.29	0.00	0.00	0.00	0.00	71.00	71.00	
	12	1	0.00	0.00	17.39	0.01	0.00	0.00	0.00	0.00	0.00	0.00	

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Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	44.28	10.22	4.33	49.86
		2	1.20	0.14	8.85	24.42
	Ax	1	230.10	7.67	30.00	36.00
	B	1	8.82	2.18	4.05	39.98
		2	18.63	6.22	3.00	54.08
	Bx	1	161.70	5.39	30.00	36.00
	C	1	4.41	2.10	2.10	23.96
		2	1.53	0.80	1.92	26.27
	Cx	1	155.10	5.17	30.00	36.00
	D	1	1.24	1.63	0.76	94.90
		2	0.50	0.45	1.11	64.65
	Dx	1	5.60	0.19	30.00	12.00
	9	1	127.20	4.31	29.54	36.56
	10	1	183.00	7.11	25.75	41.95
	11	1	227.40	7.73	29.41	36.73
	12	1	8.70	0.29	29.87	12.05

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (PCU)	Mean End of Green Queue EoTS (PCU)	Mean End of Red Queue EoTS (PCU)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	24.97	2.83	16.15	1.00	0.00	133.32
		2	0.00	0.00	✓	1.67	0.00	0.35	1.00	0.00	5.49
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	4.09	0.11	4.09	1.00	0.00	28.27
		2	0.00	0.00	✓	9.85	1.52	9.85	1.00	21828.40	21914.97
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	6.93	0.11	5.55	1.00	0.00	30.23
		2	0.00	0.00	✓	1.92	0.13	1.91	1.00	0.00	11.64
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	2.67	0.65	2.62	1.00	0.00	23.59
		2	0.00	0.00	✓	1.72	0.05	0.84	1.00	0.00	8.10
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	9	1	0.00	0.00	✓	1.10			1.00	0.00	1.22
	10	1	0.00	0.00	✓	7.47			1.00	0.00	16.95
	11	1	0.00	0.00	✓	0.15			1.00	0.00	2.17
	12	1	0.00	0.00	✓	0.00			1.00	0.00	0.02

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	(ALL)	(ALL)	7	50	11000	5	52.73	1.56	10.40	10.40

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	(ALL)	(ALL)	50	50	0		11000	733	7		1367	0.00	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	9.00	52.73	0.73	0.00	10.40
		2	9.00	52.73	0.73	0.00	10.40
	2	1	7.67	52.73	0.73	0.00	10.40
		2	7.67	52.73	0.73	0.00	10.40
	3	1	9.00	52.73	0.73	0.00	10.40
		2	9.00	52.73	0.73	0.00	10.40
	4	1	9.67	52.73	0.73	0.00	10.40
		2	9.67	52.73	0.73	0.00	10.40

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	(ALL)	(ALL)	1.56	10.00	15.56	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	0.65	0.86	0.76	61.73
		2	0.65	0.86	0.76	61.73
	2	1	0.55	0.84	0.66	60.40
		2	0.55	0.84	0.66	60.40
	3	1	0.65	0.86	0.76	61.73
		2	0.65	0.86	0.76	61.73
	4	1	0.70	0.87	0.81	62.40
		2	0.70	0.87	0.81	62.40

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	(ALL)	(ALL)	0.00	0.00	1.56	1.00	0.00	10.40

Collections

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	72.5	96.5	98.8	0.0	0.0	0.0	0.0
	2	112.7	0.0	143.0	143.0	0.0	0.0	0.0	0.0
	3	122.6	73.1	0.0	122.6	0.0	0.0	0.0	0.0
	4	117.9	93.9	132.0	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	61.7	61.7	0.0
	6	0.0	0.0	0.0	0.0	61.7	0.0	0.0	60.4
	7	0.0	0.0	0.0	0.0	61.7	0.0	0.0	62.4
	8	0.0	0.0	0.0	0.0	0.0	60.4	62.4	0.0

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Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Normal journey dist (m)	Bus journeydist (m)	Tram journey dist (m)	Pedestrian journey dist (m)	Calculated Total Flow (PCU/hr)	Avg journey time (s)	Avg journey dist (m)
17	8	7		50		62.40	14.00	14.00	14.00	14.00	50	62.40	14.00
18	8	6		50		60.40	11.00	11.00	11.00	11.00	50	60.40	11.00
19	3	4	418		122.59		660.00	0.00	0.00	0.00	418	122.59	660.00
20	4	1	172		117.93		645.00	0.00	0.00	0.00	172	117.93	645.00
22	5	7		50		61.73	13.00	13.00	13.00	13.00	50	61.73	13.00
23	5	6		50		61.73	13.00	13.00	13.00	13.00	50	61.73	13.00
34	6	8		50		60.40	11.00	11.00	11.00	11.00	50	60.40	11.00
35	6	5		50		61.73	13.00	13.00	13.00	13.00	50	61.73	13.00
41	7	8		50		62.40	14.00	14.00	14.00	14.00	50	62.40	14.00
42	7	5		50		61.73	13.00	13.00	13.00	13.00	50	61.73	13.00
45	1	2	12		72.51		414.00	0.00	0.00	0.00	12	72.51	414.00
46	1	3	303		96.51		614.00	0.00	0.00	0.00	303	96.51	614.00
47	1	4	109		98.83		614.00	0.00	0.00	0.00	109	98.83	614.00
48	4	3	414		132.03		645.00	0.00	0.00	0.00	414	132.03	645.00
49	4	2	24		93.93		445.00	0.00	0.00	0.00	24	93.93	445.00
50	3	2	20		73.15		460.00	0.00	0.00	0.00	20	73.15	460.00
51	3	1	320		122.59		660.00	0.00	0.00	0.00	320	122.59	660.00
52	2	1	25		112.70		420.00	0.00	0.00	0.00	25	112.70	420.00
53	2	3	50		142.95		420.00	0.00	0.00	0.00	50	142.95	420.00
54	2	4	12		142.95		420.00	0.00	0.00	0.00	12	142.95	420.00

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			Q
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	A		738 <	1850	54	0.00	87	15	49.86	42.66	98.59	
	2		1	1	A	B	20	570	57	55.00	7	1277	24.42	67.94	52.09	
Ax	1	(untitled)					767	Unrestricted	120	0.00	0	Unrestricted	36.00	0.00	0.00	
B	1	(untitled)	1	1	D		196	1850	33	4.00	37	167	39.98	34.58	62.61	
	2		1	1	D		414 <	1850	33	0.00	79	27	54.08	50.74	71.31	
Bx	1	(untitled)					539	Unrestricted	120	35.00	0	Unrestricted	36.00	0.00	0.00	
C	1	(untitled)	1	1	A		315 <	1850	54	0.00	37	169	23.96	22.28	64.65	
	2		1	1	A	B	109	570	57	0.00	40	153	26.27	25.41	52.57	
Cx	1	(untitled)					517	Unrestricted	120	0.00	0	Unrestricted	36.00	0.00	0.00	
D	1	(untitled)	1	1	C		62	1850	5	0.00	67	49	94.90	92.50	124.71	
	2		1	1	C		25	1850	5	4.00	27	270	64.65	78.88	100.98	
Dx	1	(untitled)					56	Unrestricted	120	85.00	0	Unrestricted	12.00	0.00	0.00	
9	1		1				424	1800	120	52.00	25	298	36.56	0.56	5.46	
10	1		1				610	1800	120	28.91	45	124	41.95	5.95	34.44	
11	1		1				758	1800	120	71.00	42	137	36.73	0.73	0.00	
12	1		1				87	1800	120	0.00	5	1969	12.05	0.05	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)	1	1	E	50	11000	5	7	1367	61.73	52.73	1.56	100	0
	2	(untitled)	1	1	E	50	11000	5	7	1367	61.73	52.73	1.56	100	0
2	1	(untitled)	1	1	E	50	11000	5	7	1367	60.40	52.73	1.56	100	0
	2	(untitled)	1	1	E	50	11000	5	7	1367	60.40	52.73	1.56	100	0
3	1	(untitled)	1	1	E	50	11000	5	7	1367	61.73	52.73	1.56	100	0
	2	(untitled)	1	1	E	50	11000	5	7	1367	61.73	52.73	1.56	100	0
4	1	(untitled)	1	1	E	50	11000	5	7	1367	62.40	52.73	1.56	100	0
	2	(untitled)	1	1	E	50	11000	5	7	1367	62.40	52.73	1.56	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	1179.41	61.58	19.15	16.57	6.36	325.59	21.98	21828.40	22175.97
Bus									
Tram									
Pedestrians	5.10	6.84	0.75	5.86	0.00	83.20	0.00	0.00	83.20
TOTAL	1184.51	68.42	17.31	22.43	6.36	408.79	21.98	21828.40	22259.17

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

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A1 - Junction 2
D7 - 2042 Do Something, AM

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item wi wors unsignal PRC
1	05/03/2024 12:17:35	05/03/2024 12:17:35	0.57	08:00	120	22288.14	30.74	91.05	A/1	0	0	A/1	10/1

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set(s)	Specific Demand Set (s)	Optimise specific Demand Set(s)	Demand Set(s) to optimise	Include in report	Locked
Junction 2			✓	D1,D2,D3,D4,D5,D6,D7	✓	D7	✓	

Demand Set Details

Scenario name	Time Period name	Description	Composite	Demand sets	Start time (HH:mm)	Locked	Run automatically
2042 Do Something	AM	(untitled)			08:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120	120	120		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)	Missing stage transition options
10000.00	10000.00	10000.00	2	Assume banned

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from traffic model	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓			Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy (%)	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Standard accuracy Hill Climb	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

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Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
9			1
10			1
11			1
12			1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Auto-calculate cell saturation flow	Cell saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			60.00	✓	Sum of lanes	1850			✓		Normal	
	2				60.00	✓	Sum of lanes	1850	✓	1800	✓	✓	Normal	
Ax	1	(untitled)			300.00								Normal	
B	1	(untitled)			45.00	✓	Sum of lanes	1850			✓		Normal	
	2				45.00	✓	Sum of lanes	1850	✓	1800	✓		Normal	
Bx	1	(untitled)			300.00								Normal	
C	1	(untitled)			14.00	✓	Sum of lanes	1850			✓		Normal	
	2				14.00	✓	Sum of lanes	1850	✓	1800	✓	✓	Normal	
Cx	1	(untitled)			300.00								Normal	
D	1	(untitled)			20.00	✓	Sum of lanes	1850			✓		Normal	
	2				20.00	✓	Sum of lanes	1850	✓	1800	✓		Normal	
Dx	1	(untitled)			100.00								Normal	
9	1				300.00	✓	Sum of lanes	1800					Normal	
10	1				300.00	✓	Sum of lanes	1800					Normal	
11	1				300.00	✓	Sum of lanes	1800					Normal	
12	1				100.00	✓	Sum of lanes	1800					Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1850
	2	1	(untitled)			1850
Ax	1	1	(untitled)			
B	1	1	(untitled)			1850
	2	1	(untitled)			1850
Bx	1	1	(untitled)			
C	1	1	(untitled)			1850
	2	1	(untitled)			1850
Cx	1	1	(untitled)			
D	1	1	(untitled)			1850
	2	1	(untitled)			1850
Dx	1	1	(untitled)			
9	1	1	(untitled)			1800
10	1	1	(untitled)			1800
11	1	1	(untitled)			1800
12	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Queue limit (PCU)	Excess queue penalty (£)	Has degree of saturation limit
A	1	NetworkDefault	100	100	100		0.00				
	2	CTM	100	100	100		12.00	✓	12.00	99999.00	
Ax	1	NetworkDefault	100	100	100		0.00				
B	1	NetworkDefault	100	100	100		0.00				
	2	CTM	100	100	100		9.00	✓	9.00	99999.00	
Bx	1	NetworkDefault	100	100	100		0.00				
C	1	NetworkDefault	100	100	100		0.00				
	2	CTM	100	100	100		3.00	✓	3.00	99999.00	
Cx	1	NetworkDefault	100	100	100		0.00				
D	1	NetworkDefault	100	100	100		0.00				
	2	CTM	100	100	100		4.00	✓	4.00	99999.00	
Dx	1	NetworkDefault	100	100	100		0.00				
9	1	NetworkDefault	100	100	100		0.00				
10	1	NetworkDefault	100	100	100		0.00				
11	1	NetworkDefault	100	100	100		0.00				
12	1	NetworkDefault	100	100	100		0.00				

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
A	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	12.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Ax	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
B	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	9.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Bx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
C	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	3.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Cx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
D	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	4.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Dx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
9	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
10	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
11	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
12	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
A	1	772	772
	2	20	20
Ax	1	780	780
B	1	196	196
	2	414	414
Bx	1	539	539
C	1	328	328
	2	109	109
Cx	1	551	551
D	1	62	62
	2	25	25
Dx	1	56	56
9	1	437	437
10	1	610	610
11	1	792	792
12	1	87	87

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	A		
	2	1	A	✓	B
B	1	1	D		
	2	1	D		
C	1	1	A		
	2	1	A	✓	B
D	1	1	C		
	2	1	C		

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
9	1	36.00	30.00
10	1	36.00	30.00
11	1	36.00	30.00
12	1	12.00	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A	1	1	11/1	A/1	7.20	30.00	✓	Straight	Straight Movement
	2	1	11/1	A/2	7.20	30.00	✓	Straight	Straight Movement
Ax	1	1	C/1	Ax/1	36.00	30.00	✓	Straight	Straight Movement
B	1	1	10/1	B/1	5.40	30.00	✓	Straight	Straight Movement
	2	1	10/1	B/2	5.40	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	36.00	30.00	✓	Nearside	38.43
C	1	1	9/1	C/1	1.68	30.00	✓	Straight	Straight Movement
	2	1	9/1	C/2	1.68	30.00	✓	Straight	Straight Movement
Cx	1	1	A/1	Cx/1	36.00	30.00	✓	Straight	Straight Movement
D	1	1	12/1	D/1	2.40	30.00	✓	Straight	Straight Movement
	2	1	12/1	D/2	2.40	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	12.00	30.00	✓	Nearside	39.36
Ax	1	2	D/1	Ax/1	36.00	30.00	✓	Nearside	39.61
Bx	1	2	D/1	Bx/1	36.00	30.00	✓	Straight	Straight Movement
Cx	1	2	B/1	Cx/1	36.00	30.00	✓	Nearside	43.43
Dx	1	2	B/1	Dx/1	12.00	30.00	✓	Straight	Straight Movement
Ax	1	3	B/2	Ax/1	36.00	30.00	✓	Offside	47.56
Bx	1	3	C/2	Bx/1	36.00	30.00	✓	Offside	52.89
Cx	1	3	D/2	Cx/1	36.00	30.00	✓	Offside	51.21
Dx	1	3	A/2	Dx/1	12.00	30.00	✓	Offside	47.76

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
(ALL)	2	AllTraffic		

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible
2		TrafficStream	C/1	100	0.00	
		TrafficStream	A/1	100	0.00	

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Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	12.00	8.00	5.40
2	(untitled)		1		Farside	10.00	6.67	5.40
3	(untitled)		1		Farside	12.00	8.00	5.40
4	(untitled)		1		Farside	13.00	8.67	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25				

Normal Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	12	316	109	0	0	0	0
	2	25	0	50	12	0	0	0	0
	3	354	20	0	418	0	0	0	0
	4	172	24	414	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	9/1	Cx/1	#0000FF
	2	(untitled)	12/1	Dx/1	#FF0000
	3	(untitled)	11/1	Ax/1	#00FF00
	4	(untitled)	10/1	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#008000
	7	(untitled)	4:2E, 3:1E	4:2X, 3:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	19		3	4	11/1, A/1, Bx/1	Normal	418
	20		4	1	10/1, B/1, Cx/1	Normal	172
	45		1	2	9/1, C/1, Dx/1	Normal	12
	46		1	3	9/1, C/1, Ax/1	Normal	316
	47		1	4	9/1, C/2, Bx/1	Normal	109
	48		4	3	10/1, B/2, Ax/1	Normal	414
	49		4	2	10/1, B/1, Dx/1	Normal	24
	50		3	2	11/1, A/2, Dx/1	Normal	20
	51		3	1	11/1, A/1, Cx/1	Normal	354
	52		2	1	12/1, D/2, Cx/1	Normal	25
	53		2	3	12/1, D/1, Ax/1	Normal	50
	54		2	4	12/1, D/1, Bx/1	Normal	12

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	7	4:1E, 4:2X	Normal	50
	18		8	6	2:2E, 2:1X	Normal	50
	22		5	7	3:2E, 3:1X	Normal	50
	23		5	6	1:1E, 1:2X	Normal	50
	34		6	8	2:1E, 2:2X	Normal	50
	35		6	5	1:2E, 1:1X	Normal	50
	41		7	8	4:2E, 4:1X	Normal	50
	42		7	5	3:1E, 3:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)	Minimum possible cycle time (s)
1	(untitled)		1	NetworkDefault	120	120

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Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	54	300	0	0	Traffic	
	B	(untitled)	3	3	0	0	Traffic	
	C	(untitled)	5	300	0	0	Traffic	
	D	(untitled)	33	33	0	0	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	3

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)	Run every N cycles	Probability of running (%)
1	1	A	1	1	100
	2	B	1	1	100
	3	C	1	1	100
	4	D	1	1	100
	5	E	1	1	100

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)	Single	1, 2, 3, 4, 5	59, 62, 72, 110, 0	120	
	2	(untitled)	Single	1, 2, 3, 5, 4	22, 45, 72, 98, 125	120	
	3	(untitled)	Single	1, 2, 4, 3, 5	22, 45, 72, 99, 125	120	
	4	(untitled)	Single	1, 2, 4, 5, 3	22, 45, 72, 98, 125	120	
	5	(untitled)	Single	1, 2, 5, 3, 4	22, 45, 71, 98, 125	120	
	6	(untitled)	Single	1, 2, 5, 4, 3	22, 45, 71, 98, 125	120	
	7	(untitled)	Single	1, 3, 2, 4, 5	21, 47, 74, 100, 125	125	
	8	(untitled)	Single	1, 3, 2, 5, 4	21, 47, 74, 99, 125	125	
	9	(untitled)	Single	1, 3, 4, 2, 5	21, 47, 73, 100, 125	125	
	10	(untitled)	Single	1, 3, 4, 5, 2	22, 49, 76, 102, 0	120	

Intergreen Matrix for Controller Stream 1

		To					
		A	B	C	D	E
From	A		0	5	5	5
	B	0		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

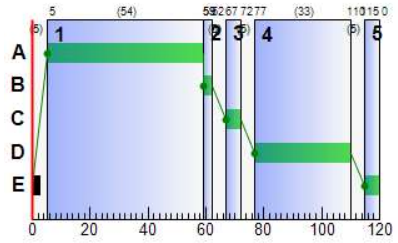
		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	A	5	59	54
A	2	1	1	A	5	59	54
B	1	1	1	D	77	110	33
B	2	1	1	D	77	110	33
C	1	1	1	A	5	59	54
C	2	1	1	A	5	59	54
D	1	1	1	C	67	72	5
D	2	1	1	C	67	72	5

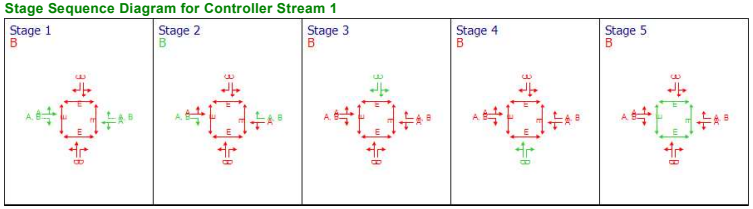
Phase Timings Diagram

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

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Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	91	10	772	1850	54	49.29	27.89	267.32	150.09	10.25	160.34
		2	7	1277	20	570	57	67.94	1.67	13.91	5.36	0.13	5.49
	Ax	1	0	Unrestricted	780	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	37	167	196	1850	33	34.58	4.09	52.28	26.73	1.54	28.27
		2	79	27	414	1850	33	50.74	9.88	109.82	82.87	3.70	21914.97
	Bx	1	0	Unrestricted	539	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	39	159	328	1850	54	22.54	7.23	296.88	29.16	2.67	31.83
		2	40	153	109	570	57	25.41	1.92	63.87	10.92	0.72	11.64
	Cx	1	0	Unrestricted	551	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	67	49	62	1850	5	92.50	2.64	75.99	22.62	0.97	23.59
		2	27	270	25	1850	5	78.88	1.72	42.93	7.78	0.32	8.10
	Dx	1	0	Unrestricted	56	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	26	287	437	1800	120	0.57	1.14	2.18	0.98	0.30	1.28
	10	1	45	124	610	1800	120	5.95	7.47	14.31	14.32	2.63	16.95
	11	1	44	127	792	1800	120	0.78	0.17	0.33	2.45	0.00	2.45
	12	1	5	1969	87	1800	120	0.05	0.00	0.01	0.02	0.00	0.02

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow (PCU/hr)	Calculated capacity (PCU/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	A	1	772	772	0		1850	848	91		10	0.00	54
		2	20	20	0		570	275	7		1277	0.00	57
	Ax	1	780	780	0		Unrestricted	Unrestricted	0		Unrestricted	0.49	120
	B	1	196	196	0		1850	524	37		167	0.42	33
		2	414	414	0		1850	524	79		27	0.43	33
	Bx	1	539	539	0		Unrestricted	Unrestricted	0		Unrestricted	0.82	120
	C	1	328	328	0		1850	848	39		159	0.08	54
		2	109	109	0		570	275	40		153	0.08	57
	Cx	1	551	551	0		Unrestricted	Unrestricted	0		Unrestricted	0.34	120
	D	1	62	62	0		1850	93	67		49	0.00	5
		2	25	25	0		1850	93	27		270	0.00	5
	Dx	1	56	56	0		Unrestricted	Unrestricted	0		Unrestricted	0.70	120
	9	1	437	437	0		1800	1689	26		287	0.00	120
	10	1	610	610	0		1800	1366	45		124	0.00	120
	11	1	792	792	0		1800	1800	44		127	0.00	120
	12	1	87	87	0		1800	1800	5		1969	0.00	120

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	7.20	49.29	6.48	4.09	150.09	105.87	699.31	117.97	10.25
		2	7.20	67.94	0.09	0.28	5.36	52.09	10.33	0.09	0.13
	Ax	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	5.40	34.58	1.77	0.11	26.73	62.61	119.40	3.33	1.54
		2	5.40	50.74	4.05	1.79	82.87	71.31	250.00	45.23	3.70
	Bx	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	1.68	22.54	1.93	0.12	29.16	65.01	209.58	3.64	2.67
		2	1.68	25.41	0.61	0.16	10.92	52.57	53.42	3.88	0.72
	Cx	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	2.40	92.50	0.97	0.63	22.62	124.71	59.84	17.48	0.97
		2	2.40	78.88	0.38	0.17	7.78	100.98	23.75	1.49	0.32
	Dx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	36.00	0.57	0.02	0.05	0.98	5.47	22.57	1.35	0.30
	10	1	36.00	5.95	0.83	0.18	14.32	34.44	204.68	5.38	2.63
	11	1	36.00	0.78	0.00	0.17	2.45	0.00	0.00	0.00	0.00
	12	1	12.00	0.05	0.00	0.00	0.02	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Average storage excess queue (PCU)	Average limit excess queue (PCU)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	27.89	10.43	267.32	6.00	0.00	0.00	0.00	0.00	0.00	
		2	12.00	1.67	12.00	13.91	0.00	0.00	0.00	55.00	0.00	55.00	
	Ax	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	B	1	0.00	4.09	7.83	52.28	0.00	0.00	0.00	4.00	0.00	4.00	
		2	9.00	9.88	9.00	109.82	0.22	0.22	21828.40	0.00	0.00	0.00	
	Bx	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	34.00	0.00	34.00	
	C	1	0.00	7.23	2.43	296.88	1.05	0.00	0.00	0.00	0.00	0.00	
		2	3.00	1.92	3.00	63.87	0.00	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	D	1	0.00	2.64	3.48	75.99	0.00	0.00	0.00	0.00	0.00	0.00	
		2	4.00	1.72	4.00	42.93	0.00	0.00	0.00	4.00	0.00	4.00	
	Dx	1	0.00	0.00	17.39	0.00	0.00	0.00	0.00	84.00	0.00	84.00	
	9	1	0.00	1.14	52.17	2.18	0.00	0.00	0.00	0.00	53.00	53.00	
	10	1	0.00	7.47	52.17	14.31	0.00	0.00	0.00	0.00	28.91	28.91	
	11	1	0.00	0.17	52.17	0.33	0.00	0.00	0.00	0.00	82.00	82.00	
	12	1	0.00	0.00	17.39	0.01	0.00	0.00	0.00	0.00	0.00	0.00	

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Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	46.32	12.11	3.82	56.49
		2	1.20	0.14	8.85	24.42
	Ax	1	234.00	7.80	30.00	36.00
	B	1	8.82	2.18	4.05	39.98
		2	18.63	6.22	3.00	54.08
	Bx	1	161.70	5.39	30.00	36.00
	C	1	4.59	2.21	2.08	24.22
		2	1.53	0.80	1.92	26.27
	Cx	1	165.30	5.51	30.00	36.00
	D	1	1.24	1.63	0.76	94.90
		2	0.50	0.45	1.11	64.65
	Dx	1	5.60	0.19	30.00	12.00
	9	1	131.10	4.44	29.53	36.57
	10	1	183.00	7.11	25.75	41.95
	11	1	237.60	8.09	29.36	36.78
	12	1	8.70	0.29	29.87	12.05

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (PCU)	Mean End of Green Queue EoTS (PCU)	Mean End of Red Queue EoTS (PCU)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	28.13	4.33	18.27	1.00	0.00	160.34
		2	0.00	0.00	✓	1.67	0.00	0.35	1.00	0.00	5.49
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	4.09	0.11	4.09	1.00	0.00	28.27
		2	0.00	0.00	✓	9.85	1.52	9.85	1.00	21828.40	21914.97
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	7.23	0.12	5.79	1.00	0.00	31.83
		2	0.00	0.00	✓	1.92	0.13	1.91	1.00	0.00	11.64
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	2.67	0.65	2.62	1.00	0.00	23.59
		2	0.00	0.00	✓	1.72	0.05	0.84	1.00	0.00	8.10
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	9	1	0.00	0.00	✓	1.14			1.00	0.00	1.28
	10	1	0.00	0.00	✓	7.47			1.00	0.00	16.95
	11	1	0.00	0.00	✓	0.17			1.00	0.00	2.45
	12	1	0.00	0.00	✓	0.00			1.00	0.00	0.02

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	(ALL)	(ALL)	7	50	11000	5	52.73	1.56	10.40	10.40

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	(ALL)	(ALL)	50	50	0		11000	733	7		1367	0.00	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	9.00	52.73	0.73	0.00	10.40
		2	9.00	52.73	0.73	0.00	10.40
	2	1	7.67	52.73	0.73	0.00	10.40
		2	7.67	52.73	0.73	0.00	10.40
	3	1	9.00	52.73	0.73	0.00	10.40
		2	9.00	52.73	0.73	0.00	10.40
	4	1	9.67	52.73	0.73	0.00	10.40
		2	9.67	52.73	0.73	0.00	10.40

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	(ALL)	(ALL)	1.56	10.00	15.56	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	0.65	0.86	0.76	61.73
		2	0.65	0.86	0.76	61.73
	2	1	0.55	0.84	0.66	60.40
		2	0.55	0.84	0.66	60.40
	3	1	0.65	0.86	0.76	61.73
		2	0.65	0.86	0.76	61.73
	4	1	0.70	0.87	0.81	62.40
		2	0.70	0.87	0.81	62.40

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	(ALL)	(ALL)	0.00	0.00	1.56	1.00	0.00	10.40

Collections

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	72.8	96.8	98.8	0.0	0.0	0.0	0.0
	2	112.7	0.0	143.0	143.0	0.0	0.0	0.0	0.0
	3	129.3	73.2	0.0	129.3	0.0	0.0	0.0	0.0
	4	117.9	93.9	132.0	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	61.7	61.7	0.0
	6	0.0	0.0	0.0	0.0	61.7	0.0	0.0	60.4
	7	0.0	0.0	0.0	0.0	61.7	0.0	0.0	62.4
	8	0.0	0.0	0.0	0.0	0.0	60.4	62.4	0.0

Generated on 05/03/2024 12:18:18 using TRANSYT 16 (16.0.1.8473)

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Normal journey dist (m)	Bus journeydist (m)	Tram journey dist (m)	Pedestrian journey dist (m)	Calculated Total Flow (PCU/hr)	Avg journey time (s)	Avg journey dist (m)
17	8	7		50		62.40	14.00	14.00	14.00	14.00	50	62.40	14.00
18	8	6		50		60.40	11.00	11.00	11.00	11.00	50	60.40	11.00
19	3	4	418		129.27		660.00	0.00	0.00	0.00	418	129.27	660.00
20	4	1	172		117.93		645.00	0.00	0.00	0.00	172	117.93	645.00
22	5	7		50		61.73	13.00	13.00	13.00	13.00	50	61.73	13.00
23	5	6		50		61.73	13.00	13.00	13.00	13.00	50	61.73	13.00
34	6	8		50		60.40	11.00	11.00	11.00	11.00	50	60.40	11.00
35	6	5		50		61.73	13.00	13.00	13.00	13.00	50	61.73	13.00
41	7	8		50		62.40	14.00	14.00	14.00	14.00	50	62.40	14.00
42	7	5		50		61.73	13.00	13.00	13.00	13.00	50	61.73	13.00
45	1	2	12		72.79		414.00	0.00	0.00	0.00	12	72.79	414.00
46	1	3	316		96.79		614.00	0.00	0.00	0.00	316	96.79	614.00
47	1	4	109		98.85		614.00	0.00	0.00	0.00	109	98.85	614.00
48	4	3	414		132.03		645.00	0.00	0.00	0.00	414	132.03	645.00
49	4	2	24		93.93		445.00	0.00	0.00	0.00	24	93.93	445.00
50	3	2	20		73.21		460.00	0.00	0.00	0.00	20	73.21	460.00
51	3	1	354		129.27		660.00	0.00	0.00	0.00	354	129.27	660.00
52	2	1	25		112.70		420.00	0.00	0.00	0.00	25	112.70	420.00
53	2	3	50		142.95		420.00	0.00	0.00	0.00	50	142.95	420.00
54	2	4	12		142.95		420.00	0.00	0.00	0.00	12	142.95	420.00

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			Q
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	A		772 <	1850	54	0.00	91	10	56.49	49.29	105.87	
	2		1	1	A	B	20	570	57	55.00	7	1277	24.42	67.94	52.09	
Ax	1	(untitled)					780	Unrestricted	120	0.00	0	Unrestricted	36.00	0.00	0.00	
B	1	(untitled)	1	1	D		196	1850	33	4.00	37	167	39.98	34.58	62.61	
	2		1	1	D		414 <	1850	33	0.00	79	27	54.08	50.74	71.31	
Bx	1	(untitled)					539	Unrestricted	120	34.00	0	Unrestricted	36.00	0.00	0.00	
C	1	(untitled)	1	1	A		328 <	1850	54	0.00	39	159	24.22	22.54	65.01	
	2		1	1	A	B	109	570	57	0.00	40	153	26.27	25.41	52.57	
Cx	1	(untitled)					551	Unrestricted	120	0.00	0	Unrestricted	36.00	0.00	0.00	
D	1	(untitled)	1	1	C		62	1850	5	0.00	67	49	94.90	92.50	124.71	
	2		1	1	C		25	1850	5	4.00	27	270	64.65	78.88	100.98	
Dx	1	(untitled)					56	Unrestricted	120	84.00	0	Unrestricted	12.00	0.00	0.00	
9	1		1				437	1800	120	53.00	26	287	36.57	0.57	5.47	
10	1		1				610	1800	120	28.91	45	124	41.95	5.95	34.44	
11	1		1				792	1800	120	82.00	44	127	36.78	0.78	0.00	
12	1		1				87	1800	120	0.00	5	1969	12.05	0.05	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)	1	1	E	50	11000	5	7	1367	61.73	52.73	1.56	100	0
	2	(untitled)	1	1	E	50	11000	5	7	1367	61.73	52.73	1.56	100	0
2	1	(untitled)	1	1	E	50	11000	5	7	1367	60.40	52.73	1.56	100	0
	2	(untitled)	1	1	E	50	11000	5	7	1367	60.40	52.73	1.56	100	0
3	1	(untitled)	1	1	E	50	11000	5	7	1367	61.73	52.73	1.56	100	0
	2	(untitled)	1	1	E	50	11000	5	7	1367	61.73	52.73	1.56	100	0
4	1	(untitled)	1	1	E	50	11000	5	7	1367	62.40	52.73	1.56	100	0
	2	(untitled)	1	1	E	50	11000	5	7	1367	62.40	52.73	1.56	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	1209.83	64.55	18.74	17.14	7.74	353.30	23.23	21828.40	22204.93
Bus									
Tram									
Pedestrians	5.10	6.84	0.75	5.86	0.00	83.20	0.00	0.00	83.20
TOTAL	1214.93	71.39	17.02	23.00	7.74	436.50	23.23	21828.40	22288.14

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

TRANSYT 16

Version: 16.0.1.8473

Filename: Junction 2 - PM.t16
Path: M:\Projects\23\23-102 Mooretown\Design\Traffic\2024-02 - Modelling\Junction 2
Report generation date: 05/03/2024 12:30:23

»A1 - Junction 2 : D1 - 2023 Base Year, PM :
»A1 - Junction 2 : D2 - 2027 Do Nothing, PM :
»A1 - Junction 2 : D3 - 2027 Do Something, PM :
»A1 - Junction 2 : D4 - 2032 Do Nothing, PM :
»A1 - Junction 2 : D5 - 2032 Do Something, PM :
»A1 - Junction 2 : D6 - 2042 Do Nothing, PM :
»A1 - Junction 2 : D7 - 2042 Do Something, PM :

Summary of network performance

	PM				
	Set ID	PI (£ per hr)	Total delay (PCU-hr/hr)	Highest DOS	Number oversaturated
	Junction 2 - 2023 Base Year				
Network	D1	139.39	9.47	39% (TS A/1)	0 (0%)
	Junction 2 - 2027 Do Nothing				
Network	D2	227.26	15.27	58% (TS D/1)	0 (0%)
	Junction 2 - 2027 Do Something				
Network	D3	231.67	15.55	58% (TS D/1)	0 (0%)
	Junction 2 - 2032 Do Nothing				
Network	D4	233.43	15.67	58% (TS A/1)	0 (0%)
	Junction 2 - 2032 Do Something				
Network	D5	237.94	15.95	60% (TS A/1)	0 (0%)
	Junction 2 - 2042 Do Nothing				
Network	D6	238.76	16.01	61% (TS A/1)	0 (0%)
	Junction 2 - 2042 Do Something				
Network	D7	243.43	16.31	62% (TS A/1)	0 (0%)

File summary

File description

File title	Junction 2
Location	Mooretown
Site number	
UTCRegion	
Driving side	Left
Date	01/03/2024
Version	1
Status	(new file)
Identifier	PM
Client	
Jobnumber	23-102
Enumerator	DOMAIN\f.silva
Description	

Model and Results

Enable controller offsets	Enable fuel consumption	Enable quick flares	Display journey time results	Display OD matrix distances	Display level of service results	Display blocking and starvation results	Display end of red and green queue results	Display excess queue results	Display separate uniform and random results	Display unweighted results	Display TRANSYT 12 style timings	Display effective greens in results	Display Red-With-Amber	Display End-Of-Green Amber	c m
			✓			✓		✓	✓						

Units

Cost units	Speed units	Distance units	Fuel economy units	Fuel rate units	Mass units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
£	kph	m	mpg	l/h	kg	PCU	PCU	perHour	s	-Hour	perHour

Sorting

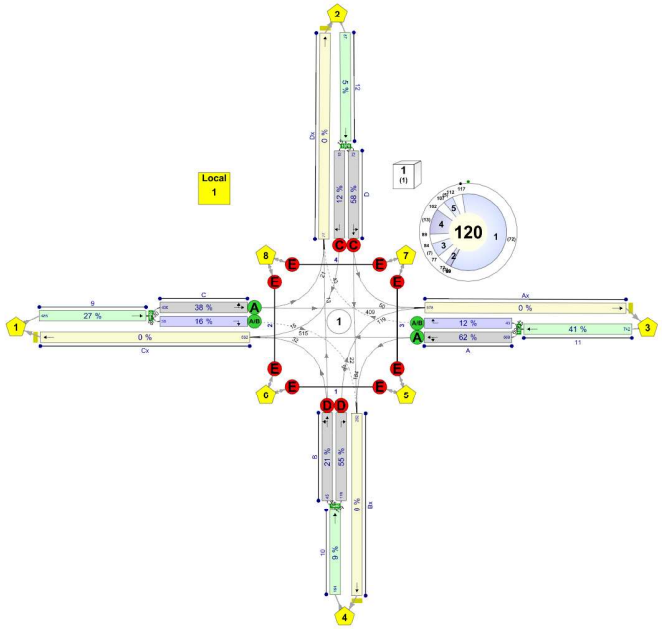
Show names instead of IDs	Sorting direction	Sorting type	Ignore prefixes when sorting	Analysis/demand set sorting	Link grouping	Source grouping	Colour Analysis/Demand Sets
	Ascending	Numerical		Name	Normal	Normal	✓

Simulation options

Criteria type	Stop criteria (%)	Stop criteria time (s)	Stop criteria number of trials	Random seed	Results refresh speed (s)	Average animation capture interval (s)	Use quick response	Do flow sampling	Uniform vehicle generation	Last run random seed	Last run number of trials	Last run time taken (s)
Delay	3.00	999	200	-1	3	60	✓			0	0	0.00

Generated on 05/03/2024 12:30:59 using TRANSYT 16 (16.0.1.8473)

Network Diagrams



Junction 2
Diagram produced using TRANSYT 16.0.1.8473

A1 - Junction 2
D1 - 2023 Base Year, PM

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item wi wors unsignal PRC
1	05/03/2024 12:20:50	05/03/2024 12:20:50	0.72	17:00	120	139.39	9.47	39.10	A/1	0	0	A/1	11/1

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set (s)	Optimise specific Demand Set (s)	Demand Set(s) to optimise	Include in report	Locked
Junction 2				✓	D7	✓	

Demand Set Details

Scenario name	Time Period name	Description	Composite	Demand sets	Start time (HH:mm)	Locked	Run automatically
2023 Base Year	PM	(untitled)			17:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120	92	92		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)	Missing stage transition options
10000.00	10000.00	10000.00	2	Assume banned

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from traffic model	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓			Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Generated on 05/03/2024 12:30:59 using TRANSYT 16 (16.0.1.8473)

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy (%)	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Standard accuracy Hill Climb	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	R125 (E)		1
Ax	(untitled)		
B	WDLR (S)		1
Bx	(untitled)		
C	R125 (W)		1
Cx	(untitled)		
D	WLDR (N)		1
Dx	(untitled)		
9			1
10			1
11			1
12			1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Auto-calculate cell saturation flow	Cell saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			60.00	✓	Sum of lanes	1850			✓		Normal	
	2				60.00	✓	Sum of lanes	1850	✓	1800	✓	✓	Normal	
Ax	1	(untitled)			300.00								Normal	
B	1	(untitled)			45.00	✓	Sum of lanes	1850			✓		Normal	
	2				45.00	✓	Sum of lanes	1850	✓	1800	✓		Normal	
Bx	1	(untitled)			300.00								Normal	
C	1	(untitled)			14.00	✓	Sum of lanes	1850			✓		Normal	
	2				14.00	✓	Sum of lanes	1850	✓	1800	✓	✓	Normal	
Cx	1	(untitled)			300.00								Normal	
D	1	(untitled)			20.00	✓	Sum of lanes	1850			✓		Normal	
	2				20.00	✓	Sum of lanes	1850	✓	1800	✓		Normal	
Dx	1	(untitled)			100.00								Normal	
9	1				300.00	✓	Sum of lanes	1800					Normal	
10	1				300.00	✓	Sum of lanes	1800					Normal	
11	1				300.00	✓	Sum of lanes	1800					Normal	
12	1				100.00	✓	Sum of lanes	1800					Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1850
	2	1	(untitled)			1850
Ax	1	1	(untitled)			
B	1	1	(untitled)			1850
	2	1	(untitled)			1850
Bx	1	1	(untitled)			
C	1	1	(untitled)			1850
	2	1	(untitled)			1850
Cx	1	1	(untitled)			
D	1	1	(untitled)			1850
	2	1	(untitled)			1850
Dx	1	1	(untitled)			
9	1	1	(untitled)			1800
10	1	1	(untitled)			1800
11	1	1	(untitled)			1800
12	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Queue limit (PCU)	Excess queue penalty (£)	Has degree of saturation limit
A	1	NetworkDefault	100	100	100		0.00				
	2	CTM	100	100	100		12.00	✓	12.00	99999.00	
Ax	1	NetworkDefault	100	100	100		0.00				
B	1	NetworkDefault	100	100	100		0.00				
	2	CTM	100	100	100		9.00	✓	9.00	99999.00	
Bx	1	NetworkDefault	100	100	100		0.00				
C	1	NetworkDefault	100	100	100		0.00				
	2	CTM	100	100	100		3.00	✓	3.00	99999.00	
Cx	1	NetworkDefault	100	100	100		0.00				
D	1	NetworkDefault	100	100	100		0.00				
	2	CTM	100	100	100		4.00	✓	4.00	99999.00	
Dx	1	NetworkDefault	100	100	100		0.00				
9	1	NetworkDefault	100	100	100		0.00				
10	1	NetworkDefault	100	100	100		0.00				
11	1	NetworkDefault	100	100	100		0.00				
12	1	NetworkDefault	100	100	100		0.00				

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
A	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	12.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Ax	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
B	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	9.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Bx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
C	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	3.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Cx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
D	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	4.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Dx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
9	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
10	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
11	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
12	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
A	1	440	440
	2	1	1
Ax	1	335	335
B	1	4	4
	2	24	24
Bx	1	34	34
C	1	311	311
	2	8	8
Cx	1	421	421
D	1	0	0
	2	3	3
Dx	1	1	1
9	1	319	319
10	1	28	28
11	1	441	441
12	1	3	3

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	A		
	2	1	A	✓	B
B	1	1	D		
	2	1	D		
C	1	1	A		
	2	1	A	✓	B
D	1	1	C		
	2	1	C		

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Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
9	1	36.00	30.00
10	1	36.00	30.00
11	1	36.00	30.00
12	1	12.00	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A	1	1	11/1	A/1	7.20	30.00	✓	Straight	Straight Movement
	2	1	11/1	A/2	7.20	30.00	✓	Straight	Straight Movement
Ax	1	1	C/1	Ax/1	36.00	30.00	✓	Straight	Straight Movement
B	1	1	10/1	B/1	5.40	30.00	✓	Straight	Straight Movement
	2	1	10/1	B/2	5.40	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	36.00	30.00	✓	Nearside	38.43
C	1	1	9/1	C/1	1.68	30.00	✓	Straight	Straight Movement
	2	1	9/1	C/2	1.68	30.00	✓	Straight	Straight Movement
Cx	1	1	A/1	Cx/1	36.00	30.00	✓	Straight	Straight Movement
D	1	1	12/1	D/1	2.40	30.00	✓	Straight	Straight Movement
	2	1	12/1	D/2	2.40	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	12.00	30.00	✓	Nearside	39.36
Ax	1	2	D/1	Ax/1	36.00	30.00	✓	Nearside	39.61
Bx	1	2	D/1	Bx/1	36.00	30.00	✓	Straight	Straight Movement
Cx	1	2	B/1	Cx/1	36.00	30.00	✓	Nearside	43.43
Dx	1	2	B/1	Dx/1	12.00	30.00	✓	Straight	Straight Movement
Ax	1	3	B/2	Ax/1	36.00	30.00	✓	Offside	47.56
Bx	1	3	C/2	Bx/1	36.00	30.00	✓	Offside	52.89
Cx	1	3	D/2	Cx/1	36.00	30.00	✓	Offside	51.21
Dx	1	3	A/2	Dx/1	12.00	30.00	✓	Offside	47.76

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
(ALL)	2	AllTraffic		

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible
2		TrafficStream	C/1	100	0.00	
		TrafficStream	A/1	100	0.00	

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	12.00	8.00	5.40
2	(untitled)		1		Farside	10.00	6.67	5.40
3	(untitled)		1		Farside	12.00	8.00	5.40
4	(untitled)		1		Farside	13.00	8.67	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25				

Normal Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	311	8	0	0	0	0
	2	3	0	0	0	0	0	0	0
	3	414	1	0	26	0	0	0	0
	4	4	0	24	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	9/1	Cx/1	#0000FF
	2	(untitled)	12/1	Dx/1	#FF0000
	3	(untitled)	11/1	Ax/1	#00FF00
	4	(untitled)	10/1	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#008000
	7	(untitled)	4:2E, 3:1E	4:2X, 3:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	19		3	4	11/1, A/1, Bx/1	Normal	26
	20		4	1	10/1, B/1, Cx/1	Normal	4
	45		1	2	9/1, C/1, Dx/1	Normal	0
	46		1	3	9/1, C/1, Ax/1	Normal	311
	47		1	4	9/1, C/2, Bx/1	Normal	8
	48		4	3	10/1, B/2, Ax/1	Normal	24
	49		4	2	10/1, B/1, Dx/1	Normal	0
	50		3	2	11/1, A/2, Dx/1	Normal	1
	51		3	1	11/1, A/1, Cx/1	Normal	414
	52		2	1	12/1, D/2, Cx/1	Normal	3
	53		2	3	12/1, D/1, Ax/1	Normal	0
	54		2	4	12/1, D/1, Bx/1	Normal	0

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	7	4:1E, 4:2X	Normal	50
	18		8	6	2:2E, 2:1X	Normal	50
	22		5	7	3:2E, 3:1X	Normal	50
	23		5	6	1:1E, 1:2X	Normal	50
	34		6	8	2:1E, 2:2X	Normal	50
	35		6	5	1:2E, 1:1X	Normal	50
	41		7	8	4:2E, 4:1X	Normal	50
	42		7	5	3:1E, 3:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)	Minimum possible cycle time (s)
1	(untitled)		1	NetworkDefault	120	92

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	54	300	0	0	Traffic	
	B	(untitled)	3	3	0	0	Traffic	
	C	(untitled)	5	300	0	0	Traffic	
	D	(untitled)	5	33	0	0	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	3

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)	Run every N cycles	Probability of running (%)
1	1	A	1	1	100
	2	B	1	1	100
	3	C	1	1	100
	4	D	1	1	100
	5	E	1	1	100

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)	Single	1, 2, 3, 4, 5	69, 72, 84, 102, 112	92	
	2	(untitled)	Single	1, 2, 3, 5, 4	22, 45, 72, 98, 125	92	
	3	(untitled)	Single	1, 2, 4, 3, 5	22, 45, 72, 99, 125	92	
	4	(untitled)	Single	1, 2, 4, 5, 3	22, 45, 72, 98, 125	92	
	5	(untitled)	Single	1, 2, 5, 3, 4	22, 45, 71, 98, 125	92	
	6	(untitled)	Single	1, 2, 5, 4, 3	22, 45, 71, 98, 125	92	
	7	(untitled)	Single	1, 3, 2, 4, 5	21, 47, 74, 100, 125	97	
	8	(untitled)	Single	1, 3, 2, 5, 4	21, 47, 74, 99, 125	97	
	9	(untitled)	Single	1, 3, 4, 2, 5	21, 47, 73, 100, 125	97	
	10	(untitled)	Single	1, 3, 4, 5, 2	22, 49, 76, 102, 0	92	

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		0	5	5	5
	B	0		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

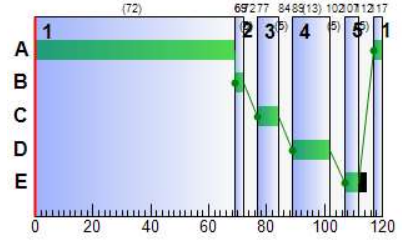
		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	A	117	69	72
A	2	1	1	A	117	69	72
B	1	1	1	D	89	102	13
B	2	1	1	D	89	102	13
C	1	1	1	A	117	69	72
C	2	1	1	A	117	69	72
D	1	1	1	C	77	84	7
D	2	1	1	C	77	84	7

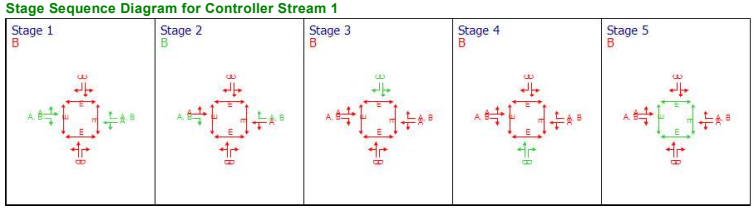
Phase Timings Diagram

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	39	156	440	1850	72	13.10	7.58	72.65	22.74	2.78	25.53
		2	0	34942	1	553	75	750.07	0.01	0.10	2.96	0.00	2.96
	Ax	1	0	Unrestricted	335	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	2	5296	4	1850	13	47.42	0.12	1.51	0.75	0.04	0.79
		2	11	799	24	1850	13	80.17	1.67	18.60	7.59	0.27	7.86
	Bx	1	0	Unrestricted	34	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	28	262	311	1850	72	11.68	4.89	200.86	14.33	1.79	16.12
		2	2	4280	8	553	75	14.28	0.10	3.27	0.45	0.04	0.49
	Cx	1	0	Unrestricted	421	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	0	Unrestricted	0	1850	7	0.00	0.00	0.00	0.00	0.00	0.00
		2	2	4011	3	1850	7	132.86	0.09	2.34	1.57	0.04	1.61
	Dx	1	0	Unrestricted	1	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	18	464	319	1800	120	0.22	0.02	0.04	0.27	0.00	0.27
	10	1	2	6329	28	1800	120	0.02	0.00	0.00	0.00	0.00	0.00
	11	1	25	308	441	1800	120	0.32	0.04	0.08	0.56	0.00	0.56
	12	1	0	59900	3	1800	120	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow (PCU/hr)	Calculated capacity (PCU/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	A	1	440	440	0		1850	1125	39		156	0.00	72
		2	1	1	0		553	350	0		34942	0.00	75
	Ax	1	335	335	0		Unrestricted	Unrestricted	0		Unrestricted	0.52	120
	B	1	4	4	0		1850	216	2		5296	0.00	13
		2	24	24	0		1850	216	11		799	0.00	13
	Bx	1	34	34	0		Unrestricted	Unrestricted	0		Unrestricted	0.60	120
	C	1	311	311	0		1850	1125	28		262	0.00	72
		2	8	8	0		553	350	2		4280	0.00	75
	Cx	1	421	421	0		Unrestricted	Unrestricted	0		Unrestricted	0.60	120
	D	1	0	0	0		1850	123	0		Unrestricted	0.00	7
		2	3	3	0		1850	123	2		4011	0.00	7
	Dx	1	1	1	0		Unrestricted	Unrestricted	0		Unrestricted	0.68	120
	9	1	319	319	0		1800	1800	18		464	0.00	120
	10	1	28	28	0		1800	1800	2		6329	0.00	120
	11	1	441	441	0		1800	1800	25		308	0.00	120
	12	1	3	3	0		1800	1800	0		59900	0.00	120

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Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	A	1	7.20	13.10	1.48	0.13	22.74	50.42	218.09	3.75	2.78
		2	7.20	750.07	0.00	0.21	2.96	36.68	0.37	0.00	0.00
	Ax	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	5.40	47.42	0.05	0.00	0.75	87.48	3.49	0.01	0.04
		2	5.40	80.17	0.32	0.22	7.59	89.20	21.20	0.21	0.27
	Bx	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	1.68	11.68	0.96	0.05	14.33	45.98	141.41	1.58	1.79
		2	1.68	14.28	0.02	0.01	0.45	36.77	2.93	0.01	0.04
	Cx	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		2	2.40	132.86	0.04	0.07	1.57	93.64	2.80	0.01	0.04
	Dx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	36.00	0.22	0.00	0.02	0.27	0.00	0.00	0.00	0.00
	10	1	36.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	11	1	36.00	0.32	0.00	0.04	0.56	0.00	0.00	0.00	0.00
	12	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Average storage excess queue (PCU)	Average limit excess queue (PCU)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	A	1	0.00	7.58	10.43	72.65	0.00	0.00	0.00	0.00	0.00	0.00	
		2	12.00	0.01	12.00	0.10	0.00	0.00	0.00	76.00	0.00	76.00	
	Ax	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	11.00	0.00	11.00	
	B	1	0.00	0.12	7.83	1.51	0.00	0.00	0.00	13.00	0.00	13.00	
		2	9.00	1.67	9.00	18.60	0.00	0.00	0.00	12.00	0.00	12.00	
	Bx	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	99.00	0.00	99.00	
	C	1	0.00	4.89	2.43	200.86	0.30	0.00	0.00	0.00	0.00	0.00	
		2	3.00	0.10	3.00	3.27	0.00	0.00	0.00	75.00	0.00	75.00	
	Cx	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	21.00	0.00	21.00	
	D	1	0.00	0.00	3.48	0.00	0.00	0.00	0.00	8.00	0.00	8.00	
		2	4.00	0.09	4.00	2.34	0.00	0.00	0.00	7.00	0.00	7.00	
	Dx	1	0.00	0.00	17.39	0.00	0.00	0.00	0.00	120.00	0.00	120.00	
	9	1	0.00	0.02	52.17	0.04	0.00	0.00	0.00	0.00	29.00	29.00	
	10	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	120.00	0.00	120.00	
	11	1	0.00	0.04	52.17	0.08	0.00	0.00	0.00	0.00	0.00	0.00	
	12	1	0.00	0.00	17.39	0.00	0.00	0.00	0.00	120.00	0.00	120.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	A	1	26.40	2.48	10.64	20.30
		2	0.06	0.00	13.97	15.46
	Ax	1	100.50	3.35	30.00	36.00
	B	1	0.18	0.06	3.07	52.82
		2	1.08	0.36	3.00	53.95
	Bx	1	10.20	0.34	30.00	36.00
	C	1	4.35	1.15	3.77	13.36
		2	0.11	0.02	5.01	10.05
	Cx	1	126.30	4.21	30.00	36.00
	D	1	0.00	0.00	0.00	0.00
		2	0.06	0.05	1.30	55.50
	Dx	1	0.10	0.00	30.00	12.00
	9	1	95.70	3.21	29.82	36.22
	10	1	8.40	0.28	29.99	36.02
	11	1	132.30	4.45	29.73	36.32
	12	1	0.30	0.01	30.00	12.00

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (PCU)	Mean End of Green Queue EoTS (PCU)	Mean End of Red Queue EoTS (PCU)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	0.00	0.00	✓	7.58	0.13	5.87	1.00	0.00	25.53
		2	0.00	0.00	✓	0.01	0.00	0.01	1.00	0.00	2.96
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	0.12	0.00	0.12	1.00	0.00	0.79
		2	0.00	0.00	✓	1.67	0.01	0.71	1.00	0.00	7.86
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	4.89	0.05	4.11	1.00	0.00	16.12
		2	0.00	0.00	✓	0.10	0.00	0.10	1.00	0.00	0.49
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	0.00	0.00	0.00	1.00	0.00	0.00
		2	0.00	0.00	✓	0.09	0.00	0.09	1.00	0.00	1.61
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	9	1	0.00	0.00	✓	0.02			1.00	0.00	0.27
	10	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	11	1	0.00	0.00	✓	0.04			1.00	0.00	0.56
	12	1	0.00	0.00	✓	0.00			1.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	(ALL)	(ALL)	7	50	11000	5	52.73	1.56	10.40	10.40

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	(ALL)	(ALL)	50	50	0		11000	733	7		1367	0.00	5

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Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
17:00-18:00	1	1	9.00	52.73	0.73	0.00	10.40
		2	9.00	52.73	0.73	0.00	10.40
	2	1	7.67	52.73	0.73	0.00	10.40
		2	7.67	52.73	0.73	0.00	10.40
	3	1	9.00	52.73	0.73	0.00	10.40
		2	9.00	52.73	0.73	0.00	10.40
	4	1	9.67	52.73	0.73	0.00	10.40
		2	9.67	52.73	0.73	0.00	10.40

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	(ALL)	(ALL)	1.56	10.00	15.56	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	1	1	0.65	0.86	0.76	61.73
		2	0.65	0.86	0.76	61.73
	2	1	0.55	0.84	0.66	60.40
		2	0.55	0.84	0.66	60.40
	3	1	0.65	0.86	0.76	61.73
		2	0.65	0.86	0.76	61.73
	4	1	0.70	0.87	0.81	62.40
		2	0.70	0.87	0.81	62.40

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	(ALL)	(ALL)	0.00	0.00	1.56	1.00	0.00	10.40

Collections

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	0.0	85.6	82.3	0.0	0.0	0.0	0.0
	2	103.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	3	92.6	63.8	0.0	92.6	0.0	0.0	0.0	0.0
	4	124.8	0.0	126.0	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	61.7	61.7	0.0
	6	0.0	0.0	0.0	0.0	61.7	0.0	0.0	60.4
	7	0.0	0.0	0.0	0.0	61.7	0.0	0.0	62.4
	8	0.0	0.0	0.0	0.0	0.0	60.4	62.4	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Normal journey dist (m)	Bus journeydist (m)	Tram journey dist (m)	Pedestrian journey dist (m)	Calculated Total Flow (PCU/hr)	Avg journey time (s)	Avg journey dist (m)
17	8	7		50		62.40	14.00	14.00	14.00	14.00	50	62.40	14.00
18	8	6		50		60.40	11.00	11.00	11.00	11.00	50	60.40	11.00
19	3	4	26		92.63		660.00	0.00	0.00	0.00	26	92.63	660.00
20	4	1	4		124.83		645.00	0.00	0.00	0.00	4	124.83	645.00
22	5	7		50		61.73	13.00	13.00	13.00	13.00	50	61.73	13.00
23	5	6		50		61.73	13.00	13.00	13.00	13.00	50	61.73	13.00
34	6	8		50		60.40	11.00	11.00	11.00	11.00	50	60.40	11.00
35	6	5		50		61.73	13.00	13.00	13.00	13.00	50	61.73	13.00
41	7	8		50		62.40	14.00	14.00	14.00	14.00	50	62.40	14.00
42	7	5		50		61.73	13.00	13.00	13.00	13.00	50	61.73	13.00
45	1	2	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00
46	1	3	311		85.57		614.00	0.00	0.00	0.00	311	85.57	614.00
47	1	4	8		82.27		614.00	0.00	0.00	0.00	8	82.27	614.00
48	4	3	24		125.97		645.00	0.00	0.00	0.00	24	125.97	645.00
49	4	2	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00
50	3	2	1		63.79		460.00	0.00	0.00	0.00	1	63.79	460.00
51	3	1	414		92.63		660.00	0.00	0.00	0.00	414	92.63	660.00
52	2	1	3		103.50		420.00	0.00	0.00	0.00	3	103.50	420.00
53	2	3	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00
54	2	4	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			Q
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	A		440	1850	72	0.00	39	156	20.30	13.10	50.42	
	2		1	1	A	B	1	553	75	76.00	0	34942	15.46	750.07	36.68	
Ax	1	(untitled)					335	Unrestricted	120	11.00	0	Unrestricted	36.00	0.00	0.00	
B	1	(untitled)	1	1	D		4	1850	13	13.00	2	5296	52.82	47.42	87.48	
	2		1	1	D		24	1850	13	12.00	11	799	53.95	80.17	89.20	
Bx	1	(untitled)					34	Unrestricted	120	99.00	0	Unrestricted	36.00	0.00	0.00	
C	1	(untitled)	1	1	A		311 <	1850	72	0.00	28	262	13.36	11.68	45.98	
	2		1	1	A	B	8	553	75	75.00	2	4280	10.05	14.28	36.77	
Cx	1	(untitled)					421	Unrestricted	120	21.00	0	Unrestricted	36.00	0.00	0.00	
D	1	(untitled)	1	1	C		0	1850	7	8.00	0	Unrestricted	0.00	0.00	0.00	
	2		1	1	C		3	1850	7	7.00	2	4011	55.50	132.86	93.64	
Dx	1	(untitled)					1	Unrestricted	120	120.00	0	Unrestricted	12.00	0.00	0.00	
9	1		1				319	1800	120	29.00	18	464	36.22	0.22	0.00	
10	1		1				28	1800	120	120.00	2	6329	36.02	0.02	0.00	
11	1		1				441	1800	120	0.00	25	308	36.32	0.32	0.00	
12	1		1				3	1800	120	120.00	0	59900	12.00	0.00	0.00	

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Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)	1	1	E	50	11000	5	7	1367	61.73	52.73	1.56	100	0
	2	(untitled)	1	1	E	50	11000	5	7	1367	61.73	52.73	1.56	100	0
2	1	(untitled)	1	1	E	50	11000	5	7	1367	60.40	52.73	1.56	100	0
	2	(untitled)	1	1	E	50	11000	5	7	1367	60.40	52.73	1.56	100	0
3	1	(untitled)	1	1	E	50	11000	5	7	1367	61.73	52.73	1.56	100	0
	2	(untitled)	1	1	E	50	11000	5	7	1367	61.73	52.73	1.56	100	0
4	1	(untitled)	1	1	E	50	11000	5	7	1367	62.40	52.73	1.56	100	0
	2	(untitled)	1	1	E	50	11000	5	7	1367	62.40	52.73	1.56	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	506.05	19.98	25.33	2.87	0.74	51.23	4.96	0.00	56.19
Bus									
Tram									
Pedestrians	5.10	6.84	0.75	5.86	0.00	83.20	0.00	0.00	83.20
TOTAL	511.15	26.82	19.06	8.73	0.74	134.43	4.96	0.00	139.39

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A1 - Junction 2
D2 - 2027 Do Nothing, PM

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item wi wors unsignal PRC
1	05/03/2024 12:20:50	05/03/2024 12:20:50	0.97	17:00	120	227.26	15.27	58.38	D/1	0	0	D/1	11/1

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set (s)	Optimise specific Demand Set (s)	Demand Set(s) to optimise	Include in report	Locked
Junction 2				✓	D7	✓	

Demand Set Details

Scenario name	Time Period name	Description	Composite	Demand sets	Start time (HH:mm)	Locked	Run automatically
2027 Do Nothing	PM	(untitled)			17:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120	92	92		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)	Missing stage transition options
10000.00	10000.00	10000.00	2	Assume banned

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from traffic model	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓			Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

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Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy (%)	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Standard accuracy Hill Climb	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	R125 (E)		1
Ax	(untitled)		
B	WDLR (S)		1
Bx	(untitled)		
C	R125 (W)		1
Cx	(untitled)		
D	WLDR (N)		1
Dx	(untitled)		
9			1
10			1
11			1
12			1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Auto-calculate cell saturation flow	Cell saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			60.00	✓	Sum of lanes	1850			✓		Normal	
	2				60.00	✓	Sum of lanes	1850	✓	1800	✓	✓	Normal	
Ax	1	(untitled)			300.00								Normal	
B	1	(untitled)			45.00	✓	Sum of lanes	1850			✓		Normal	
	2				45.00	✓	Sum of lanes	1850	✓	1800	✓		Normal	
Bx	1	(untitled)			300.00								Normal	
C	1	(untitled)			14.00	✓	Sum of lanes	1850			✓		Normal	
	2				14.00	✓	Sum of lanes	1850	✓	1800	✓	✓	Normal	
Cx	1	(untitled)			300.00								Normal	
D	1	(untitled)			20.00	✓	Sum of lanes	1850			✓		Normal	
	2				20.00	✓	Sum of lanes	1850	✓	1800	✓		Normal	
Dx	1	(untitled)			100.00								Normal	
9	1				300.00	✓	Sum of lanes	1800					Normal	
10	1				300.00	✓	Sum of lanes	1800					Normal	
11	1				300.00	✓	Sum of lanes	1800					Normal	
12	1				100.00	✓	Sum of lanes	1800					Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1850
	2	1	(untitled)			1850
Ax	1	1	(untitled)			
B	1	1	(untitled)			1850
	2	1	(untitled)			1850
Bx	1	1	(untitled)			
C	1	1	(untitled)			1850
	2	1	(untitled)			1850
Cx	1	1	(untitled)			
D	1	1	(untitled)			1850
	2	1	(untitled)			1850
Dx	1	1	(untitled)			
9	1	1	(untitled)			1800
10	1	1	(untitled)			1800
11	1	1	(untitled)			1800
12	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Queue limit (PCU)	Excess queue penalty (£)	Has degree of saturation limit
A	1	NetworkDefault	100	100	100		0.00				
	2	CTM	100	100	100		12.00	✓	12.00	99999.00	
Ax	1	NetworkDefault	100	100	100		0.00				
B	1	NetworkDefault	100	100	100		0.00				
	2	CTM	100	100	100		9.00	✓	9.00	99999.00	
Bx	1	NetworkDefault	100	100	100		0.00				
C	1	NetworkDefault	100	100	100		0.00				
	2	CTM	100	100	100		3.00	✓	3.00	99999.00	
Cx	1	NetworkDefault	100	100	100		0.00				
D	1	NetworkDefault	100	100	100		0.00				
	2	CTM	100	100	100		4.00	✓	4.00	99999.00	
Dx	1	NetworkDefault	100	100	100		0.00				
9	1	NetworkDefault	100	100	100		0.00				
10	1	NetworkDefault	100	100	100		0.00				
11	1	NetworkDefault	100	100	100		0.00				
12	1	NetworkDefault	100	100	100		0.00				

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
A	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	12.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Ax	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
B	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	9.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Bx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
C	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	3.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Cx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
D	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	4.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Dx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
9	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
10	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
11	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
12	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
A	1	629	629
	2	43	43
Ax	1	509	509
B	1	45	45
	2	116	116
Bx	1	258	258
C	1	364	364
	2	55	55
Cx	1	495	495
D	1	72	72
	2	15	15
Dx	1	77	77
9	1	419	419
10	1	161	161
11	1	672	672
12	1	87	87

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	A		
	2	1	A	✓	B
B	1	1	D		
	2	1	D		
C	1	1	A		
	2	1	A	✓	B
D	1	1	C		
	2	1	C		

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Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
9	1	36.00	30.00
10	1	36.00	30.00
11	1	36.00	30.00
12	1	12.00	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A	1	1	11/1	A/1	7.20	30.00	✓	Straight	Straight Movement
	2	1	11/1	A/2	7.20	30.00	✓	Straight	Straight Movement
Ax	1	1	C/1	Ax/1	36.00	30.00	✓	Straight	Straight Movement
B	1	1	10/1	B/1	5.40	30.00	✓	Straight	Straight Movement
	2	1	10/1	B/2	5.40	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	36.00	30.00	✓	Nearside	38.43
C	1	1	9/1	C/1	1.68	30.00	✓	Straight	Straight Movement
	2	1	9/1	C/2	1.68	30.00	✓	Straight	Straight Movement
Cx	1	1	A/1	Cx/1	36.00	30.00	✓	Straight	Straight Movement
D	1	1	12/1	D/1	2.40	30.00	✓	Straight	Straight Movement
	2	1	12/1	D/2	2.40	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	12.00	30.00	✓	Nearside	39.36
Ax	1	2	D/1	Ax/1	36.00	30.00	✓	Nearside	39.61
Bx	1	2	D/1	Bx/1	36.00	30.00	✓	Straight	Straight Movement
Cx	1	2	B/1	Cx/1	36.00	30.00	✓	Nearside	43.43
Dx	1	2	B/1	Dx/1	12.00	30.00	✓	Straight	Straight Movement
Ax	1	3	B/2	Ax/1	36.00	30.00	✓	Offside	47.56
Bx	1	3	C/2	Bx/1	36.00	30.00	✓	Offside	52.89
Cx	1	3	D/2	Cx/1	36.00	30.00	✓	Offside	51.21
Dx	1	3	A/2	Dx/1	12.00	30.00	✓	Offside	47.76

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
(ALL)	2	AllTraffic		

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible
2		TrafficStream	C/1	100	0.00	
		TrafficStream	A/1	100	0.00	

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	12.00	8.00	5.40
2	(untitled)		1		Farside	10.00	6.67	5.40
3	(untitled)		1		Farside	12.00	8.00	5.40
4	(untitled)		1		Farside	13.00	8.67	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25				

Normal Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	21	343	55	0	0	0	0
	2	15	0	50	22	0	0	0	0
	3	448	43	0	181	0	0	0	0
	4	32	13	116	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	9/1	Cx/1	#0000FF
	2	(untitled)	12/1	Dx/1	#FF0000
	3	(untitled)	11/1	Ax/1	#00FF00
	4	(untitled)	10/1	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#008000
	7	(untitled)	4:2E, 3:1E	4:2X, 3:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	19		3	4	11/1, A/1, Bx/1	Normal	181
	20		4	1	10/1, B/1, Cx/1	Normal	32
	45		1	2	9/1, C/1, Dx/1	Normal	21
	46		1	3	9/1, C/1, Ax/1	Normal	343
	47		1	4	9/1, C/2, Bx/1	Normal	55
	48		4	3	10/1, B/2, Ax/1	Normal	116
	49		4	2	10/1, B/1, Dx/1	Normal	13
	50		3	2	11/1, A/2, Dx/1	Normal	43
	51		3	1	11/1, A/1, Cx/1	Normal	448
	52		2	1	12/1, D/2, Cx/1	Normal	15
	53		2	3	12/1, D/1, Ax/1	Normal	50
	54		2	4	12/1, D/1, Bx/1	Normal	22

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	7	4:1E, 4:2X	Normal	50
	18		8	6	2:2E, 2:1X	Normal	50
	22		5	7	3:2E, 3:1X	Normal	50
	23		5	6	1:1E, 1:2X	Normal	50
	34		6	8	2:1E, 2:2X	Normal	50
	35		6	5	1:2E, 1:1X	Normal	50
	41		7	8	4:2E, 4:1X	Normal	50
	42		7	5	3:1E, 3:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)	Minimum possible cycle time (s)
1	(untitled)		1	NetworkDefault	120	92

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	54	300	0	0	Traffic	
	B	(untitled)	3	3	0	0	Traffic	
	C	(untitled)	5	300	0	0	Traffic	
	D	(untitled)	5	33	0	0	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	3

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)	Run every N cycles	Probability of running (%)
1	1	A	1	1	100
	2	B	1	1	100
	3	C	1	1	100
	4	D	1	1	100
	5	E	1	1	100

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)	Single	1, 2, 3, 4, 5	69, 72, 84, 102, 112	92	
	2	(untitled)	Single	1, 2, 3, 5, 4	22, 45, 72, 98, 125	92	
	3	(untitled)	Single	1, 2, 4, 3, 5	22, 45, 72, 99, 125	92	
	4	(untitled)	Single	1, 2, 4, 5, 3	22, 45, 72, 98, 125	92	
	5	(untitled)	Single	1, 2, 5, 3, 4	22, 45, 71, 98, 125	92	
	6	(untitled)	Single	1, 2, 5, 4, 3	22, 45, 71, 98, 125	92	
	7	(untitled)	Single	1, 3, 2, 4, 5	21, 47, 74, 100, 125	97	
	8	(untitled)	Single	1, 3, 2, 5, 4	21, 47, 74, 99, 125	97	
	9	(untitled)	Single	1, 3, 4, 2, 5	21, 47, 73, 100, 125	97	
	10	(untitled)	Single	1, 3, 4, 5, 2	22, 49, 76, 102, 0	92	

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		0	5	5	5
	B	0		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

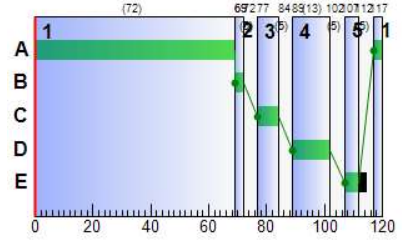
		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	A	117	69	72
A	2	1	1	A	117	69	72
B	1	1	1	D	89	102	13
B	2	1	1	D	89	102	13
C	1	1	1	A	117	69	72
C	2	1	1	A	117	69	72
D	1	1	1	C	77	84	7
D	2	1	1	C	77	84	7

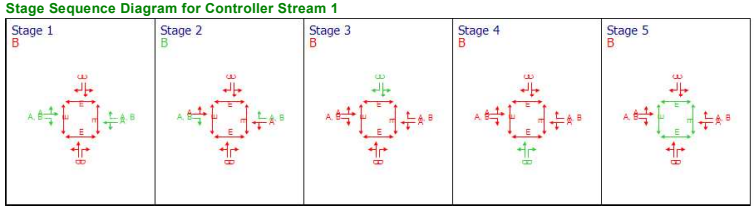
Phase Timings Diagram

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	56	79	629	1850	72	15.97	12.76	122.26	39.61	4.64	44.26
		2	12	715	43	553	75	29.13	1.68	13.96	4.94	0.20	5.14
	Ax	1	0	Unrestricted	509	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	21	380	45	1850	13	50.21	1.38	17.60	8.91	0.51	9.43
		2	54	86	116	1850	13	71.52	3.86	42.93	32.73	1.45	34.18
	Bx	1	0	Unrestricted	258	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	32	209	364	1850	72	12.23	5.94	244.03	17.55	2.18	19.73
		2	16	537	55	553	75	11.02	1.80	60.01	2.39	0.26	2.65
	Cx	1	0	Unrestricted	495	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	58	71	72	1850	7	74.13	2.71	78.04	21.05	1.01	22.06
		2	12	722	15	1850	7	72.41	0.48	11.88	4.28	0.18	4.46
	Dx	1	0	Unrestricted	77	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	23	330	419	1800	120	0.30	0.04	0.07	0.50	0.00	0.50
	10	1	9	1018	161	1800	120	0.10	0.00	0.01	0.06	0.00	0.06
	11	1	37	168	672	1800	120	0.60	0.11	0.21	1.58	0.00	1.58
	12	1	5	1969	87	1800	120	0.05	0.00	0.01	0.02	0.00	0.02

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow (PCU/hr)	Calculated capacity (PCU/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	A	1	629	629	0		1850	1125	56		79	0.00	72
		2	43	43	0		553	350	12		715	0.00	75
	Ax	1	509	509	0		Unrestricted	Unrestricted	0		Unrestricted	0.39	120
	B	1	45	45	0		1850	216	21		380	0.00	13
		2	116	116	0		1850	216	54		86	0.00	13
	Bx	1	258	258	0		Unrestricted	Unrestricted	0		Unrestricted	0.49	120
	C	1	364	364	0		1850	1125	32		209	0.00	72
		2	55	55	0		553	350	16		537	0.00	75
	Cx	1	495	495	0		Unrestricted	Unrestricted	0		Unrestricted	0.50	120
	D	1	72	72	0		1850	123	58		71	0.00	7
		2	15	15	0		1850	123	12		722	0.00	7
	Dx	1	77	77	0		Unrestricted	Unrestricted	0		Unrestricted	0.64	120
	9	1	419	419	0		1800	1800	23		330	0.00	120
	10	1	161	161	0		1800	1800	9		1018	0.00	120
	11	1	672	672	0		1800	1800	37		168	0.00	120
	12	1	87	87	0		1800	1800	5		1969	0.00	120

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Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	A	1	7.20	15.97	2.44	0.35	39.61	58.88	359.82	10.54	4.64
		2	7.20	29.13	0.11	0.24	4.94	37.27	15.77	0.26	0.20
	Ax	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	5.40	50.21	0.60	0.03	8.91	90.83	40.06	0.82	0.51
		2	5.40	71.52	1.61	0.69	32.73	99.71	106.30	9.36	1.45
	Bx	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	1.68	12.23	1.16	0.08	17.55	47.72	171.39	2.31	2.18
		2	1.68	11.02	0.14	0.03	2.39	37.46	20.17	0.44	0.26
	Cx	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	2.40	74.13	1.09	0.39	21.05	111.46	68.89	11.36	1.01
		2	2.40	72.41	0.22	0.08	4.28	95.01	14.00	0.25	0.18
	Dx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	36.00	0.30	0.00	0.04	0.50	0.00	0.00	0.00	0.00
	10	1	36.00	0.10	0.00	0.00	0.06	0.00	0.00	0.00	0.00
	11	1	36.00	0.60	0.00	0.11	1.58	0.00	0.00	0.00	0.00
	12	1	12.00	0.05	0.00	0.00	0.02	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Average storage excess queue (PCU)	Average limit excess queue (PCU)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	A	1	0.00	12.76	10.43	122.26	0.14	0.00	0.00	0.00	0.00	0.00	
		2	12.00	1.68	12.00	13.96	0.00	0.00	0.00	71.00	0.00	71.00	
	Ax	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	B	1	0.00	1.38	7.83	17.60	0.00	0.00	0.00	11.00	0.00	11.00	
		2	9.00	3.86	9.00	42.93	0.00	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	19.00	0.00	19.00	
	C	1	0.00	5.94	2.43	244.03	0.52	0.00	0.00	0.00	0.00	0.00	
		2	3.00	1.80	3.00	60.01	0.00	0.00	0.00	70.00	0.00	70.00	
	Cx	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	4.00	0.00	4.00	
	D	1	0.00	2.71	3.48	78.04	0.00	0.00	0.00	0.00	0.00	0.00	
		2	4.00	0.48	4.00	11.88	0.00	0.00	0.00	7.00	0.00	7.00	
	Dx	1	0.00	0.00	17.39	0.00	0.00	0.00	0.00	38.00	0.00	38.00	
	9	1	0.00	0.04	52.17	0.07	0.00	0.00	0.00	0.00	35.00	35.00	
	10	1	0.00	0.00	52.17	0.01	0.00	0.00	0.00	0.00	0.00	0.00	
	11	1	0.00	0.11	52.17	0.21	0.00	0.00	0.00	0.00	14.00	14.00	
	12	1	0.00	0.00	17.39	0.01	0.00	0.00	0.00	0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	A	1	37.74	4.05	9.32	23.17
		2	2.58	0.20	12.90	16.75
	Ax	1	152.70	5.09	30.00	36.00
	B	1	2.03	0.70	2.91	55.61
		2	5.22	2.10	2.48	65.24
	Bx	1	77.40	2.58	30.00	36.00
	C	1	5.10	1.41	3.62	13.91
		2	0.77	0.18	4.30	11.71
	Cx	1	148.50	4.95	30.00	36.00
	D	1	1.44	1.53	0.94	76.53
		2	0.30	0.24	1.26	57.16
	Dx	1	7.70	0.26	30.00	12.00
	9	1	125.70	4.23	29.75	36.30
	10	1	48.30	1.61	29.92	36.10
	11	1	201.60	6.83	29.51	36.60
	12	1	8.70	0.29	29.87	12.05

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (PCU)	Mean End of Green Queue EoTS (PCU)	Mean End of Red Queue EoTS (PCU)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	0.00	0.00	✓	12.76	0.35	8.57	1.00	0.00	44.26
		2	0.00	0.00	✓	1.68	0.01	0.53	1.00	0.00	5.14
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	1.38	0.03	1.35	1.00	0.00	9.43
		2	0.00	0.00	✓	3.86	0.32	3.79	1.00	0.00	34.18
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	5.94	0.08	4.83	1.00	0.00	19.73
		2	0.00	0.00	✓	1.80	0.01	0.69	1.00	0.00	2.65
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	2.72	0.40	2.64	1.00	0.00	22.06
		2	0.00	0.00	✓	0.48	0.01	0.48	1.00	0.00	4.46
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	9	1	0.00	0.00	✓	0.04			1.00	0.00	0.50
	10	1	0.00	0.00	✓	0.00			1.00	0.00	0.06
	11	1	0.00	0.00	✓	0.11			1.00	0.00	1.58
	12	1	0.00	0.00	✓	0.00			1.00	0.00	0.02

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	(ALL)	(ALL)	7	50	11000	5	52.73	1.56	10.40	10.40

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	(ALL)	(ALL)	50	50	0		11000	733	7		1367	0.00	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
17:00-18:00	1	1	9.00	52.73	0.73	0.00	10.40
		2	9.00	52.73	0.73	0.00	10.40
	2	1	7.67	52.73	0.73	0.00	10.40
		2	7.67	52.73	0.73	0.00	10.40
	3	1	9.00	52.73	0.73	0.00	10.40
		2	9.00	52.73	0.73	0.00	10.40
	4	1	9.67	52.73	0.73	0.00	10.40
		2	9.67	52.73	0.73	0.00	10.40

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	(ALL)	(ALL)	1.56	10.00	15.56	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	1	1	0.65	0.86	0.76	61.73
		2	0.65	0.86	0.76	61.73
	2	1	0.55	0.84	0.66	60.40
		2	0.55	0.84	0.66	60.40
	3	1	0.65	0.86	0.76	61.73
		2	0.65	0.86	0.76	61.73
	4	1	0.70	0.87	0.81	62.40
		2	0.70	0.87	0.81	62.40

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	(ALL)	(ALL)	0.00	0.00	1.56	1.00	0.00	10.40

Collections

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	62.2	86.2	84.0	0.0	0.0	0.0	0.0
	2	105.2	0.0	124.6	124.6	0.0	0.0	0.0	0.0
	3	95.8	65.3	0.0	95.8	0.0	0.0	0.0	0.0
	4	127.7	103.7	137.3	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	61.7	61.7	0.0
	6	0.0	0.0	0.0	0.0	61.7	0.0	0.0	60.4
	7	0.0	0.0	0.0	0.0	61.7	0.0	0.0	62.4
	8	0.0	0.0	0.0	0.0	0.0	60.4	62.4	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Normal journey dist (m)	Bus journeydist (m)	Tram journey dist (m)	Pedestrian journey dist (m)	Calculated Total Flow (PCU/hr)	Avg journey time (s)	Avg journey dist (m)
17	8	7		50		62.40	14.00	14.00	14.00	14.00	50	62.40	14.00
18	8	6		50		60.40	11.00	11.00	11.00	11.00	50	60.40	11.00
19	3	4	181		95.76		660.00	0.00	0.00	0.00	181	95.76	660.00
20	4	1	32		127.71		645.00	0.00	0.00	0.00	32	127.71	645.00
22	5	7		50		61.73	13.00	13.00	13.00	13.00	50	61.73	13.00
23	5	6		50		61.73	13.00	13.00	13.00	13.00	50	61.73	13.00
34	6	8		50		60.40	11.00	11.00	11.00	11.00	50	60.40	11.00
35	6	5		50		61.73	13.00	13.00	13.00	13.00	50	61.73	13.00
41	7	8		50		62.40	14.00	14.00	14.00	14.00	50	62.40	14.00
42	7	5		50		61.73	13.00	13.00	13.00	13.00	50	61.73	13.00
45	1	2	21		62.21		414.00	0.00	0.00	0.00	21	62.21	414.00
46	1	3	343		86.21		614.00	0.00	0.00	0.00	343	86.21	614.00
47	1	4	55		84.01		614.00	0.00	0.00	0.00	55	84.01	614.00
48	4	3	116		137.34		645.00	0.00	0.00	0.00	116	137.34	645.00
49	4	2	13		103.71		445.00	0.00	0.00	0.00	13	103.71	445.00
50	3	2	43		65.35		460.00	0.00	0.00	0.00	43	65.35	460.00
51	3	1	448		95.76		660.00	0.00	0.00	0.00	448	95.76	660.00
52	2	1	15		105.21		420.00	0.00	0.00	0.00	15	105.21	420.00
53	2	3	50		124.58		420.00	0.00	0.00	0.00	50	124.58	420.00
54	2	4	22		124.58		420.00	0.00	0.00	0.00	22	124.58	420.00

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			Q
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	A		629 <	1850	72	0.00	56	79	23.17	15.97	58.88	
	2		1	1	A	B	43	553	75	71.00	12	715	16.75	29.13	37.27	
Ax	1	(untitled)					509	Unrestricted	120	0.00	0	Unrestricted	36.00	0.00	0.00	
B	1	(untitled)	1	1	D		45	1850	13	11.00	21	380	55.61	50.21	90.83	
	2		1	1	D		116	1850	13	0.00	54	86	65.24	71.52	99.71	
Bx	1	(untitled)					258	Unrestricted	120	19.00	0	Unrestricted	36.00	0.00	0.00	
C	1	(untitled)	1	1	A		364 <	1850	72	0.00	32	209	13.91	12.23	47.72	
	2		1	1	A	B	55	553	75	70.00	16	537	11.71	11.02	37.46	
Cx	1	(untitled)					495	Unrestricted	120	4.00	0	Unrestricted	36.00	0.00	0.00	
D	1	(untitled)	1	1	C		72	1850	7	0.00	58	71	76.53	74.13	111.46	
	2		1	1	C		15	1850	7	7.00	12	722	57.16	72.41	95.01	
Dx	1	(untitled)					77	Unrestricted	120	38.00	0	Unrestricted	12.00	0.00	0.00	
9	1		1				419	1800	120	35.00	23	330	36.30	0.30	0.00	
10	1		1				161	1800	120	0.00	9	1018	36.10	0.10	0.00	
11	1		1				672	1800	120	14.00	37	168	36.60	0.60	0.00	
12	1		1				87	1800	120	0.00	5	1969	12.05	0.05	0.00	

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Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)	1	1	E	50	11000	5	7	1367	61.73	52.73	1.56	100	0
	2	(untitled)	1	1	E	50	11000	5	7	1367	61.73	52.73	1.56	100	0
2	1	(untitled)	1	1	E	50	11000	5	7	1367	60.40	52.73	1.56	100	0
	2	(untitled)	1	1	E	50	11000	5	7	1367	60.40	52.73	1.56	100	0
3	1	(untitled)	1	1	E	50	11000	5	7	1367	61.73	52.73	1.56	100	0
	2	(untitled)	1	1	E	50	11000	5	7	1367	61.73	52.73	1.56	100	0
4	1	(untitled)	1	1	E	50	11000	5	7	1367	62.40	52.73	1.56	100	0
	2	(untitled)	1	1	E	50	11000	5	7	1367	62.40	52.73	1.56	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	825.77	36.24	22.79	7.36	2.05	133.63	10.43	0.00	144.06
Bus									
Tram									
Pedestrians	5.10	6.84	0.75	5.86	0.00	83.20	0.00	0.00	83.20
TOTAL	830.87	43.08	19.29	13.22	2.05	216.83	10.43	0.00	227.26

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A1 - Junction 2
D3 - 2027 Do Something, PM

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item wi wors unsignal PRC
1	05/03/2024 12:20:51	05/03/2024 12:20:51	0.24	17:00	120	231.67	15.55	58.38	D/1	0	0	D/1	11/1

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set (s)	Optimise specific Demand Set (s)	Demand Set(s) to optimise	Include in report	Locked
Junction 2				✓	D7	✓	

Demand Set Details

Scenario name	Time Period name	Description	Composite	Demand sets	Start time (HH:mm)	Locked	Run automatically
2027 Do Something	PM	(untitled)			17:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120	92	92		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)	Missing stage transition options
10000.00	10000.00	10000.00	2	Assume banned

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from traffic model	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓			Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

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Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy (%)	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Standard accuracy Hill Climb	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	R125 (E)		1
Ax	(untitled)		
B	WDLR (S)		1
Bx	(untitled)		
C	R125 (W)		1
Cx	(untitled)		
D	WLDR (N)		1
Dx	(untitled)		
9			1
10			1
11			1
12			1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Auto-calculate cell saturation flow	Cell saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			60.00	✓	Sum of lanes	1850			✓		Normal	
	2				60.00	✓	Sum of lanes	1850	✓	1800	✓	✓	Normal	
Ax	1	(untitled)			300.00								Normal	
B	1	(untitled)			45.00	✓	Sum of lanes	1850			✓		Normal	
	2				45.00	✓	Sum of lanes	1850	✓	1800	✓		Normal	
Bx	1	(untitled)			300.00								Normal	
C	1	(untitled)			14.00	✓	Sum of lanes	1850			✓		Normal	
	2				14.00	✓	Sum of lanes	1850	✓	1800	✓	✓	Normal	
Cx	1	(untitled)			300.00								Normal	
D	1	(untitled)			20.00	✓	Sum of lanes	1850			✓		Normal	
	2				20.00	✓	Sum of lanes	1850	✓	1800	✓		Normal	
Dx	1	(untitled)			100.00								Normal	
9	1				300.00	✓	Sum of lanes	1800					Normal	
10	1				300.00	✓	Sum of lanes	1800					Normal	
11	1				300.00	✓	Sum of lanes	1800					Normal	
12	1				100.00	✓	Sum of lanes	1800					Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1850
	2	1	(untitled)			1850
Ax	1	1	(untitled)			
B	1	1	(untitled)			1850
	2	1	(untitled)			1850
Bx	1	1	(untitled)			
C	1	1	(untitled)			1850
	2	1	(untitled)			1850
Cx	1	1	(untitled)			
D	1	1	(untitled)			1850
	2	1	(untitled)			1850
Dx	1	1	(untitled)			
9	1	1	(untitled)			1800
10	1	1	(untitled)			1800
11	1	1	(untitled)			1800
12	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Queue limit (PCU)	Excess queue penalty (£)	Has degree of saturation limit
A	1	NetworkDefault	100	100	100		0.00				
	2	CTM	100	100	100		12.00	✓	12.00	99999.00	
Ax	1	NetworkDefault	100	100	100		0.00				
B	1	NetworkDefault	100	100	100		0.00				
	2	CTM	100	100	100		9.00	✓	9.00	99999.00	
Bx	1	NetworkDefault	100	100	100		0.00				
C	1	NetworkDefault	100	100	100		0.00				
	2	CTM	100	100	100		3.00	✓	3.00	99999.00	
Cx	1	NetworkDefault	100	100	100		0.00				
D	1	NetworkDefault	100	100	100		0.00				
	2	CTM	100	100	100		4.00	✓	4.00	99999.00	
Dx	1	NetworkDefault	100	100	100		0.00				
9	1	NetworkDefault	100	100	100		0.00				
10	1	NetworkDefault	100	100	100		0.00				
11	1	NetworkDefault	100	100	100		0.00				
12	1	NetworkDefault	100	100	100		0.00				

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
A	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	12.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Ax	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
B	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	9.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Bx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
C	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	3.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Cx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
D	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	4.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Dx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
9	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
10	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
11	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
12	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
A	1	646	646
	2	43	43
Ax	1	538	538
B	1	45	45
	2	116	116
Bx	1	258	258
C	1	393	393
	2	55	55
Cx	1	512	512
D	1	72	72
	2	15	15
Dx	1	77	77
9	1	448	448
10	1	161	161
11	1	689	689
12	1	87	87

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	A		
	2	1	A	✓	B
B	1	1	D		
	2	1	D		
C	1	1	A		
	2	1	A	✓	B
D	1	1	C		
	2	1	C		

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Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
9	1	36.00	30.00
10	1	36.00	30.00
11	1	36.00	30.00
12	1	12.00	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A	1	1	11/1	A/1	7.20	30.00	✓	Straight	Straight Movement
	2	1	11/1	A/2	7.20	30.00	✓	Straight	Straight Movement
Ax	1	1	C/1	Ax/1	36.00	30.00	✓	Straight	Straight Movement
B	1	1	10/1	B/1	5.40	30.00	✓	Straight	Straight Movement
	2	1	10/1	B/2	5.40	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	36.00	30.00	✓	Nearside	38.43
C	1	1	9/1	C/1	1.68	30.00	✓	Straight	Straight Movement
	2	1	9/1	C/2	1.68	30.00	✓	Straight	Straight Movement
Cx	1	1	A/1	Cx/1	36.00	30.00	✓	Straight	Straight Movement
D	1	1	12/1	D/1	2.40	30.00	✓	Straight	Straight Movement
	2	1	12/1	D/2	2.40	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	12.00	30.00	✓	Nearside	39.36
Ax	1	2	D/1	Ax/1	36.00	30.00	✓	Nearside	39.61
Bx	1	2	D/1	Bx/1	36.00	30.00	✓	Straight	Straight Movement
Cx	1	2	B/1	Cx/1	36.00	30.00	✓	Nearside	43.43
Dx	1	2	B/1	Dx/1	12.00	30.00	✓	Straight	Straight Movement
Ax	1	3	B/2	Ax/1	36.00	30.00	✓	Offside	47.56
Bx	1	3	C/2	Bx/1	36.00	30.00	✓	Offside	52.89
Cx	1	3	D/2	Cx/1	36.00	30.00	✓	Offside	51.21
Dx	1	3	A/2	Dx/1	12.00	30.00	✓	Offside	47.76

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
(ALL)	2	AllTraffic		

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible
2		TrafficStream	C/1	100	0.00	
		TrafficStream	A/1	100	0.00	

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	12.00	8.00	5.40
2	(untitled)		1		Farside	10.00	6.67	5.40
3	(untitled)		1		Farside	12.00	8.00	5.40
4	(untitled)		1		Farside	13.00	8.67	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25				

Normal Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	21	372	55	0	0	0	0
	2	15	0	50	22	0	0	0	0
	3	465	43	0	181	0	0	0	0
	4	32	13	116	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	9/1	Cx/1	#0000FF
	2	(untitled)	12/1	Dx/1	#FF0000
	3	(untitled)	11/1	Ax/1	#00FF00
	4	(untitled)	10/1	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#008000
	7	(untitled)	4:2E, 3:1E	4:2X, 3:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	19		3	4	11/1, A/1, Bx/1	Normal	181
	20		4	1	10/1, B/1, Cx/1	Normal	32
	45		1	2	9/1, C/1, Dx/1	Normal	21
	46		1	3	9/1, C/1, Ax/1	Normal	372
	47		1	4	9/1, C/2, Bx/1	Normal	55
	48		4	3	10/1, B/2, Ax/1	Normal	116
	49		4	2	10/1, B/1, Dx/1	Normal	13
	50		3	2	11/1, A/2, Dx/1	Normal	43
	51		3	1	11/1, A/1, Cx/1	Normal	465
	52		2	1	12/1, D/2, Cx/1	Normal	15
	53		2	3	12/1, D/1, Ax/1	Normal	50
	54		2	4	12/1, D/1, Bx/1	Normal	22

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	7	4:1E, 4:2X	Normal	50
	18		8	6	2:2E, 2:1X	Normal	50
	22		5	7	3:2E, 3:1X	Normal	50
	23		5	6	1:1E, 1:2X	Normal	50
	34		6	8	2:1E, 2:2X	Normal	50
	35		6	5	1:2E, 1:1X	Normal	50
	41		7	8	4:2E, 4:1X	Normal	50
	42		7	5	3:1E, 3:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)	Minimum possible cycle time (s)
1	(untitled)		1	NetworkDefault	120	92

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	54	300	0	0	Traffic	
	B	(untitled)	3	3	0	0	Traffic	
	C	(untitled)	5	300	0	0	Traffic	
	D	(untitled)	5	33	0	0	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	3

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)	Run every N cycles	Probability of running (%)
1	1	A	1	1	100
	2	B	1	1	100
	3	C	1	1	100
	4	D	1	1	100
	5	E	1	1	100

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)	Single	1, 2, 3, 4, 5	69, 72, 84, 102, 112	92	
	2	(untitled)	Single	1, 2, 3, 5, 4	22, 45, 72, 98, 125	92	
	3	(untitled)	Single	1, 2, 4, 3, 5	22, 45, 72, 99, 125	92	
	4	(untitled)	Single	1, 2, 4, 5, 3	22, 45, 72, 98, 125	92	
	5	(untitled)	Single	1, 2, 5, 3, 4	22, 45, 71, 98, 125	92	
	6	(untitled)	Single	1, 2, 5, 4, 3	22, 45, 71, 98, 125	92	
	7	(untitled)	Single	1, 3, 2, 4, 5	21, 47, 74, 100, 125	97	
	8	(untitled)	Single	1, 3, 2, 5, 4	21, 47, 74, 99, 125	97	
	9	(untitled)	Single	1, 3, 4, 2, 5	21, 47, 73, 100, 125	97	
	10	(untitled)	Single	1, 3, 4, 5, 2	22, 49, 76, 102, 0	92	

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		0	5	5	5
	B	0		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

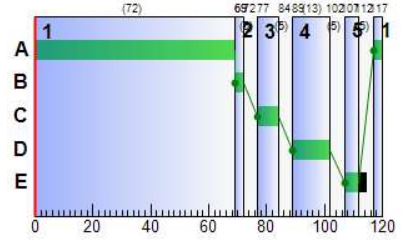
		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	A	117	69	72
A	2	1	1	A	117	69	72
B	1	1	1	D	89	102	13
B	2	1	1	D	89	102	13
C	1	1	1	A	117	69	72
C	2	1	1	A	117	69	72
D	1	1	1	C	77	84	7
D	2	1	1	C	77	84	7

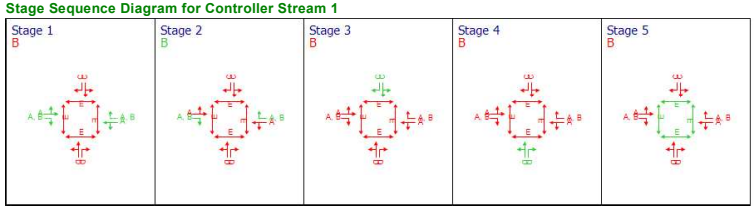
Phase Timings Diagram

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	57	74	646	1850	72	16.29	13.31	127.51	41.51	4.84	46.35
		2	12	715	43	553	75	29.13	1.68	13.96	4.94	0.20	5.14
	Ax	1	0	Unrestricted	538	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	21	380	45	1850	13	50.21	1.38	17.60	8.91	0.51	9.43
		2	54	86	116	1850	13	71.52	3.86	42.93	32.73	1.45	34.18
	Bx	1	0	Unrestricted	258	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	35	186	393	1850	72	12.55	6.53	268.38	19.45	2.40	21.85
		2	16	537	55	553	75	11.02	1.80	60.01	2.39	0.26	2.65
	Cx	1	0	Unrestricted	512	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	58	71	72	1850	7	74.13	2.71	78.04	21.05	1.01	22.06
		2	12	722	15	1850	7	72.41	0.48	11.88	4.28	0.18	4.46
	Dx	1	0	Unrestricted	77	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	25	302	448	1800	120	0.33	0.04	0.08	0.59	0.00	0.59
	10	1	9	1018	161	1800	120	0.10	0.00	0.01	0.06	0.00	0.06
	11	1	38	161	689	1800	120	0.62	0.12	0.23	1.68	0.00	1.68
	12	1	5	1969	87	1800	120	0.05	0.00	0.01	0.02	0.00	0.02

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow (PCU/hr)	Calculated capacity (PCU/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	A	1	646	646	0		1850	1125	57		74	0.00	72
		2	43	43	0		553	350	12		715	0.00	75
	Ax	1	538	538	0		Unrestricted	Unrestricted	0		Unrestricted	0.38	120
	B	1	45	45	0		1850	216	21		380	0.00	13
		2	116	116	0		1850	216	54		86	0.00	13
	Bx	1	258	258	0		Unrestricted	Unrestricted	0		Unrestricted	0.49	120
	C	1	393	393	0		1850	1125	35		186	0.00	72
		2	55	55	0		553	350	16		537	0.00	75
	Cx	1	512	512	0		Unrestricted	Unrestricted	0		Unrestricted	0.50	120
	D	1	72	72	0		1850	123	58		71	0.00	7
		2	15	15	0		1850	123	12		722	0.00	7
	Dx	1	77	77	0		Unrestricted	Unrestricted	0		Unrestricted	0.64	120
	9	1	448	448	0		1800	1800	25		302	0.00	120
	10	1	161	161	0		1800	1800	9		1018	0.00	120
	11	1	689	689	0		1800	1800	38		161	0.00	120
	12	1	87	87	0		1800	1800	5		1969	0.00	120

Generated on 05/03/2024 12:30:59 using TRANSYT 16 (16.0.1.8473)

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	A	1	7.20	16.29	2.54	0.39	41.51	59.80	374.78	11.50	4.84
		2	7.20	29.13	0.11	0.24	4.94	37.27	15.77	0.26	0.20
	Ax	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	5.40	50.21	0.60	0.03	8.91	90.83	40.06	0.82	0.51
		2	5.40	71.52	1.61	0.69	32.73	99.71	106.30	9.36	1.45
	Bx	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	1.68	12.55	1.28	0.09	19.45	48.67	188.46	2.80	2.40
		2	1.68	11.02	0.14	0.03	2.39	37.46	20.17	0.44	0.26
	Cx	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	2.40	74.13	1.09	0.39	21.05	111.46	68.89	11.36	1.01
		2	2.40	72.41	0.22	0.08	4.28	95.01	14.00	0.25	0.18
	Dx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	36.00	0.33	0.00	0.04	0.59	0.00	0.00	0.00	0.00
	10	1	36.00	0.10	0.00	0.00	0.06	0.00	0.00	0.00	0.00
	11	1	36.00	0.62	0.00	0.12	1.68	0.00	0.00	0.00	0.00
	12	1	12.00	0.05	0.00	0.00	0.02	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Average storage excess queue (PCU)	Average limit excess queue (PCU)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	A	1	0.00	13.31	10.43	127.51	0.20	0.00	0.00	0.00	0.00	0.00	
		2	12.00	1.68	12.00	13.96	0.00	0.00	0.00	71.00	0.00	71.00	
	Ax	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	B	1	0.00	1.38	7.83	17.60	0.00	0.00	0.00	11.00	0.00	11.00	
		2	9.00	3.86	9.00	42.93	0.00	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	19.00	0.00	19.00	
	C	1	0.00	6.53	2.43	268.38	0.66	0.00	0.00	0.00	0.00	0.00	
		2	3.00	1.80	3.00	60.01	0.00	0.00	0.00	70.00	0.00	70.00	
	Cx	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	4.00	0.00	4.00	
	D	1	0.00	2.71	3.48	78.04	0.00	0.00	0.00	0.00	0.00	0.00	
		2	4.00	0.48	4.00	11.88	0.00	0.00	0.00	7.00	0.00	7.00	
	Dx	1	0.00	0.00	17.39	0.00	0.00	0.00	0.00	38.00	0.00	38.00	
	9	1	0.00	0.04	52.17	0.08	0.00	0.00	0.00	0.00	38.00	38.00	
	10	1	0.00	0.00	52.17	0.01	0.00	0.00	0.00	0.00	0.00	0.00	
	11	1	0.00	0.12	52.17	0.23	0.00	0.00	0.00	0.00	16.00	16.00	
	12	1	0.00	0.00	17.39	0.01	0.00	0.00	0.00	0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	A	1	38.76	4.22	9.20	23.49
		2	2.58	0.20	12.90	16.75
	Ax	1	161.40	5.38	30.00	36.00
	B	1	2.03	0.70	2.91	55.61
		2	5.22	2.10	2.48	65.24
	Bx	1	77.40	2.58	30.00	36.00
	C	1	5.50	1.55	3.54	14.23
		2	0.77	0.18	4.30	11.71
	Cx	1	153.60	5.12	30.00	36.00
	D	1	1.44	1.53	0.94	76.53
		2	0.30	0.24	1.26	57.16
	Dx	1	7.70	0.26	30.00	12.00
	9	1	134.40	4.52	29.73	36.33
	10	1	48.30	1.61	29.92	36.10
	11	1	206.70	7.01	29.49	36.62
	12	1	8.70	0.29	29.87	12.05

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (PCU)	Mean End of Green Queue EoTS (PCU)	Mean End of Red Queue EoTS (PCU)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	0.00	0.00	✓	13.31	0.39	8.82	1.00	0.00	46.35
		2	0.00	0.00	✓	1.68	0.01	0.53	1.00	0.00	5.14
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	1.38	0.03	1.35	1.00	0.00	9.43
		2	0.00	0.00	✓	3.86	0.32	3.79	1.00	0.00	34.18
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	6.53	0.09	5.22	1.00	0.00	21.85
		2	0.00	0.00	✓	1.80	0.01	0.69	1.00	0.00	2.65
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	2.72	0.40	2.64	1.00	0.00	22.06
		2	0.00	0.00	✓	0.48	0.01	0.48	1.00	0.00	4.46
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	9	1	0.00	0.00	✓	0.04			1.00	0.00	0.59
	10	1	0.00	0.00	✓	0.00			1.00	0.00	0.06
	11	1	0.00	0.00	✓	0.12			1.00	0.00	1.68
	12	1	0.00	0.00	✓	0.00			1.00	0.00	0.02

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	(ALL)	(ALL)	7	50	11000	5	52.73	1.56	10.40	10.40

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	(ALL)	(ALL)	50	50	0		11000	733	7		1367	0.00	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
17:00-18:00	1	1	9.00	52.73	0.73	0.00	10.40
		2	9.00	52.73	0.73	0.00	10.40
	2	1	7.67	52.73	0.73	0.00	10.40
		2	7.67	52.73	0.73	0.00	10.40
	3	1	9.00	52.73	0.73	0.00	10.40
		2	9.00	52.73	0.73	0.00	10.40
	4	1	9.67	52.73	0.73	0.00	10.40
		2	9.67	52.73	0.73	0.00	10.40

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	(ALL)	(ALL)	1.56	10.00	15.56	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	1	1	0.65	0.86	0.76	61.73
		2	0.65	0.86	0.76	61.73
	2	1	0.55	0.84	0.66	60.40
		2	0.55	0.84	0.66	60.40
	3	1	0.65	0.86	0.76	61.73
		2	0.65	0.86	0.76	61.73
	4	1	0.70	0.87	0.81	62.40
		2	0.70	0.87	0.81	62.40

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	(ALL)	(ALL)	0.00	0.00	1.56	1.00	0.00	10.40

Collections

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	62.6	86.6	84.0	0.0	0.0	0.0	0.0
	2	105.2	0.0	124.6	124.6	0.0	0.0	0.0	0.0
	3	96.1	65.4	0.0	96.1	0.0	0.0	0.0	0.0
	4	127.7	103.7	137.3	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	61.7	61.7	0.0
	6	0.0	0.0	0.0	0.0	61.7	0.0	0.0	60.4
	7	0.0	0.0	0.0	0.0	61.7	0.0	0.0	62.4
	8	0.0	0.0	0.0	0.0	0.0	60.4	62.4	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Normal journey dist (m)	Bus journeydist (m)	Tram journey dist (m)	Pedestrian journey dist (m)	Calculated Total Flow (PCU/hr)	Avg journey time (s)	Avg journey dist (m)
17	8	7		50		62.40	14.00	14.00	14.00	14.00	50	62.40	14.00
18	8	6		50		60.40	11.00	11.00	11.00	11.00	50	60.40	11.00
19	3	4	181		96.11		660.00	0.00	0.00	0.00	181	96.11	660.00
20	4	1	32		127.71		645.00	0.00	0.00	0.00	32	127.71	645.00
22	5	7		50		61.73	13.00	13.00	13.00	13.00	50	61.73	13.00
23	5	6		50		61.73	13.00	13.00	13.00	13.00	50	61.73	13.00
34	6	8		50		60.40	11.00	11.00	11.00	11.00	50	60.40	11.00
35	6	5		50		61.73	13.00	13.00	13.00	13.00	50	61.73	13.00
41	7	8		50		62.40	14.00	14.00	14.00	14.00	50	62.40	14.00
42	7	5		50		61.73	13.00	13.00	13.00	13.00	50	61.73	13.00
45	1	2	21		62.56		414.00	0.00	0.00	0.00	21	62.56	414.00
46	1	3	372		86.56		614.00	0.00	0.00	0.00	372	86.56	614.00
47	1	4	55		84.04		614.00	0.00	0.00	0.00	55	84.04	614.00
48	4	3	116		137.34		645.00	0.00	0.00	0.00	116	137.34	645.00
49	4	2	13		103.71		445.00	0.00	0.00	0.00	13	103.71	445.00
50	3	2	43		65.37		460.00	0.00	0.00	0.00	43	65.37	460.00
51	3	1	465		96.11		660.00	0.00	0.00	0.00	465	96.11	660.00
52	2	1	15		105.21		420.00	0.00	0.00	0.00	15	105.21	420.00
53	2	3	50		124.58		420.00	0.00	0.00	0.00	50	124.58	420.00
54	2	4	22		124.58		420.00	0.00	0.00	0.00	22	124.58	420.00

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			Q
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	A		646 <	1850	72	0.00	57	74	23.49	16.29	59.80	
	2		1	1	A	B	43	553	75	71.00	12	715	16.75	29.13	37.27	
Ax	1	(untitled)					538	Unrestricted	120	0.00	0	Unrestricted	36.00	0.00	0.00	
B	1	(untitled)	1	1	D		45	1850	13	11.00	21	380	55.61	50.21	90.83	
	2		1	1	D		116	1850	13	0.00	54	86	65.24	71.52	99.71	
Bx	1	(untitled)					258	Unrestricted	120	19.00	0	Unrestricted	36.00	0.00	0.00	
C	1	(untitled)	1	1	A		393 <	1850	72	0.00	35	186	14.23	12.55	48.67	
	2		1	1	A	B	55	553	75	70.00	16	537	11.71	11.02	37.46	
Cx	1	(untitled)					512	Unrestricted	120	4.00	0	Unrestricted	36.00	0.00	0.00	
D	1	(untitled)	1	1	C		72	1850	7	0.00	58	71	76.53	74.13	111.46	
	2		1	1	C		15	1850	7	7.00	12	722	57.16	72.41	95.01	
Dx	1	(untitled)					77	Unrestricted	120	38.00	0	Unrestricted	12.00	0.00	0.00	
9	1		1				448	1800	120	38.00	25	302	36.33	0.33	0.00	
10	1		1				161	1800	120	0.00	9	1018	36.10	0.10	0.00	
11	1		1				689	1800	120	16.00	38	161	36.62	0.62	0.00	
12	1		1				87	1800	120	0.00	5	1969	12.05	0.05	0.00	

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Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)	1	1	E	50	11000	5	7	1367	61.73	52.73	1.56	100	0
	2	(untitled)	1	1	E	50	11000	5	7	1367	61.73	52.73	1.56	100	0
2	1	(untitled)	1	1	E	50	11000	5	7	1367	60.40	52.73	1.56	100	0
	2	(untitled)	1	1	E	50	11000	5	7	1367	60.40	52.73	1.56	100	0
3	1	(untitled)	1	1	E	50	11000	5	7	1367	61.73	52.73	1.56	100	0
	2	(untitled)	1	1	E	50	11000	5	7	1367	61.73	52.73	1.56	100	0
4	1	(untitled)	1	1	E	50	11000	5	7	1367	62.40	52.73	1.56	100	0
	2	(untitled)	1	1	E	50	11000	5	7	1367	62.40	52.73	1.56	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	854.80	37.49	22.80	7.58	2.12	137.62	10.85	0.00	148.46
Bus									
Tram									
Pedestrians	5.10	6.84	0.75	5.86	0.00	83.20	0.00	0.00	83.20
TOTAL	859.90	44.33	19.40	13.44	2.12	220.82	10.85	0.00	231.67

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A1 - Junction 2
D4 - 2032 Do Nothing, PM

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item wi wors unsignal PRC
1	05/03/2024 12:20:51	05/03/2024 12:20:51	0.42	17:00	120	233.43	15.67	58.47	A/1	0	0	A/1	11/1

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set (s)	Optimise specific Demand Set (s)	Demand Set(s) to optimise	Include in report	Locked
Junction 2				✓	D7	✓	

Demand Set Details

Scenario name	Time Period name	Description	Composite	Demand sets	Start time (HH:mm)	Locked	Run automatically
2032 Do Nothing	PM	(untitled)			17:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120	92	92		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)	Missing stage transition options
10000.00	10000.00	10000.00	2	Assume banned

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from traffic model	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓			Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

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Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy (%)	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Standard accuracy Hill Climb	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	R125 (E)		1
Ax	(untitled)		
B	WDLR (S)		1
Bx	(untitled)		
C	R125 (W)		1
Cx	(untitled)		
D	WLDR (N)		1
Dx	(untitled)		
9			1
10			1
11			1
12			1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Auto-calculate cell saturation flow	Cell saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			60.00	✓	Sum of lanes	1850			✓		Normal	
	2				60.00	✓	Sum of lanes	1850	✓	1800	✓	✓	Normal	
Ax	1	(untitled)			300.00								Normal	
B	1	(untitled)			45.00	✓	Sum of lanes	1850			✓		Normal	
	2				45.00	✓	Sum of lanes	1850	✓	1800	✓		Normal	
Bx	1	(untitled)			300.00								Normal	
C	1	(untitled)			14.00	✓	Sum of lanes	1850			✓		Normal	
	2				14.00	✓	Sum of lanes	1850	✓	1800	✓	✓	Normal	
Cx	1	(untitled)			300.00								Normal	
D	1	(untitled)			20.00	✓	Sum of lanes	1850			✓		Normal	
	2				20.00	✓	Sum of lanes	1850	✓	1800	✓		Normal	
Dx	1	(untitled)			100.00								Normal	
9	1				300.00	✓	Sum of lanes	1800					Normal	
10	1				300.00	✓	Sum of lanes	1800					Normal	
11	1				300.00	✓	Sum of lanes	1800					Normal	
12	1				100.00	✓	Sum of lanes	1800					Normal	

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Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1850
	2	1	(untitled)			1850
Ax	1	1	(untitled)			
B	1	1	(untitled)			1850
	2	1	(untitled)			1850
Bx	1	1	(untitled)			
C	1	1	(untitled)			1850
	2	1	(untitled)			1850
Cx	1	1	(untitled)			
D	1	1	(untitled)			1850
	2	1	(untitled)			1850
Dx	1	1	(untitled)			
9	1	1	(untitled)			1800
10	1	1	(untitled)			1800
11	1	1	(untitled)			1800
12	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Queue limit (PCU)	Excess queue penalty (£)	Has degree of saturation limit
A	1	NetworkDefault	100	100	100		0.00				
	2	CTM	100	100	100		12.00	✓	12.00	99999.00	
Ax	1	NetworkDefault	100	100	100		0.00				
B	1	NetworkDefault	100	100	100		0.00				
	2	CTM	100	100	100		9.00	✓	9.00	99999.00	
Bx	1	NetworkDefault	100	100	100		0.00				
C	1	NetworkDefault	100	100	100		0.00				
	2	CTM	100	100	100		3.00	✓	3.00	99999.00	
Cx	1	NetworkDefault	100	100	100		0.00				
D	1	NetworkDefault	100	100	100		0.00				
	2	CTM	100	100	100		4.00	✓	4.00	99999.00	
Dx	1	NetworkDefault	100	100	100		0.00				
9	1	NetworkDefault	100	100	100		0.00				
10	1	NetworkDefault	100	100	100		0.00				
11	1	NetworkDefault	100	100	100		0.00				
12	1	NetworkDefault	100	100	100		0.00				

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
A	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	12.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Ax	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
B	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	9.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Bx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
C	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	3.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Cx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
D	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	4.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Dx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
9	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
10	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
11	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
12	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
A	1	658	658
	2	43	43
Ax	1	531	531
B	1	45	45
	2	118	118
Bx	1	261	261
C	1	384	384
	2	56	56
Cx	1	522	522
D	1	72	72
	2	15	15
Dx	1	77	77
9	1	440	440
10	1	163	163
11	1	701	701
12	1	87	87

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	A		
	2	1	A	✓	B
B	1	1	D		
	2	1	D		
C	1	1	A		
	2	1	A	✓	B
D	1	1	C		
	2	1	C		

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Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
9	1	36.00	30.00
10	1	36.00	30.00
11	1	36.00	30.00
12	1	12.00	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A	1	1	11/1	A/1	7.20	30.00	✓	Straight	Straight Movement
	2	1	11/1	A/2	7.20	30.00	✓	Straight	Straight Movement
Ax	1	1	C/1	Ax/1	36.00	30.00	✓	Straight	Straight Movement
B	1	1	10/1	B/1	5.40	30.00	✓	Straight	Straight Movement
	2	1	10/1	B/2	5.40	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	36.00	30.00	✓	Nearside	38.43
C	1	1	9/1	C/1	1.68	30.00	✓	Straight	Straight Movement
	2	1	9/1	C/2	1.68	30.00	✓	Straight	Straight Movement
Cx	1	1	A/1	Cx/1	36.00	30.00	✓	Straight	Straight Movement
D	1	1	12/1	D/1	2.40	30.00	✓	Straight	Straight Movement
	2	1	12/1	D/2	2.40	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	12.00	30.00	✓	Nearside	39.36
Ax	1	2	D/1	Ax/1	36.00	30.00	✓	Nearside	39.61
Bx	1	2	D/1	Bx/1	36.00	30.00	✓	Straight	Straight Movement
Cx	1	2	B/1	Cx/1	36.00	30.00	✓	Nearside	43.43
Dx	1	2	B/1	Dx/1	12.00	30.00	✓	Straight	Straight Movement
Ax	1	3	B/2	Ax/1	36.00	30.00	✓	Offside	47.56
Bx	1	3	C/2	Bx/1	36.00	30.00	✓	Offside	52.89
Cx	1	3	D/2	Cx/1	36.00	30.00	✓	Offside	51.21
Dx	1	3	A/2	Dx/1	12.00	30.00	✓	Offside	47.76

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
(ALL)	2	AllTraffic		

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible
2		TrafficStream	C/1	100	0.00	
		TrafficStream	A/1	100	0.00	

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	12.00	8.00	5.40
2	(untitled)		1		Farside	10.00	6.67	5.40
3	(untitled)		1		Farside	12.00	8.00	5.40
4	(untitled)		1		Farside	13.00	8.67	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25				

Normal Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	21	363	56	0	0	0	0
	2	15	0	50	22	0	0	0	0
	3	475	43	0	183	0	0	0	0
	4	32	13	118	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	9/1	Cx/1	#0000FF
	2	(untitled)	12/1	Dx/1	#FF0000
	3	(untitled)	11/1	Ax/1	#00FF00
	4	(untitled)	10/1	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#008000
	7	(untitled)	4:2E, 3:1E	4:2X, 3:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	19		3	4	11/1, A/1, Bx/1	Normal	183
	20		4	1	10/1, B/1, Cx/1	Normal	32
	45		1	2	9/1, C/1, Dx/1	Normal	21
	46		1	3	9/1, C/1, Ax/1	Normal	363
	47		1	4	9/1, C/2, Bx/1	Normal	56
	48		4	3	10/1, B/2, Ax/1	Normal	118
	49		4	2	10/1, B/1, Dx/1	Normal	13
	50		3	2	11/1, A/2, Dx/1	Normal	43
	51		3	1	11/1, A/1, Cx/1	Normal	475
	52		2	1	12/1, D/2, Cx/1	Normal	15
	53		2	3	12/1, D/1, Ax/1	Normal	50
	54		2	4	12/1, D/1, Bx/1	Normal	22

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	7	4:1E, 4:2X	Normal	50
	18		8	6	2:2E, 2:1X	Normal	50
	22		5	7	3:2E, 3:1X	Normal	50
	23		5	6	1:1E, 1:2X	Normal	50
	34		6	8	2:1E, 2:2X	Normal	50
	35		6	5	1:2E, 1:1X	Normal	50
	41		7	8	4:2E, 4:1X	Normal	50
	42		7	5	3:1E, 3:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)	Minimum possible cycle time (s)
1	(untitled)		1	NetworkDefault	120	92

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	54	300	0	0	Traffic	
	B	(untitled)	3	3	0	0	Traffic	
	C	(untitled)	5	300	0	0	Traffic	
	D	(untitled)	5	33	0	0	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	3

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)	Run every N cycles	Probability of running (%)
1	1	A	1	1	100
	2	B	1	1	100
	3	C	1	1	100
	4	D	1	1	100
	5	E	1	1	100

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)	Single	1, 2, 3, 4, 5	69, 72, 84, 102, 112	92	
	2	(untitled)	Single	1, 2, 3, 5, 4	22, 45, 72, 98, 125	92	
	3	(untitled)	Single	1, 2, 4, 3, 5	22, 45, 72, 99, 125	92	
	4	(untitled)	Single	1, 2, 4, 5, 3	22, 45, 72, 98, 125	92	
	5	(untitled)	Single	1, 2, 5, 3, 4	22, 45, 71, 98, 125	92	
	6	(untitled)	Single	1, 2, 5, 4, 3	22, 45, 71, 98, 125	92	
	7	(untitled)	Single	1, 3, 2, 4, 5	21, 47, 74, 100, 125	97	
	8	(untitled)	Single	1, 3, 2, 5, 4	21, 47, 74, 99, 125	97	
	9	(untitled)	Single	1, 3, 4, 2, 5	21, 47, 73, 100, 125	97	
	10	(untitled)	Single	1, 3, 4, 5, 2	22, 49, 76, 102, 0	92	

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		0	5	5	5
	B	0		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

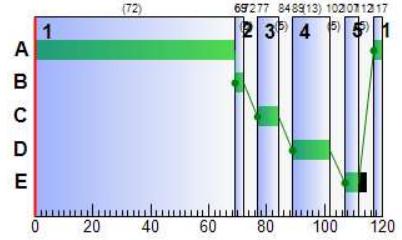
		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	A	117	69	72
A	2	1	1	A	117	69	72
B	1	1	1	D	89	102	13
B	2	1	1	D	89	102	13
C	1	1	1	A	117	69	72
C	2	1	1	A	117	69	72
D	1	1	1	C	77	84	7
D	2	1	1	C	77	84	7

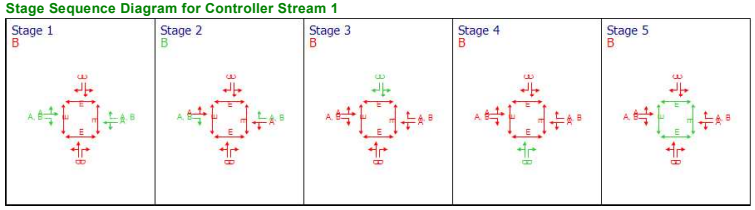
Phase Timings Diagram

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	58	71	658	1850	72	16.53	13.57	130.04	42.90	4.98	47.88
		2	12	715	43	553	75	29.13	1.68	13.96	4.94	0.20	5.14
	Ax	1	0	Unrestricted	531	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	21	380	45	1850	13	50.21	1.38	17.60	8.91	0.51	9.43
		2	55	83	118	1850	13	71.96	3.94	43.81	33.49	1.48	34.97
	Bx	1	0	Unrestricted	261	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	34	193	384	1850	72	12.45	6.38	262.10	18.85	2.33	21.18
		2	16	526	56	553	75	11.04	1.80	60.03	2.44	0.26	2.70
	Cx	1	0	Unrestricted	522	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	58	71	72	1850	7	74.13	2.71	78.04	21.05	1.01	22.06
		2	12	722	15	1850	7	72.41	0.48	11.88	4.28	0.18	4.46
	Dx	1	0	Unrestricted	77	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	24	309	440	1800	120	0.32	0.04	0.08	0.56	0.00	0.56
	10	1	9	1004	163	1800	120	0.10	0.00	0.01	0.06	0.00	0.06
	11	1	39	157	701	1800	120	0.64	0.12	0.24	1.76	0.00	1.76
	12	1	5	1969	87	1800	120	0.05	0.00	0.01	0.02	0.00	0.02

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow (PCU/hr)	Calculated capacity (PCU/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	A	1	658	658	0		1850	1125	58		71	0.00	72
		2	43	43	0		553	350	12		715	0.00	75
	Ax	1	531	531	0		Unrestricted	Unrestricted	0		Unrestricted	0.38	120
	B	1	45	45	0		1850	216	21		380	0.00	13
		2	118	118	0		1850	216	55		83	0.00	13
	Bx	1	261	261	0		Unrestricted	Unrestricted	0		Unrestricted	0.49	120
	C	1	384	384	0		1850	1125	34		193	0.00	72
		2	56	56	0		553	350	16		526	0.00	75
	Cx	1	522	522	0		Unrestricted	Unrestricted	0		Unrestricted	0.50	120
	D	1	72	72	0		1850	123	58		71	0.00	7
		2	15	15	0		1850	123	12		722	0.00	7
	Dx	1	77	77	0		Unrestricted	Unrestricted	0		Unrestricted	0.64	120
	9	1	440	440	0		1800	1800	24		309	0.00	120
	10	1	163	163	0		1800	1800	9		1004	0.00	120
	11	1	701	701	0		1800	1800	39		157	0.00	120
	12	1	87	87	0		1800	1800	5		1969	0.00	120

Generated on 05/03/2024 12:30:59 using TRANSYT 16 (16.0.1.8473)

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	A	1	7.20	16.53	2.61	0.41	42.90	60.40	385.22	12.24	4.98
		2	7.20	29.13	0.11	0.24	4.94	37.27	15.77	0.26	0.20
	Ax	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	5.40	50.21	0.60	0.03	8.91	90.83	40.06	0.82	0.51
		2	5.40	71.96	1.64	0.72	33.49	100.04	108.15	9.89	1.48
	Bx	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	1.68	12.45	1.24	0.09	18.85	48.46	183.43	2.64	2.33
		2	1.68	11.04	0.14	0.03	2.44	37.48	20.53	0.46	0.26
	Cx	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	2.40	74.13	1.09	0.39	21.05	111.46	68.89	11.36	1.01
		2	2.40	72.41	0.22	0.08	4.28	95.01	14.00	0.25	0.18
	Dx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	36.00	0.32	0.00	0.04	0.56	0.00	0.00	0.00	0.00
	10	1	36.00	0.10	0.00	0.00	0.06	0.00	0.00	0.00	0.00
	11	1	36.00	0.64	0.00	0.12	1.76	0.00	0.00	0.00	0.00
	12	1	12.00	0.05	0.00	0.00	0.02	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Average storage excess queue (PCU)	Average limit excess queue (PCU)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	A	1	0.00	13.57	10.43	130.04	0.24	0.00	0.00	0.00	0.00	0.00	
		2	12.00	1.68	12.00	13.96	0.00	0.00	0.00	71.00	0.00	71.00	
	Ax	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	B	1	0.00	1.38	7.83	17.60	0.00	0.00	0.00	11.00	0.00	11.00	
		2	9.00	3.94	9.00	43.81	0.00	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	19.00	0.00	19.00	
	C	1	0.00	6.38	2.43	262.10	0.62	0.00	0.00	0.00	0.00	0.00	
		2	3.00	1.80	3.00	60.03	0.00	0.00	0.00	70.00	0.00	70.00	
	Cx	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	4.00	0.00	4.00	
	D	1	0.00	2.71	3.48	78.04	0.00	0.00	0.00	0.00	0.00	0.00	
		2	4.00	0.48	4.00	11.88	0.00	0.00	0.00	7.00	0.00	7.00	
	Dx	1	0.00	0.00	17.39	0.00	0.00	0.00	0.00	38.00	0.00	38.00	
	9	1	0.00	0.04	52.17	0.08	0.00	0.00	0.00	0.00	38.00	38.00	
	10	1	0.00	0.00	52.17	0.01	0.00	0.00	0.00	0.00	0.00	0.00	
	11	1	0.00	0.12	52.17	0.24	0.00	0.00	0.00	0.00	18.00	18.00	
	12	1	0.00	0.00	17.39	0.01	0.00	0.00	0.00	0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	A	1	39.48	4.34	9.10	23.73
		2	2.58	0.20	12.90	16.75
	Ax	1	159.30	5.31	30.00	36.00
	B	1	2.03	0.70	2.91	55.61
		2	5.31	2.15	2.47	65.69
	Bx	1	78.30	2.61	30.00	36.00
	C	1	5.38	1.51	3.57	14.13
		2	0.78	0.18	4.29	11.75
	Cx	1	156.60	5.22	30.00	36.00
	D	1	1.44	1.53	0.94	76.53
		2	0.30	0.24	1.26	57.16
	Dx	1	7.70	0.26	30.00	12.00
	9	1	132.00	4.44	29.73	36.32
	10	1	48.90	1.63	29.92	36.10
	11	1	210.30	7.13	29.48	36.64
	12	1	8.70	0.29	29.87	12.05

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (PCU)	Mean End of Green Queue EoTS (PCU)	Mean End of Red Queue EoTS (PCU)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	0.00	0.00	✓	13.57	0.41	9.00	1.00	0.00	47.88
		2	0.00	0.00	✓	1.68	0.01	0.53	1.00	0.00	5.14
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	1.38	0.03	1.35	1.00	0.00	9.43
		2	0.00	0.00	✓	3.94	0.33	3.87	1.00	0.00	34.97
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	6.38	0.09	5.10	1.00	0.00	21.18
		2	0.00	0.00	✓	1.80	0.02	0.70	1.00	0.00	2.70
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	2.72	0.40	2.64	1.00	0.00	22.06
		2	0.00	0.00	✓	0.48	0.01	0.48	1.00	0.00	4.46
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	9	1	0.00	0.00	✓	0.04			1.00	0.00	0.56
	10	1	0.00	0.00	✓	0.00			1.00	0.00	0.06
	11	1	0.00	0.00	✓	0.12			1.00	0.00	1.76
	12	1	0.00	0.00	✓	0.00			1.00	0.00	0.02

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	(ALL)	(ALL)	7	50	11000	5	52.73	1.56	10.40	10.40

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	(ALL)	(ALL)	50	50	0		11000	733	7		1367	0.00	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
17:00-18:00	1	1	9.00	52.73	0.73	0.00	10.40
		2	9.00	52.73	0.73	0.00	10.40
	2	1	7.67	52.73	0.73	0.00	10.40
		2	7.67	52.73	0.73	0.00	10.40
	3	1	9.00	52.73	0.73	0.00	10.40
		2	9.00	52.73	0.73	0.00	10.40
	4	1	9.67	52.73	0.73	0.00	10.40
		2	9.67	52.73	0.73	0.00	10.40

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	(ALL)	(ALL)	1.56	10.00	15.56	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	1	1	0.65	0.86	0.76	61.73
		2	0.65	0.86	0.76	61.73
	2	1	0.55	0.84	0.66	60.40
		2	0.55	0.84	0.66	60.40
	3	1	0.65	0.86	0.76	61.73
		2	0.65	0.86	0.76	61.73
	4	1	0.70	0.87	0.81	62.40
		2	0.70	0.87	0.81	62.40

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	(ALL)	(ALL)	0.00	0.00	1.56	1.00	0.00	10.40

Collections

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	62.4	86.4	84.1	0.0	0.0	0.0	0.0
	2	105.2	0.0	124.6	124.6	0.0	0.0	0.0	0.0
	3	96.4	65.4	0.0	96.4	0.0	0.0	0.0	0.0
	4	127.7	103.7	137.8	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	61.7	61.7	0.0
	6	0.0	0.0	0.0	0.0	61.7	0.0	0.0	60.4
	7	0.0	0.0	0.0	0.0	61.7	0.0	0.0	62.4
	8	0.0	0.0	0.0	0.0	0.0	60.4	62.4	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Normal journey dist (m)	Bus journeydist (m)	Tram journey dist (m)	Pedestrian journey dist (m)	Calculated Total Flow (PCU/hr)	Avg journey time (s)	Avg journey dist (m)
17	8	7		50		62.40	14.00	14.00	14.00	14.00	50	62.40	14.00
18	8	6		50		60.40	11.00	11.00	11.00	11.00	50	60.40	11.00
19	3	4	183		96.36		660.00	0.00	0.00	0.00	183	96.36	660.00
20	4	1	32		127.71		645.00	0.00	0.00	0.00	32	127.71	645.00
22	5	7		50		61.73	13.00	13.00	13.00	13.00	50	61.73	13.00
23	5	6		50		61.73	13.00	13.00	13.00	13.00	50	61.73	13.00
34	6	8		50		60.40	11.00	11.00	11.00	11.00	50	60.40	11.00
35	6	5		50		61.73	13.00	13.00	13.00	13.00	50	61.73	13.00
41	7	8		50		62.40	14.00	14.00	14.00	14.00	50	62.40	14.00
42	7	5		50		61.73	13.00	13.00	13.00	13.00	50	61.73	13.00
45	1	2	21		62.45		414.00	0.00	0.00	0.00	21	62.45	414.00
46	1	3	363		86.45		614.00	0.00	0.00	0.00	363	86.45	614.00
47	1	4	56		84.07		614.00	0.00	0.00	0.00	56	84.07	614.00
48	4	3	118		137.79		645.00	0.00	0.00	0.00	118	137.79	645.00
49	4	2	13		103.71		445.00	0.00	0.00	0.00	13	103.71	445.00
50	3	2	43		65.39		460.00	0.00	0.00	0.00	43	65.39	460.00
51	3	1	475		96.36		660.00	0.00	0.00	0.00	475	96.36	660.00
52	2	1	15		105.21		420.00	0.00	0.00	0.00	15	105.21	420.00
53	2	3	50		124.58		420.00	0.00	0.00	0.00	50	124.58	420.00
54	2	4	22		124.58		420.00	0.00	0.00	0.00	22	124.58	420.00

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			Q
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	A		658 <	1850	72	0.00	58	71	23.73	16.53	60.40	
	2		1	1	A	B	43	553	75	71.00	12	715	16.75	29.13	37.27	
Ax	1	(untitled)					531	Unrestricted	120	0.00	0	Unrestricted	36.00	0.00	0.00	
B	1	(untitled)	1	1	D		45	1850	13	11.00	21	380	55.61	50.21	90.83	
	2		1	1	D		118	1850	13	0.00	55	83	65.69	71.96	100.04	
Bx	1	(untitled)					261	Unrestricted	120	19.00	0	Unrestricted	36.00	0.00	0.00	
C	1	(untitled)	1	1	A		384 <	1850	72	0.00	34	193	14.13	12.45	48.46	
	2		1	1	A	B	56	553	75	70.00	16	526	11.75	11.04	37.48	
Cx	1	(untitled)					522	Unrestricted	120	4.00	0	Unrestricted	36.00	0.00	0.00	
D	1	(untitled)	1	1	C		72	1850	7	0.00	58	71	76.53	74.13	111.46	
	2		1	1	C		15	1850	7	7.00	12	722	57.16	72.41	95.01	
Dx	1	(untitled)					77	Unrestricted	120	38.00	0	Unrestricted	12.00	0.00	0.00	
9	1		1				440	1800	120	38.00	24	309	36.32	0.32	0.00	
10	1		1				163	1800	120	0.00	9	1004	36.10	0.10	0.00	
11	1		1				701	1800	120	18.00	39	157	36.64	0.64	0.00	
12	1		1				87	1800	120	0.00	5	1969	12.05	0.05	0.00	

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Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)	1	1	E	50	11000	5	7	1367	61.73	52.73	1.56	100	0
	2	(untitled)	1	1	E	50	11000	5	7	1367	61.73	52.73	1.56	100	0
2	1	(untitled)	1	1	E	50	11000	5	7	1367	60.40	52.73	1.56	100	0
	2	(untitled)	1	1	E	50	11000	5	7	1367	60.40	52.73	1.56	100	0
3	1	(untitled)	1	1	E	50	11000	5	7	1367	61.73	52.73	1.56	100	0
	2	(untitled)	1	1	E	50	11000	5	7	1367	61.73	52.73	1.56	100	0
4	1	(untitled)	1	1	E	50	11000	5	7	1367	62.40	52.73	1.56	100	0
	2	(untitled)	1	1	E	50	11000	5	7	1367	62.40	52.73	1.56	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	859.10	37.74	22.76	7.64	2.16	139.27	10.96	0.00	150.23
Bus									
Tram									
Pedestrians	5.10	6.84	0.75	5.86	0.00	83.20	0.00	0.00	83.20
TOTAL	864.20	44.58	19.39	13.50	2.16	222.48	10.96	0.00	233.43

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A1 - Junction 2
D5 - 2032 Do Something, PM

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item wi wors unsignal PRC
1	05/03/2024 12:20:51	05/03/2024 12:20:51	0.60	17:00	120	237.94	15.95	59.89	A/1	0	0	A/1	11/1

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set (s)	Optimise specific Demand Set (s)	Demand Set(s) to optimise	Include in report	Locked
Junction 2				✓	D7	✓	

Demand Set Details

Scenario name	Time Period name	Description	Composite	Demand sets	Start time (HH:mm)	Locked	Run automatically
2032 Do Something	PM	(untitled)			17:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120	92	92		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)	Missing stage transition options
10000.00	10000.00	10000.00	2	Assume banned

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from traffic model	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓			Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

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Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy (%)	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Standard accuracy Hill Climb	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	R125 (E)		1
Ax	(untitled)		
B	WDLR (S)		1
Bx	(untitled)		
C	R125 (W)		1
Cx	(untitled)		
D	WLDR (N)		1
Dx	(untitled)		
9			1
10			1
11			1
12			1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Auto-calculate cell saturation flow	Cell saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			60.00	✓	Sum of lanes	1850			✓		Normal	
	2				60.00	✓	Sum of lanes	1850	✓	1800	✓	✓	Normal	
Ax	1	(untitled)			300.00								Normal	
B	1	(untitled)			45.00	✓	Sum of lanes	1850			✓		Normal	
	2				45.00	✓	Sum of lanes	1850	✓	1800	✓		Normal	
Bx	1	(untitled)			300.00								Normal	
C	1	(untitled)			14.00	✓	Sum of lanes	1850			✓		Normal	
	2				14.00	✓	Sum of lanes	1850	✓	1800	✓	✓	Normal	
Cx	1	(untitled)			300.00								Normal	
D	1	(untitled)			20.00	✓	Sum of lanes	1850			✓		Normal	
	2				20.00	✓	Sum of lanes	1850	✓	1800	✓		Normal	
Dx	1	(untitled)			100.00								Normal	
9	1				300.00	✓	Sum of lanes	1800					Normal	
10	1				300.00	✓	Sum of lanes	1800					Normal	
11	1				300.00	✓	Sum of lanes	1800					Normal	
12	1				100.00	✓	Sum of lanes	1800					Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1850
	2	1	(untitled)			1850
Ax	1	1	(untitled)			
B	1	1	(untitled)			1850
	2	1	(untitled)			1850
Bx	1	1	(untitled)			
C	1	1	(untitled)			1850
	2	1	(untitled)			1850
Cx	1	1	(untitled)			
D	1	1	(untitled)			1850
	2	1	(untitled)			1850
Dx	1	1	(untitled)			
9	1	1	(untitled)			1800
10	1	1	(untitled)			1800
11	1	1	(untitled)			1800
12	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Queue limit (PCU)	Excess queue penalty (£)	Has degree of saturation limit
A	1	NetworkDefault	100	100	100		0.00				
	2	CTM	100	100	100		12.00	✓	12.00	99999.00	
Ax	1	NetworkDefault	100	100	100		0.00				
B	1	NetworkDefault	100	100	100		0.00				
	2	CTM	100	100	100		9.00	✓	9.00	99999.00	
Bx	1	NetworkDefault	100	100	100		0.00				
C	1	NetworkDefault	100	100	100		0.00				
	2	CTM	100	100	100		3.00	✓	3.00	99999.00	
Cx	1	NetworkDefault	100	100	100		0.00				
D	1	NetworkDefault	100	100	100		0.00				
	2	CTM	100	100	100		4.00	✓	4.00	99999.00	
Dx	1	NetworkDefault	100	100	100		0.00				
9	1	NetworkDefault	100	100	100		0.00				
10	1	NetworkDefault	100	100	100		0.00				
11	1	NetworkDefault	100	100	100		0.00				
12	1	NetworkDefault	100	100	100		0.00				

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
A	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	12.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Ax	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
B	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	9.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Bx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
C	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	3.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Cx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
D	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	4.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Dx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
9	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
10	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
11	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
12	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
A	1	674	674
	2	43	43
Ax	1	560	560
B	1	45	45
	2	118	118
Bx	1	261	261
C	1	413	413
	2	56	56
Cx	1	538	538
D	1	72	72
	2	15	15
Dx	1	77	77
9	1	469	469
10	1	163	163
11	1	717	717
12	1	87	87

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	A		
	2	1	A	✓	B
B	1	1	D		
	2	1	D		
C	1	1	A		
	2	1	A	✓	B
D	1	1	C		
	2	1	C		

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Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
9	1	36.00	30.00
10	1	36.00	30.00
11	1	36.00	30.00
12	1	12.00	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A	1	1	11/1	A/1	7.20	30.00	✓	Straight	Straight Movement
	2	1	11/1	A/2	7.20	30.00	✓	Straight	Straight Movement
Ax	1	1	C/1	Ax/1	36.00	30.00	✓	Straight	Straight Movement
B	1	1	10/1	B/1	5.40	30.00	✓	Straight	Straight Movement
	2	1	10/1	B/2	5.40	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	36.00	30.00	✓	Nearside	38.43
C	1	1	9/1	C/1	1.68	30.00	✓	Straight	Straight Movement
	2	1	9/1	C/2	1.68	30.00	✓	Straight	Straight Movement
Cx	1	1	A/1	Cx/1	36.00	30.00	✓	Straight	Straight Movement
D	1	1	12/1	D/1	2.40	30.00	✓	Straight	Straight Movement
	2	1	12/1	D/2	2.40	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	12.00	30.00	✓	Nearside	39.36
Ax	1	2	D/1	Ax/1	36.00	30.00	✓	Nearside	39.61
Bx	1	2	D/1	Bx/1	36.00	30.00	✓	Straight	Straight Movement
Cx	1	2	B/1	Cx/1	36.00	30.00	✓	Nearside	43.43
Dx	1	2	B/1	Dx/1	12.00	30.00	✓	Straight	Straight Movement
Ax	1	3	B/2	Ax/1	36.00	30.00	✓	Offside	47.56
Bx	1	3	C/2	Bx/1	36.00	30.00	✓	Offside	52.89
Cx	1	3	D/2	Cx/1	36.00	30.00	✓	Offside	51.21
Dx	1	3	A/2	Dx/1	12.00	30.00	✓	Offside	47.76

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
(ALL)	2	AllTraffic		

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible
2		TrafficStream	C/1	100	0.00	
		TrafficStream	A/1	100	0.00	

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	12.00	8.00	5.40
2	(untitled)		1		Farside	10.00	6.67	5.40
3	(untitled)		1		Farside	12.00	8.00	5.40
4	(untitled)		1		Farside	13.00	8.67	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25				

Normal Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	21	392	56	0	0	0	0
	2	15	0	50	22	0	0	0	0
	3	491	43	0	183	0	0	0	0
	4	32	13	118	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	9/1	Cx/1	#0000FF
	2	(untitled)	12/1	Dx/1	#FF0000
	3	(untitled)	11/1	Ax/1	#00FF00
	4	(untitled)	10/1	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#008000
	7	(untitled)	4:2E, 3:1E	4:2X, 3:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	19		3	4	11/1, A/1, Bx/1	Normal	183
	20		4	1	10/1, B/1, Cx/1	Normal	32
	45		1	2	9/1, C/1, Dx/1	Normal	21
	46		1	3	9/1, C/1, Ax/1	Normal	392
	47		1	4	9/1, C/2, Bx/1	Normal	56
	48		4	3	10/1, B/2, Ax/1	Normal	118
	49		4	2	10/1, B/1, Dx/1	Normal	13
	50		3	2	11/1, A/2, Dx/1	Normal	43
	51		3	1	11/1, A/1, Cx/1	Normal	491
	52		2	1	12/1, D/2, Cx/1	Normal	15
	53		2	3	12/1, D/1, Ax/1	Normal	50
	54		2	4	12/1, D/1, Bx/1	Normal	22

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	7	4:1E, 4:2X	Normal	50
	18		8	6	2:2E, 2:1X	Normal	50
	22		5	7	3:2E, 3:1X	Normal	50
	23		5	6	1:1E, 1:2X	Normal	50
	34		6	8	2:1E, 2:2X	Normal	50
	35		6	5	1:2E, 1:1X	Normal	50
	41		7	8	4:2E, 4:1X	Normal	50
	42		7	5	3:1E, 3:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)	Minimum possible cycle time (s)
1	(untitled)		1	NetworkDefault	120	92

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	54	300	0	0	Traffic	
	B	(untitled)	3	3	0	0	Traffic	
	C	(untitled)	5	300	0	0	Traffic	
	D	(untitled)	5	33	0	0	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	3

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)	Run every N cycles	Probability of running (%)
1	1	A	1	1	100
	2	B	1	1	100
	3	C	1	1	100
	4	D	1	1	100
	5	E	1	1	100

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)	Single	1, 2, 3, 4, 5	69, 72, 84, 102, 112	92	
	2	(untitled)	Single	1, 2, 3, 5, 4	22, 45, 72, 98, 125	92	
	3	(untitled)	Single	1, 2, 4, 3, 5	22, 45, 72, 99, 125	92	
	4	(untitled)	Single	1, 2, 4, 5, 3	22, 45, 72, 98, 125	92	
	5	(untitled)	Single	1, 2, 5, 3, 4	22, 45, 71, 98, 125	92	
	6	(untitled)	Single	1, 2, 5, 4, 3	22, 45, 71, 98, 125	92	
	7	(untitled)	Single	1, 3, 2, 4, 5	21, 47, 74, 100, 125	97	
	8	(untitled)	Single	1, 3, 2, 5, 4	21, 47, 74, 99, 125	97	
	9	(untitled)	Single	1, 3, 4, 2, 5	21, 47, 73, 100, 125	97	
	10	(untitled)	Single	1, 3, 4, 5, 2	22, 49, 76, 102, 0	92	

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		0	5	5	5
	B	0		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

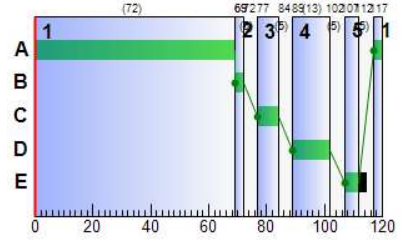
		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	A	117	69	72
A	2	1	1	A	117	69	72
B	1	1	1	D	89	102	13
B	2	1	1	D	89	102	13
C	1	1	1	A	117	69	72
C	2	1	1	A	117	69	72
D	1	1	1	C	77	84	7
D	2	1	1	C	77	84	7

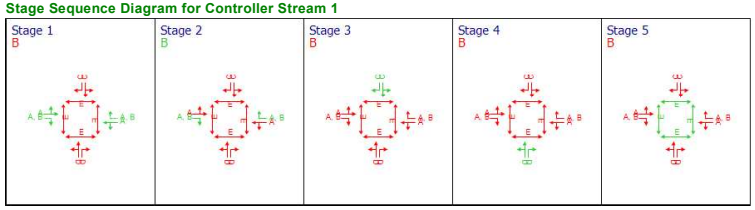
Phase Timings Diagram

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	60	67	674	1850	72	16.86	14.11	135.24	44.81	5.18	50.00
		2	12	715	43	553	75	29.13	1.68	13.96	4.94	0.20	5.14
	Ax	1	0	Unrestricted	560	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	21	380	45	1850	13	50.21	1.38	17.60	8.91	0.51	9.43
		2	55	83	118	1850	13	71.96	3.94	43.81	33.49	1.48	34.97
	Bx	1	0	Unrestricted	261	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	37	172	413	1850	72	12.78	6.99	287.07	20.82	2.56	23.38
		2	16	526	56	553	75	11.04	1.80	60.03	2.44	0.26	2.70
	Cx	1	0	Unrestricted	538	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	58	71	72	1850	7	74.13	2.71	78.04	21.05	1.01	22.06
		2	12	722	15	1850	7	72.41	0.48	11.88	4.28	0.18	4.46
	Dx	1	0	Unrestricted	77	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	26	284	469	1800	120	0.35	0.05	0.09	0.65	0.00	0.65
	10	1	9	1004	163	1800	120	0.10	0.00	0.01	0.06	0.00	0.06
	11	1	40	151	717	1800	120	0.66	0.13	0.25	1.87	0.00	1.87
	12	1	5	1969	87	1800	120	0.05	0.00	0.01	0.02	0.00	0.02

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow (PCU/hr)	Calculated capacity (PCU/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	A	1	674	674	0		1850	1125	60		67	0.00	72
		2	43	43	0		553	350	12		715	0.00	75
	Ax	1	560	560	0		Unrestricted	Unrestricted	0		Unrestricted	0.38	120
	B	1	45	45	0		1850	216	21		380	0.00	13
		2	118	118	0		1850	216	55		83	0.00	13
	Bx	1	261	261	0		Unrestricted	Unrestricted	0		Unrestricted	0.49	120
	C	1	413	413	0		1850	1125	37		172	0.00	72
		2	56	56	0		553	350	16		526	0.00	75
	Cx	1	538	538	0		Unrestricted	Unrestricted	0		Unrestricted	0.51	120
	D	1	72	72	0		1850	123	58		71	0.00	7
		2	15	15	0		1850	123	12		722	0.00	7
	Dx	1	77	77	0		Unrestricted	Unrestricted	0		Unrestricted	0.64	120
	9	1	469	469	0		1800	1800	26		284	0.00	120
	10	1	163	163	0		1800	1800	9		1004	0.00	120
	11	1	717	717	0		1800	1800	40		151	0.00	120
	12	1	87	87	0		1800	1800	5		1969	0.00	120

Generated on 05/03/2024 12:30:59 using TRANSYT 16 (16.0.1.8473)

Traffic Stream Results: Stops and delays

Segment	Arm	Stream	Cruise Time per Veh (s)	Delay per Veh (s)	delay (PCU-hr/hr)	Oversat delay (PCU-hr/hr)	of delay (£ per hr)	stops per Veh (%)	stops (stops per hr)	stops (stops per hr)	of stops (£ per hr)
17:00-18:00	A	1	7.20	16.86	2.71	0.45	44.81	61.32	400.00	13.29	5.18
		2	7.20	29.13	0.11	0.24	4.94	37.27	15.77	0.26	0.20
	Ax	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	5.40	50.21	0.60	0.03	8.91	90.83	40.06	0.82	0.51
		2	5.40	71.96	1.64	0.72	33.49	100.04	108.15	9.89	1.48
	Bx	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	1.68	12.78	1.36	0.11	20.82	49.46	201.08	3.18	2.56
		2	1.68	11.04	0.14	0.03	2.44	37.48	20.53	0.46	0.26
	Cx	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	2.40	74.13	1.09	0.39	21.05	111.46	68.89	11.36	1.01
		2	2.40	72.41	0.22	0.08	4.28	95.01	14.00	0.25	0.18
	Dx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	36.00	0.35	0.00	0.05	0.65	0.00	0.00	0.00	0.00
	10	1	36.00	0.10	0.00	0.00	0.06	0.00	0.00	0.00	0.00
	11	1	36.00	0.66	0.00	0.13	1.87	0.00	0.00	0.00	0.00
	12	1	12.00	0.05	0.00	0.00	0.02	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Average storage excess queue (PCU)	Average limit excess queue (PCU)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	A	1	0.00	14.11	10.43	135.24	0.32	0.00	0.00	0.00	0.00	0.00	
		2	12.00	1.68	12.00	13.96	0.00	0.00	0.00	71.00	0.00	71.00	
	Ax	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	B	1	0.00	1.38	7.83	17.60	0.00	0.00	0.00	11.00	0.00	11.00	
		2	9.00	3.94	9.00	43.81	0.00	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	19.00	0.00	19.00	
	C	1	0.00	6.99	2.43	287.07	0.77	0.00	0.00	0.00	0.00	0.00	
		2	3.00	1.80	3.00	60.03	0.00	0.00	0.00	70.00	0.00	70.00	
	Cx	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	4.00	0.00	4.00	
	D	1	0.00	2.71	3.48	78.04	0.00	0.00	0.00	0.00	0.00	0.00	
		2	4.00	0.48	4.00	11.88	0.00	0.00	0.00	7.00	0.00	7.00	
	Dx	1	0.00	0.00	17.39	0.00	0.00	0.00	0.00	38.00	0.00	38.00	
	9	1	0.00	0.05	52.17	0.09	0.00	0.00	0.00	0.00	40.00	40.00	
	10	1	0.00	0.00	52.17	0.01	0.00	0.00	0.00	0.00	0.00	0.00	
	11	1	0.00	0.13	52.17	0.25	0.00	0.00	0.00	0.00	20.00	20.00	
	12	1	0.00	0.00	17.39	0.01	0.00	0.00	0.00	0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	A	1	40.44	4.50	8.98	24.06
		2	2.58	0.20	12.90	16.75
	Ax	1	168.00	5.60	30.00	36.00
	B	1	2.03	0.70	2.91	55.61
		2	5.31	2.15	2.47	65.69
	Bx	1	78.30	2.61	30.00	36.00
	C	1	5.78	1.66	3.49	14.46
		2	0.78	0.18	4.29	11.75
	Cx	1	161.40	5.38	30.00	36.00
	D	1	1.44	1.53	0.94	76.53
		2	0.30	0.24	1.26	57.16
	Dx	1	7.70	0.26	30.00	12.00
	9	1	140.70	4.74	29.71	36.35
	10	1	48.90	1.63	29.92	36.10
	11	1	215.10	7.30	29.46	36.66
	12	1	8.70	0.29	29.87	12.05

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (PCU)	Mean End of Green Queue EoTS (PCU)	Mean End of Red Queue EoTS (PCU)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	0.00	0.00	✓	14.11	0.45	9.25	1.00	0.00	50.00
		2	0.00	0.00	✓	1.68	0.01	0.53	1.00	0.00	5.14
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	1.38	0.03	1.35	1.00	0.00	9.43
		2	0.00	0.00	✓	3.94	0.33	3.87	1.00	0.00	34.97
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	6.99	0.11	5.50	1.00	0.00	23.38
		2	0.00	0.00	✓	1.80	0.02	0.70	1.00	0.00	2.70
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	2.72	0.40	2.64	1.00	0.00	22.06
		2	0.00	0.00	✓	0.48	0.01	0.48	1.00	0.00	4.46
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	9	1	0.00	0.00	✓	0.05			1.00	0.00	0.65
	10	1	0.00	0.00	✓	0.00			1.00	0.00	0.06
	11	1	0.00	0.00	✓	0.13			1.00	0.00	1.87
	12	1	0.00	0.00	✓	0.00			1.00	0.00	0.02

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	(ALL)	(ALL)	7	50	11000	5	52.73	1.56	10.40	10.40

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	(ALL)	(ALL)	50	50	0		11000	733	7		1367	0.00	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
17:00-18:00	1	1	9.00	52.73	0.73	0.00	10.40
		2	9.00	52.73	0.73	0.00	10.40
	2	1	7.67	52.73	0.73	0.00	10.40
		2	7.67	52.73	0.73	0.00	10.40
	3	1	9.00	52.73	0.73	0.00	10.40
		2	9.00	52.73	0.73	0.00	10.40
	4	1	9.67	52.73	0.73	0.00	10.40
		2	9.67	52.73	0.73	0.00	10.40

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	(ALL)	(ALL)	1.56	10.00	15.56	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	1	1	0.65	0.86	0.76	61.73
		2	0.65	0.86	0.76	61.73
	2	1	0.55	0.84	0.66	60.40
		2	0.55	0.84	0.66	60.40
	3	1	0.65	0.86	0.76	61.73
		2	0.65	0.86	0.76	61.73
	4	1	0.70	0.87	0.81	62.40
		2	0.70	0.87	0.81	62.40

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	(ALL)	(ALL)	0.00	0.00	1.56	1.00	0.00	10.40

Collections

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	62.8	86.8	84.1	0.0	0.0	0.0	0.0
	2	105.2	0.0	124.6	124.6	0.0	0.0	0.0	0.0
	3	96.7	65.4	0.0	96.7	0.0	0.0	0.0	0.0
	4	127.7	103.7	137.8	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	61.7	61.7	0.0
	6	0.0	0.0	0.0	0.0	61.7	0.0	0.0	60.4
	7	0.0	0.0	0.0	0.0	61.7	0.0	0.0	62.4
	8	0.0	0.0	0.0	0.0	0.0	60.4	62.4	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Normal journey dist (m)	Bus journeydist (m)	Tram journey dist (m)	Pedestrian journey dist (m)	Calculated Total Flow (PCU/hr)	Avg journey time (s)	Avg journey dist (m)
17	8	7		50		62.40	14.00	14.00	14.00	14.00	50	62.40	14.00
18	8	6		50		60.40	11.00	11.00	11.00	11.00	50	60.40	11.00
19	3	4	183		96.72		660.00	0.00	0.00	0.00	183	96.72	660.00
20	4	1	32		127.71		645.00	0.00	0.00	0.00	32	127.71	645.00
22	5	7		50		61.73	13.00	13.00	13.00	13.00	50	61.73	13.00
23	5	6		50		61.73	13.00	13.00	13.00	13.00	50	61.73	13.00
34	6	8		50		60.40	11.00	11.00	11.00	11.00	50	60.40	11.00
35	6	5		50		61.73	13.00	13.00	13.00	13.00	50	61.73	13.00
41	7	8		50		62.40	14.00	14.00	14.00	14.00	50	62.40	14.00
42	7	5		50		61.73	13.00	13.00	13.00	13.00	50	61.73	13.00
45	1	2	21		62.81		414.00	0.00	0.00	0.00	21	62.81	414.00
46	1	3	392		86.81		614.00	0.00	0.00	0.00	392	86.81	614.00
47	1	4	56		84.10		614.00	0.00	0.00	0.00	56	84.10	614.00
48	4	3	118		137.79		645.00	0.00	0.00	0.00	118	137.79	645.00
49	4	2	13		103.71		445.00	0.00	0.00	0.00	13	103.71	445.00
50	3	2	43		65.41		460.00	0.00	0.00	0.00	43	65.41	460.00
51	3	1	491		96.72		660.00	0.00	0.00	0.00	491	96.72	660.00
52	2	1	15		105.21		420.00	0.00	0.00	0.00	15	105.21	420.00
53	2	3	50		124.58		420.00	0.00	0.00	0.00	50	124.58	420.00
54	2	4	22		124.58		420.00	0.00	0.00	0.00	22	124.58	420.00

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			Q
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	A		674 <	1850	72	0.00	60	67	24.06	16.86	61.32	
	2		1	1	A	B	43	553	75	71.00	12	715	16.75	29.13	37.27	
Ax	1	(untitled)					560	Unrestricted	120	0.00	0	Unrestricted	36.00	0.00	0.00	
B	1	(untitled)	1	1	D		45	1850	13	11.00	21	380	55.61	50.21	90.83	
	2		1	1	D		118	1850	13	0.00	55	83	65.69	71.96	100.04	
Bx	1	(untitled)					261	Unrestricted	120	19.00	0	Unrestricted	36.00	0.00	0.00	
C	1	(untitled)	1	1	A		413 <	1850	72	0.00	37	172	14.46	12.78	49.46	
	2		1	1	A	B	56	553	75	70.00	16	526	11.75	11.04	37.48	
Cx	1	(untitled)					538	Unrestricted	120	4.00	0	Unrestricted	36.00	0.00	0.00	
D	1	(untitled)	1	1	C		72	1850	7	0.00	58	71	76.53	74.13	111.46	
	2		1	1	C		15	1850	7	7.00	12	722	57.16	72.41	95.01	
Dx	1	(untitled)					77	Unrestricted	120	38.00	0	Unrestricted	12.00	0.00	0.00	
9	1		1				469	1800	120	40.00	26	284	36.35	0.35	0.00	
10	1		1				163	1800	120	0.00	9	1004	36.10	0.10	0.00	
11	1		1				717	1800	120	20.00	40	151	36.66	0.66	0.00	
12	1		1				87	1800	120	0.00	5	1969	12.05	0.05	0.00	

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Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)	1	1	E	50	11000	5	7	1367	61.73	52.73	1.56	100	0
	2	(untitled)	1	1	E	50	11000	5	7	1367	61.73	52.73	1.56	100	0
2	1	(untitled)	1	1	E	50	11000	5	7	1367	60.40	52.73	1.56	100	0
	2	(untitled)	1	1	E	50	11000	5	7	1367	60.40	52.73	1.56	100	0
3	1	(untitled)	1	1	E	50	11000	5	7	1367	61.73	52.73	1.56	100	0
	2	(untitled)	1	1	E	50	11000	5	7	1367	61.73	52.73	1.56	100	0
4	1	(untitled)	1	1	E	50	11000	5	7	1367	62.40	52.73	1.56	100	0
	2	(untitled)	1	1	E	50	11000	5	7	1367	62.40	52.73	1.56	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	887.46	38.97	22.77	7.87	2.23	143.36	11.38	0.00	154.74
Bus									
Tram									
Pedestrians	5.10	6.84	0.75	5.86	0.00	83.20	0.00	0.00	83.20
TOTAL	892.56	45.81	19.48	13.72	2.23	226.56	11.38	0.00	237.94

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A1 - Junction 2
D6 - 2042 Do Nothing, PM

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item wi wors unsignal PRC
1	05/03/2024 12:20:51	05/03/2024 12:20:51	0.79	17:00	120	238.76	16.01	60.69	A/1	0	0	A/1	11/1

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set (s)	Optimise specific Demand Set (s)	Demand Set(s) to optimise	Include in report	Locked
Junction 2				✓	D7	✓	

Demand Set Details

Scenario name	Time Period name	Description	Composite	Demand sets	Start time (HH:mm)	Locked	Run automatically
2042 Do Nothing	PM	(untitled)			17:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120	92	92		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)	Missing stage transition options
10000.00	10000.00	10000.00	2	Assume banned

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from traffic model	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓			Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy (%)	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Standard accuracy Hill Climb	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	R125 (E)		1
Ax	(untitled)		
B	WDLR (S)		1
Bx	(untitled)		
C	R125 (W)		1
Cx	(untitled)		
D	WLDR (N)		1
Dx	(untitled)		
9			1
10			1
11			1
12			1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Auto-calculate cell saturation flow	Cell saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			60.00	✓	Sum of lanes	1850			✓		Normal	
	2				60.00	✓	Sum of lanes	1850	✓	1800	✓	✓	Normal	
Ax	1	(untitled)			300.00								Normal	
B	1	(untitled)			45.00	✓	Sum of lanes	1850			✓		Normal	
	2				45.00	✓	Sum of lanes	1850	✓	1800	✓		Normal	
Bx	1	(untitled)			300.00								Normal	
C	1	(untitled)			14.00	✓	Sum of lanes	1850			✓		Normal	
	2				14.00	✓	Sum of lanes	1850	✓	1800	✓	✓	Normal	
Cx	1	(untitled)			300.00								Normal	
D	1	(untitled)			20.00	✓	Sum of lanes	1850			✓		Normal	
	2				20.00	✓	Sum of lanes	1850	✓	1800	✓		Normal	
Dx	1	(untitled)			100.00								Normal	
9	1				300.00	✓	Sum of lanes	1800					Normal	
10	1				300.00	✓	Sum of lanes	1800					Normal	
11	1				300.00	✓	Sum of lanes	1800					Normal	
12	1				100.00	✓	Sum of lanes	1800					Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1850
	2	1	(untitled)			1850
Ax	1	1	(untitled)			
B	1	1	(untitled)			1850
	2	1	(untitled)			1850
Bx	1	1	(untitled)			
C	1	1	(untitled)			1850
	2	1	(untitled)			1850
Cx	1	1	(untitled)			
D	1	1	(untitled)			1850
	2	1	(untitled)			1850
Dx	1	1	(untitled)			
9	1	1	(untitled)			1800
10	1	1	(untitled)			1800
11	1	1	(untitled)			1800
12	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Queue limit (PCU)	Excess queue penalty (£)	Has degree of saturation limit
A	1	NetworkDefault	100	100	100		0.00				
	2	CTM	100	100	100		12.00	✓	12.00	99999.00	
Ax	1	NetworkDefault	100	100	100		0.00				
B	1	NetworkDefault	100	100	100		0.00				
	2	CTM	100	100	100		9.00	✓	9.00	99999.00	
Bx	1	NetworkDefault	100	100	100		0.00				
C	1	NetworkDefault	100	100	100		0.00				
	2	CTM	100	100	100		3.00	✓	3.00	99999.00	
Cx	1	NetworkDefault	100	100	100		0.00				
D	1	NetworkDefault	100	100	100		0.00				
	2	CTM	100	100	100		4.00	✓	4.00	99999.00	
Dx	1	NetworkDefault	100	100	100		0.00				
9	1	NetworkDefault	100	100	100		0.00				
10	1	NetworkDefault	100	100	100		0.00				
11	1	NetworkDefault	100	100	100		0.00				
12	1	NetworkDefault	100	100	100		0.00				

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
A	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	12.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Ax	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
B	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	9.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Bx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
C	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	3.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Cx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
D	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	4.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Dx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
9	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
10	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
11	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
12	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
A	1	683	683
	2	43	43
Ax	1	550	550
B	1	45	45
	2	119	119
Bx	1	262	262
C	1	402	402
	2	56	56
Cx	1	546	546
D	1	72	72
	2	15	15
Dx	1	77	77
9	1	458	458
10	1	164	164
11	1	726	726
12	1	87	87

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	A		
	2	1	A	✓	B
B	1	1	D		
	2	1	D		
C	1	1	A		
	2	1	A	✓	B
D	1	1	C		
	2	1	C		

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Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
9	1	36.00	30.00
10	1	36.00	30.00
11	1	36.00	30.00
12	1	12.00	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A	1	1	11/1	A/1	7.20	30.00	✓	Straight	Straight Movement
	2	1	11/1	A/2	7.20	30.00	✓	Straight	Straight Movement
Ax	1	1	C/1	Ax/1	36.00	30.00	✓	Straight	Straight Movement
B	1	1	10/1	B/1	5.40	30.00	✓	Straight	Straight Movement
	2	1	10/1	B/2	5.40	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	36.00	30.00	✓	Nearside	38.43
C	1	1	9/1	C/1	1.68	30.00	✓	Straight	Straight Movement
	2	1	9/1	C/2	1.68	30.00	✓	Straight	Straight Movement
Cx	1	1	A/1	Cx/1	36.00	30.00	✓	Straight	Straight Movement
D	1	1	12/1	D/1	2.40	30.00	✓	Straight	Straight Movement
	2	1	12/1	D/2	2.40	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	12.00	30.00	✓	Nearside	39.36
Ax	1	2	D/1	Ax/1	36.00	30.00	✓	Nearside	39.61
Bx	1	2	D/1	Bx/1	36.00	30.00	✓	Straight	Straight Movement
Cx	1	2	B/1	Cx/1	36.00	30.00	✓	Nearside	43.43
Dx	1	2	B/1	Dx/1	12.00	30.00	✓	Straight	Straight Movement
Ax	1	3	B/2	Ax/1	36.00	30.00	✓	Offside	47.56
Bx	1	3	C/2	Bx/1	36.00	30.00	✓	Offside	52.89
Cx	1	3	D/2	Cx/1	36.00	30.00	✓	Offside	51.21
Dx	1	3	A/2	Dx/1	12.00	30.00	✓	Offside	47.76

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
(ALL)	2	AllTraffic		

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible
2		TrafficStream	C/1	100	0.00	
		TrafficStream	A/1	100	0.00	

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	12.00	8.00	5.40
2	(untitled)		1		Farside	10.00	6.67	5.40
3	(untitled)		1		Farside	12.00	8.00	5.40
4	(untitled)		1		Farside	13.00	8.67	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25				

Normal Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	21	381	56	0	0	0	0
	2	15	0	50	22	0	0	0	0
	3	499	43	0	184	0	0	0	0
	4	32	13	119	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	9/1	Cx/1	#0000FF
	2	(untitled)	12/1	Dx/1	#FF0000
	3	(untitled)	11/1	Ax/1	#00FF00
	4	(untitled)	10/1	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#008000
	7	(untitled)	4:2E, 3:1E	4:2X, 3:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	19		3	4	11/1, A/1, Bx/1	Normal	184
	20		4	1	10/1, B/1, Cx/1	Normal	32
	45		1	2	9/1, C/1, Dx/1	Normal	21
	46		1	3	9/1, C/1, Ax/1	Normal	381
	47		1	4	9/1, C/2, Bx/1	Normal	56
	48		4	3	10/1, B/2, Ax/1	Normal	119
	49		4	2	10/1, B/1, Dx/1	Normal	13
	50		3	2	11/1, A/2, Dx/1	Normal	43
	51		3	1	11/1, A/1, Cx/1	Normal	499
	52		2	1	12/1, D/2, Cx/1	Normal	15
	53		2	3	12/1, D/1, Ax/1	Normal	50
	54		2	4	12/1, D/1, Bx/1	Normal	22

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	7	4:1E, 4:2X	Normal	50
	18		8	6	2:2E, 2:1X	Normal	50
	22		5	7	3:2E, 3:1X	Normal	50
	23		5	6	1:1E, 1:2X	Normal	50
	34		6	8	2:1E, 2:2X	Normal	50
	35		6	5	1:2E, 1:1X	Normal	50
	41		7	8	4:2E, 4:1X	Normal	50
	42		7	5	3:1E, 3:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)	Minimum possible cycle time (s)
1	(untitled)		1	NetworkDefault	120	92

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	54	300	0	0	Traffic	
	B	(untitled)	3	3	0	0	Traffic	
	C	(untitled)	5	300	0	0	Traffic	
	D	(untitled)	5	33	0	0	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	3

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)	Run every N cycles	Probability of running (%)
1	1	A	1	1	100
	2	B	1	1	100
	3	C	1	1	100
	4	D	1	1	100
	5	E	1	1	100

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)	Single	1, 2, 3, 4, 5	69, 72, 84, 102, 112	92	
	2	(untitled)	Single	1, 2, 3, 5, 4	22, 45, 72, 98, 125	92	
	3	(untitled)	Single	1, 2, 4, 3, 5	22, 45, 72, 99, 125	92	
	4	(untitled)	Single	1, 2, 4, 5, 3	22, 45, 72, 98, 125	92	
	5	(untitled)	Single	1, 2, 5, 3, 4	22, 45, 71, 98, 125	92	
	6	(untitled)	Single	1, 2, 5, 4, 3	22, 45, 71, 98, 125	92	
	7	(untitled)	Single	1, 3, 2, 4, 5	21, 47, 74, 100, 125	97	
	8	(untitled)	Single	1, 3, 2, 5, 4	21, 47, 74, 99, 125	97	
	9	(untitled)	Single	1, 3, 4, 2, 5	21, 47, 73, 100, 125	97	
	10	(untitled)	Single	1, 3, 4, 5, 2	22, 49, 76, 102, 0	92	

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		0	5	5	5
	B	0		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

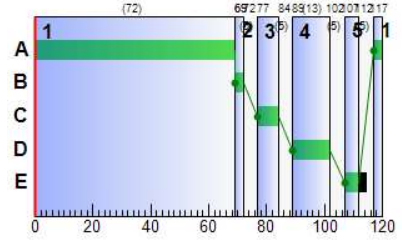
		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	A	117	69	72
A	2	1	1	A	117	69	72
B	1	1	1	D	89	102	13
B	2	1	1	D	89	102	13
C	1	1	1	A	117	69	72
C	2	1	1	A	117	69	72
D	1	1	1	C	77	84	7
D	2	1	1	C	77	84	7

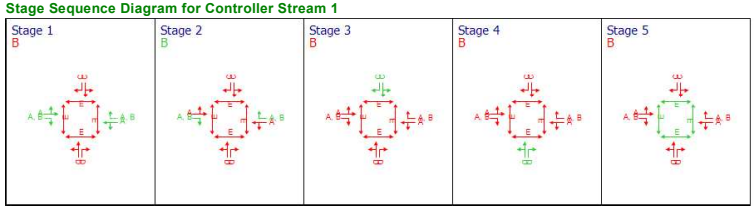
Phase Timings Diagram

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	61	65	683	1850	72	17.05	14.51	139.01	45.93	5.31	51.24
		2	12	715	43	553	75	29.13	1.68	13.96	4.94	0.20	5.14
	Ax	1	0	Unrestricted	550	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	21	380	45	1850	13	50.21	1.38	17.60	8.91	0.51	9.43
		2	55	81	119	1850	13	72.18	3.98	44.25	33.88	1.50	35.38
	Bx	1	0	Unrestricted	262	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	36	180	402	1850	72	12.65	6.80	279.25	20.06	2.46	22.52
		2	16	526	56	553	75	11.04	1.80	60.03	2.44	0.26	2.70
	Cx	1	0	Unrestricted	546	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	58	71	72	1850	7	74.13	2.71	78.04	21.05	1.01	22.06
		2	12	722	15	1850	7	72.41	0.48	11.88	4.28	0.18	4.46
	Dx	1	0	Unrestricted	77	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	25	293	458	1800	120	0.34	0.04	0.08	0.62	0.00	0.62
	10	1	9	998	164	1800	120	0.10	0.00	0.01	0.06	0.00	0.06
	11	1	40	148	726	1800	120	0.68	0.14	0.26	1.93	0.00	1.93
	12	1	5	1969	87	1800	120	0.05	0.00	0.01	0.02	0.00	0.02

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow (PCU/hr)	Calculated capacity (PCU/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	A	1	683	683	0		1850	1125	61		65	0.00	72
		2	43	43	0		553	350	12		715	0.00	75
	Ax	1	550	550	0		Unrestricted	Unrestricted	0		Unrestricted	0.38	120
	B	1	45	45	0		1850	216	21		380	0.00	13
		2	119	119	0		1850	216	55		81	0.00	13
	Bx	1	262	262	0		Unrestricted	Unrestricted	0		Unrestricted	0.49	120
	C	1	402	402	0		1850	1125	36		180	0.00	72
		2	56	56	0		553	350	16		526	0.00	75
	Cx	1	546	546	0		Unrestricted	Unrestricted	0		Unrestricted	0.51	120
	D	1	72	72	0		1850	123	58		71	0.00	7
		2	15	15	0		1850	123	12		722	0.00	7
	Dx	1	77	77	0		Unrestricted	Unrestricted	0		Unrestricted	0.64	120
	9	1	458	458	0		1800	1800	25		293	0.00	120
	10	1	164	164	0		1800	1800	9		998	0.00	120
	11	1	726	726	0		1800	1800	40		148	0.00	120
	12	1	87	87	0		1800	1800	5		1969	0.00	120

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Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	A	1	7.20	17.05	2.77	0.47	45.93	61.96	409.27	13.91	5.31
		2	7.20	29.13	0.11	0.24	4.94	37.27	15.77	0.26	0.20
	Ax	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	5.40	50.21	0.60	0.03	8.91	90.83	40.06	0.82	0.51
		2	5.40	72.18	1.65	0.73	33.88	100.20	109.08	10.16	1.50
	Bx	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	1.68	12.65	1.31	0.10	20.06	48.88	193.51	2.97	2.46
		2	1.68	11.04	0.14	0.03	2.44	37.48	20.53	0.46	0.26
	Cx	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	2.40	74.13	1.09	0.39	21.05	111.46	68.89	11.36	1.01
		2	2.40	72.41	0.22	0.08	4.28	95.01	14.00	0.25	0.18
	Dx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	36.00	0.34	0.00	0.04	0.62	0.00	0.00	0.00	0.00
	10	1	36.00	0.10	0.00	0.00	0.06	0.00	0.00	0.00	0.00
	11	1	36.00	0.68	0.00	0.14	1.93	0.00	0.00	0.00	0.00
	12	1	12.00	0.05	0.00	0.00	0.02	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Average storage excess queue (PCU)	Average limit excess queue (PCU)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	A	1	0.00	14.51	10.43	139.01	0.38	0.00	0.00	0.00	0.00	0.00	
		2	12.00	1.68	12.00	13.96	0.00	0.00	0.00	71.00	0.00	71.00	
	Ax	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	B	1	0.00	1.38	7.83	17.60	0.00	0.00	0.00	11.00	0.00	11.00	
		2	9.00	3.98	9.00	44.25	0.00	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	19.00	0.00	19.00	
	C	1	0.00	6.80	2.43	279.25	0.73	0.00	0.00	0.00	0.00	0.00	
		2	3.00	1.80	3.00	60.03	0.00	0.00	0.00	70.00	0.00	70.00	
	Cx	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	4.00	0.00	4.00	
	D	1	0.00	2.71	3.48	78.04	0.00	0.00	0.00	0.00	0.00	0.00	
		2	4.00	0.48	4.00	11.88	0.00	0.00	0.00	7.00	0.00	7.00	
	Dx	1	0.00	0.00	17.39	0.00	0.00	0.00	0.00	38.00	0.00	38.00	
	9	1	0.00	0.04	52.17	0.08	0.00	0.00	0.00	0.00	40.00	40.00	
	10	1	0.00	0.00	52.17	0.01	0.00	0.00	0.00	0.00	0.00	0.00	
	11	1	0.00	0.14	52.17	0.26	0.00	0.00	0.00	0.00	22.00	22.00	
	12	1	0.00	0.00	17.39	0.01	0.00	0.00	0.00	0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	A	1	40.98	4.60	8.91	24.25
		2	2.58	0.20	12.90	16.75
	Ax	1	165.00	5.50	30.00	36.00
	B	1	2.03	0.70	2.91	55.61
		2	5.36	2.18	2.46	65.92
	Bx	1	78.60	2.62	30.00	36.00
	C	1	5.63	1.60	3.52	14.33
		2	0.78	0.18	4.29	11.75
	Cx	1	163.80	5.46	30.00	36.00
	D	1	1.44	1.53	0.94	76.53
		2	0.30	0.24	1.26	57.16
	Dx	1	7.70	0.26	30.00	12.00
	9	1	137.40	4.62	29.72	36.34
	10	1	49.20	1.64	29.92	36.10
	11	1	217.80	7.40	29.45	36.68
	12	1	8.70	0.29	29.87	12.05

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (PCU)	Mean End of Green Queue EoTS (PCU)	Mean End of Red Queue EoTS (PCU)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	0.00	0.00	✓	14.51	0.47	9.38	1.00	0.00	51.24
		2	0.00	0.00	✓	1.68	0.01	0.53	1.00	0.00	5.14
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	1.38	0.03	1.35	1.00	0.00	9.43
		2	0.00	0.00	✓	3.98	0.34	3.91	1.00	0.00	35.38
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	6.80	0.10	5.35	1.00	0.00	22.52
		2	0.00	0.00	✓	1.80	0.02	0.70	1.00	0.00	2.70
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	2.72	0.40	2.64	1.00	0.00	22.06
		2	0.00	0.00	✓	0.48	0.01	0.48	1.00	0.00	4.46
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	9	1	0.00	0.00	✓	0.04			1.00	0.00	0.62
	10	1	0.00	0.00	✓	0.00			1.00	0.00	0.06
	11	1	0.00	0.00	✓	0.14			1.00	0.00	1.93
	12	1	0.00	0.00	✓	0.00			1.00	0.00	0.02

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	(ALL)	(ALL)	7	50	11000	5	52.73	1.56	10.40	10.40

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	(ALL)	(ALL)	50	50	0		11000	733	7		1367	0.00	5

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Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
17:00-18:00	1	1	9.00	52.73	0.73	0.00	10.40
		2	9.00	52.73	0.73	0.00	10.40
	2	1	7.67	52.73	0.73	0.00	10.40
		2	7.67	52.73	0.73	0.00	10.40
	3	1	9.00	52.73	0.73	0.00	10.40
		2	9.00	52.73	0.73	0.00	10.40
	4	1	9.67	52.73	0.73	0.00	10.40
		2	9.67	52.73	0.73	0.00	10.40

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	(ALL)	(ALL)	1.56	10.00	15.56	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	1	1	0.65	0.86	0.76	61.73
		2	0.65	0.86	0.76	61.73
	2	1	0.55	0.84	0.66	60.40
		2	0.55	0.84	0.66	60.40
	3	1	0.65	0.86	0.76	61.73
		2	0.65	0.86	0.76	61.73
	4	1	0.70	0.87	0.81	62.40
		2	0.70	0.87	0.81	62.40

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	(ALL)	(ALL)	0.00	0.00	1.56	1.00	0.00	10.40

Collections

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	62.7	86.7	84.1	0.0	0.0	0.0	0.0
	2	105.2	0.0	124.6	124.6	0.0	0.0	0.0	0.0
	3	96.9	65.4	0.0	96.9	0.0	0.0	0.0	0.0
	4	127.7	103.7	138.0	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	61.7	61.7	0.0
	6	0.0	0.0	0.0	0.0	61.7	0.0	0.0	60.4
	7	0.0	0.0	0.0	0.0	61.7	0.0	0.0	62.4
	8	0.0	0.0	0.0	0.0	0.0	60.4	62.4	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Normal journey dist (m)	Bus journeydist (m)	Tram journey dist (m)	Pedestrian journey dist (m)	Calculated Total Flow (PCU/hr)	Avg journey time (s)	Avg journey dist (m)
17	8	7		50		62.40	14.00	14.00	14.00	14.00	50	62.40	14.00
18	8	6		50		60.40	11.00	11.00	11.00	11.00	50	60.40	11.00
19	3	4	184		96.93		660.00	0.00	0.00	0.00	184	96.93	660.00
20	4	1	32		127.71		645.00	0.00	0.00	0.00	32	127.71	645.00
22	5	7		50		61.73	13.00	13.00	13.00	13.00	50	61.73	13.00
23	5	6		50		61.73	13.00	13.00	13.00	13.00	50	61.73	13.00
34	6	8		50		60.40	11.00	11.00	11.00	11.00	50	60.40	11.00
35	6	5		50		61.73	13.00	13.00	13.00	13.00	50	61.73	13.00
41	7	8		50		62.40	14.00	14.00	14.00	14.00	50	62.40	14.00
42	7	5		50		61.73	13.00	13.00	13.00	13.00	50	61.73	13.00
45	1	2	21		62.67		414.00	0.00	0.00	0.00	21	62.67	414.00
46	1	3	381		86.67		614.00	0.00	0.00	0.00	381	86.67	614.00
47	1	4	56		84.09		614.00	0.00	0.00	0.00	56	84.09	614.00
48	4	3	119		138.02		645.00	0.00	0.00	0.00	119	138.02	645.00
49	4	2	13		103.71		445.00	0.00	0.00	0.00	13	103.71	445.00
50	3	2	43		65.43		460.00	0.00	0.00	0.00	43	65.43	460.00
51	3	1	499		96.93		660.00	0.00	0.00	0.00	499	96.93	660.00
52	2	1	15		105.21		420.00	0.00	0.00	0.00	15	105.21	420.00
53	2	3	50		124.58		420.00	0.00	0.00	0.00	50	124.58	420.00
54	2	4	22		124.58		420.00	0.00	0.00	0.00	22	124.58	420.00

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			Q
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	A		683 <	1850	72	0.00	61	65	24.25	17.05	61.96	
	2		1	1	A	B	43	553	75	71.00	12	715	16.75	29.13	37.27	
Ax	1	(untitled)					550	Unrestricted	120	0.00	0	Unrestricted	36.00	0.00	0.00	
B	1	(untitled)	1	1	D		45	1850	13	11.00	21	380	55.61	50.21	90.83	
	2		1	1	D		119	1850	13	0.00	55	81	65.92	72.18	100.20	
Bx	1	(untitled)					262	Unrestricted	120	19.00	0	Unrestricted	36.00	0.00	0.00	
C	1	(untitled)	1	1	A		402 <	1850	72	0.00	36	180	14.33	12.65	48.88	
	2		1	1	A	B	56	553	75	70.00	16	526	11.75	11.04	37.48	
Cx	1	(untitled)					546	Unrestricted	120	4.00	0	Unrestricted	36.00	0.00	0.00	
D	1	(untitled)	1	1	C		72	1850	7	0.00	58	71	76.53	74.13	111.46	
	2		1	1	C		15	1850	7	7.00	12	722	57.16	72.41	95.01	
Dx	1	(untitled)					77	Unrestricted	120	38.00	0	Unrestricted	12.00	0.00	0.00	
9	1		1				458	1800	120	40.00	25	293	36.34	0.34	0.00	
10	1		1				164	1800	120	0.00	9	998	36.10	0.10	0.00	
11	1		1				726	1800	120	22.00	40	148	36.68	0.68	0.00	
12	1		1				87	1800	120	0.00	5	1969	12.05	0.05	0.00	

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Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)	1	1	E	50	11000	5	7	1367	61.73	52.73	1.56	100	0
	2	(untitled)	1	1	E	50	11000	5	7	1367	61.73	52.73	1.56	100	0
2	1	(untitled)	1	1	E	50	11000	5	7	1367	60.40	52.73	1.56	100	0
	2	(untitled)	1	1	E	50	11000	5	7	1367	60.40	52.73	1.56	100	0
3	1	(untitled)	1	1	E	50	11000	5	7	1367	61.73	52.73	1.56	100	0
	2	(untitled)	1	1	E	50	11000	5	7	1367	61.73	52.73	1.56	100	0
4	1	(untitled)	1	1	E	50	11000	5	7	1367	62.40	52.73	1.56	100	0
	2	(untitled)	1	1	E	50	11000	5	7	1367	62.40	52.73	1.56	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	887.29	39.02	22.74	7.89	2.26	144.13	11.43	0.00	155.56
Bus									
Tram									
Pedestrians	5.10	6.84	0.75	5.86	0.00	83.20	0.00	0.00	83.20
TOTAL	892.39	45.86	19.46	13.75	2.26	227.33	11.43	0.00	238.76

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A1 - Junction 2
D7 - 2042 Do Something, PM

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item wi wors unsignal PRC
1	05/03/2024 12:20:49	05/03/2024 12:20:50	1.56	17:00	120	243.43	16.31	62.11	A/1	0	0	A/1	11/1

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set (s)	Optimise specific Demand Set (s)	Demand Set(s) to optimise	Include in report	Locked
Junction 2				✓	D7	✓	

Demand Set Details

Scenario name	Time Period name	Description	Composite	Demand sets	Start time (HH:mm)	Locked	Run automatically
2042 Do Something	PM	(untitled)			17:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120	92	92		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)	Missing stage transition options
10000.00	10000.00	10000.00	2	Assume banned

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from traffic model	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓			Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy (%)	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Standard accuracy Hill Climb	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	R125 (E)		1
Ax	(untitled)		
B	WDLR (S)		1
Bx	(untitled)		
C	R125 (W)		1
Cx	(untitled)		
D	WLDR (N)		1
Dx	(untitled)		
9			1
10			1
11			1
12			1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Auto-calculate cell saturation flow	Cell saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			60.00	✓	Sum of lanes	1850			✓		Normal	
	2				60.00	✓	Sum of lanes	1850	✓	1800	✓	✓	Normal	
Ax	1	(untitled)			300.00								Normal	
B	1	(untitled)			45.00	✓	Sum of lanes	1850			✓		Normal	
	2				45.00	✓	Sum of lanes	1850	✓	1800	✓		Normal	
Bx	1	(untitled)			300.00								Normal	
C	1	(untitled)			14.00	✓	Sum of lanes	1850			✓		Normal	
	2				14.00	✓	Sum of lanes	1850	✓	1800	✓	✓	Normal	
Cx	1	(untitled)			300.00								Normal	
D	1	(untitled)			20.00	✓	Sum of lanes	1850			✓		Normal	
	2				20.00	✓	Sum of lanes	1850	✓	1800	✓		Normal	
Dx	1	(untitled)			100.00								Normal	
9	1				300.00	✓	Sum of lanes	1800					Normal	
10	1				300.00	✓	Sum of lanes	1800					Normal	
11	1				300.00	✓	Sum of lanes	1800					Normal	
12	1				100.00	✓	Sum of lanes	1800					Normal	

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Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1850
	2	1	(untitled)			1850
Ax	1	1	(untitled)			
B	1	1	(untitled)			1850
	2	1	(untitled)			1850
Bx	1	1	(untitled)			
C	1	1	(untitled)			1850
	2	1	(untitled)			1850
Cx	1	1	(untitled)			
D	1	1	(untitled)			1850
	2	1	(untitled)			1850
Dx	1	1	(untitled)			
9	1	1	(untitled)			1800
10	1	1	(untitled)			1800
11	1	1	(untitled)			1800
12	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Queue limit (PCU)	Excess queue penalty (£)	Has degree of saturation limit
A	1	NetworkDefault	100	100	100		0.00				
	2	CTM	100	100	100		12.00	✓	12.00	99999.00	
Ax	1	NetworkDefault	100	100	100		0.00				
B	1	NetworkDefault	100	100	100		0.00				
	2	CTM	100	100	100		9.00	✓	9.00	99999.00	
Bx	1	NetworkDefault	100	100	100		0.00				
C	1	NetworkDefault	100	100	100		0.00				
	2	CTM	100	100	100		3.00	✓	3.00	99999.00	
Cx	1	NetworkDefault	100	100	100		0.00				
D	1	NetworkDefault	100	100	100		0.00				
	2	CTM	100	100	100		4.00	✓	4.00	99999.00	
Dx	1	NetworkDefault	100	100	100		0.00				
9	1	NetworkDefault	100	100	100		0.00				
10	1	NetworkDefault	100	100	100		0.00				
11	1	NetworkDefault	100	100	100		0.00				
12	1	NetworkDefault	100	100	100		0.00				

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
A	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	12.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Ax	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
B	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	9.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Bx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
C	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	3.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Cx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
D	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	4.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Dx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
9	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
10	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
11	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
12	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
A	1	699	699
	2	43	43
Ax	1	578	578
B	1	45	45
	2	119	119
Bx	1	262	262
C	1	430	430
	2	56	56
Cx	1	562	562
D	1	72	72
	2	15	15
Dx	1	77	77
9	1	486	486
10	1	164	164
11	1	742	742
12	1	87	87

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	A		
	2	1	A	✓	B
B	1	1	D		
	2	1	D		
C	1	1	A		
	2	1	A	✓	B
D	1	1	C		
	2	1	C		

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Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
9	1	36.00	30.00
10	1	36.00	30.00
11	1	36.00	30.00
12	1	12.00	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A	1	1	11/1	A/1	7.20	30.00	✓	Straight	Straight Movement
	2	1	11/1	A/2	7.20	30.00	✓	Straight	Straight Movement
Ax	1	1	C/1	Ax/1	36.00	30.00	✓	Straight	Straight Movement
B	1	1	10/1	B/1	5.40	30.00	✓	Straight	Straight Movement
	2	1	10/1	B/2	5.40	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	36.00	30.00	✓	Nearside	38.43
C	1	1	9/1	C/1	1.68	30.00	✓	Straight	Straight Movement
	2	1	9/1	C/2	1.68	30.00	✓	Straight	Straight Movement
Cx	1	1	A/1	Cx/1	36.00	30.00	✓	Straight	Straight Movement
D	1	1	12/1	D/1	2.40	30.00	✓	Straight	Straight Movement
	2	1	12/1	D/2	2.40	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	12.00	30.00	✓	Nearside	39.36
Ax	1	2	D/1	Ax/1	36.00	30.00	✓	Nearside	39.61
Bx	1	2	D/1	Bx/1	36.00	30.00	✓	Straight	Straight Movement
Cx	1	2	B/1	Cx/1	36.00	30.00	✓	Nearside	43.43
Dx	1	2	B/1	Dx/1	12.00	30.00	✓	Straight	Straight Movement
Ax	1	3	B/2	Ax/1	36.00	30.00	✓	Offside	47.56
Bx	1	3	C/2	Bx/1	36.00	30.00	✓	Offside	52.89
Cx	1	3	D/2	Cx/1	36.00	30.00	✓	Offside	51.21
Dx	1	3	A/2	Dx/1	12.00	30.00	✓	Offside	47.76

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
(ALL)	2	AllTraffic		

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible
2		TrafficStream	C/1	100	0.00	
		TrafficStream	A/1	100	0.00	

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	12.00	8.00	5.40
2	(untitled)		1		Farside	10.00	6.67	5.40
3	(untitled)		1		Farside	12.00	8.00	5.40
4	(untitled)		1		Farside	13.00	8.67	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25				

Normal Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	21	409	56	0	0	0	0
	2	15	0	50	22	0	0	0	0
	3	515	43	0	184	0	0	0	0
	4	32	13	119	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	9/1	Cx/1	#0000FF
	2	(untitled)	12/1	Dx/1	#FF0000
	3	(untitled)	11/1	Ax/1	#00FF00
	4	(untitled)	10/1	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#008000
	7	(untitled)	4:2E, 3:1E	4:2X, 3:1X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	19		3	4	11/1, A/1, Bx/1	Normal	184
	20		4	1	10/1, B/1, Cx/1	Normal	32
	45		1	2	9/1, C/1, Dx/1	Normal	21
	46		1	3	9/1, C/1, Ax/1	Normal	409
	47		1	4	9/1, C/2, Bx/1	Normal	56
	48		4	3	10/1, B/2, Ax/1	Normal	119
	49		4	2	10/1, B/1, Dx/1	Normal	13
	50		3	2	11/1, A/2, Dx/1	Normal	43
	51		3	1	11/1, A/1, Cx/1	Normal	515
	52		2	1	12/1, D/2, Cx/1	Normal	15
	53		2	3	12/1, D/1, Ax/1	Normal	50
	54		2	4	12/1, D/1, Bx/1	Normal	22

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	17		8	7	4:1E, 4:2X	Normal	50
	18		8	6	2:2E, 2:1X	Normal	50
	22		5	7	3:2E, 3:1X	Normal	50
	23		5	6	1:1E, 1:2X	Normal	50
	34		6	8	2:1E, 2:2X	Normal	50
	35		6	5	1:2E, 1:1X	Normal	50
	41		7	8	4:2E, 4:1X	Normal	50
	42		7	5	3:1E, 3:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)	Minimum possible cycle time (s)
1	(untitled)		1	NetworkDefault	120	92

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	54	300	0	0	Traffic	
	B	(untitled)	3	3	0	0	Traffic	
	C	(untitled)	5	300	0	0	Traffic	
	D	(untitled)	5	33	0	0	Traffic	
	E	(untitled)	5	5	0	0	Pedestrian	3

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)	Run every N cycles	Probability of running (%)
1	1	A	1	1	100
	2	B	1	1	100
	3	C	1	1	100
	4	D	1	1	100
	5	E	1	1	100

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)	Single	1, 2, 3, 4, 5	69, 72, 84, 102, 112	92	
	2	(untitled)	Single	1, 2, 3, 5, 4	22, 45, 72, 98, 125	92	
	3	(untitled)	Single	1, 2, 4, 3, 5	22, 45, 72, 99, 125	92	
	4	(untitled)	Single	1, 2, 4, 5, 3	22, 45, 72, 98, 125	92	
	5	(untitled)	Single	1, 2, 5, 3, 4	22, 45, 71, 98, 125	92	
	6	(untitled)	Single	1, 2, 5, 4, 3	22, 45, 71, 98, 125	92	
	7	(untitled)	Single	1, 3, 2, 4, 5	21, 47, 74, 100, 125	97	
	8	(untitled)	Single	1, 3, 2, 5, 4	21, 47, 74, 99, 125	97	
	9	(untitled)	Single	1, 3, 4, 2, 5	21, 47, 73, 100, 125	97	
	10	(untitled)	Single	1, 3, 4, 5, 2	22, 49, 76, 102, 0	92	

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		0	5	5	5
	B	0		5	5	5
	C	5	5		5	5
	D	5	5	5		5
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

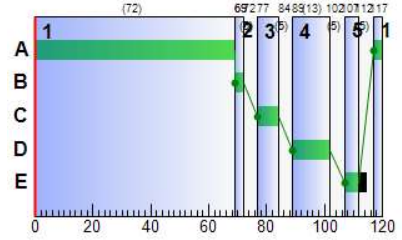
		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	A	117	69	72
A	2	1	1	A	117	69	72
B	1	1	1	D	89	102	13
B	2	1	1	D	89	102	13
C	1	1	1	A	117	69	72
C	2	1	1	A	117	69	72
D	1	1	1	C	77	84	7
D	2	1	1	C	77	84	7

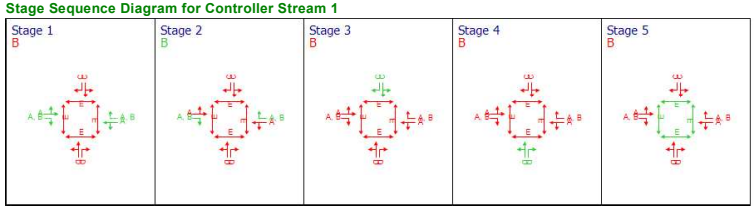
Phase Timings Diagram

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	62	61	699	1850	72	17.40	15.07	144.41	47.98	5.51	53.50
		2	12	715	43	553	75	29.13	1.68	13.96	4.94	0.20	5.14
	Ax	1	0	Unrestricted	578	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	21	380	45	1850	13	50.21	1.38	17.60	8.91	0.51	9.43
		2	55	81	119	1850	13	72.18	3.98	44.25	33.88	1.50	35.38
	Bx	1	0	Unrestricted	262	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	38	162	430	1850	72	12.98	7.40	304.10	22.02	2.70	24.72
		2	16	526	56	553	75	11.04	1.80	60.03	2.44	0.26	2.70
	Cx	1	0	Unrestricted	562	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	58	71	72	1850	7	74.13	2.71	78.04	21.05	1.01	22.06
		2	12	722	15	1850	7	72.41	0.48	11.88	4.28	0.18	4.46
	Dx	1	0	Unrestricted	77	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	27	270	486	1800	120	0.37	0.05	0.10	0.71	0.00	0.71
	10	1	9	998	164	1800	120	0.10	0.00	0.01	0.06	0.00	0.06
	11	1	41	143	742	1800	120	0.70	0.14	0.28	2.05	0.00	2.05
	12	1	5	1969	87	1800	120	0.05	0.00	0.01	0.02	0.00	0.02

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow (PCU/hr)	Calculated capacity (PCU/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	A	1	699	699	0		1850	1125	62		61	0.00	72
		2	43	43	0		553	350	12		715	0.00	75
	Ax	1	578	578	0		Unrestricted	Unrestricted	0		Unrestricted	0.38	120
	B	1	45	45	0		1850	216	21		380	0.00	13
		2	119	119	0		1850	216	55		81	0.00	13
	Bx	1	262	262	0		Unrestricted	Unrestricted	0		Unrestricted	0.49	120
	C	1	430	430	0		1850	1125	38		162	0.00	72
		2	56	56	0		553	350	16		526	0.00	75
	Cx	1	562	562	0		Unrestricted	Unrestricted	0		Unrestricted	0.51	120
	D	1	72	72	0		1850	123	58		71	0.00	7
		2	15	15	0		1850	123	12		722	0.00	7
	Dx	1	77	77	0		Unrestricted	Unrestricted	0		Unrestricted	0.64	120
	9	1	486	486	0		1800	1800	27		270	0.00	120
	10	1	164	164	0		1800	1800	9		998	0.00	120
	11	1	742	742	0		1800	1800	41		143	0.00	120
	12	1	87	87	0		1800	1800	5		1969	0.00	120

Generated on 05/03/2024 12:30:59 using TRANSYT 16 (16.0.1.8473)

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	A	1	7.20	17.40	2.87	0.51	47.98	62.92	424.68	15.11	5.51
		2	7.20	29.13	0.11	0.24	4.94	37.27	15.77	0.26	0.20
	Ax	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	5.40	50.21	0.60	0.03	8.91	90.83	40.06	0.82	0.51
		2	5.40	72.18	1.65	0.73	33.88	100.20	109.08	10.16	1.50
	Bx	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	1.68	12.98	1.43	0.12	22.02	50.08	211.80	3.53	2.70
		2	1.68	11.04	0.14	0.03	2.44	37.48	20.53	0.46	0.26
	Cx	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	2.40	74.13	1.09	0.39	21.05	111.46	68.89	11.36	1.01
		2	2.40	72.41	0.22	0.08	4.28	95.01	14.00	0.25	0.18
	Dx	1	12.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	9	1	36.00	0.37	0.00	0.05	0.71	0.00	0.00	0.00	0.00
	10	1	36.00	0.10	0.00	0.00	0.06	0.00	0.00	0.00	0.00
	11	1	36.00	0.70	0.00	0.14	2.05	0.00	0.00	0.00	0.00
	12	1	12.00	0.05	0.00	0.00	0.02	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Average storage excess queue (PCU)	Average limit excess queue (PCU)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	A	1	0.00	15.07	10.43	144.41	0.48	0.00	0.00	0.00	0.00	0.00	
		2	12.00	1.68	12.00	13.96	0.00	0.00	0.00	71.00	0.00	71.00	
	Ax	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	B	1	0.00	1.38	7.83	17.60	0.00	0.00	0.00	11.00	0.00	11.00	
		2	9.00	3.98	9.00	44.25	0.00	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	19.00	0.00	19.00	
	C	1	0.00	7.40	2.43	304.10	0.88	0.00	0.00	0.00	0.00	0.00	
		2	3.00	1.80	3.00	60.03	0.00	0.00	0.00	70.00	0.00	70.00	
	Cx	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	4.00	0.00	4.00	
	D	1	0.00	2.71	3.48	78.04	0.00	0.00	0.00	0.00	0.00	0.00	
		2	4.00	0.48	4.00	11.88	0.00	0.00	0.00	7.00	0.00	7.00	
	Dx	1	0.00	0.00	17.39	0.00	0.00	0.00	0.00	38.00	0.00	38.00	
	9	1	0.00	0.05	52.17	0.10	0.00	0.00	0.00	0.00	42.00	42.00	
	10	1	0.00	0.00	52.17	0.01	0.00	0.00	0.00	0.00	0.00	0.00	
	11	1	0.00	0.14	52.17	0.28	0.00	0.00	0.00	0.00	24.00	24.00	
	12	1	0.00	0.00	17.39	0.01	0.00	0.00	0.00	0.00	0.00	0.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	A	1	41.94	4.78	8.78	24.60
		2	2.58	0.20	12.90	16.75
	Ax	1	173.40	5.78	30.00	36.00
	B	1	2.03	0.70	2.91	55.61
		2	5.36	2.18	2.46	65.92
	Bx	1	78.60	2.62	30.00	36.00
	C	1	6.02	1.75	3.44	14.66
		2	0.78	0.18	4.29	11.75
	Cx	1	168.60	5.62	30.00	36.00
	D	1	1.44	1.53	0.94	76.53
		2	0.30	0.24	1.26	57.16
	Dx	1	7.70	0.26	30.00	12.00
	9	1	145.80	4.91	29.70	36.37
	10	1	49.20	1.64	29.92	36.10
	11	1	222.60	7.56	29.43	36.70
	12	1	8.70	0.29	29.87	12.05

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (PCU)	Mean End of Green Queue EoTS (PCU)	Mean End of Red Queue EoTS (PCU)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	0.00	0.00	✓	15.07	0.51	9.63	1.00	0.00	53.50
		2	0.00	0.00	✓	1.68	0.01	0.53	1.00	0.00	5.14
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	1.38	0.03	1.35	1.00	0.00	9.43
		2	0.00	0.00	✓	3.98	0.34	3.91	1.00	0.00	35.38
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	7.40	0.12	5.73	1.00	0.00	24.72
		2	0.00	0.00	✓	1.80	0.02	0.70	1.00	0.00	2.70
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	2.72	0.40	2.64	1.00	0.00	22.06
		2	0.00	0.00	✓	0.48	0.01	0.48	1.00	0.00	4.46
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	9	1	0.00	0.00	✓	0.05			1.00	0.00	0.71
	10	1	0.00	0.00	✓	0.00			1.00	0.00	0.06
	11	1	0.00	0.00	✓	0.14			1.00	0.00	2.05
	12	1	0.00	0.00	✓	0.00			1.00	0.00	0.02

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	(ALL)	(ALL)	7	50	11000	5	52.73	1.56	10.40	10.40

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	(ALL)	(ALL)	50	50	0		11000	733	7		1367	0.00	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
17:00-18:00	1	1	9.00	52.73	0.73	0.00	10.40
		2	9.00	52.73	0.73	0.00	10.40
	2	1	7.67	52.73	0.73	0.00	10.40
		2	7.67	52.73	0.73	0.00	10.40
	3	1	9.00	52.73	0.73	0.00	10.40
		2	9.00	52.73	0.73	0.00	10.40
	4	1	9.67	52.73	0.73	0.00	10.40
		2	9.67	52.73	0.73	0.00	10.40

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	(ALL)	(ALL)	1.56	10.00	15.56	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	1	1	0.65	0.86	0.76	61.73
		2	0.65	0.86	0.76	61.73
	2	1	0.55	0.84	0.66	60.40
		2	0.55	0.84	0.66	60.40
	3	1	0.65	0.86	0.76	61.73
		2	0.65	0.86	0.76	61.73
	4	1	0.70	0.87	0.81	62.40
		2	0.70	0.87	0.81	62.40

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	(ALL)	(ALL)	0.00	0.00	1.56	1.00	0.00	10.40

Collections

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	63.0	87.0	84.1	0.0	0.0	0.0	0.0
	2	105.2	0.0	124.6	124.6	0.0	0.0	0.0	0.0
	3	97.3	65.5	0.0	97.3	0.0	0.0	0.0	0.0
	4	127.7	103.7	138.0	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	61.7	61.7	0.0
	6	0.0	0.0	0.0	0.0	61.7	0.0	0.0	60.4
	7	0.0	0.0	0.0	0.0	61.7	0.0	0.0	62.4
	8	0.0	0.0	0.0	0.0	0.0	60.4	62.4	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Normal journey dist (m)	Bus journeydist (m)	Tram journey dist (m)	Pedestrian journey dist (m)	Calculated Total Flow (PCU/hr)	Avg journey time (s)	Avg journey dist (m)
17	8	7		50		62.40	14.00	14.00	14.00	14.00	50	62.40	14.00
18	8	6		50		60.40	11.00	11.00	11.00	11.00	50	60.40	11.00
19	3	4	184		97.30		660.00	0.00	0.00	0.00	184	97.30	660.00
20	4	1	32		127.71		645.00	0.00	0.00	0.00	32	127.71	645.00
22	5	7		50		61.73	13.00	13.00	13.00	13.00	50	61.73	13.00
23	5	6		50		61.73	13.00	13.00	13.00	13.00	50	61.73	13.00
34	6	8		50		60.40	11.00	11.00	11.00	11.00	50	60.40	11.00
35	6	5		50		61.73	13.00	13.00	13.00	13.00	50	61.73	13.00
41	7	8		50		62.40	14.00	14.00	14.00	14.00	50	62.40	14.00
42	7	5		50		61.73	13.00	13.00	13.00	13.00	50	61.73	13.00
45	1	2	21		63.03		414.00	0.00	0.00	0.00	21	63.03	414.00
46	1	3	409		87.03		614.00	0.00	0.00	0.00	409	87.03	614.00
47	1	4	56		84.12		614.00	0.00	0.00	0.00	56	84.12	614.00
48	4	3	119		138.02		645.00	0.00	0.00	0.00	119	138.02	645.00
49	4	2	13		103.71		445.00	0.00	0.00	0.00	13	103.71	445.00
50	3	2	43		65.45		460.00	0.00	0.00	0.00	43	65.45	460.00
51	3	1	515		97.30		660.00	0.00	0.00	0.00	515	97.30	660.00
52	2	1	15		105.21		420.00	0.00	0.00	0.00	15	105.21	420.00
53	2	3	50		124.58		420.00	0.00	0.00	0.00	50	124.58	420.00
54	2	4	22		124.58		420.00	0.00	0.00	0.00	22	124.58	420.00

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			Q
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	A		699 <	1850	72	0.00	62	61	24.60	17.40	62.92	
	2		1	1	A	B	43	553	75	71.00	12	715	16.75	29.13	37.27	
Ax	1	(untitled)					578	Unrestricted	120	0.00	0	Unrestricted	36.00	0.00	0.00	
B	1	(untitled)	1	1	D		45	1850	13	11.00	21	380	55.61	50.21	90.83	
	2		1	1	D		119	1850	13	0.00	55	81	65.92	72.18	100.20	
Bx	1	(untitled)					262	Unrestricted	120	19.00	0	Unrestricted	36.00	0.00	0.00	
C	1	(untitled)	1	1	A		430 <	1850	72	0.00	38	162	14.66	12.98	50.08	
	2		1	1	A	B	56	553	75	70.00	16	526	11.75	11.04	37.48	
Cx	1	(untitled)					562	Unrestricted	120	4.00	0	Unrestricted	36.00	0.00	0.00	
D	1	(untitled)	1	1	C		72	1850	7	0.00	58	71	76.53	74.13	111.46	
	2		1	1	C		15	1850	7	7.00	12	722	57.16	72.41	95.01	
Dx	1	(untitled)					77	Unrestricted	120	38.00	0	Unrestricted	12.00	0.00	0.00	
9	1		1				486	1800	120	42.00	27	270	36.37	0.37	0.00	
10	1		1				164	1800	120	0.00	9	998	36.10	0.10	0.00	
11	1		1				742	1800	120	24.00	41	143	36.70	0.70	0.00	
12	1		1				87	1800	120	0.00	5	1969	12.05	0.05	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)	1	1	E	50	11000	5	7	1367	61.73	52.73	1.56	100	0
	2	(untitled)	1	1	E	50	11000	5	7	1367	61.73	52.73	1.56	100	0
2	1	(untitled)	1	1	E	50	11000	5	7	1367	60.40	52.73	1.56	100	0
	2	(untitled)	1	1	E	50	11000	5	7	1367	60.40	52.73	1.56	100	0
3	1	(untitled)	1	1	E	50	11000	5	7	1367	61.73	52.73	1.56	100	0
	2	(untitled)	1	1	E	50	11000	5	7	1367	61.73	52.73	1.56	100	0
4	1	(untitled)	1	1	E	50	11000	5	7	1367	62.40	52.73	1.56	100	0
	2	(untitled)	1	1	E	50	11000	5	7	1367	62.40	52.73	1.56	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	915.04	40.24	22.74	8.11	2.33	148.35	11.87	0.00	160.23
Bus									
Tram									
Pedestrians	5.10	6.84	0.75	5.86	0.00	83.20	0.00	0.00	83.20
TOTAL	920.14	47.08	19.54	13.97	2.33	231.56	11.87	0.00	243.43

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

TRANSYT 16

Version: 16.0.1.8473

Filename: Junction 3 - AM.t16
Path: M:\Projects\23\23-102 Mooretown\Design\Traffic\2024-02 - Modelling\Junction 3
Report generation date: 05/03/2024 12:53:55

»A1 - Junction 3 : D1 - 2023 Base Year, AM :
»A1 - Junction 3 : D2 - 2027 Do Nothing, AM :
»A1 - Junction 3 : D3 - 2027 Do Something, AM :
»A1 - Junction 3 : D4 - 2032 Do Nothing, AM :
»A1 - Junction 3 : D5 - 2032 Do Something, AM :
»A1 - Junction 3 : D6 - 2042 Do Nothing, AM :
»A1 - Junction 3 : D7 - 2042 Do Something, AM :

Summary of network performance

	AM				
	Set ID	PI (£ per hr)	Total delay (Veh-hr/hr)	Highest DOS	Number oversaturated
	Junction 3 - 2023 Base Year				
Network	D1	661.58	44.93	94% (TS A/1)	0 (0%)
	Junction 3 - 2027 Do Nothing				
Network	D2	4062.22	80.01	104% (TS A/1)	1 (4%)
	Junction 3 - 2027 Do Something				
Network	D3	10801.43	152.52	118% (TS D/2)	4 (15%)
	Junction 3 - 2032 Do Nothing				
Network	D4	9732.56	125.33	106% (TS A-1/1)	3 (11%)
	Junction 3 - 2032 Do Something				
Network	D5	11399.51	186.43	121% (TS D/2)	5 (19%)
	Junction 3 - 2042 Do Nothing				
Network	D6	10234.50	153.39	111% (TS A-1/1)	4 (15%)
	Junction 3 - 2042 Do Something				
Network	D7	11232.58	193.97	116% (TS D/2)	5 (19%)

Generated on 05/03/2024 12:54:23 using TRANSYT 16 (16.0.1.8473)

File summary

File description

File title	Junction 3
Location	Mooretown
Site number	
UTCRegion	
Driving side	Left
Date	01/03/2024
Version	1
Status	(new file)
Identifier	
Client	
Jobnumber	23-102
Enumerator	DOMAIN\f.maio
Description	

Model and Results

Enable controller offsets	Enable fuel consumption	Enable quick flares	Display journey time results	Display OD matrix distances	Display level of service results	Display blocking and starvation results	Display end of red and green queue results	Display excess queue results	Display separate uniform and random results	Display unweighted results	Display TRANSYT 12 style timings	Display effective greens in results	Display Red-With-Amber	Display End-Of-Green Amber	c m
			✓			✓		✓	✓						

Units

Cost units	Speed units	Distance units	Fuel economy units	Fuel rate units	Mass units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
£	kph	m	mpg	l/h	kg	Veh	Veh	perHour	s	-Hour	perHour

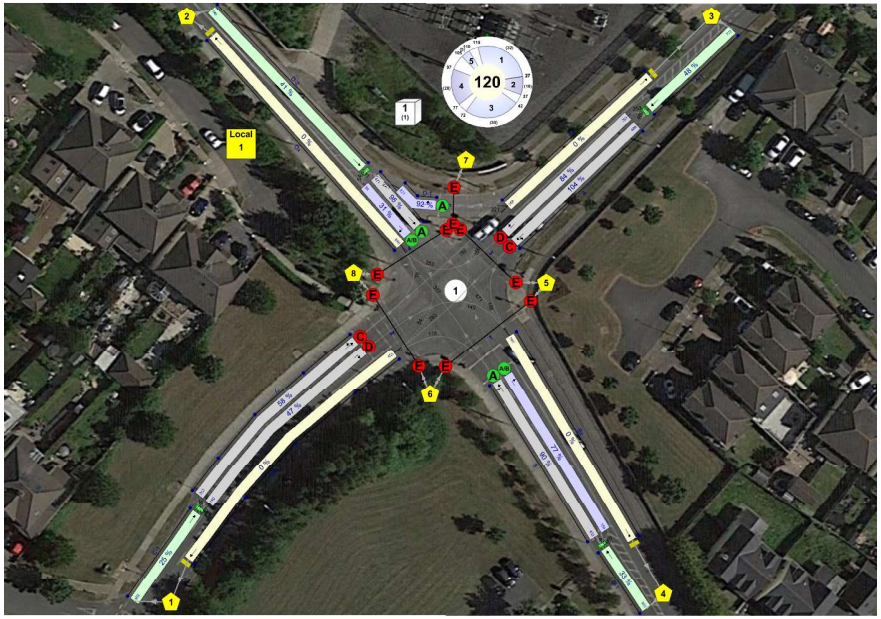
Sorting

Show names instead of IDs	Sorting direction	Sorting type	Ignore prefixes when sorting	Analysis/demand set sorting	Link grouping	Source grouping	Colour Analysis/Demand Sets
	Ascending	Numerical		ID	Normal	Normal	✓

Simulation options

Criteria type	Stop criteria (%)	Stop criteria time (s)	Stop criteria number of trials	Random seed	Results refresh speed (s)	Average animation capture interval (s)	Use quick response	Do flow sampling	Uniform vehicle generation	Last run random seed	Last run number of trials	Last run time taken (s)
Delay	3.00	999	200	-1	3	60	✓			0	0	0.00

Network Diagrams



Junction 3
Diagram produced using TRANSYT 16.0.1.8473

A1 - Junction 3
D1 - 2023 Base Year, AM

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item wi wors unsignal PRC
1	05/03/2024 12:43:49	05/03/2024 12:43:49	0.90	08:00	120	661.58	44.93	94.00	A/1	0	0	A/1	A-1/1

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set (s)	Optimise specific Demand Set (s)	Demand Set(s) to optimise	Include in report	Locked
Junction 3				✓	D7	✓	

Demand Set Details

Scenario name	Time Period name	Description	Composite	Demand sets	Start time (HH:mm)	Locked	Run automatically
2023 Base Year	AM	(untitled)			08:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120	74	74		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	2

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)	Missing stage transition options
10000.00	10000.00	10000.00	2	Assume banned

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from traffic model	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓			Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy (%)	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Standard accuracy Hill Climb	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

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Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
A-1			1
B-1			1
C-1			1
D-1	(untitled)		1
D-2			1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Auto-calculate cell saturation flow	Cell saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			150.00	✓	Sum of lanes	1800			✓		Normal	
	2				40.00	✓	Sum of lanes	1800	✓	1800	✓		Normal	
Ax	1	(untitled)			150.00								Normal	
B	1	(untitled)			300.00	✓	Sum of lanes	1800			✓		Normal	
	2				40.00	✓	Sum of lanes	1800	✓	1800	✓	✓	Normal	
Bx	1	(untitled)			300.00								Normal	
C	1	(untitled)			40.00	✓	Sum of lanes	1800	✓	1800	✓		Normal	
	2				300.00	✓	Sum of lanes	1800			✓		Normal	
Cx	1	(untitled)			300.00								Normal	
D	2	(untitled)			500.00	✓	Sum of lanes	1800			✓		Normal	
	3				20.00	✓	Sum of lanes	1800			✓	✓	Normal	
Dx	1	(untitled)			500.00								Normal	
A-1	1				150.00	✓	Directly entered	1800					Normal	
B-1	1				150.00	✓	Directly entered	1800					Normal	
C-1	1				150.00	✓	Directly entered	1800					Normal	
D-1	1	(untitled)			7.00	✓	Directly entered	1800			✓	✓	Normal	
D-2	1				450.00	✓	Sum of lanes	1800					Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
	2	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
C	1	1	(untitled)			1800
	2	1	(untitled)			1800
Cx	1	1	(untitled)			
D	2	1	(untitled)			1800
	3	1	(untitled)			1800
Dx	1	1	(untitled)			
A-1	1	1	(untitled)			
B-1	1	1	(untitled)			
C-1	1	1	(untitled)			
D-1	1	1	(untitled)			
D-2	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Queue limit (PCU)	Excess queue penalty (£)	Has degree of saturation limit
A	1	NetworkDefault	100	100	100		0.00				
	2	Flare	100	100	100		8.00	✓	8.00	9999.00	
Ax	1	NetworkDefault	100	100	100		0.00				
B	1	NetworkDefault	100	100	100		0.00				
	2	Flare	100	100	100		8.00	✓	8.00	99999.00	
Bx	1	NetworkDefault	100	100	100		0.00				
C	1	Flare	100	100	100		8.00	✓	8.00	99999.00	
	2	NetworkDefault	100	100	100		0.00				
Cx	1	NetworkDefault	100	100	100		0.00				
D	2	NetworkDefault	100	100	100		0.00				
	3	Flare	100	100	100		4.00	✓	4.00	99999.00	
Dx	1	NetworkDefault	100	100	100		0.00				
A-1	1	NetworkDefault	100	100	100		0.00				
B-1	1	NetworkDefault	100	100	100		0.00				
C-1	1	NetworkDefault	100	100	100		0.00				
D-1	1	NetworkDefault	100	100	100		0.00				
D-2	1	NetworkDefault	100	100	100		0.00				

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Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
A	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	8.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Ax	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
B	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	8.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Bx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
C	1	8.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Cx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
D	2	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	3	4.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Dx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
A-1	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
B-1	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
C-1	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
D-1	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
D-2	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	423	423
	2	225	225
Ax	1	497	497
B	1	316	316
	2	144	144
Bx	1	516	516
C	1	233	233
	2	131	131
Cx	1	392	392
D	2	216	216
	3	29	29
Dx	1	489	489
A-1	1	648	648
B-1	1	460	460
C-1	1	364	364
D-1	1	177	177
D-2	1	422	422

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	C		
	2	1	D		
B	1	1	A		
	2	1	A	✓	B
C	1	1	C		
	2	1	D		
D	2	1	A		
	3	1	A	✓	B
D-1	1	1	A		

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A-1	1	18.00	30.00
B-1	1	18.00	30.00
C-1	1	18.00	30.00
D-2	1	54.00	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A	1	1	A-1/1	A/1	18.00	30.00	✓	Straight	Straight Movement
	2	1	A-1/1	A/2	4.80	30.00	✓	Straight	Straight Movement
Ax	1	1	C/1	Ax/1	18.00	30.00	✓	Straight	Straight Movement
B	1	1	B-1/1	B/1	36.00	30.00	✓	Straight	Straight Movement
	2	1	B-1/1	B/2	4.80	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	36.00	30.00	✓	Nearside	42.61
C	1	1	C-1/1	C/1	4.80	30.00	✓	Straight	Straight Movement
	2	1	C-1/1	C/2	36.00	30.00	✓	Straight	Straight Movement
Cx	1	1	A/1	Cx/1	36.00	30.00	✓	Straight	Straight Movement
D	2	1	D-2/1	D/2	60.00	30.00	✓	Straight	Straight Movement
	3	1	D-2/1	D/3	2.40	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	60.00	30.00	✓	Nearside	25.27
D-1	1	1	D-2/1	D-1/1	1.00	30.00	✓	Straight	Straight Movement
Ax	1	2	D-1/1	Ax/1	18.00	30.00	✓	Nearside	43.60
Bx	1	2	C/2	Bx/1	36.00	30.00	✓	Offside	38.45
Cx	1	2	B/1	Cx/1	36.00	30.00	✓	Nearside	39.22
Dx	1	2	B/1	Dx/1	60.00	30.00	✓	Straight	Straight Movement
Ax	1	3	B/2	Ax/1	18.00	30.00	✓	Offside	70.68
Bx	1	3	D/2	Bx/1	36.00	30.00	✓	Straight	Straight Movement
Cx	1	3	D/3	Cx/1	36.00	30.00	✓	Offside	49.21
Dx	1	3	A/2	Dx/1	60.00	30.00	✓	Offside	37.07

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
(ALL)	(ALL)	AllTraffic		

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Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible
2		TrafficStream	D/2	100	0.00	
3		TrafficStream	B/1	100	0.00	
1		TrafficStream	B/2	100	0.00	

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	18.00	12.00	5.40
2	(untitled)		1		Farside	16.00	10.67	5.40
3	(untitled)		1		Farside	16.00	10.67	5.40
4	(untitled)		1		Farside	15.00	10.00	5.40
5	(untitled)				Farside	6.00	4.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	5:1	3:1	3.00	2.00	5.40
2	5:1	4:2	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25				

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	57	176	131	0	0	0	0
	2	29	0	177	216	0	0	0	0
	3	254	225	0	169	0	0	0	0
	4	109	207	144	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C-1/1	Cx/1	#0000FF
	2	(untitled)	D-2/1	Dx/1	#FF0000
	3	(untitled)	A-1/1	Ax/1	#00FF00
	4	(untitled)	B-1/1	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#008000
	7	(untitled)	5:2E	5:2X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	16		2	4	D-2/1, D/2, Bx/1	Normal	216
	17		2	3	D-2/1, D-1/1, Ax/1	Normal	177
	19		4	2	B-1/1, B/1, Dx/1	Normal	207
	20		3	1	A-1/1, A/1, Cx/1	Normal	254
	39		2	1	D-2/1, D/3, Cx/1	Normal	29
	40		1	4	C-1/1, C/2, Bx/1	Normal	131
	41		1	2	C-1/1, C/1, Dx/1	Normal	57
	42		1	3	C-1/1, C/1, Ax/1	Normal	176
	43		4	3	B-1/1, B/2, Ax/1	Normal	144
	44		4	1	B-1/1, B/1, Cx/1	Normal	109
	45		3	2	A-1/1, A/2, Dx/1	Normal	225
	46		3	4	A-1/1, A/1, Bx/1	Normal	169

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Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	14		7	5	5:2E, 5:1X, 3:1E, 3:2X	Normal	50
	15		7	8	5:2E, 5:1X, 4:2E, 4:1X	Normal	50
	18		8	6	2:2E, 2:1X	Normal	50
	23		5	6	1:1E, 1:2X	Normal	50
	34		6	8	2:1E, 2:2X	Normal	50
	35		6	5	1:2E, 1:1X	Normal	50
	36		8	7	4:1E, 4:2X, 5:1E, 5:2X	Normal	50
	37		5	7	3:2E, 3:1X, 5:1E, 5:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)	Minimum possible cycle time (s)
1	(untitled)		1	NetworkDefault	120	74

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	40	0	0	Unknown	
	B	(untitled)	7	10	0	0	Unknown	
	C	(untitled)	25	300	0	0	Unknown	
	D	(untitled)	7	20	0	0	Unknown	
	E	(untitled)	5	10	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)	Run every N cycles	Probability of running (%)
1	1	A	1	1	100
	2	B	1	1	100
	3	C	1	1	100
	4	D	1	1	100
	5	E	1	1	100

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)	Single	1, 2, 3, 4, 5	27, 37, 72, 97, 110	74	
	2	(untitled)	Single	1, 2, 3, 5, 4	21, 42, 72, 98, 123	74	
	3	(untitled)	Single	1, 2, 4, 3, 5	24, 48, 77, 101, 0	74	
	4	(untitled)	Single	1, 2, 4, 5, 3	23, 45, 72, 97, 124	74	
	5	(untitled)	Single	1, 2, 5, 3, 4	23, 46, 74, 101, 123	74	
	6	(untitled)	Single	1, 2, 5, 4, 3	23, 46, 75, 102, 124	74	
	7	(untitled)	Single	1, 3, 2, 4, 5	23, 51, 78, 105, 0	79	
	8	(untitled)	Single	1, 3, 2, 5, 4	21, 47, 72, 98, 123	79	
	9	(untitled)	Single	1, 3, 4, 2, 5	23, 51, 74, 102, 0	79	
	10	(untitled)	Single	1, 3, 4, 5, 2	24, 53, 76, 102, 0	74	

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A			5	5	8
	B			5	5	8
	C	5	5		5	8
	D	5	5	5		8
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

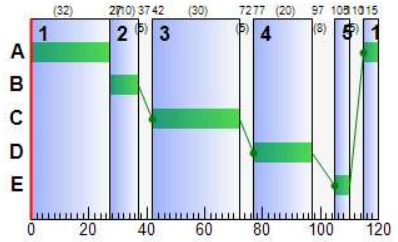
		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	42	72	30
A	2	1	1	D	77	97	20
B	1	1	1	A	115	27	32
B	2	1	1	A	115	27	32
C	1	1	1	C	42	72	30
C	2	1	1	D	77	97	20
D	2	1	1	A	115	27	32
D	3	1	1	A	115	27	32
D-1	1	1	1	A	115	27	32

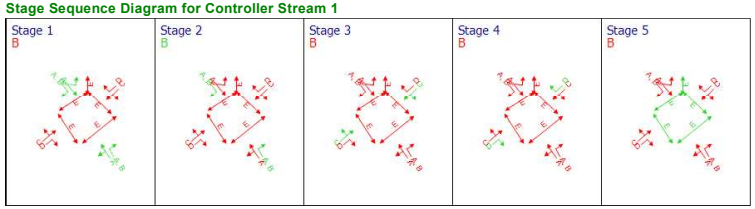
Phase Timings Diagram

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	94	6	423	1800	30	87.39	18.84	72.22	145.80	6.86	152.66
		2	75	33	225	1800	20	71.29	7.80	97.45	63.27	2.92	66.18
	Ax	1	0	Unrestricted	497	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	66	52	316	1800	32	46.26	9.93	19.03	57.66	3.69	61.34
		2	71	41	144	581	42	79.17	4.26	53.26	44.97	1.54	46.51
	Bx	1	0	Unrestricted	516	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	52	93	233	1800	30	45.22	6.52	81.49	41.56	2.45	44.01
		2	44	129	131	1800	20	49.56	4.06	7.78	25.61	1.51	27.12
	Cx	1	0	Unrestricted	392	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	2	45	122	216	1800	32	39.72	6.12	7.04	33.84	2.28	36.12
		3	16	509	29	505	42	44.38	0.64	16.11	5.08	0.33	5.41
	Dx	1	0	Unrestricted	489	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	A-1	1	37	168	648	1800	120	0.69	1.19	4.57	1.77	0.27	2.04
	B-1	1	26	291	460	1800	120	0.34	0.04	0.17	0.62	0.00	0.62
	C-1	1	20	395	364	1800	120	0.25	0.03	0.10	0.36	0.00	0.36
	D-1	1	74	36	177	900	32	60.15	6.34	520.92	42.00	1.66	43.65
	D-2	1	23	327	422	1800	120	0.31	0.04	0.05	0.51	0.00	0.51

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	A	1	423	423	0		1800	450	94		6	0.02	30
		2	225	225	0		1800	300	75		33	0.04	20
	Ax	1	497	497	0		Unrestricted	Unrestricted	0		Unrestricted	0.77	120
	B	1	316	316	0		1800	480	66		52	0.00	32
		2	144	144	0		581	203	71		41	0.00	42
	Bx	1	516	516	0		Unrestricted	Unrestricted	0		Unrestricted	0.45	120
	C	1	233	233	0		1800	450	52		93	0.00	30
		2	131	131	0		1800	300	44		129	0.00	20
	Cx	1	392	392	0		Unrestricted	Unrestricted	0		Unrestricted	0.63	120
	D	2	216	216	0		1800	480	45		122	0.00	32
		3	29	29	0		505	177	16		509	0.00	42
	Dx	1	489	489	0		Unrestricted	Unrestricted	0		Unrestricted	0.44	120
	A-1	1	648	648	0		1800	1734	37		168	0.00	120
	B-1	1	460	460	0		1800	1800	26		291	0.00	120
	C-1	1	364	364	0		1800	1800	20		395	0.00	120
	D-1	1	177	177	0		900	240	74		36	0.00	32
	D-2	1	422	422	0		1800	1800	23		327	0.00	120

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Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	18.00	87.39	5.18	5.09	145.80	129.27	407.06	139.77	6.86
		2	4.80	71.29	2.97	1.48	63.27	103.33	198.21	34.28	2.92
	Ax	1	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	36.00	46.26	3.44	0.62	57.66	93.06	275.60	18.46	3.69
		2	4.80	79.17	1.84	1.32	44.97	85.50	96.94	26.17	1.54
	Bx	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	4.80	45.22	2.51	0.42	41.56	83.90	187.16	8.33	2.45
		2	36.00	49.56	1.64	0.17	25.61	91.99	115.52	4.99	1.51
	Cx	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	2	60.00	39.72	2.20	0.18	33.84	84.03	176.05	5.46	2.28
		3	2.40	44.38	0.29	0.07	5.08	91.19	25.96	0.48	0.33
	Dx	1	60.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	A-1	1	18.00	0.69	0.01	0.11	1.77	3.34	18.30	3.34	0.27
	B-1	1	18.00	0.34	0.00	0.04	0.62	0.00	0.00	0.00	0.00
	C-1	1	18.00	0.25	0.00	0.03	0.36	0.00	0.00	0.00	0.00
	D-1	1	1.00	60.15	1.98	0.98	42.00	105.80	158.99	28.28	1.66
	D-2	1	54.00	0.31	0.00	0.04	0.51	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	18.84	26.09	72.22	0.00	0.00	0.00	0.00	0.00	0.00	
		2	8.00	7.80	8.00	97.45	0.00	0.00	0.00	0.00	0.00	0.00	
	Ax	1	0.00	0.00	26.09	0.00	0.00	0.00	0.00	36.00	0.00	36.00	
	B	1	0.00	9.93	52.17	19.03	0.00	0.00	0.00	0.00	0.00	0.00	
		2	8.00	4.26	8.00	53.26	0.00	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	C	1	8.00	6.52	8.00	81.49	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	4.06	52.17	7.78	0.00	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	15.00	0.00	15.00	
	D	2	0.00	6.12	86.96	7.04	0.00	0.00	0.00	0.00	0.00	0.00	
		3	4.00	0.64	4.00	16.11	0.00	0.00	0.00	10.00	0.00	10.00	
	Dx	1	0.00	0.00	86.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	A-1	1	0.00	1.19	26.09	4.57	0.00	0.00	0.00	0.00	4.37	4.37	
	B-1	1	0.00	0.04	26.09	0.17	0.00	0.00	0.00	0.00	0.00	0.00	
	C-1	1	0.00	0.03	26.09	0.10	0.00	0.00	0.00	0.00	0.00	0.00	
	D-1	1	0.00	6.34	1.22	520.92	2.25	0.00	0.00	0.00	0.00	0.00	
	D-2	1	0.00	0.04	78.26	0.05	0.00	0.00	0.00	0.00	105.00	105.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	63.45	12.38	5.12	105.39
		2	9.00	4.46	2.02	71.37
	Ax	1	74.55	2.49	30.00	18.00
	B	1	94.80	7.22	13.13	82.26
		2	5.76	2.95	1.95	73.73
	Bx	1	154.80	5.16	30.00	36.00
	C	1	9.32	3.10	3.01	47.90
		2	39.30	3.11	12.62	85.56
	Cx	1	117.60	3.92	30.00	36.00
	D	2	108.00	5.98	18.05	99.72
		3	0.58	0.32	1.79	40.11
	Dx	1	244.50	8.15	30.00	60.00
	A-1	1	97.20	3.36	28.89	18.69
	B-1	1	69.00	2.34	29.44	18.34
	C-1	1	54.60	1.85	29.58	18.25
	D-1	1	1.24	3.01	0.41	61.15
	D-2	1	189.90	6.37	29.83	54.31

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Mean End of Green Queue EoTS (Veh)	Mean End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	19.63	5.88	16.45	1.00	0.00	152.66
		2	0.00	0.00	✓	7.76	1.15	7.59	1.00	0.00	66.18
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	9.93	0.63	8.35	1.00	0.00	61.34
		2	0.00	0.00	✓	4.23	0.88	4.04	1.00	0.00	46.51
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	6.52	0.28	6.30	1.00	0.00	44.01
		2	0.00	0.00	✓	4.06	0.17	3.81	1.00	0.00	27.12
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	2	0.00	0.00	✓	6.12	0.18	5.46	1.00	0.00	36.12
		3	0.00	0.00	✓	0.64	0.02	0.64	1.00	0.00	5.41
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	A-1	1	0.00	0.00	✓	1.19			1.00	0.00	2.04
	B-1	1	0.00	0.00	✓	0.04			1.00	0.00	0.62
	C-1	1	0.00	0.00	✓	0.03			1.00	0.00	0.36
	D-1	1	0.00	0.00	✓	6.37	1.01	5.33	1.00	0.00	43.65
	D-2	1	0.00	0.00	✓	0.04			1.00	0.00	0.51

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Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	11	50	11000	5	55.58	1.60	10.96	10.96
		2	11	50	11000	5	55.58	1.60	10.96	10.96
	2	1	11	50	11000	5	55.58	1.60	10.96	10.96
		2	11	50	11000	5	55.58	1.60	10.96	10.96
	3	1	11	50	11000	5	113.87	1.67	22.46	22.46
		2	11	50	11000	5	55.58	1.60	10.96	10.96
	4	1	11	50	11000	5	55.58	1.60	10.96	10.96
		2	11	50	11000	5	113.87	1.67	22.46	22.46
	5	1	22	100	11000	5	107.50	3.33	42.40	42.40
		2	22	100	11000	5	55.63	3.19	21.94	21.94

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	1	1	50	50	0		11000	458	11		817	0.00	5
		2	50	50	0		11000	458	11		817	0.00	5
	2	1	50	50	0		11000	458	11		817	0.00	5
		2	50	50	0		11000	458	11		817	0.00	5
	3	1	50	50	0		11000	458	11		817	1.92	5
		2	50	50	0		11000	458	11		817	0.00	5
	4	1	50	50	0		11000	458	11		817	0.00	5
		2	50	50	0		11000	458	11		817	1.92	5
	5	1	100	100	0		11000	458	22		358	1.91	5
		2	100	100	0		11000	458	22		358	0.00	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	13.00	55.58	0.77	0.00	10.96
		2	13.00	55.58	0.77	0.00	10.96
	2	1	11.67	55.58	0.77	0.00	10.96
		2	11.67	55.58	0.77	0.00	10.96
	3	1	12.67	113.87	1.58	0.00	22.46
		2	11.67	55.58	0.77	0.00	10.96
	4	1	11.00	55.58	0.77	0.00	10.96
		2	12.00	113.87	1.58	0.00	22.46
	5	1	6.00	107.50	2.99	0.00	42.40
		2	5.00	55.63	1.55	0.00	21.94

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	1	1	1.60	10.00	15.97	0.00	0.00	0.00
		2	1.60	10.00	15.97	0.00	0.00	0.00
	2	1	1.60	10.00	15.97	0.00	0.00	0.00
		2	1.60	10.00	15.97	0.00	0.00	0.00
	3	1	1.67	10.00	16.67	0.00	0.00	0.00
		2	1.60	10.00	15.97	0.00	0.00	0.00
	4	1	1.60	10.00	15.97	0.00	0.00	0.00
		2	1.67	10.00	16.67	0.00	0.00	0.00
	5	1	3.33	10.00	33.33	0.00	0.00	0.00
		2	3.19	10.00	31.94	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	0.95	0.95	1.00	68.58
		2	0.95	0.95	1.00	68.58
	2	1	0.85	0.93	0.91	67.25
		2	0.85	0.93	0.91	67.25
	3	1	0.95	1.76	0.54	126.53
		2	0.85	0.93	0.91	67.25
	4	1	0.80	0.92	0.87	66.58
		2	0.90	1.75	0.51	125.87
	5	1	0.90	3.15	0.29	113.50
		2	0.70	1.68	0.42	60.63

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	0.00	0.00	1.60	1.00	0.00	10.96
		2	0.00	0.00	1.60	1.00	0.00	10.96
	2	1	0.00	0.00	1.60	1.00	0.00	10.96
		2	0.00	0.00	1.60	1.00	0.00	10.96
	3	1	0.00	0.00	1.67	1.00	0.00	22.46
		2	0.00	0.00	1.60	1.00	0.00	10.96
	4	1	0.00	0.00	1.60	1.00	0.00	10.96
		2	0.00	0.00	1.67	1.00	0.00	22.46
	5	1	0.00	0.00	3.33	1.00	0.00	42.40
		2	0.00	0.00	3.19	1.00	0.00	21.94

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Collections

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	126.2	84.2	139.8	0.0	0.0	0.0	0.0
	2	130.4	0.0	133.5	190.0	0.0	0.0	0.0	0.0
	3	160.1	150.1	0.0	160.1	0.0	0.0	0.0	0.0
	4	136.6	160.6	110.1	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	68.6	180.8	0.0
	6	0.0	0.0	0.0	0.0	68.6	0.0	0.0	67.3
	7	0.0	0.0	0.0	0.0	187.2	0.0	0.0	186.5
	8	0.0	0.0	0.0	0.0	0.0	67.3	180.1	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Normal journey dist (m)	Bus journeydist (m)	Tram journey dist (m)	Pedestrian journey dist (m)	Calculated Total Flow (Veh/hr)	Avg journey time (s)	Avg journey dist (m)
14	7	5		50		187.17	26.00	26.00	26.00	26.00	50	187.17	26.00
15	7	8		50		186.50	25.00	25.00	25.00	25.00	50	186.50	25.00
16	2	4	216		190.03		1250.00	0.00	0.00	0.00	216	190.03	1250.00
17	2	3	177		133.46		607.00	0.00	0.00	0.00	177	133.46	607.00
18	8	6		50		67.25	17.00	17.00	17.00	17.00	50	67.25	17.00
19	4	2	207		160.60		950.00	0.00	0.00	0.00	207	160.60	950.00
20	3	1	254		160.08		600.00	0.00	0.00	0.00	254	160.08	600.00
23	5	6		50		68.58	19.00	19.00	19.00	19.00	50	68.58	19.00
34	6	8		50		67.25	17.00	17.00	17.00	17.00	50	67.25	17.00
35	6	5		50		68.58	19.00	19.00	19.00	19.00	50	68.58	19.00
36	8	7		50		180.08	25.00	25.00	25.00	25.00	50	180.08	25.00
37	5	7		50		180.75	26.00	26.00	26.00	26.00	50	180.75	26.00
39	2	1	29		130.42		770.00	0.00	0.00	0.00	29	130.42	770.00
40	1	4	131		139.82		750.00	0.00	0.00	0.00	131	139.82	750.00
41	1	2	57		126.16		690.00	0.00	0.00	0.00	57	126.16	690.00
42	1	3	176		84.16		340.00	0.00	0.00	0.00	176	84.16	340.00
43	4	3	144		110.07		340.00	0.00	0.00	0.00	144	110.07	340.00
44	4	1	109		136.60		750.00	0.00	0.00	0.00	109	136.60	750.00
45	3	2	225		150.06		690.00	0.00	0.00	0.00	225	150.06	690.00
46	3	4	169		160.08		600.00	0.00	0.00	0.00	169	160.08	600.00

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			Q
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	C		423	1800	30	0.00	94	6	105.39	87.39	129.27	
	2		1	1	D		225	1800	20	0.00	75	33	71.37	71.29	103.33	
Ax	1	(untitled)					497	Unrestricted	120	36.00	0	Unrestricted	18.00	0.00	0.00	
B	1	(untitled)	1	1	A		316	1800	32	0.00	66	52	82.26	46.26	93.06	
	2		1	1	A	B	144	581	42	0.00	71	41	73.73	79.17	85.50	
Bx	1	(untitled)					516	Unrestricted	120	0.00	0	Unrestricted	36.00	0.00	0.00	
C	1	(untitled)	1	1	C		233	1800	30	0.00	52	93	47.90	45.22	83.90	
	2		1	1	D		131	1800	20	0.00	44	129	85.56	49.56	91.99	
Cx	1	(untitled)					392	Unrestricted	120	15.00	0	Unrestricted	36.00	0.00	0.00	
D	2	(untitled)	1	1	A		216	1800	32	0.00	45	122	99.72	39.72	84.03	
	3		1	1	A	B	29	505	42	10.00	16	509	40.11	44.38	91.19	
Dx	1	(untitled)					489	Unrestricted	120	0.00	0	Unrestricted	60.00	0.00	0.00	
A-1	1		1				648	1800	120	4.37	37	168	18.69	0.69	3.34	
B-1	1		1				460	1800	120	0.00	26	291	18.34	0.34	0.00	
C-1	1		1				364	1800	120	0.00	20	395	18.25	0.25	0.00	
D-1	1	(untitled)	1	1	A		177 <	900	32	0.00	74	36	61.15	60.15	105.80	
D-2	1		1				422	1800	120	105.00	23	327	54.31	0.31	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	C tr pe (£
1	1	(untitled)	1	1	E	50	11000	5	11	817	68.58	55.58	1.60	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	68.58	55.58	1.60	100	
2	1	(untitled)	1	1	E	50	11000	5	11	817	67.25	55.58	1.60	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	67.25	55.58	1.60	100	
3	1	(untitled)	1	1	E	50	11000	5	11	817	126.53	113.87	1.67	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	67.25	55.58	1.60	100	
4	1	(untitled)	1	1	E	50	11000	5	11	817	66.58	55.58	1.60	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	125.87	113.87	1.67	100	
5	1	(untitled)		1	E	100	11000	5	22	358	113.50	107.50	3.33	100	
	2	(untitled)		1	E	100	11000	5	22	358	60.63	55.63	3.19	100	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	1333.60	76.17	17.51	22.05	10.56	463.04	23.50	0.00	486.54
Bus									
Tram									
Pedestrians	8.70	13.97	0.62	12.33	0.00	175.03	0.00	0.00	175.03
TOTAL	1342.30	90.15	14.89	34.37	10.56	638.08	23.50	0.00	661.58

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

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A1 - Junction 3
D2 - 2027 Do Nothing, AM

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item wi wors unsignal PRC
1	05/03/2024 12:43:49	05/03/2024 12:43:50	1.23	08:00	120	4062.22	80.01	104.22	A/1	1	4	A/1	A-1/1

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set (s)	Optimise specific Demand Set (s)	Demand Set(s) to optimise	Include in report	Locked
Junction 3				✓	D7	✓	

Demand Set Details

Scenario name	Time Period name	Description	Composite	Demand sets	Start time (HH:mm)	Locked	Run automatically
2027 Do Nothing	AM	(untitled)			08:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120	74	74		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	2

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)	Missing stage transition options
10000.00	10000.00	10000.00	2	Assume banned

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from traffic model	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓			Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy (%)	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Standard accuracy Hill Climb	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
A-1			1
B-1			1
C-1			1
D-1	(untitled)		1
D-2			1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Auto-calculate cell saturation flow	Cell saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			150.00	✓	Sum of lanes	1800			✓		Normal	
	2				40.00	✓	Sum of lanes	1800	✓	1800	✓		Normal	
Ax	1	(untitled)			150.00								Normal	
B	1	(untitled)			300.00	✓	Sum of lanes	1800			✓		Normal	
	2				40.00	✓	Sum of lanes	1800	✓	1800	✓	✓	Normal	
Bx	1	(untitled)			300.00								Normal	
C	1	(untitled)			40.00	✓	Sum of lanes	1800	✓	1800	✓		Normal	
	2				300.00	✓	Sum of lanes	1800			✓		Normal	
Cx	1	(untitled)			300.00								Normal	
D	2	(untitled)			500.00	✓	Sum of lanes	1800			✓		Normal	
	3				20.00	✓	Sum of lanes	1800			✓	✓	Normal	
Dx	1	(untitled)			500.00								Normal	
A-1	1				150.00	✓	Directly entered	1800					Normal	
B-1	1				150.00	✓	Directly entered	1800					Normal	
C-1	1				150.00	✓	Directly entered	1800					Normal	
D-1	1	(untitled)			7.00	✓	Directly entered	1800			✓	✓	Normal	
D-2	1				450.00	✓	Sum of lanes	1800					Normal	

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Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
	2	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
C	1	1	(untitled)			1800
	2	1	(untitled)			1800
Cx	1	1	(untitled)			
D	2	1	(untitled)			1800
	3	1	(untitled)			1800
Dx	1	1	(untitled)			
A-1	1	1	(untitled)			
B-1	1	1	(untitled)			
C-1	1	1	(untitled)			
D-1	1	1	(untitled)			
D-2	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Queue limit (PCU)	Excess queue penalty (£)	Has degree of saturation limit
A	1	NetworkDefault	100	100	100		0.00				
	2	Flare	100	100	100		8.00	✓	8.00	9999.00	
Ax	1	NetworkDefault	100	100	100		0.00				
B	1	NetworkDefault	100	100	100		0.00				
	2	Flare	100	100	100		8.00	✓	8.00	99999.00	
Bx	1	NetworkDefault	100	100	100		0.00				
C	1	Flare	100	100	100		8.00	✓	8.00	99999.00	
	2	NetworkDefault	100	100	100		0.00				
Cx	1	NetworkDefault	100	100	100		0.00				
D	2	NetworkDefault	100	100	100		0.00				
	3	Flare	100	100	100		4.00	✓	4.00	99999.00	
Dx	1	NetworkDefault	100	100	100		0.00				
A-1	1	NetworkDefault	100	100	100		0.00				
B-1	1	NetworkDefault	100	100	100		0.00				
C-1	1	NetworkDefault	100	100	100		0.00				
D-1	1	NetworkDefault	100	100	100		0.00				
D-2	1	NetworkDefault	100	100	100		0.00				

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
A	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	8.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Ax	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
B	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	8.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Bx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
C	1	8.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Cx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
D	2	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	3	4.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Dx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
A-1	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
B-1	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
C-1	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
D-1	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
D-2	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	469	469
	2	253	253
Ax	1	569	569
B	1	433	433
	2	156	156
Bx	1	797	797
C	1	262	262
	2	140	140
Cx	1	453	453
D	2	471	471
	3	54	54
Dx	1	640	640
A-1	1	722	722
B-1	1	589	589
C-1	1	402	402
D-1	1	221	221
D-2	1	746	746

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Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	C		
	2	1	D		
B	1	1	A		
	2	1	A	✓	B
C	1	1	C		
	2	1	D		
D	2	1	A		
	3	1	A	✓	B
D-1	1	1	A		

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A-1	1	18.00	30.00
B-1	1	18.00	30.00
C-1	1	18.00	30.00
D-2	1	54.00	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A	1	1	A-1/1	A/1	18.00	30.00	✓	Straight	Straight Movement
	2	1	A-1/1	A/2	4.80	30.00	✓	Straight	Straight Movement
Ax	1	1	C/1	Ax/1	18.00	30.00	✓	Straight	Straight Movement
B	1	1	B-1/1	B/1	36.00	30.00	✓	Straight	Straight Movement
	2	1	B-1/1	B/2	4.80	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	36.00	30.00	✓	Nearside	42.61
C	1	1	C-1/1	C/1	4.80	30.00	✓	Straight	Straight Movement
	2	1	C-1/1	C/2	36.00	30.00	✓	Straight	Straight Movement
Cx	1	1	A/1	Cx/1	36.00	30.00	✓	Straight	Straight Movement
D	2	1	D-2/1	D/2	60.00	30.00	✓	Straight	Straight Movement
	3	1	D-2/1	D/3	2.40	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	60.00	30.00	✓	Nearside	25.27
D-1	1	1	D-2/1	D-1/1	1.00	30.00	✓	Straight	Straight Movement
Ax	1	2	D-1/1	Ax/1	18.00	30.00	✓	Nearside	43.60
Bx	1	2	C/2	Bx/1	36.00	30.00	✓	Offside	38.45
Cx	1	2	B/1	Cx/1	36.00	30.00	✓	Nearside	39.22
Dx	1	2	B/1	Dx/1	60.00	30.00	✓	Straight	Straight Movement
Ax	1	3	B/2	Ax/1	18.00	30.00	✓	Offside	70.68
Bx	1	3	D/2	Bx/1	36.00	30.00	✓	Straight	Straight Movement
Cx	1	3	D/3	Cx/1	36.00	30.00	✓	Offside	49.21
Dx	1	3	A/2	Dx/1	60.00	30.00	✓	Offside	37.07

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
(ALL)	(ALL)	AllTraffic		

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible
2		TrafficStream	D/2	100	0.00	
3		TrafficStream	B/1	100	0.00	
1		TrafficStream	B/2	100	0.00	

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	18.00	12.00	5.40
2	(untitled)		1		Farside	16.00	10.67	5.40
3	(untitled)		1		Farside	16.00	10.67	5.40
4	(untitled)		1		Farside	15.00	10.00	5.40
5	(untitled)				Farside	6.00	4.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	5:1	3:1	3.00	2.00	5.40
2	5:1	4:2	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25				

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	70	192	140	0	0	0	0
	2	54	0	221	471	0	0	0	0
	3	283	253	0	186	0	0	0	0
	4	116	317	156	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C-1/1	Cx/1	#0000FF
	2	(untitled)	D-2/1	Dx/1	#FF0000
	3	(untitled)	A-1/1	Ax/1	#00FF00
	4	(untitled)	B-1/1	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#008000
	7	(untitled)	5:2E	5:2X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	16		2	4	D-2/1, D/2, Bx/1	Normal	471
	17		2	3	D-2/1, D-1/1, Ax/1	Normal	221
	19		4	2	B-1/1, B/1, Dx/1	Normal	317
	20		3	1	A-1/1, A/1, Cx/1	Normal	283
	39		2	1	D-2/1, D/3, Cx/1	Normal	54
	40		1	4	C-1/1, C/2, Bx/1	Normal	140
	41		1	2	C-1/1, C/1, Dx/1	Normal	70
	42		1	3	C-1/1, C/1, Ax/1	Normal	192
	43		4	3	B-1/1, B/2, Ax/1	Normal	156
	44		4	1	B-1/1, B/1, Cx/1	Normal	116
	45		3	2	A-1/1, A/2, Dx/1	Normal	253
	46		3	4	A-1/1, A/1, Bx/1	Normal	186

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	14		7	5	5:2E, 5:1X, 3:1E, 3:2X	Normal	50
	15		7	8	5:2E, 5:1X, 4:2E, 4:1X	Normal	50
	18		8	6	2:2E, 2:1X	Normal	50
	23		5	6	1:1E, 1:2X	Normal	50
	34		6	8	2:1E, 2:2X	Normal	50
	35		6	5	1:2E, 1:1X	Normal	50
	36		8	7	4:1E, 4:2X, 5:1E, 5:2X	Normal	50
	37		5	7	3:2E, 3:1X, 5:1E, 5:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)	Minimum possible cycle time (s)
1	(untitled)		1	NetworkDefault	120	74

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	40	0	0	Unknown	
	B	(untitled)	7	10	0	0	Unknown	
	C	(untitled)	25	300	0	0	Unknown	
	D	(untitled)	7	20	0	0	Unknown	
	E	(untitled)	5	10	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)	Run every N cycles	Probability of running (%)
1	1	A	1	1	100
	2	B	1	1	100
	3	C	1	1	100
	4	D	1	1	100
	5	E	1	1	100

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Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)	Single	1, 2, 3, 4, 5	27, 37, 72, 97, 110	74	
	2	(untitled)	Single	1, 2, 3, 5, 4	21, 42, 72, 98, 123	74	
	3	(untitled)	Single	1, 2, 4, 3, 5	24, 48, 77, 101, 0	74	
	4	(untitled)	Single	1, 2, 4, 5, 3	23, 45, 72, 97, 124	74	
	5	(untitled)	Single	1, 2, 5, 3, 4	23, 46, 74, 101, 123	74	
	6	(untitled)	Single	1, 2, 5, 4, 3	23, 46, 75, 102, 124	74	
	7	(untitled)	Single	1, 3, 2, 4, 5	23, 51, 78, 105, 0	79	
	8	(untitled)	Single	1, 3, 2, 5, 4	21, 47, 72, 98, 123	79	
	9	(untitled)	Single	1, 3, 4, 2, 5	23, 51, 74, 102, 0	79	
	10	(untitled)	Single	1, 3, 4, 5, 2	24, 53, 76, 102, 0	74	

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A			5	5	8
	B			5	5	8
	C	5	5		5	8
	D	5	5	5		8
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

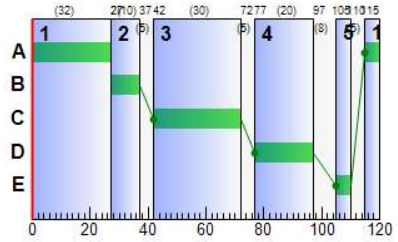
		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	42	72	30
A	2	1	1	D	77	97	20
B	1	1	1	A	115	27	32
B	2	1	1	A	115	27	32
C	1	1	1	C	42	72	30
C	2	1	1	D	77	97	20
D	2	1	1	A	115	27	32
D	3	1	1	A	115	27	32
D-1	1	1	1	A	115	27	32

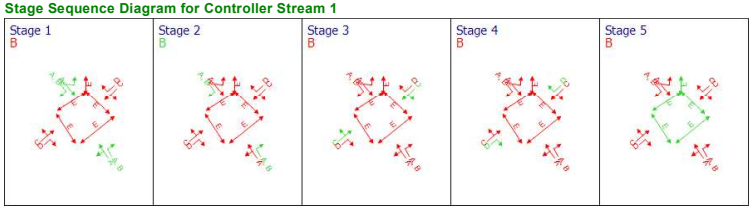
Phase Timings Diagram

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

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Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	104	-4	469	1800	30	164.32	30.96	118.68	303.98	10.37	314.34
		2	84	19	253	1800	20	89.74	9.24	115.50	89.55	3.41	2978.16
	Ax	1	0	Unrestricted	569	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	90	11	433	1800	32	71.59	17.33	33.22	122.28	6.38	128.65
		2	77	30	156	581	42	88.85	5.02	62.73	54.67	1.85	56.53
	Bx	1	0	Unrestricted	789	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	58	72	262	1800	30	46.77	7.07	88.41	48.34	2.66	51.00
		2	47	114	140	1800	20	50.67	4.35	8.33	27.98	1.61	29.59
	Cx	1	0	Unrestricted	442	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	2	98	2	471	1800	32	107.59	23.93	27.52	199.89	8.51	208.40
		3	31	227	54	505	42	51.59	1.24	30.94	10.99	0.64	11.63
	Dx	1	0	Unrestricted	640	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	A-1	1	48	108	722	1800	120	3.56	6.84	26.23	10.13	2.27	12.40
	B-1	1	33	206	589	1800	120	0.49	0.08	0.30	1.13	0.00	1.13
	C-1	1	25	307	402	1800	120	0.82	1.60	6.15	1.30	0.46	1.77
	D-1	1	92	9	221	900	32	101.84	10.75	882.78	88.77	2.72	91.49
	D-2	1	41	141	746	1800	120	0.71	0.15	0.19	2.08	0.00	2.08

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	A	1	469	450	0		1800	450	104	✓	-4	0.24	30
		2	253	253	0		1800	300	84		19	0.30	20
	Ax	1	569	569	0		Unrestricted	Unrestricted	0		Unrestricted	0.77	120
	B	1	433	433	0		1800	480	90		11	0.00	32
		2	156	156	0		581	203	77		30	0.00	42
	Bx	1	789	789	8	✓	Unrestricted	Unrestricted	0		Unrestricted	0.46	120
	C	1	262	262	0		1800	450	58		72	0.12	30
		2	140	140	0		1800	300	47		114	0.06	20
	Cx	1	442	442	11	✓	Unrestricted	Unrestricted	0		Unrestricted	0.55	120
	D	2	471	471	0		1800	480	98		2	0.00	32
		3	54	54	0		505	177	31		227	0.00	42
	Dx	1	640	640	0		Unrestricted	Unrestricted	0		Unrestricted	0.39	120
	A-1	1	722	722	0		1800	1499	48		108	0.00	120
	B-1	1	589	589	0		1800	1800	33		206	0.00	120
	C-1	1	402	402	0		1800	1636	25		307	0.00	120
	D-1	1	221	221	0		900	240	92		9	0.00	32
	D-2	1	746	746	0		1800	1800	41		141	0.00	120

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	18.00	164.32	5.32	16.09	303.98	183.70	449.36	377.30	10.37
		2	4.80	89.74	3.50	2.81	89.55	107.52	200.13	71.61	3.41
	Ax	1	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	36.00	71.59	5.11	3.50	122.28	117.48	409.77	98.90	6.38
		2	4.80	88.85	2.03	1.82	54.67	94.68	108.55	39.15	1.85
	Bx	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	4.80	46.77	2.84	0.56	48.34	80.93	199.88	12.17	2.66
		2	36.00	50.67	1.77	0.20	27.98	91.71	122.39	6.01	1.61
	Cx	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	2	60.00	107.59	5.72	8.36	199.89	144.17	458.86	220.16	8.51
		3	2.40	51.59	0.64	0.13	10.99	95.24	49.42	2.01	0.64
	Dx	1	60.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	A-1	1	18.00	3.56	0.49	0.22	10.13	25.10	174.51	6.69	2.27
	B-1	1	18.00	0.49	0.00	0.08	1.13	0.00	0.00	0.00	0.00
	C-1	1	18.00	0.82	0.05	0.04	1.30	9.14	35.54	1.20	0.46
	D-1	1	1.00	101.84	2.63	3.63	88.77	139.24	211.30	96.42	2.72
	D-2	1	54.00	0.71	0.00	0.15	2.08	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	30.96	26.09	118.68	0.81	0.00	0.00	0.00	0.00	0.00	
		2	8.00	9.24	8.00	115.50	0.29	0.29	2885.20	0.00	0.00	0.00	
	Ax	1	0.00	0.00	26.09	0.00	0.00	0.00	0.00	35.00	0.00	35.00	
	B	1	0.00	17.33	52.17	33.22	0.00	0.00	0.00	0.00	0.00	0.00	
		2	8.00	5.02	8.00	62.73	0.00	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	C	1	8.00	7.07	8.00	88.41	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	4.35	52.17	8.33	0.00	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	13.00	0.00	13.00	
	D	2	0.00	23.93	86.96	27.52	0.00	0.00	0.00	0.00	0.00	0.00	
		3	4.00	1.24	4.00	30.94	0.00	0.00	0.00	8.00	0.00	8.00	
	Dx	1	0.00	0.00	86.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	A-1	1	0.00	6.84	26.09	26.23	0.00	0.00	0.00	0.00	50.96	50.96	
	B-1	1	0.00	0.08	26.09	0.30	0.00	0.00	0.00	0.00	0.00	0.00	
	C-1	1	0.00	1.60	26.09	6.15	0.00	0.00	0.00	0.00	10.92	10.92	
	D-1	1	0.00	10.75	1.22	882.78	5.88	0.00	0.00	0.00	0.00	0.00	
	D-2	1	0.00	0.15	78.26	0.19	0.00	0.00	0.00	0.00	120.00	120.00	

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Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	70.35	23.75	2.96	182.32
		2	10.12	6.41	1.58	91.21
	Ax	1	85.35	2.85	30.00	18.00
	B	1	129.90	12.94	10.04	107.59
		2	6.24	3.63	1.72	83.82
	Bx	1	236.84	7.89	30.00	36.00
	C	1	10.48	3.60	2.91	49.48
		2	42.00	3.37	12.46	86.67
	Cx	1	132.46	4.42	30.00	36.00
	D	2	235.50	21.93	10.74	167.59
		3	1.08	0.75	1.45	49.79
	Dx	1	319.87	10.66	30.00	60.00
	A-1	1	108.30	4.32	25.05	21.56
	B-1	1	88.35	3.02	29.21	18.49
	C-1	1	60.30	2.10	28.69	18.82
	D-1	1	1.55	6.31	0.25	102.84
	D-2	1	335.70	11.34	29.61	54.71

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Mean End of Green Queue EoTS (Veh)	Mean End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00		41.90	27.03	38.28	1.00	0.00	314.34
		2	0.00	0.00		9.09	2.42	9.09	1.00	2885.20	2978.16
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	17.61	3.78	14.36	1.00	0.00	128.65
		2	0.00	0.00	✓	4.95	1.32	4.79	1.00	0.00	56.53
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	7.07	0.41	7.05	1.00	0.00	51.00
		2	0.00	0.00	✓	4.35	0.20	4.01	1.00	0.00	29.59
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	2	0.00	0.00	✓	26.58	11.01	22.53	1.00	0.00	208.40
		3	0.00	0.00	✓	1.24	0.07	1.24	1.00	0.00	11.63
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	A-1	1	0.00	0.00		6.84			1.00	0.00	12.40
	B-1	1	0.00	0.00	✓	0.08			1.00	0.00	1.13
	C-1	1	0.00	0.00	✓	1.60			1.00	0.00	1.77
	D-1	1	0.00	0.00	✓	11.34	4.22	9.62	1.00	0.00	91.49
	D-2	1	0.00	0.00	✓	0.15			1.00	0.00	2.08

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	11	50	11000	5	55.58	1.60	10.96	10.96
		2	11	50	11000	5	55.58	1.60	10.96	10.96
	2	1	11	50	11000	5	55.58	1.60	10.96	10.96
		2	11	50	11000	5	55.58	1.60	10.96	10.96
	3	1	11	50	11000	5	113.87	1.67	22.46	22.46
		2	11	50	11000	5	55.58	1.60	10.96	10.96
	4	1	11	50	11000	5	55.58	1.60	10.96	10.96
		2	11	50	11000	5	113.87	1.67	22.46	22.46
	5	1	22	100	11000	5	107.50	3.33	42.40	42.40
		2	22	100	11000	5	55.63	3.19	21.94	21.94

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	1	1	50	50	0		11000	458	11		817	0.00	5
		2	50	50	0		11000	458	11		817	0.00	5
	2	1	50	50	0		11000	458	11		817	0.00	5
		2	50	50	0		11000	458	11		817	0.00	5
	3	1	50	50	0		11000	458	11		817	1.92	5
		2	50	50	0		11000	458	11		817	0.00	5
	4	1	50	50	0		11000	458	11		817	0.00	5
		2	50	50	0		11000	458	11		817	1.92	5
	5	1	100	100	0		11000	458	22		358	1.91	5
		2	100	100	0		11000	458	22		358	0.00	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	13.00	55.58	0.77	0.00	10.96
		2	13.00	55.58	0.77	0.00	10.96
	2	1	11.67	55.58	0.77	0.00	10.96
		2	11.67	55.58	0.77	0.00	10.96
	3	1	12.67	113.87	1.58	0.00	22.46
		2	11.67	55.58	0.77	0.00	10.96
	4	1	11.00	55.58	0.77	0.00	10.96
		2	12.00	113.87	1.58	0.00	22.46
	5	1	6.00	107.50	2.99	0.00	42.40
		2	5.00	55.63	1.55	0.00	21.94

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Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	1	1	1.60	10.00	15.97	0.00	0.00	0.00
		2	1.60	10.00	15.97	0.00	0.00	0.00
	2	1	1.60	10.00	15.97	0.00	0.00	0.00
		2	1.60	10.00	15.97	0.00	0.00	0.00
	3	1	1.67	10.00	16.67	0.00	0.00	0.00
		2	1.60	10.00	15.97	0.00	0.00	0.00
	4	1	1.60	10.00	15.97	0.00	0.00	0.00
		2	1.67	10.00	16.67	0.00	0.00	0.00
	5	1	3.33	10.00	33.33	0.00	0.00	0.00
		2	3.19	10.00	31.94	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	0.95	0.95	1.00	68.58
		2	0.95	0.95	1.00	68.58
	2	1	0.85	0.93	0.91	67.25
		2	0.85	0.93	0.91	67.25
	3	1	0.95	1.76	0.54	126.53
		2	0.85	0.93	0.91	67.25
	4	1	0.80	0.92	0.87	66.58
		2	0.90	1.75	0.51	125.87
	5	1	0.90	3.15	0.29	113.50
		2	0.70	1.68	0.42	60.63

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	0.00	0.00	1.60	1.00	0.00	10.96
		2	0.00	0.00	1.60	1.00	0.00	10.96
	2	1	0.00	0.00	1.60	1.00	0.00	10.96
		2	0.00	0.00	1.60	1.00	0.00	10.96
	3	1	0.00	0.00	1.67	1.00	0.00	22.46
		2	0.00	0.00	1.60	1.00	0.00	10.96
	4	1	0.00	0.00	1.60	1.00	0.00	10.96
		2	0.00	0.00	1.67	1.00	0.00	22.46
	5	1	0.00	0.00	3.33	1.00	0.00	42.40
		2	0.00	0.00	3.19	1.00	0.00	21.94

Collections

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	128.3	86.3	141.5	0.0	0.0	0.0	0.0
	2	140.5	0.0	175.5	258.3	0.0	0.0	0.0	0.0
	3	239.9	172.8	0.0	239.9	0.0	0.0	0.0	0.0
	4	162.1	186.1	120.3	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	68.6	180.8	0.0
	6	0.0	0.0	0.0	0.0	68.6	0.0	0.0	67.3
	7	0.0	0.0	0.0	0.0	187.2	0.0	0.0	186.5
	8	0.0	0.0	0.0	0.0	0.0	67.3	180.1	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Normal journey dist (m)	Bus journeydist (m)	Tram journey dist (m)	Pedestrian journey dist (m)	Calculated Total Flow (Veh/hr)	Avg journey time (s)	Avg journey dist (m)
14	7	5		50		187.17	26.00	26.00	26.00	26.00	50	187.17	26.00
15	7	8		50		186.50	25.00	25.00	25.00	25.00	50	186.50	25.00
16	2	4	471		258.30		1250.00	0.00	0.00	0.00	471	258.30	1250.00
17	2	3	221		175.54		607.00	0.00	0.00	0.00	221	175.54	607.00
18	8	6		50		67.25	17.00	17.00	17.00	17.00	50	67.25	17.00
19	4	2	317		186.08		950.00	0.00	0.00	0.00	317	186.08	950.00
20	3	1	283		239.87		600.00	0.00	0.00	0.00	283	239.87	600.00
23	5	6		50		68.58	19.00	19.00	19.00	19.00	50	68.58	19.00
34	6	8		50		67.25	17.00	17.00	17.00	17.00	50	67.25	17.00
35	6	5		50		68.58	19.00	19.00	19.00	19.00	50	68.58	19.00
36	8	7		50		180.08	25.00	25.00	25.00	25.00	50	180.08	25.00
37	5	7		50		180.75	26.00	26.00	26.00	26.00	50	180.75	26.00
39	2	1	54		140.50		770.00	0.00	0.00	0.00	54	140.50	770.00
40	1	4	140		141.50		750.00	0.00	0.00	0.00	140	141.50	750.00
41	1	2	70		128.30		690.00	0.00	0.00	0.00	70	128.30	690.00
42	1	3	192		86.30		340.00	0.00	0.00	0.00	192	86.30	340.00
43	4	3	156		120.31		340.00	0.00	0.00	0.00	156	120.31	340.00
44	4	1	116		162.08		750.00	0.00	0.00	0.00	116	162.08	750.00
45	3	2	253		172.77		690.00	0.00	0.00	0.00	253	172.77	690.00
46	3	4	186		239.87		600.00	0.00	0.00	0.00	186	239.87	600.00

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Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	C		469 <	1800	30	0.00	104	-4	182.32	164.32	183.70	
	2		1	1	D		253 <	1800	20	0.00	84	19	91.21	89.74	107.52	
Ax	1	(untitled)					569	Unrestricted	120	35.00	0	Unrestricted	18.00	0.00	0.00	
B	1	(untitled)	1	1	A		433	1800	32	0.00	90	11	107.59	71.59	117.48	
	2		1	1	A	B	156	581	42	0.00	77	30	83.82	88.85	94.68	
Bx	1	(untitled)					789	Unrestricted	120	0.00	0	Unrestricted	36.00	0.00	0.00	
C	1	(untitled)	1	1	C		262	1800	30	0.00	58	72	49.48	46.77	80.93	
	2		1	1	D		140	1800	20	0.00	47	114	86.67	50.67	91.71	
Cx	1	(untitled)					442	Unrestricted	120	13.00	0	Unrestricted	36.00	0.00	0.00	
D	2	(untitled)	1	1	A		471	1800	32	0.00	98	2	167.59	107.59	144.17	
	3		1	1	A	B	54	505	42	8.00	31	227	49.79	51.59	95.24	
Dx	1	(untitled)					640	Unrestricted	120	0.00	0	Unrestricted	60.00	0.00	0.00	
A-1	1		1				722	1800	120	50.96	48	108	21.56	3.56	25.10	
B-1	1		1				589	1800	120	0.00	33	206	18.49	0.49	0.00	
C-1	1		1				402	1800	120	10.92	25	307	18.82	0.82	9.14	
D-1	1	(untitled)	1	1	A		221 <	900	32	0.00	92	9	102.84	101.84	139.24	
D-2	1		1				746	1800	120	120.00	41	141	54.71	0.71	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	C tr pe (£
1	1	(untitled)	1	1	E	50	11000	5	11	817	68.58	55.58	1.60	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	68.58	55.58	1.60	100	
2	1	(untitled)	1	1	E	50	11000	5	11	817	67.25	55.58	1.60	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	67.25	55.58	1.60	100	
3	1	(untitled)	1	1	E	50	11000	5	11	817	126.53	113.87	1.67	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	67.25	55.58	1.60	100	
4	1	(untitled)	1	1	E	50	11000	5	11	817	66.58	55.58	1.60	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	125.87	113.87	1.67	100	
5	1	(untitled)		1	E	100	11000	5	22	358	113.50	107.50	3.33	100	
	2	(untitled)		1	E	100	11000	5	22	358	60.63	55.63	3.19	100	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	1874.39	129.30	14.50	30.10	37.59	961.10	40.88	2885.20	3887.18
Bus									
Tram									
Pedestrians	8.70	13.97	0.62	12.33	0.00	175.03	0.00	0.00	175.03
TOTAL	1883.09	143.27	13.14	42.42	37.59	1136.13	40.88	2885.20	4062.22

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A1 - Junction 3
D3 - 2027 Do Something, AM

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item wi wors unsignal PRC
1	05/03/2024 12:43:50	05/03/2024 12:43:50	0.51	08:00	120	10801.43	152.52	117.71	D/2	4	15	D/2	A-1/1

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set (s)	Optimise specific Demand Set (s)	Demand Set(s) to optimise	Include in report	Locked
Junction 3				✓	D7	✓	

Demand Set Details

Scenario name	Time Period name	Description	Composite	Demand sets	Start time (HH:mm)	Locked	Run automatically
2027 Do Something	AM	(untitled)			08:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120	74	74		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	2

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)	Missing stage transition options
10000.00	10000.00	10000.00	2	Assume banned

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from traffic model	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓			Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy (%)	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Standard accuracy Hill Climb	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

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Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
A-1			1
B-1			1
C-1			1
D-1	(untitled)		1
D-2			1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Auto-calculate cell saturation flow	Cell saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			150.00	✓	Sum of lanes	1800			✓		Normal	
	2				40.00	✓	Sum of lanes	1800	✓	1800	✓		Normal	
Ax	1	(untitled)			150.00								Normal	
B	1	(untitled)			300.00	✓	Sum of lanes	1800			✓		Normal	
	2				40.00	✓	Sum of lanes	1800	✓	1800	✓	✓	Normal	
Bx	1	(untitled)			300.00								Normal	
C	1	(untitled)			40.00	✓	Sum of lanes	1800	✓	1800	✓		Normal	
	2				300.00	✓	Sum of lanes	1800			✓		Normal	
Cx	1	(untitled)			300.00								Normal	
D	2	(untitled)			500.00	✓	Sum of lanes	1800			✓		Normal	
	3				20.00	✓	Sum of lanes	1800			✓	✓	Normal	
Dx	1	(untitled)			500.00								Normal	
A-1	1				150.00	✓	Directly entered	1800					Normal	
B-1	1				150.00	✓	Directly entered	1800					Normal	
C-1	1				150.00	✓	Directly entered	1800					Normal	
D-1	1	(untitled)			7.00	✓	Directly entered	1800			✓	✓	Normal	
D-2	1				450.00	✓	Sum of lanes	1800					Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
	2	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
C	1	1	(untitled)			1800
	2	1	(untitled)			1800
Cx	1	1	(untitled)			
D	2	1	(untitled)			1800
	3	1	(untitled)			1800
Dx	1	1	(untitled)			
A-1	1	1	(untitled)			
B-1	1	1	(untitled)			
C-1	1	1	(untitled)			
D-1	1	1	(untitled)			
D-2	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Queue limit (PCU)	Excess queue penalty (£)	Has degree of saturation limit
A	1	NetworkDefault	100	100	100		0.00				
	2	Flare	100	100	100		8.00	✓	8.00	9999.00	
Ax	1	NetworkDefault	100	100	100		0.00				
B	1	NetworkDefault	100	100	100		0.00				
	2	Flare	100	100	100		8.00	✓	8.00	99999.00	
Bx	1	NetworkDefault	100	100	100		0.00				
C	1	Flare	100	100	100		8.00	✓	8.00	99999.00	
	2	NetworkDefault	100	100	100		0.00				
Cx	1	NetworkDefault	100	100	100		0.00				
D	2	NetworkDefault	100	100	100		0.00				
	3	Flare	100	100	100		4.00	✓	4.00	99999.00	
Dx	1	NetworkDefault	100	100	100		0.00				
A-1	1	NetworkDefault	100	100	100		0.00				
B-1	1	NetworkDefault	100	100	100		0.00				
C-1	1	NetworkDefault	100	100	100		0.00				
D-1	1	NetworkDefault	100	100	100		0.00				
D-2	1	NetworkDefault	100	100	100		0.00				

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
A	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	8.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Ax	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
B	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	8.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Bx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
C	1	8.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Cx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
D	2	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	3	4.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Dx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
A-1	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
B-1	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
C-1	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
D-1	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
D-2	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	469	469
	2	263	263
Ax	1	595	595
B	1	468	468
	2	156	156
Bx	1	891	891
C	1	269	269
	2	140	140
Cx	1	470	470
D	2	565	565
	3	71	71
Dx	1	692	692
A-1	1	732	732
B-1	1	624	624
C-1	1	409	409
D-1	1	247	247
D-2	1	883	883

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	C		
	2	1	D		
B	1	1	A		
	2	1	A	✓	B
C	1	1	C		
	2	1	D		
D	2	1	A		
	3	1	A	✓	B
D-1	1	1	A		

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A-1	1	18.00	30.00
B-1	1	18.00	30.00
C-1	1	18.00	30.00
D-2	1	54.00	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A	1	1	A-1/1	A/1	18.00	30.00	✓	Straight	Straight Movement
	2	1	A-1/1	A/2	4.80	30.00	✓	Straight	Straight Movement
Ax	1	1	C/1	Ax/1	18.00	30.00	✓	Straight	Straight Movement
B	1	1	B-1/1	B/1	36.00	30.00	✓	Straight	Straight Movement
	2	1	B-1/1	B/2	4.80	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	36.00	30.00	✓	Nearside	42.61
C	1	1	C-1/1	C/1	4.80	30.00	✓	Straight	Straight Movement
	2	1	C-1/1	C/2	36.00	30.00	✓	Straight	Straight Movement
Cx	1	1	A/1	Cx/1	36.00	30.00	✓	Straight	Straight Movement
D	2	1	D-2/1	D/2	60.00	30.00	✓	Straight	Straight Movement
	3	1	D-2/1	D/3	2.40	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	60.00	30.00	✓	Nearside	25.27
D-1	1	1	D-2/1	D-1/1	1.00	30.00	✓	Straight	Straight Movement
Ax	1	2	D-1/1	Ax/1	18.00	30.00	✓	Nearside	43.60
Bx	1	2	C/2	Bx/1	36.00	30.00	✓	Offside	38.45
Cx	1	2	B/1	Cx/1	36.00	30.00	✓	Nearside	39.22
Dx	1	2	B/1	Dx/1	60.00	30.00	✓	Straight	Straight Movement
Ax	1	3	B/2	Ax/1	18.00	30.00	✓	Offside	70.68
Bx	1	3	D/2	Bx/1	36.00	30.00	✓	Straight	Straight Movement
Cx	1	3	D/3	Cx/1	36.00	30.00	✓	Offside	49.21
Dx	1	3	A/2	Dx/1	60.00	30.00	✓	Offside	37.07

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
(ALL)	(ALL)	AllTraffic		

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Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible
2		TrafficStream	D/2	100	0.00	
3		TrafficStream	B/1	100	0.00	
1		TrafficStream	B/2	100	0.00	

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	18.00	12.00	5.40
2	(untitled)		1		Farside	16.00	10.67	5.40
3	(untitled)		1		Farside	16.00	10.67	5.40
4	(untitled)		1		Farside	15.00	10.00	5.40
5	(untitled)				Farside	6.00	4.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	5:1	3:1	3.00	2.00	5.40
2	5:1	4:2	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25				

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	77	192	140	0	0	0	0
	2	71	0	247	565	0	0	0	0
	3	283	263	0	186	0	0	0	0
	4	116	352	156	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C-1/1	Cx/1	#0000FF
	2	(untitled)	D-2/1	Dx/1	#FF0000
	3	(untitled)	A-1/1	Ax/1	#00FF00
	4	(untitled)	B-1/1	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#008000
	7	(untitled)	5:2E	5:2X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	16		2	4	D-2/1, D/2, Bx/1	Normal	565
	17		2	3	D-2/1, D-1/1, Ax/1	Normal	247
	19		4	2	B-1/1, B/1, Dx/1	Normal	352
	20		3	1	A-1/1, A/1, Cx/1	Normal	283
	39		2	1	D-2/1, D/3, Cx/1	Normal	71
	40		1	4	C-1/1, C/2, Bx/1	Normal	140
	41		1	2	C-1/1, C/1, Dx/1	Normal	77
	42		1	3	C-1/1, C/1, Ax/1	Normal	192
	43		4	3	B-1/1, B/2, Ax/1	Normal	156
	44		4	1	B-1/1, B/1, Cx/1	Normal	116
	45		3	2	A-1/1, A/2, Dx/1	Normal	263
	46		3	4	A-1/1, A/1, Bx/1	Normal	186

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Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	14		7	5	5:2E, 5:1X, 3:1E, 3:2X	Normal	50
	15		7	8	5:2E, 5:1X, 4:2E, 4:1X	Normal	50
	18		8	6	2:2E, 2:1X	Normal	50
	23		5	6	1:1E, 1:2X	Normal	50
	34		6	8	2:1E, 2:2X	Normal	50
	35		6	5	1:2E, 1:1X	Normal	50
	36		8	7	4:1E, 4:2X, 5:1E, 5:2X	Normal	50
	37		5	7	3:2E, 3:1X, 5:1E, 5:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)	Minimum possible cycle time (s)
1	(untitled)		1	NetworkDefault	120	74

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	40	0	0	Unknown	
	B	(untitled)	7	10	0	0	Unknown	
	C	(untitled)	25	300	0	0	Unknown	
	D	(untitled)	7	20	0	0	Unknown	
	E	(untitled)	5	10	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)	Run every N cycles	Probability of running (%)
1	1	A	1	1	100
	2	B	1	1	100
	3	C	1	1	100
	4	D	1	1	100
	5	E	1	1	100

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)	Single	1, 2, 3, 4, 5	27, 37, 72, 97, 110	74	
	2	(untitled)	Single	1, 2, 3, 5, 4	21, 42, 72, 98, 123	74	
	3	(untitled)	Single	1, 2, 4, 3, 5	24, 48, 77, 101, 0	74	
	4	(untitled)	Single	1, 2, 4, 5, 3	23, 45, 72, 97, 124	74	
	5	(untitled)	Single	1, 2, 5, 3, 4	23, 46, 74, 101, 123	74	
	6	(untitled)	Single	1, 2, 5, 4, 3	23, 46, 75, 102, 124	74	
	7	(untitled)	Single	1, 3, 2, 4, 5	23, 51, 78, 105, 0	79	
	8	(untitled)	Single	1, 3, 2, 5, 4	21, 47, 72, 98, 123	79	
	9	(untitled)	Single	1, 3, 4, 2, 5	23, 51, 74, 102, 0	79	
	10	(untitled)	Single	1, 3, 4, 5, 2	24, 53, 76, 102, 0	74	

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A			5	5	8
	B			5	5	8
	C	5	5		5	8
	D	5	5	5		8
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

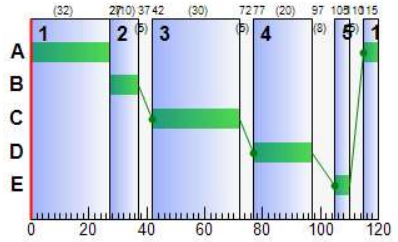
		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	42	72	30
A	2	1	1	D	77	97	20
B	1	1	1	A	115	27	32
B	2	1	1	A	115	27	32
C	1	1	1	C	42	72	30
C	2	1	1	D	77	97	20
D	2	1	1	A	115	27	32
D	3	1	1	A	115	27	32
D-1	1	1	1	A	115	27	32

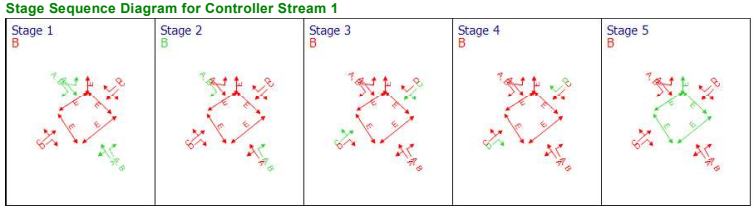
Phase Timings Diagram

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	101	-1	453	1800	30	138.14	25.96	99.51	246.88	9.10	255.98
		2	85	18	254	1800	20	110.50	9.33	116.67	110.74	3.44	8686.44
	Ax	1	0	Unrestricted	588	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	98	3	468	1800	32	103.25	23.09	44.26	190.60	8.28	198.88
		2	77	30	156	581	42	88.85	5.02	62.73	54.67	1.85	56.53
	Bx	1	0	Unrestricted	798	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	60	67	269	1800	30	47.05	7.12	88.94	49.92	2.67	52.60
		2	47	114	140	1800	20	50.81	4.31	8.27	28.06	1.59	29.65
	Cx	1	0	Unrestricted	459	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	2	118	-15	565	1800	32	324.76	60.97	70.12	723.77	15.91	739.68
		3	40	149	71	505	42	55.65	1.67	41.87	15.58	0.87	16.46
	Dx	1	0	Unrestricted	683	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	A-1	1	104	-3	732	1800	120	135.05	43.99	168.61	389.94	15.07	405.01
	B-1	1	35	188	624	1800	120	0.53	0.09	0.35	1.31	0.00	1.31
	C-1	1	26	289	409	1800	120	1.14	1.98	7.57	1.84	0.61	2.45
	D-1	1	103	-3	247	900	32	178.66	17.26	1417.64	174.07	4.01	178.08
	D-2	1	49	104	883	1800	120	0.96	0.24	0.30	3.35	0.00	3.35

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	A	1	453	450	16	✓	1800	450	101	✓	-1	1.05	30
		2	254	254	9	✓	1800	300	85		18	1.17	20
	Ax	1	588	588	7	✓	Unrestricted	Unrestricted	0		Unrestricted	0.77	120
	B	1	468	468	0		1800	480	98		3	0.00	32
		2	156	156	0		581	203	77		30	0.00	42
	Bx	1	798	798	93	✓	Unrestricted	Unrestricted	0		Unrestricted	0.46	120
	C	1	269	269	0		1800	450	60		67	0.16	30
		2	140	140	0		1800	300	47		114	0.09	20
	Cx	1	459	459	11	✓	Unrestricted	Unrestricted	0		Unrestricted	0.54	120
	D	2	565	480	0		1800	480	118	✓	-15	0.00	32
		3	71	71	0		505	177	40		149	0.00	42
	Dx	1	683	683	9	✓	Unrestricted	Unrestricted	0		Unrestricted	0.36	120
	A-1	1	732	707	0		1800	707	104	✓	-3	0.00	120
	B-1	1	624	624	0		1800	1800	35		188	0.00	120
	C-1	1	409	409	0		1800	1593	26		289	0.00	120
	D-1	1	247	240	0		900	240	103	✓	-3	0.00	32
	D-2	1	883	883	0		1800	1800	49		104	0.00	120

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Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	18.00	138.14	6.43	10.96	246.88	161.28	450.00	275.77	9.10
		2	4.80	110.50	4.91	2.89	110.74	107.86	200.00	74.03	3.44
	Ax	1	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	36.00	103.25	5.67	7.75	190.60	141.12	454.47	205.96	8.28
		2	4.80	88.85	2.03	1.82	54.67	94.68	108.55	39.15	1.85
	Bx	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	4.80	47.05	2.91	0.61	49.92	79.29	199.97	13.32	2.67
		2	36.00	50.81	1.77	0.20	28.06	90.80	121.11	6.01	1.59
	Cx	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	2	60.00	324.76	5.87	45.10	723.77	264.33	480.00	788.77	15.91
		3	2.40	55.65	0.89	0.21	15.58	98.03	65.57	4.04	0.87
	Dx	1	60.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	A-1	1	18.00	135.05	6.85	20.61	389.94	169.99	697.74	504.35	15.07
	B-1	1	18.00	0.53	0.00	0.09	1.31	0.00	0.00	0.00	0.00
	C-1	1	18.00	1.14	0.09	0.04	1.84	11.88	47.26	1.33	0.61
	D-1	1	1.00	178.66	2.93	9.32	174.07	188.77	239.47	213.59	4.01
	D-2	1	54.00	0.96	0.00	0.24	3.35	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	25.96	26.09	99.51	0.00	0.00	0.00	0.00	0.00	0.00	
		2	8.00	9.33	8.00	116.67	0.86	0.86	8572.26	0.00	0.00	0.00	
	Ax	1	0.00	0.00	26.09	0.00	0.00	0.00	0.00	35.00	0.00	35.00	
	B	1	0.00	23.09	52.17	44.26	0.00	0.00	0.00	0.00	0.00	0.00	
		2	8.00	5.02	8.00	62.73	0.00	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	C	1	8.00	7.12	8.00	88.94	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	4.31	52.17	8.27	0.00	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	13.00	0.00	13.00	
	D	2	0.00	60.97	86.96	70.12	0.00	0.00	0.00	0.00	0.00	0.00	
		3	4.00	1.67	4.00	41.87	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	86.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	A-1	1	0.00	43.99	26.09	168.61	6.87	0.00	0.00	0.00	72.86	72.86	
	B-1	1	0.00	0.09	26.09	0.35	0.00	0.00	0.00	0.00	0.00	0.00	
	C-1	1	0.00	1.98	26.09	7.57	0.00	0.00	0.00	0.00	13.80	13.80	
	D-1	1	0.00	17.26	1.22	1417.64	12.07	0.00	0.00	0.00	0.00	0.00	
	D-2	1	0.00	0.24	78.26	0.30	0.00	0.00	0.00	0.00	120.00	120.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	67.96	19.65	3.46	156.14
		2	10.16	7.91	1.28	112.12
	Ax	1	88.20	2.94	30.00	18.00
	B	1	140.40	18.10	7.76	139.25
		2	6.24	3.63	1.72	83.82
	Bx	1	239.54	7.98	30.00	36.00
	C	1	10.76	3.72	2.89	49.75
		2	42.00	3.38	12.44	86.81
	Cx	1	137.56	4.59	30.00	36.00
	D	2	282.50	60.39	4.68	384.76
		3	1.42	1.07	1.32	54.47
	Dx	1	341.54	11.38	30.00	60.00
	A-1	1	109.80	31.12	3.53	153.05
	B-1	1	93.60	3.21	29.14	18.53
	C-1	1	61.35	2.17	28.21	19.14
	D-1	1	1.73	12.33	0.14	179.66
	D-2	1	397.35	13.48	29.48	54.96

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Mean End of Green Queue EoTS (Veh)	Mean End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	31.18	16.18	31.12	1.00	0.00	255.98
		2	0.00	0.00	✓	9.17	2.50	9.17	1.00	8572.26	8686.44
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	25.29	9.95	21.39	1.00	0.00	198.88
		2	0.00	0.00	✓	4.95	1.32	4.79	1.00	0.00	56.53
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	7.11	0.45	7.11	1.00	0.00	52.60
		2	0.00	0.00	✓	4.31	0.20	3.97	1.00	0.00	29.65
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	2	0.00	0.00	✓	103.57	87.71	99.44	1.00	0.00	739.68
		3	0.00	0.00	✓	1.67	0.14	1.67	1.00	0.00	16.46
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	A-1	1	0.00	0.00	✓	58.12			1.00	0.00	405.01
	B-1	1	0.00	0.00	✓	0.09			1.00	0.00	1.31
	C-1	1	0.00	0.00	✓	1.98			1.00	0.00	2.45
	D-1	1	0.00	0.00	✓	22.60	14.67	20.53	1.00	0.00	178.08
	D-2	1	0.00	0.00	✓	0.24			1.00	0.00	3.35

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Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	11	50	11000	5	55.58	1.60	10.96	10.96
		2	11	50	11000	5	55.58	1.60	10.96	10.96
	2	1	11	50	11000	5	55.58	1.60	10.96	10.96
		2	11	50	11000	5	55.58	1.60	10.96	10.96
	3	1	11	50	11000	5	113.87	1.67	22.46	22.46
		2	11	50	11000	5	55.58	1.60	10.96	10.96
	4	1	11	50	11000	5	55.58	1.60	10.96	10.96
		2	11	50	11000	5	113.87	1.67	22.46	22.46
	5	1	22	100	11000	5	107.50	3.33	42.40	42.40
		2	22	100	11000	5	55.63	3.19	21.94	21.94

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	1	1	50	50	0		11000	458	11		817	0.00	5
		2	50	50	0		11000	458	11		817	0.00	5
	2	1	50	50	0		11000	458	11		817	0.00	5
		2	50	50	0		11000	458	11		817	0.00	5
	3	1	50	50	0		11000	458	11		817	1.92	5
		2	50	50	0		11000	458	11		817	0.00	5
	4	1	50	50	0		11000	458	11		817	0.00	5
		2	50	50	0		11000	458	11		817	1.92	5
	5	1	100	100	0		11000	458	22		358	1.91	5
		2	100	100	0		11000	458	22		358	0.00	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	13.00	55.58	0.77	0.00	10.96
		2	13.00	55.58	0.77	0.00	10.96
	2	1	11.67	55.58	0.77	0.00	10.96
		2	11.67	55.58	0.77	0.00	10.96
	3	1	12.67	113.87	1.58	0.00	22.46
		2	11.67	55.58	0.77	0.00	10.96
	4	1	11.00	55.58	0.77	0.00	10.96
		2	12.00	113.87	1.58	0.00	22.46
	5	1	6.00	107.50	2.99	0.00	42.40
		2	5.00	55.63	1.55	0.00	21.94

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	1	1	1.60	10.00	15.97	0.00	0.00	0.00
		2	1.60	10.00	15.97	0.00	0.00	0.00
	2	1	1.60	10.00	15.97	0.00	0.00	0.00
		2	1.60	10.00	15.97	0.00	0.00	0.00
	3	1	1.67	10.00	16.67	0.00	0.00	0.00
		2	1.60	10.00	15.97	0.00	0.00	0.00
	4	1	1.60	10.00	15.97	0.00	0.00	0.00
		2	1.67	10.00	16.67	0.00	0.00	0.00
	5	1	3.33	10.00	33.33	0.00	0.00	0.00
		2	3.19	10.00	31.94	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	0.95	0.95	1.00	68.58
		2	0.95	0.95	1.00	68.58
	2	1	0.85	0.93	0.91	67.25
		2	0.85	0.93	0.91	67.25
	3	1	0.95	1.76	0.54	126.53
		2	0.85	0.93	0.91	67.25
	4	1	0.80	0.92	0.87	66.58
		2	0.90	1.75	0.51	125.87
	5	1	0.90	3.15	0.29	113.50
		2	0.70	1.68	0.42	60.63

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	0.00	0.00	1.60	1.00	0.00	10.96
		2	0.00	0.00	1.60	1.00	0.00	10.96
	2	1	0.00	0.00	1.60	1.00	0.00	10.96
		2	0.00	0.00	1.60	1.00	0.00	10.96
	3	1	0.00	0.00	1.67	1.00	0.00	22.46
		2	0.00	0.00	1.60	1.00	0.00	10.96
	4	1	0.00	0.00	1.60	1.00	0.00	10.96
		2	0.00	0.00	1.67	1.00	0.00	22.46
	5	1	0.00	0.00	3.33	1.00	0.00	42.40
		2	0.00	0.00	3.19	1.00	0.00	21.94

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Collections

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	128.9	86.9	142.0	0.0	0.0	0.0	0.0
	2	145.4	0.0	252.6	475.7	0.0	0.0	0.0	0.0
	3	345.2	325.2	0.0	345.2	0.0	0.0	0.0	0.0
	4	193.8	217.8	120.4	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	68.6	180.8	0.0
	6	0.0	0.0	0.0	0.0	68.6	0.0	0.0	67.3
	7	0.0	0.0	0.0	0.0	187.2	0.0	0.0	186.5
	8	0.0	0.0	0.0	0.0	0.0	67.3	180.1	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Normal journey dist (m)	Bus journeydist (m)	Tram journey dist (m)	Pedestrian journey dist (m)	Calculated Total Flow (Veh/hr)	Avg journey time (s)	Avg journey dist (m)
14	7	5		50		187.17	26.00	26.00	26.00	26.00	50	187.17	26.00
15	7	8		50		186.50	25.00	25.00	25.00	25.00	50	186.50	25.00
16	2	4	565		475.72		1250.00	0.00	0.00	0.00	565	475.72	1250.00
17	2	3	247		252.62		607.00	0.00	0.00	0.00	247	252.62	607.00
18	8	6		50		67.25	17.00	17.00	17.00	17.00	50	67.25	17.00
19	4	2	352		217.78		950.00	0.00	0.00	0.00	352	217.78	950.00
20	3	1	283		345.19		600.00	0.00	0.00	0.00	283	345.19	600.00
23	5	6		50		68.58	19.00	19.00	19.00	19.00	50	68.58	19.00
34	6	8		50		67.25	17.00	17.00	17.00	17.00	50	67.25	17.00
35	6	5		50		68.58	19.00	19.00	19.00	19.00	50	68.58	19.00
36	8	7		50		180.08	25.00	25.00	25.00	25.00	50	180.08	25.00
37	5	7		50		180.75	26.00	26.00	26.00	26.00	50	180.75	26.00
39	2	1	71		145.43		770.00	0.00	0.00	0.00	71	145.43	770.00
40	1	4	140		141.96		750.00	0.00	0.00	0.00	140	141.96	750.00
41	1	2	77		128.89		690.00	0.00	0.00	0.00	77	128.89	690.00
42	1	3	192		86.89		340.00	0.00	0.00	0.00	192	86.89	340.00
43	4	3	156		120.35		340.00	0.00	0.00	0.00	156	120.35	340.00
44	4	1	116		193.78		750.00	0.00	0.00	0.00	116	193.78	750.00
45	3	2	263		325.17		690.00	0.00	0.00	0.00	263	325.17	690.00
46	3	4	186		345.19		600.00	0.00	0.00	0.00	186	345.19	600.00

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	C		453	1800	30	0.00	101	-1	156.14	138.14	161.28	
	2		1	1	D		254 <	1800	20	0.00	85	18	112.12	110.50	107.86	
Ax	1	(untitled)					588	Unrestricted	120	35.00	0	Unrestricted	18.00	0.00	0.00	
B	1	(untitled)	1	1	A		468	1800	32	0.00	98	3	139.25	103.25	141.12	
	2		1	1	A	B	156	581	42	0.00	77	30	83.82	88.85	94.68	
Bx	1	(untitled)					798	Unrestricted	120	0.00	0	Unrestricted	36.00	0.00	0.00	
C	1	(untitled)	1	1	C		269	1800	30	0.00	60	67	49.75	47.05	79.29	
	2		1	1	D		140	1800	20	0.00	47	114	86.81	50.81	90.80	
Cx	1	(untitled)					459	Unrestricted	120	13.00	0	Unrestricted	36.00	0.00	0.00	
D	2	(untitled)	1	1	A		565	1800	32	0.00	118	-15	384.76	324.76	264.33	
	3		1	1	A	B	71	505	42	0.00	40	149	54.47	55.65	98.03	
Dx	1	(untitled)					683	Unrestricted	120	0.00	0	Unrestricted	60.00	0.00	0.00	
A-1	1		1				732 <	1800	120	72.86	104	-3	153.05	135.05	169.99	
B-1	1		1				624	1800	120	0.00	35	188	18.53	0.53	0.00	
C-1	1		1				409	1800	120	13.80	26	289	19.14	1.14	11.88	
D-1	1	(untitled)	1	1	A		247 <	900	32	0.00	103	-3	179.66	178.66	188.77	
D-2	1		1				883	1800	120	120.00	49	104	54.96	0.96	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	C tr pe (£
1	1	(untitled)	1	1	E	50	11000	5	11	817	68.58	55.58	1.60	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	68.58	55.58	1.60	100	
2	1	(untitled)	1	1	E	50	11000	5	11	817	67.25	55.58	1.60	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	67.25	55.58	1.60	100	
3	1	(untitled)	1	1	E	50	11000	5	11	817	126.53	113.87	1.67	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	67.25	55.58	1.60	100	
4	1	(untitled)	1	1	E	50	11000	5	11	817	66.58	55.58	1.60	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	125.87	113.87	1.67	100	
5	1	(untitled)		1	E	100	11000	5	22	358	113.50	107.50	3.33	100	
	2	(untitled)		1	E	100	11000	5	22	358	60.63	55.63	3.19	100	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	2032.11	207.06	9.81	40.34	99.85	1990.73	63.41	8572.26	10626.39
Bus									
Tram									
Pedestrians	8.70	13.97	0.62	12.33	0.00	175.03	0.00	0.00	175.03
TOTAL	2040.81	221.04	9.23	52.66	99.85	2165.76	63.41	8572.26	10801.43

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

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A1 - Junction 3
D4 - 2032 Do Nothing, AM

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item wi wors unsignal PRC
1	05/03/2024 12:43:50	05/03/2024 12:43:50	0.77	08:00	120	9732.56	125.33	105.89	A-1/1	3	11	A/1	A-1/1

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set (s)	Optimise specific Demand Set (s)	Demand Set(s) to optimise	Include in report	Locked
Junction 3				✓	D7	✓	

Demand Set Details

Scenario name	Time Period name	Description	Composite	Demand sets	Start time (HH:mm)	Locked	Run automatically
2032 Do Nothing	AM	(untitled)			08:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120	74	74		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	2

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)	Missing stage transition options
10000.00	10000.00	10000.00	2	Assume banned

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from traffic model	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓			Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy (%)	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Standard accuracy Hill Climb	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
A-1			1
B-1			1
C-1			1
D-1	(untitled)		1
D-2			1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Auto-calculate cell saturation flow	Cell saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			150.00	✓	Sum of lanes	1800			✓		Normal	
	2				40.00	✓	Sum of lanes	1800	✓	1800	✓		Normal	
Ax	1	(untitled)			150.00								Normal	
B	1	(untitled)			300.00	✓	Sum of lanes	1800			✓		Normal	
	2				40.00	✓	Sum of lanes	1800	✓	1800	✓	✓	Normal	
Bx	1	(untitled)			300.00								Normal	
C	1	(untitled)			40.00	✓	Sum of lanes	1800	✓	1800	✓		Normal	
	2				300.00	✓	Sum of lanes	1800			✓		Normal	
Cx	1	(untitled)			300.00								Normal	
D	2	(untitled)			500.00	✓	Sum of lanes	1800			✓		Normal	
	3				20.00	✓	Sum of lanes	1800			✓	✓	Normal	
Dx	1	(untitled)			500.00								Normal	
A-1	1				150.00	✓	Directly entered	1800					Normal	
B-1	1				150.00	✓	Directly entered	1800					Normal	
C-1	1				150.00	✓	Directly entered	1800					Normal	
D-1	1	(untitled)			7.00	✓	Directly entered	1800			✓	✓	Normal	
D-2	1				450.00	✓	Sum of lanes	1800					Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
	2	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
C	1	1	(untitled)			1800
	2	1	(untitled)			1800
Cx	1	1	(untitled)			
D	2	1	(untitled)			1800
	3	1	(untitled)			1800
Dx	1	1	(untitled)			
A-1	1	1	(untitled)			
B-1	1	1	(untitled)			
C-1	1	1	(untitled)			
D-1	1	1	(untitled)			
D-2	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Queue limit (PCU)	Excess queue penalty (£)	Has degree of saturation limit
A	1	NetworkDefault	100	100	100		0.00				
	2	Flare	100	100	100		8.00	✓	8.00	9999.00	
Ax	1	NetworkDefault	100	100	100		0.00				
B	1	NetworkDefault	100	100	100		0.00				
	2	Flare	100	100	100		8.00	✓	8.00	99999.00	
Bx	1	NetworkDefault	100	100	100		0.00				
C	1	Flare	100	100	100		8.00	✓	8.00	99999.00	
	2	NetworkDefault	100	100	100		0.00				
Cx	1	NetworkDefault	100	100	100		0.00				
D	2	NetworkDefault	100	100	100		0.00				
	3	Flare	100	100	100		4.00	✓	4.00	99999.00	
Dx	1	NetworkDefault	100	100	100		0.00				
A-1	1	NetworkDefault	100	100	100		0.00				
B-1	1	NetworkDefault	100	100	100		0.00				
C-1	1	NetworkDefault	100	100	100		0.00				
D-1	1	NetworkDefault	100	100	100		0.00				
D-2	1	NetworkDefault	100	100	100		0.00				

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
A	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	8.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Ax	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
B	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	8.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Bx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
C	1	8.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Cx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
D	2	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	3	4.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Dx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
A-1	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
B-1	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
C-1	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
D-1	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
D-2	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	496	496
	2	268	268
Ax	1	602	602
B	1	453	453
	2	165	165
Bx	1	830	830
C	1	278	278
	2	148	148
Cx	1	478	478
D	2	485	485
	3	56	56
Dx	1	672	672
A-1	1	764	764
B-1	1	618	618
C-1	1	426	426
D-1	1	233	233
D-2	1	774	774

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Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	C		
	2	1	D		
B	1	1	A		
	2	1	A	✓	B
C	1	1	C		
	2	1	D		
D	2	1	A		
	3	1	A	✓	B
D-1	1	1	A		

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A-1	1	18.00	30.00
B-1	1	18.00	30.00
C-1	1	18.00	30.00
D-2	1	54.00	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A	1	1	A-1/1	A/1	18.00	30.00	✓	Straight	Straight Movement
	2	1	A-1/1	A/2	4.80	30.00	✓	Straight	Straight Movement
Ax	1	1	C/1	Ax/1	18.00	30.00	✓	Straight	Straight Movement
B	1	1	B-1/1	B/1	36.00	30.00	✓	Straight	Straight Movement
	2	1	B-1/1	B/2	4.80	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	36.00	30.00	✓	Nearside	42.61
C	1	1	C-1/1	C/1	4.80	30.00	✓	Straight	Straight Movement
	2	1	C-1/1	C/2	36.00	30.00	✓	Straight	Straight Movement
Cx	1	1	A/1	Cx/1	36.00	30.00	✓	Straight	Straight Movement
D	2	1	D-2/1	D/2	60.00	30.00	✓	Straight	Straight Movement
	3	1	D-2/1	D/3	2.40	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	60.00	30.00	✓	Nearside	25.27
D-1	1	1	D-2/1	D-1/1	1.00	30.00	✓	Straight	Straight Movement
Ax	1	2	D-1/1	Ax/1	18.00	30.00	✓	Nearside	43.60
Bx	1	2	C/2	Bx/1	36.00	30.00	✓	Offside	38.45
Cx	1	2	B/1	Cx/1	36.00	30.00	✓	Nearside	39.22
Dx	1	2	B/1	Dx/1	60.00	30.00	✓	Straight	Straight Movement
Ax	1	3	B/2	Ax/1	18.00	30.00	✓	Offside	70.68
Bx	1	3	D/2	Bx/1	36.00	30.00	✓	Straight	Straight Movement
Cx	1	3	D/3	Cx/1	36.00	30.00	✓	Offside	49.21
Dx	1	3	A/2	Dx/1	60.00	30.00	✓	Offside	37.07

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
(ALL)	(ALL)	AllTraffic		

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible
2		TrafficStream	D/2	100	0.00	
3		TrafficStream	B/1	100	0.00	
1		TrafficStream	B/2	100	0.00	

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	18.00	12.00	5.40
2	(untitled)		1		Farside	16.00	10.67	5.40
3	(untitled)		1		Farside	16.00	10.67	5.40
4	(untitled)		1		Farside	15.00	10.00	5.40
5	(untitled)				Farside	6.00	4.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	5:1	3:1	3.00	2.00	5.40
2	5:1	4:2	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25				

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	74	204	148	0	0	0	0
	2	56	0	233	485	0	0	0	0
	3	299	268	0	197	0	0	0	0
	4	123	330	165	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C-1/1	Cx/1	#0000FF
	2	(untitled)	D-2/1	Dx/1	#FF0000
	3	(untitled)	A-1/1	Ax/1	#00FF00
	4	(untitled)	B-1/1	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#008000
	7	(untitled)	5:2E	5:2X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	16		2	4	D-2/1, D/2, Bx/1	Normal	485
	17		2	3	D-2/1, D-1/1, Ax/1	Normal	233
	19		4	2	B-1/1, B/1, Dx/1	Normal	330
	20		3	1	A-1/1, A/1, Cx/1	Normal	299
	39		2	1	D-2/1, D/3, Cx/1	Normal	56
	40		1	4	C-1/1, C/2, Bx/1	Normal	148
	41		1	2	C-1/1, C/1, Dx/1	Normal	74
	42		1	3	C-1/1, C/1, Ax/1	Normal	204
	43		4	3	B-1/1, B/2, Ax/1	Normal	165
	44		4	1	B-1/1, B/1, Cx/1	Normal	123
	45		3	2	A-1/1, A/2, Dx/1	Normal	268
	46		3	4	A-1/1, A/1, Bx/1	Normal	197

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	14		7	5	5:2E, 5:1X, 3:1E, 3:2X	Normal	50
	15		7	8	5:2E, 5:1X, 4:2E, 4:1X	Normal	50
	18		8	6	2:2E, 2:1X	Normal	50
	23		5	6	1:1E, 1:2X	Normal	50
	34		6	8	2:1E, 2:2X	Normal	50
	35		6	5	1:2E, 1:1X	Normal	50
	36		8	7	4:1E, 4:2X, 5:1E, 5:2X	Normal	50
	37		5	7	3:2E, 3:1X, 5:1E, 5:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)	Minimum possible cycle time (s)
1	(untitled)		1	NetworkDefault	120	74

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	40	0	0	Unknown	
	B	(untitled)	7	10	0	0	Unknown	
	C	(untitled)	25	300	0	0	Unknown	
	D	(untitled)	7	20	0	0	Unknown	
	E	(untitled)	5	10	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)	Run every N cycles	Probability of running (%)
1	1	A	1	1	100
	2	B	1	1	100
	3	C	1	1	100
	4	D	1	1	100
	5	E	1	1	100

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Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)	Single	1, 2, 3, 4, 5	27, 37, 72, 97, 110	74	
	2	(untitled)	Single	1, 2, 3, 5, 4	21, 42, 72, 98, 123	74	
	3	(untitled)	Single	1, 2, 4, 3, 5	24, 48, 77, 101, 0	74	
	4	(untitled)	Single	1, 2, 4, 5, 3	23, 45, 72, 97, 124	74	
	5	(untitled)	Single	1, 2, 5, 3, 4	23, 46, 74, 101, 123	74	
	6	(untitled)	Single	1, 2, 5, 4, 3	23, 46, 75, 102, 124	74	
	7	(untitled)	Single	1, 3, 2, 4, 5	23, 51, 78, 105, 0	79	
	8	(untitled)	Single	1, 3, 2, 5, 4	21, 47, 72, 98, 123	79	
	9	(untitled)	Single	1, 3, 4, 2, 5	23, 51, 74, 102, 0	79	
	10	(untitled)	Single	1, 3, 4, 5, 2	24, 53, 76, 102, 0	74	

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A			5	5	8
	B			5	5	8
	C	5	5		5	8
	D	5	5	5		8
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

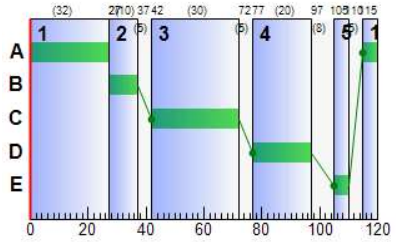
		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	42	72	30
A	2	1	1	D	77	97	20
B	1	1	1	A	115	27	32
B	2	1	1	A	115	27	32
C	1	1	1	C	42	72	30
C	2	1	1	D	77	97	20
D	2	1	1	A	115	27	32
D	3	1	1	A	115	27	32
D-1	1	1	1	A	115	27	32

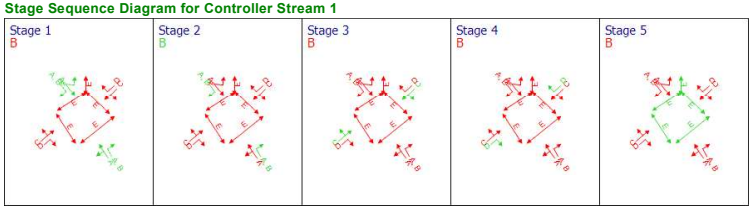
Phase Timings Diagram

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

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Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	104	-4	468	1800	30	171.02	30.88	118.37	315.99	10.32	326.32
		2	84	19	253	1800	20	109.48	9.25	115.61	109.30	3.41	8006.57
	Ax	1	0	Unrestricted	602	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	94	6	453	1800	32	85.97	20.11	38.55	153.61	7.32	160.93
		2	81	23	165	581	42	99.83	5.85	73.13	64.97	2.14	67.11
	Bx	1	0	Unrestricted	807	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	62	62	278	1800	30	47.39	7.17	89.66	51.97	2.70	54.66
		2	49	103	148	1800	20	51.80	4.53	8.69	30.24	1.68	31.92
	Cx	1	0	Unrestricted	450	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	2	101	-1	485	1800	32	131.52	27.72	31.88	251.60	9.69	261.29
		3	32	215	56	505	42	52.06	1.29	32.18	11.50	0.67	12.17
	Dx	1	0	Unrestricted	657	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	A-1	1	106	-6	764	1800	120	162.41	51.41	197.07	489.42	16.97	506.39
	B-1	1	34	191	618	1800	120	0.52	0.09	0.34	1.27	0.00	1.27
	C-1	1	28	264	426	1800	120	1.63	2.42	9.27	2.73	0.81	3.54
	D-1	1	97	3	233	900	32	130.35	13.26	1088.84	119.79	3.26	123.05
	D-2	1	43	133	774	1800	120	0.75	0.16	0.21	2.30	0.00	2.30

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	A	1	468	450	28	✓	1800	450	104	✓	-4	1.04	30
		2	253	253	15	✓	1800	300	84		19	1.16	20
	Ax	1	602	602	0		Unrestricted	Unrestricted	0		Unrestricted	0.76	120
	B	1	453	453	0		1800	480	94		6	0.00	32
		2	165	165	0		581	203	81		23	0.00	42
	Bx	1	807	807	23	✓	Unrestricted	Unrestricted	0		Unrestricted	0.45	120
	C	1	278	278	0		1800	450	62		62	0.21	30
		2	148	148	0		1800	300	49		103	0.12	20
	Cx	1	450	450	28	✓	Unrestricted	Unrestricted	0		Unrestricted	0.55	120
	D	2	485	480	0		1800	480	101	✓	-1	0.00	32
		3	56	56	0		505	177	32		215	0.00	42
	Dx	1	657	657	15	✓	Unrestricted	Unrestricted	0		Unrestricted	0.37	120
	A-1	1	764	722	0		1800	722	106	✓	-6	0.00	120
	B-1	1	618	618	0		1800	1800	34		191	0.00	120
	C-1	1	426	426	0		1800	1549	28		264	0.00	120
	D-1	1	233	233	0		900	240	97		3	0.00	32
	D-2	1	774	774	0		1800	1800	43		133	0.00	120

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	18.00	171.02	6.37	15.88	315.99	182.99	450.00	373.44	10.32
		2	4.80	109.48	4.88	2.81	109.30	107.40	200.00	71.82	3.41
	Ax	1	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	36.00	85.97	5.43	5.39	153.61	128.86	435.63	148.13	7.32
		2	4.80	99.83	2.17	2.40	64.97	103.21	115.16	55.14	2.14
	Bx	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	4.80	47.39	2.99	0.67	51.97	77.33	199.99	14.98	2.70
		2	36.00	51.80	1.89	0.24	30.24	90.35	126.67	7.05	1.68
	Cx	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	2	60.00	131.52	5.87	11.85	251.60	160.98	475.05	297.67	9.69
		3	2.40	52.06	0.67	0.14	11.50	95.44	51.25	2.20	0.67
	Dx	1	60.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	A-1	1	18.00	162.41	6.91	27.56	489.42	187.61	715.12	638.53	16.97
	B-1	1	18.00	0.52	0.00	0.09	1.27	0.00	0.00	0.00	0.00
	C-1	1	18.00	1.63	0.14	0.05	2.73	15.17	63.04	1.56	0.81
	D-1	1	1.00	130.35	2.82	5.62	119.79	157.99	226.68	141.43	3.26
	D-2	1	54.00	0.75	0.00	0.16	2.30	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	30.88	26.09	118.37	1.92	0.00	0.00	0.00	0.00	0.00	
		2	8.00	9.25	8.00	115.61	0.79	0.79	7893.87	0.00	0.00	0.00	
	Ax	1	0.00	0.00	26.09	0.00	0.00	0.00	0.00	35.00	0.00	35.00	
	B	1	0.00	20.11	52.17	38.55	0.00	0.00	0.00	0.00	0.00	0.00	
		2	8.00	5.85	8.00	73.13	0.00	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	C	1	8.00	7.17	8.00	89.66	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	4.53	52.17	8.69	0.00	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	13.00	0.00	13.00	
	D	2	0.00	27.72	86.96	31.88	0.00	0.00	0.00	0.00	0.00	0.00	
		3	4.00	1.29	4.00	32.18	0.00	0.00	0.00	8.00	0.00	8.00	
	Dx	1	0.00	0.00	86.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	A-1	1	0.00	51.41	26.09	197.07	13.40	0.00	0.00	0.00	72.00	72.00	
	B-1	1	0.00	0.09	26.09	0.34	0.00	0.00	0.00	0.00	0.00	0.00	
	C-1	1	0.00	2.42	26.09	9.27	0.00	0.00	0.00	0.00	16.73	16.73	
	D-1	1	0.00	13.26	1.22	1088.84	8.19	0.00	0.00	0.00	0.00	0.00	
	D-2	1	0.00	0.16	78.26	0.21	0.00	0.00	0.00	0.00	120.00	120.00	

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Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	70.26	24.60	2.86	189.02
		2	10.12	7.80	1.30	110.97
	Ax	1	90.30	3.01	30.00	18.00
	B	1	135.90	15.35	8.85	121.97
		2	6.60	4.40	1.50	96.07
	Bx	1	242.02	8.07	30.00	36.00
	C	1	11.12	3.87	2.87	50.09
		2	44.40	3.61	12.30	87.80
	Cx	1	135.08	4.50	30.00	36.00
	D	2	242.50	25.80	9.40	191.52
		3	1.12	0.78	1.43	50.36
	Dx	1	328.55	10.95	30.00	60.00
	A-1	1	114.60	38.29	2.99	180.41
	B-1	1	92.70	3.18	29.15	18.52
	C-1	1	63.90	2.32	27.52	19.63
	D-1	1	1.63	8.50	0.19	131.35
	D-2	1	348.30	11.77	29.59	54.75

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Mean End of Green Queue EoTS (Veh)	Mean End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	41.58	26.58	41.50	1.00	0.00	326.32
		2	0.00	0.00	✓	9.09	2.43	9.09	1.00	7893.87	8006.57
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	20.97	6.25	17.33	1.00	0.00	160.93
		2	0.00	0.00	✓	5.71	1.87	5.54	1.00	0.00	67.11
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	7.17	0.50	7.17	1.00	0.00	54.66
		2	0.00	0.00	✓	4.53	0.24	4.16	1.00	0.00	31.92
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	2	0.00	0.00	✓	33.65	17.79	29.52	1.00	0.00	261.29
		3	0.00	0.00	✓	1.29	0.07	1.29	1.00	0.00	12.17
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	A-1	1	0.00	0.00	✓	73.46			1.00	0.00	506.39
	B-1	1	0.00	0.00	✓	0.09			1.00	0.00	1.27
	C-1	1	0.00	0.00	✓	2.42			1.00	0.00	3.54
	D-1	1	0.00	0.00	✓	15.01	7.38	13.07	1.00	0.00	123.05
	D-2	1	0.00	0.00	✓	0.16			1.00	0.00	2.30

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	11	50	11000	5	55.58	1.60	10.96	10.96
		2	11	50	11000	5	55.58	1.60	10.96	10.96
	2	1	11	50	11000	5	55.58	1.60	10.96	10.96
		2	11	50	11000	5	55.58	1.60	10.96	10.96
	3	1	11	50	11000	5	113.87	1.67	22.46	22.46
		2	11	50	11000	5	55.58	1.60	10.96	10.96
	4	1	11	50	11000	5	55.58	1.60	10.96	10.96
		2	11	50	11000	5	113.87	1.67	22.46	22.46
	5	1	22	100	11000	5	107.50	3.33	42.40	42.40
		2	22	100	11000	5	55.63	3.19	21.94	21.94

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	1	1	50	50	0		11000	458	11		817	0.00	5
		2	50	50	0		11000	458	11		817	0.00	5
	2	1	50	50	0		11000	458	11		817	0.00	5
		2	50	50	0		11000	458	11		817	0.00	5
	3	1	50	50	0		11000	458	11		817	1.92	5
		2	50	50	0		11000	458	11		817	0.00	5
	4	1	50	50	0		11000	458	11		817	0.00	5
		2	50	50	0		11000	458	11		817	1.92	5
	5	1	100	100	0		11000	458	22		358	1.91	5
		2	100	100	0		11000	458	22		358	0.00	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	13.00	55.58	0.77	0.00	10.96
		2	13.00	55.58	0.77	0.00	10.96
	2	1	11.67	55.58	0.77	0.00	10.96
		2	11.67	55.58	0.77	0.00	10.96
	3	1	12.67	113.87	1.58	0.00	22.46
		2	11.67	55.58	0.77	0.00	10.96
	4	1	11.00	55.58	0.77	0.00	10.96
		2	12.00	113.87	1.58	0.00	22.46
	5	1	6.00	107.50	2.99	0.00	42.40
		2	5.00	55.63	1.55	0.00	21.94

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Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	1	1	1.60	10.00	15.97	0.00	0.00	0.00
		2	1.60	10.00	15.97	0.00	0.00	0.00
	2	1	1.60	10.00	15.97	0.00	0.00	0.00
		2	1.60	10.00	15.97	0.00	0.00	0.00
	3	1	1.67	10.00	16.67	0.00	0.00	0.00
		2	1.60	10.00	15.97	0.00	0.00	0.00
	4	1	1.60	10.00	15.97	0.00	0.00	0.00
		2	1.67	10.00	16.67	0.00	0.00	0.00
	5	1	3.33	10.00	33.33	0.00	0.00	0.00
		2	3.19	10.00	31.94	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	0.95	0.95	1.00	68.58
		2	0.95	0.95	1.00	68.58
	2	1	0.85	0.93	0.91	67.25
		2	0.85	0.93	0.91	67.25
	3	1	0.95	1.76	0.54	126.53
		2	0.85	0.93	0.91	67.25
	4	1	0.80	0.92	0.87	66.58
		2	0.90	1.75	0.51	125.87
	5	1	0.90	3.15	0.29	113.50
		2	0.70	1.68	0.42	60.63

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	0.00	0.00	1.60	1.00	0.00	10.96
		2	0.00	0.00	1.60	1.00	0.00	10.96
	2	1	0.00	0.00	1.60	1.00	0.00	10.96
		2	0.00	0.00	1.60	1.00	0.00	10.96
	3	1	0.00	0.00	1.67	1.00	0.00	22.46
		2	0.00	0.00	1.60	1.00	0.00	10.96
	4	1	0.00	0.00	1.60	1.00	0.00	10.96
		2	0.00	0.00	1.67	1.00	0.00	22.46
	5	1	0.00	0.00	3.33	1.00	0.00	42.40
		2	0.00	0.00	3.19	1.00	0.00	21.94

Collections

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	129.7	87.7	143.4	0.0	0.0	0.0	0.0
	2	141.1	0.0	204.1	282.3	0.0	0.0	0.0	0.0
	3	405.4	351.4	0.0	405.4	0.0	0.0	0.0	0.0
	4	176.5	200.5	132.6	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	68.6	180.8	0.0
	6	0.0	0.0	0.0	0.0	68.6	0.0	0.0	67.3
	7	0.0	0.0	0.0	0.0	187.2	0.0	0.0	186.5
	8	0.0	0.0	0.0	0.0	0.0	67.3	180.1	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Normal journey dist (m)	Bus journeydist (m)	Tram journey dist (m)	Pedestrian journey dist (m)	Calculated Total Flow (Veh/hr)	Avg journey time (s)	Avg journey dist (m)
14	7	5		50		187.17	26.00	26.00	26.00	26.00	50	187.17	26.00
15	7	8		50		186.50	25.00	25.00	25.00	25.00	50	186.50	25.00
16	2	4	485		282.27		1250.00	0.00	0.00	0.00	485	282.27	1250.00
17	2	3	233		204.10		607.00	0.00	0.00	0.00	233	204.10	607.00
18	8	6		50		67.25	17.00	17.00	17.00	17.00	50	67.25	17.00
19	4	2	330		200.49		950.00	0.00	0.00	0.00	330	200.49	950.00
20	3	1	299		405.43		600.00	0.00	0.00	0.00	299	405.43	600.00
23	5	6		50		68.58	19.00	19.00	19.00	19.00	50	68.58	19.00
34	6	8		50		67.25	17.00	17.00	17.00	17.00	50	67.25	17.00
35	6	5		50		68.58	19.00	19.00	19.00	19.00	50	68.58	19.00
36	8	7		50		180.08	25.00	25.00	25.00	25.00	50	180.08	25.00
37	5	7		50		180.75	26.00	26.00	26.00	26.00	50	180.75	26.00
39	2	1	56		141.11		770.00	0.00	0.00	0.00	56	141.11	770.00
40	1	4	148		143.42		750.00	0.00	0.00	0.00	148	143.42	750.00
41	1	2	74		129.72		690.00	0.00	0.00	0.00	74	129.72	690.00
42	1	3	204		87.72		340.00	0.00	0.00	0.00	204	87.72	340.00
43	4	3	165		132.59		340.00	0.00	0.00	0.00	165	132.59	340.00
44	4	1	123		176.49		750.00	0.00	0.00	0.00	123	176.49	750.00
45	3	2	268		351.37		690.00	0.00	0.00	0.00	268	351.37	690.00
46	3	4	197		405.43		600.00	0.00	0.00	0.00	197	405.43	600.00

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Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	C		468 <	1800	30	0.00	104	-4	189.02	171.02	182.99	
	2		1	1	D		253 <	1800	20	0.00	84	19	110.97	109.48	107.40	
Ax	1	(untitled)					602	Unrestricted	120	35.00	0	Unrestricted	18.00	0.00	0.00	
B	1	(untitled)	1	1	A		453	1800	32	0.00	94	6	121.97	85.97	128.86	
	2		1	1	A	B	165	581	42	0.00	81	23	96.07	99.83	103.21	
Bx	1	(untitled)					807	Unrestricted	120	0.00	0	Unrestricted	36.00	0.00	0.00	
C	1	(untitled)	1	1	C		278	1800	30	0.00	62	62	50.09	47.39	77.33	
	2		1	1	D		148	1800	20	0.00	49	103	87.80	51.80	90.35	
Cx	1	(untitled)					450	Unrestricted	120	13.00	0	Unrestricted	36.00	0.00	0.00	
D	2	(untitled)	1	1	A		485	1800	32	0.00	101	-1	191.52	131.52	160.98	
	3		1	1	A	B	56	505	42	8.00	32	215	50.36	52.06	95.44	
Dx	1	(untitled)					657	Unrestricted	120	0.00	0	Unrestricted	60.00	0.00	0.00	
A-1	1		1				764 <	1800	120	72.00	106	-6	180.41	162.41	187.61	
B-1	1		1				618	1800	120	0.00	34	191	18.52	0.52	0.00	
C-1	1		1				426	1800	120	16.73	28	264	19.63	1.63	15.17	
D-1	1	(untitled)	1	1	A		233 <	900	32	0.00	97	3	131.35	130.35	157.99	
D-2	1		1				774	1800	120	120.00	43	133	54.75	0.75	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	C tr pe (£
1	1	(untitled)	1	1	E	50	11000	5	11	817	68.58	55.58	1.60	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	68.58	55.58	1.60	100	
2	1	(untitled)	1	1	E	50	11000	5	11	817	67.25	55.58	1.60	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	67.25	55.58	1.60	100	
3	1	(untitled)	1	1	E	50	11000	5	11	817	126.53	113.87	1.67	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	67.25	55.58	1.60	100	
4	1	(untitled)	1	1	E	50	11000	5	11	817	66.58	55.58	1.60	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	125.87	113.87	1.67	100	
5	1	(untitled)		1	E	100	11000	5	22	358	113.50	107.50	3.33	100	
	2	(untitled)		1	E	100	11000	5	22	358	60.63	55.63	3.19	100	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	1939.11	176.80	10.97	40.14	72.87	1604.70	58.96	7893.87	9557.52
Bus									
Tram									
Pedestrians	8.70	13.97	0.62	12.33	0.00	175.03	0.00	0.00	175.03
TOTAL	1947.81	190.78	10.21	52.47	72.87	1779.73	58.96	7893.87	9732.56

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A1 - Junction 3
D5 - 2032 Do Something, AM

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item wi wors unsignal PRC
1	05/03/2024 12:43:50	05/03/2024 12:43:51	1.02	08:00	120	11399.51	186.43	120.63	D/2	5	19	D/2	A-1/1

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set (s)	Optimise specific Demand Set (s)	Demand Set(s) to optimise	Include in report	Locked
Junction 3				✓	D7	✓	

Demand Set Details

Scenario name	Time Period name	Description	Composite	Demand sets	Start time (HH:mm)	Locked	Run automatically
2032 Do Something	AM	(untitled)			08:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120	74	74		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	2

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)	Missing stage transition options
10000.00	10000.00	10000.00	2	Assume banned

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from traffic model	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓			Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy (%)	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Standard accuracy Hill Climb	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

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Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
A-1			1
B-1			1
C-1			1
D-1	(untitled)		1
D-2			1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Auto-calculate cell saturation flow	Cell saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			150.00	✓	Sum of lanes	1800			✓		Normal	
	2				40.00	✓	Sum of lanes	1800	✓	1800	✓		Normal	
Ax	1	(untitled)			150.00								Normal	
B	1	(untitled)			300.00	✓	Sum of lanes	1800			✓		Normal	
	2				40.00	✓	Sum of lanes	1800	✓	1800	✓	✓	Normal	
Bx	1	(untitled)			300.00								Normal	
C	1	(untitled)			40.00	✓	Sum of lanes	1800	✓	1800	✓		Normal	
	2				300.00	✓	Sum of lanes	1800			✓		Normal	
Cx	1	(untitled)			300.00								Normal	
D	2	(untitled)			500.00	✓	Sum of lanes	1800			✓		Normal	
	3				20.00	✓	Sum of lanes	1800			✓	✓	Normal	
Dx	1	(untitled)			500.00								Normal	
A-1	1				150.00	✓	Directly entered	1800					Normal	
B-1	1				150.00	✓	Directly entered	1800					Normal	
C-1	1				150.00	✓	Directly entered	1800					Normal	
D-1	1	(untitled)			7.00	✓	Directly entered	1800			✓	✓	Normal	
D-2	1				450.00	✓	Sum of lanes	1800					Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
	2	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
C	1	1	(untitled)			1800
	2	1	(untitled)			1800
Cx	1	1	(untitled)			
D	2	1	(untitled)			1800
	3	1	(untitled)			1800
Dx	1	1	(untitled)			
A-1	1	1	(untitled)			
B-1	1	1	(untitled)			
C-1	1	1	(untitled)			
D-1	1	1	(untitled)			
D-2	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Queue limit (PCU)	Excess queue penalty (£)	Has degree of saturation limit
A	1	NetworkDefault	100	100	100		0.00				
	2	Flare	100	100	100		8.00	✓	8.00	9999.00	
Ax	1	NetworkDefault	100	100	100		0.00				
B	1	NetworkDefault	100	100	100		0.00				
	2	Flare	100	100	100		8.00	✓	8.00	99999.00	
Bx	1	NetworkDefault	100	100	100		0.00				
C	1	Flare	100	100	100		8.00	✓	8.00	99999.00	
	2	NetworkDefault	100	100	100		0.00				
Cx	1	NetworkDefault	100	100	100		0.00				
D	2	NetworkDefault	100	100	100		0.00				
	3	Flare	100	100	100		4.00	✓	4.00	99999.00	
Dx	1	NetworkDefault	100	100	100		0.00				
A-1	1	NetworkDefault	100	100	100		0.00				
B-1	1	NetworkDefault	100	100	100		0.00				
C-1	1	NetworkDefault	100	100	100		0.00				
D-1	1	NetworkDefault	100	100	100		0.00				
D-2	1	NetworkDefault	100	100	100		0.00				

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
A	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	8.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Ax	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
B	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	8.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Bx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
C	1	8.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Cx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
D	2	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	3	4.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Dx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
A-1	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
B-1	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
C-1	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
D-1	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
D-2	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	496	496
	2	277	277
Ax	1	627	627
B	1	489	489
	2	165	165
Bx	1	924	924
C	1	284	284
	2	148	148
Cx	1	495	495
D	2	579	579
	3	73	73
Dx	1	723	723
A-1	1	773	773
B-1	1	654	654
C-1	1	432	432
D-1	1	258	258
D-2	1	910	910

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	C		
	2	1	D		
B	1	1	A		
	2	1	A	✓	B
C	1	1	C		
	2	1	D		
D	2	1	A		
	3	1	A	✓	B
D-1	1	1	A		

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A-1	1	18.00	30.00
B-1	1	18.00	30.00
C-1	1	18.00	30.00
D-2	1	54.00	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A	1	1	A-1/1	A/1	18.00	30.00	✓	Straight	Straight Movement
	2	1	A-1/1	A/2	4.80	30.00	✓	Straight	Straight Movement
Ax	1	1	C/1	Ax/1	18.00	30.00	✓	Straight	Straight Movement
B	1	1	B-1/1	B/1	36.00	30.00	✓	Straight	Straight Movement
	2	1	B-1/1	B/2	4.80	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	36.00	30.00	✓	Nearside	42.61
C	1	1	C-1/1	C/1	4.80	30.00	✓	Straight	Straight Movement
	2	1	C-1/1	C/2	36.00	30.00	✓	Straight	Straight Movement
Cx	1	1	A/1	Cx/1	36.00	30.00	✓	Straight	Straight Movement
D	2	1	D-2/1	D/2	60.00	30.00	✓	Straight	Straight Movement
	3	1	D-2/1	D/3	2.40	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	60.00	30.00	✓	Nearside	25.27
									Straight
Ax	1	2	D-1/1	Ax/1	18.00	30.00	✓	Nearside	43.60
Bx	1	2	C/2	Bx/1	36.00	30.00	✓	Offside	38.45
Cx	1	2	B/1	Cx/1	36.00	30.00	✓	Nearside	39.22
Dx	1	2	B/1	Dx/1	60.00	30.00	✓	Straight	Straight Movement
Ax	1	3	B/2	Ax/1	18.00	30.00	✓	Offside	70.68
Bx	1	3	D/2	Bx/1	36.00	30.00	✓	Straight	Straight Movement
Cx	1	3	D/3	Cx/1	36.00	30.00	✓	Offside	49.21
Dx	1	3	A/2	Dx/1	60.00	30.00	✓	Offside	37.07

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
(ALL)	(ALL)	AllTraffic		

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Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible
2		TrafficStream	D/2	100	0.00	
3		TrafficStream	B/1	100	0.00	
1		TrafficStream	B/2	100	0.00	

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	18.00	12.00	5.40
2	(untitled)		1		Farside	16.00	10.67	5.40
3	(untitled)		1		Farside	16.00	10.67	5.40
4	(untitled)		1		Farside	15.00	10.00	5.40
5	(untitled)				Farside	6.00	4.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	5:1	3:1	3.00	2.00	5.40
2	5:1	4:2	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25				

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	80	204	148	0	0	0	0
	2	73	0	258	579	0	0	0	0
	3	299	277	0	197	0	0	0	0
	4	123	366	165	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C-1/1	Cx/1	#0000FF
	2	(untitled)	D-2/1	Dx/1	#FF0000
	3	(untitled)	A-1/1	Ax/1	#00FF00
	4	(untitled)	B-1/1	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#008000
	7	(untitled)	5:2E	5:2X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	16		2	4	D-2/1, D/2, Bx/1	Normal	579
	17		2	3	D-2/1, D-1/1, Ax/1	Normal	258
	19		4	2	B-1/1, B/1, Dx/1	Normal	366
	20		3	1	A-1/1, A/1, Cx/1	Normal	299
	39		2	1	D-2/1, D/3, Cx/1	Normal	73
	40		1	4	C-1/1, C/2, Bx/1	Normal	148
	41		1	2	C-1/1, C/1, Dx/1	Normal	80
	42		1	3	C-1/1, C/1, Ax/1	Normal	204
	43		4	3	B-1/1, B/2, Ax/1	Normal	165
	44		4	1	B-1/1, B/1, Cx/1	Normal	123
	45		3	2	A-1/1, A/2, Dx/1	Normal	277
	46		3	4	A-1/1, A/1, Bx/1	Normal	197

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	14		7	5	5:2E, 5:1X, 3:1E, 3:2X	Normal	50
	15		7	8	5:2E, 5:1X, 4:2E, 4:1X	Normal	50
	18		8	6	2:2E, 2:1X	Normal	50
	23		5	6	1:1E, 1:2X	Normal	50
	34		6	8	2:1E, 2:2X	Normal	50
	35		6	5	1:2E, 1:1X	Normal	50
	36		8	7	4:1E, 4:2X, 5:1E, 5:2X	Normal	50
	37		5	7	3:2E, 3:1X, 5:1E, 5:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)	Minimum possible cycle time (s)
1	(untitled)		1	NetworkDefault	120	74

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	40	0	0	Unknown	
	B	(untitled)	7	10	0	0	Unknown	
	C	(untitled)	25	300	0	0	Unknown	
	D	(untitled)	7	20	0	0	Unknown	
	E	(untitled)	5	10	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)	Run every N cycles	Probability of running (%)
1	1	A	1	1	100
	2	B	1	1	100
	3	C	1	1	100
	4	D	1	1	100
	5	E	1	1	100

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)	Single	1, 2, 3, 4, 5	27, 37, 72, 97, 110	74	
	2	(untitled)	Single	1, 2, 3, 5, 4	21, 42, 72, 98, 123	74	
	3	(untitled)	Single	1, 2, 4, 3, 5	24, 48, 77, 101, 0	74	
	4	(untitled)	Single	1, 2, 4, 5, 3	23, 45, 72, 97, 124	74	
	5	(untitled)	Single	1, 2, 5, 3, 4	23, 46, 74, 101, 123	74	
	6	(untitled)	Single	1, 2, 5, 4, 3	23, 46, 75, 102, 124	74	
	7	(untitled)	Single	1, 3, 2, 4, 5	23, 51, 78, 105, 0	79	
	8	(untitled)	Single	1, 3, 2, 5, 4	21, 47, 72, 98, 123	79	
	9	(untitled)	Single	1, 3, 4, 2, 5	23, 51, 74, 102, 0	79	
	10	(untitled)	Single	1, 3, 4, 5, 2	24, 53, 76, 102, 0	74	

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A			5	5	8
	B			5	5	8
	C	5	5		5	8
	D	5	5	5		8
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

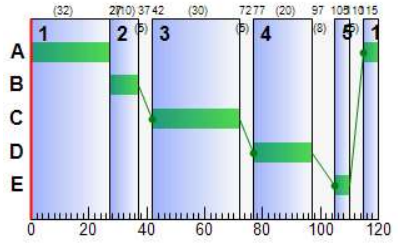
		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	42	72	30
A	2	1	1	D	77	97	20
B	1	1	1	A	115	27	32
B	2	1	1	A	115	27	32
C	1	1	1	C	42	72	30
C	2	1	1	D	77	97	20
D	2	1	1	A	115	27	32
D	3	1	1	A	115	27	32
D-1	1	1	1	A	115	27	32

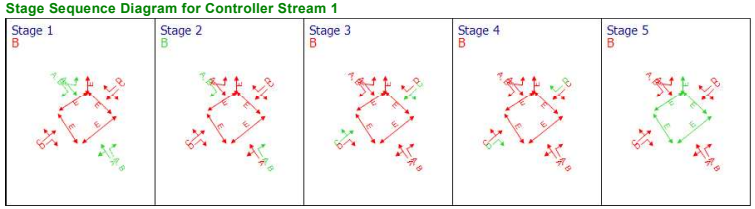
Phase Timings Diagram

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	101	-1	455	1800	30	142.40	26.58	101.91	255.71	9.26	264.98
		2	85	18	254	1800	20	110.60	9.35	116.87	110.92	3.44	8795.57
	Ax	1	0	Unrestricted	609	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	102	-2	489	1800	32	139.27	28.92	55.43	268.63	10.03	278.66
		2	81	23	165	581	42	99.83	5.85	73.13	64.97	2.14	67.11
	Bx	1	0	Unrestricted	807	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	63	58	284	1800	30	47.61	7.21	90.18	53.34	2.71	56.05
		2	49	103	148	1800	20	51.94	4.50	8.62	30.32	1.66	31.98
	Cx	1	0	Unrestricted	465	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	2	121	-17	579	1800	32	358.39	67.64	77.79	818.50	16.74	835.24
		3	41	142	73	505	42	56.14	1.73	43.22	16.16	0.90	17.06
	Dx	1	0	Unrestricted	694	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	A-1	1	109	-8	773	1800	120	201.94	59.93	229.74	615.73	18.65	634.38
	B-1	1	36	175	654	1800	120	0.57	0.10	0.40	1.47	0.00	1.47
	C-1	1	28	254	432	1800	120	1.98	2.82	10.79	3.37	0.94	4.31
	D-1	1	108	-7	258	900	32	225.45	21.16	1737.89	229.43	4.57	234.00
	D-2	1	51	98	910	1800	120	1.02	0.26	0.33	3.66	0.00	3.66

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	A	1	455	450	41	✓	1800	450	101	✓	-1	1.05	30
		2	254	254	23	✓	1800	300	85		18	1.17	20
	Ax	1	609	609	18	✓	Unrestricted	Unrestricted	0		Unrestricted	0.75	120
	B	1	489	480	0		1800	480	102	✓	-2	0.00	32
		2	165	165	0		581	203	81		23	0.00	42
	Bx	1	807	807	117	✓	Unrestricted	Unrestricted	0		Unrestricted	0.45	120
	C	1	284	284	0		1800	450	63		58	0.24	30
		2	148	148	0		1800	300	49		103	0.15	20
	Cx	1	465	465	30	✓	Unrestricted	Unrestricted	0		Unrestricted	0.54	120
	D	2	579	480	0		1800	480	121	✓	-17	0.00	32
		3	73	73	0		505	177	41		142	0.00	42
	Dx	1	694	694	29	✓	Unrestricted	Unrestricted	0		Unrestricted	0.36	120
	A-1	1	773	710	0		1800	710	109	✓	-8	0.00	120
	B-1	1	654	654	0		1800	1800	36		175	0.00	120
	C-1	1	432	432	0		1800	1531	28		254	0.00	120
	D-1	1	258	240	0		900	240	108	✓	-7	0.00	32
	D-2	1	910	910	0		1800	1800	51		98	0.00	120

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Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	18.00	142.40	6.42	11.58	255.71	164.20	450.00	288.90	9.26
		2	4.80	110.60	4.91	2.91	110.92	107.94	200.00	74.45	3.44
	Ax	1	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	36.00	139.27	5.87	13.05	268.63	166.58	476.91	322.65	10.03
		2	4.80	99.83	2.17	2.40	64.97	103.21	115.16	55.14	2.14
	Bx	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	4.80	47.61	3.04	0.71	53.34	76.13	200.00	16.21	2.71
		2	36.00	51.94	1.90	0.24	30.32	89.47	125.36	7.05	1.66
	Cx	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	2	60.00	358.39	5.87	51.77	818.50	278.16	480.00	855.18	16.74
		3	2.40	56.14	0.92	0.22	16.16	98.31	67.41	4.35	0.90
	Dx	1	60.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	A-1	1	18.00	201.94	6.88	36.48	615.73	209.59	702.75	784.29	18.65
	B-1	1	18.00	0.57	0.00	0.10	1.47	0.00	0.00	0.00	0.00
	C-1	1	18.00	1.98	0.18	0.06	3.37	17.44	73.70	1.66	0.94
	D-1	1	1.00	225.45	2.93	13.22	229.43	215.33	240.00	276.80	4.57
	D-2	1	54.00	1.02	0.00	0.26	3.66	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	26.58	26.09	101.91	0.15	0.00	0.00	0.00	0.00	0.00	
		2	8.00	9.35	8.00	116.87	0.87	0.87	8681.21	0.00	0.00	0.00	
	Ax	1	0.00	0.00	26.09	0.00	0.00	0.00	0.00	35.00	0.00	35.00	
	B	1	0.00	28.92	52.17	55.43	0.00	0.00	0.00	0.00	0.00	0.00	
		2	8.00	5.85	8.00	73.13	0.00	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	C	1	8.00	7.21	8.00	90.18	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	4.50	52.17	8.62	0.00	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	13.00	0.00	13.00	
	D	2	0.00	67.64	86.96	77.79	0.00	0.00	0.00	0.00	0.00	0.00	
		3	4.00	1.73	4.00	43.22	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	86.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	A-1	1	0.00	59.93	26.09	229.74	22.12	0.00	0.00	0.00	72.70	72.70	
	B-1	1	0.00	0.10	26.09	0.40	0.00	0.00	0.00	0.00	0.00	0.00	
	C-1	1	0.00	2.82	26.09	10.79	0.00	0.00	0.00	0.00	17.94	17.94	
	D-1	1	0.00	21.16	1.22	1737.89	15.97	0.00	0.00	0.00	0.00	0.00	
	D-2	1	0.00	0.26	78.26	0.33	0.00	0.00	0.00	0.00	120.00	120.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	68.29	20.28	3.37	160.40
		2	10.17	7.93	1.28	112.24
	Ax	1	91.35	3.05	30.00	18.00
	B	1	146.70	23.81	6.16	175.27
		2	6.60	4.40	1.50	96.07
	Bx	1	242.02	8.07	30.00	36.00
	C	1	11.36	3.97	2.86	50.31
		2	44.40	3.62	12.28	87.94
	Cx	1	139.50	4.65	30.00	36.00
	D	2	289.50	67.29	4.30	418.39
		3	1.46	1.12	1.31	55.02
	Dx	1	346.76	11.56	30.00	60.00
	A-1	1	115.95	47.23	2.46	219.94
	B-1	1	98.10	3.37	29.08	18.57
	C-1	1	64.80	2.40	27.03	19.98
	D-1	1	1.81	16.23	0.11	226.45
	D-2	1	409.50	13.91	29.44	55.02

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Mean End of Green Queue EoTS (Veh)	Mean End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	32.46	17.46	32.39	1.00	0.00	264.98
		2	0.00	0.00	✓	9.19	2.52	9.19	1.00	8681.21	8795.57
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	36.15	20.28	32.02	1.00	0.00	278.66
		2	0.00	0.00	✓	5.71	1.87	5.54	1.00	0.00	67.11
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	7.21	0.54	7.21	1.00	0.00	56.05
		2	0.00	0.00	✓	4.50	0.24	4.12	1.00	0.00	31.98
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	2	0.00	0.00	✓	117.21	101.35	113.08	1.00	0.00	835.24
		3	0.00	0.00	✓	1.73	0.15	1.73	1.00	0.00	17.06
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	A-1	1	0.00	0.00	✓	92.04			1.00	0.00	634.38
	B-1	1	0.00	0.00	✓	0.10			1.00	0.00	1.47
	C-1	1	0.00	0.00	✓	2.82			1.00	0.00	4.31
	D-1	1	0.00	0.00	✓	30.94	23.00	28.87	1.00	0.00	234.00
	D-2	1	0.00	0.00	✓	0.26			1.00	0.00	3.66

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Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	11	50	11000	5	55.58	1.60	10.96	10.96
		2	11	50	11000	5	55.58	1.60	10.96	10.96
	2	1	11	50	11000	5	55.58	1.60	10.96	10.96
		2	11	50	11000	5	55.58	1.60	10.96	10.96
	3	1	11	50	11000	5	113.87	1.67	22.46	22.46
		2	11	50	11000	5	55.58	1.60	10.96	10.96
	4	1	11	50	11000	5	55.58	1.60	10.96	10.96
		2	11	50	11000	5	113.87	1.67	22.46	22.46
	5	1	22	100	11000	5	107.50	3.33	42.40	42.40
		2	22	100	11000	5	55.63	3.19	21.94	21.94

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	1	1	50	50	0		11000	458	11		817	0.00	5
		2	50	50	0		11000	458	11		817	0.00	5
	2	1	50	50	0		11000	458	11		817	0.00	5
		2	50	50	0		11000	458	11		817	0.00	5
	3	1	50	50	0		11000	458	11		817	1.92	5
		2	50	50	0		11000	458	11		817	0.00	5
	4	1	50	50	0		11000	458	11		817	0.00	5
		2	50	50	0		11000	458	11		817	1.92	5
	5	1	100	100	0		11000	458	22		358	1.91	5
		2	100	100	0		11000	458	22		358	0.00	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	13.00	55.58	0.77	0.00	10.96
		2	13.00	55.58	0.77	0.00	10.96
	2	1	11.67	55.58	0.77	0.00	10.96
		2	11.67	55.58	0.77	0.00	10.96
	3	1	12.67	113.87	1.58	0.00	22.46
		2	11.67	55.58	0.77	0.00	10.96
	4	1	11.00	55.58	0.77	0.00	10.96
		2	12.00	113.87	1.58	0.00	22.46
	5	1	6.00	107.50	2.99	0.00	42.40
		2	5.00	55.63	1.55	0.00	21.94

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	1	1	1.60	10.00	15.97	0.00	0.00	0.00
		2	1.60	10.00	15.97	0.00	0.00	0.00
	2	1	1.60	10.00	15.97	0.00	0.00	0.00
		2	1.60	10.00	15.97	0.00	0.00	0.00
	3	1	1.67	10.00	16.67	0.00	0.00	0.00
		2	1.60	10.00	15.97	0.00	0.00	0.00
	4	1	1.60	10.00	15.97	0.00	0.00	0.00
		2	1.67	10.00	16.67	0.00	0.00	0.00
	5	1	3.33	10.00	33.33	0.00	0.00	0.00
		2	3.19	10.00	31.94	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	0.95	0.95	1.00	68.58
		2	0.95	0.95	1.00	68.58
	2	1	0.85	0.93	0.91	67.25
		2	0.85	0.93	0.91	67.25
	3	1	0.95	1.76	0.54	126.53
		2	0.85	0.93	0.91	67.25
	4	1	0.80	0.92	0.87	66.58
		2	0.90	1.75	0.51	125.87
	5	1	0.90	3.15	0.29	113.50
		2	0.70	1.68	0.42	60.63

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	0.00	0.00	1.60	1.00	0.00	10.96
		2	0.00	0.00	1.60	1.00	0.00	10.96
	2	1	0.00	0.00	1.60	1.00	0.00	10.96
		2	0.00	0.00	1.60	1.00	0.00	10.96
	3	1	0.00	0.00	1.67	1.00	0.00	22.46
		2	0.00	0.00	1.60	1.00	0.00	10.96
	4	1	0.00	0.00	1.60	1.00	0.00	10.96
		2	0.00	0.00	1.67	1.00	0.00	22.46
	5	1	0.00	0.00	3.33	1.00	0.00	42.40
		2	0.00	0.00	3.19	1.00	0.00	21.94

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Collections

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	130.3	88.3	143.9	0.0	0.0	0.0	0.0
	2	146.0	0.0	299.5	509.4	0.0	0.0	0.0	0.0
	3	416.3	392.2	0.0	416.3	0.0	0.0	0.0	0.0
	4	229.8	253.8	132.6	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	68.6	180.8	0.0
	6	0.0	0.0	0.0	0.0	68.6	0.0	0.0	67.3
	7	0.0	0.0	0.0	0.0	187.2	0.0	0.0	186.5
	8	0.0	0.0	0.0	0.0	0.0	67.3	180.1	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Normal journey dist (m)	Bus journeydist (m)	Tram journey dist (m)	Pedestrian journey dist (m)	Calculated Total Flow (Veh/hr)	Avg journey time (s)	Avg journey dist (m)
14	7	5		50		187.17	26.00	26.00	26.00	26.00	50	187.17	26.00
15	7	8		50		186.50	25.00	25.00	25.00	25.00	50	186.50	25.00
16	2	4	579		509.41		1250.00	0.00	0.00	0.00	579	509.41	1250.00
17	2	3	258		299.47		607.00	0.00	0.00	0.00	258	299.47	607.00
18	8	6		50		67.25	17.00	17.00	17.00	17.00	50	67.25	17.00
19	4	2	366		253.84		950.00	0.00	0.00	0.00	366	253.84	950.00
20	3	1	299		416.34		600.00	0.00	0.00	0.00	299	416.34	600.00
23	5	6		50		68.58	19.00	19.00	19.00	19.00	50	68.58	19.00
34	6	8		50		67.25	17.00	17.00	17.00	17.00	50	67.25	17.00
35	6	5		50		68.58	19.00	19.00	19.00	19.00	50	68.58	19.00
36	8	7		50		180.08	25.00	25.00	25.00	25.00	50	180.08	25.00
37	5	7		50		180.75	26.00	26.00	26.00	26.00	50	180.75	26.00
39	2	1	73		146.04		770.00	0.00	0.00	0.00	73	146.04	770.00
40	1	4	148		143.92		750.00	0.00	0.00	0.00	148	143.92	750.00
41	1	2	80		130.29		690.00	0.00	0.00	0.00	80	130.29	690.00
42	1	3	204		88.29		340.00	0.00	0.00	0.00	204	88.29	340.00
43	4	3	165		132.64		340.00	0.00	0.00	0.00	165	132.64	340.00
44	4	1	123		229.84		750.00	0.00	0.00	0.00	123	229.84	750.00
45	3	2	277		392.19		690.00	0.00	0.00	0.00	277	392.19	690.00
46	3	4	197		416.34		600.00	0.00	0.00	0.00	197	416.34	600.00

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	C		455 <	1800	30	0.00	101	-1	160.40	142.40	164.20	
	2		1	1	D		254 <	1800	20	0.00	85	18	112.24	110.60	107.94	
Ax	1	(untitled)					609	Unrestricted	120	35.00	0	Unrestricted	18.00	0.00	0.00	
B	1	(untitled)	1	1	A		489	1800	32	0.00	102	-2	175.27	139.27	166.58	
	2		1	1	A	B	165	581	42	0.00	81	23	96.07	99.83	103.21	
Bx	1	(untitled)					807	Unrestricted	120	0.00	0	Unrestricted	36.00	0.00	0.00	
C	1	(untitled)	1	1	C		284	1800	30	0.00	63	58	50.31	47.61	76.13	
	2		1	1	D		148	1800	20	0.00	49	103	87.94	51.94	89.47	
Cx	1	(untitled)					465	Unrestricted	120	13.00	0	Unrestricted	36.00	0.00	0.00	
D	2	(untitled)	1	1	A		579	1800	32	0.00	121	-17	418.39	358.39	278.16	
	3		1	1	A	B	73	505	42	0.00	41	142	55.02	56.14	98.31	
Dx	1	(untitled)					694	Unrestricted	120	0.00	0	Unrestricted	60.00	0.00	0.00	
A-1	1		1				773 <	1800	120	72.70	109	-8	219.94	201.94	209.59	
B-1	1		1				654	1800	120	0.00	36	175	18.57	0.57	0.00	
C-1	1		1				432	1800	120	17.94	28	254	19.98	1.98	17.44	
D-1	1	(untitled)	1	1	A		258 <	900	32	0.00	108	-7	226.45	225.45	215.33	
D-2	1		1				910	1800	120	120.00	51	98	55.02	1.02	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	C tr pe (£
1	1	(untitled)	1	1	E	50	11000	5	11	817	68.58	55.58	1.60	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	68.58	55.58	1.60	100	
2	1	(untitled)	1	1	E	50	11000	5	11	817	67.25	55.58	1.60	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	67.25	55.58	1.60	100	
3	1	(untitled)	1	1	E	50	11000	5	11	817	126.53	113.87	1.67	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	67.25	55.58	1.60	100	
4	1	(untitled)	1	1	E	50	11000	5	11	817	66.58	55.58	1.60	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	125.87	113.87	1.67	100	
5	1	(untitled)		1	E	100	11000	5	22	358	113.50	107.50	3.33	100	
	2	(untitled)		1	E	100	11000	5	22	358	60.63	55.63	3.19	100	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	2088.26	242.87	8.60	41.09	133.01	2472.22	71.04	8681.21	11224.48
Bus									
Tram									
Pedestrians	8.70	13.97	0.62	12.33	0.00	175.03	0.00	0.00	175.03
TOTAL	2096.96	256.84	8.16	53.42	133.01	2647.26	71.04	8681.21	11399.51

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

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A1 - Junction 3
D6 - 2042 Do Nothing, AM

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item wi wors unsignal PRC
1	05/03/2024 12:43:51	05/03/2024 12:43:51	0.52	08:00	120	10234.50	153.39	110.95	A-1/1	4	15	A/1	A-1/1

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set (s)	Optimise specific Demand Set (s)	Demand Set(s) to optimise	Include in report	Locked
Junction 3				✓	D7	✓	

Demand Set Details

Scenario name	Time Period name	Description	Composite	Demand sets	Start time (HH:mm)	Locked	Run automatically
2042 Do Nothing	AM	(untitled)			08:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120	74	74		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	2

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)	Missing stage transition options
10000.00	10000.00	10000.00	2	Assume banned

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from traffic model	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓			Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

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Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy (%)	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Standard accuracy Hill Climb	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
A-1			1
B-1			1
C-1			1
D-1	(untitled)		1
D-2			1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Auto-calculate cell saturation flow	Cell saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			150.00	✓	Sum of lanes	1800			✓		Normal	
	2				40.00	✓	Sum of lanes	1800	✓	1800	✓		Normal	
Ax	1	(untitled)			150.00								Normal	
B	1	(untitled)			300.00	✓	Sum of lanes	1800			✓		Normal	
	2				40.00	✓	Sum of lanes	1800	✓	1800	✓	✓	Normal	
Bx	1	(untitled)			300.00								Normal	
C	1	(untitled)			40.00	✓	Sum of lanes	1800	✓	1800	✓		Normal	
	2				300.00	✓	Sum of lanes	1800			✓		Normal	
Cx	1	(untitled)			300.00								Normal	
D	2	(untitled)			500.00	✓	Sum of lanes	1800			✓		Normal	
	3				20.00	✓	Sum of lanes	1800			✓	✓	Normal	
Dx	1	(untitled)			500.00								Normal	
A-1	1				150.00	✓	Directly entered	1800					Normal	
B-1	1				150.00	✓	Directly entered	1800					Normal	
C-1	1				150.00	✓	Directly entered	1800					Normal	
D-1	1	(untitled)			7.00	✓	Directly entered	1800			✓	✓	Normal	
D-2	1				450.00	✓	Sum of lanes	1800					Normal	

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Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
	2	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
C	1	1	(untitled)			1800
	2	1	(untitled)			1800
Cx	1	1	(untitled)			
D	2	1	(untitled)			1800
	3	1	(untitled)			1800
Dx	1	1	(untitled)			
A-1	1	1	(untitled)			
B-1	1	1	(untitled)			
C-1	1	1	(untitled)			
D-1	1	1	(untitled)			
D-2	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Queue limit (PCU)	Excess queue penalty (£)	Has degree of saturation limit
A	1	NetworkDefault	100	100	100		0.00				
	2	Flare	100	100	100		8.00	✓	8.00	9999.00	
Ax	1	NetworkDefault	100	100	100		0.00				
B	1	NetworkDefault	100	100	100		0.00				
	2	Flare	100	100	100		8.00	✓	8.00	99999.00	
Bx	1	NetworkDefault	100	100	100		0.00				
C	1	Flare	100	100	100		8.00	✓	8.00	99999.00	
	2	NetworkDefault	100	100	100		0.00				
Cx	1	NetworkDefault	100	100	100		0.00				
D	2	NetworkDefault	100	100	100		0.00				
	3	Flare	100	100	100		4.00	✓	4.00	99999.00	
Dx	1	NetworkDefault	100	100	100		0.00				
A-1	1	NetworkDefault	100	100	100		0.00				
B-1	1	NetworkDefault	100	100	100		0.00				
C-1	1	NetworkDefault	100	100	100		0.00				
D-1	1	NetworkDefault	100	100	100		0.00				
D-2	1	NetworkDefault	100	100	100		0.00				

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
A	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	8.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Ax	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
B	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	8.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Bx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
C	1	8.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Cx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
D	2	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	3	4.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Dx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
A-1	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
B-1	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
C-1	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
D-1	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
D-2	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	521	521
	2	281	281
Ax	1	630	630
B	1	471	471
	2	173	173
Bx	1	861	861
C	1	291	291
	2	156	156
Cx	1	500	500
D	2	498	498
	3	57	57
Dx	1	700	700
A-1	1	802	802
B-1	1	644	644
C-1	1	447	447
D-1	1	243	243
D-2	1	798	798

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	C		
	2	1	D		
B	1	1	A		
	2	1	A	✓	B
C	1	1	C		
	2	1	D		
D	2	1	A		
	3	1	A	✓	B
D-1	1	1	A		

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A-1	1	18.00	30.00
B-1	1	18.00	30.00
C-1	1	18.00	30.00
D-2	1	54.00	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A	1	1	A-1/1	A/1	18.00	30.00	✓	Straight	Straight Movement
	2	1	A-1/1	A/2	4.80	30.00	✓	Straight	Straight Movement
Ax	1	1	C/1	Ax/1	18.00	30.00	✓	Straight	Straight Movement
B	1	1	B-1/1	B/1	36.00	30.00	✓	Straight	Straight Movement
	2	1	B-1/1	B/2	4.80	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	36.00	30.00	✓	Nearside	42.61
C	1	1	C-1/1	C/1	4.80	30.00	✓	Straight	Straight Movement
	2	1	C-1/1	C/2	36.00	30.00	✓	Straight	Straight Movement
Cx	1	1	A/1	Cx/1	36.00	30.00	✓	Straight	Straight Movement
D	2	1	D-2/1	D/2	60.00	30.00	✓	Straight	Straight Movement
	3	1	D-2/1	D/3	2.40	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	60.00	30.00	✓	Nearside	25.27
D-1	1	1	D-2/1	D-1/1	1.00	30.00	✓	Straight	Straight Movement
Ax	1	2	D-1/1	Ax/1	18.00	30.00	✓	Nearside	43.60
Bx	1	2	C/2	Bx/1	36.00	30.00	✓	Offside	38.45
Cx	1	2	B/1	Cx/1	36.00	30.00	✓	Nearside	39.22
Dx	1	2	B/1	Dx/1	60.00	30.00	✓	Straight	Straight Movement
Ax	1	3	B/2	Ax/1	18.00	30.00	✓	Offside	70.68
Bx	1	3	D/2	Bx/1	36.00	30.00	✓	Straight	Straight Movement
Cx	1	3	D/3	Cx/1	36.00	30.00	✓	Offside	49.21
Dx	1	3	A/2	Dx/1	60.00	30.00	✓	Offside	37.07

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
(ALL)	(ALL)	AllTraffic		

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible
2		TrafficStream	D/2	100	0.00	
3		TrafficStream	B/1	100	0.00	
1		TrafficStream	B/2	100	0.00	

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	18.00	12.00	5.40
2	(untitled)		1		Farside	16.00	10.67	5.40
3	(untitled)		1		Farside	16.00	10.67	5.40
4	(untitled)		1		Farside	15.00	10.00	5.40
5	(untitled)				Farside	6.00	4.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	5:1	3:1	3.00	2.00	5.40
2	5:1	4:2	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25				

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	77	214	156	0	0	0	0
	2	57	0	243	498	0	0	0	0
	3	314	281	0	207	0	0	0	0
	4	129	342	173	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C-1/1	Cx/1	#0000FF
	2	(untitled)	D-2/1	Dx/1	#FF0000
	3	(untitled)	A-1/1	Ax/1	#00FF00
	4	(untitled)	B-1/1	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#008000
	7	(untitled)	5:2E	5:2X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	16		2	4	D-2/1, D/2, Bx/1	Normal	498
	17		2	3	D-2/1, D-1/1, Ax/1	Normal	243
	19		4	2	B-1/1, B/1, Dx/1	Normal	342
	20		3	1	A-1/1, A/1, Cx/1	Normal	314
	39		2	1	D-2/1, D/3, Cx/1	Normal	57
	40		1	4	C-1/1, C/2, Bx/1	Normal	156
	41		1	2	C-1/1, C/1, Dx/1	Normal	77
	42		1	3	C-1/1, C/1, Ax/1	Normal	214
	43		4	3	B-1/1, B/2, Ax/1	Normal	173
	44		4	1	B-1/1, B/1, Cx/1	Normal	129
	45		3	2	A-1/1, A/2, Dx/1	Normal	281
	46		3	4	A-1/1, A/1, Bx/1	Normal	207

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	14		7	5	5:2E, 5:1X, 3:1E, 3:2X	Normal	50
	15		7	8	5:2E, 5:1X, 4:2E, 4:1X	Normal	50
	18		8	6	2:2E, 2:1X	Normal	50
	23		5	6	1:1E, 1:2X	Normal	50
	34		6	8	2:1E, 2:2X	Normal	50
	35		6	5	1:2E, 1:1X	Normal	50
	36		8	7	4:1E, 4:2X, 5:1E, 5:2X	Normal	50
	37		5	7	3:2E, 3:1X, 5:1E, 5:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)	Minimum possible cycle time (s)
1	(untitled)		1	NetworkDefault	120	74

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	40	0	0	Unknown	
	B	(untitled)	7	10	0	0	Unknown	
	C	(untitled)	25	300	0	0	Unknown	
	D	(untitled)	7	20	0	0	Unknown	
	E	(untitled)	5	10	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)	Run every N cycles	Probability of running (%)
1	1	A	1	1	100
	2	B	1	1	100
	3	C	1	1	100
	4	D	1	1	100
	5	E	1	1	100

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Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)	Single	1, 2, 3, 4, 5	27, 37, 72, 97, 110	74	
	2	(untitled)	Single	1, 2, 3, 5, 4	21, 42, 72, 98, 123	74	
	3	(untitled)	Single	1, 2, 4, 3, 5	24, 48, 77, 101, 0	74	
	4	(untitled)	Single	1, 2, 4, 5, 3	23, 45, 72, 97, 124	74	
	5	(untitled)	Single	1, 2, 5, 3, 4	23, 46, 74, 101, 123	74	
	6	(untitled)	Single	1, 2, 5, 4, 3	23, 46, 75, 102, 124	74	
	7	(untitled)	Single	1, 3, 2, 4, 5	23, 51, 78, 105, 0	79	
	8	(untitled)	Single	1, 3, 2, 5, 4	21, 47, 72, 98, 123	79	
	9	(untitled)	Single	1, 3, 4, 2, 5	23, 51, 74, 102, 0	79	
	10	(untitled)	Single	1, 3, 4, 5, 2	24, 53, 76, 102, 0	74	

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A			5	5	8
	B			5	5	8
	C	5	5		5	8
	D	5	5	5		8
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

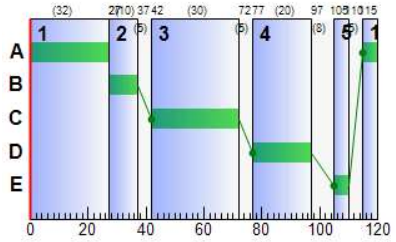
		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	42	72	30
A	2	1	1	D	77	97	20
B	1	1	1	A	115	27	32
B	2	1	1	A	115	27	32
C	1	1	1	C	42	72	30
C	2	1	1	D	77	97	20
D	2	1	1	A	115	27	32
D	3	1	1	A	115	27	32
D-1	1	1	1	A	115	27	32

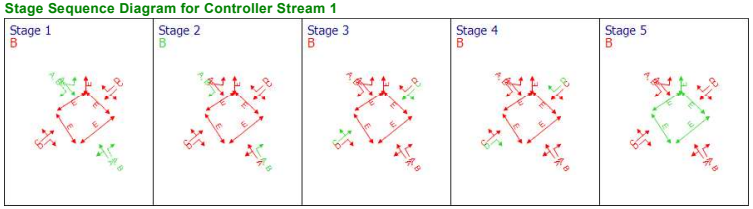
Phase Timings Diagram

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

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Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	104	-4	470	1800	30	173.78	31.29	119.96	321.86	10.42	332.28
		2	84	18	253	1800	20	109.58	9.26	115.78	109.46	3.41	8103.25
	Ax	1	0	Unrestricted	627	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	98	2	471	1800	32	107.59	23.93	45.86	199.89	8.51	208.40
		2	85	18	173	581	42	114.81	6.98	87.20	78.35	2.49	80.84
	Bx	1	0	Unrestricted	815	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	65	55	291	1800	30	47.89	7.27	90.85	54.97	2.73	57.70
		2	52	92	156	1800	20	52.95	4.79	9.18	32.58	1.74	34.33
	Cx	1	0	Unrestricted	457	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	2	104	-4	498	1800	32	158.40	31.91	36.70	311.16	10.79	321.95
		3	32	210	57	505	42	52.29	1.31	32.81	11.76	0.68	12.44
	Dx	1	0	Unrestricted	672	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	A-1	1	111	-10	802	1800	120	227.01	67.53	258.87	718.14	20.21	738.36
	B-1	1	36	180	644	1800	120	0.56	0.10	0.38	1.41	0.00	1.41
	C-1	1	30	236	447	1800	120	2.44	3.29	12.62	4.30	1.12	5.41
	D-1	1	101	-1	243	900	32	163.57	16.04	1317.66	156.78	3.80	160.58
	D-2	1	44	126	798	1800	120	0.80	0.18	0.23	2.50	0.00	2.50

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	A	1	470	450	51	✓	1800	450	104	✓	-4	1.04	30
		2	253	253	28	✓	1800	300	84		18	1.16	20
	Ax	1	627	627	3	✓	Unrestricted	Unrestricted	0		Unrestricted	0.75	120
	B	1	471	471	0		1800	480	98		2	0.00	32
		2	173	173	0		581	203	85		18	0.00	42
	Bx	1	815	815	46	✓	Unrestricted	Unrestricted	0		Unrestricted	0.44	120
	C	1	291	291	0		1800	450	65		55	0.28	30
		2	156	156	0		1800	300	52		92	0.18	20
	Cx	1	457	457	43	✓	Unrestricted	Unrestricted	0		Unrestricted	0.55	120
	D	2	498	480	0		1800	480	104	✓	-4	0.00	32
		3	57	57	0		505	177	32		210	0.00	42
	Dx	1	672	672	28	✓	Unrestricted	Unrestricted	0		Unrestricted	0.36	120
	A-1	1	802	723	0		1800	723	111	✓	-10	0.00	120
	B-1	1	644	644	0		1800	1800	36		180	0.00	120
	C-1	1	447	447	0		1800	1501	30		236	0.00	120
	D-1	1	243	240	0		900	240	101	✓	-1	0.00	32
	D-2	1	798	798	0		1800	1800	44		126	0.00	120

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	18.00	173.78	6.37	16.29	321.86	184.68	450.00	381.06	10.42
		2	4.80	109.58	4.88	2.83	109.46	107.47	200.00	72.18	3.41
	Ax	1	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	36.00	107.59	5.72	8.36	199.89	144.17	458.86	220.16	8.51
		2	4.80	114.81	2.30	3.22	78.35	114.97	120.97	77.93	2.49
	Bx	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	4.80	47.89	3.10	0.77	54.97	74.84	200.00	17.78	2.73
		2	36.00	52.95	2.02	0.28	32.58	89.18	130.88	8.25	1.74
	Cx	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	2	60.00	158.40	5.87	16.05	311.16	179.33	479.03	381.73	10.79
		3	2.40	52.29	0.69	0.14	11.76	95.55	52.16	2.30	0.68
	Dx	1	60.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	A-1	1	18.00	227.01	6.94	43.64	718.14	223.00	717.10	894.83	20.21
	B-1	1	18.00	0.56	0.00	0.10	1.41	0.00	0.00	0.00	0.00
	C-1	1	18.00	2.44	0.24	0.06	4.30	19.92	87.15	1.89	1.12
	D-1	1	1.00	163.57	2.93	8.11	156.78	179.02	238.27	191.37	3.80
	D-2	1	54.00	0.80	0.00	0.18	2.50	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	31.29	26.09	119.96	2.12	0.00	0.00	0.00	0.00	0.00	
		2	8.00	9.26	8.00	115.78	0.80	0.80	7990.37	0.00	0.00	0.00	
	Ax	1	0.00	0.00	26.09	0.00	0.00	0.00	0.00	34.00	0.00	34.00	
	B	1	0.00	23.93	52.17	45.86	0.00	0.00	0.00	0.00	0.00	0.00	
		2	8.00	6.98	8.00	87.20	0.00	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	C	1	8.00	7.27	8.00	90.85	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	4.79	52.17	9.18	0.00	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	13.00	0.00	13.00	
	D	2	0.00	31.91	86.96	36.70	0.00	0.00	0.00	0.00	0.00	0.00	
		3	4.00	1.31	4.00	32.81	0.00	0.00	0.00	8.00	0.00	8.00	
	Dx	1	0.00	0.00	86.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	A-1	1	0.00	67.53	26.09	258.87	29.50	0.00	0.00	0.00	71.97	71.97	
	B-1	1	0.00	0.10	26.09	0.38	0.00	0.00	0.00	0.00	0.00	0.00	
	C-1	1	0.00	3.29	26.09	12.62	0.00	0.00	0.00	0.00	19.91	19.91	
	D-1	1	0.00	16.04	1.22	1317.66	10.86	0.00	0.00	0.00	0.00	0.00	
	D-2	1	0.00	0.18	78.26	0.23	0.00	0.00	0.00	0.00	120.00	120.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	70.43	25.01	2.82	191.78
		2	10.13	7.81	1.30	111.09
	Ax	1	94.05	3.14	30.00	18.00
	B	1	141.30	18.79	7.52	143.59
		2	6.92	5.47	1.26	113.90
	Bx	1	244.44	8.15	30.00	36.00
	C	1	11.64	4.09	2.85	50.58
		2	46.80	3.85	12.14	88.95
	Cx	1	137.16	4.57	30.00	36.00
	D	2	249.00	30.21	8.24	218.40
		3	1.14	0.80	1.42	50.64
	Dx	1	336.13	11.20	30.00	60.00
	A-1	1	120.30	54.58	2.20	245.01
	B-1	1	96.60	3.32	29.10	18.56
	C-1	1	67.05	2.54	26.42	20.44
	D-1	1	1.70	11.11	0.15	164.57
	D-2	1	359.10	12.15	29.56	54.80

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Mean End of Green Queue EoTS (Veh)	Mean End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	42.47	27.47	42.39	1.00	0.00	332.28
		2	0.00	0.00	✓	9.11	2.44	9.11	1.00	7990.37	8103.25
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	26.58	11.01	22.53	1.00	0.00	208.40
		2	0.00	0.00	✓	6.72	2.68	6.53	1.00	0.00	80.84
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	7.26	0.60	7.26	1.00	0.00	57.70
		2	0.00	0.00	✓	4.79	0.28	4.33	1.00	0.00	34.33
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	2	0.00	0.00	✓	42.54	26.67	38.41	1.00	0.00	321.95
		3	0.00	0.00	✓	1.31	0.08	1.31	1.00	0.00	12.44
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	A-1	1	0.00	0.00	✓	107.35			1.00	0.00	738.36
	B-1	1	0.00	0.00	✓	0.10			1.00	0.00	1.41
	C-1	1	0.00	0.00	✓	3.29			1.00	0.00	5.41
	D-1	1	0.00	0.00	✓	20.08	12.14	18.01	1.00	0.00	160.58
	D-2	1	0.00	0.00	✓	0.18			1.00	0.00	2.50

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	11	50	11000	5	55.58	1.60	10.96	10.96
		2	11	50	11000	5	55.58	1.60	10.96	10.96
	2	1	11	50	11000	5	55.58	1.60	10.96	10.96
		2	11	50	11000	5	55.58	1.60	10.96	10.96
	3	1	11	50	11000	5	113.87	1.67	22.46	22.46
		2	11	50	11000	5	55.58	1.60	10.96	10.96
	4	1	11	50	11000	5	55.58	1.60	10.96	10.96
		2	11	50	11000	5	113.87	1.67	22.46	22.46
	5	1	22	100	11000	5	107.50	3.33	42.40	42.40
		2	22	100	11000	5	55.63	3.19	21.94	21.94

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	1	1	50	50	0		11000	458	11		817	0.00	5
		2	50	50	0		11000	458	11		817	0.00	5
	2	1	50	50	0		11000	458	11		817	0.00	5
		2	50	50	0		11000	458	11		817	0.00	5
	3	1	50	50	0		11000	458	11		817	1.92	5
		2	50	50	0		11000	458	11		817	0.00	5
	4	1	50	50	0		11000	458	11		817	0.00	5
		2	50	50	0		11000	458	11		817	1.92	5
	5	1	100	100	0		11000	458	22		358	1.91	5
		2	100	100	0		11000	458	22		358	0.00	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	13.00	55.58	0.77	0.00	10.96
		2	13.00	55.58	0.77	0.00	10.96
	2	1	11.67	55.58	0.77	0.00	10.96
		2	11.67	55.58	0.77	0.00	10.96
	3	1	12.67	113.87	1.58	0.00	22.46
		2	11.67	55.58	0.77	0.00	10.96
	4	1	11.00	55.58	0.77	0.00	10.96
		2	12.00	113.87	1.58	0.00	22.46
	5	1	6.00	107.50	2.99	0.00	42.40
		2	5.00	55.63	1.55	0.00	21.94

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Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	1	1	1.60	10.00	15.97	0.00	0.00	0.00
		2	1.60	10.00	15.97	0.00	0.00	0.00
	2	1	1.60	10.00	15.97	0.00	0.00	0.00
		2	1.60	10.00	15.97	0.00	0.00	0.00
	3	1	1.67	10.00	16.67	0.00	0.00	0.00
		2	1.60	10.00	15.97	0.00	0.00	0.00
	4	1	1.60	10.00	15.97	0.00	0.00	0.00
		2	1.67	10.00	16.67	0.00	0.00	0.00
	5	1	3.33	10.00	33.33	0.00	0.00	0.00
		2	3.19	10.00	31.94	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	0.95	0.95	1.00	68.58
		2	0.95	0.95	1.00	68.58
	2	1	0.85	0.93	0.91	67.25
		2	0.85	0.93	0.91	67.25
	3	1	0.95	1.76	0.54	126.53
		2	0.85	0.93	0.91	67.25
	4	1	0.80	0.92	0.87	66.58
		2	0.90	1.75	0.51	125.87
	5	1	0.90	3.15	0.29	113.50
		2	0.70	1.68	0.42	60.63

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	0.00	0.00	1.60	1.00	0.00	10.96
		2	0.00	0.00	1.60	1.00	0.00	10.96
	2	1	0.00	0.00	1.60	1.00	0.00	10.96
		2	0.00	0.00	1.60	1.00	0.00	10.96
	3	1	0.00	0.00	1.67	1.00	0.00	22.46
		2	0.00	0.00	1.60	1.00	0.00	10.96
	4	1	0.00	0.00	1.60	1.00	0.00	10.96
		2	0.00	0.00	1.67	1.00	0.00	22.46
	5	1	0.00	0.00	3.33	1.00	0.00	42.40
		2	0.00	0.00	3.19	1.00	0.00	21.94

Collections

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	131.0	89.0	145.4	0.0	0.0	0.0	0.0
	2	141.4	0.0	237.4	309.2	0.0	0.0	0.0	0.0
	3	472.8	416.1	0.0	472.8	0.0	0.0	0.0	0.0
	4	198.1	222.1	150.5	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	68.6	180.8	0.0
	6	0.0	0.0	0.0	0.0	68.6	0.0	0.0	67.3
	7	0.0	0.0	0.0	0.0	187.2	0.0	0.0	186.5
	8	0.0	0.0	0.0	0.0	0.0	67.3	180.1	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Normal journey dist (m)	Bus journeydist (m)	Tram journey dist (m)	Pedestrian journey dist (m)	Calculated Total Flow (Veh/hr)	Avg journey time (s)	Avg journey dist (m)
14	7	5		50		187.17	26.00	26.00	26.00	26.00	50	187.17	26.00
15	7	8		50		186.50	25.00	25.00	25.00	25.00	50	186.50	25.00
16	2	4	498		309.20		1250.00	0.00	0.00	0.00	498	309.20	1250.00
17	2	3	243		237.37		607.00	0.00	0.00	0.00	243	237.37	607.00
18	8	6		50		67.25	17.00	17.00	17.00	17.00	50	67.25	17.00
19	4	2	342		222.15		950.00	0.00	0.00	0.00	342	222.15	950.00
20	3	1	314		472.79		600.00	0.00	0.00	0.00	314	472.79	600.00
23	5	6		50		68.58	19.00	19.00	19.00	19.00	50	68.58	19.00
34	6	8		50		67.25	17.00	17.00	17.00	17.00	50	67.25	17.00
35	6	5		50		68.58	19.00	19.00	19.00	19.00	50	68.58	19.00
36	8	7		50		180.08	25.00	25.00	25.00	25.00	50	180.08	25.00
37	5	7		50		180.75	26.00	26.00	26.00	26.00	50	180.75	26.00
39	2	1	57		141.43		770.00	0.00	0.00	0.00	57	141.43	770.00
40	1	4	156		145.39		750.00	0.00	0.00	0.00	156	145.39	750.00
41	1	2	77		131.02		690.00	0.00	0.00	0.00	77	131.02	690.00
42	1	3	214		89.02		340.00	0.00	0.00	0.00	214	89.02	340.00
43	4	3	173		150.45		340.00	0.00	0.00	0.00	173	150.45	340.00
44	4	1	129		198.15		750.00	0.00	0.00	0.00	129	198.15	750.00
45	3	2	281		416.10		690.00	0.00	0.00	0.00	281	416.10	690.00
46	3	4	207		472.79		600.00	0.00	0.00	0.00	207	472.79	600.00

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Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	C		470 <	1800	30	0.00	104	-4	191.78	173.78	184.68	
	2		1	1	D		253 <	1800	20	0.00	84	18	111.09	109.58	107.47	
Ax	1	(untitled)					627	Unrestricted	120	34.00	0	Unrestricted	18.00	0.00	0.00	
B	1	(untitled)	1	1	A		471	1800	32	0.00	98	2	143.59	107.59	144.17	
	2		1	1	A	B	173	581	42	0.00	85	18	113.90	114.81	114.97	
Bx	1	(untitled)					815	Unrestricted	120	0.00	0	Unrestricted	36.00	0.00	0.00	
C	1	(untitled)	1	1	C		291	1800	30	0.00	65	55	50.58	47.89	74.84	
	2		1	1	D		156	1800	20	0.00	52	92	88.95	52.95	89.18	
Cx	1	(untitled)					457	Unrestricted	120	13.00	0	Unrestricted	36.00	0.00	0.00	
D	2	(untitled)	1	1	A		498	1800	32	0.00	104	-4	218.40	158.40	179.33	
	3		1	1	A	B	57	505	42	8.00	32	210	50.64	52.29	95.55	
Dx	1	(untitled)					672	Unrestricted	120	0.00	0	Unrestricted	60.00	0.00	0.00	
A-1	1		1				802 <	1800	120	71.97	111	-10	245.01	227.01	223.00	
B-1	1		1				644	1800	120	0.00	36	180	18.56	0.56	0.00	
C-1	1		1				447	1800	120	19.91	30	236	20.44	2.44	19.92	
D-1	1	(untitled)	1	1	A		243 <	900	32	0.00	101	-1	164.57	163.57	179.02	
D-2	1		1				798	1800	120	120.00	44	126	54.80	0.80	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	C tr pe (£
1	1	(untitled)	1	1	E	50	11000	5	11	817	68.58	55.58	1.60	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	68.58	55.58	1.60	100	
2	1	(untitled)	1	1	E	50	11000	5	11	817	67.25	55.58	1.60	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	67.25	55.58	1.60	100	
3	1	(untitled)	1	1	E	50	11000	5	11	817	126.53	113.87	1.67	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	67.25	55.58	1.60	100	
4	1	(untitled)	1	1	E	50	11000	5	11	817	66.58	55.58	1.60	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	125.87	113.87	1.67	100	
5	1	(untitled)		1	E	100	11000	5	22	358	113.50	107.50	3.33	100	
	2	(untitled)		1	E	100	11000	5	22	358	60.63	55.63	3.19	100	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	1993.90	206.80	9.64	41.05	100.02	2003.17	65.92	7990.37	10059.47
Bus									
Tram									
Pedestrians	8.70	13.97	0.62	12.33	0.00	175.03	0.00	0.00	175.03
TOTAL	2002.60	220.78	9.07	53.38	100.02	2178.21	65.92	7990.37	10234.50

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A1 - Junction 3
D7 - 2042 Do Something, AM

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item wi wors unsignal PRC
1	05/03/2024 12:43:47	05/03/2024 12:43:49	2.67	08:00	120	11232.58	193.97	116.46	D/2	5	19	D/2	A-1/1

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set (s)	Optimise specific Demand Set (s)	Demand Set(s) to optimise	Include in report	Locked
Junction 3				✓	D7	✓	

Demand Set Details

Scenario name	Time Period name	Description	Composite	Demand sets	Start time (HH:mm)	Locked	Run automatically
2042 Do Something	AM	(untitled)			08:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120	74	74		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	2

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)	Missing stage transition options
10000.00	10000.00	10000.00	2	Assume banned

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from traffic model	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓			Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy (%)	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Standard accuracy Hill Climb	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

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Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
A-1			1
B-1			1
C-1			1
D-1	(untitled)		1
D-2			1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Auto-calculate cell saturation flow	Cell saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			150.00	✓	Sum of lanes	1800			✓		Normal	
	2				40.00	✓	Sum of lanes	1800	✓	1800	✓		Normal	
Ax	1	(untitled)			150.00								Normal	
B	1	(untitled)			300.00	✓	Sum of lanes	1800			✓		Normal	
	2				40.00	✓	Sum of lanes	1800	✓	1800	✓	✓	Normal	
Bx	1	(untitled)			300.00								Normal	
C	1	(untitled)			40.00	✓	Sum of lanes	1800	✓	1800	✓		Normal	
	2				300.00	✓	Sum of lanes	1800			✓		Normal	
Cx	1	(untitled)			300.00								Normal	
D	2	(untitled)			500.00	✓	Sum of lanes	1800			✓		Normal	
	3				20.00	✓	Sum of lanes	1800			✓	✓	Normal	
Dx	1	(untitled)			500.00								Normal	
A-1	1				150.00	✓	Directly entered	1800					Normal	
B-1	1				150.00	✓	Directly entered	1800					Normal	
C-1	1				150.00	✓	Directly entered	1800					Normal	
D-1	1	(untitled)			7.00	✓	Directly entered	1800			✓	✓	Normal	
D-2	1				450.00	✓	Sum of lanes	1800					Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
	2	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
C	1	1	(untitled)			1800
	2	1	(untitled)			1800
Cx	1	1	(untitled)			
D	2	1	(untitled)			1800
	3	1	(untitled)			1800
Dx	1	1	(untitled)			
A-1	1	1	(untitled)			
B-1	1	1	(untitled)			
C-1	1	1	(untitled)			
D-1	1	1	(untitled)			
D-2	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Queue limit (PCU)	Excess queue penalty (£)	Has degree of saturation limit
A	1	NetworkDefault	100	100	100		0.00				
	2	Flare	100	100	100		8.00	✓	8.00	9999.00	
Ax	1	NetworkDefault	100	100	100		0.00				
B	1	NetworkDefault	100	100	100		0.00				
	2	Flare	100	100	100		8.00	✓	8.00	99999.00	
Bx	1	NetworkDefault	100	100	100		0.00				
C	1	Flare	100	100	100		8.00	✓	8.00	99999.00	
	2	NetworkDefault	100	100	100		0.00				
Cx	1	NetworkDefault	100	100	100		0.00				
D	2	NetworkDefault	100	100	100		0.00				
	3	Flare	100	100	100		4.00	✓	4.00	99999.00	
Dx	1	NetworkDefault	100	100	100		0.00				
A-1	1	NetworkDefault	100	100	100		0.00				
B-1	1	NetworkDefault	100	100	100		0.00				
C-1	1	NetworkDefault	100	100	100		0.00				
D-1	1	NetworkDefault	100	100	100		0.00				
D-2	1	NetworkDefault	100	100	100		0.00				

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
A	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	8.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Ax	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
B	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	8.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Bx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
C	1	8.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Cx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
D	2	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	3	4.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Dx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
A-1	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
B-1	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
C-1	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
D-1	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
D-2	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	521	521
	2	286	286
Ax	1	644	644
B	1	494	494
	2	173	173
Bx	1	922	922
C	1	294	294
	2	156	156
Cx	1	508	508
D	2	559	559
	3	65	65
Dx	1	731	731
A-1	1	807	807
B-1	1	667	667
C-1	1	450	450
D-1	1	257	257
D-2	1	881	881

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	C		
	2	1	D		
B	1	1	A		
	2	1	A	✓	B
C	1	1	C		
	2	1	D		
D	2	1	A		
	3	1	A	✓	B
D-1	1	1	A		

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A-1	1	18.00	30.00
B-1	1	18.00	30.00
C-1	1	18.00	30.00
D-2	1	54.00	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A	1	1	A-1/1	A/1	18.00	30.00	✓	Straight	Straight Movement
	2	1	A-1/1	A/2	4.80	30.00	✓	Straight	Straight Movement
Ax	1	1	C/1	Ax/1	18.00	30.00	✓	Straight	Straight Movement
B	1	1	B-1/1	B/1	36.00	30.00	✓	Straight	Straight Movement
	2	1	B-1/1	B/2	4.80	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	36.00	30.00	✓	Nearside	42.61
C	1	1	C-1/1	C/1	4.80	30.00	✓	Straight	Straight Movement
	2	1	C-1/1	C/2	36.00	30.00	✓	Straight	Straight Movement
Cx	1	1	A/1	Cx/1	36.00	30.00	✓	Straight	Straight Movement
D	2	1	D-2/1	D/2	60.00	30.00	✓	Straight	Straight Movement
	3	1	D-2/1	D/3	2.40	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	60.00	30.00	✓	Nearside	25.27
D-1	1	1	D-2/1	D-1/1	1.00	30.00	✓	Straight	Straight Movement
Ax	1	2	D-1/1	Ax/1	18.00	30.00	✓	Nearside	43.60
Bx	1	2	C/2	Bx/1	36.00	30.00	✓	Offside	38.45
Cx	1	2	B/1	Cx/1	36.00	30.00	✓	Nearside	39.22
Dx	1	2	B/1	Dx/1	60.00	30.00	✓	Straight	Straight Movement
Ax	1	3	B/2	Ax/1	18.00	30.00	✓	Offside	70.68
Bx	1	3	D/2	Bx/1	36.00	30.00	✓	Straight	Straight Movement
Cx	1	3	D/3	Cx/1	36.00	30.00	✓	Offside	49.21
Dx	1	3	A/2	Dx/1	60.00	30.00	✓	Offside	37.07

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
(ALL)	(ALL)	AllTraffic		

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible
2		TrafficStream	D/2	100	0.00	
3		TrafficStream	B/1	100	0.00	
1		TrafficStream	B/2	100	0.00	

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	18.00	12.00	5.40
2	(untitled)		1		Farside	16.00	10.67	5.40
3	(untitled)		1		Farside	16.00	10.67	5.40
4	(untitled)		1		Farside	15.00	10.00	5.40
5	(untitled)				Farside	6.00	4.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	5:1	3:1	3.00	2.00	5.40
2	5:1	4:2	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25				

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	80	214	156	0	0	0	0
	2	65	0	257	559	0	0	0	0
	3	314	286	0	207	0	0	0	0
	4	129	365	173	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C-1/1	Cx/1	#0000FF
	2	(untitled)	D-2/1	Dx/1	#FF0000
	3	(untitled)	A-1/1	Ax/1	#00FF00
	4	(untitled)	B-1/1	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#008000
	7	(untitled)	5:2E	5:2X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	16		2	4	D-2/1, D/2, Bx/1	Normal	559
	17		2	3	D-2/1, D-1/1, Ax/1	Normal	257
	19		4	2	B-1/1, B/1, Dx/1	Normal	365
	20		3	1	A-1/1, A/1, Cx/1	Normal	314
	39		2	1	D-2/1, D/3, Cx/1	Normal	65
	40		1	4	C-1/1, C/2, Bx/1	Normal	156
	41		1	2	C-1/1, C/1, Dx/1	Normal	80
	42		1	3	C-1/1, C/1, Ax/1	Normal	214
	43		4	3	B-1/1, B/2, Ax/1	Normal	173
	44		4	1	B-1/1, B/1, Cx/1	Normal	129
	45		3	2	A-1/1, A/2, Dx/1	Normal	286
	46		3	4	A-1/1, A/1, Bx/1	Normal	207

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Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	14		7	5	5:2E, 5:1X, 3:1E, 3:2X	Normal	50
	15		7	8	5:2E, 5:1X, 4:2E, 4:1X	Normal	50
	18		8	6	2:2E, 2:1X	Normal	50
	23		5	6	1:1E, 1:2X	Normal	50
	34		6	8	2:1E, 2:2X	Normal	50
	35		6	5	1:2E, 1:1X	Normal	50
	36		8	7	4:1E, 4:2X, 5:1E, 5:2X	Normal	50
	37		5	7	3:2E, 3:1X, 5:1E, 5:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)	Minimum possible cycle time (s)
1	(untitled)		1	NetworkDefault	120	74

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	40	0	0	Unknown	
	B	(untitled)	7	10	0	0	Unknown	
	C	(untitled)	25	300	0	0	Unknown	
	D	(untitled)	7	20	0	0	Unknown	
	E	(untitled)	5	10	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)	Run every N cycles	Probability of running (%)
1	1	A	1	1	100
	2	B	1	1	100
	3	C	1	1	100
	4	D	1	1	100
	5	E	1	1	100

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)	Single	1, 2, 3, 4, 5	27, 37, 72, 97, 110	74	
	2	(untitled)	Single	1, 2, 3, 5, 4	21, 42, 72, 98, 123	74	
	3	(untitled)	Single	1, 2, 4, 3, 5	24, 48, 77, 101, 0	74	
	4	(untitled)	Single	1, 2, 4, 5, 3	23, 45, 72, 97, 124	74	
	5	(untitled)	Single	1, 2, 5, 3, 4	23, 46, 74, 101, 123	74	
	6	(untitled)	Single	1, 2, 5, 4, 3	23, 46, 75, 102, 124	74	
	7	(untitled)	Single	1, 3, 2, 4, 5	23, 51, 78, 105, 0	79	
	8	(untitled)	Single	1, 3, 2, 5, 4	21, 47, 72, 98, 123	79	
	9	(untitled)	Single	1, 3, 4, 2, 5	23, 51, 74, 102, 0	79	
	10	(untitled)	Single	1, 3, 4, 5, 2	24, 53, 76, 102, 0	74	

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A			5	5	8
	B			5	5	8
	C	5	5		5	8
	D	5	5	5		8
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

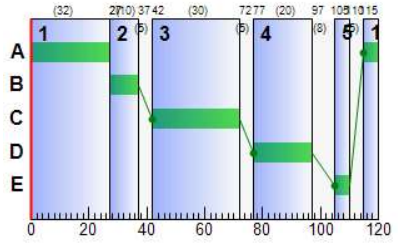
		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	42	72	30
A	2	1	1	D	77	97	20
B	1	1	1	A	115	27	32
B	2	1	1	A	115	27	32
C	1	1	1	C	42	72	30
D	2	1	1	A	115	27	32
D	3	1	1	A	115	27	32
D-1	1	1	1	A	115	27	32

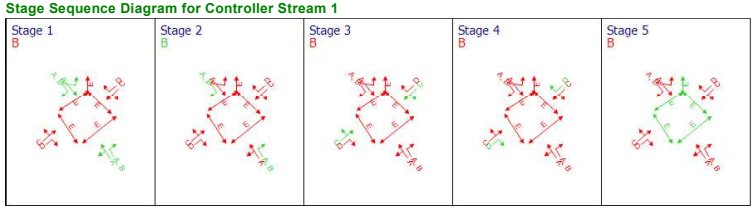
Phase Timings Diagram

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	103	-3	462	1800	30	157.49	28.83	110.52	287.29	9.83	297.13
		2	85	18	254	1800	20	110.17	9.32	116.45	110.33	3.43	8518.22
	Ax	1	0	Unrestricted	627	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	103	-3	494	1800	32	149.64	30.53	58.52	291.58	10.45	302.03
		2	85	18	173	581	42	114.81	6.98	87.20	78.35	2.49	80.84
	Bx	1	0	Unrestricted	815	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	65	53	294	1800	30	48.01	7.29	91.16	55.68	2.74	58.42
		2	52	92	156	1800	20	53.02	4.69	9.00	32.63	1.73	34.36
	Cx	1	0	Unrestricted	462	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	2	116	-14	559	1800	32	310.03	58.14	66.86	683.59	15.53	699.12
		3	37	172	65	505	42	54.19	1.52	37.91	13.89	0.79	14.69
	Dx	1	0	Unrestricted	689	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	A-1	1	113	-11	807	1800	120	248.96	72.39	277.51	792.49	21.01	813.50
	B-1	1	37	170	667	1800	120	0.59	0.11	0.42	1.55	0.00	1.55
	C-1	1	30	230	450	1800	120	2.64	3.44	13.19	4.68	1.17	5.86
	D-1	1	107	-7	257	900	32	220.96	20.77	1706.44	223.99	4.52	228.51
	D-2	1	49	104	881	1800	120	0.96	0.23	0.30	3.33	0.00	3.33

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	A	1	462	450	59	✓	1800	450	103	✓	-3	1.04	30
		2	254	254	32	✓	1800	300	85		18	1.16	20
	Ax	1	627	627	17	✓	Unrestricted	Unrestricted	0		Unrestricted	0.74	120
	B	1	494	480	0		1800	480	103	✓	-3	0.00	32
		2	173	173	0		581	203	85		18	0.00	42
	Bx	1	815	815	107	✓	Unrestricted	Unrestricted	0		Unrestricted	0.44	120
	C	1	294	294	0		1800	450	65		53	0.29	30
		2	156	156	0		1800	300	52		92	0.19	20
	Cx	1	462	462	46	✓	Unrestricted	Unrestricted	0		Unrestricted	0.54	120
	D	2	559	480	0		1800	480	116	✓	-14	0.00	32
		3	65	65	0		505	177	37		172	0.00	42
	Dx	1	689	689	42	✓	Unrestricted	Unrestricted	0		Unrestricted	0.36	120
	A-1	1	807	716	0		1800	716	113	✓	-11	0.00	120
	B-1	1	667	667	0		1800	1800	37		170	0.00	120
	C-1	1	450	450	0		1800	1487	30		230	0.00	120
	D-1	1	257	240	0		900	240	107	✓	-7	0.00	32
	D-2	1	881	881	0		1800	1800	49		104	0.00	120

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Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	18.00	157.49	6.40	13.83	287.29	174.30	450.00	334.36	9.83
		2	4.80	110.17	4.89	2.88	110.33	107.76	200.00	73.57	3.43
	Ax	1	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	36.00	149.64	5.87	14.67	291.58	173.63	478.33	355.09	10.45
		2	4.80	114.81	2.30	3.22	78.35	114.97	120.97	77.93	2.49
	Bx	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	4.80	48.01	3.12	0.80	55.68	74.32	200.00	18.50	2.74
		2	36.00	53.02	2.02	0.28	32.63	88.61	129.98	8.25	1.73
	Cx	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	2	60.00	310.03	5.87	42.27	683.59	258.00	480.00	758.42	15.53
		3	2.40	54.19	0.80	0.18	13.89	97.26	60.02	3.20	0.79
	Dx	1	60.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	A-1	1	18.00	248.96	6.89	48.91	792.49	233.94	712.06	963.80	21.01
	B-1	1	18.00	0.59	0.00	0.11	1.55	0.00	0.00	0.00	0.00
	C-1	1	18.00	2.64	0.26	0.07	4.68	20.79	91.59	1.97	1.17
	D-1	1	1.00	220.96	2.93	12.84	223.99	212.95	240.00	271.07	4.52
	D-2	1	54.00	0.96	0.00	0.23	3.33	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	28.83	26.09	110.52	1.01	0.00	0.00	0.00	0.00	0.00	
		2	8.00	9.32	8.00	116.45	0.84	0.84	8404.47	0.00	0.00	0.00	
	Ax	1	0.00	0.00	26.09	0.00	0.00	0.00	0.00	34.00	0.00	34.00	
	B	1	0.00	30.53	52.17	58.52	0.00	0.00	0.00	0.00	0.00	0.00	
		2	8.00	6.98	8.00	87.20	0.00	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	C	1	8.00	7.29	8.00	91.16	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	4.69	52.17	9.00	0.00	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	13.00	0.00	13.00	
	D	2	0.00	58.14	86.96	66.86	0.00	0.00	0.00	0.00	0.00	0.00	
		3	4.00	1.52	4.00	37.91	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	86.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	A-1	1	0.00	72.39	26.09	277.51	34.47	0.00	0.00	0.00	72.24	72.24	
	B-1	1	0.00	0.11	26.09	0.42	0.00	0.00	0.00	0.00	0.00	0.00	
	C-1	1	0.00	3.44	26.09	13.19	0.00	0.00	0.00	0.00	20.88	20.88	
	D-1	1	0.00	20.77	1.22	1706.44	15.59	0.00	0.00	0.00	0.00	0.00	
	D-2	1	0.00	0.23	78.26	0.30	0.00	0.00	0.00	0.00	120.00	120.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	69.37	22.54	3.08	175.49
		2	10.15	7.88	1.29	111.76
	Ax	1	94.05	3.14	30.00	18.00
	B	1	148.20	25.47	5.82	185.64
		2	6.92	5.47	1.26	113.90
	Bx	1	244.44	8.15	30.00	36.00
	C	1	11.76	4.14	2.84	50.70
		2	46.80	3.86	12.13	89.02
	Cx	1	138.47	4.62	30.00	36.00
	D	2	279.50	57.46	4.86	370.03
		3	1.30	0.95	1.36	52.84
	Dx	1	344.26	11.48	30.00	60.00
	A-1	1	121.05	59.84	2.02	266.96
	B-1	1	100.05	3.44	29.05	18.59
	C-1	1	67.50	2.58	26.16	20.64
	D-1	1	1.80	15.85	0.11	221.96
	D-2	1	396.45	13.45	29.48	54.96

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Mean End of Green Queue EoTS (Veh)	Mean End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	37.18	22.18	37.11	1.00	0.00	297.13
		2	0.00	0.00	✓	9.16	2.49	9.16	1.00	8404.47	8518.22
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	39.58	23.71	35.45	1.00	0.00	302.03
		2	0.00	0.00	✓	6.72	2.68	6.53	1.00	0.00	80.84
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	7.29	0.62	7.29	1.00	0.00	58.42
		2	0.00	0.00	✓	4.70	0.28	4.31	1.00	0.00	34.36
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	2	0.00	0.00	✓	97.76	81.90	93.63	1.00	0.00	699.12
		3	0.00	0.00	✓	1.52	0.11	1.52	1.00	0.00	14.69
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	A-1	1	0.00	0.00	✓	117.89			1.00	0.00	813.50
	B-1	1	0.00	0.00	✓	0.11			1.00	0.00	1.55
	C-1	1	0.00	0.00	✓	3.44			1.00	0.00	5.86
	D-1	1	0.00	0.00	✓	30.11	22.18	28.05	1.00	0.00	228.51
	D-2	1	0.00	0.00	✓	0.23			1.00	0.00	3.33

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Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	11	50	11000	5	55.58	1.60	10.96	10.96
		2	11	50	11000	5	55.58	1.60	10.96	10.96
	2	1	11	50	11000	5	55.58	1.60	10.96	10.96
		2	11	50	11000	5	55.58	1.60	10.96	10.96
	3	1	11	50	11000	5	113.87	1.67	22.46	22.46
		2	11	50	11000	5	55.58	1.60	10.96	10.96
	4	1	11	50	11000	5	55.58	1.60	10.96	10.96
		2	11	50	11000	5	113.87	1.67	22.46	22.46
	5	1	22	100	11000	5	107.50	3.33	42.40	42.40
		2	22	100	11000	5	55.63	3.19	21.94	21.94

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	1	1	50	50	0		11000	458	11		817	0.00	5
		2	50	50	0		11000	458	11		817	0.00	5
	2	1	50	50	0		11000	458	11		817	0.00	5
		2	50	50	0		11000	458	11		817	0.00	5
	3	1	50	50	0		11000	458	11		817	1.92	5
		2	50	50	0		11000	458	11		817	0.00	5
	4	1	50	50	0		11000	458	11		817	0.00	5
		2	50	50	0		11000	458	11		817	1.92	5
	5	1	100	100	0		11000	458	22		358	1.91	5
		2	100	100	0		11000	458	22		358	0.00	5

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	13.00	55.58	0.77	0.00	10.96
		2	13.00	55.58	0.77	0.00	10.96
	2	1	11.67	55.58	0.77	0.00	10.96
		2	11.67	55.58	0.77	0.00	10.96
	3	1	12.67	113.87	1.58	0.00	22.46
		2	11.67	55.58	0.77	0.00	10.96
	4	1	11.00	55.58	0.77	0.00	10.96
		2	12.00	113.87	1.58	0.00	22.46
	5	1	6.00	107.50	2.99	0.00	42.40
		2	5.00	55.63	1.55	0.00	21.94

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	1	1	1.60	10.00	15.97	0.00	0.00	0.00
		2	1.60	10.00	15.97	0.00	0.00	0.00
	2	1	1.60	10.00	15.97	0.00	0.00	0.00
		2	1.60	10.00	15.97	0.00	0.00	0.00
	3	1	1.67	10.00	16.67	0.00	0.00	0.00
		2	1.60	10.00	15.97	0.00	0.00	0.00
	4	1	1.60	10.00	15.97	0.00	0.00	0.00
		2	1.67	10.00	16.67	0.00	0.00	0.00
	5	1	3.33	10.00	33.33	0.00	0.00	0.00
		2	3.19	10.00	31.94	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	0.95	0.95	1.00	68.58
		2	0.95	0.95	1.00	68.58
	2	1	0.85	0.93	0.91	67.25
		2	0.85	0.93	0.91	67.25
	3	1	0.95	1.76	0.54	126.53
		2	0.85	0.93	0.91	67.25
	4	1	0.80	0.92	0.87	66.58
		2	0.90	1.75	0.51	125.87
	5	1	0.90	3.15	0.29	113.50
		2	0.70	1.68	0.42	60.63

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	0.00	0.00	1.60	1.00	0.00	10.96
		2	0.00	0.00	1.60	1.00	0.00	10.96
	2	1	0.00	0.00	1.60	1.00	0.00	10.96
		2	0.00	0.00	1.60	1.00	0.00	10.96
	3	1	0.00	0.00	1.67	1.00	0.00	22.46
		2	0.00	0.00	1.60	1.00	0.00	10.96
	4	1	0.00	0.00	1.60	1.00	0.00	10.96
		2	0.00	0.00	1.67	1.00	0.00	22.46
	5	1	0.00	0.00	3.33	1.00	0.00	42.40
		2	0.00	0.00	3.19	1.00	0.00	21.94

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Collections

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	131.3	89.3	145.7	0.0	0.0	0.0	0.0
	2	143.8	0.0	294.9	461.0	0.0	0.0	0.0	0.0
	3	478.4	438.7	0.0	478.4	0.0	0.0	0.0	0.0
	4	240.2	264.2	150.5	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	68.6	180.8	0.0
	6	0.0	0.0	0.0	0.0	68.6	0.0	0.0	67.3
	7	0.0	0.0	0.0	0.0	187.2	0.0	0.0	186.5
	8	0.0	0.0	0.0	0.0	0.0	67.3	180.1	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Normal journey dist (m)	Bus journeydist (m)	Tram journey dist (m)	Pedestrian journey dist (m)	Calculated Total Flow (Veh/hr)	Avg journey time (s)	Avg journey dist (m)
14	7	5		50		187.17	26.00	26.00	26.00	26.00	50	187.17	26.00
15	7	8		50		186.50	25.00	25.00	25.00	25.00	50	186.50	25.00
16	2	4	559		460.98		1250.00	0.00	0.00	0.00	559	460.98	1250.00
17	2	3	257		294.92		607.00	0.00	0.00	0.00	257	294.92	607.00
18	8	6		50		67.25	17.00	17.00	17.00	17.00	50	67.25	17.00
19	4	2	365		264.23		950.00	0.00	0.00	0.00	365	264.23	950.00
20	3	1	314		478.45		600.00	0.00	0.00	0.00	314	478.45	600.00
23	5	6		50		68.58	19.00	19.00	19.00	19.00	50	68.58	19.00
34	6	8		50		67.25	17.00	17.00	17.00	17.00	50	67.25	17.00
35	6	5		50		68.58	19.00	19.00	19.00	19.00	50	68.58	19.00
36	8	7		50		180.08	25.00	25.00	25.00	25.00	50	180.08	25.00
37	5	7		50		180.75	26.00	26.00	26.00	26.00	50	180.75	26.00
39	2	1	65		143.79		770.00	0.00	0.00	0.00	65	143.79	770.00
40	1	4	156		145.66		750.00	0.00	0.00	0.00	156	145.66	750.00
41	1	2	80		131.34		690.00	0.00	0.00	0.00	80	131.34	690.00
42	1	3	214		89.34		340.00	0.00	0.00	0.00	214	89.34	340.00
43	4	3	173		150.49		340.00	0.00	0.00	0.00	173	150.49	340.00
44	4	1	129		240.23		750.00	0.00	0.00	0.00	129	240.23	750.00
45	3	2	286		438.73		690.00	0.00	0.00	0.00	286	438.73	690.00
46	3	4	207		478.45		600.00	0.00	0.00	0.00	207	478.45	600.00

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	C		462 <	1800	30	0.00	103	-3	175.49	157.49	174.30	
	2		1	1	D		254 <	1800	20	0.00	85	18	111.76	110.17	107.76	
Ax	1	(untitled)					627	Unrestricted	120	34.00	0	Unrestricted	18.00	0.00	0.00	
B	1	(untitled)	1	1	A		494	1800	32	0.00	103	-3	185.64	149.64	173.63	
	2		1	1	A	B	173	581	42	0.00	85	18	113.90	114.81	114.97	
Bx	1	(untitled)					815	Unrestricted	120	0.00	0	Unrestricted	36.00	0.00	0.00	
C	1	(untitled)	1	1	C		294	1800	30	0.00	65	53	50.70	48.01	74.32	
	2		1	1	D		156	1800	20	0.00	52	92	89.02	53.02	88.61	
Cx	1	(untitled)					462	Unrestricted	120	13.00	0	Unrestricted	36.00	0.00	0.00	
D	2	(untitled)	1	1	A		559	1800	32	0.00	116	-14	370.03	310.03	258.00	
	3		1	1	A	B	65	505	42	0.00	37	172	52.84	54.19	97.26	
Dx	1	(untitled)					689	Unrestricted	120	0.00	0	Unrestricted	60.00	0.00	0.00	
A-1	1		1				807 <	1800	120	72.24	113	-11	266.96	248.96	233.94	
B-1	1		1				667	1800	120	0.00	37	170	18.59	0.59	0.00	
C-1	1		1				450	1800	120	20.88	30	230	20.64	2.64	20.79	
D-1	1	(untitled)	1	1	A		257 <	900	32	0.00	107	-7	221.96	220.96	212.95	
D-2	1		1				881	1800	120	120.00	49	104	54.96	0.96	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	C tr pe (£
1	1	(untitled)	1	1	E	50	11000	5	11	817	68.58	55.58	1.60	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	68.58	55.58	1.60	100	
2	1	(untitled)	1	1	E	50	11000	5	11	817	67.25	55.58	1.60	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	67.25	55.58	1.60	100	
3	1	(untitled)	1	1	E	50	11000	5	11	817	126.53	113.87	1.67	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	67.25	55.58	1.60	100	
4	1	(untitled)	1	1	E	50	11000	5	11	817	66.58	55.58	1.60	100	
	2	(untitled)	1	1	E	50	11000	5	11	817	125.87	113.87	1.67	100	
5	1	(untitled)		1	E	100	11000	5	22	358	113.50	107.50	3.33	100	
	2	(untitled)		1	E	100	11000	5	22	358	60.63	55.63	3.19	100	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	2082.07	250.32	8.32	41.36	140.28	2579.37	73.71	8404.47	11057.54
Bus									
Tram									
Pedestrians	8.70	13.97	0.62	12.33	0.00	175.03	0.00	0.00	175.03
TOTAL	2090.77	264.29	7.91	53.69	140.28	2754.40	73.71	8404.47	11232.58

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

TRANSYT 16

Filename: Junction 3 - PM.t16
Path: M:\Projects\23\23-102 Mooretown\Design\Traffic\2024-02 - Modelling\Junction 3
Report generation date: 05/03/2024 13:09:24

»A1 - Junction 3 : D1 - 2023 Base Year, PM :
»A1 - Junction 3 : D2 - 2027 Do Nothing, PM :
»A1 - Junction 3 : D3 - 2027 Do Something, PM :
»A1 - Junction 3 : D4 - 2032 Do Nothing, PM :
»A1 - Junction 3 : D5 - 2032 Do Something, PM :
»A1 - Junction 3 : D6 - 2042 Do Nothing, PM :
»A1 - Junction 3 : D7 - 2042 Do Something, PM :

Summary of network performance

	PM				
	Set ID	PI (£ per hr)	Total delay (Veh-hr/hr)	Highest DOS	Number oversaturated
	Junction 3 - 2023 Base Year				
Network	D1	10583.31	39.62	78% (TS B/1)	0 (0%)
	Junction 3 - 2027 Do Nothing				
Network	D2	11658.37	113.93	124% (TS B/1)	1 (4%)
	Junction 3 - 2027 Do Something				
Network	D3	27396.78	157.13	139% (TS B/1)	1 (4%)
	Junction 3 - 2032 Do Nothing				
Network	D4	22132.30	131.26	129% (TS B/1)	1 (4%)
	Junction 3 - 2032 Do Something				
Network	D5	75616.52	176.96	144% (TS B/1)	1 (4%)
	Junction 3 - 2042 Do Nothing				
Network	D6	78485.09	148.54	133% (TS B/1)	1 (4%)
	Junction 3 - 2042 Do Something				
Network	D7	179363.38	196.64	148% (TS B/1)	1 (4%)

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File summary

File description

File title	Junction 3
Location	Mooretown
Site number	
UTCRegion	
Driving side	Left
Date	01/03/2024
Version	1
Status	(new file)
Identifier	
Client	
Jobnumber	23-102
Enumerator	DOMAIN\f.demaio
Description	

Model and Results

Enable controller offsets	Enable fuel consumption	Enable quick flares	Display journey time results	Display OD matrix distances	Display level of service results	Display blocking and starvation results	Display end of red and green queue results	Display excess queue results	Display separate uniform and random results	Display unweighted results	Display TRANSYT 12 style timings	Display effective greens in results	Display Red-With-Amber	Display End-Of-Green Amber	c m
			✓			✓		✓	✓						

Units

Cost units	Speed units	Distance units	Fuel economy units	Fuel rate units	Mass units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
£	kph	m	mpg	l/h	kg	Veh	Veh	perHour	s	-Hour	perHour

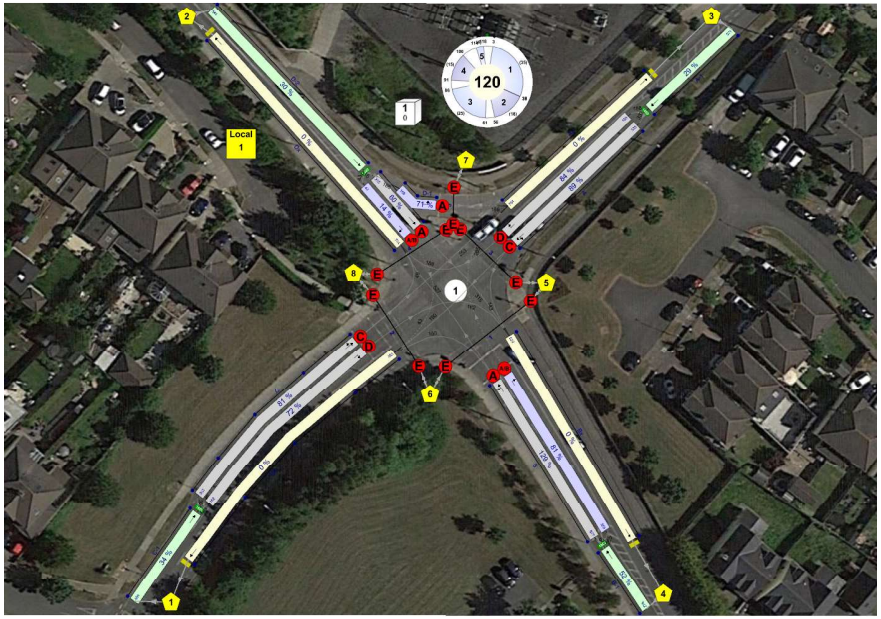
Sorting

Show names instead of IDs	Sorting direction	Sorting type	Ignore prefixes when sorting	Analysis/demand set sorting	Link grouping	Source grouping	Colour Analysis/Demand Sets
	Ascending	Numerical		ID	Normal	Normal	✓

Simulation options

Criteria type	Stop criteria (%)	Stop criteria time (s)	Stop criteria number of trials	Random seed	Results refresh speed (s)	Average animation capture interval (s)	Use quick response	Do flow sampling	Uniform vehicle generation	Last run random seed	Last run number of trials	Last run time taken (s)
Delay	3.00	999	200	-1	3	60	✓			0	0	0.00

Network Diagrams



Junction 3
Diagram produced using TRANSYT 16.0.1.8473

A1 - Junction 3
D1 - 2023 Base Year, PM

Summary

Data Errors and Warnings

Severity	Area	Item	Description
Signals Warning	Signal Timings	Controller Stream 1	Controller Stream 1: Phase C maximum green of 24s violated (This will be repaired automatically if doing a full optimised run.)

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item wi wors unsignal PRC
1	05/03/2024 13:03:20	05/03/2024 13:03:20	0.82	17:00	120	10583.31	39.62	77.71	B/1	0	0	B/1	B-1/1

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set (s)	Optimise specific Demand Set (s)	Demand Set(s) to optimise	Include in report	Locked
Junction 3				✓	D7	✓	

Demand Set Details

Scenario name	Time Period name	Description	Composite	Demand sets	Start time (HH:mm)	Locked	Run automatically
2023 Base Year	PM	(untitled)			17:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120	114	114		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	2

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)	Missing stage transition options
10000.00	10000.00	10000.00	2	Assume banned

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from traffic model	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓			Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy (%)	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Standard accuracy Hill Climb	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

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Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
A-1			1
B-1			1
C-1			1
D-1	(untitled)		1
D-2			1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Auto-calculate cell saturation flow	Cell saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			150.00	✓	Sum of lanes	1800			✓		Normal	
	2				40.00	✓	Sum of lanes	1800	✓	1800	✓		Normal	
Ax	1	(untitled)			150.00								Normal	
B	1	(untitled)			300.00	✓	Sum of lanes	1800			✓		Normal	
	2				40.00	✓	Sum of lanes	1800	✓	1800	✓	✓	Normal	
Bx	1	(untitled)			300.00								Normal	
C	1	(untitled)			40.00	✓	Sum of lanes	1800	✓	1800	✓		Normal	
	2				300.00	✓	Sum of lanes	1800			✓		Normal	
Cx	1	(untitled)			300.00								Normal	
D	2	(untitled)			500.00	✓	Sum of lanes	1800			✓		Normal	
	3				20.00	✓	Sum of lanes	1800			✓	✓	Normal	
Dx	1	(untitled)			500.00								Normal	
A-1	1				150.00	✓	Sum of lanes	1800					Normal	
B-1	1				150.00	✓	Sum of lanes	1800					Normal	
C-1	1				150.00	✓	Sum of lanes	1800					Normal	
D-1	1	(untitled)			7.00	✓	Sum of lanes	1800			✓	✓	Normal	
D-2	1				150.00	✓	Sum of lanes	1800					Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
	2	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
C	1	1	(untitled)			1800
	2	1	(untitled)			1800
Cx	1	1	(untitled)			
D	2	1	(untitled)			1800
	3	1	(untitled)			1800
Dx	1	1	(untitled)			
A-1	1	1	(untitled)			1800
B-1	1	1	(untitled)			1800
C-1	1	1	(untitled)			1800
D-1	1	1	(untitled)			1800
D-2	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Queue limit (PCU)	Excess queue penalty (£)	Has degree of saturation limit
A	1	NetworkDefault	100	100	100		0.00				
	2	Flare	100	100	100		8.00	✓	8.00	9999.00	
Ax	1	NetworkDefault	100	100	100		0.00				
B	1	NetworkDefault	100	100	100		0.00				
	2	Flare	100	100	100		8.00	✓	8.00	99999.00	
Bx	1	NetworkDefault	100	100	100		0.00				
C	1	Flare	100	100	100		8.00	✓	8.00	99999.00	
	2	NetworkDefault	100	100	100		0.00				
Cx	1	NetworkDefault	100	100	100		0.00				
D	2	NetworkDefault	100	100	100		0.00				
	3	Flare	100	100	100		4.00	✓	4.00	99999.00	
Dx	1	NetworkDefault	100	100	100		0.00				
A-1	1	NetworkDefault	100	100	100		0.00				
B-1	1	NetworkDefault	100	100	100		0.00				
C-1	1	NetworkDefault	100	100	100		0.00				
D-1	1	NetworkDefault	100	100	100		0.00				
D-2	1	NetworkDefault	100	100	100		0.00				

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Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
A	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	8.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Ax	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
B	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	8.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Bx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
C	1	8.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Cx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
D	2	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	3	4.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Dx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
A-1	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
B-1	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
C-1	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
D-1	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
D-2	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	287	287
	2	140	140
Ax	1	594	594
B	1	408	408
	2	230	230
Bx	1	434	434
C	1	240	240
	2	143	143
Cx	1	324	324
D	2	167	167
	3	28	28
Dx	1	440	440
A-1	1	427	427
B-1	1	638	638
C-1	1	383	383
D-1	1	149	149
D-2	1	344	344

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	C		
	2	1	D		
B	1	1	A		
	2	1	A	✓	B
C	1	1	C		
	2	1	D		
D	2	1	A		
	3	1	A	✓	B
D-1	1	1	A		

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
(ALL)	1	18.00	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A	1	1	A-1/1	A/1	18.00	30.00	✓	Straight	Straight Movement
	2	1	A-1/1	A/2	4.80	30.00	✓	Straight	Straight Movement
Ax	1	1	C/1	Ax/1	18.00	30.00	✓	Straight	Straight Movement
B	1	1	B-1/1	B/1	36.00	30.00	✓	Straight	Straight Movement
	2	1	B-1/1	B/2	4.80	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	36.00	30.00	✓	Nearside	42.61
C	1	1	C-1/1	C/1	4.80	30.00	✓	Straight	Straight Movement
	2	1	C-1/1	C/2	36.00	30.00	✓	Straight	Straight Movement
Cx	1	1	A/1	Cx/1	36.00	30.00	✓	Straight	Straight Movement
D	2	1	D-2/1	D/2	60.00	30.00	✓	Straight	Straight Movement
	3	1	D-2/1	D/3	2.40	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	60.00	30.00	✓	Nearside	25.27
D-1	1	1	D-2/1	D-1/1	1.00	30.00	✓	Straight	Straight Movement
Ax	1	2	D-1/1	Ax/1	18.00	30.00	✓	Nearside	43.60
Bx	1	2	C/2	Bx/1	36.00	30.00	✓	Offside	38.45
Cx	1	2	B/1	Cx/1	36.00	30.00	✓	Nearside	39.22
Dx	1	2	B/1	Dx/1	60.00	30.00	✓	Straight	Straight Movement
Ax	1	3	B/2	Ax/1	18.00	30.00	✓	Offside	70.68
Bx	1	3	D/2	Bx/1	36.00	30.00	✓	Straight	Straight Movement
Cx	1	3	D/3	Cx/1	36.00	30.00	✓	Offside	49.21
Dx	1	3	A/2	Dx/1	60.00	30.00	✓	Offside	37.07

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
(ALL)	(ALL)	AllTraffic		

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Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible
2		TrafficStream	D/2	100	0.00	
3		TrafficStream	B/1	100	0.00	
1		TrafficStream	B/2	100	0.00	

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	18.00	12.00	5.40
2	(untitled)		1		Farside	16.00	10.67	5.40
3	(untitled)		1		Farside	16.00	10.67	5.40
4	(untitled)		1		Farside	15.00	10.00	5.40
5	(untitled)				Farside	6.00	4.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	5:1	3:1	3.00	2.00	5.40
2	5:1	4:2	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25				

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	25	215	143	0	0	0	0
	2	28	0	149	167	0	0	0	0
	3	163	140	0	124	0	0	0	0
	4	133	275	230	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C-1/1	Cx/1	#0000FF
	2	(untitled)	D-2/1	Dx/1	#FF0000
	3	(untitled)	A-1/1	Ax/1	#00FF00
	4	(untitled)	B-1/1	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#008000
	7	(untitled)	5:2E	5:2X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	16		2	4	D-2/1, D/2, Bx/1	Normal	167
	17		2	3	D-2/1, D-1/1, Ax/1	Normal	149
	19		4	2	B-1/1, B/1, Dx/1	Normal	275
	20		3	1	A-1/1, A/1, Cx/1	Normal	163
	39		2	1	D-2/1, D/3, Cx/1	Normal	28
	40		1	4	C-1/1, C/2, Bx/1	Normal	143
	41		1	2	C-1/1, C/1, Dx/1	Normal	25
	42		1	3	C-1/1, C/1, Ax/1	Normal	215
	43		4	3	B-1/1, B/2, Ax/1	Normal	230
	44		4	1	B-1/1, B/1, Cx/1	Normal	133
	45		3	2	A-1/1, A/2, Dx/1	Normal	140
	46		3	4	A-1/1, A/1, Bx/1	Normal	124

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Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	14		7	5	5:2E, 5:1X, 3:1E, 3:2X	Normal	50
	15		7	8	5:2E, 5:1X, 4:2E, 4:1X	Normal	50
	18		8	6	2:2E, 2:1X	Normal	50
	23		5	6	1:1E, 1:2X	Normal	50
	34		6	8	2:1E, 2:2X	Normal	50
	35		6	5	1:2E, 1:1X	Normal	50
	36		8	7	4:1E, 4:2X, 5:1E, 5:2X	Normal	50
	37		5	7	3:2E, 3:1X, 5:1E, 5:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)	Minimum possible cycle time (s)
1	(untitled)		1	NetworkDefault	120	114

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	35	300	0	0	Unknown	
	B	(untitled)	15	18	0	0	Unknown	
	C	(untitled)	22	24	0	0	Unknown	
	D	(untitled)	15	15	0	0	Unknown	
	E	(untitled)	4	5	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)	Run every N cycles	Probability of running (%)
1	1	A	1	1	100
	2	B	1	1	100
	3	C	1	1	100
	4	D	1	1	100
	5	E	1	1	100

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)	Single	1, 2, 3, 4, 5	38, 56, 86, 106, 118	114	
	2	(untitled)	Single	1, 2, 3, 5, 4	21, 42, 72, 98, 123	114	
	3	(untitled)	Single	1, 2, 4, 3, 5	24, 48, 77, 101, 0	114	
	4	(untitled)	Single	1, 2, 4, 5, 3	23, 45, 72, 97, 124	114	
	5	(untitled)	Single	1, 2, 5, 3, 4	23, 46, 74, 101, 123	114	
	6	(untitled)	Single	1, 2, 5, 4, 3	23, 46, 75, 102, 124	114	
	7	(untitled)	Single	1, 3, 2, 4, 5	23, 51, 78, 105, 0	119	
	8	(untitled)	Single	1, 3, 2, 5, 4	21, 47, 72, 98, 123	119	
	9	(untitled)	Single	1, 3, 4, 2, 5	23, 51, 74, 102, 0	119	
	10	(untitled)	Single	1, 3, 4, 5, 2	24, 53, 76, 102, 0	114	

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A			5	5	8
	B			5	5	8
	C	5	5		5	8
	D	5	5	5		8
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

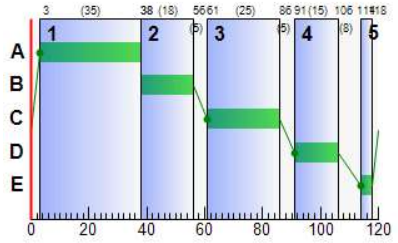
		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	61	86	25
A	2	1	1	D	91	106	15
B	1	1	1	A	3	38	35
B	2	1	1	A	3	38	35
C	1	1	1	C	61	86	25
C	2	1	1	D	91	106	15
D	2	1	1	A	3	38	35
D	3	1	1	A	3	38	35
D-1	1	1	1	A	3	38	35

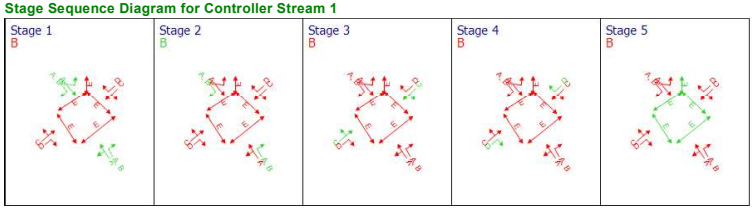
Phase Timings Diagram

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	1	10000.00	0.00	0.00	10000.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	77	31	287	1800	25	59.73	10.12	38.81	67.61	3.76	71.37
		2	62	61	140	1800	15	71.77	4.77	59.59	39.63	1.79	41.42
	Ax	1	0	Unrestricted	594	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	78	29	408	1800	35	50.47	13.66	26.19	81.23	5.07	86.30
		2	70	43	230	743	53	59.29	6.03	75.32	53.79	2.19	55.98
	Bx	1	0	Unrestricted	434	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	64	56	240	1800	25	54.96	7.22	90.27	52.03	2.71	54.74
		2	64	57	143	1800	15	63.97	5.05	9.67	36.08	1.86	37.94
	Cx	1	0	Unrestricted	324	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	2	32	214	167	1800	35	34.79	4.39	5.05	22.92	1.63	24.54
		3	9	968	28	677	53	30.38	0.53	13.15	3.36	0.27	3.62
	Dx	1	0	Unrestricted	440	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	A-1	1	24	322	427	1800	120	0.31	0.04	0.14	0.52	0.00	0.52
	B-1	1	35	182	638	1800	120	0.55	0.10	0.37	1.38	0.00	1.38
	C-1	1	23	341	383	1800	120	0.48	0.99	3.80	0.73	0.25	0.97
	D-1	1	57	76	149	900	35	44.94	4.55	373.49	26.41	1.19	27.60
	D-2	1	19	423	344	1800	120	0.24	0.02	0.09	0.32	0.00	0.32

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	A	1	287	287	0		1800	375	77		31	0.00	25
		2	140	140	0		1800	225	62		61	0.00	15
	Ax	1	594	594	0		Unrestricted	Unrestricted	0		Unrestricted	0.69	120
	B	1	408	408	0		1800	525	78		29	0.00	35
		2	230	230	0		743	328	70		43	0.00	53
	Bx	1	434	434	0		Unrestricted	Unrestricted	0		Unrestricted	0.53	120
	C	1	240	240	0		1800	375	64		56	0.07	25
		2	143	143	0		1800	225	64		57	0.02	15
	Cx	1	324	324	0		Unrestricted	Unrestricted	0		Unrestricted	0.64	120
	D	2	167	167	0		1800	525	32		214	0.00	35
		3	28	28	0		677	299	9		968	0.00	53
	Dx	1	440	440	0		Unrestricted	Unrestricted	0		Unrestricted	0.52	120
	A-1	1	427	427	0		1800	1800	24		322	0.00	120
	B-1	1	638	638	0		1800	1800	35		182	0.00	120
	C-1	1	383	383	0		1800	1688	23		341	0.00	120
	D-1	1	149	149	0		900	263	57		76	0.00	35
	D-2	1	344	344	0		1800	1800	19		423	0.00	120

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Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	A	1	18.00	59.73	3.57	1.19	67.61	104.46	265.04	34.75	3.76
		2	4.80	71.77	1.94	0.85	39.63	101.84	127.17	15.42	1.79
	Ax	1	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	36.00	50.47	4.41	1.31	81.23	99.07	365.87	38.32	5.07
		2	4.80	59.29	2.69	1.10	53.79	75.88	149.78	24.74	2.19
	Bx	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	4.80	54.96	2.88	0.78	52.03	90.14	199.25	17.09	2.71
		2	36.00	63.97	2.00	0.54	36.08	103.80	132.72	15.71	1.86
	Cx	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	2	60.00	34.79	1.54	0.07	22.92	77.82	127.75	2.21	1.63
		3	2.40	30.38	0.20	0.03	3.36	76.03	21.14	0.14	0.27
	Dx	1	60.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	A-1	1	18.00	0.31	0.00	0.04	0.52	0.00	0.00	0.00	0.00
	B-1	1	18.00	0.55	0.00	0.10	1.38	0.00	0.00	0.00	0.00
	C-1	1	18.00	0.48	0.02	0.03	0.73	5.12	18.62	1.00	0.25
	D-1	1	1.00	44.94	1.49	0.37	26.41	90.55	124.12	10.80	1.19
	D-2	1	18.00	0.24	0.00	0.02	0.32	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	A	1	0.00	10.12	26.09	38.81	0.00	0.00	0.00	0.00	0.00	0.00	
		2	8.00	4.77	8.00	59.59	0.00	0.00	0.00	0.00	0.00	0.00	
	Ax	1	0.00	0.00	26.09	0.00	0.00	0.00	0.00	27.00	0.00	27.00	
	B	1	0.00	13.66	52.17	26.19	0.00	0.00	0.00	0.00	0.00	0.00	
		2	8.00	6.03	8.00	75.32	0.00	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	9.00	0.00	9.00	
	C	1	8.00	7.22	8.00	90.27	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	5.05	52.17	9.67	0.00	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	17.00	0.00	17.00	
	D	2	0.00	4.39	86.96	5.05	0.00	0.00	0.00	0.00	0.00	0.00	
		3	4.00	0.53	4.00	13.15	0.00	0.00	0.00	27.00	0.00	27.00	
	Dx	1	0.00	0.00	86.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	A-1	1	0.00	0.04	26.09	0.14	0.00	0.00	0.00	0.00	0.00	0.00	
	B-1	1	0.00	0.10	26.09	0.37	0.00	0.00	0.00	0.00	0.00	0.00	
	C-1	1	0.00	0.99	26.09	3.80	0.00	0.00	0.00	0.00	7.44	7.44	
	D-1	1	0.00	4.55	1.22	373.49	1.13	0.00	0.00	0.00	0.00	0.00	
	D-2	1	0.00	0.02	26.09	0.09	0.00	0.00	0.00	0.00	81.00	81.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	A	1	43.05	6.20	6.95	77.73
		2	5.60	2.65	2.11	68.21
	Ax	1	89.10	2.97	30.00	18.00
	B	1	122.40	9.80	12.49	86.47
		2	9.20	3.84	2.40	60.11
	Bx	1	130.20	4.34	30.00	36.00
	C	1	9.60	3.78	2.54	56.73
		2	42.90	3.97	10.80	99.97
	Cx	1	97.20	3.24	30.00	36.00
	D	2	83.50	4.40	18.99	94.79
		3	0.56	0.23	2.48	29.00
	Dx	1	220.00	7.33	30.00	60.00
	A-1	1	64.05	2.17	29.49	18.31
	B-1	1	95.70	3.29	29.11	18.55
	C-1	1	57.45	1.97	29.22	18.48
	D-1	1	1.04	1.90	0.55	45.94
	D-2	1	51.60	1.74	29.61	18.24

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Mean End of Green Queue EoTS (Veh)	Mean End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	0.00	0.00	✓	10.15	1.22	8.79	1.00	0.00	71.37
		2	0.00	0.00	✓	4.76	0.52	4.68	1.00	0.00	41.42
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	13.68	1.33	10.96	1.00	0.00	86.30
		2	0.00	0.00	✓	6.01	0.83	5.24	1.00	0.00	55.98
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	7.22	0.57	7.11	1.00	0.00	54.74
		2	0.00	0.00	✓	5.05	0.55	4.74	1.00	0.00	37.94
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	2	0.00	0.00	✓	4.39	0.07	4.02	1.00	0.00	24.54
		3	0.00	0.00	✓	0.53	0.00	0.53	1.00	0.00	3.62
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	A-1	1	0.00	0.00	✓	0.04			1.00	0.00	0.52
	B-1	1	0.00	0.00	✓	0.10			1.00	0.00	1.38
	C-1	1	0.00	0.00	✓	0.99			1.00	0.00	0.97
	D-1	1	0.00	0.00	✓	4.55	0.37	3.89	1.00	0.00	27.60
	D-2	1	0.00	0.00	✓	0.02			1.00	0.00	0.32

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Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	14	50	11000	4	56.55	1.61	11.15	11.15
		2	14	50	11000	4	56.55	1.61	11.15	11.15
	2	1	14	50	11000	4	56.55	1.61	11.15	11.15
		2	14	50	11000	4	56.55	1.61	11.15	11.15
	3	1	14	50	11000	4	113.89	1.67	22.46	22.46
		2	14	50	11000	4	56.55	1.61	11.15	11.15
	4	1	14	50	11000	4	56.55	1.61	11.15	11.15
		2	14	50	11000	4	113.89	1.67	22.46	22.46
	5	1	27	100	11000	4	107.53	3.33	42.42	42.42
		2	27	100	11000	4	56.61	3.22	22.33	22.33

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	1	1	50	50	0		11000	367	14		633	0.00	4
		2	50	50	0		11000	367	14		633	0.00	4
	2	1	50	50	0		11000	367	14		633	0.00	4
		2	50	50	0		11000	367	14		633	0.00	4
	3	1	50	50	0		11000	367	14		633	1.93	4
		2	50	50	0		11000	367	14		633	0.00	4
	4	1	50	50	0		11000	367	14		633	0.00	4
		2	50	50	0		11000	367	14		633	1.93	4
	5	1	100	100	0		11000	367	27		267	1.93	4
		2	100	100	0		11000	367	27		267	0.00	4

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
17:00-18:00	1	1	13.00	56.55	0.79	0.00	11.15
		2	13.00	56.55	0.79	0.00	11.15
	2	1	11.67	56.55	0.79	0.00	11.15
		2	11.67	56.55	0.79	0.00	11.15
	3	1	12.67	113.89	1.58	0.00	22.46
		2	11.67	56.55	0.79	0.00	11.15
	4	1	11.00	56.55	0.79	0.00	11.15
		2	12.00	113.89	1.58	0.00	22.46
	5	1	6.00	107.53	2.99	0.00	42.42
		2	5.00	56.61	1.57	0.00	22.33

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	1	1	1.61	10.00	16.11	0.00	0.00	0.00
		2	1.61	10.00	16.11	0.00	0.00	0.00
	2	1	1.61	10.00	16.11	0.00	0.00	0.00
		2	1.61	10.00	16.11	0.00	0.00	0.00
	3	1	1.67	10.00	16.67	0.00	0.00	0.00
		2	1.61	10.00	16.11	0.00	0.00	0.00
	4	1	1.61	10.00	16.11	0.00	0.00	0.00
		2	1.67	10.00	16.67	0.00	0.00	0.00
	5	1	3.33	10.00	33.33	0.00	0.00	0.00
		2	3.22	10.00	32.22	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	1	1	0.95	0.97	0.98	69.55
		2	0.95	0.97	0.98	69.55
	2	1	0.85	0.95	0.90	68.22
		2	0.85	0.95	0.90	68.22
	3	1	0.95	1.76	0.54	126.56
		2	0.85	0.95	0.90	68.22
	4	1	0.80	0.94	0.85	67.55
		2	0.90	1.75	0.51	125.89
	5	1	0.90	3.15	0.29	113.53
		2	0.70	1.71	0.41	61.61

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	0.00	0.00	1.61	1.00	0.00	11.15
		2	0.00	0.00	1.61	1.00	0.00	11.15
	2	1	0.00	0.00	1.61	1.00	0.00	11.15
		2	0.00	0.00	1.61	1.00	0.00	11.15
	3	1	0.00	0.00	1.67	1.00	0.00	22.46
		2	0.00	0.00	1.61	1.00	0.00	11.15
	4	1	0.00	0.00	1.61	1.00	0.00	11.15
		2	0.00	0.00	1.67	1.00	0.00	22.46
	5	1	0.00	0.00	3.33	1.00	0.00	42.42
		2	0.00	0.00	3.22	1.00	0.00	22.33

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Collections

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	135.2	93.2	154.4	0.0	0.0	0.0	0.0
	2	83.2	0.0	82.2	149.0	0.0	0.0	0.0	0.0
	3	132.0	146.5	0.0	132.0	0.0	0.0	0.0	0.0
	4	141.0	165.0	96.7	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	69.6	181.8	0.0
	6	0.0	0.0	0.0	0.0	69.6	0.0	0.0	68.2
	7	0.0	0.0	0.0	0.0	188.2	0.0	0.0	187.5
	8	0.0	0.0	0.0	0.0	0.0	68.2	181.1	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Normal journey dist (m)	Bus journeydist (m)	Tram journey dist (m)	Pedestrian journey dist (m)	Calculated Total Flow (Veh/hr)	Avg journey time (s)	Avg journey dist (m)
14	7	5		50		188.17	26.00	26.00	26.00	26.00	50	188.17	26.00
15	7	8		50		187.50	25.00	25.00	25.00	25.00	50	187.50	25.00
16	2	4	167		149.02		950.00	0.00	0.00	0.00	167	149.02	950.00
17	2	3	149		82.17		307.00	0.00	0.00	0.00	149	82.17	307.00
18	8	6		50		68.22	17.00	17.00	17.00	17.00	50	68.22	17.00
19	4	2	275		165.02		950.00	0.00	0.00	0.00	275	165.02	950.00
20	3	1	163		132.04		600.00	0.00	0.00	0.00	163	132.04	600.00
23	5	6		50		69.55	19.00	19.00	19.00	19.00	50	69.55	19.00
34	6	8		50		68.22	17.00	17.00	17.00	17.00	50	68.22	17.00
35	6	5		50		69.55	19.00	19.00	19.00	19.00	50	69.55	19.00
36	8	7		50		181.08	25.00	25.00	25.00	25.00	50	181.08	25.00
37	5	7		50		181.75	26.00	26.00	26.00	26.00	50	181.75	26.00
39	2	1	28		83.24		470.00	0.00	0.00	0.00	28	83.24	470.00
40	1	4	143		154.45		750.00	0.00	0.00	0.00	143	154.45	750.00
41	1	2	25		135.21		690.00	0.00	0.00	0.00	25	135.21	690.00
42	1	3	215		93.21		340.00	0.00	0.00	0.00	215	93.21	340.00
43	4	3	230		96.66		340.00	0.00	0.00	0.00	230	96.66	340.00
44	4	1	133		141.02		750.00	0.00	0.00	0.00	133	141.02	750.00
45	3	2	140		146.52		690.00	0.00	0.00	0.00	140	146.52	690.00
46	3	4	124		132.04		600.00	0.00	0.00	0.00	124	132.04	600.00

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			Q
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	C		287	1800	25	0.00	77	31	77.73	59.73	104.46	
	2		1	1	D		140	1800	15	0.00	62	61	68.21	71.77	101.84	
Ax	1	(untitled)					594	Unrestricted	120	27.00	0	Unrestricted	18.00	0.00	0.00	
B	1	(untitled)	1	1	A		408	1800	35	0.00	78	29	86.47	50.47	99.07	
	2		1	1	A	B	230	743	53	0.00	70	43	60.11	59.29	75.88	
Bx	1	(untitled)					434	Unrestricted	120	9.00	0	Unrestricted	36.00	0.00	0.00	
C	1	(untitled)	1	1	C		240	1800	25	0.00	64	56	56.73	54.96	90.14	
	2		1	1	D		143	1800	15	0.00	64	57	99.97	63.97	103.80	
Cx	1	(untitled)					324	Unrestricted	120	17.00	0	Unrestricted	36.00	0.00	0.00	
D	2	(untitled)	1	1	A		167	1800	35	0.00	32	214	94.79	34.79	77.82	
	3		1	1	A	B	28	677	53	27.00	9	968	29.00	30.38	76.03	
Dx	1	(untitled)					440	Unrestricted	120	0.00	0	Unrestricted	60.00	0.00	0.00	
A-1	1		1				427	1800	120	0.00	24	322	18.31	0.31	0.00	
B-1	1		1				638	1800	120	0.00	35	182	18.55	0.55	0.00	
C-1	1		1				383	1800	120	7.44	23	341	18.48	0.48	5.12	
D-1	1	(untitled)	1	1	A		149 <	900	35	0.00	57	76	45.94	44.94	90.55	
D-2	1		1				344	1800	120	81.00	19	423	18.24	0.24	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	C tr pe (£
1	1	(untitled)	1	1	E	50	11000	4	14	633	69.55	56.55	1.61	100	
	2	(untitled)	1	1	E	50	11000	4	14	633	69.55	56.55	1.61	100	
2	1	(untitled)	1	1	E	50	11000	4	14	633	68.22	56.55	1.61	100	
	2	(untitled)	1	1	E	50	11000	4	14	633	68.22	56.55	1.61	100	
3	1	(untitled)	1	1	E	50	11000	4	14	633	126.56	113.89	1.67	100	
	2	(untitled)	1	1	E	50	11000	4	14	633	68.22	56.55	1.61	100	
4	1	(untitled)	1	1	E	50	11000	4	14	633	67.55	56.55	1.61	100	
	2	(untitled)	1	1	E	50	11000	4	14	633	125.89	113.89	1.67	100	
5	1	(untitled)		1	E	100	11000	4	27	267	113.53	107.53	3.33	100	
	2	(untitled)		1	E	100	11000	4	27	267	61.61	56.61	3.22	100	

TRL THE FUTURE OF TRANSPORT
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Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	1123.15	63.82	17.60	20.74	6.44	386.01	20.71	0.00	406.72
Bus									
Tram									
Pedestrians	8.70	14.08	0.62	12.44	0.00	176.59	0.00	0.00	176.59
Controller streams									10000
TOTAL	1131.85	77.90	14.53	33.17	6.44	562.60	20.71	0.00	10583.31

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A1 - Junction 3
D2 - 2027 Do Nothing, PM

Summary

Data Errors and Warnings

Severity	Area	Item	Description
Signals Warning	Signal Timings	Controller Stream 1	Controller Stream 1: Phase C maximum green of 24s violated (This will be repaired automatically if doing a full optimised run.)

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item wi wors unsignal PRC
1	05/03/2024 13:03:20	05/03/2024 13:03:21	1.13	17:00	120	11658.37	113.93	124.00	B/1	1	4	B/1	B-1/1

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set (s)	Optimise specific Demand Set (s)	Demand Set(s) to optimise	Include in report	Locked
Junction 3				✓	D7	✓	

Demand Set Details

Scenario name	Time Period name	Description	Composite	Demand sets	Start time (HH:mm)	Locked	Run automatically
2027 Do Nothing	PM	(untitled)			17:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120	114	114		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	2

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)	Missing stage transition options
10000.00	10000.00	10000.00	2	Assume banned

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from traffic model	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓			Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

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Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy (%)	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Standard accuracy Hill Climb	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
A-1			1
B-1			1
C-1			1
D-1	(untitled)		1
D-2			1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Auto-calculate cell saturation flow	Cell saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			150.00	✓	Sum of lanes	1800			✓		Normal	
	2				40.00	✓	Sum of lanes	1800	✓	1800	✓		Normal	
Ax	1	(untitled)			150.00								Normal	
B	1	(untitled)			300.00	✓	Sum of lanes	1800			✓		Normal	
	2				40.00	✓	Sum of lanes	1800	✓	1800	✓	✓	Normal	
Bx	1	(untitled)			300.00								Normal	
C	1	(untitled)			40.00	✓	Sum of lanes	1800	✓	1800	✓		Normal	
	2				300.00	✓	Sum of lanes	1800			✓		Normal	
Cx	1	(untitled)			300.00								Normal	
D	2	(untitled)			500.00	✓	Sum of lanes	1800			✓		Normal	
	3				20.00	✓	Sum of lanes	1800			✓	✓	Normal	
Dx	1	(untitled)			500.00								Normal	
A-1	1				150.00	✓	Sum of lanes	1800					Normal	
B-1	1				150.00	✓	Sum of lanes	1800					Normal	
C-1	1				150.00	✓	Sum of lanes	1800					Normal	
D-1	1	(untitled)			7.00	✓	Sum of lanes	1800			✓	✓	Normal	
D-2	1				150.00	✓	Sum of lanes	1800					Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
	2	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
C	1	1	(untitled)			1800
	2	1	(untitled)			1800
Cx	1	1	(untitled)			
D	2	1	(untitled)			1800
	3	1	(untitled)			1800
Dx	1	1	(untitled)			
A-1	1	1	(untitled)			1800
B-1	1	1	(untitled)			1800
C-1	1	1	(untitled)			1800
D-1	1	1	(untitled)			1800
D-2	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Queue limit (PCU)	Excess queue penalty (£)	Has degree of saturation limit
A	1	NetworkDefault	100	100	100		0.00				
	2	Flare	100	100	100		8.00	✓	8.00	9999.00	
Ax	1	NetworkDefault	100	100	100		0.00				
B	1	NetworkDefault	100	100	100		0.00				
	2	Flare	100	100	100		8.00	✓	8.00	99999.00	
Bx	1	NetworkDefault	100	100	100		0.00				
C	1	Flare	100	100	100		8.00	✓	8.00	99999.00	
	2	NetworkDefault	100	100	100		0.00				
Cx	1	NetworkDefault	100	100	100		0.00				
D	2	NetworkDefault	100	100	100		0.00				
	3	Flare	100	100	100		4.00	✓	4.00	99999.00	
Dx	1	NetworkDefault	100	100	100		0.00				
A-1	1	NetworkDefault	100	100	100		0.00				
B-1	1	NetworkDefault	100	100	100		0.00				
C-1	1	NetworkDefault	100	100	100		0.00				
D-1	1	NetworkDefault	100	100	100		0.00				
D-2	1	NetworkDefault	100	100	100		0.00				

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
A	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	8.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Ax	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
B	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	8.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Bx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
C	1	8.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Cx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
D	2	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	3	4.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Dx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
A-1	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
B-1	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
C-1	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
D-1	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
D-2	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	315	315
	2	179	179
Ax	1	667	667
B	1	651	651
	2	250	250
Bx	1	591	591
C	1	287	287
	2	152	152
Cx	1	363	363
D	2	304	304
	3	41	41
Dx	1	735	735
A-1	1	494	494
B-1	1	901	901
C-1	1	439	439
D-1	1	177	177
D-2	1	522	522

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Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	C		
	2	1	D		
B	1	1	A		
	2	1	A	✓	B
C	1	1	C		
	2	1	D		
D	2	1	A		
	3	1	A	✓	B
D-1	1	1	A		

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
(ALL)	1	18.00	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A	1	1	A-1/1	A/1	18.00	30.00	✓	Straight	Straight Movement
	2	1	A-1/1	A/2	4.80	30.00	✓	Straight	Straight Movement
Ax	1	1	C/1	Ax/1	18.00	30.00	✓	Straight	Straight Movement
B	1	1	B-1/1	B/1	36.00	30.00	✓	Straight	Straight Movement
	2	1	B-1/1	B/2	4.80	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	36.00	30.00	✓	Nearside	42.61
C	1	1	C-1/1	C/1	4.80	30.00	✓	Straight	Straight Movement
	2	1	C-1/1	C/2	36.00	30.00	✓	Straight	Straight Movement
Cx	1	1	A/1	Cx/1	36.00	30.00	✓	Straight	Straight Movement
D	2	1	D-2/1	D/2	60.00	30.00	✓	Straight	Straight Movement
	3	1	D-2/1	D/3	2.40	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	60.00	30.00	✓	Nearside	25.27
D-1	1	1	D-2/1	D-1/1	1.00	30.00	✓	Straight	Straight Movement
Ax	1	2	D-1/1	Ax/1	18.00	30.00	✓	Nearside	43.60
Bx	1	2	C/2	Bx/1	36.00	30.00	✓	Offside	38.45
Cx	1	2	B/1	Cx/1	36.00	30.00	✓	Nearside	39.22
Dx	1	2	B/1	Dx/1	60.00	30.00	✓	Straight	Straight Movement
Ax	1	3	B/2	Ax/1	18.00	30.00	✓	Offside	70.68
Bx	1	3	D/2	Bx/1	36.00	30.00	✓	Straight	Straight Movement
Cx	1	3	D/3	Cx/1	36.00	30.00	✓	Offside	49.21
Dx	1	3	A/2	Dx/1	60.00	30.00	✓	Offside	37.07

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
(ALL)	(ALL)	AllTraffic		

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible
2		TrafficStream	D/2	100	0.00	
3		TrafficStream	B/1	100	0.00	
1		TrafficStream	B/2	100	0.00	

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	18.00	12.00	5.40
2	(untitled)		1		Farside	16.00	10.67	5.40
3	(untitled)		1		Farside	16.00	10.67	5.40
4	(untitled)		1		Farside	15.00	10.00	5.40
5	(untitled)				Farside	6.00	4.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	5:1	3:1	3.00	2.00	5.40
2	5:1	4:2	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25				

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	47	240	152	0	0	0	0
	2	41	0	177	304	0	0	0	0
	3	180	179	0	135	0	0	0	0
	4	142	509	250	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C-1/1	Cx/1	#0000FF
	2	(untitled)	D-2/1	Dx/1	#FF0000
	3	(untitled)	A-1/1	Ax/1	#00FF00
	4	(untitled)	B-1/1	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#008000
	7	(untitled)	5:2E	5:2X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	16		2	4	D-2/1, D/2, Bx/1	Normal	304
	17		2	3	D-2/1, D-1/1, Ax/1	Normal	177
	19		4	2	B-1/1, B/1, Dx/1	Normal	509
	20		3	1	A-1/1, A/1, Cx/1	Normal	180
	39		2	1	D-2/1, D/3, Cx/1	Normal	41
	40		1	4	C-1/1, C/2, Bx/1	Normal	152
	41		1	2	C-1/1, C/1, Dx/1	Normal	47
	42		1	3	C-1/1, C/1, Ax/1	Normal	240
	43		4	3	B-1/1, B/2, Ax/1	Normal	250
	44		4	1	B-1/1, B/1, Cx/1	Normal	142
	45		3	2	A-1/1, A/2, Dx/1	Normal	179
	46		3	4	A-1/1, A/1, Bx/1	Normal	135

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	14		7	5	5:2E, 5:1X, 3:1E, 3:2X	Normal	50
	15		7	8	5:2E, 5:1X, 4:2E, 4:1X	Normal	50
	18		8	6	2:2E, 2:1X	Normal	50
	23		5	6	1:1E, 1:2X	Normal	50
	34		6	8	2:1E, 2:2X	Normal	50
	35		6	5	1:2E, 1:1X	Normal	50
	36		8	7	4:1E, 4:2X, 5:1E, 5:2X	Normal	50
	37		5	7	3:2E, 3:1X, 5:1E, 5:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)	Minimum possible cycle time (s)
1	(untitled)		1	NetworkDefault	120	114

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	35	300	0	0	Unknown	
	B	(untitled)	15	18	0	0	Unknown	
	C	(untitled)	22	24	0	0	Unknown	
	D	(untitled)	15	15	0	0	Unknown	
	E	(untitled)	4	5	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)	Run every N cycles	Probability of running (%)
1	1	A	1	1	100
	2	B	1	1	100
	3	C	1	1	100
	4	D	1	1	100
	5	E	1	1	100

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Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)	Single	1, 2, 3, 4, 5	38, 56, 86, 106, 118	114	
	2	(untitled)	Single	1, 2, 3, 5, 4	21, 42, 72, 98, 123	114	
	3	(untitled)	Single	1, 2, 4, 3, 5	24, 48, 77, 101, 0	114	
	4	(untitled)	Single	1, 2, 4, 5, 3	23, 45, 72, 97, 124	114	
	5	(untitled)	Single	1, 2, 5, 3, 4	23, 46, 74, 101, 123	114	
	6	(untitled)	Single	1, 2, 5, 4, 3	23, 46, 75, 102, 124	114	
	7	(untitled)	Single	1, 3, 2, 4, 5	23, 51, 78, 105, 0	119	
	8	(untitled)	Single	1, 3, 2, 5, 4	21, 47, 72, 98, 123	119	
	9	(untitled)	Single	1, 3, 4, 2, 5	23, 51, 74, 102, 0	119	
	10	(untitled)	Single	1, 3, 4, 5, 2	24, 53, 76, 102, 0	114	

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A			5	5	8
	B			5	5	8
	C	5	5		5	8
	D	5	5	5		8
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

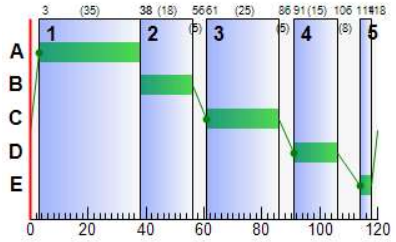
		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	61	86	25
A	2	1	1	D	91	106	15
B	1	1	1	A	3	38	35
B	2	1	1	A	3	38	35
C	1	1	1	C	61	86	25
C	2	1	1	D	91	106	15
D	2	1	1	A	3	38	35
D	3	1	1	A	3	38	35
D-1	1	1	1	A	3	38	35

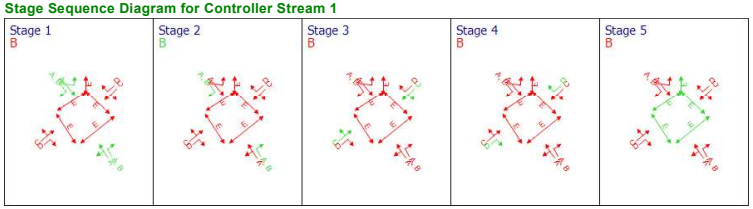
Phase Timings Diagram

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	1	10000.00	0.00	0.00	10000.00

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Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	84	19	315	1800	25	68.60	12.08	46.29	85.23	4.45	89.68
		2	80	26	179	1800	15	93.40	7.26	90.73	65.95	2.69	68.63
	Ax	1	0	Unrestricted	667	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	124	-19	651	1800	35	393.66	82.34	157.82	1010.86	19.26	1030.11
		2	76	31	250	743	53	65.35	7.06	88.27	64.44	2.62	67.06
	Bx	1	0	Unrestricted	591	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	77	31	287	1800	25	61.41	7.98	99.72	69.52	2.98	72.50
		2	68	48	152	1800	15	73.13	5.30	10.16	43.85	1.97	45.82
	Cx	1	0	Unrestricted	336	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	2	58	73	304	1800	35	40.90	9.01	10.36	49.04	3.34	52.38
		3	14	630	41	677	53	34.63	0.77	19.35	5.60	0.44	6.04
	Dx	1	0	Unrestricted	636	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	A-1	1	27	264	494	1800	120	0.38	0.05	0.20	0.74	0.00	0.74
	B-1	1	50	100	901	1800	120	1.00	0.25	0.96	3.56	0.00	3.56
	C-1	1	30	228	439	1800	120	3.35	3.85	14.75	5.79	1.32	7.12
	D-1	1	67	48	177	900	35	51.24	5.84	479.64	35.77	1.53	37.30
	D-2	1	29	245	522	1800	120	0.41	0.06	0.23	0.84	0.00	0.84

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	A	1	315	315	0		1800	375	84		19	0.00	25
		2	179	179	0		1800	225	80		26	0.00	15
	Ax	1	667	667	0		Unrestricted	Unrestricted	0		Unrestricted	0.65	120
	B	1	651	525	0		1800	525	124	✓	-19	0.00	35
		2	250	250	0		743	328	76		31	0.00	53
	Bx	1	591	591	0		Unrestricted	Unrestricted	0		Unrestricted	0.50	120
	C	1	287	287	0		1800	375	77		31	0.34	25
		2	152	152	0		1800	225	68		48	0.23	15
	Cx	1	336	336	27	✓	Unrestricted	Unrestricted	0		Unrestricted	0.57	120
	D	2	304	304	0		1800	525	58		73	0.00	35
		3	41	41	0		677	299	14		630	0.00	53
	Dx	1	636	636	99	✓	Unrestricted	Unrestricted	0		Unrestricted	0.44	120
	A-1	1	494	494	0		1800	1800	27		264	0.00	120
	B-1	1	901	901	0		1800	1800	50		100	0.00	120
	C-1	1	439	439	0		1800	1442	30		228	0.00	120
	D-1	1	177	177	0		900	263	67		48	0.00	35
	D-2	1	522	522	0		1800	1800	29		245	0.00	120

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	A	1	18.00	68.60	3.99	2.01	85.23	112.58	297.02	57.61	4.45
		2	4.80	93.40	2.54	2.11	65.95	119.65	165.88	48.29	2.69
	Ax	1	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	36.00	393.66	6.20	64.99	1010.86	292.52	525.00	1010.74	19.26
		2	4.80	65.35	2.98	1.56	64.44	83.49	171.67	37.06	2.62
	Bx	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	4.80	61.41	3.34	1.55	69.52	82.93	200.00	38.01	2.98
		2	36.00	73.13	2.41	0.68	43.85	103.53	137.69	19.68	1.97
	Cx	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	2	60.00	40.90	3.06	0.39	49.04	87.51	254.31	11.73	3.34
		3	2.40	34.63	0.35	0.04	5.60	84.81	34.45	0.33	0.44
	Dx	1	60.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	A-1	1	18.00	0.38	0.00	0.05	0.74	0.00	0.00	0.00	0.00
	B-1	1	18.00	1.00	0.00	0.25	3.56	0.00	0.00	0.00	0.00
	C-1	1	18.00	3.35	0.34	0.07	5.79	24.07	103.67	2.00	1.32
	D-1	1	1.00	51.24	1.84	0.68	35.77	97.73	153.25	19.73	1.53
	D-2	1	18.00	0.41	0.00	0.06	0.84	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	A	1	0.00	12.08	26.09	46.29	0.00	0.00	0.00	0.00	0.00	0.00	
		2	8.00	7.26	8.00	90.73	0.00	0.00	0.00	0.00	0.00	0.00	
	Ax	1	0.00	0.00	26.09	0.00	0.00	0.00	0.00	25.00	0.00	25.00	
	B	1	0.00	82.34	52.17	157.82	21.49	0.00	0.00	0.00	0.00	0.00	
		2	8.00	7.06	8.00	88.27	0.00	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	1.00	0.00	1.00	
	C	1	8.00	7.98	8.00	99.72	0.00	0.00	0.00	0.00	0.00	0.00	
		2	0.00	5.30	52.17	10.16	0.00	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	13.00	0.00	13.00	
	D	2	0.00	9.01	86.96	10.36	0.00	0.00	0.00	0.00	0.00	0.00	
		3	4.00	0.77	4.00	19.35	0.00	0.00	0.00	17.00	0.00	17.00	
	Dx	1	0.00	0.00	86.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	A-1	1	0.00	0.05	26.09	0.20	0.00	0.00	0.00	0.00	0.00	0.00	
	B-1	1	0.00	0.25	26.09	0.96	0.00	0.00	0.00	0.00	120.00	120.00	
	C-1	1	0.00	3.85	26.09	14.75	0.00	0.00	0.00	0.00	23.89	23.89	
	D-1	1	0.00	5.84	1.22	479.64	1.83	0.00	0.00	0.00	0.00	0.00	
	D-2	1	0.00	0.06	26.09	0.23	0.00	0.00	0.00	0.00	95.00	95.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	A	1	47.25	7.58	6.24	86.60
		2	7.16	4.50	1.59	90.59
	Ax	1	100.05	3.34	30.00	18.00
	B	1	195.30	77.70	2.51	429.66
		2	10.00	4.60	2.17	66.23
	Bx	1	177.30	5.91	30.00	36.00
	C	1	11.48	5.04	2.28	63.19
		2	45.60	4.61	9.90	109.13
	Cx	1	100.65	3.36	30.00	36.00
	D	2	152.00	8.52	17.84	100.90
		3	0.82	0.39	2.10	34.33
	Dx	1	318.24	10.61	30.00	60.00
	A-1	1	74.10	2.52	29.38	18.38
	B-1	1	135.15	4.76	28.42	19.00
	C-1	1	65.85	2.60	25.30	21.35
	D-1	1	1.24	2.57	0.48	52.24
	D-2	1	78.30	2.67	29.33	18.41

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Mean End of Green Queue EoTS (Veh)	Mean End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	0.00	0.00	✓	12.16	2.10	10.41	1.00	0.00	89.68
		2	0.00	0.00	✓	7.16	1.63	7.00	1.00	0.00	68.63
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	145.39	128.03	140.43	1.00	0.00	1030.11
		2	0.00	0.00	✓	7.03	1.25	6.04	1.00	0.00	67.06
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	7.94	1.28	7.94	1.00	0.00	72.50
		2	0.00	0.00	✓	5.31	0.69	5.17	1.00	0.00	45.82
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	2	0.00	0.00	✓	9.01	0.40	7.57	1.00	0.00	52.38
		3	0.00	0.00	✓	0.77	0.01	0.77	1.00	0.00	6.04
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	A-1	1	0.00	0.00	✓	0.05			1.00	0.00	0.74
	B-1	1	0.00	0.00	✓	0.25			1.00	0.00	3.56
	C-1	1	0.00	0.00	✓	3.85			1.00	0.00	7.12
	D-1	1	0.00	0.00	✓	5.85	0.69	4.87	1.00	0.00	37.30
	D-2	1	0.00	0.00	✓	0.06			1.00	0.00	0.84

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	14	50	11000	4	56.55	1.61	11.15	11.15
		2	14	50	11000	4	56.55	1.61	11.15	11.15
	2	1	14	50	11000	4	56.55	1.61	11.15	11.15
		2	14	50	11000	4	56.55	1.61	11.15	11.15
	3	1	14	50	11000	4	113.89	1.67	22.46	22.46
		2	14	50	11000	4	56.55	1.61	11.15	11.15
	4	1	14	50	11000	4	56.55	1.61	11.15	11.15
		2	14	50	11000	4	113.89	1.67	22.46	22.46
	5	1	27	100	11000	4	107.53	3.33	42.42	42.42
		2	27	100	11000	4	56.61	3.22	22.33	22.33

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	1	1	50	50	0		11000	367	14		633	0.00	4
		2	50	50	0		11000	367	14		633	0.00	4
	2	1	50	50	0		11000	367	14		633	0.00	4
		2	50	50	0		11000	367	14		633	0.00	4
	3	1	50	50	0		11000	367	14		633	1.93	4
		2	50	50	0		11000	367	14		633	0.00	4
	4	1	50	50	0		11000	367	14		633	0.00	4
		2	50	50	0		11000	367	14		633	1.93	4
	5	1	100	100	0		11000	367	27		267	1.93	4
		2	100	100	0		11000	367	27		267	0.00	4

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
17:00-18:00	1	1	13.00	56.55	0.79	0.00	11.15
		2	13.00	56.55	0.79	0.00	11.15
	2	1	11.67	56.55	0.79	0.00	11.15
		2	11.67	56.55	0.79	0.00	11.15
	3	1	12.67	113.89	1.58	0.00	22.46
		2	11.67	56.55	0.79	0.00	11.15
	4	1	11.00	56.55	0.79	0.00	11.15
		2	12.00	113.89	1.58	0.00	22.46
	5	1	6.00	107.53	2.99	0.00	42.42
		2	5.00	56.61	1.57	0.00	22.33

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Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	1	1	1.61	10.00	16.11	0.00	0.00	0.00
		2	1.61	10.00	16.11	0.00	0.00	0.00
	2	1	1.61	10.00	16.11	0.00	0.00	0.00
		2	1.61	10.00	16.11	0.00	0.00	0.00
	3	1	1.67	10.00	16.67	0.00	0.00	0.00
		2	1.61	10.00	16.11	0.00	0.00	0.00
	4	1	1.61	10.00	16.11	0.00	0.00	0.00
		2	1.67	10.00	16.67	0.00	0.00	0.00
	5	1	3.33	10.00	33.33	0.00	0.00	0.00
		2	3.22	10.00	32.22	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	1	1	0.95	0.97	0.98	69.55
		2	0.95	0.97	0.98	69.55
	2	1	0.85	0.95	0.90	68.22
		2	0.85	0.95	0.90	68.22
	3	1	0.95	1.76	0.54	126.56
		2	0.85	0.95	0.90	68.22
	4	1	0.80	0.94	0.85	67.55
		2	0.90	1.75	0.51	125.89
	5	1	0.90	3.15	0.29	113.53
		2	0.70	1.71	0.41	61.61

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	0.00	0.00	1.61	1.00	0.00	11.15
		2	0.00	0.00	1.61	1.00	0.00	11.15
	2	1	0.00	0.00	1.61	1.00	0.00	11.15
		2	0.00	0.00	1.61	1.00	0.00	11.15
	3	1	0.00	0.00	1.67	1.00	0.00	22.46
		2	0.00	0.00	1.61	1.00	0.00	11.15
	4	1	0.00	0.00	1.61	1.00	0.00	11.15
		2	0.00	0.00	1.67	1.00	0.00	22.46
	5	1	0.00	0.00	3.33	1.00	0.00	42.42
		2	0.00	0.00	3.22	1.00	0.00	22.33

Collections

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	144.5	102.5	166.5	0.0	0.0	0.0	0.0
	2	88.7	0.0	88.6	155.3	0.0	0.0	0.0	0.0
	3	141.0	169.0	0.0	141.0	0.0	0.0	0.0	0.0
	4	484.7	508.7	103.2	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	69.6	181.8	0.0
	6	0.0	0.0	0.0	0.0	69.6	0.0	0.0	68.2
	7	0.0	0.0	0.0	0.0	188.2	0.0	0.0	187.5
	8	0.0	0.0	0.0	0.0	0.0	68.2	181.1	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Normal journey dist (m)	Bus journeydist (m)	Tram journey dist (m)	Pedestrian journey dist (m)	Calculated Total Flow (Veh/hr)	Avg journey time (s)	Avg journey dist (m)
14	7	5		50		188.17	26.00	26.00	26.00	26.00	50	188.17	26.00
15	7	8		50		187.50	25.00	25.00	25.00	25.00	50	187.50	25.00
16	2	4	304		155.31		950.00	0.00	0.00	0.00	304	155.31	950.00
17	2	3	177		88.65		307.00	0.00	0.00	0.00	177	88.65	307.00
18	8	6		50		68.22	17.00	17.00	17.00	17.00	50	68.22	17.00
19	4	2	509		508.66		950.00	0.00	0.00	0.00	509	508.66	950.00
20	3	1	180		140.98		600.00	0.00	0.00	0.00	180	140.98	600.00
23	5	6		50		69.55	19.00	19.00	19.00	19.00	50	69.55	19.00
34	6	8		50		68.22	17.00	17.00	17.00	17.00	50	68.22	17.00
35	6	5		50		69.55	19.00	19.00	19.00	19.00	50	69.55	19.00
36	8	7		50		181.08	25.00	25.00	25.00	25.00	50	181.08	25.00
37	5	7		50		181.75	26.00	26.00	26.00	26.00	50	181.75	26.00
39	2	1	41		88.74		470.00	0.00	0.00	0.00	41	88.74	470.00
40	1	4	152		166.48		750.00	0.00	0.00	0.00	152	166.48	750.00
41	1	2	47		144.54		690.00	0.00	0.00	0.00	47	144.54	690.00
42	1	3	240		102.54		340.00	0.00	0.00	0.00	240	102.54	340.00
43	4	3	250		103.23		340.00	0.00	0.00	0.00	250	103.23	340.00
44	4	1	142		484.66		750.00	0.00	0.00	0.00	142	484.66	750.00
45	3	2	179		168.97		690.00	0.00	0.00	0.00	179	168.97	690.00
46	3	4	135		140.98		600.00	0.00	0.00	0.00	135	140.98	600.00

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Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	C		315	1800	25	0.00	84	19	86.60	68.60	112.58	
	2		1	1	D		179	1800	15	0.00	80	26	90.59	93.40	119.65	
Ax	1	(untitled)					667	Unrestricted	120	25.00	0	Unrestricted	18.00	0.00	0.00	
B	1	(untitled)	1	1	A		651 <	1800	35	0.00	124	-19	429.66	393.66	292.52	
	2		1	1	A	B	250	743	53	0.00	76	31	66.23	65.35	83.49	
Bx	1	(untitled)					591	Unrestricted	120	1.00	0	Unrestricted	36.00	0.00	0.00	
C	1	(untitled)	1	1	C		287	1800	25	0.00	77	31	63.19	61.41	82.93	
	2		1	1	D		152	1800	15	0.00	68	48	109.13	73.13	103.53	
Cx	1	(untitled)					336	Unrestricted	120	13.00	0	Unrestricted	36.00	0.00	0.00	
D	2	(untitled)	1	1	A		304	1800	35	0.00	58	73	100.90	40.90	87.51	
	3		1	1	A	B	41	677	53	17.00	14	630	34.33	34.63	84.81	
Dx	1	(untitled)					636	Unrestricted	120	0.00	0	Unrestricted	60.00	0.00	0.00	
A-1	1		1				494	1800	120	0.00	27	264	18.38	0.38	0.00	
B-1	1		1				901	1800	120	120.00	50	100	19.00	1.00	0.00	
C-1	1		1				439	1800	120	23.89	30	228	21.35	3.35	24.07	
D-1	1	(untitled)	1	1	A		177 <	900	35	0.00	67	48	52.24	51.24	97.73	
D-2	1		1				522	1800	120	95.00	29	245	18.41	0.41	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	C tr pe (£
1	1	(untitled)	1	1	E	50	11000	4	14	633	69.55	56.55	1.61	100	
	2	(untitled)	1	1	E	50	11000	4	14	633	69.55	56.55	1.61	100	
2	1	(untitled)	1	1	E	50	11000	4	14	633	68.22	56.55	1.61	100	
	2	(untitled)	1	1	E	50	11000	4	14	633	68.22	56.55	1.61	100	
3	1	(untitled)	1	1	E	50	11000	4	14	633	126.56	113.89	1.67	100	
	2	(untitled)	1	1	E	50	11000	4	14	633	68.22	56.55	1.61	100	
4	1	(untitled)	1	1	E	50	11000	4	14	633	67.55	56.55	1.61	100	
	2	(untitled)	1	1	E	50	11000	4	14	633	125.89	113.89	1.67	100	
5	1	(untitled)		1	E	100	11000	4	27	267	113.53	107.53	3.33	100	
	2	(untitled)		1	E	100	11000	4	27	267	61.61	56.61	3.22	100	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	1520.50	151.26	10.05	27.06	74.44	1441.19	40.59	0.00	1481.78
Bus									
Tram									
Pedestrians	8.70	14.08	0.62	12.44	0.00	176.59	0.00	0.00	176.59
Controller streams									10000
TOTAL	1529.20	165.35	9.25	39.49	74.44	1617.78	40.59	0.00	11658.37

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A1 - Junction 3
D3 - 2027 Do Something, PM

Summary

Data Errors and Warnings

Severity	Area	Item	Description
Signals Warning	Signal Timings	Controller Stream 1	Controller Stream 1: Phase C maximum green of 24s violated (This will be repaired automatically if doing a full optimised run.)

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item wi wors unsignal PRC
1	05/03/2024 13:03:21	05/03/2024 13:03:21	0.35	17:00	120	27396.78	157.13	138.86	B/1	1	4	B/1	B-1/1

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set (s)	Optimise specific Demand Set (s)	Demand Set(s) to optimise	Include in report	Locked
Junction 3				✓	D7	✓	

Demand Set Details

Scenario name	Time Period name	Description	Composite	Demand sets	Start time (HH:mm)	Locked	Run automatically
2027 Do Something	PM	(untitled)			17:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120	114	114		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	2

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)	Missing stage transition options
10000.00	10000.00	10000.00	2	Assume banned

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from traffic model	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓			Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy (%)	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Standard accuracy Hill Climb	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

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Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
A-1			1
B-1			1
C-1			1
D-1	(untitled)		1
D-2			1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Auto-calculate cell saturation flow	Cell saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			150.00	✓	Sum of lanes	1800			✓		Normal	
	2				40.00	✓	Sum of lanes	1800	✓	1800	✓		Normal	
Ax	1	(untitled)			150.00								Normal	
B	1	(untitled)			300.00	✓	Sum of lanes	1800			✓		Normal	
	2				40.00	✓	Sum of lanes	1800	✓	1800	✓	✓	Normal	
Bx	1	(untitled)			300.00								Normal	
C	1	(untitled)			40.00	✓	Sum of lanes	1800	✓	1800	✓		Normal	
	2				300.00	✓	Sum of lanes	1800			✓		Normal	
Cx	1	(untitled)			300.00								Normal	
D	2	(untitled)			500.00	✓	Sum of lanes	1800			✓		Normal	
	3				20.00	✓	Sum of lanes	1800			✓	✓	Normal	
Dx	1	(untitled)			500.00								Normal	
A-1	1				150.00	✓	Sum of lanes	1800					Normal	
B-1	1				150.00	✓	Sum of lanes	1800					Normal	
C-1	1				150.00	✓	Sum of lanes	1800					Normal	
D-1	1	(untitled)			7.00	✓	Sum of lanes	1800			✓	✓	Normal	
D-2	1				150.00	✓	Sum of lanes	1800					Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
	2	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
C	1	1	(untitled)			1800
	2	1	(untitled)			1800
Cx	1	1	(untitled)			
D	2	1	(untitled)			1800
	3	1	(untitled)			1800
Dx	1	1	(untitled)			
A-1	1	1	(untitled)			1800
B-1	1	1	(untitled)			1800
C-1	1	1	(untitled)			1800
D-1	1	1	(untitled)			1800
D-2	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Queue limit (PCU)	Excess queue penalty (£)	Has degree of saturation limit
A	1	NetworkDefault	100	100	100		0.00				
	2	Flare	100	100	100		8.00	✓	8.00	9999.00	
Ax	1	NetworkDefault	100	100	100		0.00				
B	1	NetworkDefault	100	100	100		0.00				
	2	Flare	100	100	100		8.00	✓	8.00	99999.00	
Bx	1	NetworkDefault	100	100	100		0.00				
C	1	Flare	100	100	100		8.00	✓	8.00	99999.00	
	2	NetworkDefault	100	100	100		0.00				
Cx	1	NetworkDefault	100	100	100		0.00				
D	2	NetworkDefault	100	100	100		0.00				
	3	Flare	100	100	100		4.00	✓	4.00	99999.00	
Dx	1	NetworkDefault	100	100	100		0.00				
A-1	1	NetworkDefault	100	100	100		0.00				
B-1	1	NetworkDefault	100	100	100		0.00				
C-1	1	NetworkDefault	100	100	100		0.00				
D-1	1	NetworkDefault	100	100	100		0.00				
D-2	1	NetworkDefault	100	100	100		0.00				

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Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
A	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	8.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Ax	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
B	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	8.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Bx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
C	1	8.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Cx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
D	2	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	3	4.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Dx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
A-1	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
B-1	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
C-1	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
D-1	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
D-2	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	315	315
	2	200	200
Ax	1	679	679
B	1	729	729
	2	250	250
Bx	1	636	636
C	1	301	301
	2	152	152
Cx	1	372	372
D	2	349	349
	3	50	50
Dx	1	848	848
A-1	1	515	515
B-1	1	979	979
C-1	1	453	453
D-1	1	189	189
D-2	1	588	588

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	C		
	2	1	D		
B	1	1	A		
	2	1	A	✓	B
C	1	1	C		
	2	1	D		
D	2	1	A		
	3	1	A	✓	B
D-1	1	1	A		

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
(ALL)	1	18.00	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A	1	1	A-1/1	A/1	18.00	30.00	✓	Straight	Straight Movement
	2	1	A-1/1	A/2	4.80	30.00	✓	Straight	Straight Movement
Ax	1	1	C/1	Ax/1	18.00	30.00	✓	Straight	Straight Movement
B	1	1	B-1/1	B/1	36.00	30.00	✓	Straight	Straight Movement
	2	1	B-1/1	B/2	4.80	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	36.00	30.00	✓	Nearside	42.61
C	1	1	C-1/1	C/1	4.80	30.00	✓	Straight	Straight Movement
	2	1	C-1/1	C/2	36.00	30.00	✓	Straight	Straight Movement
Cx	1	1	A/1	Cx/1	36.00	30.00	✓	Straight	Straight Movement
D	2	1	D-2/1	D/2	60.00	30.00	✓	Straight	Straight Movement
	3	1	D-2/1	D/3	2.40	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	60.00	30.00	✓	Nearside	25.27
D-1	1	1	D-2/1	D-1/1	1.00	30.00	✓	Straight	Straight Movement
Ax	1	2	D-1/1	Ax/1	18.00	30.00	✓	Nearside	43.60
Bx	1	2	C/2	Bx/1	36.00	30.00	✓	Offside	38.45
Cx	1	2	B/1	Cx/1	36.00	30.00	✓	Nearside	39.22
Dx	1	2	B/1	Dx/1	60.00	30.00	✓	Straight	Straight Movement
Ax	1	3	B/2	Ax/1	18.00	30.00	✓	Offside	70.68
Bx	1	3	D/2	Bx/1	36.00	30.00	✓	Straight	Straight Movement
Cx	1	3	D/3	Cx/1	36.00	30.00	✓	Offside	49.21
Dx	1	3	A/2	Dx/1	60.00	30.00	✓	Offside	37.07

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
(ALL)	(ALL)	AllTraffic		

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Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible
2		TrafficStream	D/2	100	0.00	
3		TrafficStream	B/1	100	0.00	
1		TrafficStream	B/2	100	0.00	

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	18.00	12.00	5.40
2	(untitled)		1		Farside	16.00	10.67	5.40
3	(untitled)		1		Farside	16.00	10.67	5.40
4	(untitled)		1		Farside	15.00	10.00	5.40
5	(untitled)				Farside	6.00	4.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	5:1	3:1	3.00	2.00	5.40
2	5:1	4:2	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25				

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	61	240	152	0	0	0	0
	2	50	0	189	349	0	0	0	0
	3	180	200	0	135	0	0	0	0
	4	142	587	250	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C-1/1	Cx/1	#0000FF
	2	(untitled)	D-2/1	Dx/1	#FF0000
	3	(untitled)	A-1/1	Ax/1	#00FF00
	4	(untitled)	B-1/1	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#008000
	7	(untitled)	5:2E	5:2X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	16		2	4	D-2/1, D/2, Bx/1	Normal	349
	17		2	3	D-2/1, D-1/1, Ax/1	Normal	189
	19		4	2	B-1/1, B/1, Dx/1	Normal	587
	20		3	1	A-1/1, A/1, Cx/1	Normal	180
	39		2	1	D-2/1, D/3, Cx/1	Normal	50
	40		1	4	C-1/1, C/2, Bx/1	Normal	152
	41		1	2	C-1/1, C/1, Dx/1	Normal	61
	42		1	3	C-1/1, C/1, Ax/1	Normal	240
	43		4	3	B-1/1, B/2, Ax/1	Normal	250
	44		4	1	B-1/1, B/1, Cx/1	Normal	142
	45		3	2	A-1/1, A/2, Dx/1	Normal	200
	46		3	4	A-1/1, A/1, Bx/1	Normal	135

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Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	14		7	5	5:2E, 5:1X, 3:1E, 3:2X	Normal	50
	15		7	8	5:2E, 5:1X, 4:2E, 4:1X	Normal	50
	18		8	6	2:2E, 2:1X	Normal	50
	23		5	6	1:1E, 1:2X	Normal	50
	34		6	8	2:1E, 2:2X	Normal	50
	35		6	5	1:2E, 1:1X	Normal	50
	36		8	7	4:1E, 4:2X, 5:1E, 5:2X	Normal	50
	37		5	7	3:2E, 3:1X, 5:1E, 5:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)	Minimum possible cycle time (s)
1	(untitled)		1	NetworkDefault	120	114

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	35	300	0	0	Unknown	
	B	(untitled)	15	18	0	0	Unknown	
	C	(untitled)	22	24	0	0	Unknown	
	D	(untitled)	15	15	0	0	Unknown	
	E	(untitled)	4	5	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)	Run every N cycles	Probability of running (%)
1	1	A	1	1	100
	2	B	1	1	100
	3	C	1	1	100
	4	D	1	1	100
	5	E	1	1	100

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)	Single	1, 2, 3, 4, 5	38, 56, 86, 106, 118	114	
	2	(untitled)	Single	1, 2, 3, 5, 4	21, 42, 72, 98, 123	114	
	3	(untitled)	Single	1, 2, 4, 3, 5	24, 48, 77, 101, 0	114	
	4	(untitled)	Single	1, 2, 4, 5, 3	23, 45, 72, 97, 124	114	
	5	(untitled)	Single	1, 2, 5, 3, 4	23, 46, 74, 101, 123	114	
	6	(untitled)	Single	1, 2, 5, 4, 3	23, 46, 75, 102, 124	114	
	7	(untitled)	Single	1, 3, 2, 4, 5	23, 51, 78, 105, 0	119	
	8	(untitled)	Single	1, 3, 2, 5, 4	21, 47, 72, 98, 123	119	
	9	(untitled)	Single	1, 3, 4, 2, 5	23, 51, 74, 102, 0	119	
	10	(untitled)	Single	1, 3, 4, 5, 2	24, 53, 76, 102, 0	114	

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A			5	5	8
	B			5	5	8
	C	5	5		5	8
	D	5	5	5		8
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

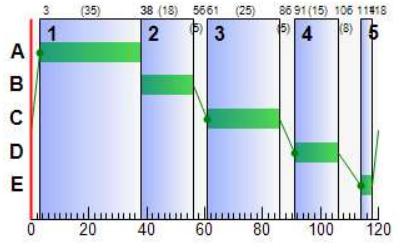
		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	61	86	25
A	2	1	1	D	91	106	15
B	1	1	1	A	3	38	35
B	2	1	1	A	3	38	35
C	1	1	1	C	61	86	25
C	2	1	1	D	91	106	15
D	2	1	1	A	3	38	35
D	3	1	1	A	3	38	35
D-1	1	1	1	A	3	38	35

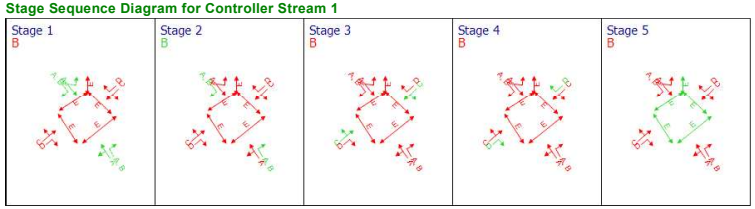
Phase Timings Diagram

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	1	10000.00	0.00	0.00	10000.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	84	19	315	1800	25	68.60	12.08	46.29	85.23	4.45	89.68
		2	89	13	200	1800	15	132.47	10.62	132.78	104.51	3.75	6340.20
	Ax	1	0	Unrestricted	679	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	139	-28	729	1800	35	540.53	120.61	231.18	1554.29	22.68	1576.97
		2	76	31	250	743	53	65.35	7.06	88.27	64.44	2.62	67.06
	Bx	1	0	Unrestricted	636	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	80	25	301	1800	25	65.03	8.41	105.18	77.21	3.14	8967.46
		2	68	48	152	1800	15	75.75	5.30	10.16	45.42	1.97	47.39
	Cx	1	0	Unrestricted	332	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	2	66	50	349	1800	35	44.05	10.83	12.45	60.64	4.01	64.65
		3	17	498	50	677	53	36.78	0.95	23.68	7.25	0.53	7.79
	Dx	1	0	Unrestricted	684	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	A-1	1	29	250	515	1800	120	0.40	0.06	0.22	0.81	0.00	0.81
	B-1	1	54	84	979	1800	120	1.19	0.32	1.24	4.60	0.00	4.60
	C-1	1	33	205	453	1800	120	4.54	4.74	18.15	8.12	1.64	9.75
	D-1	1	72	39	189	900	35	55.01	6.50	534.30	41.01	1.70	42.71
	D-2	1	33	206	588	1800	120	0.48	0.08	0.30	1.12	0.00	1.12

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	A	1	315	315	0		1800	375	84		19	0.00	25
		2	200	200	0		1800	225	89		13	0.00	15
	Ax	1	679	679	0		Unrestricted	Unrestricted	0		Unrestricted	0.63	120
	B	1	729	525	0		1800	525	139	✓	-28	0.00	35
		2	250	250	0		743	328	76		31	0.00	53
	Bx	1	636	636	0		Unrestricted	Unrestricted	0		Unrestricted	0.51	120
	C	1	301	301	0		1800	375	80		25	0.41	25
		2	152	152	0		1800	225	68		48	0.30	15
	Cx	1	332	332	40	✓	Unrestricted	Unrestricted	0		Unrestricted	0.55	120
	D	2	349	349	0		1800	525	66		50	0.00	35
		3	50	50	0		677	299	17		498	0.00	53
	Dx	1	684	684	164	✓	Unrestricted	Unrestricted	0		Unrestricted	0.42	120
	A-1	1	515	515	0		1800	1800	29		250	0.00	120
	B-1	1	979	979	0		1800	1800	54		84	0.00	120
	C-1	1	453	453	0		1800	1382	33		205	0.00	120
	D-1	1	189	189	0		900	263	72		39	0.00	35
	D-2	1	588	588	0		1800	1800	33		206	0.00	120

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Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	A	1	18.00	68.60	3.99	2.01	85.23	112.58	297.02	57.61	4.45
		2	4.80	132.47	2.87	4.49	104.51	149.39	185.49	113.28	3.75
	Ax	1	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	36.00	540.53	6.20	103.26	1554.29	344.54	525.00	1283.81	22.68
		2	4.80	65.35	2.98	1.56	64.44	83.49	171.67	37.06	2.62
	Bx	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	4.80	65.03	3.45	1.98	77.21	83.13	200.00	50.22	3.14
		2	36.00	75.75	2.52	0.68	45.42	103.61	137.81	19.68	1.97
	Cx	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	2	60.00	44.05	3.62	0.65	60.64	91.73	300.91	19.21	4.01
		3	2.40	36.78	0.46	0.05	7.25	85.02	42.01	0.50	0.53
	Dx	1	60.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	A-1	1	18.00	0.40	0.00	0.06	0.81	0.00	0.00	0.00	0.00
	B-1	1	18.00	1.19	0.00	0.32	4.60	0.00	0.00	0.00	0.00
	C-1	1	18.00	4.54	0.49	0.08	8.12	28.79	128.01	2.39	1.64
	D-1	1	1.00	55.01	2.00	0.89	41.01	101.75	166.61	25.70	1.70
	D-2	1	18.00	0.48	0.00	0.08	1.12	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	A	1	0.00	12.08	26.09	46.29	0.00	0.00	0.00	0.00	0.00	0.00	
		2	8.00	10.62	8.00	132.78	0.62	0.62	6231.94	0.00	0.00	0.00	
	Ax	1	0.00	0.00	26.09	0.00	0.00	0.00	0.00	24.00	0.00	24.00	
	B	1	0.00	120.61	52.17	231.18	59.76	0.00	0.00	0.00	0.00	0.00	
		2	8.00	7.06	8.00	88.27	0.00	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	C	1	8.00	8.41	8.00	105.18	0.09	0.09	8887.11	0.00	0.00	0.00	
		2	0.00	5.30	52.17	10.16	0.00	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	14.00	0.00	14.00	
	D	2	0.00	10.83	86.96	12.45	0.00	0.00	0.00	0.00	0.00	0.00	
		3	4.00	0.95	4.00	23.68	0.00	0.00	0.00	17.00	0.00	17.00	
	Dx	1	0.00	0.00	86.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	A-1	1	0.00	0.06	26.09	0.22	0.00	0.00	0.00	0.00	0.00	0.00	
	B-1	1	0.00	0.32	26.09	1.24	0.00	0.00	0.00	0.00	120.00	120.00	
	C-1	1	0.00	4.74	26.09	18.15	0.00	0.00	0.00	0.00	27.89	27.89	
	D-1	1	0.00	6.50	1.22	534.30	2.24	0.00	0.00	0.00	0.00	0.00	
	D-2	1	0.00	0.08	26.09	0.30	0.00	0.00	0.00	0.00	101.00	101.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	A	1	47.25	7.58	6.24	86.60
		2	8.00	7.58	1.06	136.40
	Ax	1	101.85	3.40	30.00	18.00
	B	1	218.70	116.75	1.87	576.53
		2	10.00	4.60	2.17	66.23
	Bx	1	190.80	6.36	30.00	36.00
	C	1	12.04	5.60	2.15	67.00
		2	45.60	4.72	9.66	111.75
	Cx	1	99.68	3.32	30.00	36.00
	D	2	174.50	10.09	17.30	104.05
		3	1.00	0.51	1.95	36.88
	Dx	1	341.87	11.40	30.00	60.00
	A-1	1	77.25	2.63	29.35	18.40
	B-1	1	146.85	5.22	28.14	19.19
	C-1	1	67.95	2.84	23.95	22.54
	D-1	1	1.32	2.94	0.45	56.01
	D-2	1	88.20	3.02	29.21	18.48

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Mean End of Green Queue EoTS (Veh)	Mean End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	0.00	0.00	✓	12.16	2.10	10.41	1.00	0.00	89.68
		2	0.00	0.00	✓	10.25	4.07	10.07	1.00	6231.94	6340.20
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	222.63	205.27	217.67	1.00	0.00	1576.97
		2	0.00	0.00	✓	7.03	1.25	6.04	1.00	0.00	67.06
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	8.35	1.69	8.35	1.00	8887.11	8967.46
		2	0.00	0.00	✓	5.32	0.69	5.19	1.00	0.00	47.39
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	2	0.00	0.00	✓	10.83	0.65	8.89	1.00	0.00	64.65
		3	0.00	0.00	✓	0.95	0.02	0.95	1.00	0.00	7.79
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	A-1	1	0.00	0.00	✓	0.06			1.00	0.00	0.81
	B-1	1	0.00	0.00	✓	0.32			1.00	0.00	4.60
	C-1	1	0.00	0.00	✓	4.74			1.00	0.00	9.75
	D-1	1	0.00	0.00	✓	6.52	0.91	5.37	1.00	0.00	42.71
	D-2	1	0.00	0.00	✓	0.08			1.00	0.00	1.12

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Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	14	50	11000	4	56.55	1.61	11.15	11.15
		2	14	50	11000	4	56.55	1.61	11.15	11.15
	2	1	14	50	11000	4	56.55	1.61	11.15	11.15
		2	14	50	11000	4	56.55	1.61	11.15	11.15
	3	1	14	50	11000	4	113.89	1.67	22.46	22.46
		2	14	50	11000	4	56.55	1.61	11.15	11.15
	4	1	14	50	11000	4	56.55	1.61	11.15	11.15
		2	14	50	11000	4	113.89	1.67	22.46	22.46
	5	1	27	100	11000	4	107.53	3.33	42.42	42.42
		2	27	100	11000	4	56.61	3.22	22.33	22.33

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	1	1	50	50	0		11000	367	14		633	0.00	4
		2	50	50	0		11000	367	14		633	0.00	4
	2	1	50	50	0		11000	367	14		633	0.00	4
		2	50	50	0		11000	367	14		633	0.00	4
	3	1	50	50	0		11000	367	14		633	1.93	4
		2	50	50	0		11000	367	14		633	0.00	4
	4	1	50	50	0		11000	367	14		633	0.00	4
		2	50	50	0		11000	367	14		633	1.93	4
	5	1	100	100	0		11000	367	27		267	1.93	4
		2	100	100	0		11000	367	27		267	0.00	4

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
17:00-18:00	1	1	13.00	56.55	0.79	0.00	11.15
		2	13.00	56.55	0.79	0.00	11.15
	2	1	11.67	56.55	0.79	0.00	11.15
		2	11.67	56.55	0.79	0.00	11.15
	3	1	12.67	113.89	1.58	0.00	22.46
		2	11.67	56.55	0.79	0.00	11.15
	4	1	11.00	56.55	0.79	0.00	11.15
		2	12.00	113.89	1.58	0.00	22.46
	5	1	6.00	107.53	2.99	0.00	42.42
		2	5.00	56.61	1.57	0.00	22.33

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	1	1	1.61	10.00	16.11	0.00	0.00	0.00
		2	1.61	10.00	16.11	0.00	0.00	0.00
	2	1	1.61	10.00	16.11	0.00	0.00	0.00
		2	1.61	10.00	16.11	0.00	0.00	0.00
	3	1	1.67	10.00	16.67	0.00	0.00	0.00
		2	1.61	10.00	16.11	0.00	0.00	0.00
	4	1	1.61	10.00	16.11	0.00	0.00	0.00
		2	1.67	10.00	16.67	0.00	0.00	0.00
	5	1	3.33	10.00	33.33	0.00	0.00	0.00
		2	3.22	10.00	32.22	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	1	1	0.95	0.97	0.98	69.55
		2	0.95	0.97	0.98	69.55
	2	1	0.85	0.95	0.90	68.22
		2	0.85	0.95	0.90	68.22
	3	1	0.95	1.76	0.54	126.56
		2	0.85	0.95	0.90	68.22
	4	1	0.80	0.94	0.85	67.55
		2	0.90	1.75	0.51	125.89
	5	1	0.90	3.15	0.29	113.53
		2	0.70	1.71	0.41	61.61

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	0.00	0.00	1.61	1.00	0.00	11.15
		2	0.00	0.00	1.61	1.00	0.00	11.15
	2	1	0.00	0.00	1.61	1.00	0.00	11.15
		2	0.00	0.00	1.61	1.00	0.00	11.15
	3	1	0.00	0.00	1.67	1.00	0.00	22.46
		2	0.00	0.00	1.61	1.00	0.00	11.15
	4	1	0.00	0.00	1.61	1.00	0.00	11.15
		2	0.00	0.00	1.67	1.00	0.00	22.46
	5	1	0.00	0.00	3.33	1.00	0.00	42.42
		2	0.00	0.00	3.22	1.00	0.00	22.33

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Collections

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	149.5	107.5	170.3	0.0	0.0	0.0	0.0
	2	91.4	0.0	92.5	158.5	0.0	0.0	0.0	0.0
	3	141.0	214.8	0.0	141.0	0.0	0.0	0.0	0.0
	4	631.7	655.7	103.4	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	69.6	181.8	0.0
	6	0.0	0.0	0.0	0.0	69.6	0.0	0.0	68.2
	7	0.0	0.0	0.0	0.0	188.2	0.0	0.0	187.5
	8	0.0	0.0	0.0	0.0	0.0	68.2	181.1	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Normal journey dist (m)	Bus journeydist (m)	Tram journey dist (m)	Pedestrian journey dist (m)	Calculated Total Flow (Veh/hr)	Avg journey time (s)	Avg journey dist (m)
14	7	5		50		188.17	26.00	26.00	26.00	26.00	50	188.17	26.00
15	7	8		50		187.50	25.00	25.00	25.00	25.00	50	187.50	25.00
16	2	4	349		158.53		950.00	0.00	0.00	0.00	349	158.53	950.00
17	2	3	189		92.49		307.00	0.00	0.00	0.00	189	92.49	307.00
18	8	6		50		68.22	17.00	17.00	17.00	17.00	50	68.22	17.00
19	4	2	587		655.72		950.00	0.00	0.00	0.00	587	655.72	950.00
20	3	1	180		141.00		600.00	0.00	0.00	0.00	180	141.00	600.00
23	5	6		50		69.55	19.00	19.00	19.00	19.00	50	69.55	19.00
34	6	8		50		68.22	17.00	17.00	17.00	17.00	50	68.22	17.00
35	6	5		50		69.55	19.00	19.00	19.00	19.00	50	69.55	19.00
36	8	7		50		181.08	25.00	25.00	25.00	25.00	50	181.08	25.00
37	5	7		50		181.75	26.00	26.00	26.00	26.00	50	181.75	26.00
39	2	1	50		91.37		470.00	0.00	0.00	0.00	50	91.37	470.00
40	1	4	152		170.30		750.00	0.00	0.00	0.00	152	170.30	750.00
41	1	2	61		149.54		690.00	0.00	0.00	0.00	61	149.54	690.00
42	1	3	240		107.54		340.00	0.00	0.00	0.00	240	107.54	340.00
43	4	3	250		103.42		340.00	0.00	0.00	0.00	250	103.42	340.00
44	4	1	142		631.72		750.00	0.00	0.00	0.00	142	631.72	750.00
45	3	2	200		214.80		690.00	0.00	0.00	0.00	200	214.80	690.00
46	3	4	135		141.00		600.00	0.00	0.00	0.00	135	141.00	600.00

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	C		315	1800	25	0.00	84	19	86.60	68.60	112.58	
	2		1	1	D		200 <	1800	15	0.00	89	13	136.40	132.47	149.39	
Ax	1	(untitled)					679	Unrestricted	120	24.00	0	Unrestricted	18.00	0.00	0.00	
B	1	(untitled)	1	1	A		729 <	1800	35	0.00	139	-28	576.53	540.53	344.54	
	2		1	1	A	B	250	743	53	0.00	76	31	66.23	65.35	83.49	
Bx	1	(untitled)					636	Unrestricted	120	0.00	0	Unrestricted	36.00	0.00	0.00	
C	1	(untitled)	1	1	C		301 <	1800	25	0.00	80	25	67.00	65.03	83.13	
	2		1	1	D		152	1800	15	0.00	68	48	111.75	75.75	103.61	
Cx	1	(untitled)					332	Unrestricted	120	14.00	0	Unrestricted	36.00	0.00	0.00	
D	2	(untitled)	1	1	A		349	1800	35	0.00	66	50	104.05	44.05	91.73	
	3		1	1	A	B	50	677	53	17.00	17	498	36.88	36.78	85.02	
Dx	1	(untitled)					684	Unrestricted	120	0.00	0	Unrestricted	60.00	0.00	0.00	
A-1	1		1				515	1800	120	0.00	29	250	18.40	0.40	0.00	
B-1	1		1				979	1800	120	120.00	54	84	19.19	1.19	0.00	
C-1	1		1				453	1800	120	27.89	33	205	22.54	4.54	28.79	
D-1	1	(untitled)	1	1	A		189 <	900	35	0.00	72	39	56.01	55.01	101.75	
D-2	1		1				588	1800	120	101.00	33	206	18.48	0.48	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	C tr pe (£
1	1	(untitled)	1	1	E	50	11000	4	14	633	69.55	56.55	1.61	100	
	2	(untitled)	1	1	E	50	11000	4	14	633	69.55	56.55	1.61	100	
2	1	(untitled)	1	1	E	50	11000	4	14	633	68.22	56.55	1.61	100	
	2	(untitled)	1	1	E	50	11000	4	14	633	68.22	56.55	1.61	100	
3	1	(untitled)	1	1	E	50	11000	4	14	633	126.56	113.89	1.67	100	
	2	(untitled)	1	1	E	50	11000	4	14	633	68.22	56.55	1.61	100	
4	1	(untitled)	1	1	E	50	11000	4	14	633	67.55	56.55	1.61	100	
	2	(untitled)	1	1	E	50	11000	4	14	633	125.89	113.89	1.67	100	
5	1	(untitled)		1	E	100	11000	4	27	267	113.53	107.53	3.33	100	
	2	(untitled)		1	E	100	11000	4	27	267	61.61	56.61	3.22	100	

TRL THE FUTURE OF TRANSPORT

Generated on 05/03/2024 13:09:55 using TRANSYT 16 (16.0.1.8473)

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	1632.86	198.54	8.22	28.59	116.10	2054.65	46.49	15119.06	17220.19
Bus									
Tram									
Pedestrians	8.70	14.08	0.62	12.44	0.00	176.59	0.00	0.00	176.59
Controller streams									10000
TOTAL	1641.56	212.62	7.72	41.02	116.10	2231.23	46.49	15119.06	27396.78

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A1 - Junction 3
D4 - 2032 Do Nothing, PM

Summary

Data Errors and Warnings

Severity	Area	Item	Description
Signals Warning	Signal Timings	Controller Stream 1	Controller Stream 1: Phase C maximum green of 24s violated (This will be repaired automatically if doing a full optimised run.)

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item wi wors unsignal PRC
1	05/03/2024 13:03:21	05/03/2024 13:03:21	0.58	17:00	120	22132.30	131.26	128.95	B/1	1	4	B/1	B-1/1

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set (s)	Optimise specific Demand Set (s)	Demand Set(s) to optimise	Include in report	Locked
Junction 3				✓	D7	✓	

Demand Set Details

Scenario name	Time Period name	Description	Composite	Demand sets	Start time (HH:mm)	Locked	Run automatically
2032 Do Nothing	PM	(untitled)			17:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120	114	114		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	2

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)	Missing stage transition options
10000.00	10000.00	10000.00	2	Assume banned

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from traffic model	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓			Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Generated on 05/03/2024 13:09:55 using TRANSYT 16 (16.0.1.8473)

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy (%)	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Standard accuracy Hill Climb	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
A-1			1
B-1			1
C-1			1
D-1	(untitled)		1
D-2			1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Auto-calculate cell saturation flow	Cell saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			150.00	✓	Sum of lanes	1800			✓		Normal	
	2				40.00	✓	Sum of lanes	1800	✓	1800	✓		Normal	
Ax	1	(untitled)			150.00								Normal	
B	1	(untitled)			300.00	✓	Sum of lanes	1800			✓		Normal	
	2				40.00	✓	Sum of lanes	1800	✓	1800	✓	✓	Normal	
Bx	1	(untitled)			300.00								Normal	
C	1	(untitled)			40.00	✓	Sum of lanes	1800	✓	1800	✓		Normal	
	2				300.00	✓	Sum of lanes	1800			✓		Normal	
Cx	1	(untitled)			300.00								Normal	
D	2	(untitled)			500.00	✓	Sum of lanes	1800			✓		Normal	
	3				20.00	✓	Sum of lanes	1800			✓	✓	Normal	
Dx	1	(untitled)			500.00								Normal	
A-1	1				150.00	✓	Sum of lanes	1800					Normal	
B-1	1				150.00	✓	Sum of lanes	1800					Normal	
C-1	1				150.00	✓	Sum of lanes	1800					Normal	
D-1	1	(untitled)			7.00	✓	Sum of lanes	1800			✓	✓	Normal	
D-2	1				150.00	✓	Sum of lanes	1800					Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
	2	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
C	1	1	(untitled)			1800
	2	1	(untitled)			1800
Cx	1	1	(untitled)			
D	2	1	(untitled)			1800
	3	1	(untitled)			1800
Dx	1	1	(untitled)			
A-1	1	1	(untitled)			1800
B-1	1	1	(untitled)			1800
C-1	1	1	(untitled)			1800
D-1	1	1	(untitled)			1800
D-2	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Queue limit (PCU)	Excess queue penalty (£)	Has degree of saturation limit
A	1	NetworkDefault	100	100	100		0.00				
	2	Flare	100	100	100		8.00	✓	8.00	9999.00	
Ax	1	NetworkDefault	100	100	100		0.00				
B	1	NetworkDefault	100	100	100		0.00				
	2	Flare	100	100	100		8.00	✓	8.00	99999.00	
Bx	1	NetworkDefault	100	100	100		0.00				
C	1	Flare	100	100	100		8.00	✓	8.00	99999.00	
	2	NetworkDefault	100	100	100		0.00				
Cx	1	NetworkDefault	100	100	100		0.00				
D	2	NetworkDefault	100	100	100		0.00				
	3	Flare	100	100	100		4.00	✓	4.00	99999.00	
Dx	1	NetworkDefault	100	100	100		0.00				
A-1	1	NetworkDefault	100	100	100		0.00				
B-1	1	NetworkDefault	100	100	100		0.00				
C-1	1	NetworkDefault	100	100	100		0.00				
D-1	1	NetworkDefault	100	100	100		0.00				
D-2	1	NetworkDefault	100	100	100		0.00				

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
A	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	8.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Ax	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
B	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	8.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Bx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
C	1	8.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Cx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
D	2	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	3	4.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Dx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
A-1	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
B-1	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
C-1	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
D-1	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
D-2	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	333	333
	2	188	188
Ax	1	704	704
B	1	677	677
	2	265	265
Bx	1	620	620
C	1	302	302
	2	162	162
Cx	1	383	383
D	2	315	315
	3	43	43
Dx	1	764	764
A-1	1	521	521
B-1	1	942	942
C-1	1	464	464
D-1	1	186	186
D-2	1	544	544

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	C		
	2	1	D		
B	1	1	A		
	2	1	A	✓	B
C	1	1	C		
	2	1	D		
D	2	1	A		
	3	1	A	✓	B
D-1	1	1	A		

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
(ALL)	1	18.00	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A	1	1	A-1/1	A/1	18.00	30.00	✓	Straight	Straight Movement
	2	1	A-1/1	A/2	4.80	30.00	✓	Straight	Straight Movement
Ax	1	1	C/1	Ax/1	18.00	30.00	✓	Straight	Straight Movement
B	1	1	B-1/1	B/1	36.00	30.00	✓	Straight	Straight Movement
	2	1	B-1/1	B/2	4.80	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	36.00	30.00	✓	Nearside	42.61
C	1	1	C-1/1	C/1	4.80	30.00	✓	Straight	Straight Movement
	2	1	C-1/1	C/2	36.00	30.00	✓	Straight	Straight Movement
Cx	1	1	A/1	Cx/1	36.00	30.00	✓	Straight	Straight Movement
D	2	1	D-2/1	D/2	60.00	30.00	✓	Straight	Straight Movement
	3	1	D-2/1	D/3	2.40	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	60.00	30.00	✓	Nearside	25.27
D-1	1	1	D-2/1	D-1/1	1.00	30.00	✓	Straight	Straight Movement
Ax	1	2	D-1/1	Ax/1	18.00	30.00	✓	Nearside	43.60
Bx	1	2	C/2	Bx/1	36.00	30.00	✓	Offside	38.45
Cx	1	2	B/1	Cx/1	36.00	30.00	✓	Nearside	39.22
Dx	1	2	B/1	Dx/1	60.00	30.00	✓	Straight	Straight Movement
Ax	1	3	B/2	Ax/1	18.00	30.00	✓	Offside	70.68
Bx	1	3	D/2	Bx/1	36.00	30.00	✓	Straight	Straight Movement
Cx	1	3	D/3	Cx/1	36.00	30.00	✓	Offside	49.21
Dx	1	3	A/2	Dx/1	60.00	30.00	✓	Offside	37.07

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
(ALL)	(ALL)	AllTraffic		

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible
2		TrafficStream	D/2	100	0.00	
3		TrafficStream	B/1	100	0.00	
1		TrafficStream	B/2	100	0.00	

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	18.00	12.00	5.40
2	(untitled)		1		Farside	16.00	10.67	5.40
3	(untitled)		1		Farside	16.00	10.67	5.40
4	(untitled)		1		Farside	15.00	10.00	5.40
5	(untitled)				Farside	6.00	4.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	5:1	3:1	3.00	2.00	5.40
2	5:1	4:2	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25				

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	49	253	162	0	0	0	0
	2	43	0	186	315	0	0	0	0
	3	190	188	0	143	0	0	0	0
	4	150	527	265	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C-1/1	Cx/1	#0000FF
	2	(untitled)	D-2/1	Dx/1	#FF0000
	3	(untitled)	A-1/1	Ax/1	#00FF00
	4	(untitled)	B-1/1	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#008000
	7	(untitled)	5:2E	5:2X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	16		2	4	D-2/1, D/2, Bx/1	Normal	315
	17		2	3	D-2/1, D-1/1, Ax/1	Normal	186
	19		4	2	B-1/1, B/1, Dx/1	Normal	527
	20		3	1	A-1/1, A/1, Cx/1	Normal	190
	39		2	1	D-2/1, D/3, Cx/1	Normal	43
	40		1	4	C-1/1, C/2, Bx/1	Normal	162
	41		1	2	C-1/1, C/1, Dx/1	Normal	49
	42		1	3	C-1/1, C/1, Ax/1	Normal	253
	43		4	3	B-1/1, B/2, Ax/1	Normal	265
	44		4	1	B-1/1, B/1, Cx/1	Normal	150
	45		3	2	A-1/1, A/2, Dx/1	Normal	188
	46		3	4	A-1/1, A/1, Bx/1	Normal	143

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	14		7	5	5:2E, 5:1X, 3:1E, 3:2X	Normal	50
	15		7	8	5:2E, 5:1X, 4:2E, 4:1X	Normal	50
	18		8	6	2:2E, 2:1X	Normal	50
	23		5	6	1:1E, 1:2X	Normal	50
	34		6	8	2:1E, 2:2X	Normal	50
	35		6	5	1:2E, 1:1X	Normal	50
	36		8	7	4:1E, 4:2X, 5:1E, 5:2X	Normal	50
	37		5	7	3:2E, 3:1X, 5:1E, 5:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)	Minimum possible cycle time (s)
1	(untitled)		1	NetworkDefault	120	114

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	35	300	0	0	Unknown	
	B	(untitled)	15	18	0	0	Unknown	
	C	(untitled)	22	24	0	0	Unknown	
	D	(untitled)	15	15	0	0	Unknown	
	E	(untitled)	4	5	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)	Run every N cycles	Probability of running (%)
1	1	A	1	1	100
	2	B	1	1	100
	3	C	1	1	100
	4	D	1	1	100
	5	E	1	1	100

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Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)	Single	1, 2, 3, 4, 5	38, 56, 86, 106, 118	114	
	2	(untitled)	Single	1, 2, 3, 5, 4	21, 42, 72, 98, 123	114	
	3	(untitled)	Single	1, 2, 4, 3, 5	24, 48, 77, 101, 0	114	
	4	(untitled)	Single	1, 2, 4, 5, 3	23, 45, 72, 97, 124	114	
	5	(untitled)	Single	1, 2, 5, 3, 4	23, 46, 74, 101, 123	114	
	6	(untitled)	Single	1, 2, 5, 4, 3	23, 46, 75, 102, 124	114	
	7	(untitled)	Single	1, 3, 2, 4, 5	23, 51, 78, 105, 0	119	
	8	(untitled)	Single	1, 3, 2, 5, 4	21, 47, 72, 98, 123	119	
	9	(untitled)	Single	1, 3, 4, 2, 5	23, 51, 74, 102, 0	119	
	10	(untitled)	Single	1, 3, 4, 5, 2	24, 53, 76, 102, 0	114	

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A			5	5	8
	B			5	5	8
	C	5	5		5	8
	D	5	5	5		8
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

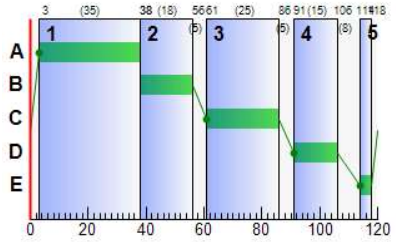
		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	61	86	25
A	2	1	1	D	91	106	15
B	1	1	1	A	3	38	35
B	2	1	1	A	3	38	35
C	1	1	1	C	61	86	25
C	2	1	1	D	91	106	15
D	2	1	1	A	3	38	35
D	3	1	1	A	3	38	35
D-1	1	1	1	A	3	38	35

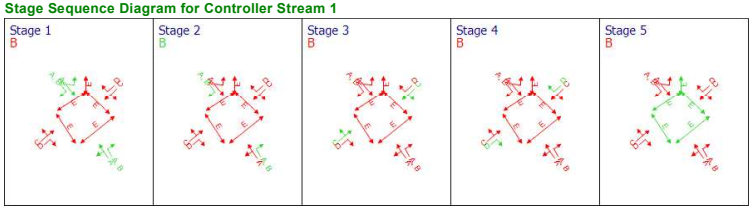
Phase Timings Diagram

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	1	10000.00	0.00	0.00	10000.00

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Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	89	13	333	1800	25	78.30	13.70	52.53	102.85	5.03	107.88
		2	84	20	188	1800	15	104.76	8.29	103.61	77.68	3.03	205.74
	Ax	1	0	Unrestricted	704	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	129	-22	677	1800	35	445.97	95.02	182.13	1190.90	20.52	1211.43
		2	81	24	265	743	53	72.10	8.06	100.75	75.36	2.99	225.24
	Bx	1	0	Unrestricted	620	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	81	24	302	1800	25	65.35	8.45	105.67	77.85	3.15	10033.33
		2	72	39	162	1800	15	79.87	5.82	11.15	51.04	2.16	53.20
	Cx	1	0	Unrestricted	349	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	2	60	67	315	1800	35	41.58	9.46	10.88	51.67	3.48	55.15
		3	14	596	43	677	53	35.18	0.81	20.31	5.97	0.46	6.42
	Dx	1	0	Unrestricted	646	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	A-1	1	29	245	521	1800	120	0.41	0.06	0.23	0.84	0.00	0.84
	B-1	1	52	91	942	1800	120	1.10	0.29	1.10	4.07	0.00	4.07
	C-1	1	34	198	464	1800	120	4.66	4.85	18.61	8.53	1.70	10.24
	D-1	1	71	41	186	900	35	53.98	6.36	522.14	39.60	1.66	41.26
	D-2	1	30	231	544	1800	120	0.43	0.07	0.25	0.93	0.00	0.93

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	A	1	333	333	0		1800	375	89		13	0.00	25
		2	188	188	0		1800	225	84		20	0.00	15
	Ax	1	704	704	0		Unrestricted	Unrestricted	0		Unrestricted	0.63	120
	B	1	677	525	0		1800	525	129	✓	-22	0.00	35
		2	265	265	0		743	328	81		24	0.00	53
	Bx	1	620	620	0		Unrestricted	Unrestricted	0		Unrestricted	0.49	120
	C	1	302	302	0		1800	375	81		24	0.41	25
		2	162	162	0		1800	225	72		39	0.30	15
	Cx	1	349	349	34	✓	Unrestricted	Unrestricted	0		Unrestricted	0.56	120
	D	2	315	315	0		1800	525	60		67	0.00	35
		3	43	43	0		677	299	14		596	0.00	53
	Dx	1	646	646	118	✓	Unrestricted	Unrestricted	0		Unrestricted	0.44	120
	A-1	1	521	521	0		1800	1800	29		245	0.00	120
	B-1	1	942	942	0		1800	1800	52		91	0.00	120
	C-1	1	464	464	0		1800	1382	34		198	0.00	120
	D-1	1	186	186	0		900	263	71		41	0.00	35
	D-2	1	544	544	0		1800	1800	30		231	0.00	120

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	A	1	18.00	78.30	4.27	2.97	102.85	120.54	317.90	83.51	5.03
		2	4.80	104.76	2.68	2.79	77.68	128.60	174.29	67.49	3.03
	Ax	1	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	36.00	445.97	6.20	77.67	1190.90	311.76	525.00	1111.75	20.52
		2	4.80	72.10	3.21	2.10	75.36	90.11	186.57	52.22	2.99
	Bx	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	4.80	65.35	3.46	2.02	77.85	83.21	200.00	51.29	3.15
		2	36.00	79.87	2.71	0.88	51.04	106.48	147.12	25.38	2.16
	Cx	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	2	60.00	41.58	3.19	0.45	51.67	88.21	264.64	13.23	3.48
		3	2.40	35.18	0.38	0.04	5.97	84.86	36.13	0.36	0.46
	Dx	1	60.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	A-1	1	18.00	0.41	0.00	0.06	0.84	0.00	0.00	0.00	0.00
	B-1	1	18.00	1.10	0.00	0.29	4.07	0.00	0.00	0.00	0.00
	C-1	1	18.00	4.66	0.52	0.08	8.53	29.24	133.15	2.54	1.70
	D-1	1	1.00	53.98	1.96	0.83	39.60	100.65	163.18	24.03	1.66
	D-2	1	18.00	0.43	0.00	0.07	0.93	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	A	1	0.00	13.70	26.09	52.53	0.00	0.00	0.00	0.00	0.00	0.00	
		2	8.00	8.29	8.00	103.61	0.01	0.01	125.03	0.00	0.00	0.00	
	Ax	1	0.00	0.00	26.09	0.00	0.00	0.00	0.00	24.00	0.00	24.00	
	B	1	0.00	95.02	52.17	182.13	34.17	0.00	0.00	0.00	0.00	0.00	
		2	8.00	8.06	8.00	100.75	0.00	0.00	146.88	0.00	0.00	0.00	
	Bx	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	C	1	8.00	8.45	8.00	105.67	0.10	0.10	9952.33	0.00	0.00	0.00	
		2	0.00	5.82	52.17	11.15	0.00	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	11.00	0.00	11.00	
	D	2	0.00	9.46	86.96	10.88	0.00	0.00	0.00	0.00	0.00	0.00	
		3	4.00	0.81	4.00	20.31	0.00	0.00	0.00	17.00	0.00	17.00	
	Dx	1	0.00	0.00	86.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	A-1	1	0.00	0.06	26.09	0.23	0.00	0.00	0.00	0.00	0.00	0.00	
	B-1	1	0.00	0.29	26.09	1.10	0.00	0.00	0.00	0.00	120.00	120.00	
	C-1	1	0.00	4.85	26.09	18.61	0.00	0.00	0.00	0.00	27.90	27.90	
	D-1	1	0.00	6.36	1.22	522.14	2.15	0.00	0.00	0.00	0.00	0.00	
	D-2	1	0.00	0.07	26.09	0.25	0.00	0.00	0.00	0.00	100.00	100.00	

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Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	A	1	49.95	8.91	5.61	96.30
		2	7.52	5.41	1.39	103.58
	Ax	1	105.60	3.52	30.00	18.00
	B	1	203.10	90.64	2.24	481.97
		2	10.60	5.40	1.96	73.30
	Bx	1	186.00	6.20	30.00	36.00
	C	1	12.08	5.65	2.14	67.34
		2	48.60	5.21	9.32	115.87
	Cx	1	104.80	3.49	30.00	36.00
	D	2	157.50	8.89	17.72	101.58
		3	0.86	0.42	2.06	34.98
	Dx	1	322.84	10.76	30.00	60.00
	A-1	1	78.15	2.66	29.34	18.41
	B-1	1	141.30	5.00	28.28	19.10
	C-1	1	69.60	2.92	23.83	22.66
	D-1	1	1.30	2.84	0.46	54.98
	D-2	1	81.60	2.79	29.30	18.43

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Mean End of Green Queue EoTS (Veh)	Mean End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	0.00	0.00	✓	13.94	3.21	12.00	1.00	0.00	107.88
		2	0.00	0.00	✓	8.11	2.30	7.94	1.00	125.03	205.74
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	171.05	153.70	166.09	1.00	0.00	1211.43
		2	0.00	0.00	✓	7.99	1.76	6.90	1.00	146.88	225.24
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	8.39	1.72	8.39	1.00	9952.33	10033.33
		2	0.00	0.00	✓	5.84	0.90	5.71	1.00	0.00	53.20
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	2	0.00	0.00	✓	9.46	0.45	7.89	1.00	0.00	55.15
		3	0.00	0.00	✓	0.81	0.01	0.81	1.00	0.00	6.42
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	A-1	1	0.00	0.00	✓	0.06			1.00	0.00	0.84
	B-1	1	0.00	0.00	✓	0.29			1.00	0.00	4.07
	C-1	1	0.00	0.00	✓	4.85			1.00	0.00	10.24
	D-1	1	0.00	0.00	✓	6.37	0.84	5.24	1.00	0.00	41.26
	D-2	1	0.00	0.00	✓	0.07			1.00	0.00	0.93

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	14	50	11000	4	56.55	1.61	11.15	11.15
		2	14	50	11000	4	56.55	1.61	11.15	11.15
	2	1	14	50	11000	4	56.55	1.61	11.15	11.15
		2	14	50	11000	4	56.55	1.61	11.15	11.15
	3	1	14	50	11000	4	113.89	1.67	22.46	22.46
		2	14	50	11000	4	56.55	1.61	11.15	11.15
	4	1	14	50	11000	4	56.55	1.61	11.15	11.15
		2	14	50	11000	4	113.89	1.67	22.46	22.46
	5	1	27	100	11000	4	107.53	3.33	42.42	42.42
		2	27	100	11000	4	56.61	3.22	22.33	22.33

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	1	1	50	50	0		11000	367	14		633	0.00	4
		2	50	50	0		11000	367	14		633	0.00	4
	2	1	50	50	0		11000	367	14		633	0.00	4
		2	50	50	0		11000	367	14		633	0.00	4
	3	1	50	50	0		11000	367	14		633	1.93	4
		2	50	50	0		11000	367	14		633	0.00	4
	4	1	50	50	0		11000	367	14		633	0.00	4
		2	50	50	0		11000	367	14		633	1.93	4
	5	1	100	100	0		11000	367	27		267	1.93	4
		2	100	100	0		11000	367	27		267	0.00	4

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
17:00-18:00	1	1	13.00	56.55	0.79	0.00	11.15
		2	13.00	56.55	0.79	0.00	11.15
	2	1	11.67	56.55	0.79	0.00	11.15
		2	11.67	56.55	0.79	0.00	11.15
	3	1	12.67	113.89	1.58	0.00	22.46
		2	11.67	56.55	0.79	0.00	11.15
	4	1	11.00	56.55	0.79	0.00	11.15
		2	12.00	113.89	1.58	0.00	22.46
	5	1	6.00	107.53	2.99	0.00	42.42
		2	5.00	56.61	1.57	0.00	22.33

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Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	1	1	1.61	10.00	16.11	0.00	0.00	0.00
		2	1.61	10.00	16.11	0.00	0.00	0.00
	2	1	1.61	10.00	16.11	0.00	0.00	0.00
		2	1.61	10.00	16.11	0.00	0.00	0.00
	3	1	1.67	10.00	16.67	0.00	0.00	0.00
		2	1.61	10.00	16.11	0.00	0.00	0.00
	4	1	1.61	10.00	16.11	0.00	0.00	0.00
		2	1.67	10.00	16.67	0.00	0.00	0.00
	5	1	3.33	10.00	33.33	0.00	0.00	0.00
		2	3.22	10.00	32.22	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	1	1	0.95	0.97	0.98	69.55
		2	0.95	0.97	0.98	69.55
	2	1	0.85	0.95	0.90	68.22
		2	0.85	0.95	0.90	68.22
	3	1	0.95	1.76	0.54	126.56
		2	0.85	0.95	0.90	68.22
	4	1	0.80	0.94	0.85	67.55
		2	0.90	1.75	0.51	125.89
	5	1	0.90	3.15	0.29	113.53
		2	0.70	1.71	0.41	61.61

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	0.00	0.00	1.61	1.00	0.00	11.15
		2	0.00	0.00	1.61	1.00	0.00	11.15
	2	1	0.00	0.00	1.61	1.00	0.00	11.15
		2	0.00	0.00	1.61	1.00	0.00	11.15
	3	1	0.00	0.00	1.67	1.00	0.00	22.46
		2	0.00	0.00	1.61	1.00	0.00	11.15
	4	1	0.00	0.00	1.61	1.00	0.00	11.15
		2	0.00	0.00	1.67	1.00	0.00	22.46
	5	1	0.00	0.00	3.33	1.00	0.00	42.42
		2	0.00	0.00	3.22	1.00	0.00	22.33

Collections

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	150.0	108.0	174.5	0.0	0.0	0.0	0.0
	2	89.4	0.0	91.4	156.0	0.0	0.0	0.0	0.0
	3	150.7	182.0	0.0	150.7	0.0	0.0	0.0	0.0
	4	537.1	561.1	110.4	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	69.6	181.8	0.0
	6	0.0	0.0	0.0	0.0	69.6	0.0	0.0	68.2
	7	0.0	0.0	0.0	0.0	188.2	0.0	0.0	187.5
	8	0.0	0.0	0.0	0.0	0.0	68.2	181.1	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Normal journey dist (m)	Bus journeydist (m)	Tram journey dist (m)	Pedestrian journey dist (m)	Calculated Total Flow (Veh/hr)	Avg journey time (s)	Avg journey dist (m)
14	7	5		50		188.17	26.00	26.00	26.00	26.00	50	188.17	26.00
15	7	8		50		187.50	25.00	25.00	25.00	25.00	50	187.50	25.00
16	2	4	315		156.02		950.00	0.00	0.00	0.00	315	156.02	950.00
17	2	3	186		91.41		307.00	0.00	0.00	0.00	186	91.41	307.00
18	8	6		50		68.22	17.00	17.00	17.00	17.00	50	68.22	17.00
19	4	2	527		561.06		950.00	0.00	0.00	0.00	527	561.06	950.00
20	3	1	190		150.71		600.00	0.00	0.00	0.00	190	150.71	600.00
23	5	6		50		69.55	19.00	19.00	19.00	19.00	50	69.55	19.00
34	6	8		50		68.22	17.00	17.00	17.00	17.00	50	68.22	17.00
35	6	5		50		69.55	19.00	19.00	19.00	19.00	50	69.55	19.00
36	8	7		50		181.08	25.00	25.00	25.00	25.00	50	181.08	25.00
37	5	7		50		181.75	26.00	26.00	26.00	26.00	50	181.75	26.00
39	2	1	43		89.41		470.00	0.00	0.00	0.00	43	89.41	470.00
40	1	4	162		174.53		750.00	0.00	0.00	0.00	162	174.53	750.00
41	1	2	49		150.01		690.00	0.00	0.00	0.00	49	150.01	690.00
42	1	3	253		108.01		340.00	0.00	0.00	0.00	253	108.01	340.00
43	4	3	265		110.40		340.00	0.00	0.00	0.00	265	110.40	340.00
44	4	1	150		537.06		750.00	0.00	0.00	0.00	150	537.06	750.00
45	3	2	188		181.99		690.00	0.00	0.00	0.00	188	181.99	690.00
46	3	4	143		150.71		600.00	0.00	0.00	0.00	143	150.71	600.00

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Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	C		333	1800	25	0.00	89	13	96.30	78.30	120.54	
	2		1	1	D		188 <	1800	15	0.00	84	20	103.58	104.76	128.60	
Ax	1	(untitled)					704	Unrestricted	120	24.00	0	Unrestricted	18.00	0.00	0.00	
B	1	(untitled)	1	1	A		677 <	1800	35	0.00	129	-22	481.97	445.97	311.76	
	2		1	1	A	B	265 <	743	53	0.00	81	24	73.30	72.10	90.11	
Bx	1	(untitled)					620	Unrestricted	120	0.00	0	Unrestricted	36.00	0.00	0.00	
C	1	(untitled)	1	1	C		302 <	1800	25	0.00	81	24	67.34	65.35	83.21	
	2		1	1	D		162	1800	15	0.00	72	39	115.87	79.87	106.48	
Cx	1	(untitled)					349	Unrestricted	120	11.00	0	Unrestricted	36.00	0.00	0.00	
D	2	(untitled)	1	1	A		315	1800	35	0.00	60	67	101.58	41.58	88.21	
	3		1	1	A	B	43	677	53	17.00	14	596	34.98	35.18	84.86	
Dx	1	(untitled)					646	Unrestricted	120	0.00	0	Unrestricted	60.00	0.00	0.00	
A-1	1		1				521	1800	120	0.00	29	245	18.41	0.41	0.00	
B-1	1		1				942	1800	120	120.00	52	91	19.10	1.10	0.00	
C-1	1		1				464	1800	120	27.90	34	198	22.66	4.66	29.24	
D-1	1	(untitled)	1	1	A		186 <	900	35	0.00	71	41	54.98	53.98	100.65	
D-2	1		1				544	1800	120	100.00	30	231	18.43	0.43	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	C tr pe (£
1	1	(untitled)	1	1	E	50	11000	4	14	633	69.55	56.55	1.61	100	
	2	(untitled)	1	1	E	50	11000	4	14	633	69.55	56.55	1.61	100	
2	1	(untitled)	1	1	E	50	11000	4	14	633	68.22	56.55	1.61	100	
	2	(untitled)	1	1	E	50	11000	4	14	633	68.22	56.55	1.61	100	
3	1	(untitled)	1	1	E	50	11000	4	14	633	126.56	113.89	1.67	100	
	2	(untitled)	1	1	E	50	11000	4	14	633	68.22	56.55	1.61	100	
4	1	(untitled)	1	1	E	50	11000	4	14	633	67.55	56.55	1.61	100	
	2	(untitled)	1	1	E	50	11000	4	14	633	125.89	113.89	1.67	100	
5	1	(untitled)		1	E	100	11000	4	27	267	113.53	107.53	3.33	100	
	2	(untitled)		1	E	100	11000	4	27	267	61.61	56.61	3.22	100	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	1581.40	170.70	9.26	28.58	90.25	1687.28	44.19	10224.24	11955.72
Bus									
Tram									
Pedestrians	8.70	14.08	0.62	12.44	0.00	176.59	0.00	0.00	176.59
Controller streams									10000
TOTAL	1590.10	184.78	8.61	41.01	90.25	1863.87	44.19	10224.24	22132.30

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A1 - Junction 3
D5 - 2032 Do Something, PM

Summary

Data Errors and Warnings

Severity	Area	Item	Description
Signals Warning	Signal Timings	Controller Stream 1	Controller Stream 1: Phase C maximum green of 24s violated (This will be repaired automatically if doing a full optimised run.)

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item wi wors unsignal PRC
1	05/03/2024 13:03:21	05/03/2024 13:03:21	0.81	17:00	120	75616.52	176.96	143.81	B/1	1	4	B/1	B-1/1

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set (s)	Optimise specific Demand Set (s)	Demand Set(s) to optimise	Include in report	Locked
Junction 3				✓	D7	✓	

Demand Set Details

Scenario name	Time Period name	Description	Composite	Demand sets	Start time (HH:mm)	Locked	Run automatically
2032 Do Something	PM	(untitled)			17:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120	114	114		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	2

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)	Missing stage transition options
10000.00	10000.00	10000.00	2	Assume banned

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from traffic model	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓			Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy (%)	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Standard accuracy Hill Climb	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

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Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
A-1			1
B-1			1
C-1			1
D-1	(untitled)		1
D-2			1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Auto-calculate cell saturation flow	Cell saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			150.00	✓	Sum of lanes	1800			✓		Normal	
	2				40.00	✓	Sum of lanes	1800	✓	1800	✓		Normal	
Ax	1	(untitled)			150.00								Normal	
B	1	(untitled)			300.00	✓	Sum of lanes	1800			✓		Normal	
	2				40.00	✓	Sum of lanes	1800	✓	1800	✓	✓	Normal	
Bx	1	(untitled)			300.00								Normal	
C	1	(untitled)			40.00	✓	Sum of lanes	1800	✓	1800	✓		Normal	
	2				300.00	✓	Sum of lanes	1800			✓		Normal	
Cx	1	(untitled)			300.00								Normal	
D	2	(untitled)			500.00	✓	Sum of lanes	1800			✓		Normal	
	3				20.00	✓	Sum of lanes	1800			✓	✓	Normal	
Dx	1	(untitled)			500.00								Normal	
A-1	1				150.00	✓	Sum of lanes	1800					Normal	
B-1	1				150.00	✓	Sum of lanes	1800					Normal	
C-1	1				150.00	✓	Sum of lanes	1800					Normal	
D-1	1	(untitled)			7.00	✓	Sum of lanes	1800			✓	✓	Normal	
D-2	1				150.00	✓	Sum of lanes	1800					Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
	2	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
C	1	1	(untitled)			1800
	2	1	(untitled)			1800
Cx	1	1	(untitled)			
D	2	1	(untitled)			1800
	3	1	(untitled)			1800
Dx	1	1	(untitled)			
A-1	1	1	(untitled)			1800
B-1	1	1	(untitled)			1800
C-1	1	1	(untitled)			1800
D-1	1	1	(untitled)			1800
D-2	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Queue limit (PCU)	Excess queue penalty (£)	Has degree of saturation limit
A	1	NetworkDefault	100	100	100		0.00				
	2	Flare	100	100	100		8.00	✓	8.00	9999.00	
Ax	1	NetworkDefault	100	100	100		0.00				
B	1	NetworkDefault	100	100	100		0.00				
	2	Flare	100	100	100		8.00	✓	8.00	99999.00	
Bx	1	NetworkDefault	100	100	100		0.00				
C	1	Flare	100	100	100		8.00	✓	8.00	99999.00	
	2	NetworkDefault	100	100	100		0.00				
Cx	1	NetworkDefault	100	100	100		0.00				
D	2	NetworkDefault	100	100	100		0.00				
	3	Flare	100	100	100		4.00	✓	4.00	99999.00	
Dx	1	NetworkDefault	100	100	100		0.00				
A-1	1	NetworkDefault	100	100	100		0.00				
B-1	1	NetworkDefault	100	100	100		0.00				
C-1	1	NetworkDefault	100	100	100		0.00				
D-1	1	NetworkDefault	100	100	100		0.00				
D-2	1	NetworkDefault	100	100	100		0.00				

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
A	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	8.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Ax	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
B	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	8.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Bx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
C	1	8.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Cx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
D	2	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	3	4.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Dx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
A-1	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
B-1	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
C-1	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
D-1	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
D-2	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	333	333
	2	209	209
Ax	1	716	716
B	1	755	755
	2	265	265
Bx	1	665	665
C	1	316	316
	2	162	162
Cx	1	391	391
D	2	360	360
	3	51	51
Dx	1	877	877
A-1	1	542	542
B-1	1	1020	1020
C-1	1	478	478
D-1	1	198	198
D-2	1	609	609

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	C		
	2	1	D		
B	1	1	A		
	2	1	A	✓	B
C	1	1	C		
	2	1	D		
D	2	1	A		
	3	1	A	✓	B
D-1	1	1	A		

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
(ALL)	1	18.00	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A	1	1	A-1/1	A/1	18.00	30.00	✓	Straight	Straight Movement
	2	1	A-1/1	A/2	4.80	30.00	✓	Straight	Straight Movement
Ax	1	1	C/1	Ax/1	18.00	30.00	✓	Straight	Straight Movement
B	1	1	B-1/1	B/1	36.00	30.00	✓	Straight	Straight Movement
	2	1	B-1/1	B/2	4.80	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	36.00	30.00	✓	Nearside	42.61
C	1	1	C-1/1	C/1	4.80	30.00	✓	Straight	Straight Movement
	2	1	C-1/1	C/2	36.00	30.00	✓	Straight	Straight Movement
Cx	1	1	A/1	Cx/1	36.00	30.00	✓	Straight	Straight Movement
D	2	1	D-2/1	D/2	60.00	30.00	✓	Straight	Straight Movement
	3	1	D-2/1	D/3	2.40	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	60.00	30.00	✓	Nearside	25.27
D-1	1	1	D-2/1	D-1/1	1.00	30.00	✓	Straight	Straight Movement
Bx	1	2	C/2	Bx/1	36.00	30.00	✓	Offside	38.45
Cx	1	2	B/1	Cx/1	36.00	30.00	✓	Nearside	39.22
Dx	1	2	B/1	Dx/1	60.00	30.00	✓	Straight	Straight Movement
Ax	1	3	B/2	Ax/1	18.00	30.00	✓	Offside	70.68
Bx	1	3	D/2	Bx/1	36.00	30.00	✓	Straight	Straight Movement
Cx	1	3	D/3	Cx/1	36.00	30.00	✓	Offside	49.21
Dx	1	3	A/2	Dx/1	60.00	30.00	✓	Offside	37.07

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
(ALL)	(ALL)	AllTraffic		

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Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible
2		TrafficStream	D/2	100	0.00	
3		TrafficStream	B/1	100	0.00	
1		TrafficStream	B/2	100	0.00	

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	18.00	12.00	5.40
2	(untitled)		1		Farside	16.00	10.67	5.40
3	(untitled)		1		Farside	16.00	10.67	5.40
4	(untitled)		1		Farside	15.00	10.00	5.40
5	(untitled)				Farside	6.00	4.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	5:1	3:1	3.00	2.00	5.40
2	5:1	4:2	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25				

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	63	253	162	0	0	0	0
	2	51	0	198	360	0	0	0	0
	3	190	209	0	143	0	0	0	0
	4	150	605	265	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C-1/1	Cx/1	#0000FF
	2	(untitled)	D-2/1	Dx/1	#FF0000
	3	(untitled)	A-1/1	Ax/1	#00FF00
	4	(untitled)	B-1/1	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#008000
	7	(untitled)	5:2E	5:2X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	16		2	4	D-2/1, D/2, Bx/1	Normal	360
	17		2	3	D-2/1, D-1/1, Ax/1	Normal	198
	19		4	2	B-1/1, B/1, Dx/1	Normal	605
	20		3	1	A-1/1, A/1, Cx/1	Normal	190
	39		2	1	D-2/1, D/3, Cx/1	Normal	51
	40		1	4	C-1/1, C/2, Bx/1	Normal	162
	41		1	2	C-1/1, C/1, Dx/1	Normal	63
	42		1	3	C-1/1, C/1, Ax/1	Normal	253
	43		4	3	B-1/1, B/2, Ax/1	Normal	265
	44		4	1	B-1/1, B/1, Cx/1	Normal	150
	45		3	2	A-1/1, A/2, Dx/1	Normal	209
	46		3	4	A-1/1, A/1, Bx/1	Normal	143

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Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	14		7	5	5:2E, 5:1X, 3:1E, 3:2X	Normal	50
	15		7	8	5:2E, 5:1X, 4:2E, 4:1X	Normal	50
	18		8	6	2:2E, 2:1X	Normal	50
	23		5	6	1:1E, 1:2X	Normal	50
	34		6	8	2:1E, 2:2X	Normal	50
	35		6	5	1:2E, 1:1X	Normal	50
	36		8	7	4:1E, 4:2X, 5:1E, 5:2X	Normal	50
	37		5	7	3:2E, 3:1X, 5:1E, 5:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)	Minimum possible cycle time (s)
1	(untitled)		1	NetworkDefault	120	114

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	35	300	0	0	Unknown	
	B	(untitled)	15	18	0	0	Unknown	
	C	(untitled)	22	24	0	0	Unknown	
	D	(untitled)	15	15	0	0	Unknown	
	E	(untitled)	4	5	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)	Run every N cycles	Probability of running (%)
1	1	A	1	1	100
	2	B	1	1	100
	3	C	1	1	100
	4	D	1	1	100
	5	E	1	1	100

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)	Single	1, 2, 3, 4, 5	38, 56, 86, 106, 118	114	
	2	(untitled)	Single	1, 2, 3, 5, 4	21, 42, 72, 98, 123	114	
	3	(untitled)	Single	1, 2, 4, 3, 5	24, 48, 77, 101, 0	114	
	4	(untitled)	Single	1, 2, 4, 5, 3	23, 45, 72, 97, 124	114	
	5	(untitled)	Single	1, 2, 5, 3, 4	23, 46, 74, 101, 123	114	
	6	(untitled)	Single	1, 2, 5, 4, 3	23, 46, 75, 102, 124	114	
	7	(untitled)	Single	1, 3, 2, 4, 5	23, 51, 78, 105, 0	119	
	8	(untitled)	Single	1, 3, 2, 5, 4	21, 47, 72, 98, 123	119	
	9	(untitled)	Single	1, 3, 4, 2, 5	23, 51, 74, 102, 0	119	
	10	(untitled)	Single	1, 3, 4, 5, 2	24, 53, 76, 102, 0	114	

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A			5	5	8
	B			5	5	8
	C	5	5		5	8
	D	5	5	5		8
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

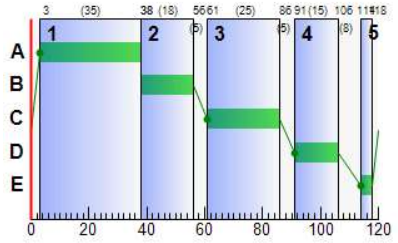
		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	61	86	25
A	2	1	1	D	91	106	15
B	1	1	1	A	3	38	35
B	2	1	1	A	3	38	35
C	1	1	1	C	61	86	25
C	2	1	1	D	91	106	15
D	2	1	1	A	3	38	35
D	3	1	1	A	3	38	35
D-1	1	1	1	A	3	38	35

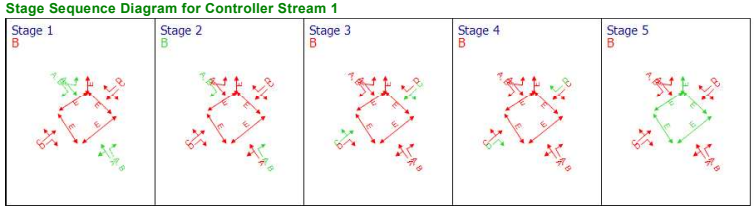
Phase Timings Diagram

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	1	10000.00	0.00	0.00	10000.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	89	13	333	1800	25	78.30	13.70	52.53	102.85	5.03	107.88
		2	93	8	209	1800	15	174.68	13.92	174.02	144.00	4.60	28359.06
	Ax	1	0	Unrestricted	716	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	144	-30	755	1800	35	583.24	133.47	255.83	1736.92	23.63	1760.55
		2	81	24	265	743	53	72.10	8.06	100.75	75.36	2.99	225.24
	Bx	1	0	Unrestricted	665	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	84	19	316	1800	25	71.21	9.16	114.53	88.76	3.39	34788.03
		2	72	39	162	1800	15	82.52	5.89	11.28	52.73	2.17	54.90
	Cx	1	0	Unrestricted	345	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	2	69	46	360	1800	35	44.99	11.34	13.04	63.88	4.20	68.08
		3	17	487	51	677	53	36.97	0.97	24.17	7.44	0.54	7.98
	Dx	1	0	Unrestricted	693	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	A-1	1	30	232	542	1800	120	0.43	0.06	0.25	0.92	0.00	0.92
	B-1	1	57	76	1020	1800	120	1.30	0.37	1.42	5.25	0.00	5.25
	C-1	1	36	177	478	1800	120	5.97	5.81	22.28	11.26	2.02	13.28
	D-1	1	75	33	198	900	35	58.51	7.04	577.88	45.69	1.84	47.53
	D-2	1	34	196	609	1800	120	0.51	0.09	0.33	1.23	0.00	1.23

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	A	1	333	333	0		1800	375	89		13	0.00	25
		2	209	209	0		1800	225	93		8	0.00	15
	Ax	1	716	716	0		Unrestricted	Unrestricted	0		Unrestricted	0.61	120
	B	1	755	525	0		1800	525	144	✓	-30	0.00	35
		2	265	265	0		743	328	81		24	0.00	53
	Bx	1	665	665	0		Unrestricted	Unrestricted	0		Unrestricted	0.50	120
	C	1	316	316	0		1800	375	84		19	0.47	25
		2	162	162	0		1800	225	72		39	0.36	15
	Cx	1	345	345	46	✓	Unrestricted	Unrestricted	0		Unrestricted	0.55	120
	D	2	360	360	0		1800	525	69		46	0.00	35
		3	51	51	0		677	299	17		487	0.00	53
	Dx	1	693	693	184	✓	Unrestricted	Unrestricted	0		Unrestricted	0.42	120
	A-1	1	542	542	0		1800	1800	30		232	0.00	120
	B-1	1	1020	1020	0		1800	1800	57		76	0.00	120
	C-1	1	478	478	0		1800	1323	36		177	0.00	120
	D-1	1	198	198	0		900	263	75		33	0.00	35
	D-2	1	609	609	0		1800	1800	34		196	0.00	120

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Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	A	1	18.00	78.30	4.27	2.97	102.85	120.54	317.90	83.51	5.03
		2	4.80	174.68	3.02	7.12	144.00	175.67	193.89	173.26	4.60
	Ax	1	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	36.00	583.24	6.20	116.12	1736.92	358.98	525.00	1359.67	23.63
		2	4.80	72.10	3.21	2.10	75.36	90.11	186.57	52.22	2.99
	Bx	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	4.80	71.21	3.56	2.69	88.76	85.63	200.00	70.60	3.39
		2	36.00	82.52	2.83	0.88	52.73	106.94	147.86	25.38	2.17
	Cx	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	2	60.00	44.99	3.76	0.74	63.88	92.95	312.88	21.73	4.20
		3	2.40	36.97	0.47	0.05	7.44	85.04	42.85	0.52	0.54
	Dx	1	60.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	A-1	1	18.00	0.43	0.00	0.06	0.92	0.00	0.00	0.00	0.00
	B-1	1	18.00	1.30	0.00	0.37	5.25	0.00	0.00	0.00	0.00
	C-1	1	18.00	5.97	0.69	0.10	11.26	33.70	158.03	3.06	2.02
	D-1	1	1.00	58.51	2.12	1.10	45.69	105.01	176.39	31.53	1.84
	D-2	1	18.00	0.51	0.00	0.09	1.23	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	A	1	0.00	13.70	26.09	52.53	0.00	0.00	0.00	0.00	0.00	0.00	
		2	8.00	13.92	8.00	174.02	2.82	2.82	28210.46	0.00	0.00	0.00	
	Ax	1	0.00	0.00	26.09	0.00	0.00	0.00	0.00	23.00	0.00	23.00	
	B	1	0.00	133.47	52.17	255.83	72.62	0.00	0.00	0.00	0.00	0.00	
		2	8.00	8.06	8.00	100.75	0.00	0.00	146.88	0.00	0.00	0.00	
	Bx	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	C	1	8.00	9.16	8.00	114.53	0.35	0.35	34695.88	0.00	0.00	0.00	
		2	0.00	5.89	52.17	11.28	0.00	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	11.00	0.00	11.00	
	D	2	0.00	11.34	86.96	13.04	0.00	0.00	0.00	0.00	0.00	0.00	
		3	4.00	0.97	4.00	24.17	0.00	0.00	0.00	17.00	0.00	17.00	
	Dx	1	0.00	0.00	86.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	A-1	1	0.00	0.06	26.09	0.25	0.00	0.00	0.00	0.00	0.00	0.00	
	B-1	1	0.00	0.37	26.09	1.42	0.00	0.00	0.00	0.00	120.00	120.00	
	C-1	1	0.00	5.81	26.09	22.28	0.00	0.00	0.00	0.00	31.80	31.80	
	D-1	1	0.00	7.04	1.22	577.88	2.59	0.00	0.00	0.00	0.00	0.00	
	D-2	1	0.00	0.09	26.09	0.33	0.00	0.00	0.00	0.00	106.00	106.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	A	1	49.95	8.91	5.61	96.30
		2	8.36	10.75	0.78	185.25
	Ax	1	107.40	3.58	30.00	18.00
	B	1	226.50	129.87	1.74	619.24
		2	10.60	5.40	1.96	73.30
	Bx	1	199.50	6.65	30.00	36.00
	C	1	12.64	6.47	1.95	73.76
		2	48.60	5.33	9.11	118.52
	Cx	1	103.59	3.45	30.00	36.00
	D	2	180.00	10.50	17.14	104.99
		3	1.02	0.53	1.94	37.12
	Dx	1	346.35	11.54	30.00	60.00
	A-1	1	81.30	2.77	29.30	18.43
	B-1	1	153.00	5.47	27.97	19.30
	C-1	1	71.70	3.18	22.53	23.97
	D-1	1	1.39	3.27	0.42	59.51
	D-2	1	91.35	3.13	29.17	18.51

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Mean End of Green Queue EoTS (Veh)	Mean End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	0.00	0.00	✓	13.94	3.21	12.00	1.00	0.00	107.88
		2	0.00	0.00	✓	13.62	7.16	13.43	1.00	28210.46	28359.06
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	248.49	231.13	243.53	1.00	0.00	1760.55
		2	0.00	0.00	✓	7.99	1.76	6.90	1.00	146.88	225.24
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	9.04	2.38	9.04	1.00	34695.88	34788.03
		2	0.00	0.00	✓	5.91	0.90	5.74	1.00	0.00	54.90
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	2	0.00	0.00	✓	11.34	0.74	9.24	1.00	0.00	68.08
		3	0.00	0.00	✓	0.97	0.02	0.97	1.00	0.00	7.98
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	A-1	1	0.00	0.00	✓	0.06			1.00	0.00	0.92
	B-1	1	0.00	0.00	✓	0.37			1.00	0.00	5.25
	C-1	1	0.00	0.00	✓	5.81			1.00	0.00	13.28
	D-1	1	0.00	0.00	✓	7.07	1.13	5.80	1.00	0.00	47.53
	D-2	1	0.00	0.00	✓	0.09			1.00	0.00	1.23

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Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	14	50	11000	4	56.55	1.61	11.15	11.15
		2	14	50	11000	4	56.55	1.61	11.15	11.15
	2	1	14	50	11000	4	56.55	1.61	11.15	11.15
		2	14	50	11000	4	56.55	1.61	11.15	11.15
	3	1	14	50	11000	4	113.89	1.67	22.46	22.46
		2	14	50	11000	4	56.55	1.61	11.15	11.15
	4	1	14	50	11000	4	56.55	1.61	11.15	11.15
		2	14	50	11000	4	113.89	1.67	22.46	22.46
	5	1	27	100	11000	4	107.53	3.33	42.42	42.42
		2	27	100	11000	4	56.61	3.22	22.33	22.33

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	1	1	50	50	0		11000	367	14		633	0.00	4
		2	50	50	0		11000	367	14		633	0.00	4
	2	1	50	50	0		11000	367	14		633	0.00	4
		2	50	50	0		11000	367	14		633	0.00	4
	3	1	50	50	0		11000	367	14		633	1.93	4
		2	50	50	0		11000	367	14		633	0.00	4
	4	1	50	50	0		11000	367	14		633	0.00	4
		2	50	50	0		11000	367	14		633	1.93	4
	5	1	100	100	0		11000	367	27		267	1.93	4
		2	100	100	0		11000	367	27		267	0.00	4

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
17:00-18:00	1	1	13.00	56.55	0.79	0.00	11.15
		2	13.00	56.55	0.79	0.00	11.15
	2	1	11.67	56.55	0.79	0.00	11.15
		2	11.67	56.55	0.79	0.00	11.15
	3	1	12.67	113.89	1.58	0.00	22.46
		2	11.67	56.55	0.79	0.00	11.15
	4	1	11.00	56.55	0.79	0.00	11.15
		2	12.00	113.89	1.58	0.00	22.46
	5	1	6.00	107.53	2.99	0.00	42.42
		2	5.00	56.61	1.57	0.00	22.33

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	1	1	1.61	10.00	16.11	0.00	0.00	0.00
		2	1.61	10.00	16.11	0.00	0.00	0.00
	2	1	1.61	10.00	16.11	0.00	0.00	0.00
		2	1.61	10.00	16.11	0.00	0.00	0.00
	3	1	1.67	10.00	16.67	0.00	0.00	0.00
		2	1.61	10.00	16.11	0.00	0.00	0.00
	4	1	1.61	10.00	16.11	0.00	0.00	0.00
		2	1.67	10.00	16.67	0.00	0.00	0.00
	5	1	3.33	10.00	33.33	0.00	0.00	0.00
		2	3.22	10.00	32.22	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	1	1	0.95	0.97	0.98	69.55
		2	0.95	0.97	0.98	69.55
	2	1	0.85	0.95	0.90	68.22
		2	0.85	0.95	0.90	68.22
	3	1	0.95	1.76	0.54	126.56
		2	0.85	0.95	0.90	68.22
	4	1	0.80	0.94	0.85	67.55
		2	0.90	1.75	0.51	125.89
	5	1	0.90	3.15	0.29	113.53
		2	0.70	1.71	0.41	61.61

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	0.00	0.00	1.61	1.00	0.00	11.15
		2	0.00	0.00	1.61	1.00	0.00	11.15
	2	1	0.00	0.00	1.61	1.00	0.00	11.15
		2	0.00	0.00	1.61	1.00	0.00	11.15
	3	1	0.00	0.00	1.67	1.00	0.00	22.46
		2	0.00	0.00	1.61	1.00	0.00	11.15
	4	1	0.00	0.00	1.61	1.00	0.00	11.15
		2	0.00	0.00	1.67	1.00	0.00	22.46
	5	1	0.00	0.00	3.33	1.00	0.00	42.42
		2	0.00	0.00	3.22	1.00	0.00	22.33

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Collections

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	157.7	115.7	178.5	0.0	0.0	0.0	0.0
	2	91.6	0.0	96.0	159.5	0.0	0.0	0.0	0.0
	3	150.7	263.7	0.0	150.7	0.0	0.0	0.0	0.0
	4	674.5	698.5	110.6	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	69.6	181.8	0.0
	6	0.0	0.0	0.0	0.0	69.6	0.0	0.0	68.2
	7	0.0	0.0	0.0	0.0	188.2	0.0	0.0	187.5
	8	0.0	0.0	0.0	0.0	0.0	68.2	181.1	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Normal journey dist (m)	Bus journeydist (m)	Tram journey dist (m)	Pedestrian journey dist (m)	Calculated Total Flow (Veh/hr)	Avg journey time (s)	Avg journey dist (m)
14	7	5		50		188.17	26.00	26.00	26.00	26.00	50	188.17	26.00
15	7	8		50		187.50	25.00	25.00	25.00	25.00	50	187.50	25.00
16	2	4	360		159.50		950.00	0.00	0.00	0.00	360	159.50	950.00
17	2	3	198		96.02		307.00	0.00	0.00	0.00	198	96.02	307.00
18	8	6		50		68.22	17.00	17.00	17.00	17.00	50	68.22	17.00
19	4	2	605		698.55		950.00	0.00	0.00	0.00	605	698.55	950.00
20	3	1	190		150.73		600.00	0.00	0.00	0.00	190	150.73	600.00
23	5	6		50		69.55	19.00	19.00	19.00	19.00	50	69.55	19.00
34	6	8		50		68.22	17.00	17.00	17.00	17.00	50	68.22	17.00
35	6	5		50		69.55	19.00	19.00	19.00	19.00	50	69.55	19.00
36	8	7		50		181.08	25.00	25.00	25.00	25.00	50	181.08	25.00
37	5	7		50		181.75	26.00	26.00	26.00	26.00	50	181.75	26.00
39	2	1	51		91.63		470.00	0.00	0.00	0.00	51	91.63	470.00
40	1	4	162		178.49		750.00	0.00	0.00	0.00	162	178.49	750.00
41	1	2	63		157.73		690.00	0.00	0.00	0.00	63	157.73	690.00
42	1	3	253		115.73		340.00	0.00	0.00	0.00	253	115.73	340.00
43	4	3	265		110.61		340.00	0.00	0.00	0.00	265	110.61	340.00
44	4	1	150		674.55		750.00	0.00	0.00	0.00	150	674.55	750.00
45	3	2	209		263.68		690.00	0.00	0.00	0.00	209	263.68	690.00
46	3	4	143		150.73		600.00	0.00	0.00	0.00	143	150.73	600.00

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	C		333	1800	25	0.00	89	13	96.30	78.30	120.54	
	2		1	1	D		209 <	1800	15	0.00	93	8	185.25	174.68	175.67	
Ax	1	(untitled)					716	Unrestricted	120	23.00	0	Unrestricted	18.00	0.00	0.00	
B	1	(untitled)	1	1	A		755 <	1800	35	0.00	144	-30	619.24	583.24	358.98	
	2		1	1	A	B	265 <	743	53	0.00	81	24	73.30	72.10	90.11	
Bx	1	(untitled)					665	Unrestricted	120	0.00	0	Unrestricted	36.00	0.00	0.00	
C	1	(untitled)	1	1	C		316 <	1800	25	0.00	84	19	73.76	71.21	85.63	
	2		1	1	D		162	1800	15	0.00	72	39	118.52	82.52	106.94	
Cx	1	(untitled)					345	Unrestricted	120	11.00	0	Unrestricted	36.00	0.00	0.00	
D	2	(untitled)	1	1	A		360	1800	35	0.00	69	46	104.99	44.99	92.95	
	3		1	1	A	B	51	677	53	17.00	17	487	37.12	36.97	85.04	
Dx	1	(untitled)					693	Unrestricted	120	0.00	0	Unrestricted	60.00	0.00	0.00	
A-1	1		1				542	1800	120	0.00	30	232	18.43	0.43	0.00	
B-1	1		1				1020	1800	120	120.00	57	76	19.30	1.30	0.00	
C-1	1		1				478	1800	120	31.80	36	177	23.97	5.97	33.70	
D-1	1	(untitled)	1	1	A		198 <	900	35	0.00	75	33	59.51	58.51	105.01	
D-2	1		1				609	1800	120	106.00	34	196	18.51	0.51	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	C tr pe (£
1	1	(untitled)	1	1	E	50	11000	4	14	633	69.55	56.55	1.61	100	
	2	(untitled)	1	1	E	50	11000	4	14	633	69.55	56.55	1.61	100	
2	1	(untitled)	1	1	E	50	11000	4	14	633	68.22	56.55	1.61	100	
	2	(untitled)	1	1	E	50	11000	4	14	633	68.22	56.55	1.61	100	
3	1	(untitled)	1	1	E	50	11000	4	14	633	126.56	113.89	1.67	100	
	2	(untitled)	1	1	E	50	11000	4	14	633	68.22	56.55	1.61	100	
4	1	(untitled)	1	1	E	50	11000	4	14	633	67.55	56.55	1.61	100	
	2	(untitled)	1	1	E	50	11000	4	14	633	125.89	113.89	1.67	100	
5	1	(untitled)		1	E	100	11000	4	27	267	113.53	107.53	3.33	100	
	2	(untitled)		1	E	100	11000	4	27	267	61.61	56.61	3.22	100	

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Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	1693.25	220.82	7.67	30.14	134.39	2336.30	50.43	63053.22	65439.94
Bus									
Tram									
Pedestrians	8.70	14.08	0.62	12.44	0.00	176.59	0.00	0.00	176.59
Controller streams									10000
TOTAL	1701.95	234.90	7.25	42.57	134.39	2512.88	50.43	63053.22	75616.52

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A1 - Junction 3
D6 - 2042 Do Nothing, PM

Summary

Data Errors and Warnings

Severity	Area	Item	Description
Signals Warning	Signal Timings	Controller Stream 1	Controller Stream 1: Phase C maximum green of 24s violated (This will be repaired automatically if doing a full optimised run.)

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item wi wors unsignal PRC
1	05/03/2024 13:03:22	05/03/2024 13:03:22	0.21	17:00	120	78485.09	148.54	133.33	B/1	1	4	B/1	B-1/1

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set (s)	Optimise specific Demand Set (s)	Demand Set(s) to optimise	Include in report	Locked
Junction 3				✓	D7	✓	

Demand Set Details

Scenario name	Time Period name	Description	Composite	Demand sets	Start time (HH:mm)	Locked	Run automatically
2042 Do Nothing	PM	(untitled)			17:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120	114	114		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	2

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)	Missing stage transition options
10000.00	10000.00	10000.00	2	Assume banned

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from traffic model	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓			Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy (%)	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Standard accuracy Hill Climb	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
A-1			1
B-1			1
C-1			1
D-1	(untitled)		1
D-2			1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Auto-calculate cell saturation flow	Cell saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			150.00	✓	Sum of lanes	1800			✓		Normal	
	2				40.00	✓	Sum of lanes	1800	✓	1800	✓		Normal	
Ax	1	(untitled)			150.00								Normal	
B	1	(untitled)			300.00	✓	Sum of lanes	1800			✓		Normal	
	2				40.00	✓	Sum of lanes	1800	✓	1800	✓	✓	Normal	
Bx	1	(untitled)			300.00								Normal	
C	1	(untitled)			40.00	✓	Sum of lanes	1800	✓	1800	✓		Normal	
	2				300.00	✓	Sum of lanes	1800			✓		Normal	
Cx	1	(untitled)			300.00								Normal	
D	2	(untitled)			500.00	✓	Sum of lanes	1800			✓		Normal	
	3				20.00	✓	Sum of lanes	1800			✓	✓	Normal	
Dx	1	(untitled)			500.00								Normal	
A-1	1				150.00	✓	Sum of lanes	1800					Normal	
B-1	1				150.00	✓	Sum of lanes	1800					Normal	
C-1	1				150.00	✓	Sum of lanes	1800					Normal	
D-1	1	(untitled)			7.00	✓	Sum of lanes	1800			✓	✓	Normal	
D-2	1				150.00	✓	Sum of lanes	1800					Normal	

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Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
	2	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
C	1	1	(untitled)			1800
	2	1	(untitled)			1800
Cx	1	1	(untitled)			
D	2	1	(untitled)			1800
	3	1	(untitled)			1800
Dx	1	1	(untitled)			
A-1	1	1	(untitled)			1800
B-1	1	1	(untitled)			1800
C-1	1	1	(untitled)			1800
D-1	1	1	(untitled)			1800
D-2	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Queue limit (PCU)	Excess queue penalty (£)	Has degree of saturation limit
A	1	NetworkDefault	100	100	100		0.00				
	2	Flare	100	100	100		8.00	✓	8.00	9999.00	
Ax	1	NetworkDefault	100	100	100		0.00				
B	1	NetworkDefault	100	100	100		0.00				
	2	Flare	100	100	100		8.00	✓	8.00	99999.00	
Bx	1	NetworkDefault	100	100	100		0.00				
C	1	Flare	100	100	100		8.00	✓	8.00	99999.00	
	2	NetworkDefault	100	100	100		0.00				
Cx	1	NetworkDefault	100	100	100		0.00				
D	2	NetworkDefault	100	100	100		0.00				
	3	Flare	100	100	100		4.00	✓	4.00	99999.00	
Dx	1	NetworkDefault	100	100	100		0.00				
A-1	1	NetworkDefault	100	100	100		0.00				
B-1	1	NetworkDefault	100	100	100		0.00				
C-1	1	NetworkDefault	100	100	100		0.00				
D-1	1	NetworkDefault	100	100	100		0.00				
D-2	1	NetworkDefault	100	100	100		0.00				

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
A	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	8.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Ax	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
B	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	8.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Bx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
C	1	8.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Cx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
D	2	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	3	4.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Dx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
A-1	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
B-1	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
C-1	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
D-1	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
D-2	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	350	350
	2	196	196
Ax	1	739	739
B	1	700	700
	2	278	278
Bx	1	645	645
C	1	316	316
	2	170	170
Cx	1	403	403
D	2	325	325
	3	45	45
Dx	1	788	788
A-1	1	546	546
B-1	1	978	978
C-1	1	486	486
D-1	1	195	195
D-2	1	565	565

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	C		
	2	1	D		
B	1	1	A		
	2	1	A	✓	B
C	1	1	C		
	2	1	D		
D	2	1	A		
	3	1	A	✓	B
D-1	1	1	A		

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
(ALL)	1	18.00	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A	1	1	A-1/1	A/1	18.00	30.00	✓	Straight	Straight Movement
	2	1	A-1/1	A/2	4.80	30.00	✓	Straight	Straight Movement
Ax	1	1	C/1	Ax/1	18.00	30.00	✓	Straight	Straight Movement
B	1	1	B-1/1	B/1	36.00	30.00	✓	Straight	Straight Movement
	2	1	B-1/1	B/2	4.80	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	36.00	30.00	✓	Nearside	42.61
C	1	1	C-1/1	C/1	4.80	30.00	✓	Straight	Straight Movement
	2	1	C-1/1	C/2	36.00	30.00	✓	Straight	Straight Movement
Cx	1	1	A/1	Cx/1	36.00	30.00	✓	Straight	Straight Movement
D	2	1	D-2/1	D/2	60.00	30.00	✓	Straight	Straight Movement
	3	1	D-2/1	D/3	2.40	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	60.00	30.00	✓	Nearside	25.27
D-1	1	1	D-2/1	D-1/1	1.00	30.00	✓	Straight	Straight Movement
Ax	1	2	D-1/1	Ax/1	18.00	30.00	✓	Nearside	43.60
Bx	1	2	C/2	Bx/1	36.00	30.00	✓	Offside	38.45
Cx	1	2	B/1	Cx/1	36.00	30.00	✓	Nearside	39.22
Dx	1	2	B/1	Dx/1	60.00	30.00	✓	Straight	Straight Movement
Ax	1	3	B/2	Ax/1	18.00	30.00	✓	Offside	70.68
Bx	1	3	D/2	Bx/1	36.00	30.00	✓	Straight	Straight Movement
Cx	1	3	D/3	Cx/1	36.00	30.00	✓	Offside	49.21
Dx	1	3	A/2	Dx/1	60.00	30.00	✓	Offside	37.07

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
(ALL)	(ALL)	AllTraffic		

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible
2		TrafficStream	D/2	100	0.00	
3		TrafficStream	B/1	100	0.00	
1		TrafficStream	B/2	100	0.00	

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	18.00	12.00	5.40
2	(untitled)		1		Farside	16.00	10.67	5.40
3	(untitled)		1		Farside	16.00	10.67	5.40
4	(untitled)		1		Farside	15.00	10.00	5.40
5	(untitled)				Farside	6.00	4.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	5:1	3:1	3.00	2.00	5.40
2	5:1	4:2	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25				

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	50	266	170	0	0	0	0
	2	45	0	195	325	0	0	0	0
	3	200	196	0	150	0	0	0	0
	4	158	542	278	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C-1/1	Cx/1	#0000FF
	2	(untitled)	D-2/1	Dx/1	#FF0000
	3	(untitled)	A-1/1	Ax/1	#00FF00
	4	(untitled)	B-1/1	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#008000
	7	(untitled)	5:2E	5:2X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	16		2	4	D-2/1, D/2, Bx/1	Normal	325
	17		2	3	D-2/1, D-1/1, Ax/1	Normal	195
	19		4	2	B-1/1, B/1, Dx/1	Normal	542
	20		3	1	A-1/1, A/1, Cx/1	Normal	200
	39		2	1	D-2/1, D/3, Cx/1	Normal	45
	40		1	4	C-1/1, C/2, Bx/1	Normal	170
	41		1	2	C-1/1, C/1, Dx/1	Normal	50
	42		1	3	C-1/1, C/1, Ax/1	Normal	266
	43		4	3	B-1/1, B/2, Ax/1	Normal	278
	44		4	1	B-1/1, B/1, Cx/1	Normal	158
	45		3	2	A-1/1, A/2, Dx/1	Normal	196
	46		3	4	A-1/1, A/1, Bx/1	Normal	150

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	14		7	5	5:2E, 5:1X, 3:1E, 3:2X	Normal	50
	15		7	8	5:2E, 5:1X, 4:2E, 4:1X	Normal	50
	18		8	6	2:2E, 2:1X	Normal	50
	23		5	6	1:1E, 1:2X	Normal	50
	34		6	8	2:1E, 2:2X	Normal	50
	35		6	5	1:2E, 1:1X	Normal	50
	36		8	7	4:1E, 4:2X, 5:1E, 5:2X	Normal	50
	37		5	7	3:2E, 3:1X, 5:1E, 5:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)	Minimum possible cycle time (s)
1	(untitled)		1	NetworkDefault	120	114

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	35	300	0	0	Unknown	
	B	(untitled)	15	18	0	0	Unknown	
	C	(untitled)	22	24	0	0	Unknown	
	D	(untitled)	15	15	0	0	Unknown	
	E	(untitled)	4	5	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)	Run every N cycles	Probability of running (%)
1	1	A	1	1	100
	2	B	1	1	100
	3	C	1	1	100
	4	D	1	1	100
	5	E	1	1	100

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Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)	Single	1, 2, 3, 4, 5	38, 56, 86, 106, 118	114	
	2	(untitled)	Single	1, 2, 3, 5, 4	21, 42, 72, 98, 123	114	
	3	(untitled)	Single	1, 2, 4, 3, 5	24, 48, 77, 101, 0	114	
	4	(untitled)	Single	1, 2, 4, 5, 3	23, 45, 72, 97, 124	114	
	5	(untitled)	Single	1, 2, 5, 3, 4	23, 46, 74, 101, 123	114	
	6	(untitled)	Single	1, 2, 5, 4, 3	23, 46, 75, 102, 124	114	
	7	(untitled)	Single	1, 3, 2, 4, 5	23, 51, 78, 105, 0	119	
	8	(untitled)	Single	1, 3, 2, 5, 4	21, 47, 72, 98, 123	119	
	9	(untitled)	Single	1, 3, 4, 2, 5	23, 51, 74, 102, 0	119	
	10	(untitled)	Single	1, 3, 4, 5, 2	24, 53, 76, 102, 0	114	

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A			5	5	8
	B			5	5	8
	C	5	5		5	8
	D	5	5	5		8
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

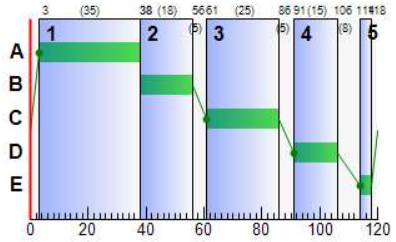
		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	61	86	25
A	2	1	1	D	91	106	15
B	1	1	1	A	3	38	35
B	2	1	1	A	3	38	35
C	1	1	1	C	61	86	25
C	2	1	1	D	91	106	15
D	2	1	1	A	3	38	35
D	3	1	1	A	3	38	35
D-1	1	1	1	A	3	38	35

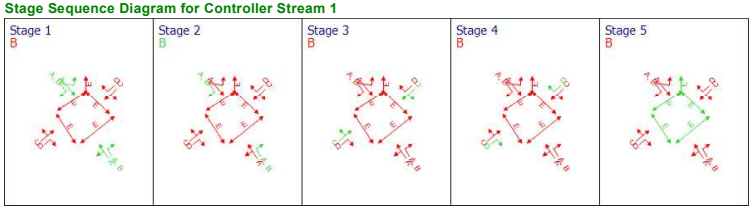
Phase Timings Diagram

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	1	10000.00	0.00	0.00	10000.00

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Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	93	7	350	1800	25	93.44	15.92	61.03	128.99	5.78	134.78
		2	87	15	196	1800	15	120.69	9.67	120.82	93.31	3.46	2866.70
	Ax	1	0	Unrestricted	739	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	133	-25	700	1800	35	489.27	106.31	203.77	1350.93	21.53	1372.46
		2	85	18	278	743	53	80.85	9.11	113.93	88.66	3.36	28953.31
	Bx	1	0	Unrestricted	645	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	84	19	316	1800	25	71.21	9.16	114.53	88.75	3.39	34788.03
		2	76	32	170	1800	15	86.44	6.35	12.17	57.96	2.35	60.31
	Cx	1	0	Unrestricted	364	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	2	62	62	325	1800	35	42.25	9.80	11.27	54.16	3.64	57.80
		3	15	565	45	677	53	35.68	0.85	21.27	6.33	0.48	6.81
	Dx	1	0	Unrestricted	653	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	A-1	1	30	230	546	1800	120	0.44	0.07	0.25	0.94	0.00	0.94
	B-1	1	57	74	978	1800	120	1.57	4.19	16.07	6.06	0.85	6.92
	C-1	1	37	172	486	1800	120	6.01	5.91	22.66	11.52	2.06	13.58
	D-1	1	74	35	195	900	35	57.26	6.87	564.31	44.04	1.79	45.84
	D-2	1	31	219	565	1800	120	0.46	0.07	0.28	1.02	0.00	1.02

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	A	1	350	350	0		1800	375	93		7	0.00	25
		2	196	196	0		1800	225	87		15	0.00	15
	Ax	1	739	739	0		Unrestricted	Unrestricted	0		Unrestricted	0.61	120
	B	1	700	525	0		1800	525	133	✓	-25	0.02	35
		2	278	278	0		743	328	85		18	0.04	53
	Bx	1	645	645	0		Unrestricted	Unrestricted	0		Unrestricted	0.49	120
	C	1	316	316	0		1800	375	84		19	0.47	25
		2	170	170	0		1800	225	76		32	0.36	15
	Cx	1	364	364	40	✓	Unrestricted	Unrestricted	0		Unrestricted	0.55	120
	D	2	325	325	0		1800	525	62		62	0.00	35
		3	45	45	0		677	299	15		565	0.00	53
	Dx	1	653	653	136	✓	Unrestricted	Unrestricted	0		Unrestricted	0.44	120
	A-1	1	546	546	0		1800	1800	30		230	0.00	120
	B-1	1	978	978	0		1800	1701	57		74	0.00	120
	C-1	1	486	486	0		1800	1324	37		172	0.00	120
	D-1	1	195	195	0		900	263	74		35	0.00	35
	D-2	1	565	565	0		1800	1800	31		219	0.00	120

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	A	1	18.00	93.44	4.54	4.55	128.99	131.80	337.41	123.90	5.78
		2	4.80	120.69	2.81	3.76	93.31	140.98	181.75	94.57	3.46
	Ax	1	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	36.00	489.27	6.18	88.96	1350.93	327.03	525.00	1191.91	21.53
		2	4.80	80.85	3.40	2.84	88.66	96.41	194.39	73.65	3.36
	Bx	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	4.80	71.21	3.56	2.69	88.75	85.63	200.00	70.60	3.39
		2	36.00	86.44	2.99	1.09	57.96	110.41	156.41	31.29	2.35
	Cx	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	2	60.00	42.25	3.32	0.50	54.16	89.24	275.28	14.75	3.64
		3	2.40	35.68	0.40	0.04	6.33	84.90	37.81	0.40	0.48
	Dx	1	60.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	A-1	1	18.00	0.44	0.00	0.07	0.94	0.00	0.00	0.00	0.00
	B-1	1	18.00	1.57	0.04	0.39	6.06	6.96	56.44	11.60	0.85
	C-1	1	18.00	6.01	0.70	0.11	11.52	33.87	161.43	3.19	2.06
	D-1	1	1.00	57.26	2.08	1.02	44.04	104.03	173.42	29.43	1.79
	D-2	1	18.00	0.46	0.00	0.07	1.02	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	A	1	0.00	15.92	26.09	61.03	0.00	0.00	0.00	0.00	0.00	0.00	
		2	8.00	9.67	8.00	120.82	0.28	0.28	2769.93	0.00	0.00	0.00	
	Ax	1	0.00	0.00	26.09	0.00	0.00	0.00	0.00	23.00	0.00	23.00	
	B	1	0.00	106.31	52.17	203.77	45.44	0.00	0.00	0.00	0.00	0.00	
		2	8.00	9.11	8.00	113.93	0.29	0.29	28861.30	0.00	0.00	0.00	
	Bx	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	C	1	8.00	9.16	8.00	114.53	0.35	0.35	34695.88	0.00	0.00	0.00	
		2	0.00	6.35	52.17	12.17	0.00	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	10.00	0.00	10.00	
	D	2	0.00	9.80	86.96	11.27	0.00	0.00	0.00	0.00	0.00	0.00	
		3	4.00	0.85	4.00	21.27	0.00	0.00	0.00	17.00	0.00	17.00	
	Dx	1	0.00	0.00	86.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	A-1	1	0.00	0.07	26.09	0.25	0.00	0.00	0.00	0.00	0.00	0.00	
	B-1	1	0.00	4.19	26.09	16.07	0.00	0.00	0.00	0.00	120.00	120.00	
	C-1	1	0.00	5.91	26.09	22.66	0.00	0.00	0.00	0.00	31.75	31.75	
	D-1	1	0.00	6.87	1.22	564.31	2.48	0.00	0.00	0.00	0.00	0.00	
	D-2	1	0.00	0.07	26.09	0.28	0.00	0.00	0.00	0.00	105.00	105.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	A	1	52.50	10.83	4.85	111.44
		2	7.84	6.68	1.17	122.62
	Ax	1	110.85	3.70	30.00	18.00
	B	1	210.00	102.14	2.06	525.27
		2	11.12	6.40	1.74	82.93
	Bx	1	193.50	6.45	30.00	36.00
	C	1	12.64	6.47	1.95	73.76
		2	51.00	5.78	8.82	122.44
	Cx	1	109.05	3.64	30.00	36.00
	D	2	162.50	9.23	17.60	102.25
		3	0.90	0.44	2.02	35.58
	Dx	1	326.25	10.88	30.00	60.00
	A-1	1	81.90	2.80	29.29	18.44
	B-1	1	146.70	5.32	27.59	19.57
	C-1	1	72.90	3.24	22.49	24.01
	D-1	1	1.37	3.16	0.43	58.26
	D-2	1	84.75	2.90	29.26	18.46

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Mean End of Green Queue EoTS (Veh)	Mean End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	0.00	0.00	✓	16.62	5.24	14.48	1.00	0.00	134.78
		2	0.00	0.00	✓	9.36	3.30	9.18	1.00	2769.93	2866.70
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	193.83	176.48	188.87	1.00	0.00	1372.46
		2	0.00	0.00	✓	8.97	2.49	7.89	1.00	28861.30	28953.31
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	9.04	2.38	9.04	1.00	34695.88	34788.03
		2	0.00	0.00	✓	6.39	1.13	6.21	1.00	0.00	60.31
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	2	0.00	0.00	✓	9.80	0.50	8.17	1.00	0.00	57.80
		3	0.00	0.00	✓	0.85	0.01	0.85	1.00	0.00	6.81
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	A-1	1	0.00	0.00	✓	0.07			1.00	0.00	0.94
	B-1	1	0.00	0.00	✓	4.19			1.00	0.00	6.92
	C-1	1	0.00	0.00	✓	5.91			1.00	0.00	13.58
	D-1	1	0.00	0.00	✓	6.90	1.05	5.65	1.00	0.00	45.84
	D-2	1	0.00	0.00	✓	0.07			1.00	0.00	1.02

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	14	50	11000	4	56.55	1.61	11.15	11.15
		2	14	50	11000	4	56.55	1.61	11.15	11.15
	2	1	14	50	11000	4	56.55	1.61	11.15	11.15
		2	14	50	11000	4	56.55	1.61	11.15	11.15
	3	1	14	50	11000	4	113.89	1.67	22.46	22.46
		2	14	50	11000	4	56.55	1.61	11.15	11.15
	4	1	14	50	11000	4	56.55	1.61	11.15	11.15
		2	14	50	11000	4	113.89	1.67	22.46	22.46
	5	1	27	100	11000	4	107.53	3.33	42.42	42.42
		2	27	100	11000	4	56.61	3.22	22.33	22.33

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	1	1	50	50	0		11000	367	14		633	0.00	4
		2	50	50	0		11000	367	14		633	0.00	4
	2	1	50	50	0		11000	367	14		633	0.00	4
		2	50	50	0		11000	367	14		633	0.00	4
	3	1	50	50	0		11000	367	14		633	1.93	4
		2	50	50	0		11000	367	14		633	0.00	4
	4	1	50	50	0		11000	367	14		633	0.00	4
		2	50	50	0		11000	367	14		633	1.93	4
	5	1	100	100	0		11000	367	27		267	1.93	4
		2	100	100	0		11000	367	27		267	0.00	4

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
17:00-18:00	1	1	13.00	56.55	0.79	0.00	11.15
		2	13.00	56.55	0.79	0.00	11.15
	2	1	11.67	56.55	0.79	0.00	11.15
		2	11.67	56.55	0.79	0.00	11.15
	3	1	12.67	113.89	1.58	0.00	22.46
		2	11.67	56.55	0.79	0.00	11.15
	4	1	11.00	56.55	0.79	0.00	11.15
		2	12.00	113.89	1.58	0.00	22.46
	5	1	6.00	107.53	2.99	0.00	42.42
		2	5.00	56.61	1.57	0.00	22.33

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Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	1	1	1.61	10.00	16.11	0.00	0.00	0.00
		2	1.61	10.00	16.11	0.00	0.00	0.00
	2	1	1.61	10.00	16.11	0.00	0.00	0.00
		2	1.61	10.00	16.11	0.00	0.00	0.00
	3	1	1.67	10.00	16.67	0.00	0.00	0.00
		2	1.61	10.00	16.11	0.00	0.00	0.00
	4	1	1.61	10.00	16.11	0.00	0.00	0.00
		2	1.67	10.00	16.67	0.00	0.00	0.00
	5	1	3.33	10.00	33.33	0.00	0.00	0.00
		2	3.22	10.00	32.22	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	1	1	0.95	0.97	0.98	69.55
		2	0.95	0.97	0.98	69.55
	2	1	0.85	0.95	0.90	68.22
		2	0.85	0.95	0.90	68.22
	3	1	0.95	1.76	0.54	126.56
		2	0.85	0.95	0.90	68.22
	4	1	0.80	0.94	0.85	67.55
		2	0.90	1.75	0.51	125.89
	5	1	0.90	3.15	0.29	113.53
		2	0.70	1.71	0.41	61.61

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	0.00	0.00	1.61	1.00	0.00	11.15
		2	0.00	0.00	1.61	1.00	0.00	11.15
	2	1	0.00	0.00	1.61	1.00	0.00	11.15
		2	0.00	0.00	1.61	1.00	0.00	11.15
	3	1	0.00	0.00	1.67	1.00	0.00	22.46
		2	0.00	0.00	1.61	1.00	0.00	11.15
	4	1	0.00	0.00	1.61	1.00	0.00	11.15
		2	0.00	0.00	1.67	1.00	0.00	22.46
	5	1	0.00	0.00	3.33	1.00	0.00	42.42
		2	0.00	0.00	3.22	1.00	0.00	22.33

Collections

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	157.8	115.8	182.4	0.0	0.0	0.0	0.0
	2	90.0	0.0	94.7	156.7	0.0	0.0	0.0	0.0
	3	165.9	201.1	0.0	165.9	0.0	0.0	0.0	0.0
	4	580.8	604.8	120.5	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	69.6	181.8	0.0
	6	0.0	0.0	0.0	0.0	69.6	0.0	0.0	68.2
	7	0.0	0.0	0.0	0.0	188.2	0.0	0.0	187.5
	8	0.0	0.0	0.0	0.0	0.0	68.2	181.1	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Normal journey dist (m)	Bus journeydist (m)	Tram journey dist (m)	Pedestrian journey dist (m)	Calculated Total Flow (Veh/hr)	Avg journey time (s)	Avg journey dist (m)
14	7	5		50		188.17	26.00	26.00	26.00	26.00	50	188.17	26.00
15	7	8		50		187.50	25.00	25.00	25.00	25.00	50	187.50	25.00
16	2	4	325		156.71		950.00	0.00	0.00	0.00	325	156.71	950.00
17	2	3	195		94.72		307.00	0.00	0.00	0.00	195	94.72	307.00
18	8	6		50		68.22	17.00	17.00	17.00	17.00	50	68.22	17.00
19	4	2	542		604.84		950.00	0.00	0.00	0.00	542	604.84	950.00
20	3	1	200		165.87		600.00	0.00	0.00	0.00	200	165.87	600.00
23	5	6		50		69.55	19.00	19.00	19.00	19.00	50	69.55	19.00
34	6	8		50		68.22	17.00	17.00	17.00	17.00	50	68.22	17.00
35	6	5		50		69.55	19.00	19.00	19.00	19.00	50	69.55	19.00
36	8	7		50		181.08	25.00	25.00	25.00	25.00	50	181.08	25.00
37	5	7		50		181.75	26.00	26.00	26.00	26.00	50	181.75	26.00
39	2	1	45		90.03		470.00	0.00	0.00	0.00	45	90.03	470.00
40	1	4	170		182.45		750.00	0.00	0.00	0.00	170	182.45	750.00
41	1	2	50		157.77		690.00	0.00	0.00	0.00	50	157.77	690.00
42	1	3	266		115.77		340.00	0.00	0.00	0.00	266	115.77	340.00
43	4	3	278		120.50		340.00	0.00	0.00	0.00	278	120.50	340.00
44	4	1	158		580.84		750.00	0.00	0.00	0.00	158	580.84	750.00
45	3	2	196		201.05		690.00	0.00	0.00	0.00	196	201.05	690.00
46	3	4	150		165.87		600.00	0.00	0.00	0.00	150	165.87	600.00

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Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	C		350	1800	25	0.00	93	7	111.44	93.44	131.80	
	2		1	1	D		196 <	1800	15	0.00	87	15	122.62	120.69	140.98	
Ax	1	(untitled)					739	Unrestricted	120	23.00	0	Unrestricted	18.00	0.00	0.00	
B	1	(untitled)	1	1	A		700 <	1800	35	0.00	133	-25	525.27	489.27	327.03	
	2		1	1	A	B	278 <	743	53	0.00	85	18	82.93	80.85	96.41	
Bx	1	(untitled)					645	Unrestricted	120	0.00	0	Unrestricted	36.00	0.00	0.00	
C	1	(untitled)	1	1	C		316 <	1800	25	0.00	84	19	73.76	71.21	85.63	
	2		1	1	D		170	1800	15	0.00	76	32	122.44	86.44	110.41	
Cx	1	(untitled)					364	Unrestricted	120	10.00	0	Unrestricted	36.00	0.00	0.00	
D	2	(untitled)	1	1	A		325	1800	35	0.00	62	62	102.25	42.25	89.24	
	3		1	1	A	B	45	677	53	17.00	15	565	35.58	35.68	84.90	
Dx	1	(untitled)					653	Unrestricted	120	0.00	0	Unrestricted	60.00	0.00	0.00	
A-1	1		1				546	1800	120	0.00	30	230	18.44	0.44	0.00	
B-1	1		1				978	1800	120	120.00	57	74	19.57	1.57	6.96	
C-1	1		1				486	1800	120	31.75	37	172	24.01	6.01	33.87	
D-1	1	(untitled)	1	1	A		195 <	900	35	0.00	74	35	58.26	57.26	104.03	
D-2	1		1				565	1800	120	105.00	31	219	18.46	0.46	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	C tr pe (£
1	1	(untitled)	1	1	E	50	11000	4	14	633	69.55	56.55	1.61	100	
	2	(untitled)	1	1	E	50	11000	4	14	633	69.55	56.55	1.61	100	
2	1	(untitled)	1	1	E	50	11000	4	14	633	68.22	56.55	1.61	100	
	2	(untitled)	1	1	E	50	11000	4	14	633	68.22	56.55	1.61	100	
3	1	(untitled)	1	1	E	50	11000	4	14	633	126.56	113.89	1.67	100	
	2	(untitled)	1	1	E	50	11000	4	14	633	68.22	56.55	1.61	100	
4	1	(untitled)	1	1	E	50	11000	4	14	633	67.55	56.55	1.61	100	
	2	(untitled)	1	1	E	50	11000	4	14	633	125.89	113.89	1.67	100	
5	1	(untitled)		1	E	100	11000	4	27	267	113.53	107.53	3.33	100	
	2	(untitled)		1	E	100	11000	4	27	267	61.61	56.61	3.22	100	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	1635.77	190.04	8.61	30.01	106.09	1932.69	48.71	66327.10	68308.50
Bus									
Tram									
Pedestrians	8.70	14.08	0.62	12.44	0.00	176.59	0.00	0.00	176.59
Controller streams									10000
TOTAL	1644.47	204.13	8.06	42.45	106.09	2109.27	48.71	66327.10	78485.09

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A1 - Junction 3
D7 - 2042 Do Something, PM

Summary

Data Errors and Warnings

Severity	Area	Item	Description
Signals Warning	Signal Timings	Controller Stream 1	Controller Stream 1: Phase C maximum green of 24s violated (This will be repaired automatically if doing a full optimised run.)

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (Veh-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item wi wors unsignal PRC
1	05/03/2024 13:03:18	05/03/2024 13:03:20	2.49	17:00	120	179363.38	196.64	148.38	B/1	1	4	B/1	B-1/1

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set (s)	Optimise specific Demand Set (s)	Demand Set(s) to optimise	Include in report	Locked
Junction 3				✓	D7	✓	

Demand Set Details

Scenario name	Time Period name	Description	Composite	Demand sets	Start time (HH:mm)	Locked	Run automatically
2042 Do Something	PM	(untitled)			17:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120	114	114		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	2

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)	Missing stage transition options
10000.00	10000.00	10000.00	2	Assume banned

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from traffic model	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	100	100	✓	✓			Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy (%)	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Standard accuracy Hill Climb	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

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Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		
A-1			1
B-1			1
C-1			1
D-1	(untitled)		1
D-2			1

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Auto-calculate cell saturation flow	Cell saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			150.00	✓	Sum of lanes	1800			✓		Normal	
	2				40.00	✓	Sum of lanes	1800	✓	1800	✓		Normal	
Ax	1	(untitled)			150.00								Normal	
B	1	(untitled)			300.00	✓	Sum of lanes	1800			✓		Normal	
	2				40.00	✓	Sum of lanes	1800	✓	1800	✓	✓	Normal	
Bx	1	(untitled)			300.00								Normal	
C	1	(untitled)			40.00	✓	Sum of lanes	1800	✓	1800	✓		Normal	
	2				300.00	✓	Sum of lanes	1800			✓		Normal	
Cx	1	(untitled)			300.00								Normal	
D	2	(untitled)			500.00	✓	Sum of lanes	1800			✓		Normal	
	3				20.00	✓	Sum of lanes	1800			✓	✓	Normal	
Dx	1	(untitled)			500.00								Normal	
A-1	1				150.00	✓	Sum of lanes	1800					Normal	
B-1	1				150.00	✓	Sum of lanes	1800					Normal	
C-1	1				150.00	✓	Sum of lanes	1800					Normal	
D-1	1	(untitled)			7.00	✓	Sum of lanes	1800			✓	✓	Normal	
D-2	1				150.00	✓	Sum of lanes	1800					Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A	1	1	(untitled)			1800
	2	1	(untitled)			1800
Ax	1	1	(untitled)			
B	1	1	(untitled)			1800
	2	1	(untitled)			1800
Bx	1	1	(untitled)			
C	1	1	(untitled)			1800
	2	1	(untitled)			1800
Cx	1	1	(untitled)			
D	2	1	(untitled)			1800
	3	1	(untitled)			1800
Dx	1	1	(untitled)			
A-1	1	1	(untitled)			1800
B-1	1	1	(untitled)			1800
C-1	1	1	(untitled)			1800
D-1	1	1	(untitled)			1800
D-2	1	1	(untitled)			1800

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Queue limit (PCU)	Excess queue penalty (£)	Has degree of saturation limit
A	1	NetworkDefault	100	100	100		0.00				
	2	Flare	100	100	100		8.00	✓	8.00	9999.00	
Ax	1	NetworkDefault	100	100	100		0.00				
B	1	NetworkDefault	100	100	100		0.00				
	2	Flare	100	100	100		8.00	✓	8.00	99999.00	
Bx	1	NetworkDefault	100	100	100		0.00				
C	1	Flare	100	100	100		8.00	✓	8.00	99999.00	
	2	NetworkDefault	100	100	100		0.00				
Cx	1	NetworkDefault	100	100	100		0.00				
D	2	NetworkDefault	100	100	100		0.00				
	3	Flare	100	100	100		4.00	✓	4.00	99999.00	
Dx	1	NetworkDefault	100	100	100		0.00				
A-1	1	NetworkDefault	100	100	100		0.00				
B-1	1	NetworkDefault	100	100	100		0.00				
C-1	1	NetworkDefault	100	100	100		0.00				
D-1	1	NetworkDefault	100	100	100		0.00				
D-2	1	NetworkDefault	100	100	100		0.00				

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
A	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	8.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Ax	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
B	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	8.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Bx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
C	1	8.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	2	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Cx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
D	2	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
	3	4.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
Dx	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
A-1	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
B-1	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
C-1	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
D-1	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120
D-2	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (Veh/hr)	Normal Flow (Veh/hr)
A	1	350	350
	2	217	217
Ax	1	751	751
B	1	779	779
	2	278	278
Bx	1	690	690
C	1	330	330
	2	170	170
Cx	1	411	411
D	2	370	370
	3	53	53
Dx	1	902	902
A-1	1	567	567
B-1	1	1057	1057
C-1	1	500	500
D-1	1	207	207
D-2	1	630	630

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
A	1	1	C		
	2	1	D		
B	1	1	A		
	2	1	A	✓	B
C	1	1	C		
	2	1	D		
D	2	1	A		
	3	1	A	✓	B
D-1	1	1	A		

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
(ALL)	1	18.00	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A	1	1	A-1/1	A/1	18.00	30.00	✓	Straight	Straight Movement
	2	1	A-1/1	A/2	4.80	30.00	✓	Straight	Straight Movement
Ax	1	1	C/1	Ax/1	18.00	30.00	✓	Straight	Straight Movement
B	1	1	B-1/1	B/1	36.00	30.00	✓	Straight	Straight Movement
	2	1	B-1/1	B/2	4.80	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	36.00	30.00	✓	Nearside	42.61
C	1	1	C-1/1	C/1	4.80	30.00	✓	Straight	Straight Movement
	2	1	C-1/1	C/2	36.00	30.00	✓	Straight	Straight Movement
Cx	1	1	A/1	Cx/1	36.00	30.00	✓	Straight	Straight Movement
D	2	1	D-2/1	D/2	60.00	30.00	✓	Straight	Straight Movement
	3	1	D-2/1	D/3	2.40	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	60.00	30.00	✓	Nearside	25.27
D-1	1	1	D-2/1	D-1/1	1.00	30.00	✓	Straight	Straight Movement
Ax	1	2	D-1/1	Ax/1	18.00	30.00	✓	Nearside	43.60
Bx	1	2	C/2	Bx/1	36.00	30.00	✓	Offside	38.45
Cx	1	2	B/1	Cx/1	36.00	30.00	✓	Nearside	39.22
Dx	1	2	B/1	Dx/1	60.00	30.00	✓	Straight	Straight Movement
Ax	1	3	B/2	Ax/1	18.00	30.00	✓	Offside	70.68
Bx	1	3	D/2	Bx/1	36.00	30.00	✓	Straight	Straight Movement
Cx	1	3	D/3	Cx/1	36.00	30.00	✓	Offside	49.21
Dx	1	3	A/2	Dx/1	60.00	30.00	✓	Offside	37.07

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Visibility restricted
(ALL)	(ALL)	AllTraffic		

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Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible
2		TrafficStream	D/2	100	0.00	
3		TrafficStream	B/1	100	0.00	
1		TrafficStream	B/2	100	0.00	

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	18.00	12.00	5.40
2	(untitled)		1		Farside	16.00	10.67	5.40
3	(untitled)		1		Farside	16.00	10.67	5.40
4	(untitled)		1		Farside	15.00	10.00	5.40
5	(untitled)				Farside	6.00	4.00	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	E	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Pedestrian Crossing Connectors

Pedestrian Crossing Connectors

Pedestrian crossing connector	Pedestrian crossing1	Pedestrian crossing2	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	5:1	3:1	3.00	2.00	5.40
2	5:1	4:2	3.00	2.00	5.40

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	✓	Path Equalisation	✓		✓			✓	1.25				

Normal Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	64	266	170	0	0	0	0
	2	53	0	207	370	0	0	0	0
	3	200	217	0	150	0	0	0	0
	4	158	621	278	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (Veh/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	50	50	0
	6	0	0	0	0	50	0	0	50
	7	0	0	0	0	50	0	0	50
	8	0	0	0	0	0	50	50	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C-1/1	Cx/1	#0000FF
	2	(untitled)	D-2/1	Dx/1	#FF0000
	3	(untitled)	A-1/1	Ax/1	#00FF00
	4	(untitled)	B-1/1	Bx/1	#FFFF00
	5	(untitled)	3:2E, 1:1E	3:2X, 1:1X	#FF00FF
	6	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#008000
	7	(untitled)	5:2E	5:2X	#FFA500
	8	(untitled)	4:1E, 2:2E	4:1X, 2:2X	#00FFFF

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (Veh/hr)
1	16		2	4	D-2/1, D/2, Bx/1	Normal	370
	17		2	3	D-2/1, D-1/1, Ax/1	Normal	207
	19		4	2	B-1/1, B/1, Dx/1	Normal	621
	20		3	1	A-1/1, A/1, Cx/1	Normal	200
	39		2	1	D-2/1, D/3, Cx/1	Normal	53
	40		1	4	C-1/1, C/2, Bx/1	Normal	170
	41		1	2	C-1/1, C/1, Dx/1	Normal	64
	42		1	3	C-1/1, C/1, Ax/1	Normal	266
	43		4	3	B-1/1, B/2, Ax/1	Normal	278
	44		4	1	B-1/1, B/1, Cx/1	Normal	158
	45		3	2	A-1/1, A/2, Dx/1	Normal	217
	46		3	4	A-1/1, A/1, Bx/1	Normal	150

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	14		7	5	5:2E, 5:1X, 3:1E, 3:2X	Normal	50
	15		7	8	5:2E, 5:1X, 4:2E, 4:1X	Normal	50
	18		8	6	2:2E, 2:1X	Normal	50
	23		5	6	1:1E, 1:2X	Normal	50
	34		6	8	2:1E, 2:2X	Normal	50
	35		6	5	1:2E, 1:1X	Normal	50
	36		8	7	4:1E, 4:2X, 5:1E, 5:2X	Normal	50
	37		5	7	3:2E, 3:1X, 5:1E, 5:2X	Normal	50

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)	Minimum possible cycle time (s)
1	(untitled)		1	NetworkDefault	120	114

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	35	300	0	0	Unknown	
	B	(untitled)	15	18	0	0	Unknown	
	C	(untitled)	22	24	0	0	Unknown	
	D	(untitled)	15	15	0	0	Unknown	
	E	(untitled)	4	5	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)	Run every N cycles	Probability of running (%)
1	1	A	1	1	100
	2	B	1	1	100
	3	C	1	1	100
	4	D	1	1	100
	5	E	1	1	100

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)	Single	1, 2, 3, 4, 5	38, 56, 86, 106, 118	114	
	2	(untitled)	Single	1, 2, 3, 5, 4	21, 42, 72, 98, 123	114	
	3	(untitled)	Single	1, 2, 4, 3, 5	24, 48, 77, 101, 0	114	
	4	(untitled)	Single	1, 2, 4, 5, 3	23, 45, 72, 97, 124	114	
	5	(untitled)	Single	1, 2, 5, 3, 4	23, 46, 74, 101, 123	114	
	6	(untitled)	Single	1, 2, 5, 4, 3	23, 46, 75, 102, 124	114	
	7	(untitled)	Single	1, 3, 2, 4, 5	23, 51, 78, 105, 0	119	
	8	(untitled)	Single	1, 3, 2, 5, 4	21, 47, 72, 98, 123	119	
	9	(untitled)	Single	1, 3, 4, 2, 5	23, 51, 74, 102, 0	119	
	10	(untitled)	Single	1, 3, 4, 5, 2	24, 53, 76, 102, 0	114	

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A			5	5	8
	B			5	5	8
	C	5	5		5	8
	D	5	5	5		8
	E	5	5	5	5	

Banned Stage transitions for Controller Stream 1

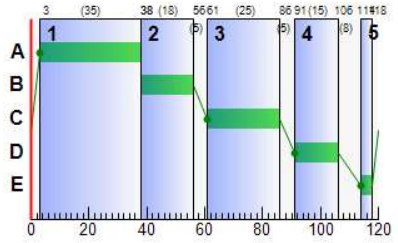
		To				
		1	2	3	4	5
From	1					
	2					
	3					
	4					
	5					

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	61	86	25
A	2	1	1	D	91	106	15
B	1	1	1	A	3	38	35
B	2	1	1	A	3	38	35
C	1	1	1	C	61	86	25
C	2	1	1	D	91	106	15
D	2	1	1	A	3	38	35
D-1	1	1	1	A	3	38	35

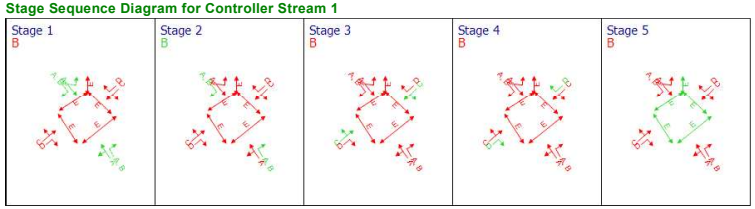
Phase Timings Diagram

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	1	10000.00	0.00	0.00	10000.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (Veh)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	93	7	350	1800	25	93.31	15.92	61.03	128.82	5.78	134.61
		2	96	4	217	1800	15	205.67	15.21	190.07	176.04	4.93	40877.39
	Ax	1	0	Unrestricted	751	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	148	-33	779	1800	35	620.15	145.37	278.63	1905.55	24.46	1930.01
		2	85	18	278	743	53	80.85	9.11	113.93	88.65	3.36	28926.75
	Bx	1	0	Unrestricted	690	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	88	14	330	1800	25	81.36	10.39	129.92	105.91	3.80	97094.37
		2	76	32	170	1800	15	88.73	6.37	12.20	59.50	2.36	61.86
	Cx	1	0	Unrestricted	359	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D	2	70	42	370	1800	35	45.92	11.72	13.48	67.02	4.35	71.37
		3	18	464	53	677	53	37.38	1.01	25.14	7.81	0.57	8.38
	Dx	1	0	Unrestricted	700	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	A-1	1	33	203	567	1800	120	0.64	1.34	5.14	1.44	0.31	1.75
	B-1	1	62	62	1057	1800	120	1.85	4.61	17.68	7.73	0.97	8.70
	C-1	1	39	155	500	1800	120	7.39	6.79	26.04	14.57	2.38	16.95
	D-1	1	79	27	207	900	35	62.84	7.69	631.67	51.31	2.00	53.31
	D-2	1	35	186	630	1800	120	0.54	0.09	0.36	1.34	0.00	1.34

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (Veh/hr)	Calculated flow out (Veh/hr)	Flow discrepancy (Veh/hr)	Adjusted flow warning	Calculated sat flow (Veh/hr)	Calculated capacity (Veh/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	A	1	350	350	0		1800	375	93		7	0.03	25
		2	217	217	0		1800	225	96		4	0.05	15
	Ax	1	751	751	0		Unrestricted	Unrestricted	0		Unrestricted	0.59	120
	B	1	779	525	0		1800	525	148	✓	-33	0.02	35
		2	278	278	0		743	328	85		18	0.04	53
	Bx	1	690	690	0		Unrestricted	Unrestricted	0		Unrestricted	0.49	120
	C	1	330	330	0		1800	375	88		14	0.52	25
		2	170	170	0		1800	225	76		32	0.41	15
	Cx	1	359	359	52	✓	Unrestricted	Unrestricted	0		Unrestricted	0.54	120
	D	2	370	370	0		1800	525	70		42	0.00	35
		3	53	53	0		677	299	18		464	0.00	53
	Dx	1	700	700	202	✓	Unrestricted	Unrestricted	0		Unrestricted	0.41	120
	A-1	1	567	567	0		1800	1715	33		203	0.00	120
	B-1	1	1057	1057	0		1800	1708	62		62	0.00	120
	C-1	1	500	500	0		1800	1277	39		155	0.00	120
	D-1	1	207	207	0		900	263	79		27	0.00	35
	D-2	1	630	630	0		1800	1800	35		186	0.00	120

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Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	A	1	18.00	93.31	4.53	4.55	128.82	131.80	337.41	123.90	5.78
		2	4.80	205.67	3.14	9.26	176.04	181.13	199.06	194.00	4.93
	Ax	1	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	36.00	620.15	6.18	128.02	1905.55	371.54	525.00	1425.56	24.46
		2	4.80	80.85	3.40	2.84	88.65	96.41	194.39	73.65	3.36
	Bx	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	4.80	81.36	3.65	3.81	105.91	91.77	200.00	102.85	3.80
		2	36.00	88.73	3.10	1.09	59.50	110.72	156.93	31.29	2.36
	Cx	1	36.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	2	60.00	45.92	3.89	0.82	67.02	93.81	322.76	24.34	4.35
		3	2.40	37.38	0.50	0.05	7.81	85.77	44.89	0.57	0.57
	Dx	1	60.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	A-1	1	18.00	0.64	0.02	0.08	1.44	4.43	22.67	2.44	0.31
	B-1	1	18.00	1.85	0.04	0.50	7.73	7.33	62.53	14.98	0.97
	C-1	1	18.00	7.39	0.90	0.13	14.57	38.03	186.38	3.76	2.38
	D-1	1	1.00	62.84	2.25	1.36	51.31	109.34	187.34	38.99	2.00
	D-2	1	18.00	0.54	0.00	0.09	1.34	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (Veh)	Mean max queue (Veh)	Max queue storage (Veh)	Utilised storage (%)	Average storage excess queue (Veh)	Average limit excess queue (Veh)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	A	1	0.00	15.92	26.09	61.03	0.00	0.00	0.00	0.00	0.00	0.00	
		2	8.00	15.21	8.00	190.07	4.07	4.07	40696.42	0.00	0.00	0.00	
	Ax	1	0.00	0.00	26.09	0.00	0.00	0.00	0.00	22.00	0.00	22.00	
	B	1	0.00	145.37	52.17	278.63	84.50	0.00	0.00	0.00	0.00	0.00	
		2	8.00	9.11	8.00	113.93	0.29	0.29	28834.74	0.00	0.00	0.00	
	Bx	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	C	1	8.00	10.39	8.00	129.92	0.97	0.97	96984.67	0.00	0.00	0.00	
		2	0.00	6.37	52.17	12.20	0.00	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	52.17	0.00	0.00	0.00	0.00	10.00	0.00	10.00	
	D	2	0.00	11.72	86.96	13.48	0.00	0.00	0.00	0.00	0.00	0.00	
		3	4.00	1.01	4.00	25.14	0.00	0.00	0.00	16.00	0.00	16.00	
	Dx	1	0.00	0.00	86.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	A-1	1	0.00	1.34	26.09	5.14	0.00	0.00	0.00	0.00	5.64	5.64	
	B-1	1	0.00	4.61	26.09	17.68	0.00	0.00	0.00	0.00	120.00	120.00	
	C-1	1	0.00	6.79	26.09	26.04	0.00	0.00	0.00	0.00	34.83	34.83	
	D-1	1	0.00	7.69	1.22	631.67	3.07	0.00	0.00	0.00	0.00	0.00	
	D-2	1	0.00	0.09	26.09	0.36	0.00	0.00	0.00	0.00	120.00	120.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	A	1	52.50	10.82	4.85	111.31
		2	8.68	12.00	0.72	199.09
	Ax	1	112.65	3.76	30.00	18.00
	B	1	233.70	141.98	1.65	656.15
		2	11.12	6.40	1.74	82.92
	Bx	1	207.00	6.90	30.00	36.00
	C	1	13.20	7.81	1.69	85.24
		2	51.00	5.89	8.66	124.73
	Cx	1	107.84	3.59	30.00	36.00
	D	2	185.00	10.89	16.99	105.92
		3	1.06	0.55	1.92	37.59
	Dx	1	349.76	11.66	30.00	60.00
	A-1	1	85.05	2.94	28.97	18.64
	B-1	1	158.55	5.83	27.20	19.85
	C-1	1	75.00	3.53	21.27	25.39
	D-1	1	1.45	3.67	0.39	63.84
	D-2	1	94.50	3.24	29.13	18.54

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (Veh)	Mean End of Green Queue EoTS (Veh)	Mean End of Red Queue EoTS (Veh)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A	1	0.00	0.00	✓	16.62	5.24	14.48	1.00	0.00	134.61
		2	0.00	0.00	✓	15.65	9.01	15.52	1.00	40696.42	40877.39
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	272.38	255.03	267.42	1.00	0.00	1930.01
		2	0.00	0.00	✓	8.97	2.49	7.89	1.00	28834.74	28926.75
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	10.16	3.50	10.16	1.00	96984.67	97094.37
		2	0.00	0.00	✓	6.40	1.13	6.24	1.00	0.00	61.86
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	2	0.00	0.00	✓	11.73	0.83	9.57	1.00	0.00	71.37
		3	0.00	0.00	✓	1.01	0.02	1.01	1.00	0.00	8.38
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	A-1	1	0.00	0.00	✓	1.34			1.00	0.00	1.75
	B-1	1	0.00	0.00	✓	4.61			1.00	0.00	8.70
	C-1	1	0.00	0.00	✓	6.79			1.00	0.00	16.95
	D-1	1	0.00	0.00	✓	7.74	1.41	6.30	1.00	0.00	53.31
	D-2	1	0.00	0.00	✓	0.09			1.00	0.00	1.34

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Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	14	50	11000	4	56.55	1.61	11.15	11.15
		2	14	50	11000	4	56.55	1.61	11.15	11.15
	2	1	14	50	11000	4	56.55	1.61	11.15	11.15
		2	14	50	11000	4	56.55	1.61	11.15	11.15
	3	1	14	50	11000	4	113.89	1.67	22.46	22.46
		2	14	50	11000	4	56.55	1.61	11.15	11.15
	4	1	14	50	11000	4	56.55	1.61	11.15	11.15
		2	14	50	11000	4	113.89	1.67	22.46	22.46
	5	1	27	100	11000	4	107.53	3.33	42.42	42.42
		2	27	100	11000	4	56.61	3.22	22.33	22.33

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
17:00-18:00	1	1	50	50	0		11000	367	14		633	0.00	4
		2	50	50	0		11000	367	14		633	0.00	4
	2	1	50	50	0		11000	367	14		633	0.00	4
		2	50	50	0		11000	367	14		633	0.00	4
	3	1	50	50	0		11000	367	14		633	1.93	4
		2	50	50	0		11000	367	14		633	0.00	4
	4	1	50	50	0		11000	367	14		633	0.00	4
		2	50	50	0		11000	367	14		633	1.93	4
	5	1	100	100	0		11000	367	27		267	1.93	4
		2	100	100	0		11000	367	27		267	0.00	4

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
17:00-18:00	1	1	13.00	56.55	0.79	0.00	11.15
		2	13.00	56.55	0.79	0.00	11.15
	2	1	11.67	56.55	0.79	0.00	11.15
		2	11.67	56.55	0.79	0.00	11.15
	3	1	12.67	113.89	1.58	0.00	22.46
		2	11.67	56.55	0.79	0.00	11.15
	4	1	11.00	56.55	0.79	0.00	11.15
		2	12.00	113.89	1.58	0.00	22.46
	5	1	6.00	107.53	2.99	0.00	42.42
		2	5.00	56.61	1.57	0.00	22.33

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	1	1	1.61	10.00	16.11	0.00	0.00	0.00
		2	1.61	10.00	16.11	0.00	0.00	0.00
	2	1	1.61	10.00	16.11	0.00	0.00	0.00
		2	1.61	10.00	16.11	0.00	0.00	0.00
	3	1	1.67	10.00	16.67	0.00	0.00	0.00
		2	1.61	10.00	16.11	0.00	0.00	0.00
	4	1	1.61	10.00	16.11	0.00	0.00	0.00
		2	1.67	10.00	16.67	0.00	0.00	0.00
	5	1	3.33	10.00	33.33	0.00	0.00	0.00
		2	3.22	10.00	32.22	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	1	1	0.95	0.97	0.98	69.55
		2	0.95	0.97	0.98	69.55
	2	1	0.85	0.95	0.90	68.22
		2	0.85	0.95	0.90	68.22
	3	1	0.95	1.76	0.54	126.56
		2	0.85	0.95	0.90	68.22
	4	1	0.80	0.94	0.85	67.55
		2	0.90	1.75	0.51	125.89
	5	1	0.90	3.15	0.29	113.53
		2	0.70	1.71	0.41	61.61

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	1	1	0.00	0.00	1.61	1.00	0.00	11.15
		2	0.00	0.00	1.61	1.00	0.00	11.15
	2	1	0.00	0.00	1.61	1.00	0.00	11.15
		2	0.00	0.00	1.61	1.00	0.00	11.15
	3	1	0.00	0.00	1.67	1.00	0.00	22.46
		2	0.00	0.00	1.61	1.00	0.00	11.15
	4	1	0.00	0.00	1.61	1.00	0.00	11.15
		2	0.00	0.00	1.67	1.00	0.00	22.46
	5	1	0.00	0.00	3.33	1.00	0.00	42.42
		2	0.00	0.00	3.22	1.00	0.00	22.33

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Collections

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	170.6	128.6	186.1	0.0	0.0	0.0	0.0
	2	92.1	0.0	100.4	160.5	0.0	0.0	0.0	0.0
	3	166.0	277.7	0.0	166.0	0.0	0.0	0.0	0.0
	4	712.0	736.0	120.8	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	69.6	181.8	0.0
	6	0.0	0.0	0.0	0.0	69.6	0.0	0.0	68.2
	7	0.0	0.0	0.0	0.0	188.2	0.0	0.0	187.5
	8	0.0	0.0	0.0	0.0	0.0	68.2	181.1	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (Veh/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Normal journey dist (m)	Bus journeydist (m)	Tram journey dist (m)	Pedestrian journey dist (m)	Calculated Total Flow (Veh/hr)	Avg journey time (s)	Avg journey dist (m)
14	7	5		50		188.17	26.00	26.00	26.00	26.00	50	188.17	26.00
15	7	8		50		187.50	25.00	25.00	25.00	25.00	50	187.50	25.00
16	2	4	370		160.46		950.00	0.00	0.00	0.00	370	160.46	950.00
17	2	3	207		100.38		307.00	0.00	0.00	0.00	207	100.38	307.00
18	8	6		50		68.22	17.00	17.00	17.00	17.00	50	68.22	17.00
19	4	2	621		736.01		950.00	0.00	0.00	0.00	621	736.01	950.00
20	3	1	200		165.95		600.00	0.00	0.00	0.00	200	165.95	600.00
23	5	6		50		69.55	19.00	19.00	19.00	19.00	50	69.55	19.00
34	6	8		50		68.22	17.00	17.00	17.00	17.00	50	68.22	17.00
35	6	5		50		69.55	19.00	19.00	19.00	19.00	50	69.55	19.00
36	8	7		50		181.08	25.00	25.00	25.00	25.00	50	181.08	25.00
37	5	7		50		181.75	26.00	26.00	26.00	26.00	50	181.75	26.00
39	2	1	53		92.13		470.00	0.00	0.00	0.00	53	92.13	470.00
40	1	4	170		186.12		750.00	0.00	0.00	0.00	170	186.12	750.00
41	1	2	64		170.63		690.00	0.00	0.00	0.00	64	170.63	690.00
42	1	3	266		128.63		340.00	0.00	0.00	0.00	266	128.63	340.00
43	4	3	278		120.78		340.00	0.00	0.00	0.00	278	120.78	340.00
44	4	1	158		712.01		750.00	0.00	0.00	0.00	158	712.01	750.00
45	3	2	217		277.74		690.00	0.00	0.00	0.00	217	277.74	690.00
46	3	4	150		165.95		600.00	0.00	0.00	0.00	150	165.95	600.00

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU			
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (Veh/hr)	Calculated sat flow (Veh/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	
A	1	(untitled)	1	1	C		350	1800	25	0.00	93	7	111.31	93.31	131.80	
	2		1	1	D		217 <	1800	15	0.00	96	4	199.09	205.67	181.13	
Ax	1	(untitled)					751	Unrestricted	120	22.00	0	Unrestricted	18.00	0.00	0.00	
B	1	(untitled)	1	1	A		779 <	1800	35	0.00	148	-33	656.15	620.15	371.54	
	2		1	1	A	B	278 <	743	53	0.00	85	18	82.92	80.85	96.41	
Bx	1	(untitled)					690	Unrestricted	120	0.00	0	Unrestricted	36.00	0.00	0.00	
C	1	(untitled)	1	1	C		330 <	1800	25	0.00	88	14	85.24	81.36	91.77	
	2		1	1	D		170	1800	15	0.00	76	32	124.73	88.73	110.72	
Cx	1	(untitled)					359	Unrestricted	120	10.00	0	Unrestricted	36.00	0.00	0.00	
D	2	(untitled)	1	1	A		370	1800	35	0.00	70	42	105.92	45.92	93.81	
	3		1	1	A	B	53	677	53	16.00	18	464	37.59	37.38	85.77	
Dx	1	(untitled)					700	Unrestricted	120	0.00	0	Unrestricted	60.00	0.00	0.00	
A-1	1		1				567	1800	120	5.64	33	203	18.64	0.64	4.43	
B-1	1		1				1057	1800	120	120.00	62	62	19.85	1.85	7.33	
C-1	1		1				500	1800	120	34.83	39	155	25.39	7.39	38.03	
D-1	1	(untitled)	1	1	A		207 <	900	35	0.00	79	27	63.84	62.84	109.34	
D-2	1		1				630	1800	120	120.00	35	186	18.54	0.54	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	C tr pe (£
1	1	(untitled)	1	1	E	50	11000	4	14	633	69.55	56.55	1.61	100	
	2	(untitled)	1	1	E	50	11000	4	14	633	69.55	56.55	1.61	100	
2	1	(untitled)	1	1	E	50	11000	4	14	633	68.22	56.55	1.61	100	
	2	(untitled)	1	1	E	50	11000	4	14	633	68.22	56.55	1.61	100	
3	1	(untitled)	1	1	E	50	11000	4	14	633	126.56	113.89	1.67	100	
	2	(untitled)	1	1	E	50	11000	4	14	633	68.22	56.55	1.61	100	
4	1	(untitled)	1	1	E	50	11000	4	14	633	67.55	56.55	1.61	100	
	2	(untitled)	1	1	E	50	11000	4	14	633	125.89	113.89	1.67	100	
5	1	(untitled)		1	E	100	11000	4	27	267	113.53	107.53	3.33	100	
	2	(untitled)		1	E	100	11000	4	27	267	61.61	56.61	3.22	100	

TRL THE FUTURE OF TRANSPORT
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Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (Veh-hr/hr)	Random plus oversat delay (Veh-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	1748.06	241.47	7.24	31.59	152.61	2615.68	55.28	166515.83	169186.79
Bus									
Tram									
Pedestrians	8.70	14.08	0.62	12.44	0.00	176.59	0.00	0.00	176.59
Controller streams									10000
TOTAL	1756.76	255.55	6.87	44.03	152.61	2792.26	55.28	166515.83	179363.38

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.1.7462

Filename: Junction 4 - AM-PM.j9
Path: M:\Projects\23\23-102 Mooretown\Design\Traffic\2024-02 - Modelling\Junction 4
Report generation date: 05/03/2024 13:41:13

Generated on 05/03/2024 13:41:37 using Junctions 9 (9.5.1.7462)

Summary of junction performance

	AM				PM			
	Set ID	Queue (Veh)	Delay (s)	RFC	Set ID	Queue (Veh)	Delay (s)	RFC
Junction 4 - 2023 Base Year								
Arm 1	D1	0.7	4.89	0.42	D2	0.8	4.51	0.44
Arm 2		0.6	3.98	0.39		0.8	4.35	0.43
Arm 3		1.7	6.85	0.64		0.5	3.79	0.32
Arm 4		0.4	6.28	0.27		0.2	4.28	0.17
Junction 4 - 2027 Do Nothing								
Arm 1	D3	1.0	5.74	0.49	D4	0.9	4.82	0.47
Arm 2		0.8	4.55	0.45		0.9	4.75	0.48
Arm 3		3.0	10.43	0.75		0.6	4.24	0.38
Arm 4		0.5	7.96	0.34		0.2	4.67	0.19
Junction 4 - 2027 Do Something								
Arm 1	D5	1.0	5.80	0.50	D6	0.9	4.92	0.48
Arm 2		0.9	4.76	0.47		1.0	4.94	0.50
Arm 3		3.2	10.98	0.76		0.6	4.29	0.39
Arm 4		0.6	8.46	0.36		0.3	4.88	0.22
Junction 4 - 2032 Do Nothing								
Arm 1	D7	1.1	6.29	0.53	D8	1.0	5.14	0.50
Arm 2		0.9	4.87	0.48		1.1	5.13	0.52
Arm 3		4.0	13.23	0.81		0.7	4.49	0.41
Arm 4		0.6	9.02	0.38		0.3	4.91	0.21
Junction 4 - 2032 Do Something								
Arm 1	D9	1.1	6.37	0.53	D10	1.0	5.25	0.50
Arm 2		1.0	5.12	0.51		1.1	5.35	0.53
Arm 3		4.3	14.16	0.82		0.7	4.53	0.41
Arm 4		0.7	9.68	0.41		0.3	5.12	0.24
Junction 4 - 2042 Do Nothing								
Arm 1	D11	1.3	6.88	0.56	D12	1.1	5.47	0.53
Arm 2		1.0	5.20	0.51		1.2	5.50	0.55
Arm 3		5.4	17.28	0.85		0.8	4.74	0.43
Arm 4		0.7	10.20	0.42		0.3	5.13	0.23
Junction 4 - 2042 Do Something								
Arm 1	D13	1.3	6.97	0.57	D14	1.1	5.59	0.53
Arm 2		1.1	5.48	0.53		1.3	5.76	0.56
Arm 3		5.8	18.78	0.86		0.8	4.79	0.44
Arm 4		0.8	11.03	0.45		0.3	5.37	0.25

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

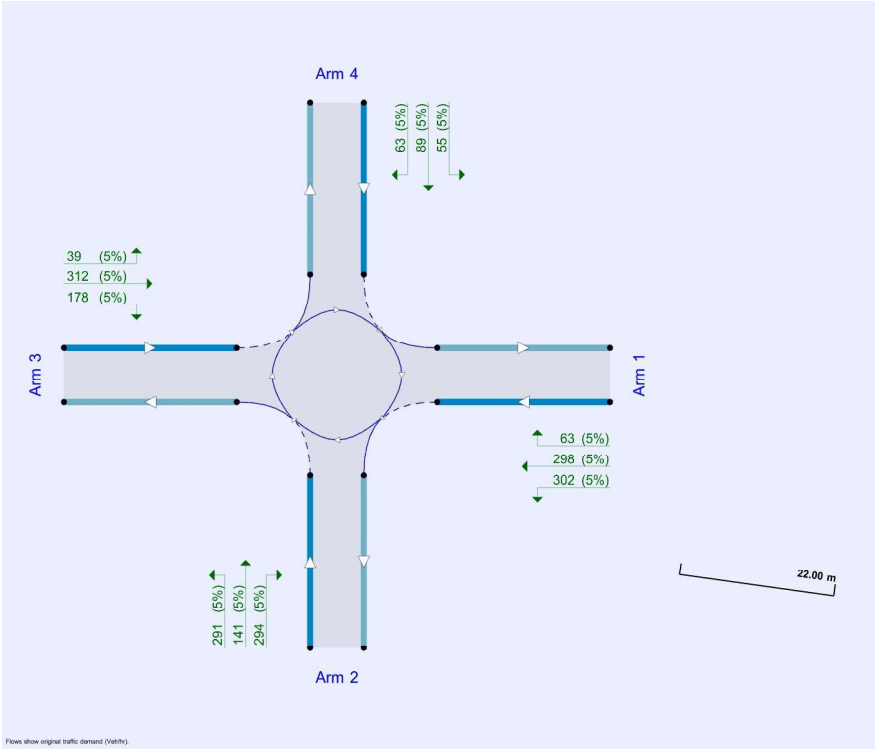
File summary

File Description

Title	Junction 4
Location	Mooretown
Site number	
Date	03/03/2024
Version	1
Status	(new file)
Identifier	
Client	
Jobnumber	23-102
Enumerator	DOMAIN\f.demaio
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	Veh	Veh	perHour	s	-Min	perMin



The junction diagram reflects the last run of Junctions.

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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	2023 Base Year	AM	ONE HOUR	08:00	09:30	15
D2	2023 Base Year	PM	ONE HOUR	17:00	18:30	15
D3	2027 Do Nothing	AM	ONE HOUR	08:00	09:30	15
D4	2027 Do Nothing	PM	ONE HOUR	17:00	18:30	15
D5	2027 Do Something	AM	ONE HOUR	08:00	09:30	15
D6	2027 Do Something	PM	ONE HOUR	17:00	18:30	15
D7	2032 Do Nothing	AM	ONE HOUR	08:00	09:30	15
D8	2032 Do Nothing	PM	ONE HOUR	17:00	18:30	15
D9	2032 Do Something	AM	ONE HOUR	08:00	09:30	15
D10	2032 Do Something	PM	ONE HOUR	17:00	18:30	15
D11	2042 Do Nothing	AM	ONE HOUR	08:00	09:30	15
D12	2042 Do Nothing	PM	ONE HOUR	17:00	18:30	15
D13	2042 Do Something	AM	ONE HOUR	08:00	09:30	15
D14	2042 Do Something	PM	ONE HOUR	17:00	18:30	15

Analysis Set Details

ID	Name	Network flow scaling factor (%)
A1	Junction 4	100.000

Junction 4 - 2023 Base Year, AM

Data Errors and Warnings

No errors or warnings

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	5.59	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Glen Ellan Road (E)	
2	Glen Ellan Road (S)	
3	Glen Ellan Road (W)	
4	Northern Arm	

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	4.30	6.50	12.1	38.0	45.0	44.3	
2	4.40	7.46	11.5	69.6	45.0	43.7	
3	4.35	8.70	8.4	30.4	45.0	42.7	
4	4.50	6.03	2.3	27.3	45.0	43.4	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.615	1677
2	0.646	1812
3	0.632	1764
4	0.571	1461

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	2023 Base Year	AM	ONE HOUR	08:00	09:30	15

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

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Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	490	100.000
2		✓	520	100.000
3		✓	832	100.000
4		✓	195	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	0	172	233	85
	2	166	0	262	92
	3	455	338	0	39
	4	58	105	32	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	5	5	5
	2	5	0	5	5
	3	5	5	0	5
	4	5	5	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.42	4.89	0.7	A
2	0.39	3.98	0.6	A
3	0.64	6.85	1.7	A
4	0.27	6.28	0.4	A

Junction 4 - 2023 Base Year, PM

Data Errors and Warnings

No errors or warnings

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	4.26	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	2023 Base Year	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	570	100.000
2		✓	573	100.000
3		✓	414	100.000
4		✓	156	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	0	230	287	53
	2	222	0	232	119
	3	239	142	0	33
	4	46	75	35	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	5	5	5
	2	5	0	5	5
	3	5	5	0	5
	4	5	5	5	0

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Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.44	4.51	0.8	A
2	0.43	4.35	0.8	A
3	0.32	3.79	0.5	A
4	0.17	4.28	0.2	A

Junction 4 - 2027 Do Nothing, AM

Data Errors and Warnings

No errors or warnings

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	7.58	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	2027 Do Nothing	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 (Veh/hr)	Scaling Factor (%)
1		✓	558	100.000
2		✓	594	100.000
3		✓	961	100.000
4		✓	208	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	0	197	270	91
	2	210	0	286	98
	3	540	379	0	42
	4	62	112	34	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	5	5	5
	2	5	0	5	5
	3	5	5	0	5
	4	5	5	5	0

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Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.49	5.74	1.0	A
2	0.45	4.55	0.8	A
3	0.75	10.43	3.0	B
4	0.34	7.96	0.5	A

Junction 4 - 2027 Do Nothing, PM

Data Errors and Warnings

No errors or warnings

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	4.64	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	2027 Do Nothing	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	602	100.000
2		✓	644	100.000
3		✓	478	100.000
4		✓	166	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	0	275	270	57
	2	254	0	263	127
	3	283	160	0	35
	4	49	80	37	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	5	5	5
	2	5	0	5	5
	3	5	5	0	5
	4	5	5	5	0

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Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.47	4.82	0.9	A
2	0.48	4.75	0.9	A
3	0.38	4.24	0.6	A
4	0.19	4.67	0.2	A

Junction 4 - 2027 Do Something, AM

Data Errors and Warnings

No errors or warnings

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	7.89	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)
D5	2027 Do Something	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 (Veh/hr)	Scaling Factor (%)
1		✓	558	100.000
2		✓	619	100.000
3		✓	961	100.000
4		✓	218	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	0	197	270	91
	2	235	0	286	98
	3	540	379	0	42
	4	62	112	44	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	5	5	5
	2	5	0	5	5
	3	5	5	0	5
	4	5	5	5	0

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Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.50	5.80	1.0	A
2	0.47	4.76	0.9	A
3	0.76	10.98	3.2	B
4	0.36	8.46	0.6	A

Junction 4 - 2027 Do Something, PM

Data Errors and Warnings

No errors or warnings

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	4.77	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)
D6	2027 Do Something	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	602	100.000
2		✓	657	100.000
3		✓	478	100.000
4		✓	188	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	0	275	270	57
	2	267	0	263	127
	3	283	160	0	35
	4	49	80	59	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	5	5	5
	2	5	0	5	5
	3	5	5	0	5
	4	5	5	5	0

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Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.48	4.92	0.9	A
2	0.50	4.94	1.0	A
3	0.39	4.29	0.6	A
4	0.22	4.88	0.3	A

Junction 4 - 2032 Do Nothing, AM

Data Errors and Warnings

No errors or warnings

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	9.05	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	2032 Do Nothing	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 (Veh/hr)	Scaling Factor (%)
1		✓	589	100.000
2		✓	627	100.000
3		✓	1015	100.000
4		✓	221	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	0	208	285	96
	2	220	0	303	104
	3	570	401	0	44
	4	66	119	36	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	5	5	5
	2	5	0	5	5
	3	5	5	0	5
	4	5	5	5	0

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Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.53	6.29	1.1	A
2	0.48	4.87	0.9	A
3	0.81	13.23	4.0	B
4	0.38	9.02	0.6	A

Junction 4 - 2032 Do Nothing, PM

Data Errors and Warnings

No errors or warnings

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	4.95	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	2032 Do Nothing	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	634	100.000
2		✓	682	100.000
3		✓	504	100.000
4		✓	177	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	0	289	285	60
	2	269	0	278	135
	3	298	169	0	37
	4	52	85	40	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	5	5	5
	2	5	0	5	5
	3	5	5	0	5
	4	5	5	5	0

Generated on 05/03/2024 13:41:37 using Junctions 9 (9.5.1.7462)

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.50	5.14	1.0	A
2	0.52	5.13	1.1	A
3	0.41	4.49	0.7	A
4	0.21	4.91	0.3	A

Junction 4 - 2032 Do Something, AM

Data Errors and Warnings

No errors or warnings

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	9.53	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	2032 Do Something	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 (Veh/hr)	Scaling Factor (%)
1		✓	589	100.000
2		✓	653	100.000
3		✓	1015	100.000
4		✓	231	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	0	208	285	96
	2	246	0	303	104
	3	570	401	0	44
	4	66	119	46	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	5	5	5
	2	5	0	5	5
	3	5	5	0	5
	4	5	5	5	0

Generated on 05/03/2024 13:41:37 using Junctions 9 (9.5.1.7462)

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.53	6.37	1.1	A
2	0.51	5.12	1.0	A
3	0.82	14.16	4.3	B
4	0.41	9.68	0.7	A

Junction 4 - 2032 Do Something, PM

Data Errors and Warnings

No errors or warnings

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	5.09	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)
D10	2032 Do Something	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	634	100.000
2		✓	694	100.000
3		✓	504	100.000
4		✓	198	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	0	289	285	60
	2	281	0	278	135
	3	298	169	0	37
	4	52	85	61	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	5	5	5
	2	5	0	5	5
	3	5	5	0	5
	4	5	5	5	0

Generated on 05/03/2024 13:41:37 using Junctions 9 (9.5.1.7462)

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.50	5.25	1.0	A
2	0.53	5.35	1.1	A
3	0.41	4.53	0.7	A
4	0.24	5.12	0.3	A

Junction 4 - 2042 Do Nothing, AM

Data Errors and Warnings

No errors or warnings

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	11.05	B

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	2042 Do Nothing	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 (Veh/hr)	Scaling Factor (%)
1		✓	617	100.000
2		✓	657	100.000
3		✓	1062	100.000
4		✓	232	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	0	218	298	101
	2	230	0	318	109
	3	596	420	0	46
	4	69	125	38	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	5	5	5
	2	5	0	5	5
	3	5	5	0	5
	4	5	5	5	0

Generated on 05/03/2024 13:41:37 using Junctions 9 (9.5.1.7462)

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.56	6.88	1.3	A
2	0.51	5.20	1.0	A
3	0.85	17.28	5.4	C
4	0.42	10.20	0.7	B

Junction 4 - 2042 Do Nothing, PM

Data Errors and Warnings

No errors or warnings

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	5.27	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	2042 Do Nothing	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	663	100.000
2		✓	713	100.000
3		✓	529	100.000
4		✓	186	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	0	302	298	63
	2	281	0	291	141
	3	312	178	0	39
	4	55	89	42	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	5	5	5
	2	5	0	5	5
	3	5	5	0	5
	4	5	5	5	0

Generated on 05/03/2024 13:41:37 using Junctions 9 (9.5.1.7462)

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.53	5.47	1.1	A
2	0.55	5.50	1.2	A
3	0.43	4.74	0.8	A
4	0.23	5.13	0.3	A

Junction 4 - 2042 Do Something, AM

Data Errors and Warnings

No errors or warnings

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	11.77	B

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	2042 Do Something	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 (Veh/hr)	Scaling Factor (%)
1		✓	617	100.000
2		✓	682	100.000
3		✓	1062	100.000
4		✓	242	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	0	218	298	101
	2	255	0	318	109
	3	596	420	0	46
	4	69	125	48	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	5	5	5
	2	5	0	5	5
	3	5	5	0	5
	4	5	5	5	0

Generated on 05/03/2024 13:41:37 using Junctions 9 (9.5.1.7462)

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.57	6.97	1.3	A
2	0.53	5.48	1.1	A
3	0.86	18.78	5.8	C
4	0.45	11.03	0.8	B

Junction 4 - 2042 Do Something, PM

Data Errors and Warnings

No errors or warnings

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	5.43	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)
D14	2042 Do Something	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1		✓	663	100.000
2		✓	726	100.000
3		✓	529	100.000
4		✓	207	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	0	302	298	63
	2	294	0	291	141
	3	312	178	0	39
	4	55	89	63	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	5	5	5
	2	5	0	5	5
	3	5	5	0	5
	4	5	5	5	0

Generated on 05/03/2024 13:41:37 using Junctions 9 (9.5.1.7462)

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.53	5.59	1.1	A
2	0.56	5.76	1.3	A
3	0.44	4.79	0.8	A
4	0.25	5.37	0.3	A

TRANSYT 16

Version: 16.0.1.8473

Filename: Junction 5 AM.t16
Path: M:\Projects\23\23-102 Mooretown\Design\Traffic\2024-02 - Modelling\Junction 5
Report generation date: 05/03/2024 13:54:02

»A1 - AM Peak Hour : D1 - 2023 SURVEYED FLOWS, AM :
»A1 - AM Peak Hour : D2 - 2027 DO NOTHING, AM :
»A1 - AM Peak Hour : D3 - 2027 DO SOMETHING, AM :
»A1 - AM Peak Hour : D4 - 2032 DO NOTHING, AM :
»A1 - AM Peak Hour : D5 - 2032 DO SOMETHING, AM :
»A1 - AM Peak Hour : D6 - 2042 DO NOTHING, AM :
»A1 - AM Peak Hour : D7 - 2042 DO SOMETHING, AM :

Summary of network performance

	AM				
	Set ID	PI (£ per hr)	Total delay (PCU-hr/hr)	Highest DOS	Number oversaturated
	AM Peak Hour - 2023 SURVEYED FLOWS				
Network	D1	127.41	8.41	51% (TS A1/1)	0 (0%)
	AM Peak Hour - 2027 DO NOTHING				
Network	D2	190.99	12.52	76% (TS C1/1)	0 (0%)
	AM Peak Hour - 2027 DO SOMETHING				
Network	D3	262.11	17.27	80% (TS B1/1)	0 (0%)
	AM Peak Hour - 2032 DO NOTHING				
Network	D4	205.31	13.45	79% (TS C1/1)	0 (0%)
	AM Peak Hour - 2032 DO SOMETHING				
Network	D5	278.08	18.32	80% (TS B1/1)	0 (0%)
	AM Peak Hour - 2042 DO NOTHING				
Network	D6	219.94	14.41	81% (TS C1/1)	0 (0%)
	AM Peak Hour - 2042 DO SOMETHING				
Network	D7	294.66	19.41	83% (TS C1/1)	0 (0%)

File summary

File description

File title	Junction5
Location	Mooretown
Site number	
UTCRegion	
Driving side	Left
Date	01/03/2024
Version	1
Status	(new file)
Identifier	
Client	
Jobnumber	23-102
Enumerator	DOMAIN\f.maio
Description	

Model and Results

Enable controller offsets	Enable fuel consumption	Enable quick flares	Display journey time results	Display OD matrix distances	Display level of service results	Display blocking and starvation results	Display end of red and green queue results	Display excess queue results	Display separate uniform and random results	Display unweighted results	Display TRANSYT 12 style timings	Display effective greens in results	Display Red-With-Amber	Display End-Of-Green Amber	c m
			✓			✓	✓	✓	✓	✓	✓	✓			

Units

Cost units	Speed units	Distance units	Fuel economy units	Fuel rate units	Mass units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
£	kph	m	mpg	l/h	kg	PCU	PCU	perHour	s	-Hour	perHour

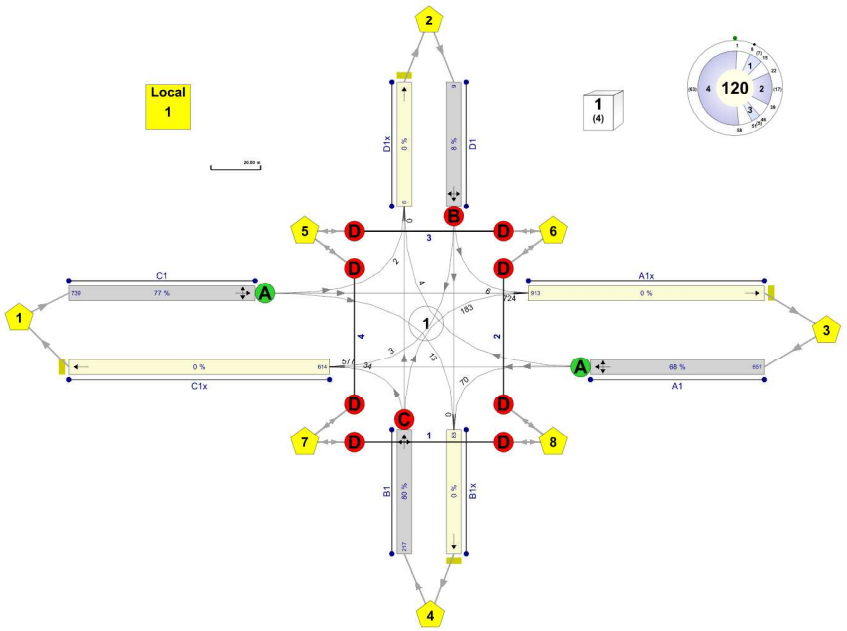
Sorting

Show names instead of IDs	Sorting direction	Sorting type	Ignore prefixes when sorting	Analysis/demand set sorting	Link grouping	Source grouping	Colour Analysis/Demand Sets
	Ascending	Numerical		ID	Normal	Normal	✓

Simulation options

Criteria type	Stop criteria (%)	Stop criteria time (s)	Stop criteria number of trials	Random seed	Results refresh speed (s)	Average animation capture interval (s)	Use quick response	Do flow sampling	Uniform vehicle generation	Last run random seed	Last run number of trials	Last run time taken (s)
Delay	1.00	10000	10000	-1	3	60	✓			0	0	0.00

Network Diagrams



Junction5
Cycletime 0s / 120s
Timestage 119 / 120
3
Diagram produced using TRANSYT 16.0.1.8473

A1 - AM Peak Hour
D1 - 2023 SURVEYED FLOWS, AM

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item wi wors unsignal PRC
1	05/03/2024 13:53:50	05/03/2024 13:53:50	0.51	08:00	120	127.41	8.41	50.94	A1/1	0	0	A1/1	D1x/

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set(s)	Specific Demand Set (s)	Optimise specific Demand Set(s)	Demand Set(s) to optimise	Include in report	Locked
AM Peak Hour			✓	D1,D2,D3,D4,D5,D6,D7	✓	D7	✓	

Demand Set Details

Scenario name	Time Period name	Description	Composite	Demand sets	Start time (HH:mm)	Locked	Run automatically
2023 SURVEYED FLOWS	AM	(untitled)			08:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120	115	115		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)	Missing stage transition options
10000.00	10000.00	10000.00	2	Assume banned

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from traffic model	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	90	100	✓	✓			Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	✓

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy (%)	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Standard accuracy Hill Climb	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A1	(untitled)		1
A1x	(untitled)		
B1	(untitled)		1
B1x	(untitled)		
C1	(untitled)		1
C1x	(untitled)		
D1	(untitled)		1
D1x	(untitled)		

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A1	1	(untitled)			150.00	✓	Sum of lanes	1800	✓		Normal	
A1x	1	(untitled)			150.00						Normal	
B1	1	(untitled)			60.00	✓	Sum of lanes	1800	✓		Normal	
B1x	1	(untitled)			60.00						Normal	
C1	1	(untitled)			150.00	✓	Sum of lanes	1800	✓		Normal	
C1x	1	(untitled)			150.00						Normal	
D1	1	(untitled)			60.00	✓	Sum of lanes	1800	✓		Normal	
D1x	1	(untitled)			60.00						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A1	1	1	(untitled)			1800
A1x	1	1	(untitled)			
B1	1	1	(untitled)			1800
B1x	1	1	(untitled)			
C1	1	1	(untitled)			1800
C1x	1	1	(untitled)			
D1	1	1	(untitled)			1800
D1x	1	1	(untitled)			

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	1	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	1	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
A1	1	489	489
A1x	1	450	450
B1	1	0	0
B1x	1	50	50
C1	1	450	450
C1x	1	489	489
D1	1	50	50
D1x	1	0	0

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
A1	1	1	A	
B1	1	1	C	
C1	1	1	A	
D1	1	1	B	

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A1	1	18.00	30.00
B1	1	7.20	30.00
C1	1	18.00	30.00
D1	1	7.20	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A1x	1	1	B1/1	A1x/1	18.00	30.00	✓	Offside	50.00
B1x	1	1	A1/1	B1x/1	7.20	30.00	✓	Nearside	25.00
C1x	1	1	B1/1	C1x/1	18.00	30.00	✓	Nearside	25.00
D1x	1	1	C1/1	D1x/1	7.20	30.00	✓	Nearside	35.00
A1x	1	2	D1/1	A1x/1	18.00	30.00	✓	Nearside	30.00
B1x	1	2	D1/1	B1x/1	7.20	30.00	✓	Straight	Straight Movement
C1x	1	2	D1/1	C1x/1	18.00	30.00	✓	Offside	50.00
D1x	1	2	B1/1	D1x/1	7.20	30.00	✓	Straight	Straight Movement
A1x	1	3	C1/1	A1x/1	18.00	30.00	✓	Straight	Straight Movement
B1x	1	3	C1/1	B1x/1	7.20	30.00	✓	Offside	55.00
C1x	1	3	A1/1	C1x/1	18.00	30.00	✓	Straight	Straight Movement
D1x	1	3	A1/1	D1x/1	7.20	30.00	✓	Offside	65.00

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	6.00	4.00	5.40
2	(untitled)		1		Farside	10.00	6.67	5.40
3	(untitled)		1		Farside	6.00	4.00	5.40
4	(untitled)		1		Farside	10.00	6.67	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	D	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Generated on 05/03/2024 13:54:54 using TRANSYT 16 (16.0.1.8473)

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	✓	Path Equalisation			✓			✓	1.25				

Normal Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	450	0	0	0	0	0
	2	0	0	0	50	0	0	0	0
	3	489	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	20	20	0
	6	0	0	0	0	20	0	0	20
	7	0	0	0	0	20	0	0	20
	8	0	0	0	0	0	20	20	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C1/1	C1x/1	#0000FF
	2	(untitled)	D1/1	D1x/1	#FF0000
	3	(untitled)	A1/1	A1x/1	#00FF00
	4	(untitled)	B1/1	B1x/1	#FFFF00
	5	(untitled)	3:2E, 4:1E	3:2X, 4:1X	#00FFFF
	6	(untitled)	3:1E, 2:2E	3:1X, 2:2X	#FF00FF
	7	(untitled)	4:2E, 1:1E	4:2X, 1:1X	#008000
	8	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#FFA500

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	1		1	2	C1/1, D1x/1	Normal	0
	2		1	3	C1/1, A1x/1	Normal	450
	4		2	3	D1/1, A1x/1	Normal	0
	5		2	4	D1/1, B1x/1	Normal	50
	6		2	1	D1/1, C1x/1	Normal	0
	7		3	4	A1/1, B1x/1	Normal	0
	8		3	1	A1/1, C1x/1	Normal	489
	10		4	2	B1/1, D1x/1	Normal	0
	11		4	3	B1/1, A1x/1	Normal	0
	12		4	1	B1/1, C1x/1	Normal	0
	21		3	2	A1/1, D1x/1	Normal	0
	22		1	4	C1/1, B1x/1	Normal	0

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	13		5	6	3:2E, 3:1X	Normal	20
	14		6	5	3:1E, 3:2X	Normal	20
	15		6	8	2:2E, 2:1X	Normal	20
	16		8	6	2:1E, 2:2X	Normal	20
	17		5	7	4:1E, 4:2X	Normal	20
	18		7	5	4:2E, 4:1X	Normal	20
	19		7	8	1:1E, 1:2X	Normal	20
	20		8	7	1:2E, 1:1X	Normal	20

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)	Minimum possible cycle time (s)
1	AM		1	Manual	120	115

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Absolute

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	60	100	0	0	Traffic	
	B	(untitled)	7	10	0	0	Traffic	
	C	(untitled)	15	20	0	0	Traffic	
	D	(untitled)	5	5	0	0	Pedestrian	1

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Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)	Run every N cycles	Probability of running (%)
1	1	B	1	1	100
	2	C	1	1	100
	3	D	1	1	100
	4	A	1	1	100

Losing / Gaining Phase Delays

Controller Stream	Delay	Type	Phase	From stage	To stage	Relative delay	Absolute delay
1	1	Gaining	D	4	1	5	12
	2	Losing	D	1	2	3	
	3	Gaining	C	1	2	0	5

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)	Single	1, 2, 3, 4	15, 39, 51, 1	115	
	2	(untitled)	Single	1, 2, 4, 3	8, 23, 101, 113	115	
	3	(untitled)	Single	1, 3, 2, 4	8, 21, 36, 113	115	
	4	(untitled)	Single	1, 3, 4, 2	8, 21, 99, 113	115	
	5	(untitled)	Single	1, 4, 2, 3	8, 86, 101, 113	115	
	6	(untitled)	Single	1, 4, 3, 2	8, 86, 99, 113	115	

Intergreen Matrix for Controller Stream 1

		To			
		A	B	C	D
From	A		7	7	7
	B	7		7	7
	C	7	7		7
	D	7	7	7	

Banned Stage transitions for Controller Stream 1

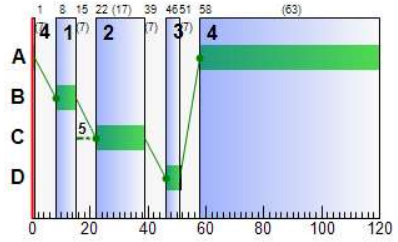
		To			
		1	2	3	4
From	1				
	2				
	3				
	4				

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A1	1	1	1	A	58	1	63
B1	1	1	1	C	22	39	17
C1	1	1	1	A	58	1	63
D1	1	1	1	B	8	15	7

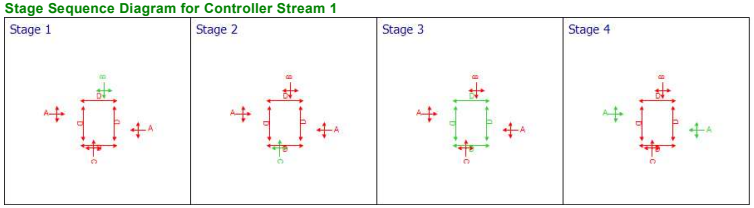
Phase Timings Diagram

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A1	1	51	77	489	1800	63	19.88	10.59	40.58	38.35	3.90	42.25
	A1x	1	0	Unrestricted	450	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B1	1	0	Unrestricted	0	1800	17	0.00	0.00	0.00	0.00	0.00	0.00
	B1x	1	0	Unrestricted	50	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C1	1	47	92	450	1800	63	19.08	9.46	36.25	33.86	3.48	37.34
	C1x	1	0	Unrestricted	489	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D1	1	42	116	50	1800	7	64.33	1.74	16.71	12.69	0.65	13.34
	D1x	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow (PCU/hr)	Calculated capacity (PCU/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effec gree (pe cycl
08:00-09:00	A1	1	489	489	0		1800	960	51		77	0.00	63	64
	A1x	1	450	450	0		Unrestricted	Unrestricted	0		Unrestricted	0.85	120	12
	B1	1	0	0	0		1800	270	0		Unrestricted	0.00	17	18
	B1x	1	50	50	0		Unrestricted	Unrestricted	0		Unrestricted	1.77	120	12
	C1	1	450	450	0		1800	960	47		92	0.00	63	64
	C1x	1	489	489	0		Unrestricted	Unrestricted	0		Unrestricted	0.86	120	12
	D1	1	50	50	0		1800	120	42		116	0.00	7	8
	D1x	1	0	0	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120	12

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A1	1	18.00	19.88	2.44	0.26	38.35	38.35	63.68	303.54	7.87	3.90	3.90
	A1x	1	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B1	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B1x	1	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C1	1	18.00	19.08	2.18	0.21	33.86	33.86	61.75	271.69	6.17	3.48	3.48
	C1x	1	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D1	1	7.20	64.33	0.75	0.15	12.69	12.69	103.43	47.42	4.30	0.65	0.65
	D1x	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Average storage excess queue (PCU)	Average limit excess queue (PCU)	Excess queue penalty (£ per hr)	Mean end of green queue (PCU)	Mean end of red queue (PCU)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A1	1	0.00	10.59	26.09	40.58	0.00	0.00	0.00	0.26	7.87	0.00	0.00	0.00	
	A1x	1	0.00	0.00	26.09	0.00	0.00	0.00	0.00			45.00	0.00	45.00	
	B1	1	0.00	0.00	10.43	0.00	0.00	0.00	0.00	0.00	0.00	18.00	0.00	18.00	
	B1x	1	0.00	0.00	10.43	0.00	0.00	0.00	0.00			109.00	0.00	109.00	
	C1	1	0.00	9.46	26.09	36.25	0.00	0.00	0.00	0.21	7.21	0.00	0.00	0.00	
	C1x	1	0.00	0.00	26.09	0.00	0.00	0.00	0.00			45.00	0.00	45.00	
	D1	1	0.00	1.74	10.43	16.71	0.00	0.00	0.00	0.15	1.70	4.00	0.00	4.00	
	D1x	1	0.00	0.00	10.43	0.00	0.00	0.00	0.00			120.00	0.00	120.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A1	1	73.35	5.15	14.25	37.88
	A1x	1	67.50	2.25	30.00	18.00
	B1	1	0.00	0.00	0.00	0.00
	B1x	1	3.00	0.10	30.00	7.20
	C1	1	67.50	4.63	14.57	37.08
	C1x	1	73.35	2.45	30.00	18.00
	D1	1	3.00	0.99	3.02	71.53
	D1x	1	0.00	0.00	0.00	0.00

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (PCU)	Mean End of Green Queue EoTS (PCU)	Mean End of Red Queue EoTS (PCU)	PCU Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A1	1	0.00	0.00	✓	10.59	0.26	7.87	1.00	0.00	42.25	42.25
	A1x	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	B1	1	0.00	0.00	✓	0.00	0.00	0.00	1.00	0.00	0.00	0.00
	B1x	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	C1	1	0.00	0.00	✓	9.46	0.21	7.21	1.00	0.00	37.34	37.34
	C1x	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	D1	1	0.00	0.00	✓	1.74	0.15	1.70	1.00	0.00	13.34	13.34
	D1x	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	(ALL)	(ALL)	4	20	11000	5	54.63	0.63	4.31	4.31

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effec gree (pe cycl
08:00-09:00	(ALL)	(ALL)	20	20	0		11000	550	4		2375	0.00	5	6

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	5.00	54.63	0.30	0.00	4.31	4.31
		2	5.00	54.63	0.30	0.00	4.31	4.31
	2	1	7.67	54.63	0.30	0.00	4.31	4.31
		2	7.67	54.63	0.30	0.00	4.31	4.31
	3	1	5.00	54.63	0.30	0.00	4.31	4.31
		2	5.00	54.63	0.30	0.00	4.31	4.31
	4	1	7.67	54.63	0.30	0.00	4.31	4.31
		2	7.67	54.63	0.30	0.00	4.31	4.31

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	(ALL)	(ALL)	0.63	10.00	6.33	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	0.14	0.33	0.42	59.63
		2	0.14	0.33	0.42	59.63
	2	1	0.22	0.35	0.64	62.29
		2	0.22	0.35	0.64	62.29
	3	1	0.14	0.33	0.42	59.63
		2	0.14	0.33	0.42	59.63
	4	1	0.22	0.35	0.64	62.29
		2	0.22	0.35	0.64	62.29

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Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
08:00-09:00	(ALL)	(ALL)	0.00	0.00	0.63	1.00	0.00	4.31	4.31

Collections

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	0.0	55.1	0.0	0.0	0.0	0.0	0.0
	2	0.0	0.0	0.0	78.7	0.0	0.0	0.0	0.0
	3	55.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	59.6	62.3	0.0
	6	0.0	0.0	0.0	0.0	59.6	0.0	0.0	62.3
	7	0.0	0.0	0.0	0.0	62.3	0.0	0.0	59.6
	8	0.0	0.0	0.0	0.0	0.0	62.3	59.6	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Normal journey dist (m)	Bus journeydist (m)	Tram journey dist (m)	Pedestrian journey dist (m)	Calculated Total Flow (PCU/hr)	Avg journey time (s)	Avg journey dist (m)
1	1	2	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00
2	1	3	450		55.08		300.00	0.00	0.00	0.00	450	55.08	300.00
4	2	3	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00
5	2	4	50		78.73		120.00	0.00	0.00	0.00	50	78.73	120.00
6	2	1	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00
7	3	4	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00
8	3	1	489		55.88		300.00	0.00	0.00	0.00	489	55.88	300.00
10	4	2	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00
11	4	3	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00
12	4	1	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00
13	5	6		20		59.63	7.00	7.00	7.00	7.00	20	59.63	7.00
14	6	5		20		59.63	7.00	7.00	7.00	7.00	20	59.63	7.00
15	6	8		20		62.29	11.00	11.00	11.00	11.00	20	62.29	11.00
16	8	6		20		62.29	11.00	11.00	11.00	11.00	20	62.29	11.00
17	5	7		20		62.29	11.00	11.00	11.00	11.00	20	62.29	11.00
18	7	5		20		62.29	11.00	11.00	11.00	11.00	20	62.29	11.00
19	7	8		20		59.63	7.00	7.00	7.00	7.00	20	59.63	7.00
20	8	7		20		59.63	7.00	7.00	7.00	7.00	20	59.63	7.00
21	3	2	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00
22	1	4	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUE	
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (PCU)	M e of qu (P
A1	1	(untitled)	1	1	A	489	1800	63	0.00	51	77	37.88	19.88	63.68	10.59	7.
A1x	1	(untitled)				450	Unrestricted	120	45.00	0	Unrestricted	18.00	0.00	0.00	0.00	
B1	1	(untitled)	1	1	C	0	1800	17	18.00	0	Unrestricted	0.00	0.00	0.00	0.00	0.
B1x	1	(untitled)				50	Unrestricted	120	109.00	0	Unrestricted	7.20	0.00	0.00	0.00	
C1	1	(untitled)	1	1	A	450	1800	63	0.00	47	92	37.08	19.08	61.75	9.46	7.
C1x	1	(untitled)				489	Unrestricted	120	45.00	0	Unrestricted	18.00	0.00	0.00	0.00	
D1	1	(untitled)	1	1	B	50	1800	7	4.00	42	116	71.53	64.33	103.43	1.74	1.
D1x	1	(untitled)				0	Unrestricted	120	120.00	0	Unrestricted	0.00	0.00	0.00	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)	1	1	D	20	11000	5	4	2375	59.63	54.63	0.63	100	0
	2	(untitled)	1	1	D	20	11000	5	4	2375	59.63	54.63	0.63	100	0
2	1	(untitled)	1	1	D	20	11000	5	4	2375	62.29	54.63	0.63	100	0
	2	(untitled)	1	1	D	20	11000	5	4	2375	62.29	54.63	0.63	100	0
3	1	(untitled)	1	1	D	20	11000	5	4	2375	59.63	54.63	0.63	100	0
	2	(untitled)	1	1	D	20	11000	5	4	2375	59.63	54.63	0.63	100	0
4	1	(untitled)	1	1	D	20	11000	5	4	2375	62.29	54.63	0.63	100	0
	2	(untitled)	1	1	D	20	11000	5	4	2375	62.29	54.63	0.63	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	287.70	15.57	18.48	5.36	0.62	84.89	8.04	0.00	92.93
Bus									
Tram									
Pedestrians	1.44	2.71	0.53	2.43	0.00	34.47	0.00	0.00	34.47
TOTAL	289.14	18.28	15.82	7.79	0.62	119.37	8.04	0.00	127.41

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

TRL THE FUTURE OF TRANSPORT
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A1 - AM Peak Hour
D2 - 2027 DO NOTHING, AM

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item wi wors unsignal PRC
1	05/03/2024 13:53:50	05/03/2024 13:53:50	0.64	08:00	120	190.99	12.52	75.63	C1/1	0	0	C1/1	D1x/

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set(s)	Specific Demand Set (s)	Optimise specific Demand Set(s)	Demand Set(s) to optimise	Include in report	Locked
AM Peak Hour			✓	D1,D2,D3,D4,D5,D6,D7	✓	D7	✓	

Demand Set Details

Scenario name	Time Period name	Description	Composite	Demand sets	Start time (HH:mm)	Locked	Run automatically
2027 DO NOTHING	AM	(untitled)			08:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120	115	115		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)	Missing stage transition options
10000.00	10000.00	10000.00	2	Assume banned

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from traffic model	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	90	100	✓	✓			Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	✓

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy (%)	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Standard accuracy Hill Climb	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A1	(untitled)		1
A1x	(untitled)		
B1	(untitled)		1
B1x	(untitled)		
C1	(untitled)		1
C1x	(untitled)		
D1	(untitled)		1
D1x	(untitled)		

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A1	1	(untitled)			150.00	✓	Sum of lanes	1800	✓		Normal	
A1x	1	(untitled)			150.00						Normal	
B1	1	(untitled)			60.00	✓	Sum of lanes	1800	✓		Normal	
B1x	1	(untitled)			60.00						Normal	
C1	1	(untitled)			150.00	✓	Sum of lanes	1800	✓		Normal	
C1x	1	(untitled)			150.00						Normal	
D1	1	(untitled)			60.00	✓	Sum of lanes	1800	✓		Normal	
D1x	1	(untitled)			60.00						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A1	1	1	(untitled)			1800
A1x	1	1	(untitled)			
B1	1	1	(untitled)			1800
B1x	1	1	(untitled)			
C1	1	1	(untitled)			1800
C1x	1	1	(untitled)			
D1	1	1	(untitled)			1800
D1x	1	1	(untitled)			

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	1	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	1	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
A1	1	600	600
A1x	1	777	777
B1	1	47	47
B1x	1	19	19
C1	1	726	726
C1x	1	580	580
D1	1	9	9
D1x	1	6	6

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
A1	1	1	A	
B1	1	1	C	
C1	1	1	A	
D1	1	1	B	

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A1	1	18.00	30.00
B1	1	7.20	30.00
C1	1	18.00	30.00
D1	1	7.20	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A1x	1	1	B1/1	A1x/1	18.00	30.00	✓	Offside	50.00
B1x	1	1	A1/1	B1x/1	7.20	30.00	✓	Nearside	25.00
C1x	1	1	B1/1	C1x/1	18.00	30.00	✓	Nearside	25.00
D1x	1	1	C1/1	D1x/1	7.20	30.00	✓	Nearside	35.00
A1x	1	2	D1/1	A1x/1	18.00	30.00	✓	Nearside	30.00
B1x	1	2	D1/1	B1x/1	7.20	30.00	✓	Straight	Straight Movement
C1x	1	2	D1/1	C1x/1	18.00	30.00	✓	Offside	50.00
D1x	1	2	B1/1	D1x/1	7.20	30.00	✓	Straight	Straight Movement
A1x	1	3	C1/1	A1x/1	18.00	30.00	✓	Straight	Straight Movement
B1x	1	3	C1/1	B1x/1	7.20	30.00	✓	Offside	55.00
C1x	1	3	A1/1	C1x/1	18.00	30.00	✓	Straight	Straight Movement
D1x	1	3	A1/1	D1x/1	7.20	30.00	✓	Offside	65.00

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	6.00	4.00	5.40
2	(untitled)		1		Farside	10.00	6.67	5.40
3	(untitled)		1		Farside	6.00	4.00	5.40
4	(untitled)		1		Farside	10.00	6.67	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	D	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

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Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	✓	Path Equalisation			✓			✓	1.25				

Normal Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	2	724	0	0	0	0	0
	2	3	0	6	0	0	0	0	0
	3	577	4	0	19	0	0	0	0
	4	0	0	47	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	20	20	0
	6	0	0	0	0	20	0	0	20
	7	0	0	0	0	20	0	0	20
	8	0	0	0	0	0	20	20	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C1/1	C1x/1	#0000FF
	2	(untitled)	D1/1	D1x/1	#FF0000
	3	(untitled)	A1/1	A1x/1	#00FF00
	4	(untitled)	B1/1	B1x/1	#FFFF00
	5	(untitled)	3:2E, 4:1E	3:2X, 4:1X	#00FFFF
	6	(untitled)	3:1E, 2:2E	3:1X, 2:2X	#FF00FF
	7	(untitled)	4:2E, 1:1E	4:2X, 1:1X	#008000
	8	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#FFA500

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	1		1	2	C1/1, D1x/1	Normal	2
	2		1	3	C1/1, A1x/1	Normal	724
	4		2	3	D1/1, A1x/1	Normal	6
	5		2	4	D1/1, B1x/1	Normal	0
	6		2	1	D1/1, C1x/1	Normal	3
	7		3	4	A1/1, B1x/1	Normal	19
	8		3	1	A1/1, C1x/1	Normal	577
	10		4	2	B1/1, D1x/1	Normal	0
	11		4	3	B1/1, A1x/1	Normal	47
	12		4	1	B1/1, C1x/1	Normal	0
	21		3	2	A1/1, D1x/1	Normal	4
	22		1	4	C1/1, B1x/1	Normal	0

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	13		5	6	3:2E, 3:1X	Normal	20
	14		6	5	3:1E, 3:2X	Normal	20
	15		6	8	2:2E, 2:1X	Normal	20
	16		8	6	2:1E, 2:2X	Normal	20
	17		5	7	4:1E, 4:2X	Normal	20
	18		7	5	4:2E, 4:1X	Normal	20
	19		7	8	1:1E, 1:2X	Normal	20
	20		8	7	1:2E, 1:1X	Normal	20

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)	Minimum possible cycle time (s)
1	AM		1	Manual	120	115

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Absolute

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	60	100	0	0	Traffic	
	B	(untitled)	7	10	0	0	Traffic	
	C	(untitled)	15	20	0	0	Traffic	
	D	(untitled)	5	5	0	0	Pedestrian	1

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Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)	Run every N cycles	Probability of running (%)
1	1	B	1	1	100
	2	C	1	1	100
	3	D	1	1	100
	4	A	1	1	100

Losing / Gaining Phase Delays

Controller Stream	Delay	Type	Phase	From stage	To stage	Relative delay	Absolute delay
1	1	Gaining	D	4	1	5	12
	2	Losing	D	1	2	3	
	3	Gaining	C	1	2	0	5

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)	Single	1, 2, 3, 4	15, 39, 51, 1	115	
	2	(untitled)	Single	1, 2, 4, 3	8, 23, 101, 113	115	
	3	(untitled)	Single	1, 3, 2, 4	8, 21, 36, 113	115	
	4	(untitled)	Single	1, 3, 4, 2	8, 21, 99, 113	115	
	5	(untitled)	Single	1, 4, 2, 3	8, 86, 101, 113	115	
	6	(untitled)	Single	1, 4, 3, 2	8, 86, 99, 113	115	

Intergreen Matrix for Controller Stream 1

		To			
		A	B	C	D
From	A		7	7	7
	B	7		7	7
	C	7	7		7
	D	7	7	7	

Banned Stage transitions for Controller Stream 1

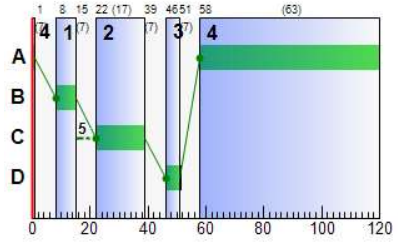
		To			
		1	2	3	4
From	1				
	2				
	3				
	4				

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A1	1	1	1	A	58	1	63
B1	1	1	1	C	22	39	17
C1	1	1	1	A	58	1	63
D1	1	1	1	B	8	15	7

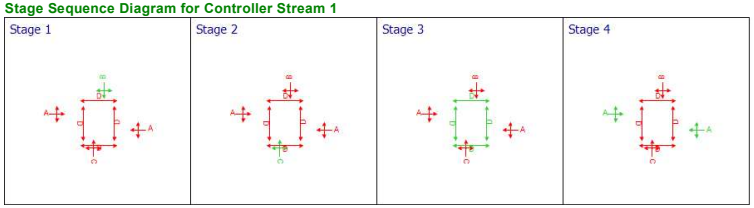
Phase Timings Diagram

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A1	1	63	44	600	1800	63	22.71	14.35	55.01	53.74	5.29	59.03
	A1x	1	0	Unrestricted	777	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B1	1	17	417	47	1800	17	45.95	1.38	13.19	8.52	0.51	9.03
	B1x	1	0	Unrestricted	19	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C1	1	76	19	726	1800	63	27.62	19.91	76.32	79.11	7.33	86.44
	C1x	1	0	Unrestricted	580	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D1	1	8	1100	9	1800	7	53.95	0.28	2.71	1.92	0.11	2.02
	D1x	1	0	Unrestricted	6	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00

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Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow (PCU/hr)	Calculated capacity (PCU/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effec gree (pe cycl
08:00-09:00	A1	1	600	600	0		1800	960	63		44	0.00	63	64
	A1x	1	777	777	0		Unrestricted	Unrestricted	0		Unrestricted	0.74	120	12
	B1	1	47	47	0		1800	270	17		417	0.00	17	18
	B1x	1	19	19	0		Unrestricted	Unrestricted	0		Unrestricted	0.90	120	12
	C1	1	726	726	0		1800	960	76		19	0.00	63	64
	C1x	1	580	580	0		Unrestricted	Unrestricted	0		Unrestricted	0.85	120	12
	D1	1	9	9	0		1800	120	8		1100	0.00	7	8
	D1x	1	6	6	0		Unrestricted	Unrestricted	0		Unrestricted	0.90	120	12

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A1	1	18.00	22.71	3.27	0.52	53.74	53.74	70.38	406.82	15.43	5.29	5.29
	A1x	1	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B1	1	7.20	45.95	0.58	0.02	8.52	8.52	86.85	40.27	0.55	0.51	0.51
	B1x	1	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C1	1	18.00	27.62	4.42	1.15	79.11	79.11	80.56	550.67	34.22	7.33	7.33
	C1x	1	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D1	1	7.20	53.95	0.13	0.00	1.92	1.92	93.36	8.31	0.09	0.11	0.11
	D1x	1	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Average storage excess queue (PCU)	Average limit excess queue (PCU)	Excess queue penalty (£ per hr)	Mean end of green queue (PCU)	Mean end of red queue (PCU)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A1	1	0.00	14.35	26.09	55.01	0.00	0.00	0.00	0.52	9.85	0.00	0.00	0.00	
	A1x	1	0.00	0.00	26.09	0.00	0.00	0.00	0.00			20.00	0.00	20.00	
	B1	1	0.00	1.38	10.43	13.19	0.00	0.00	0.00	0.02	1.35	15.00	0.00	15.00	
	B1x	1	0.00	0.00	10.43	0.00	0.00	0.00	0.00			120.00	0.00	120.00	
	C1	1	0.00	19.91	26.09	76.32	0.00	0.00	0.00	1.15	12.45	0.00	0.00	0.00	
	C1x	1	0.00	0.00	26.09	0.00	0.00	0.00	0.00			42.00	0.00	42.00	
	D1	1	0.00	0.28	10.43	2.71	0.00	0.00	0.00	0.00	0.28	7.00	0.00	7.00	
	D1x	1	0.00	0.00	10.43	0.00	0.00	0.00	0.00			120.00	0.00	120.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A1	1	90.00	6.78	13.27	40.71
	A1x	1	116.55	3.89	30.00	18.00
	B1	1	2.82	0.69	4.06	53.15
	B1x	1	1.14	0.04	30.00	7.20
	C1	1	108.90	9.20	11.84	45.62
	C1x	1	87.00	2.90	30.00	18.00
	D1	1	0.54	0.15	3.53	61.15
	D1x	1	0.36	0.01	30.00	7.20

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (PCU)	Mean End of Green Queue EoTS (PCU)	Mean End of Red Queue EoTS (PCU)	PCU Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A1	1	0.00	0.00	✓	14.35	0.52	9.85	1.00	0.00	59.03	59.03
	A1x	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	B1	1	0.00	0.00	✓	1.38	0.02	1.35	1.00	0.00	9.03	9.03
	B1x	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	C1	1	0.00	0.00	✓	19.92	1.16	12.46	1.00	0.00	86.44	86.44
	C1x	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	D1	1	0.00	0.00	✓	0.28	0.00	0.28	1.00	0.00	2.02	2.02
	D1x	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	(ALL)	(ALL)	4	20	11000	5	54.63	0.63	4.31	4.31

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effec gree (pe cycl
08:00-09:00	(ALL)	(ALL)	20	20	0		11000	550	4		2375	0.00	5	6

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	5.00	54.63	0.30	0.00	4.31	4.31
		2	5.00	54.63	0.30	0.00	4.31	4.31
	2	1	7.67	54.63	0.30	0.00	4.31	4.31
		2	7.67	54.63	0.30	0.00	4.31	4.31
	3	1	5.00	54.63	0.30	0.00	4.31	4.31
		2	5.00	54.63	0.30	0.00	4.31	4.31
	4	1	7.67	54.63	0.30	0.00	4.31	4.31
		2	7.67	54.63	0.30	0.00	4.31	4.31

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	(ALL)	(ALL)	0.63	10.00	6.33	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	0.14	0.33	0.42	59.63
		2	0.14	0.33	0.42	59.63
	2	1	0.22	0.35	0.64	62.29
		2	0.22	0.35	0.64	62.29
	3	1	0.14	0.33	0.42	59.63
		2	0.14	0.33	0.42	59.63
	4	1	0.22	0.35	0.64	62.29
		2	0.22	0.35	0.64	62.29

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Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
08:00-09:00	(ALL)	(ALL)	0.00	0.00	0.63	1.00	0.00	4.31	4.31

Collections

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	52.8	63.6	0.0	0.0	0.0	0.0	0.0
	2	79.1	0.0	79.1	0.0	0.0	0.0	0.0	0.0
	3	58.7	47.9	0.0	47.9	0.0	0.0	0.0	0.0
	4	0.0	0.0	71.1	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	59.6	62.3	0.0
	6	0.0	0.0	0.0	0.0	59.6	0.0	0.0	62.3
	7	0.0	0.0	0.0	0.0	62.3	0.0	0.0	59.6
	8	0.0	0.0	0.0	0.0	0.0	62.3	59.6	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Normal journey dist (m)	Bus journeydist (m)	Tram journey dist (m)	Pedestrian journey dist (m)	Calculated Total Flow (PCU/hr)	Avg journey time (s)	Avg journey dist (m)
1	1	2	2		52.82		210.00	0.00	0.00	0.00	2	52.82	210.00
2	1	3	724		63.62		300.00	0.00	0.00	0.00	724	63.62	300.00
4	2	3	6		79.15		210.00	0.00	0.00	0.00	6	79.15	210.00
5	2	4	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00
6	2	1	3		79.15		210.00	0.00	0.00	0.00	3	79.15	210.00
7	3	4	19		47.91		210.00	0.00	0.00	0.00	19	47.91	210.00
8	3	1	577		58.71		300.00	0.00	0.00	0.00	577	58.71	300.00
10	4	2	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00
11	4	3	47		71.15		210.00	0.00	0.00	0.00	47	71.15	210.00
12	4	1	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00
13	5	6		20		59.63	7.00	7.00	7.00	7.00	20	59.63	7.00
14	6	5		20		59.63	7.00	7.00	7.00	7.00	20	59.63	7.00
15	6	8		20		62.29	11.00	11.00	11.00	11.00	20	62.29	11.00
16	8	6		20		62.29	11.00	11.00	11.00	11.00	20	62.29	11.00
17	5	7		20		62.29	11.00	11.00	11.00	11.00	20	62.29	11.00
18	7	5		20		62.29	11.00	11.00	11.00	11.00	20	62.29	11.00
19	7	8		20		59.63	7.00	7.00	7.00	7.00	20	59.63	7.00
20	8	7		20		59.63	7.00	7.00	7.00	7.00	20	59.63	7.00
21	3	2	4		47.91		210.00	0.00	0.00	0.00	4	47.91	210.00
22	1	4	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES	
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (PCU)	Me en of r que (PC
A1	1	(untitled)	1	1	A	600	1800	63	0.00	63	44	40.71	22.71	70.38	14.35	9.
A1x	1	(untitled)				777	Unrestricted	120	20.00	0	Unrestricted	18.00	0.00	0.00	0.00	
B1	1	(untitled)	1	1	C	47	1800	17	15.00	17	417	53.15	45.95	86.85	1.38	1.
B1x	1	(untitled)				19	Unrestricted	120	120.00	0	Unrestricted	7.20	0.00	0.00	0.00	
C1	1	(untitled)	1	1	A	726	1800	63	0.00	76	19	45.62	27.62	80.56	19.91	12.
C1x	1	(untitled)				580	Unrestricted	120	42.00	0	Unrestricted	18.00	0.00	0.00	0.00	
D1	1	(untitled)	1	1	B	9	1800	7	7.00	8	1100	61.15	53.95	93.36	0.28	0.
D1x	1	(untitled)				6	Unrestricted	120	120.00	0	Unrestricted	7.20	0.00	0.00	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)	1	1	D	20	11000	5	4	2375	59.63	54.63	0.63	100	0
	2	(untitled)	1	1	D	20	11000	5	4	2375	59.63	54.63	0.63	100	0
2	1	(untitled)	1	1	D	20	11000	5	4	2375	62.29	54.63	0.63	100	0
	2	(untitled)	1	1	D	20	11000	5	4	2375	62.29	54.63	0.63	100	0
3	1	(untitled)	1	1	D	20	11000	5	4	2375	59.63	54.63	0.63	100	0
	2	(untitled)	1	1	D	20	11000	5	4	2375	59.63	54.63	0.63	100	0
4	1	(untitled)	1	1	D	20	11000	5	4	2375	62.29	54.63	0.63	100	0
	2	(untitled)	1	1	D	20	11000	5	4	2375	62.29	54.63	0.63	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	407.31	23.67	17.21	8.40	1.69	143.27	13.25	0.00	156.52
Bus									
Tram									
Pedestrians	1.44	2.71	0.53	2.43	0.00	34.47	0.00	0.00	34.47
TOTAL	408.75	26.38	15.50	10.82	1.69	177.75	13.25	0.00	190.99

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

TRL THE FUTURE OF TRANSPORT
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A1 - AM Peak Hour
D3 - 2027 DO SOMETHING, AM

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item wi wors unsignal PRC
1	05/03/2024 13:53:50	05/03/2024 13:53:50	0.77	08:00	120	262.11	17.27	80.37	B1/1	0	0	B1/1	D1x/

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set(s)	Specific Demand Set (s)	Optimise specific Demand Set(s)	Demand Set(s) to optimise	Include in report	Locked
AM Peak Hour			✓	D1,D2,D3,D4,D5,D6,D7	✓	D7	✓	

Demand Set Details

Scenario name	Time Period name	Description	Composite	Demand sets	Start time (HH:mm)	Locked	Run automatically
2027 DO SOMETHING	AM	(untitled)			08:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120	115	115		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)	Missing stage transition options
10000.00	10000.00	10000.00	2	Assume banned

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from traffic model	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	90	100	✓	✓			Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	✓

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy (%)	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Standard accuracy Hill Climb	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A1	(untitled)		1
A1x	(untitled)		
B1	(untitled)		1
B1x	(untitled)		
C1	(untitled)		1
C1x	(untitled)		
D1	(untitled)		1
D1x	(untitled)		

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A1	1	(untitled)			150.00	✓	Sum of lanes	1800	✓		Normal	
A1x	1	(untitled)			150.00						Normal	
B1	1	(untitled)			60.00	✓	Sum of lanes	1800	✓		Normal	
B1x	1	(untitled)			60.00						Normal	
C1	1	(untitled)			150.00	✓	Sum of lanes	1800	✓		Normal	
C1x	1	(untitled)			150.00						Normal	
D1	1	(untitled)			60.00	✓	Sum of lanes	1800	✓		Normal	
D1x	1	(untitled)			60.00						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A1	1	1	(untitled)			1800
A1x	1	1	(untitled)			
B1	1	1	(untitled)			1800
B1x	1	1	(untitled)			
C1	1	1	(untitled)			1800
C1x	1	1	(untitled)			
D1	1	1	(untitled)			1800
D1x	1	1	(untitled)			

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	1	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	1	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
A1	1	651	651
A1x	1	913	913
B1	1	217	217
B1x	1	83	83
C1	1	739	739
C1x	1	614	614
D1	1	9	9
D1x	1	6	6

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
A1	1	1	A	
B1	1	1	C	
C1	1	1	A	
D1	1	1	B	

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A1	1	18.00	30.00
B1	1	7.20	30.00
C1	1	18.00	30.00
D1	1	7.20	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A1x	1	1	B1/1	A1x/1	18.00	30.00	✓	Offside	50.00
B1x	1	1	A1/1	B1x/1	7.20	30.00	✓	Nearside	25.00
C1x	1	1	B1/1	C1x/1	18.00	30.00	✓	Nearside	25.00
D1x	1	1	C1/1	D1x/1	7.20	30.00	✓	Nearside	35.00
A1x	1	2	D1/1	A1x/1	18.00	30.00	✓	Nearside	30.00
B1x	1	2	D1/1	B1x/1	7.20	30.00	✓	Straight	Straight Movement
C1x	1	2	D1/1	C1x/1	18.00	30.00	✓	Offside	50.00
D1x	1	2	B1/1	D1x/1	7.20	30.00	✓	Straight	Straight Movement
A1x	1	3	C1/1	A1x/1	18.00	30.00	✓	Straight	Straight Movement
B1x	1	3	C1/1	B1x/1	7.20	30.00	✓	Offside	55.00
C1x	1	3	A1/1	C1x/1	18.00	30.00	✓	Straight	Straight Movement
D1x	1	3	A1/1	D1x/1	7.20	30.00	✓	Offside	65.00

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	6.00	4.00	5.40
2	(untitled)		1		Farside	10.00	6.67	5.40
3	(untitled)		1		Farside	6.00	4.00	5.40
4	(untitled)		1		Farside	10.00	6.67	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	D	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

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Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	✓	Path Equalisation			✓			✓	1.25				

Normal Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	2	724	13	0	0	0	0
	2	3	0	6	0	0	0	0	0
	3	577	4	0	70	0	0	0	0
	4	34	0	183	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	20	20	0
	6	0	0	0	0	20	0	0	20
	7	0	0	0	0	20	0	0	20
	8	0	0	0	0	0	20	20	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C1/1	C1x/1	#0000FF
	2	(untitled)	D1/1	D1x/1	#FF0000
	3	(untitled)	A1/1	A1x/1	#00FF00
	4	(untitled)	B1/1	B1x/1	#FFFF00
	5	(untitled)	3:2E, 4:1E	3:2X, 4:1X	#00FFFF
	6	(untitled)	3:1E, 2:2E	3:1X, 2:2X	#FF00FF
	7	(untitled)	4:2E, 1:1E	4:2X, 1:1X	#008000
	8	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#FFA500

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	1		1	2	C1/1, D1x/1	Normal	2
	2		1	3	C1/1, A1x/1	Normal	724
	4		2	3	D1/1, A1x/1	Normal	6
	5		2	4	D1/1, B1x/1	Normal	0
	6		2	1	D1/1, C1x/1	Normal	3
	7		3	4	A1/1, B1x/1	Normal	70
	8		3	1	A1/1, C1x/1	Normal	577
	10		4	2	B1/1, D1x/1	Normal	0
	11		4	3	B1/1, A1x/1	Normal	183
	12		4	1	B1/1, C1x/1	Normal	34
	21		3	2	A1/1, D1x/1	Normal	4
	22		1	4	C1/1, B1x/1	Normal	13

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	13		5	6	3:2E, 3:1X	Normal	20
	14		6	5	3:1E, 3:2X	Normal	20
	15		6	8	2:2E, 2:1X	Normal	20
	16		8	6	2:1E, 2:2X	Normal	20
	17		5	7	4:1E, 4:2X	Normal	20
	18		7	5	4:2E, 4:1X	Normal	20
	19		7	8	1:1E, 1:2X	Normal	20
	20		8	7	1:2E, 1:1X	Normal	20

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)	Minimum possible cycle time (s)
1	AM		1	Manual	120	115

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Absolute

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	60	100	0	0	Traffic	
	B	(untitled)	7	10	0	0	Traffic	
	C	(untitled)	15	20	0	0	Traffic	
	D	(untitled)	5	5	0	0	Pedestrian	1

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Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)	Run every N cycles	Probability of running (%)
1	1	B	1	1	100
	2	C	1	1	100
	3	D	1	1	100
	4	A	1	1	100

Losing / Gaining Phase Delays

Controller Stream	Delay	Type	Phase	From stage	To stage	Relative delay	Absolute delay
1	1	Gaining	D	4	1	5	12
	2	Losing	D	1	2	3	
	3	Gaining	C	1	2	0	5

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)	Single	1, 2, 3, 4	15, 39, 51, 1	115	
	2	(untitled)	Single	1, 2, 4, 3	8, 23, 101, 113	115	
	3	(untitled)	Single	1, 3, 2, 4	8, 21, 36, 113	115	
	4	(untitled)	Single	1, 3, 4, 2	8, 21, 99, 113	115	
	5	(untitled)	Single	1, 4, 2, 3	8, 86, 101, 113	115	
	6	(untitled)	Single	1, 4, 3, 2	8, 86, 99, 113	115	

Intergreen Matrix for Controller Stream 1

		To			
		A	B	C	D
From	A		7	7	7
	B	7		7	7
	C	7	7		7
	D	7	7	7	

Banned Stage transitions for Controller Stream 1

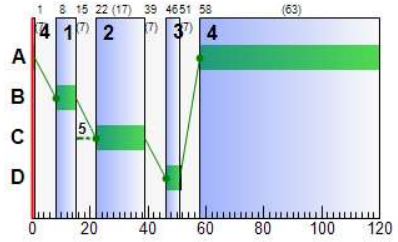
		To			
		1	2	3	4
From	1				
	2				
	3				
	4				

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A1	1	1	1	A	58	1	63
B1	1	1	1	C	22	39	17
C1	1	1	1	A	58	1	63
D1	1	1	1	B	8	15	7

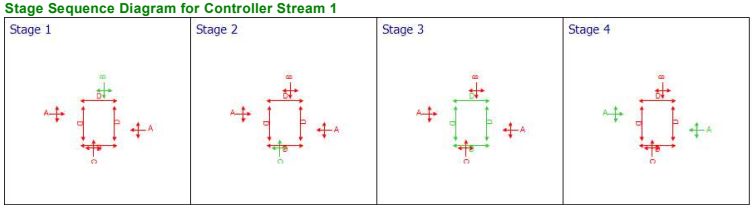
Phase Timings Diagram

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A1	1	68	33	651	1800	63	24.39	16.44	63.02	62.62	6.05	68.67
	A1x	1	0	Unrestricted	913	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B1	1	80	12	217	1800	17	74.40	8.45	80.93	63.68	3.12	66.80
	B1x	1	0	Unrestricted	83	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C1	1	77	17	739	1800	63	28.32	20.56	78.81	82.56	7.58	90.14
	C1x	1	0	Unrestricted	614	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D1	1	8	1100	9	1800	7	53.95	0.28	2.71	1.92	0.11	2.02
	D1x	1	0	Unrestricted	6	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow (PCU/hr)	Calculated capacity (PCU/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effec gree (pe cycl
08:00-09:00	A1	1	651	651	0		1800	960	68		33	0.00	63	64
	A1x	1	913	913	0		Unrestricted	Unrestricted	0		Unrestricted	0.57	120	12
	B1	1	217	217	0		1800	270	80		12	0.00	17	18
	B1x	1	83	83	0		Unrestricted	Unrestricted	0		Unrestricted	0.90	120	12
	C1	1	739	739	0		1800	960	77		17	0.00	63	64
	C1x	1	614	614	0		Unrestricted	Unrestricted	0		Unrestricted	0.76	120	12
	D1	1	9	9	0		1800	120	8		1100	0.00	7	8
	D1x	1	6	6	0		Unrestricted	Unrestricted	0		Unrestricted	0.90	120	12

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A1	1	18.00	24.39	3.70	0.71	62.62	62.62	74.17	461.76	21.07	6.05	6.05
	A1x	1	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B1	1	7.20	74.40	2.97	1.51	63.68	63.68	114.70	205.79	43.11	3.12	3.12
	B1x	1	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C1	1	18.00	28.32	4.55	1.26	82.56	82.56	81.79	567.01	37.43	7.58	7.58
	C1x	1	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D1	1	7.20	53.95	0.13	0.00	1.92	1.92	93.36	8.31	0.09	0.11	0.11
	D1x	1	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Average storage excess queue (PCU)	Average limit excess queue (PCU)	Excess queue penalty (£ per hr)	Mean end of green queue (PCU)	Mean end of red queue (PCU)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A1	1	0.00	16.44	26.09	63.02	0.00	0.00	0.00	0.71	10.83	0.00	0.00	0.00	
	A1x	1	0.00	0.00	26.09	0.00	0.00	0.00	0.00			8.00	0.00	8.00	
	B1	1	0.00	8.45	10.43	80.93	0.00	0.00	0.00	1.51	7.66	0.00	0.00	0.00	
	B1x	1	0.00	0.00	10.43	0.00	0.00	0.00	0.00			56.00	0.00	56.00	
	C1	1	0.00	20.56	26.09	78.81	0.00	0.00	0.00	1.26	12.76	0.00	0.00	0.00	
	C1x	1	0.00	0.00	26.09	0.00	0.00	0.00	0.00			20.00	0.00	20.00	
	D1	1	0.00	0.28	10.43	2.71	0.00	0.00	0.00	0.00	0.28	7.00	0.00	7.00	
	D1x	1	0.00	0.00	10.43	0.00	0.00	0.00	0.00			120.00	0.00	120.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A1	1	97.65	7.66	12.74	42.39
	A1x	1	136.95	4.57	30.00	18.00
	B1	1	13.02	4.92	2.65	81.60
	B1x	1	4.98	0.17	30.00	7.20
	C1	1	110.85	9.51	11.66	46.32
	C1x	1	92.10	3.07	30.00	18.00
	D1	1	0.54	0.15	3.53	61.15
	D1x	1	0.36	0.01	30.00	7.20

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (PCU)	Mean End of Green Queue EoTS (PCU)	Mean End of Red Queue EoTS (PCU)	PCU Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A1	1	0.00	0.00	✓	16.44	0.71	10.84	1.00	0.00	68.67	68.67
	A1x	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	B1	1	0.00	0.00	✓	8.51	1.57	7.72	1.00	0.00	66.80	66.80
	B1x	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	C1	1	0.00	0.00	✓	20.57	1.28	12.77	1.00	0.00	90.14	90.14
	C1x	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	D1	1	0.00	0.00	✓	0.28	0.00	0.28	1.00	0.00	2.02	2.02
	D1x	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	(ALL)	(ALL)	4	20	11000	5	54.63	0.63	4.31	4.31

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effec gree (pe cycl
08:00-09:00	(ALL)	(ALL)	20	20	0		11000	550	4		2375	0.00	5	6

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)
	1	1	5.00	54.63	0.30	0.00	4.31	4.31
		2	5.00	54.63	0.30	0.00	4.31	4.31
	2	1	7.67	54.63	0.30	0.00	4.31	4.31
		2	7.67	54.63	0.30	0.00	4.31	4.31
	3	1						
		2	5.00	54.63	0.30	0.00	4.31	4.31
	4	1	7.67	54.63	0.30	0.00	4.31	4.31
		2	7.67	54.63	0.30	0.00	4.31	4.31

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	(ALL)	(ALL)	0.63	10.00	6.33	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	0.14	0.33	0.42	59.63
		2	0.14	0.33	0.42	59.63
	2	1	0.22	0.35	0.64	62.29
		2	0.22	0.35	0.64	62.29
	3	1	0.14	0.33	0.42	59.63
		2	0.14	0.33	0.42	59.63
	4	1	0.22	0.35	0.64	62.29
		2	0.22	0.35	0.64	62.29

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Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
08:00-09:00	(ALL)	(ALL)	0.00	0.00	0.63	1.00	0.00	4.31	4.31

Collections

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	53.5	64.3	53.5	0.0	0.0	0.0	0.0
	2	79.1	0.0	79.1	0.0	0.0	0.0	0.0	0.0
	3	60.4	49.6	0.0	49.6	0.0	0.0	0.0	0.0
	4	99.6	0.0	99.6	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	59.6	62.3	0.0
	6	0.0	0.0	0.0	0.0	59.6	0.0	0.0	62.3
	7	0.0	0.0	0.0	0.0	62.3	0.0	0.0	59.6
	8	0.0	0.0	0.0	0.0	0.0	62.3	59.6	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Normal journey dist (m)	Bus journeydist (m)	Tram journey dist (m)	Pedestrian journey dist (m)	Calculated Total Flow (PCU/hr)	Avg journey time (s)	Avg journey dist (m)
1	1	2	2		53.52		210.00	0.00	0.00	0.00	2	53.52	210.00
2	1	3	724		64.32		300.00	0.00	0.00	0.00	724	64.32	300.00
4	2	3	6		79.15		210.00	0.00	0.00	0.00	6	79.15	210.00
5	2	4	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00
6	2	1	3		79.15		210.00	0.00	0.00	0.00	3	79.15	210.00
7	3	4	70		49.59		210.00	0.00	0.00	0.00	70	49.59	210.00
8	3	1	577		60.39		300.00	0.00	0.00	0.00	577	60.39	300.00
10	4	2	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00
11	4	3	183		99.60		210.00	0.00	0.00	0.00	183	99.60	210.00
12	4	1	34		99.60		210.00	0.00	0.00	0.00	34	99.60	210.00
13	5	6		20		59.63	7.00	7.00	7.00	7.00	20	59.63	7.00
14	6	5		20		59.63	7.00	7.00	7.00	7.00	20	59.63	7.00
15	6	8		20		62.29	11.00	11.00	11.00	11.00	20	62.29	11.00
16	8	6		20		62.29	11.00	11.00	11.00	11.00	20	62.29	11.00
17	5	7		20		62.29	11.00	11.00	11.00	11.00	20	62.29	11.00
18	7	5		20		62.29	11.00	11.00	11.00	11.00	20	62.29	11.00
19	7	8		20		59.63	7.00	7.00	7.00	7.00	20	59.63	7.00
20	8	7		20		59.63	7.00	7.00	7.00	7.00	20	59.63	7.00
21	3	2	4		49.59		210.00	0.00	0.00	0.00	4	49.59	210.00
22	1	4	13		53.52		210.00	0.00	0.00	0.00	13	53.52	210.00

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUE	
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (PCU)	M e of qu (P
A1	1	(untitled)	1	1	A	651	1800	63	0.00	68	33	42.39	24.39	74.17	16.44	10
A1x	1	(untitled)				913	Unrestricted	120	8.00	0	Unrestricted	18.00	0.00	0.00	0.00	
B1	1	(untitled)	1	1	C	217	1800	17	0.00	80	12	81.60	74.40	114.70	8.45	7.
B1x	1	(untitled)				83	Unrestricted	120	56.00	0	Unrestricted	7.20	0.00	0.00	0.00	
C1	1	(untitled)	1	1	A	739	1800	63	0.00	77	17	46.32	28.32	81.79	20.56	12
C1x	1	(untitled)				614	Unrestricted	120	20.00	0	Unrestricted	18.00	0.00	0.00	0.00	
D1	1	(untitled)	1	1	B	9	1800	7	7.00	8	1100	61.15	53.95	93.36	0.28	0.
D1x	1	(untitled)				6	Unrestricted	120	120.00	0	Unrestricted	7.20	0.00	0.00	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)	1	1	D	20	11000	5	4	2375	59.63	54.63	0.63	100	0
	2	(untitled)	1	1	D	20	11000	5	4	2375	59.63	54.63	0.63	100	0
2	1	(untitled)	1	1	D	20	11000	5	4	2375	62.29	54.63	0.63	100	0
	2	(untitled)	1	1	D	20	11000	5	4	2375	62.29	54.63	0.63	100	0
3	1	(untitled)	1	1	D	20	11000	5	4	2375	59.63	54.63	0.63	100	0
	2	(untitled)	1	1	D	20	11000	5	4	2375	59.63	54.63	0.63	100	0
4	1	(untitled)	1	1	D	20	11000	5	4	2375	62.29	54.63	0.63	100	0
	2	(untitled)	1	1	D	20	11000	5	4	2375	62.29	54.63	0.63	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	456.45	30.06	15.19	11.36	3.49	210.78	16.86	0.00	227.64
Bus									
Tram									
Pedestrians	1.44	2.71	0.53	2.43	0.00	34.47	0.00	0.00	34.47
TOTAL	457.89	32.77	13.97	13.78	3.49	245.26	16.86	0.00	262.11

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

TRL THE FUTURE OF TRANSPORT
Generated on 05/03/2024 13:54:54 using TRANSYT 16 (16.0.1.8473)

A1 - AM Peak Hour
D4 - 2032 DO NOTHING, AM

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item wi wors unsignal PRC
1	05/03/2024 13:53:50	05/03/2024 13:53:50	1.00	08:00	120	205.31	13.45	78.65	C1/1	0	0	C1/1	D1x/

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set(s)	Specific Demand Set (s)	Optimise specific Demand Set(s)	Demand Set(s) to optimise	Include in report	Locked
AM Peak Hour			✓	D1,D2,D3,D4,D5,D6,D7	✓	D7	✓	

Demand Set Details

Scenario name	Time Period name	Description	Composite	Demand sets	Start time (HH:mm)	Locked	Run automatically
2032 DO NOTHING	AM	(untitled)			08:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120	115	115		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)	Missing stage transition options
10000.00	10000.00	10000.00	2	Assume banned

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from traffic model	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	90	100	✓	✓			Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	✓

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy (%)	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Standard accuracy Hill Climb	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A1	(untitled)		1
A1x	(untitled)		
B1	(untitled)		1
B1x	(untitled)		
C1	(untitled)		1
C1x	(untitled)		
D1	(untitled)		1
D1x	(untitled)		

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A1	1	(untitled)			150.00	✓	Sum of lanes	1800	✓		Normal	
A1x	1	(untitled)			150.00						Normal	
B1	1	(untitled)			60.00	✓	Sum of lanes	1800	✓		Normal	
B1x	1	(untitled)			60.00						Normal	
C1	1	(untitled)			150.00	✓	Sum of lanes	1800	✓		Normal	
C1x	1	(untitled)			150.00						Normal	
D1	1	(untitled)			60.00	✓	Sum of lanes	1800	✓		Normal	
D1x	1	(untitled)			60.00						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A1	1	1	(untitled)			1800
A1x	1	1	(untitled)			
B1	1	1	(untitled)			1800
B1x	1	1	(untitled)			
C1	1	1	(untitled)			1800
C1x	1	1	(untitled)			
D1	1	1	(untitled)			1800
D1x	1	1	(untitled)			

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	1	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	1	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
A1	1	631	631
A1x	1	806	806
B1	1	47	47
B1x	1	19	19
C1	1	755	755
C1x	1	611	611
D1	1	9	9
D1x	1	6	6

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
A1	1	1	A	
B1	1	1	C	
C1	1	1	A	
D1	1	1	B	

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A1	1	18.00	30.00
B1	1	7.20	30.00
C1	1	18.00	30.00
D1	1	7.20	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A1x	1	1	B1/1	A1x/1	18.00	30.00	✓	Offside	50.00
B1x	1	1	A1/1	B1x/1	7.20	30.00	✓	Nearside	25.00
C1x	1	1	B1/1	C1x/1	18.00	30.00	✓	Nearside	25.00
D1x	1	1	C1/1	D1x/1	7.20	30.00	✓	Nearside	35.00
A1x	1	2	D1/1	A1x/1	18.00	30.00	✓	Nearside	30.00
B1x	1	2	D1/1	B1x/1	7.20	30.00	✓	Straight	Straight Movement
C1x	1	2	D1/1	C1x/1	18.00	30.00	✓	Offside	50.00
D1x	1	2	B1/1	D1x/1	7.20	30.00	✓	Straight	Straight Movement
A1x	1	3	C1/1	A1x/1	18.00	30.00	✓	Straight	Straight Movement
B1x	1	3	C1/1	B1x/1	7.20	30.00	✓	Offside	55.00
C1x	1	3	A1/1	C1x/1	18.00	30.00	✓	Straight	Straight Movement
D1x	1	3	A1/1	D1x/1	7.20	30.00	✓	Offside	65.00

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	6.00	4.00	5.40
2	(untitled)		1		Farside	10.00	6.67	5.40
3	(untitled)		1		Farside	6.00	4.00	5.40
4	(untitled)		1		Farside	10.00	6.67	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	D	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

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Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	✓	Path Equalisation			✓			✓	1.25				

Normal Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	2	753	0	0	0	0	0
	2	3	0	6	0	0	0	0	0
	3	608	4	0	19	0	0	0	0
	4	0	0	47	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	20	20	0
	6	0	0	0	0	20	0	0	20
	7	0	0	0	0	20	0	0	20
	8	0	0	0	0	0	20	20	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C1/1	C1x/1	#0000FF
	2	(untitled)	D1/1	D1x/1	#FF0000
	3	(untitled)	A1/1	A1x/1	#00FF00
	4	(untitled)	B1/1	B1x/1	#FFFF00
	5	(untitled)	3:2E, 4:1E	3:2X, 4:1X	#00FFFF
	6	(untitled)	3:1E, 2:2E	3:1X, 2:2X	#FF00FF
	7	(untitled)	4:2E, 1:1E	4:2X, 1:1X	#008000
	8	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#FFA500

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	1		1	2	C1/1, D1x/1	Normal	2
	2		1	3	C1/1, A1x/1	Normal	753
	4		2	3	D1/1, A1x/1	Normal	6
	5		2	4	D1/1, B1x/1	Normal	0
	6		2	1	D1/1, C1x/1	Normal	3
	7		3	4	A1/1, B1x/1	Normal	19
	8		3	1	A1/1, C1x/1	Normal	608
	10		4	2	B1/1, D1x/1	Normal	0
	11		4	3	B1/1, A1x/1	Normal	47
	12		4	1	B1/1, C1x/1	Normal	0
	21		3	2	A1/1, D1x/1	Normal	4
	22		1	4	C1/1, B1x/1	Normal	0

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	13		5	6	3:2E, 3:1X	Normal	20
	14		6	5	3:1E, 3:2X	Normal	20
	15		6	8	2:2E, 2:1X	Normal	20
	16		8	6	2:1E, 2:2X	Normal	20
	17		5	7	4:1E, 4:2X	Normal	20
	18		7	5	4:2E, 4:1X	Normal	20
	19		7	8	1:1E, 1:2X	Normal	20
	20		8	7	1:2E, 1:1X	Normal	20

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)	Minimum possible cycle time (s)
1	AM		1	Manual	120	115

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Absolute

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	60	100	0	0	Traffic	
	B	(untitled)	7	10	0	0	Traffic	
	C	(untitled)	15	20	0	0	Traffic	
	D	(untitled)	5	5	0	0	Pedestrian	1

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Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)	Run every N cycles	Probability of running (%)
1	1	B	1	1	100
	2	C	1	1	100
	3	D	1	1	100
	4	A	1	1	100

Losing / Gaining Phase Delays

Controller Stream	Delay	Type	Phase	From stage	To stage	Relative delay	Absolute delay
1	1	Gaining	D	4	1	5	12
	2	Losing	D	1	2	3	
	3	Gaining	C	1	2	0	5

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)	Single	1, 2, 3, 4	15, 39, 51, 1	115	
	2	(untitled)	Single	1, 2, 4, 3	8, 23, 101, 113	115	
	3	(untitled)	Single	1, 3, 2, 4	8, 21, 36, 113	115	
	4	(untitled)	Single	1, 3, 4, 2	8, 21, 99, 113	115	
	5	(untitled)	Single	1, 4, 2, 3	8, 86, 101, 113	115	
	6	(untitled)	Single	1, 4, 3, 2	8, 86, 99, 113	115	

Intergreen Matrix for Controller Stream 1

		To			
		A	B	C	D
From	A		7	7	7
	B	7		7	7
	C	7	7		7
	D	7	7	7	

Banned Stage transitions for Controller Stream 1

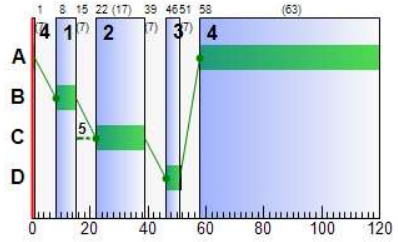
		To			
		1	2	3	4
From	1				
	2				
	3				
	4				

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A1	1	1	1	A	58	1	63
B1	1	1	1	C	22	39	17
C1	1	1	1	A	58	1	63
D1	1	1	1	B	8	15	7

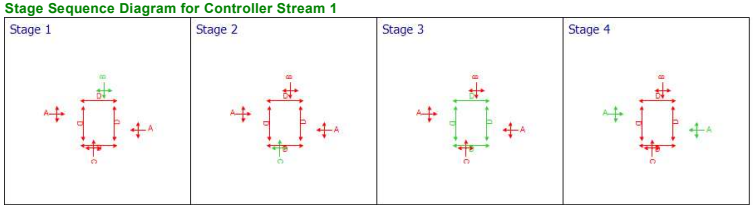
Phase Timings Diagram

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A1	1	66	37	631	1800	63	23.69	15.70	60.18	58.96	5.75	64.71
	A1x	1	0	Unrestricted	806	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B1	1	17	417	47	1800	17	45.95	1.38	13.19	8.52	0.51	9.03
	B1x	1	0	Unrestricted	19	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C1	1	79	14	755	1800	63	29.27	21.55	82.61	87.16	7.91	95.07
	C1x	1	0	Unrestricted	611	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D1	1	8	1100	9	1800	7	53.95	0.28	2.71	1.92	0.11	2.02
	D1x	1	0	Unrestricted	6	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00

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Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow (PCU/hr)	Calculated capacity (PCU/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effec gree (pe cycl
08:00-09:00	A1	1	631	631	0		1800	960	66		37	0.00	63	64
	A1x	1	806	806	0		Unrestricted	Unrestricted	0		Unrestricted	0.74	120	12
	B1	1	47	47	0		1800	270	17		417	0.00	17	18
	B1x	1	19	19	0		Unrestricted	Unrestricted	0		Unrestricted	0.90	120	12
	C1	1	755	755	0		1800	960	79		14	0.00	63	64
	C1x	1	611	611	0		Unrestricted	Unrestricted	0		Unrestricted	0.85	120	12
	D1	1	9	9	0		1800	120	8		1100	0.00	7	8
	D1x	1	6	6	0		Unrestricted	Unrestricted	0		Unrestricted	0.90	120	12

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A1	1	18.00	23.69	3.53	0.63	58.96	58.96	72.64	439.74	18.62	5.75	5.75
	A1x	1	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B1	1	7.20	45.95	0.58	0.02	8.52	8.52	86.85	40.27	0.55	0.51	0.51
	B1x	1	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C1	1	18.00	29.27	4.72	1.42	87.16	87.16	83.55	588.84	41.94	7.91	7.91
	C1x	1	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D1	1	7.20	53.95	0.13	0.00	1.92	1.92	93.36	8.31	0.09	0.11	0.11
	D1x	1	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Average storage excess queue (PCU)	Average limit excess queue (PCU)	Excess queue penalty (£ per hr)	Mean end of green queue (PCU)	Mean end of red queue (PCU)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A1	1	0.00	15.70	26.09	60.18	0.00	0.00	0.00	0.63	10.44	0.00	0.00	0.00	
	A1x	1	0.00	0.00	26.09	0.00	0.00	0.00	0.00			20.00	0.00	20.00	
	B1	1	0.00	1.38	10.43	13.19	0.00	0.00	0.00	0.02	1.35	15.00	0.00	15.00	
	B1x	1	0.00	0.00	10.43	0.00	0.00	0.00	0.00			120.00	0.00	120.00	
	C1	1	0.00	21.55	26.09	82.61	0.00	0.00	0.00	1.42	13.16	0.00	0.00	0.00	
	C1x	1	0.00	0.00	26.09	0.00	0.00	0.00	0.00			42.00	0.00	42.00	
	D1	1	0.00	0.28	10.43	2.71	0.00	0.00	0.00	0.00	0.28	7.00	0.00	7.00	
	D1x	1	0.00	0.00	10.43	0.00	0.00	0.00	0.00			120.00	0.00	120.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A1	1	94.65	7.31	12.95	41.69
	A1x	1	120.90	4.03	30.00	18.00
	B1	1	2.82	0.69	4.06	53.15
	B1x	1	1.14	0.04	30.00	7.20
	C1	1	113.25	9.91	11.42	47.27
	C1x	1	91.65	3.06	30.00	18.00
	D1	1	0.54	0.15	3.53	61.15
	D1x	1	0.36	0.01	30.00	7.20

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (PCU)	Mean End of Green Queue EoTS (PCU)	Mean End of Red Queue EoTS (PCU)	PCU Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A1	1	0.00	0.00	✓	15.70	0.63	10.44	1.00	0.00	64.71	64.71
	A1x	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	B1	1	0.00	0.00	✓	1.38	0.02	1.35	1.00	0.00	9.03	9.03
	B1x	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	C1	1	0.00	0.00	✓	21.57	1.43	13.18	1.00	0.00	95.07	95.07
	C1x	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	D1	1	0.00	0.00	✓	0.28	0.00	0.28	1.00	0.00	2.02	2.02
	D1x	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	(ALL)	(ALL)	4	20	11000	5	54.63	0.63	4.31	4.31

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effec gree (pe cycl
08:00-09:00	(ALL)	(ALL)	20	20	0		11000	550	4		2375	0.00	5	6

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	5.00	54.63	0.30	0.00	4.31	4.31
		2	5.00	54.63	0.30	0.00	4.31	4.31
	2	1	7.67	54.63	0.30	0.00	4.31	4.31
		2	7.67	54.63	0.30	0.00	4.31	4.31
	3	1	5.00	54.63	0.30	0.00	4.31	4.31
		2	5.00	54.63	0.30	0.00	4.31	4.31
	4	1	7.67	54.63	0.30	0.00	4.31	4.31
		2	7.67	54.63	0.30	0.00	4.31	4.31

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	(ALL)	(ALL)	0.63	10.00	6.33	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	0.14	0.33	0.42	59.63
		2	0.14	0.33	0.42	59.63
	2	1	0.22	0.35	0.64	62.29
		2	0.22	0.35	0.64	62.29
	3	1	0.14	0.33	0.42	59.63
		2	0.14	0.33	0.42	59.63
	4	1	0.22	0.35	0.64	62.29
		2	0.22	0.35	0.64	62.29

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Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
08:00-09:00	(ALL)	(ALL)	0.00	0.00	0.63	1.00	0.00	4.31	4.31

Collections

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	54.5	65.3	0.0	0.0	0.0	0.0	0.0
	2	79.1	0.0	79.1	0.0	0.0	0.0	0.0	0.0
	3	59.7	48.9	0.0	48.9	0.0	0.0	0.0	0.0
	4	0.0	0.0	71.1	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	59.6	62.3	0.0
	6	0.0	0.0	0.0	0.0	59.6	0.0	0.0	62.3
	7	0.0	0.0	0.0	0.0	62.3	0.0	0.0	59.6
	8	0.0	0.0	0.0	0.0	0.0	62.3	59.6	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Normal journey dist (m)	Bus journeydist (m)	Tram journey dist (m)	Pedestrian journey dist (m)	Calculated Total Flow (PCU/hr)	Avg journey time (s)	Avg journey dist (m)
1	1	2	2		54.47		210.00	0.00	0.00	0.00	2	54.47	210.00
2	1	3	753		65.27		300.00	0.00	0.00	0.00	753	65.27	300.00
4	2	3	6		79.15		210.00	0.00	0.00	0.00	6	79.15	210.00
5	2	4	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00
6	2	1	3		79.15		210.00	0.00	0.00	0.00	3	79.15	210.00
7	3	4	19		48.89		210.00	0.00	0.00	0.00	19	48.89	210.00
8	3	1	608		59.69		300.00	0.00	0.00	0.00	608	59.69	300.00
10	4	2	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00
11	4	3	47		71.15		210.00	0.00	0.00	0.00	47	71.15	210.00
12	4	1	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00
13	5	6		20		59.63	7.00	7.00	7.00	7.00	20	59.63	7.00
14	6	5		20		59.63	7.00	7.00	7.00	7.00	20	59.63	7.00
15	6	8		20		62.29	11.00	11.00	11.00	11.00	20	62.29	11.00
16	8	6		20		62.29	11.00	11.00	11.00	11.00	20	62.29	11.00
17	5	7		20		62.29	11.00	11.00	11.00	11.00	20	62.29	11.00
18	7	5		20		62.29	11.00	11.00	11.00	11.00	20	62.29	11.00
19	7	8		20		59.63	7.00	7.00	7.00	7.00	20	59.63	7.00
20	8	7		20		59.63	7.00	7.00	7.00	7.00	20	59.63	7.00
21	3	2	4		48.89		210.00	0.00	0.00	0.00	4	48.89	210.00
22	1	4	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES	
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (PCU)	Me en of r que (PC
A1	1	(untitled)	1	1	A	631	1800	63	0.00	66	37	41.69	23.69	72.64	15.70	10.
A1x	1	(untitled)				806	Unrestricted	120	20.00	0	Unrestricted	18.00	0.00	0.00	0.00	
B1	1	(untitled)	1	1	C	47	1800	17	15.00	17	417	53.15	45.95	86.85	1.38	1.
B1x	1	(untitled)				19	Unrestricted	120	120.00	0	Unrestricted	7.20	0.00	0.00	0.00	
C1	1	(untitled)	1	1	A	755	1800	63	0.00	79	14	47.27	29.27	83.55	21.55	13.
C1x	1	(untitled)				611	Unrestricted	120	42.00	0	Unrestricted	18.00	0.00	0.00	0.00	
D1	1	(untitled)	1	1	B	9	1800	7	7.00	8	1100	61.15	53.95	93.36	0.28	0.
D1x	1	(untitled)				6	Unrestricted	120	120.00	0	Unrestricted	7.20	0.00	0.00	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)	1	1	D	20	11000	5	4	2375	59.63	54.63	0.63	100	0
	2	(untitled)	1	1	D	20	11000	5	4	2375	59.63	54.63	0.63	100	0
2	1	(untitled)	1	1	D	20	11000	5	4	2375	62.29	54.63	0.63	100	0
	2	(untitled)	1	1	D	20	11000	5	4	2375	62.29	54.63	0.63	100	0
3	1	(untitled)	1	1	D	20	11000	5	4	2375	59.63	54.63	0.63	100	0
	2	(untitled)	1	1	D	20	11000	5	4	2375	59.63	54.63	0.63	100	0
4	1	(untitled)	1	1	D	20	11000	5	4	2375	62.29	54.63	0.63	100	0
	2	(untitled)	1	1	D	20	11000	5	4	2375	62.29	54.63	0.63	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	425.31	25.20	16.88	8.96	2.06	156.56	14.27	0.00	170.83
Bus									
Tram									
Pedestrians	1.44	2.71	0.53	2.43	0.00	34.47	0.00	0.00	34.47
TOTAL	426.75	27.91	15.29	11.39	2.06	191.03	14.27	0.00	205.31

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

TRL THE FUTURE OF TRANSPORT
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A1 - AM Peak Hour
D5 - 2032 DO SOMETHING, AM

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item wi wors unsignal PRC
1	05/03/2024 13:53:51	05/03/2024 13:53:51	0.13	08:00	120	278.08	18.32	80.37	B1/1	0	0	B1/1	D1x/

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set(s)	Specific Demand Set (s)	Optimise specific Demand Set(s)	Demand Set(s) to optimise	Include in report	Locked
AM Peak Hour			✓	D1,D2,D3,D4,D5,D6,D7	✓	D7	✓	

Demand Set Details

Scenario name	Time Period name	Description	Composite	Demand sets	Start time (HH:mm)	Locked	Run automatically
2032 DO SOMETHING	AM	(untitled)			08:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120	115	115		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)	Missing stage transition options
10000.00	10000.00	10000.00	2	Assume banned

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from traffic model	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	90	100	✓	✓			Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	✓

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy (%)	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Standard accuracy Hill Climb	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A1	(untitled)		1
A1x	(untitled)		
B1	(untitled)		1
B1x	(untitled)		
C1	(untitled)		1
C1x	(untitled)		
D1	(untitled)		1
D1x	(untitled)		

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A1	1	(untitled)			150.00	✓	Sum of lanes	1800	✓		Normal	
A1x	1	(untitled)			150.00						Normal	
B1	1	(untitled)			60.00	✓	Sum of lanes	1800	✓		Normal	
B1x	1	(untitled)			60.00						Normal	
C1	1	(untitled)			150.00	✓	Sum of lanes	1800	✓		Normal	
C1x	1	(untitled)			150.00						Normal	
D1	1	(untitled)			60.00	✓	Sum of lanes	1800	✓		Normal	
D1x	1	(untitled)			60.00						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A1	1	1	(untitled)			1800
A1x	1	1	(untitled)			
B1	1	1	(untitled)			1800
B1x	1	1	(untitled)			
C1	1	1	(untitled)			1800
C1x	1	1	(untitled)			
D1	1	1	(untitled)			1800
D1x	1	1	(untitled)			

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	1	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	1	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
A1	1	682	682
A1x	1	942	942
B1	1	217	217
B1x	1	83	83
C1	1	768	768
C1x	1	645	645
D1	1	9	9
D1x	1	6	6

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
A1	1	1	A	
B1	1	1	C	
C1	1	1	A	
D1	1	1	B	

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A1	1	18.00	30.00
B1	1	7.20	30.00
C1	1	18.00	30.00
D1	1	7.20	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A1x	1	1	B1/1	A1x/1	18.00	30.00	✓	Offside	50.00
B1x	1	1	A1/1	B1x/1	7.20	30.00	✓	Nearside	25.00
C1x	1	1	B1/1	C1x/1	18.00	30.00	✓	Nearside	25.00
D1x	1	1	C1/1	D1x/1	7.20	30.00	✓	Nearside	35.00
A1x	1	2	D1/1	A1x/1	18.00	30.00	✓	Nearside	30.00
B1x	1	2	D1/1	B1x/1	7.20	30.00	✓	Straight	Straight Movement
C1x	1	2	D1/1	C1x/1	18.00	30.00	✓	Offside	50.00
D1x	1	2	B1/1	D1x/1	7.20	30.00	✓	Straight	Straight Movement
A1x	1	3	C1/1	A1x/1	18.00	30.00	✓	Straight	Straight Movement
B1x	1	3	C1/1	B1x/1	7.20	30.00	✓	Offside	55.00
C1x	1	3	A1/1	C1x/1	18.00	30.00	✓	Straight	Straight Movement
D1x	1	3	A1/1	D1x/1	7.20	30.00	✓	Offside	65.00

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	6.00	4.00	5.40
2	(untitled)		1		Farside	10.00	6.67	5.40
3	(untitled)		1		Farside	6.00	4.00	5.40
4	(untitled)		1		Farside	10.00	6.67	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	D	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

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Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	✓	Path Equalisation			✓			✓	1.25				

Normal Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	2	753	13	0	0	0	0
	2	3	0	6	0	0	0	0	0
	3	608	4	0	70	0	0	0	0
	4	34	0	183	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	20	20	0
	6	0	0	0	0	20	0	0	20
	7	0	0	0	0	20	0	0	20
	8	0	0	0	0	0	20	20	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C1/1	C1x/1	#0000FF
	2	(untitled)	D1/1	D1x/1	#FF0000
	3	(untitled)	A1/1	A1x/1	#00FF00
	4	(untitled)	B1/1	B1x/1	#FFFF00
	5	(untitled)	3:2E, 4:1E	3:2X, 4:1X	#00FFFF
	6	(untitled)	3:1E, 2:2E	3:1X, 2:2X	#FF00FF
	7	(untitled)	4:2E, 1:1E	4:2X, 1:1X	#008000
	8	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#FFA500

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	1		1	2	C1/1, D1x/1	Normal	2
	2		1	3	C1/1, A1x/1	Normal	753
	4		2	3	D1/1, A1x/1	Normal	6
	5		2	4	D1/1, B1x/1	Normal	0
	6		2	1	D1/1, C1x/1	Normal	3
	7		3	4	A1/1, B1x/1	Normal	70
	8		3	1	A1/1, C1x/1	Normal	608
	10		4	2	B1/1, D1x/1	Normal	0
	11		4	3	B1/1, A1x/1	Normal	183
	12		4	1	B1/1, C1x/1	Normal	34
	21		3	2	A1/1, D1x/1	Normal	4
	22		1	4	C1/1, B1x/1	Normal	13

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	13		5	6	3:2E, 3:1X	Normal	20
	14		6	5	3:1E, 3:2X	Normal	20
	15		6	8	2:2E, 2:1X	Normal	20
	16		8	6	2:1E, 2:2X	Normal	20
	17		5	7	4:1E, 4:2X	Normal	20
	18		7	5	4:2E, 4:1X	Normal	20
	19		7	8	1:1E, 1:2X	Normal	20
	20		8	7	1:2E, 1:1X	Normal	20

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)	Minimum possible cycle time (s)
1	AM		1	Manual	120	115

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Absolute

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	60	100	0	0	Traffic	
	B	(untitled)	7	10	0	0	Traffic	
	C	(untitled)	15	20	0	0	Traffic	
	D	(untitled)	5	5	0	0	Pedestrian	1

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Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)	Run every N cycles	Probability of running (%)
1	1	B	1	1	100
	2	C	1	1	100
	3	D	1	1	100
	4	A	1	1	100

Losing / Gaining Phase Delays

Controller Stream	Delay	Type	Phase	From stage	To stage	Relative delay	Absolute delay
1	1	Gaining	D	4	1	5	12
	2	Losing	D	1	2	3	
	3	Gaining	C	1	2	0	5

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)	Single	1, 2, 3, 4	15, 39, 51, 1	115	
	2	(untitled)	Single	1, 2, 4, 3	8, 23, 101, 113	115	
	3	(untitled)	Single	1, 3, 2, 4	8, 21, 36, 113	115	
	4	(untitled)	Single	1, 3, 4, 2	8, 21, 99, 113	115	
	5	(untitled)	Single	1, 4, 2, 3	8, 86, 101, 113	115	
	6	(untitled)	Single	1, 4, 3, 2	8, 86, 99, 113	115	

Intergreen Matrix for Controller Stream 1

		To			
		A	B	C	D
From	A		7	7	7
	B	7		7	7
	C	7	7		7
	D	7	7	7	

Banned Stage transitions for Controller Stream 1

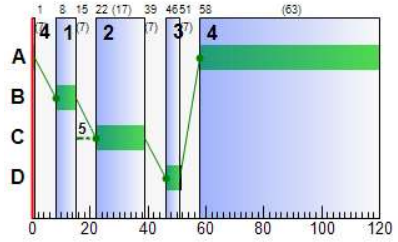
		To			
		1	2	3	4
From	1				
	2				
	3				
	4				

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A1	1	1	1	A	58	1	63
B1	1	1	1	C	22	39	17
C1	1	1	1	A	58	1	63
D1	1	1	1	B	8	15	7

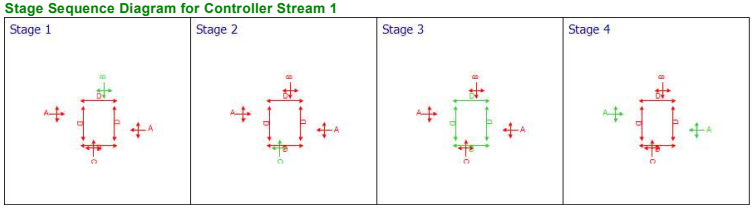
Phase Timings Diagram

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A1	1	71	27	682	1800	63	25.59	17.91	68.66	68.83	6.55	75.38
	A1x	1	0	Unrestricted	942	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B1	1	80	12	217	1800	17	74.40	8.45	80.93	63.68	3.12	66.80
	B1x	1	0	Unrestricted	83	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C1	1	80	13	768	1800	63	30.11	22.25	85.31	91.22	8.18	99.40
	C1x	1	0	Unrestricted	645	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D1	1	8	1100	9	1800	7	53.95	0.28	2.71	1.92	0.11	2.02
	D1x	1	0	Unrestricted	6	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00

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Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow (PCU/hr)	Calculated capacity (PCU/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effec gree (pe cycl
08:00-09:00	A1	1	682	682	0		1800	960	71		27	0.00	63	64
	A1x	1	942	942	0		Unrestricted	Unrestricted	0		Unrestricted	0.57	120	12
	B1	1	217	217	0		1800	270	80		12	0.00	17	18
	B1x	1	83	83	0		Unrestricted	Unrestricted	0		Unrestricted	0.90	120	12
	C1	1	768	768	0		1800	960	80		13	0.00	63	64
	C1x	1	645	645	0		Unrestricted	Unrestricted	0		Unrestricted	0.76	120	12
	D1	1	9	9	0		1800	120	8		1100	0.00	7	8
	D1x	1	6	6	0		Unrestricted	Unrestricted	0		Unrestricted	0.90	120	12

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A1	1	18.00	25.59	3.99	0.86	68.83	68.83	76.60	496.82	25.61	6.55	6.55
	A1x	1	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B1	1	7.20	74.40	2.97	1.51	63.68	63.68	114.70	205.79	43.11	3.12	3.12
	B1x	1	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C1	1	18.00	30.11	4.86	1.56	91.22	91.22	85.00	606.62	46.14	8.18	8.18
	C1x	1	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D1	1	7.20	53.95	0.13	0.00	1.92	1.92	93.36	8.31	0.09	0.11	0.11
	D1x	1	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Average storage excess queue (PCU)	Average limit excess queue (PCU)	Excess queue penalty (£ per hr)	Mean end of green queue (PCU)	Mean end of red queue (PCU)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A1	1	0.00	17.91	26.09	68.66	0.00	0.00	0.00	0.86	11.47	0.00	0.00	0.00	
	A1x	1	0.00	0.00	26.09	0.00	0.00	0.00	0.00			8.00	0.00	8.00	
	B1	1	0.00	8.45	10.43	80.93	0.00	0.00	0.00	1.51	7.66	0.00	0.00	0.00	
	B1x	1	0.00	0.00	10.43	0.00	0.00	0.00	0.00			56.00	0.00	56.00	
	C1	1	0.00	22.25	26.09	85.31	0.00	0.00	0.00	1.56	13.51	0.00	0.00	0.00	
	C1x	1	0.00	0.00	26.09	0.00	0.00	0.00	0.00			20.00	0.00	20.00	
	D1	1	0.00	0.28	10.43	2.71	0.00	0.00	0.00	0.00	0.28	7.00	0.00	7.00	
	D1x	1	0.00	0.00	10.43	0.00	0.00	0.00	0.00			120.00	0.00	120.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A1	1	102.30	8.26	12.39	43.59
	A1x	1	141.30	4.71	30.00	18.00
	B1	1	13.02	4.92	2.65	81.60
	B1x	1	4.98	0.17	30.00	7.20
	C1	1	115.20	10.26	11.22	48.11
	C1x	1	96.75	3.23	30.00	18.00
	D1	1	0.54	0.15	3.53	61.15
	D1x	1	0.36	0.01	30.00	7.20

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (PCU)	Mean End of Green Queue EoTS (PCU)	Mean End of Red Queue EoTS (PCU)	PCU Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A1	1	0.00	0.00	✓	17.92	0.87	11.48	1.00	0.00	75.38	75.38
	A1x	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	B1	1	0.00	0.00	✓	8.51	1.57	7.72	1.00	0.00	66.80	66.80
	B1x	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	C1	1	0.00	0.00	✓	22.27	1.58	13.53	1.00	0.00	99.40	99.40
	C1x	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	D1	1	0.00	0.00	✓	0.28	0.00	0.28	1.00	0.00	2.02	2.02
	D1x	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	(ALL)	(ALL)	4	20	11000	5	54.63	0.63	4.31	4.31

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effec gree (pe cycl
08:00-09:00	(ALL)	(ALL)	20	20	0		11000	550	4		2375	0.00	5	6

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	5.00	54.63	0.30	0.00	4.31	4.31
		2	5.00	54.63	0.30	0.00	4.31	4.31
	2	1	7.67	54.63	0.30	0.00	4.31	4.31
		2	7.67	54.63	0.30	0.00	4.31	4.31
	3	1	5.00	54.63	0.30	0.00	4.31	4.31
		2	5.00	54.63	0.30	0.00	4.31	4.31
	4	1	7.67	54.63	0.30	0.00	4.31	4.31
		2	7.67	54.63	0.30	0.00	4.31	4.31

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	(ALL)	(ALL)	0.63	10.00	6.33	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	0.14	0.33	0.42	59.63
		2	0.14	0.33	0.42	59.63
	2	1	0.22	0.35	0.64	62.29
		2	0.22	0.35	0.64	62.29
	3	1	0.14	0.33	0.42	59.63
		2	0.14	0.33	0.42	59.63
	4	1	0.22	0.35	0.64	62.29
		2	0.22	0.35	0.64	62.29

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Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
08:00-09:00	(ALL)	(ALL)	0.00	0.00	0.63	1.00	0.00	4.31	4.31

Collections

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	55.3	66.1	55.3	0.0	0.0	0.0	0.0
	2	79.1	0.0	79.1	0.0	0.0	0.0	0.0	0.0
	3	61.6	50.8	0.0	50.8	0.0	0.0	0.0	0.0
	4	99.6	0.0	99.6	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	59.6	62.3	0.0
	6	0.0	0.0	0.0	0.0	59.6	0.0	0.0	62.3
	7	0.0	0.0	0.0	0.0	62.3	0.0	0.0	59.6
	8	0.0	0.0	0.0	0.0	0.0	62.3	59.6	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Normal journey dist (m)	Bus journeydist (m)	Tram journey dist (m)	Pedestrian journey dist (m)	Calculated Total Flow (PCU/hr)	Avg journey time (s)	Avg journey dist (m)
1	1	2	2		55.31		210.00	0.00	0.00	0.00	2	55.31	210.00
2	1	3	753		66.11		300.00	0.00	0.00	0.00	753	66.11	300.00
4	2	3	6		79.15		210.00	0.00	0.00	0.00	6	79.15	210.00
5	2	4	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00
6	2	1	3		79.15		210.00	0.00	0.00	0.00	3	79.15	210.00
7	3	4	70		50.79		210.00	0.00	0.00	0.00	70	50.79	210.00
8	3	1	608		61.59		300.00	0.00	0.00	0.00	608	61.59	300.00
10	4	2	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00
11	4	3	183		99.60		210.00	0.00	0.00	0.00	183	99.60	210.00
12	4	1	34		99.60		210.00	0.00	0.00	0.00	34	99.60	210.00
13	5	6		20		59.63	7.00	7.00	7.00	7.00	20	59.63	7.00
14	6	5		20		59.63	7.00	7.00	7.00	7.00	20	59.63	7.00
15	6	8		20		62.29	11.00	11.00	11.00	11.00	20	62.29	11.00
16	8	6		20		62.29	11.00	11.00	11.00	11.00	20	62.29	11.00
17	5	7		20		62.29	11.00	11.00	11.00	11.00	20	62.29	11.00
18	7	5		20		62.29	11.00	11.00	11.00	11.00	20	62.29	11.00
19	7	8		20		59.63	7.00	7.00	7.00	7.00	20	59.63	7.00
20	8	7		20		59.63	7.00	7.00	7.00	7.00	20	59.63	7.00
21	3	2	4		50.79		210.00	0.00	0.00	0.00	4	50.79	210.00
22	1	4	13		55.31		210.00	0.00	0.00	0.00	13	55.31	210.00

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUE	
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (PCU)	M e of qu (P
A1	1	(untitled)	1	1	A	682	1800	63	0.00	71	27	43.59	25.59	76.60	17.91	11
A1x	1	(untitled)				942	Unrestricted	120	8.00	0	Unrestricted	18.00	0.00	0.00	0.00	
B1	1	(untitled)	1	1	C	217	1800	17	0.00	80	12	81.60	74.40	114.70	8.45	7.
B1x	1	(untitled)				83	Unrestricted	120	56.00	0	Unrestricted	7.20	0.00	0.00	0.00	
C1	1	(untitled)	1	1	A	768	1800	63	0.00	80	13	48.11	30.11	85.00	22.25	13
C1x	1	(untitled)				645	Unrestricted	120	20.00	0	Unrestricted	18.00	0.00	0.00	0.00	
D1	1	(untitled)	1	1	B	9	1800	7	7.00	8	1100	61.15	53.95	93.36	0.28	0.
D1x	1	(untitled)				6	Unrestricted	120	120.00	0	Unrestricted	7.20	0.00	0.00	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)	1	1	D	20	11000	5	4	2375	59.63	54.63	0.63	100	0
	2	(untitled)	1	1	D	20	11000	5	4	2375	59.63	54.63	0.63	100	0
2	1	(untitled)	1	1	D	20	11000	5	4	2375	62.29	54.63	0.63	100	0
	2	(untitled)	1	1	D	20	11000	5	4	2375	62.29	54.63	0.63	100	0
3	1	(untitled)	1	1	D	20	11000	5	4	2375	59.63	54.63	0.63	100	0
	2	(untitled)	1	1	D	20	11000	5	4	2375	59.63	54.63	0.63	100	0
4	1	(untitled)	1	1	D	20	11000	5	4	2375	62.29	54.63	0.63	100	0
	2	(untitled)	1	1	D	20	11000	5	4	2375	62.29	54.63	0.63	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	474.45	31.71	14.96	11.95	3.94	225.65	17.96	0.00	243.61
Bus									
Tram									
Pedestrians	1.44	2.71	0.53	2.43	0.00	34.47	0.00	0.00	34.47
TOTAL	475.89	34.41	13.83	14.38	3.94	260.12	17.96	0.00	278.08

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

TRL THE FUTURE OF TRANSPORT
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A1 - AM Peak Hour
D6 - 2042 DO NOTHING, AM

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item wi wors unsignal PRC
1	05/03/2024 13:53:51	05/03/2024 13:53:51	0.36	08:00	120	219.94	14.41	81.35	C1/1	0	0	C1/1	D1x/

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set(s)	Specific Demand Set (s)	Optimise specific Demand Set(s)	Demand Set(s) to optimise	Include in report	Locked
AM Peak Hour			✓	D1,D2,D3,D4,D5,D6,D7	✓	D7	✓	

Demand Set Details

Scenario name	Time Period name	Description	Composite	Demand sets	Start time (HH:mm)	Locked	Run automatically
2042 DO NOTHING	AM	(untitled)			08:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120	115	115		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)	Missing stage transition options
10000.00	10000.00	10000.00	2	Assume banned

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from traffic model	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	90	100	✓	✓			Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	✓

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy (%)	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Standard accuracy Hill Climb	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A1	(untitled)		1
A1x	(untitled)		
B1	(untitled)		1
B1x	(untitled)		
C1	(untitled)		1
C1x	(untitled)		
D1	(untitled)		1
D1x	(untitled)		

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A1	1	(untitled)			150.00	✓	Sum of lanes	1800	✓		Normal	
A1x	1	(untitled)			150.00						Normal	
B1	1	(untitled)			60.00	✓	Sum of lanes	1800	✓		Normal	
B1x	1	(untitled)			60.00						Normal	
C1	1	(untitled)			150.00	✓	Sum of lanes	1800	✓		Normal	
C1x	1	(untitled)			150.00						Normal	
D1	1	(untitled)			60.00	✓	Sum of lanes	1800	✓		Normal	
D1x	1	(untitled)			60.00						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A1	1	1	(untitled)			1800
A1x	1	1	(untitled)			
B1	1	1	(untitled)			1800
B1x	1	1	(untitled)			
C1	1	1	(untitled)			1800
C1x	1	1	(untitled)			
D1	1	1	(untitled)			1800
D1x	1	1	(untitled)			

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	1	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	1	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
A1	1	659	659
A1x	1	832	832
B1	1	47	47
B1x	1	19	19
C1	1	781	781
C1x	1	639	639
D1	1	9	9
D1x	1	6	6

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
A1	1	1	A	
B1	1	1	C	
C1	1	1	A	
D1	1	1	B	

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A1	1	18.00	30.00
B1	1	7.20	30.00
C1	1	18.00	30.00
D1	1	7.20	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A1x	1	1	B1/1	A1x/1	18.00	30.00	✓	Offside	50.00
B1x	1	1	A1/1	B1x/1	7.20	30.00	✓	Nearside	25.00
C1x	1	1	B1/1	C1x/1	18.00	30.00	✓	Nearside	25.00
D1x	1	1	C1/1	D1x/1	7.20	30.00	✓	Nearside	35.00
A1x	1	2	D1/1	A1x/1	18.00	30.00	✓	Nearside	30.00
B1x	1	2	D1/1	B1x/1	7.20	30.00	✓	Straight	Straight Movement
C1x	1	2	D1/1	C1x/1	18.00	30.00	✓	Offside	50.00
D1x	1	2	B1/1	D1x/1	7.20	30.00	✓	Straight	Straight Movement
A1x	1	3	C1/1	A1x/1	18.00	30.00	✓	Straight	Straight Movement
B1x	1	3	C1/1	B1x/1	7.20	30.00	✓	Offside	55.00
C1x	1	3	A1/1	C1x/1	18.00	30.00	✓	Straight	Straight Movement
D1x	1	3	A1/1	D1x/1	7.20	30.00	✓	Offside	65.00

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	6.00	4.00	5.40
2	(untitled)		1		Farside	10.00	6.67	5.40
3	(untitled)		1		Farside	6.00	4.00	5.40
4	(untitled)		1		Farside	10.00	6.67	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	D	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

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Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	✓	Path Equalisation			✓			✓	1.25				

Normal Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	2	779	0	0	0	0	0
	2	3	0	6	0	0	0	0	0
	3	636	4	0	19	0	0	0	0
	4	0	0	47	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	20	20	0
	6	0	0	0	0	20	0	0	20
	7	0	0	0	0	20	0	0	20
	8	0	0	0	0	0	20	20	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C1/1	C1x/1	#0000FF
	2	(untitled)	D1/1	D1x/1	#FF0000
	3	(untitled)	A1/1	A1x/1	#00FF00
	4	(untitled)	B1/1	B1x/1	#FFFF00
	5	(untitled)	3:2E, 4:1E	3:2X, 4:1X	#00FFFF
	6	(untitled)	3:1E, 2:2E	3:1X, 2:2X	#FF00FF
	7	(untitled)	4:2E, 1:1E	4:2X, 1:1X	#008000
	8	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#FFA500

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	1		1	2	C1/1, D1x/1	Normal	2
	2		1	3	C1/1, A1x/1	Normal	779
	4		2	3	D1/1, A1x/1	Normal	6
	5		2	4	D1/1, B1x/1	Normal	0
	6		2	1	D1/1, C1x/1	Normal	3
	7		3	4	A1/1, B1x/1	Normal	19
	8		3	1	A1/1, C1x/1	Normal	636
	10		4	2	B1/1, D1x/1	Normal	0
	11		4	3	B1/1, A1x/1	Normal	47
	12		4	1	B1/1, C1x/1	Normal	0
	21		3	2	A1/1, D1x/1	Normal	4
	22		1	4	C1/1, B1x/1	Normal	0

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	13		5	6	3:2E, 3:1X	Normal	20
	14		6	5	3:1E, 3:2X	Normal	20
	15		6	8	2:2E, 2:1X	Normal	20
	16		8	6	2:1E, 2:2X	Normal	20
	17		5	7	4:1E, 4:2X	Normal	20
	18		7	5	4:2E, 4:1X	Normal	20
	19		7	8	1:1E, 1:2X	Normal	20
	20		8	7	1:2E, 1:1X	Normal	20

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)	Minimum possible cycle time (s)
1	AM		1	Manual	120	115

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Absolute

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	60	100	0	0	Traffic	
	B	(untitled)	7	10	0	0	Traffic	
	C	(untitled)	15	20	0	0	Traffic	
	D	(untitled)	5	5	0	0	Pedestrian	1

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Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)	Run every N cycles	Probability of running (%)
1	1	B	1	1	100
	2	C	1	1	100
	3	D	1	1	100
	4	A	1	1	100

Losing / Gaining Phase Delays

Controller Stream	Delay	Type	Phase	From stage	To stage	Relative delay	Absolute delay
1	1	Gaining	D	4	1	5	12
	2	Losing	D	1	2	3	
	3	Gaining	C	1	2	0	5

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)	Single	1, 2, 3, 4	15, 39, 51, 1	115	
	2	(untitled)	Single	1, 2, 4, 3	8, 23, 101, 113	115	
	3	(untitled)	Single	1, 3, 2, 4	8, 21, 36, 113	115	
	4	(untitled)	Single	1, 3, 4, 2	8, 21, 99, 113	115	
	5	(untitled)	Single	1, 4, 2, 3	8, 86, 101, 113	115	
	6	(untitled)	Single	1, 4, 3, 2	8, 86, 99, 113	115	

Intergreen Matrix for Controller Stream 1

		To			
		A	B	C	D
From	A		7	7	7
	B	7		7	7
	C	7	7		7
	D	7	7	7	

Banned Stage transitions for Controller Stream 1

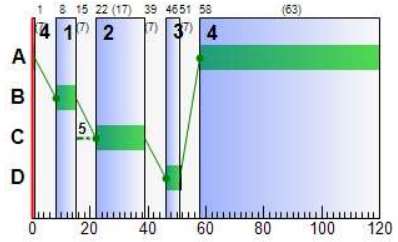
		To			
		1	2	3	4
From	1				
	2				
	3				
	4				

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A1	1	1	1	A	58	1	63
B1	1	1	1	C	22	39	17
C1	1	1	1	A	58	1	63
D1	1	1	1	B	8	15	7

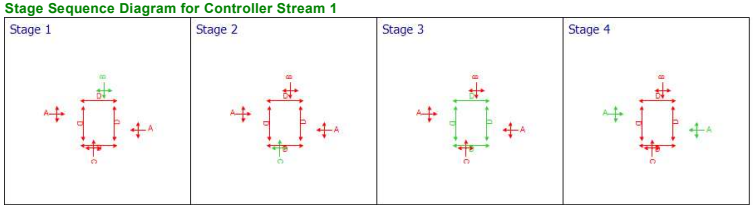
Phase Timings Diagram

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A1	1	69	31	659	1800	63	24.68	16.85	64.60	64.16	6.18	70.34
	A1x	1	0	Unrestricted	832	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B1	1	17	417	47	1800	17	45.95	1.38	13.19	8.52	0.51	9.03
	B1x	1	0	Unrestricted	19	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C1	1	81	11	781	1800	63	31.04	22.99	88.11	95.61	8.47	104.08
	C1x	1	0	Unrestricted	639	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D1	1	8	1100	9	1800	7	53.95	0.28	2.71	1.92	0.11	2.02
	D1x	1	0	Unrestricted	6	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00

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Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow (PCU/hr)	Calculated capacity (PCU/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effec gree (pe cycl
08:00-09:00	A1	1	659	659	0		1800	960	69		31	0.00	63	64
	A1x	1	832	832	0		Unrestricted	Unrestricted	0		Unrestricted	0.75	120	12
	B1	1	47	47	0		1800	270	17		417	0.00	17	18
	B1x	1	19	19	0		Unrestricted	Unrestricted	0		Unrestricted	0.90	120	12
	C1	1	781	781	0		1800	960	81		11	0.00	63	64
	C1x	1	639	639	0		Unrestricted	Unrestricted	0		Unrestricted	0.85	120	12
	D1	1	9	9	0		1800	120	8		1100	0.00	7	8
	D1x	1	6	6	0		Unrestricted	Unrestricted	0		Unrestricted	0.90	120	12

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A1	1	18.00	24.68	3.77	0.74	64.16	64.16	74.79	470.71	22.14	6.18	6.18
	A1x	1	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B1	1	7.20	45.95	0.58	0.02	8.52	8.52	86.85	40.27	0.55	0.51	0.51
	B1x	1	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C1	1	18.00	31.04	5.01	1.73	95.61	95.61	86.45	624.28	50.93	8.47	8.47
	C1x	1	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D1	1	7.20	53.95	0.13	0.00	1.92	1.92	93.36	8.31	0.09	0.11	0.11
	D1x	1	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Average storage excess queue (PCU)	Average limit excess queue (PCU)	Excess queue penalty (£ per hr)	Mean end of green queue (PCU)	Mean end of red queue (PCU)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A1	1	0.00	16.85	26.09	64.60	0.00	0.00	0.00	0.74	11.00	0.00	0.00	0.00	
	A1x	1	0.00	0.00	26.09	0.00	0.00	0.00	0.00			20.00	0.00	20.00	
	B1	1	0.00	1.38	10.43	13.19	0.00	0.00	0.00	0.02	1.35	15.00	0.00	15.00	
	B1x	1	0.00	0.00	10.43	0.00	0.00	0.00	0.00			120.00	0.00	120.00	
	C1	1	0.00	22.99	26.09	88.11	0.00	0.00	0.00	1.73	13.87	0.00	0.00	0.00	
	C1x	1	0.00	0.00	26.09	0.00	0.00	0.00	0.00			42.00	0.00	42.00	
	D1	1	0.00	0.28	10.43	2.71	0.00	0.00	0.00	0.00	0.28	7.00	0.00	7.00	
	D1x	1	0.00	0.00	10.43	0.00	0.00	0.00	0.00			120.00	0.00	120.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A1	1	98.85	7.81	12.65	42.68
	A1x	1	124.80	4.16	30.00	18.00
	B1	1	2.82	0.69	4.06	53.15
	B1x	1	1.14	0.04	30.00	7.20
	C1	1	117.15	10.64	11.01	49.04
	C1x	1	95.85	3.20	30.00	18.00
	D1	1	0.54	0.15	3.53	61.15
	D1x	1	0.36	0.01	30.00	7.20

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (PCU)	Mean End of Green Queue EoTS (PCU)	Mean End of Red Queue EoTS (PCU)	PCU Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A1	1	0.00	0.00	✓	16.86	0.75	11.00	1.00	0.00	70.34	70.34
	A1x	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	B1	1	0.00	0.00	✓	1.38	0.02	1.35	1.00	0.00	9.03	9.03
	B1x	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	C1	1	0.00	0.00	✓	23.01	1.75	13.90	1.00	0.00	104.08	104.08
	C1x	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	D1	1	0.00	0.00	✓	0.28	0.00	0.28	1.00	0.00	2.02	2.02
	D1x	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	(ALL)	(ALL)	4	20	11000	5	54.63	0.63	4.31	4.31

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effec gree (pe cycl
08:00-09:00	(ALL)	(ALL)	20	20	0		11000	550	4		2375	0.00	5	6

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	5.00	54.63	0.30	0.00	4.31	4.31
		2	5.00	54.63	0.30	0.00	4.31	4.31
	2	1	7.67	54.63	0.30	0.00	4.31	4.31
		2	7.67	54.63	0.30	0.00	4.31	4.31
	3	1	5.00	54.63	0.30	0.00	4.31	4.31
		2	5.00	54.63	0.30	0.00	4.31	4.31
	4	1	7.67	54.63	0.30	0.00	4.31	4.31
		2	7.67	54.63	0.30	0.00	4.31	4.31

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	0.14	0.33	0.42	59.63
		2	0.14	0.33	0.42	59.63
	2	1	0.22	0.35	0.64	62.29
		2	0.22	0.35	0.64	62.29
	3	1	0.14	0.33	0.42	59.63
		2	0.14	0.33	0.42	59.63
	4	1	0.22	0.35	0.64	62.29
		2	0.22	0.35	0.64	62.29

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Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
08:00-09:00	(ALL)	(ALL)	0.00	0.00	0.63	1.00	0.00	4.31	4.31

Collections

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	56.2	67.0	0.0	0.0	0.0	0.0	0.0
	2	79.1	0.0	79.1	0.0	0.0	0.0	0.0	0.0
	3	60.7	49.9	0.0	49.9	0.0	0.0	0.0	0.0
	4	0.0	0.0	71.1	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	59.6	62.3	0.0
	6	0.0	0.0	0.0	0.0	59.6	0.0	0.0	62.3
	7	0.0	0.0	0.0	0.0	62.3	0.0	0.0	59.6
	8	0.0	0.0	0.0	0.0	0.0	62.3	59.6	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Normal journey dist (m)	Bus journeydist (m)	Tram journey dist (m)	Pedestrian journey dist (m)	Calculated Total Flow (PCU/hr)	Avg journey time (s)	Avg journey dist (m)
1	1	2	2		56.24		210.00	0.00	0.00	0.00	2	56.24	210.00
2	1	3	779		67.04		300.00	0.00	0.00	0.00	779	67.04	300.00
4	2	3	6		79.15		210.00	0.00	0.00	0.00	6	79.15	210.00
5	2	4	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00
6	2	1	3		79.15		210.00	0.00	0.00	0.00	3	79.15	210.00
7	3	4	19		49.88		210.00	0.00	0.00	0.00	19	49.88	210.00
8	3	1	636		60.68		300.00	0.00	0.00	0.00	636	60.68	300.00
10	4	2	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00
11	4	3	47		71.15		210.00	0.00	0.00	0.00	47	71.15	210.00
12	4	1	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00
13	5	6		20		59.63	7.00	7.00	7.00	7.00	20	59.63	7.00
14	6	5		20		59.63	7.00	7.00	7.00	7.00	20	59.63	7.00
15	6	8		20		62.29	11.00	11.00	11.00	11.00	20	62.29	11.00
16	8	6		20		62.29	11.00	11.00	11.00	11.00	20	62.29	11.00
17	5	7		20		62.29	11.00	11.00	11.00	11.00	20	62.29	11.00
18	7	5		20		62.29	11.00	11.00	11.00	11.00	20	62.29	11.00
19	7	8		20		59.63	7.00	7.00	7.00	7.00	20	59.63	7.00
20	8	7		20		59.63	7.00	7.00	7.00	7.00	20	59.63	7.00
21	3	2	4		49.88		210.00	0.00	0.00	0.00	4	49.88	210.00
22	1	4	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES	
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (PCU)	Me en of r que (PC
A1	1	(untitled)	1	1	A	659	1800	63	0.00	69	31	42.68	24.68	74.79	16.85	11.
A1x	1	(untitled)				832	Unrestricted	120	20.00	0	Unrestricted	18.00	0.00	0.00	0.00	
B1	1	(untitled)	1	1	C	47	1800	17	15.00	17	417	53.15	45.95	86.85	1.38	1.
B1x	1	(untitled)				19	Unrestricted	120	120.00	0	Unrestricted	7.20	0.00	0.00	0.00	
C1	1	(untitled)	1	1	A	781	1800	63	0.00	81	11	49.04	31.04	86.45	22.99	13.
C1x	1	(untitled)				639	Unrestricted	120	42.00	0	Unrestricted	18.00	0.00	0.00	0.00	
D1	1	(untitled)	1	1	B	9	1800	7	7.00	8	1100	61.15	53.95	93.36	0.28	0.
D1x	1	(untitled)				6	Unrestricted	120	120.00	0	Unrestricted	7.20	0.00	0.00	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)	1	1	D	20	11000	5	4	2375	59.63	54.63	0.63	100	0
	2	(untitled)	1	1	D	20	11000	5	4	2375	59.63	54.63	0.63	100	0
2	1	(untitled)	1	1	D	20	11000	5	4	2375	62.29	54.63	0.63	100	0
	2	(untitled)	1	1	D	20	11000	5	4	2375	62.29	54.63	0.63	100	0
3	1	(untitled)	1	1	D	20	11000	5	4	2375	59.63	54.63	0.63	100	0
	2	(untitled)	1	1	D	20	11000	5	4	2375	59.63	54.63	0.63	100	0
4	1	(untitled)	1	1	D	20	11000	5	4	2375	62.29	54.63	0.63	100	0
	2	(untitled)	1	1	D	20	11000	5	4	2375	62.29	54.63	0.63	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	441.51	26.70	16.53	9.49	2.49	170.20	15.26	0.00	185.47
Bus									
Tram									
Pedestrians	1.44	2.71	0.53	2.43	0.00	34.47	0.00	0.00	34.47
TOTAL	442.95	29.41	15.06	11.92	2.49	204.68	15.26	0.00	219.94

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

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A1 - AM Peak Hour
D7 - 2042 DO SOMETHING, AM

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item wi wors unsignal PRC
1	05/03/2024 13:53:50	05/03/2024 13:53:50	0.42	08:00	120	294.66	19.41	82.71	C1/1	0	0	C1/1	D1x/

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set(s)	Specific Demand Set (s)	Optimise specific Demand Set(s)	Demand Set(s) to optimise	Include in report	Locked
AM Peak Hour			✓	D1,D2,D3,D4,D5,D6,D7	✓	D7	✓	

Demand Set Details

Scenario name	Time Period name	Description	Composite	Demand sets	Start time (HH:mm)	Locked	Run automatically
2042 DO SOMETHING	AM	(untitled)			08:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120	115	115		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)	Missing stage transition options
10000.00	10000.00	10000.00	2	Assume banned

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from traffic model	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	90	100	✓	✓			Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	✓

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy (%)	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Standard accuracy Hill Climb	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A1	(untitled)		1
A1x	(untitled)		
B1	(untitled)		1
B1x	(untitled)		
C1	(untitled)		1
C1x	(untitled)		
D1	(untitled)		1
D1x	(untitled)		

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A1	1	(untitled)			150.00	✓	Sum of lanes	1800	✓		Normal	
A1x	1	(untitled)			150.00						Normal	
B1	1	(untitled)			60.00	✓	Sum of lanes	1800	✓		Normal	
B1x	1	(untitled)			60.00						Normal	
C1	1	(untitled)			150.00	✓	Sum of lanes	1800	✓		Normal	
C1x	1	(untitled)			150.00						Normal	
D1	1	(untitled)			60.00	✓	Sum of lanes	1800	✓		Normal	
D1x	1	(untitled)			60.00						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A1	1	1	(untitled)			1800
A1x	1	1	(untitled)			
B1	1	1	(untitled)			1800
B1x	1	1	(untitled)			
C1	1	1	(untitled)			1800
C1x	1	1	(untitled)			
D1	1	1	(untitled)			1800
D1x	1	1	(untitled)			

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	1	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	1	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
A1	1	710	710
A1x	1	968	968
B1	1	217	217
B1x	1	83	83
C1	1	794	794
C1x	1	673	673
D1	1	9	9
D1x	1	6	6

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
A1	1	1	A	
B1	1	1	C	
C1	1	1	A	
D1	1	1	B	

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A1	1	18.00	30.00
B1	1	7.20	30.00
C1	1	18.00	30.00
D1	1	7.20	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A1x	1	1	B1/1	A1x/1	18.00	30.00	✓	Offside	50.00
B1x	1	1	A1/1	B1x/1	7.20	30.00	✓	Nearside	25.00
C1x	1	1	B1/1	C1x/1	18.00	30.00	✓	Nearside	25.00
D1x	1	1	C1/1	D1x/1	7.20	30.00	✓	Nearside	35.00
A1x	1	2	D1/1	A1x/1	18.00	30.00	✓	Nearside	30.00
B1x	1	2	D1/1	B1x/1	7.20	30.00	✓	Straight	Straight Movement
C1x	1	2	D1/1	C1x/1	18.00	30.00	✓	Offside	50.00
D1x	1	2	B1/1	D1x/1	7.20	30.00	✓	Straight	Straight Movement
A1x	1	3	C1/1	A1x/1	18.00	30.00	✓	Straight	Straight Movement
B1x	1	3	C1/1	B1x/1	7.20	30.00	✓	Offside	55.00
C1x	1	3	A1/1	C1x/1	18.00	30.00	✓	Straight	Straight Movement
D1x	1	3	A1/1	D1x/1	7.20	30.00	✓	Offside	65.00

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	6.00	4.00	5.40
2	(untitled)		1		Farside	10.00	6.67	5.40
3	(untitled)		1		Farside	6.00	4.00	5.40
4	(untitled)		1		Farside	10.00	6.67	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	D	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

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Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	✓	Path Equalisation			✓			✓	1.25				

Normal Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	2	779	13	0	0	0	0
	2	3	0	6	0	0	0	0	0
	3	636	4	0	70	0	0	0	0
	4	34	0	183	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	20	20	0
	6	0	0	0	0	20	0	0	20
	7	0	0	0	0	20	0	0	20
	8	0	0	0	0	0	20	20	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C1/1	C1x/1	#0000FF
	2	(untitled)	D1/1	D1x/1	#FF0000
	3	(untitled)	A1/1	A1x/1	#00FF00
	4	(untitled)	B1/1	B1x/1	#FFFF00
	5	(untitled)	3:2E, 4:1E	3:2X, 4:1X	#00FFFF
	6	(untitled)	3:1E, 2:2E	3:1X, 2:2X	#FF00FF
	7	(untitled)	4:2E, 1:1E	4:2X, 1:1X	#008000
	8	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#FFA500

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	1		1	2	C1/1, D1x/1	Normal	2
	2		1	3	C1/1, A1x/1	Normal	779
	4		2	3	D1/1, A1x/1	Normal	6
	5		2	4	D1/1, B1x/1	Normal	0
	6		2	1	D1/1, C1x/1	Normal	3
	7		3	4	A1/1, B1x/1	Normal	70
	8		3	1	A1/1, C1x/1	Normal	636
	10		4	2	B1/1, D1x/1	Normal	0
	11		4	3	B1/1, A1x/1	Normal	183
	12		4	1	B1/1, C1x/1	Normal	34
	21		3	2	A1/1, D1x/1	Normal	4
	22		1	4	C1/1, B1x/1	Normal	13

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	13		5	6	3:2E, 3:1X	Normal	20
	14		6	5	3:1E, 3:2X	Normal	20
	15		6	8	2:2E, 2:1X	Normal	20
	16		8	6	2:1E, 2:2X	Normal	20
	17		5	7	4:1E, 4:2X	Normal	20
	18		7	5	4:2E, 4:1X	Normal	20
	19		7	8	1:1E, 1:2X	Normal	20
	20		8	7	1:2E, 1:1X	Normal	20

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)	Minimum possible cycle time (s)
1	AM		1	Manual	120	115

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Absolute

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	60	100	0	0	Traffic	
	B	(untitled)	7	10	0	0	Traffic	
	C	(untitled)	15	20	0	0	Traffic	
	D	(untitled)	5	5	0	0	Pedestrian	1

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Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)	Run every N cycles	Probability of running (%)
1	1	B	1	1	100
	2	C	1	1	100
	3	D	1	1	100
	4	A	1	1	100

Losing / Gaining Phase Delays

Controller Stream	Delay	Type	Phase	From stage	To stage	Relative delay	Absolute delay
1	1	Gaining	D	4	1	5	12
	2	Losing	D	1	2	3	
	3	Gaining	C	1	2	0	5

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)	Single	1, 2, 3, 4	15, 39, 51, 1	115	
	2	(untitled)	Single	1, 2, 4, 3	8, 23, 101, 113	115	
	3	(untitled)	Single	1, 3, 2, 4	8, 21, 36, 113	115	
	4	(untitled)	Single	1, 3, 4, 2	8, 21, 99, 113	115	
	5	(untitled)	Single	1, 4, 2, 3	8, 86, 101, 113	115	
	6	(untitled)	Single	1, 4, 3, 2	8, 86, 99, 113	115	

Intergreen Matrix for Controller Stream 1

		To			
		A	B	C	D
From	A		7	7	7
	B	7		7	7
	C	7	7		7
	D	7	7	7	

Banned Stage transitions for Controller Stream 1

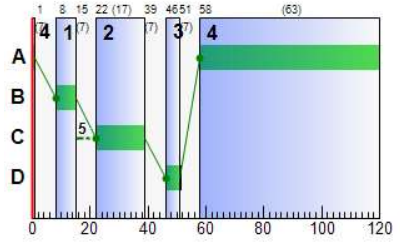
		To			
		1	2	3	4
From	1				
	2				
	3				
	4				

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A1	1	1	1	A	58	1	63
B1	1	1	1	C	22	39	17
C1	1	1	1	A	58	1	63
D1	1	1	1	B	8	15	7

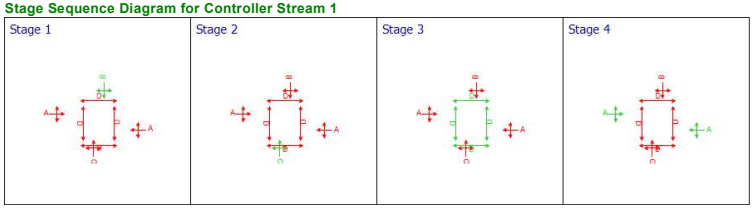
Phase Timings Diagram

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A1	1	74	22	710	1800	63	26.83	19.18	73.52	75.14	7.04	82.18
	A1x	1	0	Unrestricted	968	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B1	1	80	12	217	1800	17	74.40	8.45	80.93	63.68	3.12	66.80
	B1x	1	0	Unrestricted	83	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C1	1	83	9	794	1800	63	32.06	23.97	91.89	100.42	8.77	109.18
	C1x	1	0	Unrestricted	673	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D1	1	8	1100	9	1800	7	53.95	0.28	2.71	1.92	0.11	2.02
	D1x	1	0	Unrestricted	6	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00

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Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow (PCU/hr)	Calculated capacity (PCU/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effec gree (pe cycl
08:00-09:00	A1	1	710	710	0		1800	960	74		22	0.00	63	64
	A1x	1	968	968	0		Unrestricted	Unrestricted	0		Unrestricted	0.57	120	12
	B1	1	217	217	0		1800	270	80		12	0.00	17	18
	B1x	1	83	83	0		Unrestricted	Unrestricted	0		Unrestricted	0.90	120	12
	C1	1	794	794	0		1800	960	83		9	0.00	63	64
	C1x	1	673	673	0		Unrestricted	Unrestricted	0		Unrestricted	0.76	120	12
	D1	1	9	9	0		1800	120	8		1100	0.00	7	8
	D1x	1	6	6	0		Unrestricted	Unrestricted	0		Unrestricted	0.90	120	12

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A1	1	18.00	26.83	4.26	1.04	75.14	75.14	79.11	530.96	30.73	7.04	7.04
	A1x	1	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B1	1	7.20	74.40	2.97	1.51	63.68	63.68	114.70	205.79	43.11	3.12	3.12
	B1x	1	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C1	1	18.00	32.06	5.16	1.91	100.42	100.42	88.08	642.92	56.42	8.77	8.77
	C1x	1	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D1	1	7.20	53.95	0.13	0.00	1.92	1.92	93.36	8.31	0.09	0.11	0.11
	D1x	1	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Average storage excess queue (PCU)	Average limit excess queue (PCU)	Excess queue penalty (£ per hr)	Mean end of green queue (PCU)	Mean end of red queue (PCU)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A1	1	0.00	19.18	26.09	73.52	0.00	0.00	0.00	1.04	12.08	0.00	0.00	0.00	
	A1x	1	0.00	0.00	26.09	0.00	0.00	0.00	0.00			8.00	0.00	8.00	
	B1	1	0.00	8.45	10.43	80.93	0.00	0.00	0.00	1.51	7.66	0.00	0.00	0.00	
	B1x	1	0.00	0.00	10.43	0.00	0.00	0.00	0.00			56.00	0.00	56.00	
	C1	1	0.00	23.97	26.09	91.89	0.00	0.00	0.00	1.91	14.27	0.00	0.00	0.00	
	C1x	1	0.00	0.00	26.09	0.00	0.00	0.00	0.00			20.00	0.00	20.00	
	D1	1	0.00	0.28	10.43	2.71	0.00	0.00	0.00	0.00	0.28	7.00	0.00	7.00	
	D1x	1	0.00	0.00	10.43	0.00	0.00	0.00	0.00			120.00	0.00	120.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A1	1	106.50	8.84	12.05	44.83
	A1x	1	145.20	4.84	30.00	18.00
	B1	1	13.02	4.92	2.65	81.60
	B1x	1	4.98	0.17	30.00	7.20
	C1	1	119.10	11.04	10.79	50.06
	C1x	1	100.95	3.37	30.00	18.00
	D1	1	0.54	0.15	3.53	61.15
	D1x	1	0.36	0.01	30.00	7.20

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (PCU)	Mean End of Green Queue EoTS (PCU)	Mean End of Red Queue EoTS (PCU)	PCU Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A1	1	0.00	0.00	✓	19.19	1.04	12.09	1.00	0.00	82.18	82.18
	A1x	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	B1	1	0.00	0.00	✓	8.51	1.57	7.72	1.00	0.00	66.80	66.80
	B1x	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	C1	1	0.00	0.00	✓	24.00	1.95	14.30	1.00	0.00	109.18	109.18
	C1x	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	D1	1	0.00	0.00	✓	0.28	0.00	0.28	1.00	0.00	2.02	2.02
	D1x	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	(ALL)	(ALL)	4	20	11000	5	54.63	0.63	4.31	4.31

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effec gree (pe cycl
08:00-09:00	(ALL)	(ALL)	20	20	0		11000	550	4		2375	0.00	5	6

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	5.00	54.63	0.30	0.00	4.31	4.31
		2	5.00	54.63	0.30	0.00	4.31	4.31
	2	1	7.67	54.63	0.30	0.00	4.31	4.31
		2	7.67	54.63	0.30	0.00	4.31	4.31
	3	1	5.00	54.63	0.30	0.00	4.31	4.31
		2	5.00	54.63	0.30	0.00	4.31	4.31
	4	1	7.67	54.63	0.30	0.00	4.31	4.31
		2	7.67	54.63	0.30	0.00	4.31	4.31

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	(ALL)	(ALL)	0.63	10.00	6.33	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	0.14	0.33	0.42	59.63
		2	0.14	0.33	0.42	59.63
	2	1	0.22	0.35	0.64	62.29
		2	0.22	0.35	0.64	62.29
	3	1	0.14	0.33	0.42	59.63
		2	0.14	0.33	0.42	59.63
	4	1	0.22	0.35	0.64	62.29
		2	0.22	0.35	0.64	62.29

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
08:00-09:00	(ALL)	(ALL)	0.00	0.00	0.63	1.00	0.00	4.31	4.31

Collections

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	57.3	68.1	57.3	0.0	0.0	0.0	0.0
	2	79.1	0.0	79.1	0.0	0.0	0.0	0.0	0.0
	3	62.8	52.0	0.0	52.0	0.0	0.0	0.0	0.0
	4	99.6	0.0	99.6	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	59.6	62.3	0.0
	6	0.0	0.0	0.0	0.0	59.6	0.0	0.0	62.3
	7	0.0	0.0	0.0	0.0	62.3	0.0	0.0	59.6
	8	0.0	0.0	0.0	0.0	0.0	62.3	59.6	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Normal journey dist (m)	Bus journeydist (m)	Tram journey dist (m)	Pedestrian journey dist (m)	Calculated Total Flow (PCU/hr)	Avg journey time (s)	Avg journey dist (m)
1	1	2	2		57.26		210.00	0.00	0.00	0.00	2	57.26	210.00
2	1	3	779		68.06		300.00	0.00	0.00	0.00	779	68.06	300.00
4	2	3	6		79.15		210.00	0.00	0.00	0.00	6	79.15	210.00
5	2	4	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00
6	2	1	3		79.15		210.00	0.00	0.00	0.00	3	79.15	210.00
7	3	4	70		52.03		210.00	0.00	0.00	0.00	70	52.03	210.00
8	3	1	636		62.83		300.00	0.00	0.00	0.00	636	62.83	300.00
10	4	2	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00
11	4	3	183		99.60		210.00	0.00	0.00	0.00	183	99.60	210.00
12	4	1	34		99.60		210.00	0.00	0.00	0.00	34	99.60	210.00
13	5	6		20		59.63	7.00	7.00	7.00	7.00	20	59.63	7.00
14	6	5		20		59.63	7.00	7.00	7.00	7.00	20	59.63	7.00
15	6	8		20		62.29	11.00	11.00	11.00	11.00	20	62.29	11.00
16	8	6		20		62.29	11.00	11.00	11.00	11.00	20	62.29	11.00
17	5	7		20		62.29	11.00	11.00	11.00	11.00	20	62.29	11.00
18	7	5		20		62.29	11.00	11.00	11.00	11.00	20	62.29	11.00
19	7	8		20		59.63	7.00	7.00	7.00	7.00	20	59.63	7.00
20	8	7		20		59.63	7.00	7.00	7.00	7.00	20	59.63	7.00
21	3	2	4		52.03		210.00	0.00	0.00	0.00	4	52.03	210.00
22	1	4	13		57.26		210.00	0.00	0.00	0.00	13	57.26	210.00

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUE	
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (PCU)	M e of qu (P
A1	1	(untitled)	1	1	A	710	1800	63	0.00	74	22	44.83	26.83	79.11	19.18	12
A1x	1	(untitled)				968	Unrestricted	120	8.00	0	Unrestricted	18.00	0.00	0.00	0.00	
B1	1	(untitled)	1	1	C	217	1800	17	0.00	80	12	81.60	74.40	114.70	8.45	7.
B1x	1	(untitled)				83	Unrestricted	120	56.00	0	Unrestricted	7.20	0.00	0.00	0.00	
C1	1	(untitled)	1	1	A	794	1800	63	0.00	83	9	50.06	32.06	88.08	23.97	14
C1x	1	(untitled)				673	Unrestricted	120	20.00	0	Unrestricted	18.00	0.00	0.00	0.00	
D1	1	(untitled)	1	1	B	9	1800	7	7.00	8	1100	61.15	53.95	93.36	0.28	0.
D1x	1	(untitled)				6	Unrestricted	120	120.00	0	Unrestricted	7.20	0.00	0.00	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)	1	1	D	20	11000	5	4	2375	59.63	54.63	0.63	100	0
	2	(untitled)	1	1	D	20	11000	5	4	2375	59.63	54.63	0.63	100	0
2	1	(untitled)	1	1	D	20	11000	5	4	2375	62.29	54.63	0.63	100	0
	2	(untitled)	1	1	D	20	11000	5	4	2375	62.29	54.63	0.63	100	0
3	1	(untitled)	1	1	D	20	11000	5	4	2375	59.63	54.63	0.63	100	0
	2	(untitled)	1	1	D	20	11000	5	4	2375	59.63	54.63	0.63	100	0
4	1	(untitled)	1	1	D	20	11000	5	4	2375	62.29	54.63	0.63	100	0
	2	(untitled)	1	1	D	20	11000	5	4	2375	62.29	54.63	0.63	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	490.65	33.34	14.72	12.52	4.47	241.15	19.04	0.00	260.19
Bus									
Tram									
Pedestrians	1.44	2.71	0.53	2.43	0.00	34.47	0.00	0.00	34.47
TOTAL	492.09	36.05	13.65	14.94	4.47	275.63	19.04	0.00	294.66

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

TRANSYT 16

Filename: Junction 5 PM.t16
Path: M:\Projects\23\23-102 Mooretown\Design\Traffic\2024-02 - Modelling\Junction 5
Report generation date: 05/03/2024 14:02:25

»A1 - PM Peak Hour : D1 - 2023 SURVEYED FLOWS, PM :
»A1 - PM Peak Hour : D2 - 2027 DO NOTHING, PM :
»A1 - PM Peak Hour : D3 - 2027 DO SOMETHING, PM :
»A1 - PM Peak Hour : D4 - 2032 DO NOTHING, PM :
»A1 - PM Peak Hour : D5 - 2032 DO SOMETHING, PM :
»A1 - PM Peak Hour : D6 - 2042 DO NOTHING, PM :
»A1 - PM Peak Hour : D7 - 2042 DO SOMETHING, PM :

Summary of network performance

	PM				
	Set ID	PI (£ per hr)	Total delay (PCU-hr/hr)	Highest DOS	Number oversaturated
	PM Peak Hour - 2023 SURVEYED FLOWS				
Network	D1	79.98	5.29	41% (TS A1/1)	0 (0%)
	PM Peak Hour - 2027 DO NOTHING				
Network	D2	121.70	7.96	59% (TS A1/1)	0 (0%)
	PM Peak Hour - 2027 DO SOMETHING				
Network	D3	173.60	11.39	72% (TS B1/1)	0 (0%)
	PM Peak Hour - 2032 DO NOTHING				
Network	D4	127.83	8.35	62% (TS A1/1)	0 (0%)
	PM Peak Hour - 2032 DO SOMETHING				
Network	D5	181.59	11.91	73% (TS A1/1)	0 (0%)
	PM Peak Hour - 2042 DO NOTHING				
Network	D6	133.77	8.73	64% (TS A1/1)	0 (0%)
	PM Peak Hour - 2042 DO SOMETHING				
Network	D7	155.08	9.99	75% (TS A1/1)	0 (0%)

File summary

File description

File title	Junction5
Location	Mooretown
Site number	
UTCRegion	
Driving side	Left
Date	01/03/2024
Version	1
Status	(new file)
Identifier	
Client	
Jobnumber	23-102
Enumerator	DOMAIN\f.maio
Description	

Model and Results

Enable controller offsets	Enable fuel consumption	Enable quick flares	Display journey time results	Display OD matrix distances	Display level of service results	Display blocking and starvation results	Display end of red and green queue results	Display excess queue results	Display separate uniform and random results	Display unweighted results	Display TRANSYT 12 style timings	Display effective greens in results	Display Red-With-Amber	Display End-Of-Green Amber	c m
			✓			✓	✓	✓	✓	✓	✓	✓			

Units

Cost units	Speed units	Distance units	Fuel economy units	Fuel rate units	Mass units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
£	kph	m	mpg	l/h	kg	PCU	PCU	perHour	s	-Hour	perHour

Sorting

Show names instead of IDs	Sorting direction	Sorting type	Ignore prefixes when sorting	Analysis/demand set sorting	Link grouping	Source grouping	Colour Analysis/Demand Sets
	Ascending	Numerical		ID	Normal	Normal	✓

Simulation options

Criteria type	Stop criteria (%)	Stop criteria time (s)	Stop criteria number of trials	Random seed	Results refresh speed (s)	Average animation capture interval (s)	Use quick response	Do flow sampling	Uniform vehicle generation	Last run random seed	Last run number of trials	Last run time taken (s)
Delay	1.00	10000	10000	-1	3	60	✓			0	0	0.00

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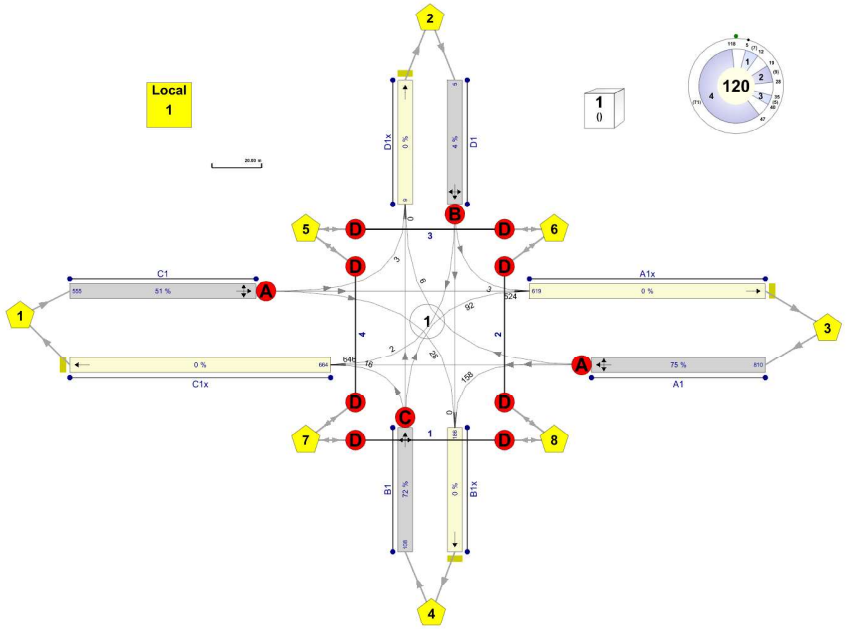
Network Diagrams



Junction5
Cycletime 0s / 120s
Timestage 119 / 120
7
Diagram produced using TRANSYT 16.0.1.8473

A1 - PM Peak Hour
D1 - 2023 SURVEYED FLOWS, PM

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item wi wors unsignal PRC
1	05/03/2024 13:57:36	05/03/2024 13:57:36	0.31	17:00	120	79.98	5.29	40.74	A1/1	0	0	A1/1	D1x/

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set(s)	Specific Demand Set (s)	Optimise specific Demand Set(s)	Demand Set(s) to optimise	Include in report	Locked
PM Peak Hour			✓	D1,D2,D3,D4,D5,D6,D7	✓	D7	✓	

Demand Set Details

Scenario name	Time Period name	Description	Composite	Demand sets	Start time (HH:mm)	Locked	Run automatically
2023 SURVEYED FLOWS	PM	(untitled)			17:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120	117	117		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)	Missing stage transition options
10000.00	10000.00	10000.00	2	Assume banned

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from traffic model	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	90	100	✓	✓			Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	✓

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy (%)	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Standard accuracy Hill Climb	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A1	(untitled)		1
A1x	(untitled)		
B1	(untitled)		1
B1x	(untitled)		
C1	(untitled)		1
C1x	(untitled)		
D1	(untitled)		1
D1x	(untitled)		

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A1	1	(untitled)			150.00	✓	Sum of lanes	1800	✓		Normal	
A1x	1	(untitled)			150.00						Normal	
B1	1	(untitled)			60.00	✓	Sum of lanes	1800	✓		Normal	
B1x	1	(untitled)			60.00						Normal	
C1	1	(untitled)			150.00	✓	Sum of lanes	1800	✓		Normal	
C1x	1	(untitled)			150.00						Normal	
D1	1	(untitled)			60.00	✓	Sum of lanes	1800	✓		Normal	
D1x	1	(untitled)			60.00						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A1	1	1	(untitled)			1800
A1x	1	1	(untitled)			
B1	1	1	(untitled)			1800
B1x	1	1	(untitled)			
C1	1	1	(untitled)			1800
C1x	1	1	(untitled)			
D1	1	1	(untitled)			1800
D1x	1	1	(untitled)			

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	1	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	1	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
A1	1	440	440
A1x	1	335	335
B1	1	0	0
B1x	1	0	0
C1	1	335	335
C1x	1	440	440
D1	1	0	0
D1x	1	0	0

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Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
A1	1	1	A	
B1	1	1	C	
C1	1	1	A	
D1	1	1	B	

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A1	1	18.00	30.00
B1	1	7.20	30.00
C1	1	18.00	30.00
D1	1	7.20	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A1x	1	1	B1/1	A1x/1	18.00	30.00	✓	Offside	50.00
B1x	1	1	A1/1	B1x/1	7.20	30.00	✓	Nearside	25.00
C1x	1	1	B1/1	C1x/1	18.00	30.00	✓	Nearside	25.00
D1x	1	1	C1/1	D1x/1	7.20	30.00	✓	Nearside	35.00
A1x	1	2	D1/1	A1x/1	18.00	30.00	✓	Nearside	30.00
B1x	1	2	D1/1	B1x/1	7.20	30.00	✓	Straight	Straight Movement
C1x	1	2	D1/1	C1x/1	18.00	30.00	✓	Offside	50.00
D1x	1	2	B1/1	D1x/1	7.20	30.00	✓	Straight	Straight Movement
A1x	1	3	C1/1	A1x/1	18.00	30.00	✓	Straight	Straight Movement
B1x	1	3	C1/1	B1x/1	7.20	30.00	✓	Offside	55.00
C1x	1	3	A1/1	C1x/1	18.00	30.00	✓	Straight	Straight Movement
D1x	1	3	A1/1	D1x/1	7.20	30.00	✓	Offside	65.00

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	6.00	4.00	5.40
2	(untitled)		1		Farside	10.00	6.67	5.40
3	(untitled)		1		Farside	6.00	4.00	5.40
4	(untitled)		1		Farside	10.00	6.67	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	D	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	✓	Path Equalisation			✓			✓	1.25				

Normal Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	335	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	440	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	20	20	0
	6	0	0	0	0	20	0	0	20
	7	0	0	0	0	20	0	0	20
	8	0	0	0	0	0	20	20	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C1/1	C1x/1	#0000FF
	2	(untitled)	D1/1	D1x/1	#FF0000
	3	(untitled)	A1/1	A1x/1	#00FF00
	4	(untitled)	B1/1	B1x/1	#FFFF00
	5	(untitled)	3:2E, 4:1E	3:2X, 4:1X	#00FFFF
	6	(untitled)	3:1E, 2:2E	3:1X, 2:2X	#FF00FF
	7	(untitled)	4:2E, 1:1E	4:2X, 1:1X	#008000
	8	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#FFA500

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Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	1		1	2	C1/1, D1x/1	Normal	0
	2		1	3	C1/1, A1x/1	Normal	335
	4		2	3	D1/1, A1x/1	Normal	0
	5		2	4	D1/1, B1x/1	Normal	0
	6		2	1	D1/1, C1x/1	Normal	0
	7		3	4	A1/1, B1x/1	Normal	0
	8		3	1	A1/1, C1x/1	Normal	440
	10		4	2	B1/1, D1x/1	Normal	0
	11		4	3	B1/1, A1x/1	Normal	0
	12		4	1	B1/1, C1x/1	Normal	0
	21		3	2	A1/1, D1x/1	Normal	0
	22		1	4	C1/1, B1x/1	Normal	0

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	13		5	6	3:2E, 3:1X	Normal	20
	14		6	5	3:1E, 3:2X	Normal	20
	15		6	8	2:2E, 2:1X	Normal	20
	16		8	6	2:1E, 2:2X	Normal	20
	17		5	7	4:1E, 4:2X	Normal	20
	18		7	5	4:2E, 4:1X	Normal	20
	19		7	8	1:1E, 1:2X	Normal	20
	20		8	7	1:2E, 1:1X	Normal	20

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)	Minimum possible cycle time (s)
1	AM		1	Manual	120	117

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Absolute

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	70	100	0	0	Traffic	
	B	(untitled)	7	10	0	0	Traffic	
	C	(untitled)	7	10	0	0	Traffic	
	D	(untitled)	5	5	0	0	Pedestrian	1

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)	Run every N cycles	Probability of running (%)
1	1	B	1	1	100
	2	C	1	1	100
	3	D	1	1	100
	4	A	1	1	100

Losing / Gaining Phase Delays

Controller Stream	Delay	Type	Phase	From stage	To stage	Relative delay	Absolute delay
1	1	Gaining	D	4	1	5	12
	2	Losing	D	1	2	3	
	3	Gaining	C	1	2	0	5

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)	Single	1, 2, 3, 4	12, 28, 40, 118	117	
	2	(untitled)	Single	1, 2, 4, 3	8, 23, 101, 113	117	
	3	(untitled)	Single	1, 3, 2, 4	8, 21, 36, 113	117	
	4	(untitled)	Single	1, 3, 4, 2	8, 21, 99, 113	117	
	5	(untitled)	Single	1, 4, 2, 3	8, 86, 101, 113	117	
	6	(untitled)	Single	1, 4, 3, 2	8, 86, 99, 113	117	

Intergreen Matrix for Controller Stream 1

		To			
		A	B	C	D
From	A		7	7	7
	B	7		7	7
	C	7	7		7
	D	7	7	7	

Banned Stage transitions for Controller Stream 1

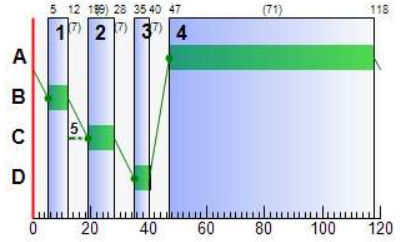
		To			
		1	2	3	4
From	1				
	2				
	3				
	4				

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A1	1	1	1	A	47	118	71
B1	1	1	1	C	19	28	9
C1	1	1	1	A	47	118	71
D1	1	1	1	B	5	12	7

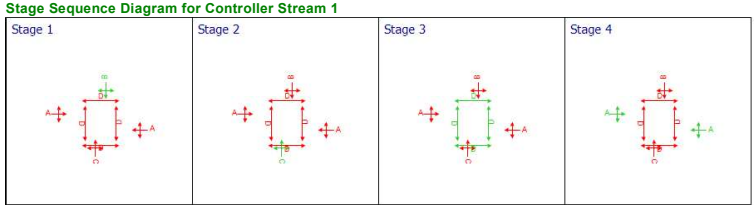
Phase Timings Diagram

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A1	1	41	121	440	1800	71	13.85	7.84	30.05	24.04	2.87	26.92
	A1x	1	0	Unrestricted	335	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B1	1	0	Unrestricted	0	1800	9	0.00	0.00	0.00	0.00	0.00	0.00
	B1x	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C1	1	31	190	335	1800	71	12.54	5.47	20.96	16.58	2.01	18.59
	C1x	1	0	Unrestricted	440	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D1	1	0	Unrestricted	0	1800	7	0.00	0.00	0.00	0.00	0.00	0.00
	D1x	1	0	Unrestricted	0	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow (PCU/hr)	Calculated capacity (PCU/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effec gree (pe cycl
17:00-18:00	A1	1	440	440	0		1800	1080	41		121	0.00	71	72
	A1x	1	335	335	0		Unrestricted	Unrestricted	0		Unrestricted	0.72	120	12
	B1	1	0	0	0		1800	150	0		Unrestricted	0.00	9	10
	B1x	1	0	0	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120	12
	C1	1	335	335	0		1800	1080	31		190	0.00	71	72
	C1x	1	440	440	0		Unrestricted	Unrestricted	0		Unrestricted	0.72	120	12
	D1	1	0	0	0		1800	120	0		Unrestricted	0.00	7	8
	D1x	1	0	0	0		Unrestricted	Unrestricted	0		Unrestricted	0.00	120	12

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	A1	1	18.00	13.85	1.55	0.14	24.04	24.04	52.10	225.05	4.18	2.87	2.87
	A1x	1	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B1	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B1x	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C1	1	18.00	12.54	1.10	0.07	16.58	16.58	47.88	158.31	2.09	2.01	2.01
	C1x	1	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D1	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D1x	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Average storage excess queue (PCU)	Average limit excess queue (PCU)	Excess queue penalty (£ per hr)	Mean end of green queue (PCU)	Mean end of red queue (PCU)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	A1	1	0.00	7.84	26.09	30.05	0.00	0.00	0.00	0.14	6.01	0.00	0.00	0.00	
	A1x	1	0.00	0.00	26.09	0.00	0.00	0.00	0.00			39.00	0.00	39.00	
	B1	1	0.00	0.00	10.43	0.00	0.00	0.00	0.00	0.00	0.00	10.00	0.00	10.00	
	B1x	1	0.00	0.00	10.43	0.00	0.00	0.00	0.00			120.00	0.00	120.00	
	C1	1	0.00	5.47	26.09	20.96	0.00	0.00	0.00	0.07	4.54	0.00	0.00	0.00	
	C1x	1	0.00	0.00	26.09	0.00	0.00	0.00	0.00			37.00	0.00	37.00	
	D1	1	0.00	0.00	10.43	0.00	0.00	0.00	0.00	0.00	0.00	8.00	0.00	8.00	
	D1x	1	0.00	0.00	10.43	0.00	0.00	0.00	0.00			120.00	0.00	120.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	A1	1	66.00	3.89	16.95	31.85
	A1x	1	50.25	1.68	30.00	18.00
	B1	1	0.00	0.00	0.00	0.00
	B1x	1	0.00	0.00	0.00	0.00
	C1	1	50.25	2.84	17.68	30.54
	C1x	1	66.00	2.20	30.00	18.00
	D1	1	0.00	0.00	0.00	0.00
	D1x	1	0.00	0.00	0.00	0.00

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Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (PCU)	Mean End of Green Queue EoTS (PCU)	Mean End of Red Queue EoTS (PCU)	PCU Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A1	1	0.00	0.00	✓	7.84	0.14	6.01	1.00	0.00	26.92	26.92
	A1x	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	B1	1	0.00	0.00	✓	0.00	0.00	0.00	1.00	0.00	0.00	0.00
	B1x	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	C1	1	0.00	0.00	✓	5.47	0.07	4.54	1.00	0.00	18.59	18.59
	C1x	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	D1	1	0.00	0.00	✓	0.00	0.00	0.00	1.00	0.00	0.00	0.00
	D1x	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	(ALL)	(ALL)	4	20	11000	5	54.63	0.63	4.31	4.31

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effec gree (pe cycl
17:00-18:00	(ALL)	(ALL)	20	20	0		11000	550	4		2375	0.00	5	6

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)
17:00-18:00	1	1	5.00	54.63	0.30	0.00	4.31	4.31
		2	5.00	54.63	0.30	0.00	4.31	4.31
	2	1	7.67	54.63	0.30	0.00	4.31	4.31
		2	7.67	54.63	0.30	0.00	4.31	4.31
	3	1	5.00	54.63	0.30	0.00	4.31	4.31
		2	5.00	54.63	0.30	0.00	4.31	4.31
	4	1	7.67	54.63	0.30	0.00	4.31	4.31
		2	7.67	54.63	0.30	0.00	4.31	4.31

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	(ALL)	(ALL)	0.63	10.00	6.33	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	1	1	0.14	0.33	0.42	59.63
		2	0.14	0.33	0.42	59.63
	2	1	0.22	0.35	0.64	62.29
		2	0.22	0.35	0.64	62.29
	3	1	0.14	0.33	0.42	59.63
		2	0.14	0.33	0.42	59.63
	4	1	0.22	0.35	0.64	62.29
		2	0.22	0.35	0.64	62.29

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
17:00-18:00	(ALL)	(ALL)	0.00	0.00	0.63	1.00	0.00	4.31	4.31

Collections

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	0.0	48.5	0.0	0.0	0.0	0.0	0.0
	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	3	49.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	59.6	62.3	0.0
	6	0.0	0.0	0.0	0.0	59.6	0.0	0.0	62.3
	7	0.0	0.0	0.0	0.0	62.3	0.0	0.0	59.6
	8	0.0	0.0	0.0	0.0	0.0	62.3	59.6	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Normal journey dist (m)	Bus journeydist (m)	Tram journey dist (m)	Pedestrian journey dist (m)	Calculated Total Flow (PCU/hr)	Avg journey time (s)	Avg journey dist (m)
1	1	2	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00
2	1	3	335		48.54		300.00	0.00	0.00	0.00	335	48.54	300.00
4	2	3	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00
5	2	4	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00
6	2	1	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00
7	3	4	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00
8	3	1	440		49.85		300.00	0.00	0.00	0.00	440	49.85	300.00
10	4	2	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00
11	4	3	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00
12	4	1	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00
13	5	6		20		59.63	7.00	7.00	7.00	7.00	20	59.63	7.00
14	6	5		20		59.63	7.00	7.00	7.00	7.00	20	59.63	7.00
15	6	8		20		62.29	11.00	11.00	11.00	11.00	20	62.29	11.00
16	8	6		20		62.29	11.00	11.00	11.00	11.00	20	62.29	11.00
17	5	7		20		62.29	11.00	11.00	11.00	11.00	20	62.29	11.00
18	7	5		20		62.29	11.00	11.00	11.00	11.00	20	62.29	11.00
19	7	8		20		59.63	7.00	7.00	7.00	7.00	20	59.63	7.00
20	8	7		20		59.63	7.00	7.00	7.00	7.00	20	59.63	7.00
21	3	2	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00
22	1	4	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00

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Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES	
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (PCU)	Me en of r que (PC
A1	1	(untitled)	1	1	A	440	1800	71	0.00	41	121	31.85	13.85	52.10	7.84	6.
A1x	1	(untitled)				335	Unrestricted	120	39.00	0	Unrestricted	18.00	0.00	0.00	0.00	
B1	1	(untitled)	1	1	C	0	1800	9	10.00	0	Unrestricted	0.00	0.00	0.00	0.00	0.
B1x	1	(untitled)				0	Unrestricted	120	120.00	0	Unrestricted	0.00	0.00	0.00	0.00	
C1	1	(untitled)	1	1	A	335	1800	71	0.00	31	190	30.54	12.54	47.88	5.47	4.
C1x	1	(untitled)				440	Unrestricted	120	37.00	0	Unrestricted	18.00	0.00	0.00	0.00	
D1	1	(untitled)	1	1	B	0	1800	7	8.00	0	Unrestricted	0.00	0.00	0.00	0.00	0.
D1x	1	(untitled)				0	Unrestricted	120	120.00	0	Unrestricted	0.00	0.00	0.00	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)	1	1	D	20	11000	5	4	2375	59.63	54.63	0.63	100	0
	2	(untitled)	1	1	D	20	11000	5	4	2375	59.63	54.63	0.63	100	0
2	1	(untitled)	1	1	D	20	11000	5	4	2375	62.29	54.63	0.63	100	0
	2	(untitled)	1	1	D	20	11000	5	4	2375	62.29	54.63	0.63	100	0
3	1	(untitled)	1	1	D	20	11000	5	4	2375	59.63	54.63	0.63	100	0
	2	(untitled)	1	1	D	20	11000	5	4	2375	59.63	54.63	0.63	100	0
4	1	(untitled)	1	1	D	20	11000	5	4	2375	62.29	54.63	0.63	100	0
	2	(untitled)	1	1	D	20	11000	5	4	2375	62.29	54.63	0.63	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	232.50	10.61	21.91	2.65	0.21	40.62	4.89	0.00	45.50
Bus									
Tram									
Pedestrians	1.44	2.71	0.53	2.43	0.00	34.47	0.00	0.00	34.47
TOTAL	233.94	13.32	17.56	5.08	0.21	75.09	4.89	0.00	79.98

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A1 - PM Peak Hour
D2 - 2027 DO NOTHING, PM

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item wi wors unsignal PRC
1	05/03/2024 13:57:36	05/03/2024 13:57:36	0.43	17:00	120	121.70	7.96	59.44	A1/1	0	0	A1/1	D1x/

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set(s)	Specific Demand Set (s)	Optimise specific Demand Set(s)	Demand Set(s) to optimise	Include in report	Locked
PM Peak Hour			✓	D1,D2,D3,D4,D5,D6,D7	✓	D7	✓	

Demand Set Details

Scenario name	Time Period name	Description	Composite	Demand sets	Start time (HH:mm)	Locked	Run automatically
2027 DO NOTHING	PM	(untitled)			17:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120	117	117		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)	Missing stage transition options
10000.00	10000.00	10000.00	2	Assume banned

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from traffic model	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	90	100	✓	✓			Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

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Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	✓

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy (%)	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Standard accuracy Hill Climb	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A1	(untitled)		1
A1x	(untitled)		
B1	(untitled)		1
B1x	(untitled)		
C1	(untitled)		1
C1x	(untitled)		
D1	(untitled)		1
D1x	(untitled)		

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A1	1	(untitled)			150.00	✓	Sum of lanes	1800	✓		Normal	
A1x	1	(untitled)			150.00						Normal	
B1	1	(untitled)			60.00	✓	Sum of lanes	1800	✓		Normal	
B1x	1	(untitled)			60.00						Normal	
C1	1	(untitled)			150.00	✓	Sum of lanes	1800	✓		Normal	
C1x	1	(untitled)			150.00						Normal	
D1	1	(untitled)			60.00	✓	Sum of lanes	1800	✓		Normal	
D1x	1	(untitled)			60.00						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A1	1	1	(untitled)			1800
A1x	1	1	(untitled)			
B1	1	1	(untitled)			1800
B1x	1	1	(untitled)			
C1	1	1	(untitled)			1800
C1x	1	1	(untitled)			
D1	1	1	(untitled)			1800
D1x	1	1	(untitled)			

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	1	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	1	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
A1	1	642	642
A1x	1	513	513
B1	1	27	27
B1x	1	44	44
C1	1	486	486
C1x	1	594	594
D1	1	5	5
D1x	1	9	9

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Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
A1	1	1	A	
B1	1	1	C	
C1	1	1	A	
D1	1	1	B	

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A1	1	18.00	30.00
B1	1	7.20	30.00
C1	1	18.00	30.00
D1	1	7.20	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A1x	1	1	B1/1	A1x/1	18.00	30.00	✓	Offside	50.00
B1x	1	1	A1/1	B1x/1	7.20	30.00	✓	Nearside	25.00
C1x	1	1	B1/1	C1x/1	18.00	30.00	✓	Nearside	25.00
D1x	1	1	C1/1	D1x/1	7.20	30.00	✓	Nearside	35.00
A1x	1	2	D1/1	A1x/1	18.00	30.00	✓	Nearside	30.00
B1x	1	2	D1/1	B1x/1	7.20	30.00	✓	Straight	Straight Movement
C1x	1	2	D1/1	C1x/1	18.00	30.00	✓	Offside	50.00
D1x	1	2	B1/1	D1x/1	7.20	30.00	✓	Straight	Straight Movement
A1x	1	3	C1/1	A1x/1	18.00	30.00	✓	Straight	Straight Movement
B1x	1	3	C1/1	B1x/1	7.20	30.00	✓	Offside	55.00
C1x	1	3	A1/1	C1x/1	18.00	30.00	✓	Straight	Straight Movement
D1x	1	3	A1/1	D1x/1	7.20	30.00	✓	Offside	65.00

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	6.00	4.00	5.40
2	(untitled)		1		Farside	10.00	6.67	5.40
3	(untitled)		1		Farside	6.00	4.00	5.40
4	(untitled)		1		Farside	10.00	6.67	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	D	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	✓	Path Equalisation			✓			✓	1.25				

Normal Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	3	483	0	0	0	0	0
	2	2	0	3	0	0	0	0	0
	3	592	6	0	44	0	0	0	0
	4	0	0	27	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	20	20	0
	6	0	0	0	0	20	0	0	20
	7	0	0	0	0	20	0	0	20
	8	0	0	0	0	0	20	20	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C1/1	C1x/1	#0000FF
	2	(untitled)	D1/1	D1x/1	#FF0000
	3	(untitled)	A1/1	A1x/1	#00FF00
	4	(untitled)	B1/1	B1x/1	#FFFF00
	5	(untitled)	3:2E, 4:1E	3:2X, 4:1X	#00FFFF
	6	(untitled)	3:1E, 2:2E	3:1X, 2:2X	#FF00FF
	7	(untitled)	4:2E, 1:1E	4:2X, 1:1X	#008000
	8	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#FFA500

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Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	1		1	2	C1/1, D1x/1	Normal	3
	2		1	3	C1/1, A1x/1	Normal	483
	4		2	3	D1/1, A1x/1	Normal	3
	5		2	4	D1/1, B1x/1	Normal	0
	6		2	1	D1/1, C1x/1	Normal	2
	7		3	4	A1/1, B1x/1	Normal	44
	8		3	1	A1/1, C1x/1	Normal	592
	10		4	2	B1/1, D1x/1	Normal	0
	11		4	3	B1/1, A1x/1	Normal	27
	12		4	1	B1/1, C1x/1	Normal	0
	21		3	2	A1/1, D1x/1	Normal	6
	22		1	4	C1/1, B1x/1	Normal	0

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	13		5	6	3:2E, 3:1X	Normal	20
	14		6	5	3:1E, 3:2X	Normal	20
	15		6	8	2:2E, 2:1X	Normal	20
	16		8	6	2:1E, 2:2X	Normal	20
	17		5	7	4:1E, 4:2X	Normal	20
	18		7	5	4:2E, 4:1X	Normal	20
	19		7	8	1:1E, 1:2X	Normal	20
	20		8	7	1:2E, 1:1X	Normal	20

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)	Minimum possible cycle time (s)
1	AM		1	Manual	120	117

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Absolute

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	70	100	0	0	Traffic	
	B	(untitled)	7	10	0	0	Traffic	
	C	(untitled)	7	10	0	0	Traffic	
	D	(untitled)	5	5	0	0	Pedestrian	1

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)	Run every N cycles	Probability of running (%)
1	1	B	1	1	100
	2	C	1	1	100
	3	D	1	1	100
	4	A	1	1	100

Losing / Gaining Phase Delays

Controller Stream	Delay	Type	Phase	From stage	To stage	Relative delay	Absolute delay
1	1	Gaining	D	4	1	5	12
	2	Losing	D	1	2	3	
	3	Gaining	C	1	2	0	5

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)	Single	1, 2, 3, 4	12, 28, 40, 118	117	
	2	(untitled)	Single	1, 2, 4, 3	8, 23, 101, 113	117	
	3	(untitled)	Single	1, 3, 2, 4	8, 21, 36, 113	117	
	4	(untitled)	Single	1, 3, 4, 2	8, 21, 99, 113	117	
	5	(untitled)	Single	1, 4, 2, 3	8, 86, 101, 113	117	
	6	(untitled)	Single	1, 4, 3, 2	8, 86, 99, 113	117	

Intergreen Matrix for Controller Stream 1

		To			
		A	B	C	D
From	A		7	7	7
	B	7		7	7
	C	7	7		7
	D	7	7	7	

Banned Stage transitions for Controller Stream 1

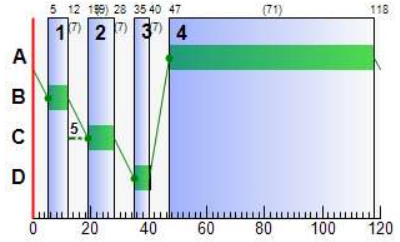
		To			
		1	2	3	4
From	1				
	2				
	3				
	4				

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A1	1	1	1	A	47	118	71
B1	1	1	1	C	19	28	9
C1	1	1	1	A	47	118	71
D1	1	1	1	B	5	12	7

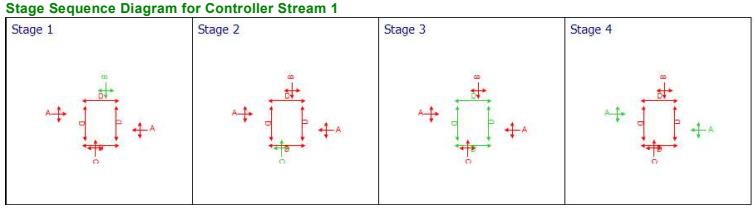
Phase Timings Diagram

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A1	1	59	51	642	1800	71	17.36	13.63	52.25	43.95	5.00	48.95
	A1x	1	0	Unrestricted	513	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B1	1	18	400	27	1800	9	53.87	0.85	8.17	5.74	0.32	6.05
	B1x	1	0	Unrestricted	44	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C1	1	45	100	486	1800	71	14.51	8.96	34.34	27.82	3.29	31.11
	C1x	1	0	Unrestricted	594	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D1	1	4	2060	5	1800	7	53.39	0.16	1.50	1.05	0.06	1.11
	D1x	1	0	Unrestricted	9	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow (PCU/hr)	Calculated capacity (PCU/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effec gree (pe cycl
17:00-18:00	A1	1	642	642	0		1800	1080	59		51	0.00	71	72
	A1x	1	513	513	0		Unrestricted	Unrestricted	0		Unrestricted	0.64	120	12
	B1	1	27	27	0		1800	150	18		400	0.00	9	10
	B1x	1	44	44	0		Unrestricted	Unrestricted	0		Unrestricted	0.77	120	12
	C1	1	486	486	0		1800	1080	45		100	0.00	71	72
	C1x	1	594	594	0		Unrestricted	Unrestricted	0		Unrestricted	0.72	120	12
	D1	1	5	5	0		1800	120	4		2060	0.00	7	8
	D1x	1	9	9	0		Unrestricted	Unrestricted	0		Unrestricted	0.77	120	12

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	A1	1	18.00	17.36	2.66	0.43	43.95	43.95	62.07	385.56	12.94	5.00	5.00
	A1x	1	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B1	1	7.20	53.87	0.38	0.02	5.74	5.74	93.69	24.71	0.59	0.32	0.32
	B1x	1	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C1	1	18.00	14.51	1.78	0.18	27.82	27.82	53.99	256.92	5.50	3.29	3.29
	C1x	1	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D1	1	7.20	53.39	0.07	0.00	1.05	1.05	92.89	4.62	0.03	0.06	0.06
	D1x	1	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Average storage excess queue (PCU)	Average limit excess queue (PCU)	Excess queue penalty (£ per hr)	Mean end of green queue (PCU)	Mean end of red queue (PCU)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	A1	1	0.00	13.63	26.09	52.25	0.00	0.00	0.00	0.43	8.99	0.00	0.00	0.00	
	A1x	1	0.00	0.00	26.09	0.00	0.00	0.00	0.00			21.00	0.00	21.00	
	B1	1	0.00	0.85	10.43	8.17	0.00	0.00	0.00	0.02	0.84	8.00	0.00	8.00	
	B1x	1	0.00	0.00	10.43	0.00	0.00	0.00	0.00			91.00	0.00	91.00	
	C1	1	0.00	8.96	26.09	34.34	0.00	0.00	0.00	0.18	6.66	0.00	0.00	0.00	
	C1x	1	0.00	0.00	26.09	0.00	0.00	0.00	0.00			35.00	0.00	35.00	
	D1	1	0.00	0.16	10.43	1.50	0.00	0.00	0.00	0.00	0.16	7.00	0.00	7.00	
	D1x	1	0.00	0.00	10.43	0.00	0.00	0.00	0.00			120.00	0.00	120.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	A1	1	96.30	6.31	15.27	35.36
	A1x	1	76.95	2.57	30.00	18.00
	B1	1	1.62	0.46	3.54	61.07
	B1x	1	2.64	0.09	30.00	7.20
	C1	1	72.90	4.39	16.61	32.51
	C1x	1	89.10	2.97	30.00	18.00
	D1	1	0.30	0.08	3.57	60.59
	D1x	1	0.54	0.02	30.00	7.20

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Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (PCU)	Mean End of Green Queue EoTS (PCU)	Mean End of Red Queue EoTS (PCU)	PCU Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A1	1	0.00	0.00	✓	13.63	0.43	8.99	1.00	0.00	48.95	48.95
	A1x	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	B1	1	0.00	0.00	✓	0.85	0.02	0.84	1.00	0.00	6.05	6.05
	B1x	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	C1	1	0.00	0.00	✓	8.96	0.18	6.66	1.00	0.00	31.11	31.11
	C1x	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	D1	1	0.00	0.00	✓	0.16	0.00	0.16	1.00	0.00	1.11	1.11
	D1x	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	(ALL)	(ALL)	4	20	11000	5	54.63	0.63	4.31	4.31

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effec gree (pe cycl
17:00-18:00	(ALL)	(ALL)	20	20	0		11000	550	4		2375	0.00	5	6

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)
17:00-18:00	1	1	5.00	54.63	0.30	0.00	4.31	4.31
		2	5.00	54.63	0.30	0.00	4.31	4.31
	2	1	7.67	54.63	0.30	0.00	4.31	4.31
		2	7.67	54.63	0.30	0.00	4.31	4.31
	3	1	5.00	54.63	0.30	0.00	4.31	4.31
		2	5.00	54.63	0.30	0.00	4.31	4.31
	4	1	7.67	54.63	0.30	0.00	4.31	4.31
		2	7.67	54.63	0.30	0.00	4.31	4.31

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	(ALL)	(ALL)	0.63	10.00	6.33	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	1	1	0.14	0.33	0.42	59.63
		2	0.14	0.33	0.42	59.63
	2	1	0.22	0.35	0.64	62.29
		2	0.22	0.35	0.64	62.29
	3	1	0.14	0.33	0.42	59.63
		2	0.14	0.33	0.42	59.63
	4	1	0.22	0.35	0.64	62.29
		2	0.22	0.35	0.64	62.29

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
17:00-18:00	(ALL)	(ALL)	0.00	0.00	0.63	1.00	0.00	4.31	4.31

Collections

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	39.7	50.5	0.0	0.0	0.0	0.0	0.0
	2	78.6	0.0	78.6	0.0	0.0	0.0	0.0	0.0
	3	53.4	42.6	0.0	42.6	0.0	0.0	0.0	0.0
	4	0.0	0.0	79.1	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	59.6	62.3	0.0
	6	0.0	0.0	0.0	0.0	59.6	0.0	0.0	62.3
	7	0.0	0.0	0.0	0.0	62.3	0.0	0.0	59.6
	8	0.0	0.0	0.0	0.0	0.0	62.3	59.6	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Normal journey dist (m)	Bus journeydist (m)	Tram journey dist (m)	Pedestrian journey dist (m)	Calculated Total Flow (PCU/hr)	Avg journey time (s)	Avg journey dist (m)
1	1	2	3		39.71		210.00	0.00	0.00	0.00	3	39.71	210.00
2	1	3	483		50.51		300.00	0.00	0.00	0.00	483	50.51	300.00
4	2	3	3		78.59		210.00	0.00	0.00	0.00	3	78.59	210.00
5	2	4	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00
6	2	1	2		78.59		210.00	0.00	0.00	0.00	2	78.59	210.00
7	3	4	44		42.56		210.00	0.00	0.00	0.00	44	42.56	210.00
8	3	1	592		53.36		300.00	0.00	0.00	0.00	592	53.36	300.00
10	4	2	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00
11	4	3	27		79.07		210.00	0.00	0.00	0.00	27	79.07	210.00
12	4	1	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00
13	5	6		20		59.63	7.00	7.00	7.00	7.00	20	59.63	7.00
14	6	5		20		59.63	7.00	7.00	7.00	7.00	20	59.63	7.00
15	6	8		20		62.29	11.00	11.00	11.00	11.00	20	62.29	11.00
16	8	6		20		62.29	11.00	11.00	11.00	11.00	20	62.29	11.00
17	5	7		20		62.29	11.00	11.00	11.00	11.00	20	62.29	11.00
18	7	5		20		62.29	11.00	11.00	11.00	11.00	20	62.29	11.00
19	7	8		20		59.63	7.00	7.00	7.00	7.00	20	59.63	7.00
20	8	7		20		59.63	7.00	7.00	7.00	7.00	20	59.63	7.00
21	3	2	6		42.56		210.00	0.00	0.00	0.00	6	42.56	210.00
22	1	4	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00

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Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES	
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (PCU)	Me en of r que (PC
A1	1	(untitled)	1	1	A	642	1800	71	0.00	59	51	35.36	17.36	62.07	13.63	8.
A1x	1	(untitled)				513	Unrestricted	120	21.00	0	Unrestricted	18.00	0.00	0.00	0.00	
B1	1	(untitled)	1	1	C	27	1800	9	8.00	18	400	61.07	53.87	93.69	0.85	0.
B1x	1	(untitled)				44	Unrestricted	120	91.00	0	Unrestricted	7.20	0.00	0.00	0.00	
C1	1	(untitled)	1	1	A	486	1800	71	0.00	45	100	32.51	14.51	53.99	8.96	6.
C1x	1	(untitled)				594	Unrestricted	120	35.00	0	Unrestricted	18.00	0.00	0.00	0.00	
D1	1	(untitled)	1	1	B	5	1800	7	7.00	4	2060	60.59	53.39	92.89	0.16	0.
D1x	1	(untitled)				9	Unrestricted	120	120.00	0	Unrestricted	7.20	0.00	0.00	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)	1	1	D	20	11000	5	4	2375	59.63	54.63	0.63	100	0
	2	(untitled)	1	1	D	20	11000	5	4	2375	59.63	54.63	0.63	100	0
2	1	(untitled)	1	1	D	20	11000	5	4	2375	62.29	54.63	0.63	100	0
	2	(untitled)	1	1	D	20	11000	5	4	2375	62.29	54.63	0.63	100	0
3	1	(untitled)	1	1	D	20	11000	5	4	2375	59.63	54.63	0.63	100	0
	2	(untitled)	1	1	D	20	11000	5	4	2375	59.63	54.63	0.63	100	0
4	1	(untitled)	1	1	D	20	11000	5	4	2375	62.29	54.63	0.63	100	0
	2	(untitled)	1	1	D	20	11000	5	4	2375	62.29	54.63	0.63	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	340.35	16.88	20.17	4.89	0.64	78.56	8.66	0.00	87.22
Bus									
Tram									
Pedestrians	1.44	2.71	0.53	2.43	0.00	34.47	0.00	0.00	34.47
TOTAL	341.79	19.59	17.45	7.32	0.64	113.04	8.66	0.00	121.70

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A1 - PM Peak Hour
D3 - 2027 DO SOMETHING, PM

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item wi wors unsignal PRC
1	05/03/2024 13:57:36	05/03/2024 13:57:36	0.55	17:00	120	173.60	11.39	72.00	B1/1	0	0	B1/1	D1x/

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set(s)	Specific Demand Set (s)	Optimise specific Demand Set(s)	Demand Set(s) to optimise	Include in report	Locked
PM Peak Hour			✓	D1,D2,D3,D4,D5,D6,D7	✓	D7	✓	

Demand Set Details

Scenario name	Time Period name	Description	Composite	Demand sets	Start time (HH:mm)	Locked	Run automatically
2027 DO SOMETHING	PM	(untitled)			17:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120	117	117		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)	Missing stage transition options
10000.00	10000.00	10000.00	2	Assume banned

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from traffic model	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	90	100	✓	✓			Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	✓

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy (%)	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Standard accuracy Hill Climb	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A1	(untitled)		1
A1x	(untitled)		
B1	(untitled)		1
B1x	(untitled)		
C1	(untitled)		1
C1x	(untitled)		
D1	(untitled)		1
D1x	(untitled)		

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A1	1	(untitled)			150.00	✓	Sum of lanes	1800	✓		Normal	
A1x	1	(untitled)			150.00						Normal	
B1	1	(untitled)			60.00	✓	Sum of lanes	1800	✓		Normal	
B1x	1	(untitled)			60.00						Normal	
C1	1	(untitled)			150.00	✓	Sum of lanes	1800	✓		Normal	
C1x	1	(untitled)			150.00						Normal	
D1	1	(untitled)			60.00	✓	Sum of lanes	1800	✓		Normal	
D1x	1	(untitled)			60.00						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A1	1	1	(untitled)			1800
A1x	1	1	(untitled)			
B1	1	1	(untitled)			1800
B1x	1	1	(untitled)			
C1	1	1	(untitled)			1800
C1x	1	1	(untitled)			
D1	1	1	(untitled)			1800
D1x	1	1	(untitled)			

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	1	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	1	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
A1	1	756	756
A1x	1	578	578
B1	1	108	108
B1x	1	186	186
C1	1	514	514
C1x	1	610	610
D1	1	5	5
D1x	1	9	9

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Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
A1	1	1	A	
B1	1	1	C	
C1	1	1	A	
D1	1	1	B	

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A1	1	18.00	30.00
B1	1	7.20	30.00
C1	1	18.00	30.00
D1	1	7.20	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A1x	1	1	B1/1	A1x/1	18.00	30.00	✓	Offside	50.00
B1x	1	1	A1/1	B1x/1	7.20	30.00	✓	Nearside	25.00
C1x	1	1	B1/1	C1x/1	18.00	30.00	✓	Nearside	25.00
D1x	1	1	C1/1	D1x/1	7.20	30.00	✓	Nearside	35.00
A1x	1	2	D1/1	A1x/1	18.00	30.00	✓	Nearside	30.00
B1x	1	2	D1/1	B1x/1	7.20	30.00	✓	Straight	Straight Movement
C1x	1	2	D1/1	C1x/1	18.00	30.00	✓	Offside	50.00
D1x	1	2	B1/1	D1x/1	7.20	30.00	✓	Straight	Straight Movement
A1x	1	3	C1/1	A1x/1	18.00	30.00	✓	Straight	Straight Movement
B1x	1	3	C1/1	B1x/1	7.20	30.00	✓	Offside	55.00
C1x	1	3	A1/1	C1x/1	18.00	30.00	✓	Straight	Straight Movement
D1x	1	3	A1/1	D1x/1	7.20	30.00	✓	Offside	65.00

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	6.00	4.00	5.40
2	(untitled)		1		Farside	10.00	6.67	5.40
3	(untitled)		1		Farside	6.00	4.00	5.40
4	(untitled)		1		Farside	10.00	6.67	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	D	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	✓	Path Equalisation			✓			✓	1.25				

Normal Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	3	483	28	0	0	0	0
	2	2	0	3	0	0	0	0	0
	3	592	6	0	158	0	0	0	0
	4	16	0	92	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	20	20	0
	6	0	0	0	0	20	0	0	20
	7	0	0	0	0	20	0	0	20
	8	0	0	0	0	0	20	20	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C1/1	C1x/1	#0000FF
	2	(untitled)	D1/1	D1x/1	#FF0000
	3	(untitled)	A1/1	A1x/1	#00FF00
	4	(untitled)	B1/1	B1x/1	#FFFF00
	5	(untitled)	3:2E, 4:1E	3:2X, 4:1X	#00FFFF
	6	(untitled)	3:1E, 2:2E	3:1X, 2:2X	#FF00FF
	7	(untitled)	4:2E, 1:1E	4:2X, 1:1X	#008000
	8	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#FFA500

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Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	1		1	2	C1/1, D1x/1	Normal	3
	2		1	3	C1/1, A1x/1	Normal	483
	4		2	3	D1/1, A1x/1	Normal	3
	5		2	4	D1/1, B1x/1	Normal	0
	6		2	1	D1/1, C1x/1	Normal	2
	7		3	4	A1/1, B1x/1	Normal	158
	8		3	1	A1/1, C1x/1	Normal	592
	10		4	2	B1/1, D1x/1	Normal	0
	11		4	3	B1/1, A1x/1	Normal	92
	12		4	1	B1/1, C1x/1	Normal	16
	21		3	2	A1/1, D1x/1	Normal	6
	22		1	4	C1/1, B1x/1	Normal	28

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	13		5	6	3:2E, 3:1X	Normal	20
	14		6	5	3:1E, 3:2X	Normal	20
	15		6	8	2:2E, 2:1X	Normal	20
	16		8	6	2:1E, 2:2X	Normal	20
	17		5	7	4:1E, 4:2X	Normal	20
	18		7	5	4:2E, 4:1X	Normal	20
	19		7	8	1:1E, 1:2X	Normal	20
	20		8	7	1:2E, 1:1X	Normal	20

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)	Minimum possible cycle time (s)
1	AM		1	Manual	120	117

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Absolute

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	70	100	0	0	Traffic	
	B	(untitled)	7	10	0	0	Traffic	
	C	(untitled)	7	10	0	0	Traffic	
	D	(untitled)	5	5	0	0	Pedestrian	1

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)	Run every N cycles	Probability of running (%)
1	1	B	1	1	100
	2	C	1	1	100
	3	D	1	1	100
	4	A	1	1	100

Losing / Gaining Phase Delays

Controller Stream	Delay	Type	Phase	From stage	To stage	Relative delay	Absolute delay
1	1	Gaining	D	4	1	5	12
	2	Losing	D	1	2	3	
	3	Gaining	C	1	2	0	5

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)	Single	1, 2, 3, 4	12, 28, 40, 118	117	
	2	(untitled)	Single	1, 2, 4, 3	8, 23, 101, 113	117	
	3	(untitled)	Single	1, 3, 2, 4	8, 21, 36, 113	117	
	4	(untitled)	Single	1, 3, 4, 2	8, 21, 99, 113	117	
	5	(untitled)	Single	1, 4, 2, 3	8, 86, 101, 113	117	
	6	(untitled)	Single	1, 4, 3, 2	8, 86, 99, 113	117	

Intergreen Matrix for Controller Stream 1

		To			
		A	B	C	D
From	A		7	7	7
	B	7		7	7
	C	7	7		7
	D	7	7	7	

Banned Stage transitions for Controller Stream 1

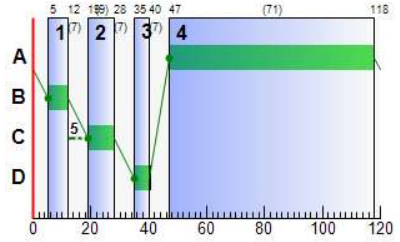
		To			
		1	2	3	4
From	1				
	2				
	3				
	4				

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A1	1	1	1	A	47	118	71
B1	1	1	1	C	19	28	9
C1	1	1	1	A	47	118	71
D1	1	1	1	B	5	12	7

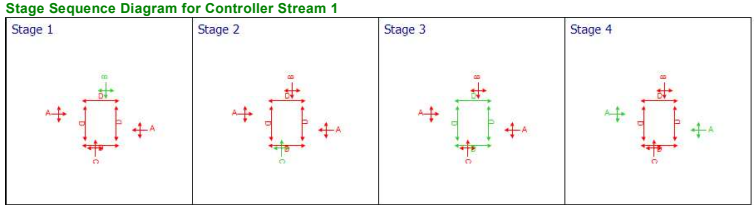
Phase Timings Diagram

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A1	1	70	29	756	1800	71	20.41	18.03	69.11	60.85	6.61	67.46
	A1x	1	0	Unrestricted	578	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B1	1	72	25	108	1800	9	82.34	4.37	41.89	35.08	1.60	36.68
	B1x	1	0	Unrestricted	186	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C1	1	48	89	514	1800	71	14.95	9.78	37.50	30.31	3.56	33.87
	C1x	1	0	Unrestricted	610	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D1	1	4	2060	5	1800	7	53.39	0.16	1.50	1.05	0.06	1.11
	D1x	1	0	Unrestricted	9	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow (PCU/hr)	Calculated capacity (PCU/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effec gree (pe cycl
17:00-18:00	A1	1	756	756	0		1800	1080	70		29	0.00	71	72
	A1x	1	578	578	0		Unrestricted	Unrestricted	0		Unrestricted	0.57	120	12
	B1	1	108	108	0		1800	150	72		25	0.00	9	10
	B1x	1	186	186	0		Unrestricted	Unrestricted	0		Unrestricted	0.77	120	12
	C1	1	514	514	0		1800	1080	48		89	0.00	71	72
	C1x	1	610	610	0		Unrestricted	Unrestricted	0		Unrestricted	0.68	120	12
	D1	1	5	5	0		1800	120	4		2060	0.00	7	8
	D1x	1	9	9	0		Unrestricted	Unrestricted	0		Unrestricted	0.77	120	12

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	A1	1	18.00	20.41	3.48	0.81	60.85	60.85	69.77	503.35	24.08	6.61	6.61
	A1x	1	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B1	1	7.20	82.34	1.61	0.86	35.08	35.08	118.38	103.50	24.35	1.60	1.60
	B1x	1	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C1	1	18.00	14.95	1.92	0.22	30.31	30.31	55.27	277.63	6.45	3.56	3.56
	C1x	1	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D1	1	7.20	53.39	0.07	0.00	1.05	1.05	92.89	4.62	0.03	0.06	0.06
	D1x	1	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Average storage excess queue (PCU)	Average limit excess queue (PCU)	Excess queue penalty (£ per hr)	Mean end of green queue (PCU)	Mean end of red queue (PCU)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	A1	1	0.00	18.03	26.09	69.11	0.00	0.00	0.00	0.81	10.89	0.00	0.00	0.00	
	A1x	1	0.00	0.00	26.09	0.00	0.00	0.00	0.00			12.00	0.00	12.00	
	B1	1	0.00	4.37	10.43	41.89	0.00	0.00	0.00	0.86	4.16	0.00	0.00	0.00	
	B1x	1	0.00	0.00	10.43	0.00	0.00	0.00	0.00			46.00	0.00	46.00	
	C1	1	0.00	9.78	26.09	37.50	0.00	0.00	0.00	0.22	7.07	0.00	0.00	0.00	
	C1x	1	0.00	0.00	26.09	0.00	0.00	0.00	0.00			22.00	0.00	22.00	
	D1	1	0.00	0.16	10.43	1.50	0.00	0.00	0.00	0.00	0.16	7.00	0.00	7.00	
	D1x	1	0.00	0.00	10.43	0.00	0.00	0.00	0.00			120.00	0.00	120.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	A1	1	113.40	8.07	14.06	38.41
	A1x	1	86.70	2.89	30.00	18.00
	B1	1	6.48	2.69	2.41	89.54
	B1x	1	11.16	0.37	30.00	7.20
	C1	1	77.10	4.70	16.39	32.95
	C1x	1	91.50	3.05	30.00	18.00
	D1	1	0.30	0.08	3.57	60.59
	D1x	1	0.54	0.02	30.00	7.20

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Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (PCU)	Mean End of Green Queue EoTS (PCU)	Mean End of Red Queue EoTS (PCU)	PCU Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A1	1	0.00	0.00	✓	18.03	0.81	10.89	1.00	0.00	67.46	67.46
	A1x	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	B1	1	0.00	0.00	✓	4.40	0.89	4.19	1.00	0.00	36.68	36.68
	B1x	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	C1	1	0.00	0.00	✓	9.78	0.22	7.07	1.00	0.00	33.87	33.87
	C1x	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	D1	1	0.00	0.00	✓	0.16	0.00	0.16	1.00	0.00	1.11	1.11
	D1x	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	(ALL)	(ALL)	4	20	11000	5	54.63	0.63	4.31	4.31

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effec gree (pe cycl
17:00-18:00	(ALL)	(ALL)	20	20	0		11000	550	4		2375	0.00	5	6

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)
	1	1	5.00	54.63	0.30	0.00	4.31	4.31
		2	5.00	54.63	0.30	0.00	4.31	4.31
	2	1	7.67	54.63	0.30	0.00	4.31	4.31
		2	7.67	54.63	0.30	0.00	4.31	4.31
	3	2	5.00	54.63	0.30	0.00	4.31	4.31
	4	1	7.67	54.63	0.30	0.00	4.31	4.31
		2	7.67	54.63	0.30	0.00	4.31	4.31

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	(ALL)	(ALL)	0.63	10.00	6.33	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	1	1	0.14	0.33	0.42	59.63
		2	0.14	0.33	0.42	59.63
	2	1	0.22	0.35	0.64	62.29
		2	0.22	0.35	0.64	62.29
	3	1	0.14	0.33	0.42	59.63
		2	0.14	0.33	0.42	59.63
	4	1	0.22	0.35	0.64	62.29
		2	0.22	0.35	0.64	62.29

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
17:00-18:00	(ALL)	(ALL)	0.00	0.00	0.63	1.00	0.00	4.31	4.31

Collections

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	40.1	50.9	40.1	0.0	0.0	0.0	0.0
	2	78.6	0.0	78.6	0.0	0.0	0.0	0.0	0.0
	3	56.4	45.6	0.0	45.6	0.0	0.0	0.0	0.0
	4	107.5	0.0	107.5	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	59.6	62.3	0.0
	6	0.0	0.0	0.0	0.0	59.6	0.0	0.0	62.3
	7	0.0	0.0	0.0	0.0	62.3	0.0	0.0	59.6
	8	0.0	0.0	0.0	0.0	0.0	62.3	59.6	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Normal journey dist (m)	Bus journeydist (m)	Tram journey dist (m)	Pedestrian journey dist (m)	Calculated Total Flow (PCU/hr)	Avg journey time (s)	Avg journey dist (m)
1	1	2	3		40.15		210.00	0.00	0.00	0.00	3	40.15	210.00
2	1	3	483		50.95		300.00	0.00	0.00	0.00	483	50.95	300.00
4	2	3	3		78.59		210.00	0.00	0.00	0.00	3	78.59	210.00
5	2	4	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00
6	2	1	2		78.59		210.00	0.00	0.00	0.00	2	78.59	210.00
7	3	4	158		45.61		210.00	0.00	0.00	0.00	158	45.61	210.00
8	3	1	592		56.41		300.00	0.00	0.00	0.00	592	56.41	300.00
10	4	2	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00
11	4	3	92		107.54		210.00	0.00	0.00	0.00	92	107.54	210.00
12	4	1	16		107.54		210.00	0.00	0.00	0.00	16	107.54	210.00
13	5	6		20		59.63	7.00	7.00	7.00	7.00	20	59.63	7.00
14	6	5		20		59.63	7.00	7.00	7.00	7.00	20	59.63	7.00
15	6	8		20		62.29	11.00	11.00	11.00	11.00	20	62.29	11.00
16	8	6		20		62.29	11.00	11.00	11.00	11.00	20	62.29	11.00
17	5	7		20		62.29	11.00	11.00	11.00	11.00	20	62.29	11.00
18	7	5		20		62.29	11.00	11.00	11.00	11.00	20	62.29	11.00
19	7	8		20		59.63	7.00	7.00	7.00	7.00	20	59.63	7.00
20	8	7		20		59.63	7.00	7.00	7.00	7.00	20	59.63	7.00
21	3	2	6		45.61		210.00	0.00	0.00	0.00	6	45.61	210.00
22	1	4	28		40.15		210.00	0.00	0.00	0.00	28	40.15	210.00

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Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUE	
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (PCU)	M e of qu (P
A1	1	(untitled)	1	1	A	756	1800	71	0.00	70	29	38.41	20.41	69.77	18.03	10
A1x	1	(untitled)				578	Unrestricted	120	12.00	0	Unrestricted	18.00	0.00	0.00	0.00	
B1	1	(untitled)	1	1	C	108	1800	9	0.00	72	25	89.54	82.34	118.38	4.37	4.
B1x	1	(untitled)				186	Unrestricted	120	46.00	0	Unrestricted	7.20	0.00	0.00	0.00	
C1	1	(untitled)	1	1	A	514	1800	71	0.00	48	89	32.95	14.95	55.27	9.78	7.
C1x	1	(untitled)				610	Unrestricted	120	22.00	0	Unrestricted	18.00	0.00	0.00	0.00	
D1	1	(untitled)	1	1	B	5	1800	7	7.00	4	2060	60.59	53.39	92.89	0.16	0.
D1x	1	(untitled)				9	Unrestricted	120	120.00	0	Unrestricted	7.20	0.00	0.00	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)	1	1	D	20	11000	5	4	2375	59.63	54.63	0.63	100	0
	2	(untitled)	1	1	D	20	11000	5	4	2375	59.63	54.63	0.63	100	0
2	1	(untitled)	1	1	D	20	11000	5	4	2375	62.29	54.63	0.63	100	0
	2	(untitled)	1	1	D	20	11000	5	4	2375	62.29	54.63	0.63	100	0
3	1	(untitled)	1	1	D	20	11000	5	4	2375	59.63	54.63	0.63	100	0
	2	(untitled)	1	1	D	20	11000	5	4	2375	59.63	54.63	0.63	100	0
4	1	(untitled)	1	1	D	20	11000	5	4	2375	62.29	54.63	0.63	100	0
	2	(untitled)	1	1	D	20	11000	5	4	2375	62.29	54.63	0.63	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	387.18	21.87	17.70	7.08	1.89	127.29	11.84	0.00	139.12
Bus									
Tram									
Pedestrians	1.44	2.71	0.53	2.43	0.00	34.47	0.00	0.00	34.47
TOTAL	388.62	24.58	15.81	9.50	1.89	161.76	11.84	0.00	173.60

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A1 - PM Peak Hour
D4 - 2032 DO NOTHING, PM

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item wi wors unsignal PRC
1	05/03/2024 13:57:36	05/03/2024 13:57:36	0.67	17:00	120	127.83	8.35	62.04	A1/1	0	0	A1/1	D1x/

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set(s)	Specific Demand Set (s)	Optimise specific Demand Set(s)	Demand Set(s) to optimise	Include in report	Locked
PM Peak Hour			✓	D1,D2,D3,D4,D5,D6,D7	✓	D7	✓	

Demand Set Details

Scenario name	Time Period name	Description	Composite	Demand sets	Start time (HH:mm)	Locked	Run automatically
2032 DO NOTHING	PM	(untitled)			17:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120	117	117		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)	Missing stage transition options
10000.00	10000.00	10000.00	2	Assume banned

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from traffic model	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	90	100	✓	✓			Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

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Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	✓

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy (%)	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Standard accuracy Hill Climb	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A1	(untitled)		1
A1x	(untitled)		
B1	(untitled)		1
B1x	(untitled)		
C1	(untitled)		1
C1x	(untitled)		
D1	(untitled)		1
D1x	(untitled)		

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A1	1	(untitled)			150.00	✓	Sum of lanes	1800	✓		Normal	
A1x	1	(untitled)			150.00						Normal	
B1	1	(untitled)			60.00	✓	Sum of lanes	1800	✓		Normal	
B1x	1	(untitled)			60.00						Normal	
C1	1	(untitled)			150.00	✓	Sum of lanes	1800	✓		Normal	
C1x	1	(untitled)			150.00						Normal	
D1	1	(untitled)			60.00	✓	Sum of lanes	1800	✓		Normal	
D1x	1	(untitled)			60.00						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A1	1	1	(untitled)			1800
A1x	1	1	(untitled)			
B1	1	1	(untitled)			1800
B1x	1	1	(untitled)			
C1	1	1	(untitled)			1800
C1x	1	1	(untitled)			
D1	1	1	(untitled)			1800
D1x	1	1	(untitled)			

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	1	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	1	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
A1	1	670	670
A1x	1	535	535
B1	1	27	27
B1x	1	44	44
C1	1	508	508
C1x	1	622	622
D1	1	5	5
D1x	1	9	9

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Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
A1	1	1	A	
B1	1	1	C	
C1	1	1	A	
D1	1	1	B	

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A1	1	18.00	30.00
B1	1	7.20	30.00
C1	1	18.00	30.00
D1	1	7.20	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A1x	1	1	B1/1	A1x/1	18.00	30.00	✓	Offside	50.00
B1x	1	1	A1/1	B1x/1	7.20	30.00	✓	Nearside	25.00
C1x	1	1	B1/1	C1x/1	18.00	30.00	✓	Nearside	25.00
D1x	1	1	C1/1	D1x/1	7.20	30.00	✓	Nearside	35.00
A1x	1	2	D1/1	A1x/1	18.00	30.00	✓	Nearside	30.00
B1x	1	2	D1/1	B1x/1	7.20	30.00	✓	Straight	Straight Movement
C1x	1	2	D1/1	C1x/1	18.00	30.00	✓	Offside	50.00
D1x	1	2	B1/1	D1x/1	7.20	30.00	✓	Straight	Straight Movement
A1x	1	3	C1/1	A1x/1	18.00	30.00	✓	Straight	Straight Movement
B1x	1	3	C1/1	B1x/1	7.20	30.00	✓	Offside	55.00
C1x	1	3	A1/1	C1x/1	18.00	30.00	✓	Straight	Straight Movement
D1x	1	3	A1/1	D1x/1	7.20	30.00	✓	Offside	65.00

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	6.00	4.00	5.40
2	(untitled)		1		Farside	10.00	6.67	5.40
3	(untitled)		1		Farside	6.00	4.00	5.40
4	(untitled)		1		Farside	10.00	6.67	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	D	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	✓	Path Equalisation			✓			✓	1.25				

Normal Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	3	505	0	0	0	0	0
	2	2	0	3	0	0	0	0	0
	3	620	6	0	44	0	0	0	0
	4	0	0	27	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	20	20	0
	6	0	0	0	0	20	0	0	20
	7	0	0	0	0	20	0	0	20
	8	0	0	0	0	0	20	20	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C1/1	C1x/1	#0000FF
	2	(untitled)	D1/1	D1x/1	#FF0000
	3	(untitled)	A1/1	A1x/1	#00FF00
	4	(untitled)	B1/1	B1x/1	#FFFF00
	5	(untitled)	3:2E, 4:1E	3:2X, 4:1X	#00FFFF
	6	(untitled)	3:1E, 2:2E	3:1X, 2:2X	#FF00FF
	7	(untitled)	4:2E, 1:1E	4:2X, 1:1X	#008000
	8	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#FFA500

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Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	1		1	2	C1/1, D1x/1	Normal	3
	2		1	3	C1/1, A1x/1	Normal	505
	4		2	3	D1/1, A1x/1	Normal	3
	5		2	4	D1/1, B1x/1	Normal	0
	6		2	1	D1/1, C1x/1	Normal	2
	7		3	4	A1/1, B1x/1	Normal	44
	8		3	1	A1/1, C1x/1	Normal	620
	10		4	2	B1/1, D1x/1	Normal	0
	11		4	3	B1/1, A1x/1	Normal	27
	12		4	1	B1/1, C1x/1	Normal	0
	21		3	2	A1/1, D1x/1	Normal	6
	22		1	4	C1/1, B1x/1	Normal	0

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	13		5	6	3:2E, 3:1X	Normal	20
	14		6	5	3:1E, 3:2X	Normal	20
	15		6	8	2:2E, 2:1X	Normal	20
	16		8	6	2:1E, 2:2X	Normal	20
	17		5	7	4:1E, 4:2X	Normal	20
	18		7	5	4:2E, 4:1X	Normal	20
	19		7	8	1:1E, 1:2X	Normal	20
	20		8	7	1:2E, 1:1X	Normal	20

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)	Minimum possible cycle time (s)
1	AM		1	Manual	120	117

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Absolute

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	70	100	0	0	Traffic	
	B	(untitled)	7	10	0	0	Traffic	
	C	(untitled)	7	10	0	0	Traffic	
	D	(untitled)	5	5	0	0	Pedestrian	1

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)	Run every N cycles	Probability of running (%)
1	1	B	1	1	100
	2	C	1	1	100
	3	D	1	1	100
	4	A	1	1	100

Losing / Gaining Phase Delays

Controller Stream	Delay	Type	Phase	From stage	To stage	Relative delay	Absolute delay
1	1	Gaining	D	4	1	5	12
	2	Losing	D	1	2	3	
	3	Gaining	C	1	2	0	5

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)	Single	1, 2, 3, 4	12, 28, 40, 118	117	
	2	(untitled)	Single	1, 2, 4, 3	8, 23, 101, 113	117	
	3	(untitled)	Single	1, 3, 2, 4	8, 21, 36, 113	117	
	4	(untitled)	Single	1, 3, 4, 2	8, 21, 99, 113	117	
	5	(untitled)	Single	1, 4, 2, 3	8, 86, 101, 113	117	
	6	(untitled)	Single	1, 4, 3, 2	8, 86, 99, 113	117	

Intergreen Matrix for Controller Stream 1

		To			
		A	B	C	D
From	A		7	7	7
	B	7		7	7
	C	7	7		7
	D	7	7	7	

Banned Stage transitions for Controller Stream 1

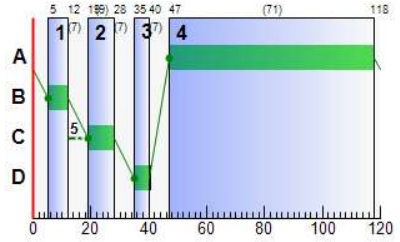
		To			
		1	2	3	4
From	1				
	2				
	3				
	4				

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A1	1	1	1	A	47	118	71
B1	1	1	1	C	19	28	9
C1	1	1	1	A	47	118	71
D1	1	1	1	B	5	12	7

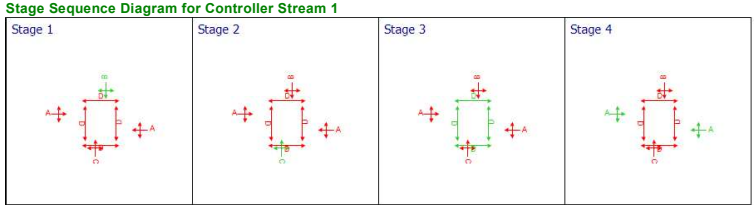
Phase Timings Diagram

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A1	1	62	45	670	1800	71	18.00	14.65	56.15	47.58	5.36	52.93
	A1x	1	0	Unrestricted	535	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B1	1	18	400	27	1800	9	53.87	0.85	8.17	5.74	0.32	6.05
	B1x	1	0	Unrestricted	44	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C1	1	47	91	508	1800	71	14.85	9.52	36.50	29.76	3.50	33.26
	C1x	1	0	Unrestricted	622	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D1	1	4	2060	5	1800	7	53.39	0.16	1.50	1.05	0.06	1.11
	D1x	1	0	Unrestricted	9	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow (PCU/hr)	Calculated capacity (PCU/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effec gree (pe cycl
17:00-18:00	A1	1	670	670	0		1800	1080	62		45	0.00	71	72
	A1x	1	535	535	0		Unrestricted	Unrestricted	0		Unrestricted	0.64	120	12
	B1	1	27	27	0		1800	150	18		400	0.00	9	10
	B1x	1	44	44	0		Unrestricted	Unrestricted	0		Unrestricted	0.77	120	12
	C1	1	508	508	0		1800	1080	47		91	0.00	71	72
	C1x	1	622	622	0		Unrestricted	Unrestricted	0		Unrestricted	0.72	120	12
	D1	1	5	5	0		1800	120	4		2060	0.00	7	8
	D1x	1	9	9	0		Unrestricted	Unrestricted	0		Unrestricted	0.77	120	12

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	A1	1	18.00	18.00	2.85	0.50	47.58	47.58	63.77	412.23	15.04	5.36	5.36
	A1x	1	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B1	1	7.20	53.87	0.38	0.02	5.74	5.74	93.69	24.71	0.59	0.32	0.32
	B1x	1	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C1	1	18.00	14.85	1.89	0.21	29.76	29.76	54.94	272.85	6.23	3.50	3.50
	C1x	1	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D1	1	7.20	53.39	0.07	0.00	1.05	1.05	92.89	4.62	0.03	0.06	0.06
	D1x	1	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Average storage excess queue (PCU)	Average limit excess queue (PCU)	Excess queue penalty (£ per hr)	Mean end of green queue (PCU)	Mean end of red queue (PCU)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	A1	1	0.00	14.65	26.09	56.15	0.00	0.00	0.00	0.50	9.44	0.00	0.00	0.00	
	A1x	1	0.00	0.00	26.09	0.00	0.00	0.00	0.00			21.00	0.00	21.00	
	B1	1	0.00	0.85	10.43	8.17	0.00	0.00	0.00	0.02	0.84	8.00	0.00	8.00	
	B1x	1	0.00	0.00	10.43	0.00	0.00	0.00	0.00			89.00	0.00	89.00	
	C1	1	0.00	9.52	26.09	36.50	0.00	0.00	0.00	0.21	6.98	0.00	0.00	0.00	
	C1x	1	0.00	0.00	26.09	0.00	0.00	0.00	0.00			34.00	0.00	34.00	
	D1	1	0.00	0.16	10.43	1.50	0.00	0.00	0.00	0.00	0.16	7.00	0.00	7.00	
	D1x	1	0.00	0.00	10.43	0.00	0.00	0.00	0.00			120.00	0.00	120.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	A1	1	100.50	6.70	15.00	36.00
	A1x	1	80.25	2.68	30.00	18.00
	B1	1	1.62	0.46	3.54	61.07
	B1x	1	2.64	0.09	30.00	7.20
	C1	1	76.20	4.64	16.44	32.85
	C1x	1	93.30	3.11	30.00	18.00
	D1	1	0.30	0.08	3.57	60.59
	D1x	1	0.54	0.02	30.00	7.20

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Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (PCU)	Mean End of Green Queue EoTS (PCU)	Mean End of Red Queue EoTS (PCU)	PCU Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A1	1	0.00	0.00	✓	14.65	0.51	9.44	1.00	0.00	52.93	52.93
	A1x	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	B1	1	0.00	0.00	✓	0.85	0.02	0.84	1.00	0.00	6.05	6.05
	B1x	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	C1	1	0.00	0.00	✓	9.52	0.21	6.98	1.00	0.00	33.26	33.26
	C1x	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	D1	1	0.00	0.00	✓	0.16	0.00	0.16	1.00	0.00	1.11	1.11
	D1x	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	(ALL)	(ALL)	4	20	11000	5	54.63	0.63	4.31	4.31

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effec gree (pe cycl
17:00-18:00	(ALL)	(ALL)	20	20	0		11000	550	4		2375	0.00	5	6

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)
17:00-18:00	1	1	5.00	54.63	0.30	0.00	4.31	4.31
		2	5.00	54.63	0.30	0.00	4.31	4.31
	2	1	7.67	54.63	0.30	0.00	4.31	4.31
		2	7.67	54.63	0.30	0.00	4.31	4.31
	3	1	5.00	54.63	0.30	0.00	4.31	4.31
		2	5.00	54.63	0.30	0.00	4.31	4.31
	4	1	7.67	54.63	0.30	0.00	4.31	4.31
		2	7.67	54.63	0.30	0.00	4.31	4.31

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	(ALL)	(ALL)	0.63	10.00	6.33	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	1	1	0.14	0.33	0.42	59.63
		2	0.14	0.33	0.42	59.63
	2	1	0.22	0.35	0.64	62.29
		2	0.22	0.35	0.64	62.29
	3	1	0.14	0.33	0.42	59.63
		2	0.14	0.33	0.42	59.63
	4	1	0.22	0.35	0.64	62.29
		2	0.22	0.35	0.64	62.29

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
17:00-18:00	(ALL)	(ALL)	0.00	0.00	0.63	1.00	0.00	4.31	4.31

Collections

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	40.1	50.9	0.0	0.0	0.0	0.0	0.0
	2	78.6	0.0	78.6	0.0	0.0	0.0	0.0	0.0
	3	54.0	43.2	0.0	43.2	0.0	0.0	0.0	0.0
	4	0.0	0.0	79.1	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	59.6	62.3	0.0
	6	0.0	0.0	0.0	0.0	59.6	0.0	0.0	62.3
	7	0.0	0.0	0.0	0.0	62.3	0.0	0.0	59.6
	8	0.0	0.0	0.0	0.0	0.0	62.3	59.6	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Normal journey dist (m)	Bus journeydist (m)	Tram journey dist (m)	Pedestrian journey dist (m)	Calculated Total Flow (PCU/hr)	Avg journey time (s)	Avg journey dist (m)
1	1	2	3		40.05		210.00	0.00	0.00	0.00	3	40.05	210.00
2	1	3	505		50.85		300.00	0.00	0.00	0.00	505	50.85	300.00
4	2	3	3		78.59		210.00	0.00	0.00	0.00	3	78.59	210.00
5	2	4	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00
6	2	1	2		78.59		210.00	0.00	0.00	0.00	2	78.59	210.00
7	3	4	44		43.20		210.00	0.00	0.00	0.00	44	43.20	210.00
8	3	1	620		54.00		300.00	0.00	0.00	0.00	620	54.00	300.00
10	4	2	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00
11	4	3	27		79.07		210.00	0.00	0.00	0.00	27	79.07	210.00
12	4	1	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00
13	5	6		20		59.63	7.00	7.00	7.00	7.00	20	59.63	7.00
14	6	5		20		59.63	7.00	7.00	7.00	7.00	20	59.63	7.00
15	6	8		20		62.29	11.00	11.00	11.00	11.00	20	62.29	11.00
16	8	6		20		62.29	11.00	11.00	11.00	11.00	20	62.29	11.00
17	5	7		20		62.29	11.00	11.00	11.00	11.00	20	62.29	11.00
18	7	5		20		62.29	11.00	11.00	11.00	11.00	20	62.29	11.00
19	7	8		20		59.63	7.00	7.00	7.00	7.00	20	59.63	7.00
20	8	7		20		59.63	7.00	7.00	7.00	7.00	20	59.63	7.00
21	3	2	6		43.20		210.00	0.00	0.00	0.00	6	43.20	210.00
22	1	4	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00

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Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES	
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (PCU)	Me en of r que (PC
A1	1	(untitled)	1	1	A	670	1800	71	0.00	62	45	36.00	18.00	63.77	14.65	9.
A1x	1	(untitled)				535	Unrestricted	120	21.00	0	Unrestricted	18.00	0.00	0.00	0.00	
B1	1	(untitled)	1	1	C	27	1800	9	8.00	18	400	61.07	53.87	93.69	0.85	0.
B1x	1	(untitled)				44	Unrestricted	120	89.00	0	Unrestricted	7.20	0.00	0.00	0.00	
C1	1	(untitled)	1	1	A	508	1800	71	0.00	47	91	32.85	14.85	54.94	9.52	6.
C1x	1	(untitled)				622	Unrestricted	120	34.00	0	Unrestricted	18.00	0.00	0.00	0.00	
D1	1	(untitled)	1	1	B	5	1800	7	7.00	4	2060	60.59	53.39	92.89	0.16	0.
D1x	1	(untitled)				9	Unrestricted	120	120.00	0	Unrestricted	7.20	0.00	0.00	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)	1	1	D	20	11000	5	4	2375	59.63	54.63	0.63	100	0
	2	(untitled)	1	1	D	20	11000	5	4	2375	59.63	54.63	0.63	100	0
2	1	(untitled)	1	1	D	20	11000	5	4	2375	62.29	54.63	0.63	100	0
	2	(untitled)	1	1	D	20	11000	5	4	2375	62.29	54.63	0.63	100	0
3	1	(untitled)	1	1	D	20	11000	5	4	2375	59.63	54.63	0.63	100	0
	2	(untitled)	1	1	D	20	11000	5	4	2375	59.63	54.63	0.63	100	0
4	1	(untitled)	1	1	D	20	11000	5	4	2375	62.29	54.63	0.63	100	0
	2	(untitled)	1	1	D	20	11000	5	4	2375	62.29	54.63	0.63	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	355.35	17.77	20.00	5.19	0.73	84.13	9.23	0.00	93.36
Bus									
Tram									
Pedestrians	1.44	2.71	0.53	2.43	0.00	34.47	0.00	0.00	34.47
TOTAL	356.79	20.48	17.42	7.62	0.73	118.60	9.23	0.00	127.83

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A1 - PM Peak Hour
D5 - 2032 DO SOMETHING, PM

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item wi wors unsignal PRC
1	05/03/2024 13:57:36	05/03/2024 13:57:36	0.90	17:00	120	181.59	11.91	72.59	A1/1	0	0	A1/1	D1x/

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set(s)	Specific Demand Set (s)	Optimise specific Demand Set(s)	Demand Set(s) to optimise	Include in report	Locked
PM Peak Hour			✓	D1,D2,D3,D4,D5,D6,D7	✓	D7	✓	

Demand Set Details

Scenario name	Time Period name	Description	Composite	Demand sets	Start time (HH:mm)	Locked	Run automatically
2032 DO SOMETHING	PM	(untitled)			17:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120	117	117		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)	Missing stage transition options
10000.00	10000.00	10000.00	2	Assume banned

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from traffic model	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	90	100	✓	✓			Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

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Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	✓

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy (%)	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Standard accuracy Hill Climb	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A1	(untitled)		1
A1x	(untitled)		
B1	(untitled)		1
B1x	(untitled)		
C1	(untitled)		1
C1x	(untitled)		
D1	(untitled)		1
D1x	(untitled)		

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A1	1	(untitled)			150.00	✓	Sum of lanes	1800	✓		Normal	
A1x	1	(untitled)			150.00						Normal	
B1	1	(untitled)			60.00	✓	Sum of lanes	1800	✓		Normal	
B1x	1	(untitled)			60.00						Normal	
C1	1	(untitled)			150.00	✓	Sum of lanes	1800	✓		Normal	
C1x	1	(untitled)			150.00						Normal	
D1	1	(untitled)			60.00	✓	Sum of lanes	1800	✓		Normal	
D1x	1	(untitled)			60.00						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A1	1	1	(untitled)			1800
A1x	1	1	(untitled)			
B1	1	1	(untitled)			1800
B1x	1	1	(untitled)			
C1	1	1	(untitled)			1800
C1x	1	1	(untitled)			
D1	1	1	(untitled)			1800
D1x	1	1	(untitled)			

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	1	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	1	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
A1	1	784	784
A1x	1	600	600
B1	1	108	108
B1x	1	186	186
C1	1	536	536
C1x	1	638	638
D1	1	5	5
D1x	1	9	9

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Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
A1	1	1	A	
B1	1	1	C	
C1	1	1	A	
D1	1	1	B	

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A1	1	18.00	30.00
B1	1	7.20	30.00
C1	1	18.00	30.00
D1	1	7.20	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A1x	1	1	B1/1	A1x/1	18.00	30.00	✓	Offside	50.00
B1x	1	1	A1/1	B1x/1	7.20	30.00	✓	Nearside	25.00
C1x	1	1	B1/1	C1x/1	18.00	30.00	✓	Nearside	25.00
D1x	1	1	C1/1	D1x/1	7.20	30.00	✓	Nearside	35.00
A1x	1	2	D1/1	A1x/1	18.00	30.00	✓	Nearside	30.00
B1x	1	2	D1/1	B1x/1	7.20	30.00	✓	Straight	Straight Movement
C1x	1	2	D1/1	C1x/1	18.00	30.00	✓	Offside	50.00
D1x	1	2	B1/1	D1x/1	7.20	30.00	✓	Straight	Straight Movement
A1x	1	3	C1/1	A1x/1	18.00	30.00	✓	Straight	Straight Movement
B1x	1	3	C1/1	B1x/1	7.20	30.00	✓	Offside	55.00
C1x	1	3	A1/1	C1x/1	18.00	30.00	✓	Straight	Straight Movement
D1x	1	3	A1/1	D1x/1	7.20	30.00	✓	Offside	65.00

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	6.00	4.00	5.40
2	(untitled)		1		Farside	10.00	6.67	5.40
3	(untitled)		1		Farside	6.00	4.00	5.40
4	(untitled)		1		Farside	10.00	6.67	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	D	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	✓	Path Equalisation			✓			✓	1.25				

Normal Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	3	505	28	0	0	0	0
	2	2	0	3	0	0	0	0	0
	3	620	6	0	158	0	0	0	0
	4	16	0	92	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	20	20	0
	6	0	0	0	0	20	0	0	20
	7	0	0	0	0	20	0	0	20
	8	0	0	0	0	0	20	20	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C1/1	C1x/1	#0000FF
	2	(untitled)	D1/1	D1x/1	#FF0000
	3	(untitled)	A1/1	A1x/1	#00FF00
	4	(untitled)	B1/1	B1x/1	#FFFF00
	5	(untitled)	3:2E, 4:1E	3:2X, 4:1X	#00FFFF
	6	(untitled)	3:1E, 2:2E	3:1X, 2:2X	#FF00FF
	7	(untitled)	4:2E, 1:1E	4:2X, 1:1X	#008000
	8	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#FFA500

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Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	1		1	2	C1/1, D1x/1	Normal	3
	2		1	3	C1/1, A1x/1	Normal	505
	4		2	3	D1/1, A1x/1	Normal	3
	5		2	4	D1/1, B1x/1	Normal	0
	6		2	1	D1/1, C1x/1	Normal	2
	7		3	4	A1/1, B1x/1	Normal	158
	8		3	1	A1/1, C1x/1	Normal	620
	10		4	2	B1/1, D1x/1	Normal	0
	11		4	3	B1/1, A1x/1	Normal	92
	12		4	1	B1/1, C1x/1	Normal	16
	21		3	2	A1/1, D1x/1	Normal	6
	22		1	4	C1/1, B1x/1	Normal	28

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	13		5	6	3:2E, 3:1X	Normal	20
	14		6	5	3:1E, 3:2X	Normal	20
	15		6	8	2:2E, 2:1X	Normal	20
	16		8	6	2:1E, 2:2X	Normal	20
	17		5	7	4:1E, 4:2X	Normal	20
	18		7	5	4:2E, 4:1X	Normal	20
	19		7	8	1:1E, 1:2X	Normal	20
	20		8	7	1:2E, 1:1X	Normal	20

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)	Minimum possible cycle time (s)
1	AM		1	Manual	120	117

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Absolute

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	70	100	0	0	Traffic	
	B	(untitled)	7	10	0	0	Traffic	
	C	(untitled)	7	10	0	0	Traffic	
	D	(untitled)	5	5	0	0	Pedestrian	1

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)	Run every N cycles	Probability of running (%)
1	1	B	1	1	100
	2	C	1	1	100
	3	D	1	1	100
	4	A	1	1	100

Losing / Gaining Phase Delays

Controller Stream	Delay	Type	Phase	From stage	To stage	Relative delay	Absolute delay
1	1	Gaining	D	4	1	5	12
	2	Losing	D	1	2	3	
	3	Gaining	C	1	2	0	5

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)	Single	1, 2, 3, 4	12, 28, 40, 118	117	
	2	(untitled)	Single	1, 2, 4, 3	8, 23, 101, 113	117	
	3	(untitled)	Single	1, 3, 2, 4	8, 21, 36, 113	117	
	4	(untitled)	Single	1, 3, 4, 2	8, 21, 99, 113	117	
	5	(untitled)	Single	1, 4, 2, 3	8, 86, 101, 113	117	
	6	(untitled)	Single	1, 4, 3, 2	8, 86, 99, 113	117	

Intergreen Matrix for Controller Stream 1

		To			
		A	B	C	D
From	A		7	7	7
	B	7		7	7
	C	7	7		7
	D	7	7	7	

Banned Stage transitions for Controller Stream 1

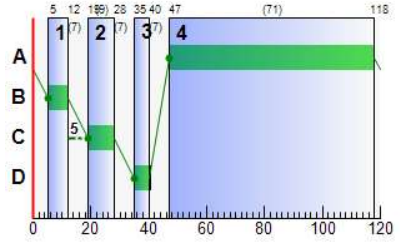
		To			
		1	2	3	4
From	1				
	2				
	3				
	4				

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A1	1	1	1	A	47	118	71
B1	1	1	1	C	19	28	9
C1	1	1	1	A	47	118	71
D1	1	1	1	B	5	12	7

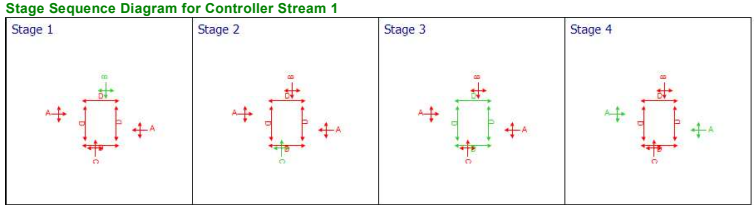
Phase Timings Diagram

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A1	1	73	24	784	1800	71	21.37	19.24	73.77	66.10	7.07	73.17
	A1x	1	0	Unrestricted	600	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B1	1	72	25	108	1800	9	82.34	4.37	41.89	35.08	1.60	36.68
	B1x	1	0	Unrestricted	186	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C1	1	50	81	536	1800	71	15.31	10.37	39.75	32.37	3.79	36.16
	C1x	1	0	Unrestricted	638	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D1	1	4	2060	5	1800	7	53.39	0.16	1.50	1.05	0.06	1.11
	D1x	1	0	Unrestricted	9	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow (PCU/hr)	Calculated capacity (PCU/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effec gree (pe cycl
17:00-18:00	A1	1	784	784	0		1800	1080	73		24	0.00	71	72
	A1x	1	600	600	0		Unrestricted	Unrestricted	0		Unrestricted	0.57	120	12
	B1	1	108	108	0		1800	150	72		25	0.00	9	10
	B1x	1	186	186	0		Unrestricted	Unrestricted	0		Unrestricted	0.77	120	12
	C1	1	536	536	0		1800	1080	50		81	0.00	71	72
	C1x	1	638	638	0		Unrestricted	Unrestricted	0		Unrestricted	0.68	120	12
	D1	1	5	5	0		1800	120	4		2060	0.00	7	8
	D1x	1	9	9	0		Unrestricted	Unrestricted	0		Unrestricted	0.77	120	12

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	A1	1	18.00	21.37	3.70	0.95	66.10	66.10	71.94	535.75	28.26	7.07	7.07
	A1x	1	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B1	1	7.20	82.34	1.61	0.86	35.08	35.08	118.38	103.50	24.35	1.60	1.60
	B1x	1	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C1	1	18.00	15.31	2.04	0.24	32.37	32.37	56.39	294.98	7.29	3.79	3.79
	C1x	1	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D1	1	7.20	53.39	0.07	0.00	1.05	1.05	92.89	4.62	0.03	0.06	0.06
	D1x	1	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Average storage excess queue (PCU)	Average limit excess queue (PCU)	Excess queue penalty (£ per hr)	Mean end of green queue (PCU)	Mean end of red queue (PCU)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	A1	1	0.00	19.24	26.09	73.77	0.00	0.00	0.00	0.95	11.40	0.00	0.00	0.00	
	A1x	1	0.00	0.00	26.09	0.00	0.00	0.00	0.00			12.00	0.00	12.00	
	B1	1	0.00	4.37	10.43	41.89	0.00	0.00	0.00	0.86	4.16	0.00	0.00	0.00	
	B1x	1	0.00	0.00	10.43	0.00	0.00	0.00	0.00			46.00	0.00	46.00	
	C1	1	0.00	10.37	26.09	39.75	0.00	0.00	0.00	0.24	7.39	0.00	0.00	0.00	
	C1x	1	0.00	0.00	26.09	0.00	0.00	0.00	0.00			21.00	0.00	21.00	
	D1	1	0.00	0.16	10.43	1.50	0.00	0.00	0.00	0.00	0.16	7.00	0.00	7.00	
	D1x	1	0.00	0.00	10.43	0.00	0.00	0.00	0.00			120.00	0.00	120.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	A1	1	117.60	8.57	13.71	39.37
	A1x	1	90.00	3.00	30.00	18.00
	B1	1	6.48	2.69	2.41	89.54
	B1x	1	11.16	0.37	30.00	7.20
	C1	1	80.40	4.96	16.21	33.31
	C1x	1	95.70	3.19	30.00	18.00
	D1	1	0.30	0.08	3.57	60.59
	D1x	1	0.54	0.02	30.00	7.20

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Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (PCU)	Mean End of Green Queue EoTS (PCU)	Mean End of Red Queue EoTS (PCU)	PCU Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A1	1	0.00	0.00	✓	19.25	0.96	11.41	1.00	0.00	73.17	73.17
	A1x	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	B1	1	0.00	0.00	✓	4.40	0.89	4.19	1.00	0.00	36.68	36.68
	B1x	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	C1	1	0.00	0.00	✓	10.37	0.24	7.39	1.00	0.00	36.16	36.16
	C1x	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	D1	1	0.00	0.00	✓	0.16	0.00	0.16	1.00	0.00	1.11	1.11
	D1x	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	(ALL)	(ALL)	4	20	11000	5	54.63	0.63	4.31	4.31

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effec gree (pe cycl
17:00-18:00	(ALL)	(ALL)	20	20	0		11000	550	4		2375	0.00	5	6

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)
17:00-18:00	1	1	5.00	54.63	0.30	0.00	4.31	4.31
		2	5.00	54.63	0.30	0.00	4.31	4.31
	2	1	7.67	54.63	0.30	0.00	4.31	4.31
		2	7.67	54.63	0.30	0.00	4.31	4.31
	3	1	5.00	54.63	0.30	0.00	4.31	4.31
		2	5.00	54.63	0.30	0.00	4.31	4.31
	4	1	7.67	54.63	0.30	0.00	4.31	4.31
		2	7.67	54.63	0.30	0.00	4.31	4.31

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	(ALL)	(ALL)	0.63	10.00	6.33	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	1	1	0.14	0.33	0.42	59.63
		2	0.14	0.33	0.42	59.63
	2	1	0.22	0.35	0.64	62.29
		2	0.22	0.35	0.64	62.29
	3	1	0.14	0.33	0.42	59.63
		2	0.14	0.33	0.42	59.63
	4	1	0.22	0.35	0.64	62.29
		2	0.22	0.35	0.64	62.29

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
17:00-18:00	(ALL)	(ALL)	0.00	0.00	0.63	1.00	0.00	4.31	4.31

Collections

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	40.5	51.3	40.5	0.0	0.0	0.0	0.0
	2	78.6	0.0	78.6	0.0	0.0	0.0	0.0	0.0
	3	57.4	46.6	0.0	46.6	0.0	0.0	0.0	0.0
	4	107.5	0.0	107.5	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	59.6	62.3	0.0
	6	0.0	0.0	0.0	0.0	59.6	0.0	0.0	62.3
	7	0.0	0.0	0.0	0.0	62.3	0.0	0.0	59.6
	8	0.0	0.0	0.0	0.0	0.0	62.3	59.6	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Normal journey dist (m)	Bus journeydist (m)	Tram journey dist (m)	Pedestrian journey dist (m)	Calculated Total Flow (PCU/hr)	Avg journey time (s)	Avg journey dist (m)
1	1	2	3		40.51		210.00	0.00	0.00	0.00	3	40.51	210.00
2	1	3	505		51.31		300.00	0.00	0.00	0.00	505	51.31	300.00
4	2	3	3		78.59		210.00	0.00	0.00	0.00	3	78.59	210.00
5	2	4	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00
6	2	1	2		78.59		210.00	0.00	0.00	0.00	2	78.59	210.00
7	3	4	158		46.57		210.00	0.00	0.00	0.00	158	46.57	210.00
8	3	1	620		57.37		300.00	0.00	0.00	0.00	620	57.37	300.00
10	4	2	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00
11	4	3	92		107.54		210.00	0.00	0.00	0.00	92	107.54	210.00
12	4	1	16		107.54		210.00	0.00	0.00	0.00	16	107.54	210.00
13	5	6		20		59.63	7.00	7.00	7.00	7.00	20	59.63	7.00
14	6	5		20		59.63	7.00	7.00	7.00	7.00	20	59.63	7.00
15	6	8		20		62.29	11.00	11.00	11.00	11.00	20	62.29	11.00
16	8	6		20		62.29	11.00	11.00	11.00	11.00	20	62.29	11.00
17	5	7		20		62.29	11.00	11.00	11.00	11.00	20	62.29	11.00
18	7	5		20		62.29	11.00	11.00	11.00	11.00	20	62.29	11.00
19	7	8		20		59.63	7.00	7.00	7.00	7.00	20	59.63	7.00
20	8	7		20		59.63	7.00	7.00	7.00	7.00	20	59.63	7.00
21	3	2	6		46.57		210.00	0.00	0.00	0.00	6	46.57	210.00
22	1	4	28		40.51		210.00	0.00	0.00	0.00	28	40.51	210.00

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Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUE	
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (PCU)	M e of qu (P
A1	1	(untitled)	1	1	A	784	1800	71	0.00	73	24	39.37	21.37	71.94	19.24	11
A1x	1	(untitled)				600	Unrestricted	120	12.00	0	Unrestricted	18.00	0.00	0.00	0.00	
B1	1	(untitled)	1	1	C	108	1800	9	0.00	72	25	89.54	82.34	118.38	4.37	4.
B1x	1	(untitled)				186	Unrestricted	120	46.00	0	Unrestricted	7.20	0.00	0.00	0.00	
C1	1	(untitled)	1	1	A	536	1800	71	0.00	50	81	33.31	15.31	56.39	10.37	7.
C1x	1	(untitled)				638	Unrestricted	120	21.00	0	Unrestricted	18.00	0.00	0.00	0.00	
D1	1	(untitled)	1	1	B	5	1800	7	7.00	4	2060	60.59	53.39	92.89	0.16	0.
D1x	1	(untitled)				9	Unrestricted	120	120.00	0	Unrestricted	7.20	0.00	0.00	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)	1	1	D	20	11000	5	4	2375	59.63	54.63	0.63	100	0
	2	(untitled)	1	1	D	20	11000	5	4	2375	59.63	54.63	0.63	100	0
2	1	(untitled)	1	1	D	20	11000	5	4	2375	62.29	54.63	0.63	100	0
	2	(untitled)	1	1	D	20	11000	5	4	2375	62.29	54.63	0.63	100	0
3	1	(untitled)	1	1	D	20	11000	5	4	2375	59.63	54.63	0.63	100	0
	2	(untitled)	1	1	D	20	11000	5	4	2375	59.63	54.63	0.63	100	0
4	1	(untitled)	1	1	D	20	11000	5	4	2375	62.29	54.63	0.63	100	0
	2	(untitled)	1	1	D	20	11000	5	4	2375	62.29	54.63	0.63	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	402.18	22.88	17.57	7.42	2.06	134.60	12.52	0.00	147.12
Bus									
Tram									
Pedestrians	1.44	2.71	0.53	2.43	0.00	34.47	0.00	0.00	34.47
TOTAL	403.62	25.59	15.77	9.85	2.06	169.07	12.52	0.00	181.59

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A1 - PM Peak Hour
D6 - 2042 DO NOTHING, PM

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item wi wors unsignal PRC
1	05/03/2024 13:57:36	05/03/2024 13:57:37	1.02	17:00	120	133.77	8.73	64.44	A1/1	0	0	A1/1	D1x/

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set(s)	Specific Demand Set (s)	Optimise specific Demand Set(s)	Demand Set(s) to optimise	Include in report	Locked
PM Peak Hour			✓	D1,D2,D3,D4,D5,D6,D7	✓	D7	✓	

Demand Set Details

Scenario name	Time Period name	Description	Composite	Demand sets	Start time (HH:mm)	Locked	Run automatically
2042 DO NOTHING	PM	(untitled)			17:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120	117	117		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)	Missing stage transition options
10000.00	10000.00	10000.00	2	Assume banned

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from traffic model	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	90	100	✓	✓			Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

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Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	✓

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy (%)	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Standard accuracy Hill Climb	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A1	(untitled)		1
A1x	(untitled)		
B1	(untitled)		1
B1x	(untitled)		
C1	(untitled)		1
C1x	(untitled)		
D1	(untitled)		1
D1x	(untitled)		

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A1	1	(untitled)			150.00	✓	Sum of lanes	1800	✓		Normal	
A1x	1	(untitled)			150.00						Normal	
B1	1	(untitled)			60.00	✓	Sum of lanes	1800	✓		Normal	
B1x	1	(untitled)			60.00						Normal	
C1	1	(untitled)			150.00	✓	Sum of lanes	1800	✓		Normal	
C1x	1	(untitled)			150.00						Normal	
D1	1	(untitled)			60.00	✓	Sum of lanes	1800	✓		Normal	
D1x	1	(untitled)			60.00						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A1	1	1	(untitled)			1800
A1x	1	1	(untitled)			
B1	1	1	(untitled)			1800
B1x	1	1	(untitled)			
C1	1	1	(untitled)			1800
C1x	1	1	(untitled)			
D1	1	1	(untitled)			1800
D1x	1	1	(untitled)			

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	1	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	1	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
A1	1	696	696
A1x	1	554	554
B1	1	27	27
B1x	1	44	44
C1	1	527	527
C1x	1	648	648
D1	1	5	5
D1x	1	9	9

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Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
A1	1	1	A	
B1	1	1	C	
C1	1	1	A	
D1	1	1	B	

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A1	1	18.00	30.00
B1	1	7.20	30.00
C1	1	18.00	30.00
D1	1	7.20	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A1x	1	1	B1/1	A1x/1	18.00	30.00	✓	Offside	50.00
B1x	1	1	A1/1	B1x/1	7.20	30.00	✓	Nearside	25.00
C1x	1	1	B1/1	C1x/1	18.00	30.00	✓	Nearside	25.00
D1x	1	1	C1/1	D1x/1	7.20	30.00	✓	Nearside	35.00
A1x	1	2	D1/1	A1x/1	18.00	30.00	✓	Nearside	30.00
B1x	1	2	D1/1	B1x/1	7.20	30.00	✓	Straight	Straight Movement
C1x	1	2	D1/1	C1x/1	18.00	30.00	✓	Offside	50.00
D1x	1	2	B1/1	D1x/1	7.20	30.00	✓	Straight	Straight Movement
A1x	1	3	C1/1	A1x/1	18.00	30.00	✓	Straight	Straight Movement
B1x	1	3	C1/1	B1x/1	7.20	30.00	✓	Offside	55.00
C1x	1	3	A1/1	C1x/1	18.00	30.00	✓	Straight	Straight Movement
D1x	1	3	A1/1	D1x/1	7.20	30.00	✓	Offside	65.00

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	6.00	4.00	5.40
2	(untitled)		1		Farside	10.00	6.67	5.40
3	(untitled)		1		Farside	6.00	4.00	5.40
4	(untitled)		1		Farside	10.00	6.67	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	D	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	✓	Path Equalisation			✓			✓	1.25				

Normal Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	3	524	0	0	0	0	0
	2	2	0	3	0	0	0	0	0
	3	646	6	0	44	0	0	0	0
	4	0	0	27	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	20	20	0
	6	0	0	0	0	20	0	0	20
	7	0	0	0	0	20	0	0	20
	8	0	0	0	0	0	20	20	0

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C1/1	C1x/1	#0000FF
	2	(untitled)	D1/1	D1x/1	#FF0000
	3	(untitled)	A1/1	A1x/1	#00FF00
	4	(untitled)	B1/1	B1x/1	#FFFF00
	5	(untitled)	3:2E, 4:1E	3:2X, 4:1X	#00FFFF
	6	(untitled)	3:1E, 2:2E	3:1X, 2:2X	#FF00FF
	7	(untitled)	4:2E, 1:1E	4:2X, 1:1X	#008000
	8	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#FFA500

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Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	1		1	2	C1/1, D1x/1	Normal	3
	2		1	3	C1/1, A1x/1	Normal	524
	4		2	3	D1/1, A1x/1	Normal	3
	5		2	4	D1/1, B1x/1	Normal	0
	6		2	1	D1/1, C1x/1	Normal	2
	7		3	4	A1/1, B1x/1	Normal	44
	8		3	1	A1/1, C1x/1	Normal	646
	10		4	2	B1/1, D1x/1	Normal	0
	11		4	3	B1/1, A1x/1	Normal	27
	12		4	1	B1/1, C1x/1	Normal	0
	21		3	2	A1/1, D1x/1	Normal	6
	22		1	4	C1/1, B1x/1	Normal	0

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	13		5	6	3:2E, 3:1X	Normal	20
	14		6	5	3:1E, 3:2X	Normal	20
	15		6	8	2:2E, 2:1X	Normal	20
	16		8	6	2:1E, 2:2X	Normal	20
	17		5	7	4:1E, 4:2X	Normal	20
	18		7	5	4:2E, 4:1X	Normal	20
	19		7	8	1:1E, 1:2X	Normal	20
	20		8	7	1:2E, 1:1X	Normal	20

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)	Minimum possible cycle time (s)
1	AM		1	Manual	120	117

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Absolute

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	70	100	0	0	Traffic	
	B	(untitled)	7	10	0	0	Traffic	
	C	(untitled)	7	10	0	0	Traffic	
	D	(untitled)	5	5	0	0	Pedestrian	1

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)	Run every N cycles	Probability of running (%)
1	1	B	1	1	100
	2	C	1	1	100
	3	D	1	1	100
	4	A	1	1	100

Losing / Gaining Phase Delays

Controller Stream	Delay	Type	Phase	From stage	To stage	Relative delay	Absolute delay
1	1	Gaining	D	4	1	5	12
	2	Losing	D	1	2	3	
	3	Gaining	C	1	2	0	5

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)	Single	1, 2, 3, 4	12, 28, 40, 118	117	
	2	(untitled)	Single	1, 2, 4, 3	8, 23, 101, 113	117	
	3	(untitled)	Single	1, 3, 2, 4	8, 21, 36, 113	117	
	4	(untitled)	Single	1, 3, 4, 2	8, 21, 99, 113	117	
	5	(untitled)	Single	1, 4, 2, 3	8, 86, 101, 113	117	
	6	(untitled)	Single	1, 4, 3, 2	8, 86, 99, 113	117	

Intergreen Matrix for Controller Stream 1

		To			
		A	B	C	D
From	A		7	7	7
	B	7		7	7
	C	7	7		7
	D	7	7	7	

Banned Stage transitions for Controller Stream 1

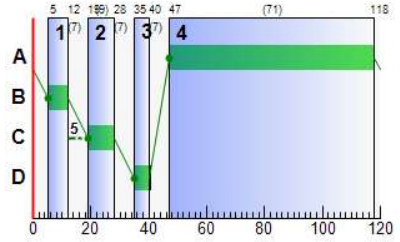
		To			
		1	2	3	4
From	1				
	2				
	3				
	4				

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A1	1	1	1	A	47	118	71
B1	1	1	1	C	19	28	9
C1	1	1	1	A	47	118	71
D1	1	1	1	B	5	12	7

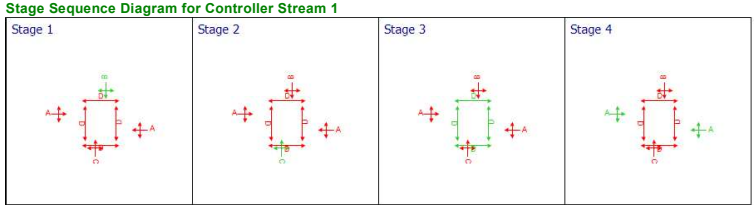
Phase Timings Diagram

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A1	1	64	40	696	1800	71	18.66	15.66	60.03	51.21	5.71	56.92
	A1x	1	0	Unrestricted	554	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B1	1	18	400	27	1800	9	53.87	0.85	8.17	5.74	0.32	6.05
	B1x	1	0	Unrestricted	44	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C1	1	49	84	527	1800	71	15.16	10.04	38.49	31.51	3.69	35.20
	C1x	1	0	Unrestricted	648	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D1	1	4	2060	5	1800	7	53.39	0.16	1.50	1.05	0.06	1.11
	D1x	1	0	Unrestricted	9	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow (PCU/hr)	Calculated capacity (PCU/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effec gree (pe cycl
17:00-18:00	A1	1	696	696	0		1800	1080	64		40	0.00	71	72
	A1x	1	554	554	0		Unrestricted	Unrestricted	0		Unrestricted	0.64	120	12
	B1	1	27	27	0		1800	150	18		400	0.00	9	10
	B1x	1	44	44	0		Unrestricted	Unrestricted	0		Unrestricted	0.77	120	12
	C1	1	527	527	0		1800	1080	49		84	0.00	71	72
	C1x	1	648	648	0		Unrestricted	Unrestricted	0		Unrestricted	0.72	120	12
	D1	1	5	5	0		1800	120	4		2060	0.00	7	8
	D1x	1	9	9	0		Unrestricted	Unrestricted	0		Unrestricted	0.77	120	12

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	A1	1	18.00	18.66	3.03	0.58	51.21	51.21	65.41	437.99	17.30	5.71	5.71
	A1x	1	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B1	1	7.20	53.87	0.38	0.02	5.74	5.74	93.69	24.71	0.59	0.32	0.32
	B1x	1	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C1	1	18.00	15.16	1.99	0.23	31.51	31.51	55.84	287.33	6.93	3.69	3.69
	C1x	1	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D1	1	7.20	53.39	0.07	0.00	1.05	1.05	92.89	4.62	0.03	0.06	0.06
	D1x	1	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Average storage excess queue (PCU)	Average limit excess queue (PCU)	Excess queue penalty (£ per hr)	Mean end of green queue (PCU)	Mean end of red queue (PCU)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	A1	1	0.00	15.66	26.09	60.03	0.00	0.00	0.00	0.58	9.86	0.00	0.00	0.00	
	A1x	1	0.00	0.00	26.09	0.00	0.00	0.00	0.00			21.00	0.00	21.00	
	B1	1	0.00	0.85	10.43	8.17	0.00	0.00	0.00	0.02	0.84	8.00	0.00	8.00	
	B1x	1	0.00	0.00	10.43	0.00	0.00	0.00	0.00			88.00	0.00	88.00	
	C1	1	0.00	10.04	26.09	38.49	0.00	0.00	0.00	0.23	7.26	0.00	0.00	0.00	
	C1x	1	0.00	0.00	26.09	0.00	0.00	0.00	0.00			34.00	0.00	34.00	
	D1	1	0.00	0.16	10.43	1.50	0.00	0.00	0.00	0.00	0.16	7.00	0.00	7.00	
	D1x	1	0.00	0.00	10.43	0.00	0.00	0.00	0.00			120.00	0.00	120.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	A1	1	104.40	7.09	14.73	36.66
	A1x	1	83.10	2.77	30.00	18.00
	B1	1	1.62	0.46	3.54	61.07
	B1x	1	2.64	0.09	30.00	7.20
	C1	1	79.05	4.85	16.28	33.16
	C1x	1	97.20	3.24	30.00	18.00
	D1	1	0.30	0.08	3.57	60.59
	D1x	1	0.54	0.02	30.00	7.20

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Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (PCU)	Mean End of Green Queue EoTS (PCU)	Mean End of Red Queue EoTS (PCU)	PCU Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A1	1	0.00	0.00	✓	15.66	0.58	9.86	1.00	0.00	56.92	56.92
	A1x	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	B1	1	0.00	0.00	✓	0.85	0.02	0.84	1.00	0.00	6.05	6.05
	B1x	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	C1	1	0.00	0.00	✓	10.04	0.23	7.26	1.00	0.00	35.20	35.20
	C1x	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	D1	1	0.00	0.00	✓	0.16	0.00	0.16	1.00	0.00	1.11	1.11
	D1x	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	(ALL)	(ALL)	4	20	11000	5	54.63	0.63	4.31	4.31

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effec gree (pe cycl
17:00-18:00	(ALL)	(ALL)	20	20	0		11000	550	4		2375	0.00	5	6

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)
17:00-18:00	1	1	5.00	54.63	0.30	0.00	4.31	4.31
		2	5.00	54.63	0.30	0.00	4.31	4.31
	2	1	7.67	54.63	0.30	0.00	4.31	4.31
		2	7.67	54.63	0.30	0.00	4.31	4.31
	3	1	5.00	54.63	0.30	0.00	4.31	4.31
		2	5.00	54.63	0.30	0.00	4.31	4.31
	4	1	7.67	54.63	0.30	0.00	4.31	4.31
		2	7.67	54.63	0.30	0.00	4.31	4.31

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	1	1	0.14	0.33	0.42	59.63
		2	0.14	0.33	0.42	59.63
	2	1	0.22	0.35	0.64	62.29
		2	0.22	0.35	0.64	62.29
	3	1	0.14	0.33	0.42	59.63
		2	0.14	0.33	0.42	59.63
	4	1	0.22	0.35	0.64	62.29
		2	0.22	0.35	0.64	62.29

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
17:00-18:00	(ALL)	(ALL)	0.00	0.00	0.63	1.00	0.00	4.31	4.31

Collections

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	40.4	51.2	0.0	0.0	0.0	0.0	0.0
	2	78.6	0.0	78.6	0.0	0.0	0.0	0.0	0.0
	3	54.7	43.9	0.0	43.9	0.0	0.0	0.0	0.0
	4	0.0	0.0	79.1	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	59.6	62.3	0.0
	6	0.0	0.0	0.0	0.0	59.6	0.0	0.0	62.3
	7	0.0	0.0	0.0	0.0	62.3	0.0	0.0	59.6
	8	0.0	0.0	0.0	0.0	0.0	62.3	59.6	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Normal journey dist (m)	Bus journeydist (m)	Tram journey dist (m)	Pedestrian journey dist (m)	Calculated Total Flow (PCU/hr)	Avg journey time (s)	Avg journey dist (m)
1	1	2	3		40.36		210.00	0.00	0.00	0.00	3	40.36	210.00
2	1	3	524		51.16		300.00	0.00	0.00	0.00	524	51.16	300.00
4	2	3	3		78.59		210.00	0.00	0.00	0.00	3	78.59	210.00
5	2	4	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00
6	2	1	2		78.59		210.00	0.00	0.00	0.00	2	78.59	210.00
7	3	4	44		43.86		210.00	0.00	0.00	0.00	44	43.86	210.00
8	3	1	646		54.66		300.00	0.00	0.00	0.00	646	54.66	300.00
10	4	2	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00
11	4	3	27		79.07		210.00	0.00	0.00	0.00	27	79.07	210.00
12	4	1	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00
13	5	6		20		59.63	7.00	7.00	7.00	7.00	20	59.63	7.00
14	6	5		20		59.63	7.00	7.00	7.00	7.00	20	59.63	7.00
15	6	8		20		62.29	11.00	11.00	11.00	11.00	20	62.29	11.00
16	8	6		20		62.29	11.00	11.00	11.00	11.00	20	62.29	11.00
17	5	7		20		62.29	11.00	11.00	11.00	11.00	20	62.29	11.00
18	7	5		20		62.29	11.00	11.00	11.00	11.00	20	62.29	11.00
19	7	8		20		59.63	7.00	7.00	7.00	7.00	20	59.63	7.00
20	8	7		20		59.63	7.00	7.00	7.00	7.00	20	59.63	7.00
21	3	2	6		43.86		210.00	0.00	0.00	0.00	6	43.86	210.00
22	1	4	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00

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Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES	
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (PCU)	Me en of r que (PC
A1	1	(untitled)	1	1	A	696	1800	71	0.00	64	40	36.66	18.66	65.41	15.66	9.
A1x	1	(untitled)				554	Unrestricted	120	21.00	0	Unrestricted	18.00	0.00	0.00	0.00	
B1	1	(untitled)	1	1	C	27	1800	9	8.00	18	400	61.07	53.87	93.69	0.85	0.
B1x	1	(untitled)				44	Unrestricted	120	88.00	0	Unrestricted	7.20	0.00	0.00	0.00	
C1	1	(untitled)	1	1	A	527	1800	71	0.00	49	84	33.16	15.16	55.84	10.04	7.
C1x	1	(untitled)				648	Unrestricted	120	34.00	0	Unrestricted	18.00	0.00	0.00	0.00	
D1	1	(untitled)	1	1	B	5	1800	7	7.00	4	2060	60.59	53.39	92.89	0.16	0.
D1x	1	(untitled)				9	Unrestricted	120	120.00	0	Unrestricted	7.20	0.00	0.00	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)	1	1	D	20	11000	5	4	2375	59.63	54.63	0.63	100	0
	2	(untitled)	1	1	D	20	11000	5	4	2375	59.63	54.63	0.63	100	0
2	1	(untitled)	1	1	D	20	11000	5	4	2375	62.29	54.63	0.63	100	0
	2	(untitled)	1	1	D	20	11000	5	4	2375	62.29	54.63	0.63	100	0
3	1	(untitled)	1	1	D	20	11000	5	4	2375	59.63	54.63	0.63	100	0
	2	(untitled)	1	1	D	20	11000	5	4	2375	59.63	54.63	0.63	100	0
4	1	(untitled)	1	1	D	20	11000	5	4	2375	62.29	54.63	0.63	100	0
	2	(untitled)	1	1	D	20	11000	5	4	2375	62.29	54.63	0.63	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	368.85	18.60	19.83	5.47	0.83	89.52	9.77	0.00	99.29
Bus									
Tram									
Pedestrians	1.44	2.71	0.53	2.43	0.00	34.47	0.00	0.00	34.47
TOTAL	370.29	21.31	17.38	7.90	0.83	123.99	9.77	0.00	133.77

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A1 - PM Peak Hour
D7 - 2042 DO SOMETHING, PM

Summary

Data Errors and Warnings

No errors or warnings

Run Summary

Analysis set used	Run start time	Run finish time	Run duration (s)	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item wi wors unsignal PRC
1	05/03/2024 13:57:35	05/03/2024 13:57:36	1.23	17:00	120	155.08	9.99	75.00	A1/1	0	0	A1/1	D1x/

Analysis Set Details

Name	Use Simulation	Description	Use specific Demand Set(s)	Specific Demand Set (s)	Optimise specific Demand Set(s)	Demand Set(s) to optimise	Include in report	Locked
PM Peak Hour			✓	D1,D2,D3,D4,D5,D6,D7	✓	D7	✓	

Demand Set Details

Scenario name	Time Period name	Description	Composite	Demand sets	Start time (HH:mm)	Locked	Run automatically
2042 DO SOMETHING	PM	(untitled)			17:00		✓

Network Options

Network timings

Network cycle time (s)	Minimum possible cycle time (s)	Absolute minimum possible cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
120	117	117		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)	Missing stage transition options
10000.00	10000.00	10000.00	2	Assume banned

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from traffic model	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	90	100	✓	✓			Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

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Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms^[-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	✓

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy (%)	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Standard accuracy Hill Climb	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Traffic Nodes

Traffic Nodes

Traffic node	Name	Description
1	(untitled)	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A1	(untitled)		1
A1x	(untitled)		
B1	(untitled)		1
B1x	(untitled)		
C1	(untitled)		1
C1x	(untitled)		
D1	(untitled)		1
D1x	(untitled)		

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A1	1	(untitled)			150.00	✓	Sum of lanes	1800	✓		Normal	
A1x	1	(untitled)			150.00						Normal	
B1	1	(untitled)			60.00	✓	Sum of lanes	1800	✓		Normal	
B1x	1	(untitled)			60.00						Normal	
C1	1	(untitled)			150.00	✓	Sum of lanes	1800	✓		Normal	
C1x	1	(untitled)			150.00						Normal	
D1	1	(untitled)			60.00	✓	Sum of lanes	1800	✓		Normal	
D1x	1	(untitled)			60.00						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Saturation flow (PCU/hr)
A1	1	1	(untitled)			1800
A1x	1	1	(untitled)			
B1	1	1	(untitled)			1800
B1x	1	1	(untitled)			
C1	1	1	(untitled)			1800
C1x	1	1	(untitled)			
D1	1	1	(untitled)			1800
D1x	1	1	(untitled)			

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	1	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	120

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	1	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
A1	1	810	810
A1x	1	619	619
B1	1	108	108
B1x	1	186	186
C1	1	555	555
C1x	1	664	664
D1	1	5	5
D1x	1	9	9

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Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
A1	1	1	A	
B1	1	1	C	
C1	1	1	A	
D1	1	1	B	

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A1	1	18.00	30.00
B1	1	7.20	30.00
C1	1	18.00	30.00
D1	1	7.20	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
A1x	1	1	B1/1	A1x/1	18.00	30.00	✓	Offside	50.00
B1x	1	1	A1/1	B1x/1	7.20	30.00	✓	Nearside	25.00
C1x	1	1	B1/1	C1x/1	18.00	30.00	✓	Nearside	25.00
D1x	1	1	C1/1	D1x/1	7.20	30.00	✓	Nearside	35.00
A1x	1	2	D1/1	A1x/1	18.00	30.00	✓	Nearside	30.00
B1x	1	2	D1/1	B1x/1	7.20	30.00	✓	Straight	Straight Movement
C1x	1	2	D1/1	C1x/1	18.00	30.00	✓	Offside	50.00
D1x	1	2	B1/1	D1x/1	7.20	30.00	✓	Straight	Straight Movement
A1x	1	3	C1/1	A1x/1	18.00	30.00	✓	Straight	Straight Movement
B1x	1	3	C1/1	B1x/1	7.20	30.00	✓	Offside	55.00
C1x	1	3	A1/1	C1x/1	18.00	30.00	✓	Straight	Straight Movement
D1x	1	3	A1/1	D1x/1	7.20	30.00	✓	Offside	65.00

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	6.00	4.00	5.40
2	(untitled)		1		Farside	10.00	6.67	5.40
3	(untitled)		1		Farside	6.00	4.00	5.40
4	(untitled)		1		Farside	10.00	6.67	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
(ALL)	1	D	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit	Limit paths by flow	Low path flow threshold
1	(untitled)	✓	✓	Path Equalisation			✓			✓	1.25				

Normal Input Flows (PCU/hr)

		To							
		1	2	3	4	5	6	7	8
From	1	0	3	524	28	0	0	0	0
	2	2	0	3	0	0	0	0	0
	3	646	6	0	158	0	0	0	0
	4	16	0	92	0	0	0	0	0
	5	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows not shown as they are blank.

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	C1/1	C1x/1	#0000FF
	2	(untitled)	D1/1	D1x/1	#FF0000
	3	(untitled)	A1/1	A1x/1	#00FF00
	4	(untitled)	B1/1	B1x/1	#FFFF00
	5	(untitled)	3:2E, 4:1E	3:2X, 4:1X	#00FFFF
	6	(untitled)	3:1E, 2:2E	3:1X, 2:2X	#FF00FF
	7	(untitled)	4:2E, 1:1E	4:2X, 1:1X	#008000
	8	(untitled)	2:1E, 1:2E	2:1X, 1:2X	#FFA500

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	1		1	2	C1/1, D1x/1	Normal	3
	2		1	3	C1/1, A1x/1	Normal	524
	4		2	3	D1/1, A1x/1	Normal	3
	5		2	4	D1/1, B1x/1	Normal	0
	6		2	1	D1/1, C1x/1	Normal	2
	7		3	4	A1/1, B1x/1	Normal	158
	8		3	1	A1/1, C1x/1	Normal	646
	10		4	2	B1/1, D1x/1	Normal	0
	11		4	3	B1/1, A1x/1	Normal	92
	12		4	1	B1/1, C1x/1	Normal	16
	21		3	2	A1/1, D1x/1	Normal	6
	22		1	4	C1/1, B1x/1	Normal	28

Pedestrian Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Pedestrian calculated flow (Ped/hr)
1	13		5	6	3:2E, 3:1X	Normal	0
	14		6	5	3:1E, 3:2X	Normal	0
	15		6	8	2:2E, 2:1X	Normal	0
	16		8	6	2:1E, 2:2X	Normal	0
	17		5	7	4:1E, 4:2X	Normal	0
	18		7	5	4:2E, 4:1X	Normal	0
	19		7	8	1:1E, 1:2X	Normal	0
	20		8	7	1:2E, 1:1X	Normal	0

Signal Timings

Network Default: 120s cycle time; 120 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)	Minimum possible cycle time (s)
1	AM		1	Manual	120	117

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Absolute

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Street minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	70	100	0	0	Traffic	
	B	(untitled)	7	10	0	0	Traffic	
	C	(untitled)	7	10	0	0	Traffic	
	D	(untitled)	5	5	0	0	Pedestrian	1

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)	Run every N cycles	Probability of running (%)
1	1	B	1	1	100
	2	C	1	1	100
	3	D	1	1	100
	4	A	1	1	100

Losing / Gaining Phase Delays

Controller Stream	Delay	Type	Phase	From stage	To stage	Relative delay	Absolute delay
1	1	Gaining	D	4	1	5	12
	2	Losing	D	1	2	3	
	3	Gaining	C	1	2	0	5

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends	Minimum possible cycle time (s)	Exclude from analysis
1	1	(untitled)	Single	1, 2, 3, 4	12, 28, 40, 118	117	
	2	(untitled)	Single	1, 2, 4, 3	8, 23, 101, 113	117	
	3	(untitled)	Single	1, 3, 2, 4	8, 21, 36, 113	117	
	4	(untitled)	Single	1, 3, 4, 2	8, 21, 99, 113	117	
	5	(untitled)	Single	1, 4, 2, 3	8, 86, 101, 113	117	
	6	(untitled)	Single	1, 4, 3, 2	8, 86, 99, 113	117	

Intergreen Matrix for Controller Stream 1

		To			
		A	B	C	D
From	A		7	7	7
	B	7		7	7
	C	7	7		7
	D	7	7	7	

Banned Stage transitions for Controller Stream 1

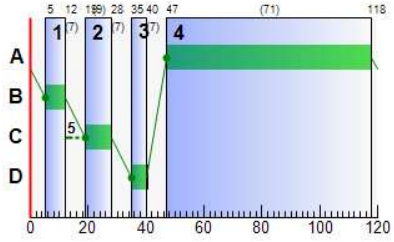
		To			
		1	2	3	4
From	1				
	2				
	3				
	4				

Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A1	1	1	1	A	47	118	71
B1	1	1	1	C	19	28	9
C1	1	1	1	A	47	118	71
D1	1	1	1	B	5	12	7

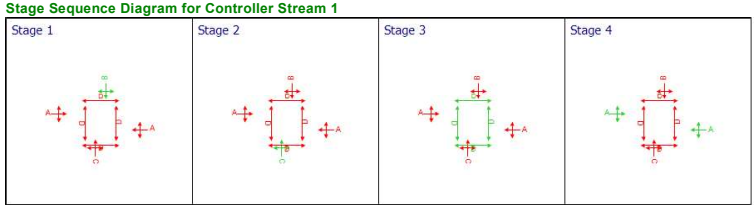
Phase Timings Diagram

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram

Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A1	1	75	20	810	1800	71	22.39	20.68	79.29	71.53	7.54	79.07
	A1x	1	0	Unrestricted	619	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	B1	1	72	25	108	1800	9	82.34	4.37	41.89	35.08	1.60	36.68
	B1x	1	0	Unrestricted	186	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	C1	1	51	75	555	1800	71	15.64	10.91	41.82	34.24	3.99	38.23
	C1x	1	0	Unrestricted	664	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00
	D1	1	4	2060	5	1800	7	53.39	0.16	1.50	1.05	0.06	1.11
	D1x	1	0	Unrestricted	9	Unrestricted	120	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow (PCU/hr)	Calculated capacity (PCU/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))	Effec gree (pe cycl
17:00-18:00	A1	1	810	810	0		1800	1080	75		20	0.00	71	72
	A1x	1	619	619	0		Unrestricted	Unrestricted	0		Unrestricted	0.57	120	12
	B1	1	108	108	0		1800	150	72		25	0.00	9	10
	B1x	1	186	186	0		Unrestricted	Unrestricted	0		Unrestricted	0.77	120	12
	C1	1	555	555	0		1800	1080	51		75	0.00	71	72
	C1x	1	664	664	0		Unrestricted	Unrestricted	0		Unrestricted	0.69	120	12
	D1	1	5	5	0		1800	120	4		2060	0.00	7	8
	D1x	1	9	9	0		Unrestricted	Unrestricted	0		Unrestricted	0.77	120	12

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Unweighted cost of stops (£ per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	A1	1	18.00	22.39	3.93	1.11	71.53	71.53	74.24	568.38	32.95	7.54	7.54
	A1x	1	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B1	1	7.20	82.34	1.61	0.86	35.08	35.08	118.38	103.50	24.35	1.60	1.60
	B1x	1	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C1	1	18.00	15.64	2.14	0.27	34.24	34.24	57.34	310.14	8.09	3.99	3.99
	C1x	1	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D1	1	7.20	53.39	0.07	0.00	1.05	1.05	92.89	4.62	0.03	0.06	0.06
	D1x	1	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Average storage excess queue (PCU)	Average limit excess queue (PCU)	Excess queue penalty (£ per hr)	Mean end of green queue (PCU)	Mean end of red queue (PCU)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
17:00-18:00	A1	1	0.00	20.68	26.09	79.29	0.00	0.00	0.00	1.11	11.91	0.00	0.00	0.00	
	A1x	1	0.00	0.00	26.09	0.00	0.00	0.00	0.00			12.00	0.00	12.00	
	B1	1	0.00	4.37	10.43	41.89	0.00	0.00	0.00	0.86	4.16	0.00	0.00	0.00	
	B1x	1	0.00	0.00	10.43	0.00	0.00	0.00	0.00			46.00	0.00	46.00	
	C1	1	0.00	10.91	26.09	41.82	0.00	0.00	0.00	0.27	7.67	0.00	0.00	0.00	
	C1x	1	0.00	0.00	26.09	0.00	0.00	0.00	0.00			21.00	0.00	21.00	
	D1	1	0.00	0.16	10.43	1.50	0.00	0.00	0.00	0.00	0.16	7.00	0.00	7.00	
	D1x	1	0.00	0.00	10.43	0.00	0.00	0.00	0.00			120.00	0.00	120.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	A1	1	121.50	9.09	13.37	40.39
	A1x	1	92.85	3.10	30.00	18.00
	B1	1	6.48	2.69	2.41	89.54
	B1x	1	11.16	0.37	30.00	7.20
	C1	1	83.25	5.19	16.05	33.64
	C1x	1	99.60	3.32	30.00	18.00
	D1	1	0.30	0.08	3.57	60.59
	D1x	1	0.54	0.02	30.00	7.20

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (PCU)	Mean End of Green Queue EoTS (PCU)	Mean End of Red Queue EoTS (PCU)	PCU Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
17:00-18:00	A1	1	0.00	0.00	✓	20.69	1.12	11.92	1.00	0.00	79.07	79.07
	A1x	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	B1	1	0.00	0.00	✓	4.40	0.89	4.19	1.00	0.00	36.68	36.68
	B1x	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	C1	1	0.00	0.00	✓	10.91	0.27	7.67	1.00	0.00	38.23	38.23
	C1x	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00
	D1	1	0.00	0.00	✓	0.16	0.00	0.16	1.00	0.00	1.11	1.11
	D1x	1	0.00	0.00	✓	0.00			1.00	0.00	0.00	0.00

TRL THE FUTURE OF TRANSPORT
Generated on 05/03/2024 14:02:45 using TRANSYT 16 (16.0.1.8473)

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
17:00-18:00	(ALL)	(ALL)	0	0	11000	5	0.00	0.00	0.00	0.00

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity	Mean modulus of error	Actual green (s (per cycle))	Eff gr (c
17:00-18:00	(ALL)	(ALL)	0	0	0		11000	550	0		Unrestricted	0.00	5	

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Unweighted cost of delay (£ per hr)	Weighted cost of delay (£ per hr)
17:00-18:00	(ALL)	(ALL)	1.00	0.00	0.00	0.00	0.00	0.00

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
17:00-18:00	(ALL)	(ALL)	0.00	10.00	0.00	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
17:00-18:00	(ALL)	(ALL)	0.00	0.00	0.00	0.00

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Unweighted performance index (£ per hr)	Performance Index (£ per hr)
17:00-18:00	(ALL)	(ALL)	0.00	0.00	0.00	1.00	0.00	0.00	0.00

Collections

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	40.8	51.6	40.8	0.0	0.0	0.0	0.0
	2	78.6	0.0	78.6	0.0	0.0	0.0	0.0	0.0
	3	58.4	47.6	0.0	47.6	0.0	0.0	0.0	0.0
	4	107.5	0.0	107.5	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Normal journey dist (m)	Bus journeydist (m)	Tram journey dist (m)	Pedestrian journey dist (m)	Calculated Total Flow (PCU/hr)	Avg journey time (s)	Avg journey dist (m)
1	1	2	3		40.84		210.00	0.00	0.00	0.00	3	40.84	210.00
2	1	3	524		51.64		300.00	0.00	0.00	0.00	524	51.64	300.00
4	2	3	3		78.59		210.00	0.00	0.00	0.00	3	78.59	210.00
5	2	4	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00
6	2	1	2		78.59		210.00	0.00	0.00	0.00	2	78.59	210.00
7	3	4	158		47.59		210.00	0.00	0.00	0.00	158	47.59	210.00
8	3	1	646		58.39		300.00	0.00	0.00	0.00	646	58.39	300.00
10	4	2	0		0.00		0.00	0.00	0.00	0.00	0	0.00	0.00
11	4	3	92		107.54		210.00	0.00	0.00	0.00	92	107.54	210.00
12	4	1	16		107.54		210.00	0.00	0.00	0.00	16	107.54	210.00
13	5	6		0		0.00	7.00	7.00	7.00	7.00	0	0.00	28.00
14	6	5		0		0.00	7.00	7.00	7.00	7.00	0	0.00	28.00
15	6	8		0		0.00	11.00	11.00	11.00	11.00	0	0.00	44.00
16	8	6		0		0.00	11.00	11.00	11.00	11.00	0	0.00	44.00
17	5	7		0		0.00	11.00	11.00	11.00	11.00	0	0.00	44.00
18	7	5		0		0.00	11.00	11.00	11.00	11.00	0	0.00	44.00
19	7	8		0		0.00	7.00	7.00	7.00	7.00	0	0.00	28.00
20	8	7		0		0.00	7.00	7.00	7.00	7.00	0	0.00	28.00
21	3	2	6		47.59		210.00	0.00	0.00	0.00	6	47.59	210.00
22	1	4	28		40.84		210.00	0.00	0.00	0.00	28	40.84	210.00

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUE	
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (PCU)	M e of qu (P
A1	1	(untitled)	1	1	A	810	1800	71	0.00	75	20	40.39	22.39	74.24	20.68	11
A1x	1	(untitled)				619	Unrestricted	120	12.00	0	Unrestricted	18.00	0.00	0.00	0.00	
B1	1	(untitled)	1	1	C	108	1800	9	0.00	72	25	89.54	82.34	118.38	4.37	4.
B1x	1	(untitled)				186	Unrestricted	120	46.00	0	Unrestricted	7.20	0.00	0.00	0.00	
C1	1	(untitled)	1	1	A	555	1800	71	0.00	51	75	33.64	15.64	57.34	10.91	7.
C1x	1	(untitled)				664	Unrestricted	120	21.00	0	Unrestricted	18.00	0.00	0.00	0.00	
D1	1	(untitled)	1	1	B	5	1800	7	7.00	4	2060	60.59	53.39	92.89	0.16	0.
D1x	1	(untitled)				9	Unrestricted	120	120.00	0	Unrestricted	7.20	0.00	0.00	0.00	

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	P
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	(
(ALL)	(ALL)	(untitled)	1	1	D	0	11000	5	0	Unrestricted	0.00	0.00	0.00	100	

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	415.68	23.85	17.43	7.75	2.24	141.89	13.19	0.00	155.08
Bus									
Tram									
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	415.68	23.85	17.43	7.75	2.24	141.89	13.19	0.00	155.08

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

Junctions 9

PICADY 9 - Priority Intersection Module

Filename: Junction 6 - AM-PM.j9
Path: M:\Projects\23\23-102 Mooretown\Design\Traffic\2024-02 - Modelling\Junction 6
Report generation date: 05/03/2024 14:08:58

Generated on 05/03/2024 14:09:15 using Junctions 9 (9.5.1.7462)

Summary of junction performance

	AM			PM		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
	Junction 6 - 2023 Base Year					
Stream B-AC	0.0	0.00	0.00	0.0	0.00	0.00
Stream C-AB	0.0	0.00	0.00	0.0	0.00	0.00
	Junction 6 - 2027 Do Nothing					
Stream B-AC	0.2	14.63	0.13	0.1	12.71	0.06
Stream C-AB	0.0	4.07	0.02	0.0	4.77	0.03
	Junction 6 - 2027 Do Something					
Stream B-AC	0.2	15.34	0.14	0.1	13.11	0.06
Stream C-AB	0.0	4.06	0.02	0.0	4.69	0.03
	Junction 6 - 2032 Do Nothing					
Stream B-AC	0.2	15.44	0.14	0.1	13.21	0.06
Stream C-AB	0.0	4.02	0.02	0.0	4.72	0.03
	Junction 6 - 2032 Do Something					
Stream B-AC	0.2	16.24	0.14	0.1	13.63	0.07
Stream C-AB	0.0	4.01	0.02	0.0	4.65	0.03
	Junction 6 - 2042 Do Nothing					
Stream B-AC	0.2	16.27	0.14	0.1	13.69	0.07
Stream C-AB	0.0	3.98	0.02	0.0	4.69	0.03
	Junction 6 - 2042 Do Something					
Stream B-AC	0.2	17.17	0.15	0.1	14.15	0.07
Stream C-AB	0.0	3.96	0.02	0.0	4.61	0.03

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

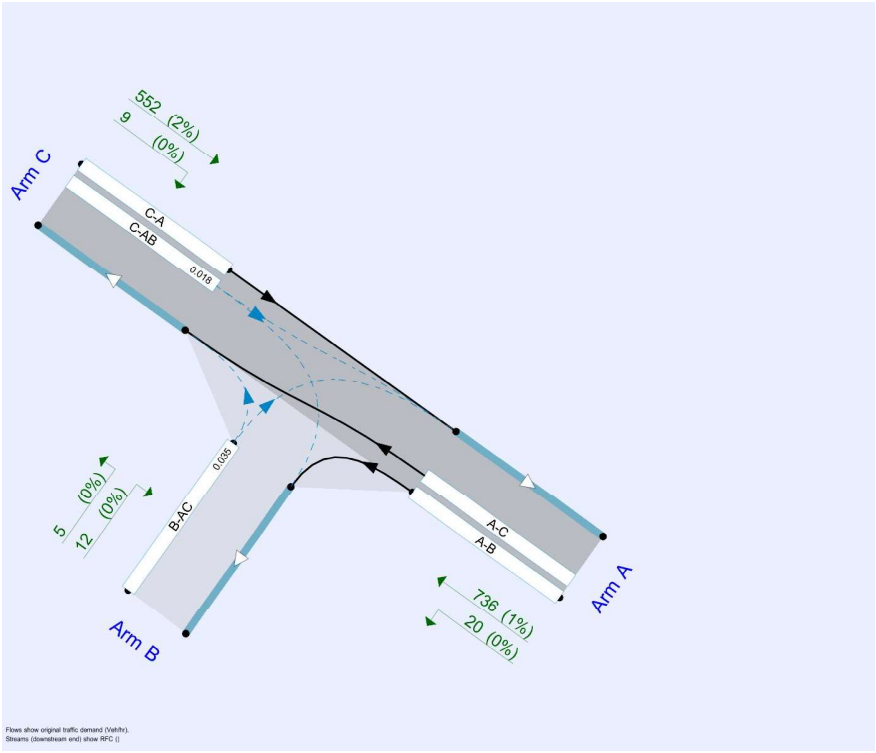
File summary

File Description

Title	Junction 6
Location	Mooretown
Site number	
Date	01/03/2024
Version	1
Status	
Identifier	
Client	
Jobnumber	23-102
Enumerator	DOMAIN\f.demaio
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	Veh	Veh	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)
		0.90	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	2023 Base Year	AM	ONE HOUR	08:00	09:30	15
D2	2023 Base Year	PM	ONE HOUR	17:00	18:30	15
D3	2027 Do Nothing	AM	ONE HOUR	08:00	09:30	15
D4	2027 Do Nothing	PM	ONE HOUR	17:00	18:30	15
D5	2027 Do Something	AM	ONE HOUR	08:00	09:30	15
D6	2027 Do Something	PM	ONE HOUR	17:00	18:30	15
D7	2032 Do Nothing	AM	ONE HOUR	08:00	09:30	15
D8	2032 Do Nothing	PM	ONE HOUR	17:00	18:30	15
D9	2032 Do Something	AM	ONE HOUR	08:00	09:30	15
D10	2032 Do Something	PM	ONE HOUR	17:00	18:30	15
D11	2042 Do Nothing	AM	ONE HOUR	08:00	09:30	15
D12	2042 Do Nothing	PM	ONE HOUR	17:00	18:30	15
D13	2042 Do Something	AM	ONE HOUR	08:00	09:30	15
D14	2042 Do Something	PM	ONE HOUR	17:00	18:30	15

Generated on 05/03/2024 14:09:15 using Junctions 9 (9.5.1.7462)

Analysis Set Details

ID	Name	Network flow scaling factor (%)
A1	Junction 6	100.000

Junction 6 - 2023 Base Year, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.00	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	R125 Rathbeale Road (E)		Major
B	Internal Link to P01B-P01C		Minor
C	R125 Rathbeale Road (W)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	7.00			100.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	2.20	100	100

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	516	0.090	0.227	0.143	0.324
B-C	632	0.093	0.234	-	-
C-B	632	0.234	0.234	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2023 Base Year	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 (Veh/hr)	Scaling Factor (%)
A		✓	617	100.000
B		✓	0	100.000
C		✓	450	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	128	489
	B	0	0	0
	C	450	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	3
	B	0	0	0
	C	2	0	0

Results

Results Summary for whole modelled period

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

Junction 6 - 2023 Base Year, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	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)
D2	2023 Base Year	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	440	100.000
B		✓	0	100.000
C		✓	335	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	440
	B	0	0	0
	C	335	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	1
	B	0	0	0
	C	2	0	0

Generated on 05/03/2024 14:09:15 using Junctions 9 (9.5.1.7462)

Results

Results Summary for whole modelled period

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

Junction 6 - 2027 Do Nothing, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.40	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	2027 Do Nothing	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 (Veh/hr)	Scaling Factor (%)
A		✓	620	100.000
B		✓	34	100.000
C		✓	706	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	9	611
	B	24	0	10
	C	702	4	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	3
	B	0	0	0
	C	2	0	0

Generated on 05/03/2024 14:09:15 using Junctions 9 (9.5.1.7462)

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	0.13	14.63	0.2	B
C-AB	0.02	4.07	0.0	A
C-A				
A-B				
A-C				

Junction 6 - 2027 Do Nothing, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.26	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	2027 Do Nothing	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	687	100.000
B		✓	17	100.000
C		✓	492	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	20	667
	B	12	0	5
	C	483	9	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	1
	B	0	0	0
	C	2	0	0

Generated on 05/03/2024 14:09:15 using Junctions 9 (9.5.1.7462)

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	0.06	12.71	0.1	B
C-AB	0.03	4.77	0.0	A
C-A				
A-B				
A-C				

Junction 6 - 2027 Do Something, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.40	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	2027 Do Something	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 (Veh/hr)	Scaling Factor (%)
A		✓	654	100.000
B		✓	34	100.000
C		✓	719	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	9	645
	B	24	0	10
	C	715	4	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	3
	B	0	0	0
	C	2	0	0

Generated on 05/03/2024 14:09:15 using Junctions 9 (9.5.1.7462)

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	0.14	15.34	0.2	C
C-AB	0.02	4.06	0.0	A
C-A				
A-B				
A-C				

Junction 6 - 2027 Do Something, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.26	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	2027 Do Something	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	703	100.000
B		✓	17	100.000
C		✓	521	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	20	683
	B	12	0	5
	C	512	9	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	1
	B	0	0	0
	C	2	0	0

Generated on 05/03/2024 14:09:15 using Junctions 9 (9.5.1.7462)

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	0.06	13.11	0.1	B
C-AB	0.03	4.69	0.0	A
C-A				
A-B				
A-C				

Junction 6 - 2032 Do Nothing, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.40	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	2032 Do Nothing	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 (Veh/hr)	Scaling Factor (%)
A		✓	651	100.000
B		✓	34	100.000
C		✓	735	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	9	642
	B	24	0	10
	C	731	4	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	3
	B	0	0	0
	C	2	0	0

Generated on 05/03/2024 14:09:15 using Junctions 9 (9.5.1.7462)

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	0.14	15.44	0.2	C
C-AB	0.02	4.02	0.0	A
C-A				
A-B				
A-C				

Junction 6 - 2032 Do Nothing, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.26	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	2032 Do Nothing	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	715	100.000
B		✓	17	100.000
C		✓	514	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	20	695
	B	12	0	5
	C	505	9	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	1
	B	0	0	0
	C	2	0	0

Generated on 05/03/2024 14:09:15 using Junctions 9 (9.5.1.7462)

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	0.06	13.21	0.1	B
C-AB	0.03	4.72	0.0	A
C-A				
A-B				
A-C				

Junction 6 - 2032 Do Something, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.41	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2032 Do Something	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 (Veh/hr)	Scaling Factor (%)
A		✓	685	100.000
B		✓	34	100.000
C		✓	748	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	9	676
	B	24	0	10
	C	744	4	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	3
	B	0	0	0
	C	2	0	0

Generated on 05/03/2024 14:09:15 using Junctions 9 (9.5.1.7462)

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	0.14	16.24	0.2	C
C-AB	0.02	4.01	0.0	A
C-A				
A-B				
A-C				

Junction 6 - 2032 Do Something, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.26	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	2032 Do Something	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	731	100.000
B		✓	17	100.000
C		✓	542	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	20	711
	B	12	0	5
	C	533	9	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	1
	B	0	0	0
	C	2	0	0

Generated on 05/03/2024 14:09:15 using Junctions 9 (9.5.1.7462)

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	0.07	13.63	0.1	B
C-AB	0.03	4.65	0.0	A
C-A				
A-B				
A-C				

Junction 6 - 2042 Do Nothing, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.41	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D11	2042 Do Nothing	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 (Veh/hr)	Scaling Factor (%)
A		✓	679	100.000
B		✓	34	100.000
C		✓	761	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	9	670
	B	24	0	10
	C	757	4	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	3
	B	0	0	0
	C	2	0	0

Generated on 05/03/2024 14:09:15 using Junctions 9 (9.5.1.7462)

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	0.14	16.27	0.2	C
C-AB	0.02	3.98	0.0	A
C-A				
A-B				
A-C				

Junction 6 - 2042 Do Nothing, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.26	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	2042 Do Nothing	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	740	100.000
B		✓	17	100.000
C		✓	533	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	20	720
	B	12	0	5
	C	524	9	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	1
	B	0	0	0
	C	2	0	0

Generated on 05/03/2024 14:09:15 using Junctions 9 (9.5.1.7462)

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	0.07	13.69	0.1	B
C-AB	0.03	4.69	0.0	A
C-A				
A-B				
A-C				

Junction 6 - 2042 Do Something, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.41	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D13	2042 Do Something	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 (Veh/hr)	Scaling Factor (%)
A		✓	713	100.000
B		✓	34	100.000
C		✓	774	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	9	704
	B	24	0	10
	C	770	4	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	3
	B	0	0	0
	C	2	0	0

Generated on 05/03/2024 14:09:15 using Junctions 9 (9.5.1.7462)

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	0.15	17.17	0.2	C
C-AB	0.02	3.96	0.0	A
C-A				
A-B				
A-C				

Junction 6 - 2042 Do Something, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.26	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	2042 Do Something	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	756	100.000
B		✓	17	100.000
C		✓	561	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	20	736
	B	12	0	5
	C	552	9	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	1
	B	0	0	0
	C	2	0	0

Generated on 05/03/2024 14:09:15 using Junctions 9 (9.5.1.7462)

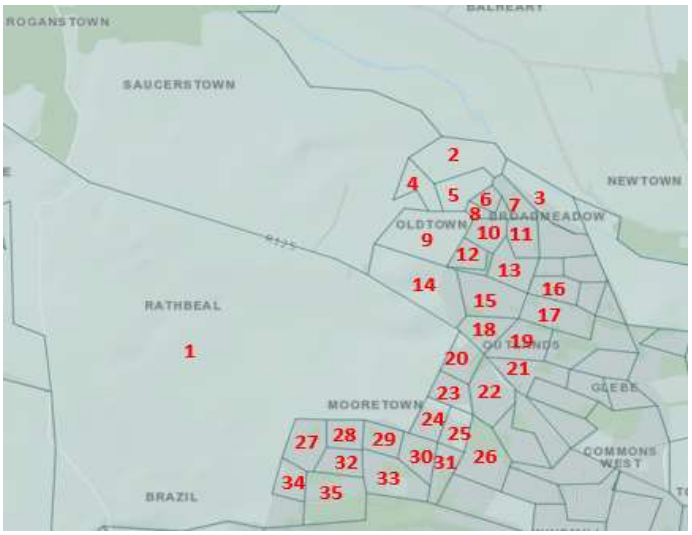
Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	0.07	14.15	0.1	B
C-AB	0.03	4.61	0.0	A
C-A				
A-B				
A-C				

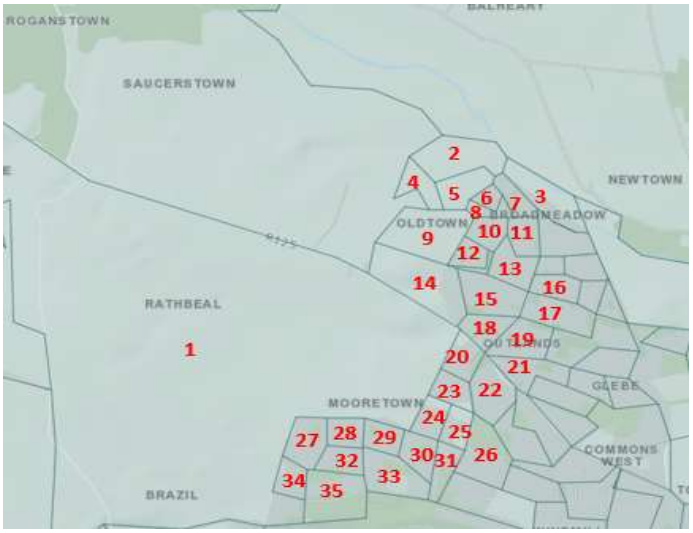
E. Census 2022

Car Ownership									
Zone	House	Persons	0	1	2	3	4	Total	Total Housing
1	119	390	7	36	46	15	5	193	1.622
2	109	321	1	52	52	2	1	166	1.523
3	77	210	16	40	13	1	0	69	0.896
4	112	320	1	56	50	2	0	162	1.446
5	120	415	3	57	52	4	0	173	1.442
6	80	246	5	42	30	1	0	105	1.313
7	103	317	13	55	29	1	0	116	1.126
8	86	269	8	48	22	3	1	105	1.221
9	94	17	14	74	104	3	1	295	3.138
10	201	662	5	30	24	2	2	92	0.458
11	109	324	6	57	44	2	0	151	1.385
12	110	354	9	53	43	3	0	148	1.345
13	121	399	15	49	51	6	0	169	1.397
14	125	452	8	44	68	5	0	195	1.560
15	119	462	3	37	68	5	1	192	1.613
16	123	286	24	65	14	0	0	93	0.756
17	120	456	2	33	59	14	4	209	1.742
18	63	226	2	23	25	8	0	97	1.540
19	132	444	5	40	57	18	1	212	1.606
20	76	265	4	20	44	5	1	127	1.671
21	78	253	2	14	42	13	5	157	2.013
22	130	431	5	41	51	18	4	213	1.638
23	76	253	0	30	35	6	2	126	1.658
24	82	288	3	31	33	4	2	117	1.427
25	84	266	6	46	18	4	1	98	1.167
26	114	366	25	47	28	7	1	128	1.123
27	120	453	3	30	48	24	8	230	1.917
28	81	305	2	19	33	18	8	171	2.111
29	92	323	2	20	45	13	5	169	1.837
30	125	414	11	44	45	15	6	203	1.624
31	71	220	6	34	20	7	2	103	1.451
32	87	297	3	21	40	13	6	164	1.885
33	107	379	3	31	50	11	7	192	1.794
34	83	305	4	17	38	15	6	162	1.952
35	72	243	3	24	25	10	5	124	1.722
Total	**3601**	**11631**	**229**	**1360**	**1446**	**278**	**85**	**5426**	**1.51**

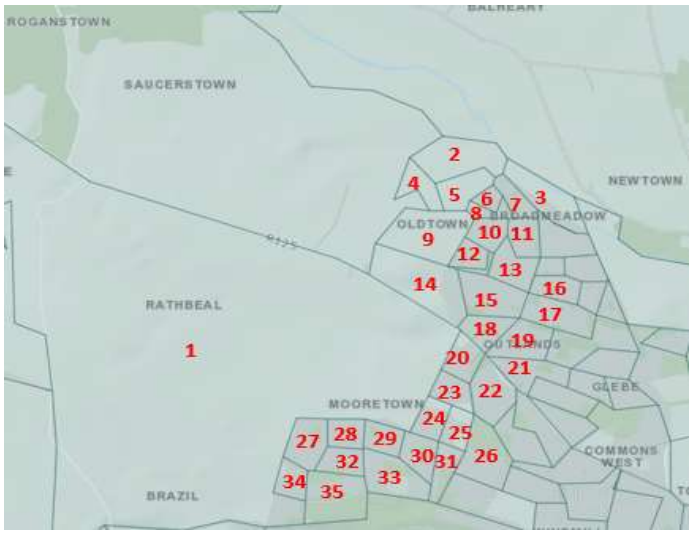


Modal Split									
Zone	House	Persons	On foot	Bike	Bus, minibus or coach	Train, DART or LUAS	Motors (*)	Other or not stated	Total travels
1	119	390	28	12	62	2	180	30	284
2	109	321	6	3	36	0	176	50	221
3	77	210	37	6	22	0	79	28	144
4	112	320	12	8	42	6	170	45	238
5	120	415	35	9	35	0	196	61	275
6	80	246	24	7	24	1	135	15	191
7	103	317	34	12	45	1	136	27	228
8	86	269	30	12	40	1	108	16	191
9	94	17	94	17	54	2	325	72	492
10	201	662	17	6	33	0	99	15	155
11	109	324	33	18	31	4	178	26	264
12	110	354	43	6	53	2	165	23	269
13	121	399	64	11	49	2	183	38	309
14	125	452	71	18	57	2	207	34	355
15	119	462	68	12	64	1	211	27	356
16	123	286	35	7	48	2	71	42	163
17	120	456	25	15	61	3	247	48	351
18	63	226	30	9	31	2	97	16	169
19	132	444	26	8	60	3	221	51	318
20	76	265	21	4	69	0	116	17	210
21	78	253	20	4	31	3	118	25	176
22	130	431	55	7	55	2	161	41	280
23	76	253	20	2	38	0	128	28	188
24	82	288	42	7	41	0	116	36	206
25	84	266	28	9	47	1	92	38	177
26	114	366	55	8	45	1	114	14	223
27	120	453	32	6	69	0	232	45	339
28	81	305	16	8	39	0	165	24	228
29	92	323	41	4	42	2	141	37	230
30	125	414	41	8	73	5	154	35	281
31	71	220	21	0	25	1	111	17	158
32	87	297	28	5	57	1	127	27	218
33	107	379	53	3	54	1	167	33	278
34	83	305	24	3	38	0	159	32	224
35	72	243	17	4	38	0	106	19	165
Total	**3601**	**11631**	**1226**	**278**	**1608**	**51**	**5391**	**1132**	**8554**
			14.3%	**3.2%**	**18.8%**	**0.6%**	**63.0%**		**100.0%**

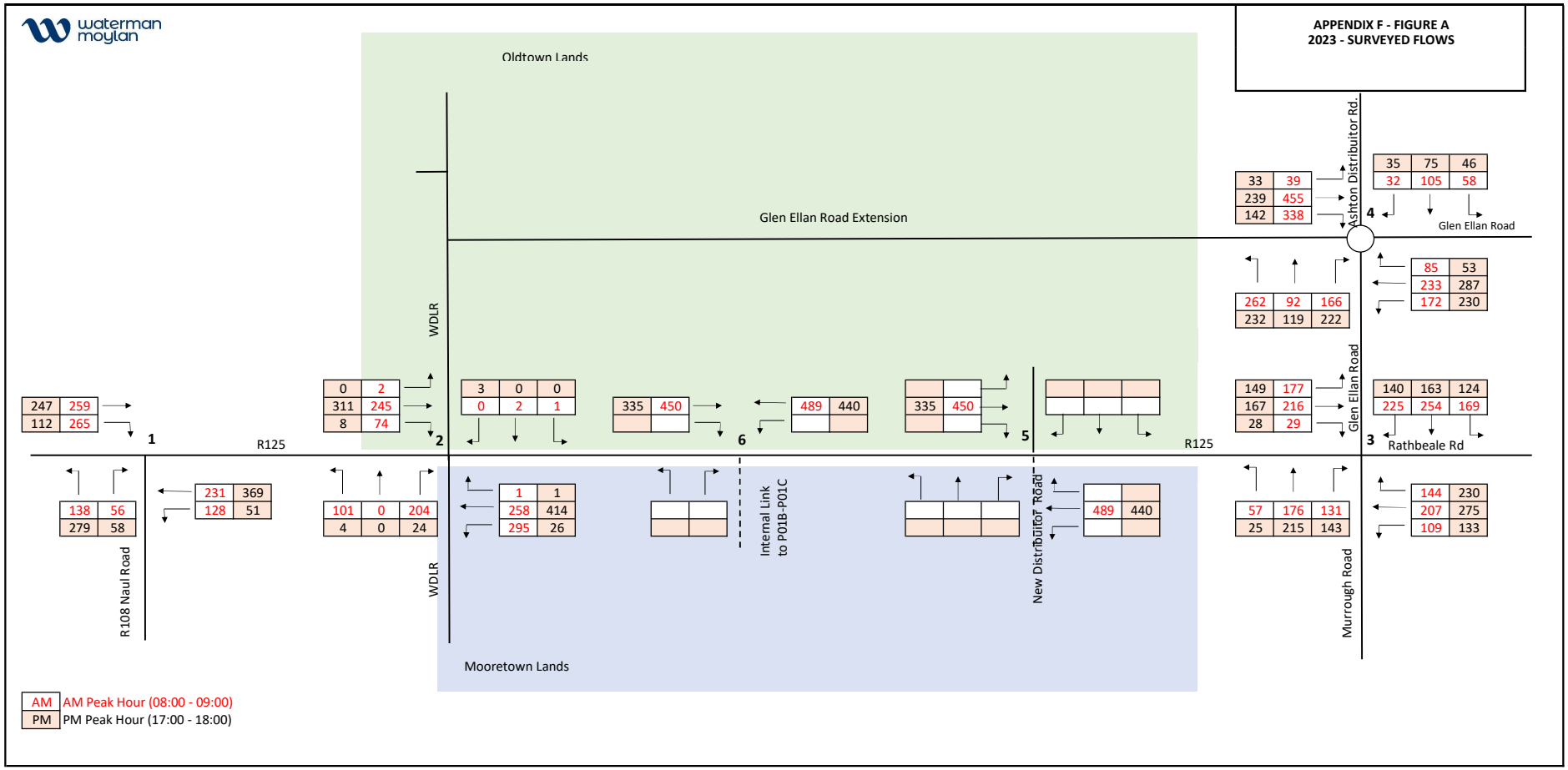
(*) Include categories for Motorycle, Scooter, Car Driver, Car Passenger and VAN

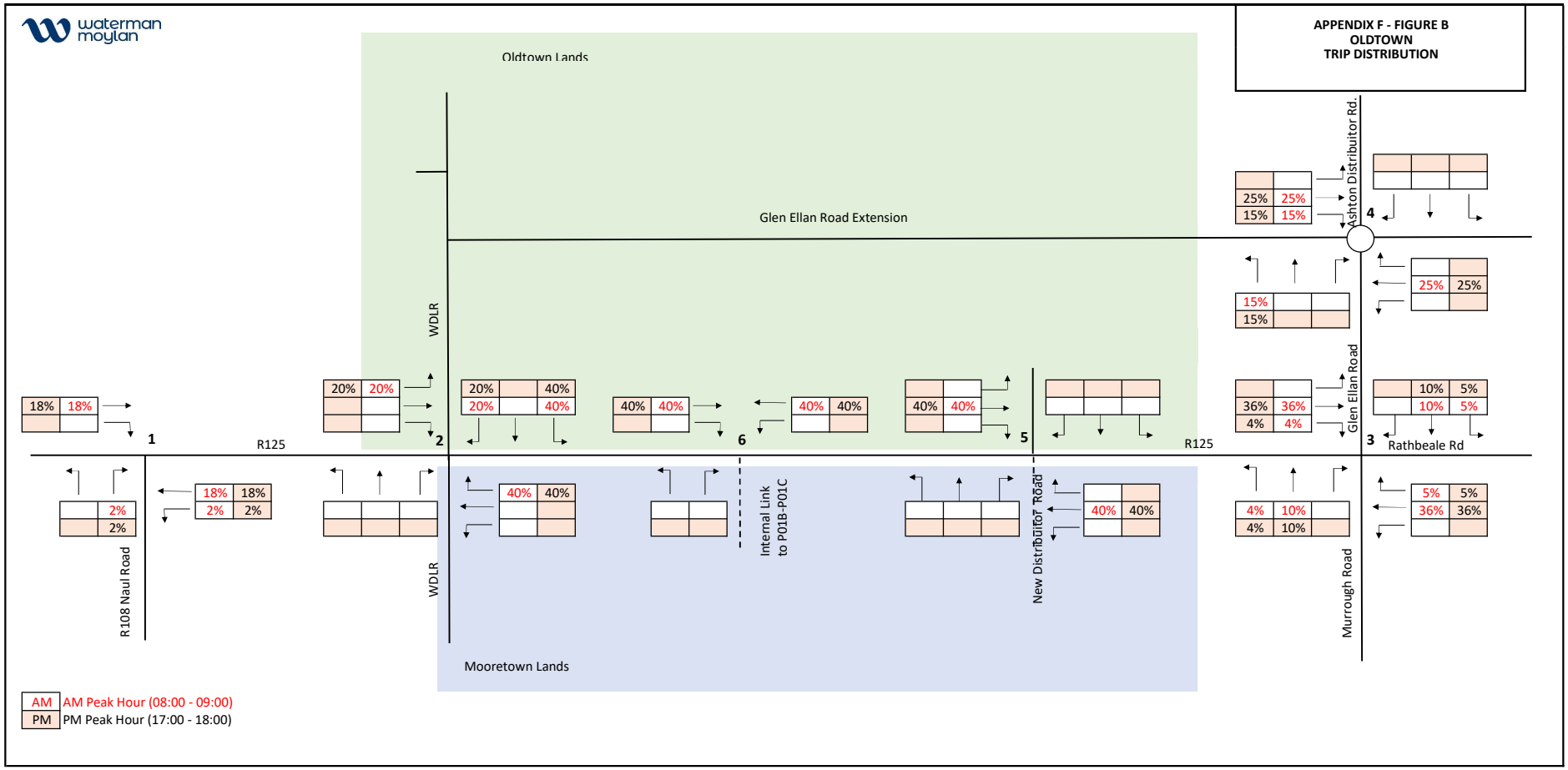


Time Distribution of Trips								
Zone	House	Persons	before 7:00	7:00 – 8:00	8:00 – 9:00	After 9:00	Not Stated	Total travels
1	119	390	68	90	84	29	13	284
2	109	321	66	68	48	17	12	211
3	77	210	45	35	39	19	19	157
4	112	320	54	84	54	11	12	215
5	120	415	51	86	82	17	21	257
6	80	246	41	48	76	13	10	188
7	103	317	45	75	74	20	22	236
8	86	269	41	52	68	17	13	191
9	94	17	81	135	190	22	14	442
10	201	662	34	56	41	11	5	147
11	109	324	54	80	93	26	16	269
12	110	354	48	81	112	19	9	269
13	121	399	50	83	117	27	24	301
14	125	452	55	113	149	21	11	349
15	119	462	50	102	165	22	9	348
16	123	286	57	46	28	15	42	188
17	120	456	72	106	147	19	25	369
18	63	226	35	55	64	9	8	171
19	132	444	54	126	93	22	35	330
20	76	265	26	81	70	12	19	208
21	78	253	44	58	46	14	12	174
22	130	431	57	68	118	22	19	284
23	76	253	47	58	59	13	16	193
24	82	288	50	51	60	29	23	213
25	84	266	42	39	66	16	34	197
26	114	366	47	68	65	21	20	221
27	120	453	84	103	110	22	25	344
28	81	305	61	64	76	13	17	231
29	92	323	61	69	69	14	28	241
30	125	414	83	90	68	23	13	277
31	71	220	39	37	58	14	8	156
32	87	297	52	75	65	19	12	223
33	107	379	63	82	89	24	15	273
34	83	305	45	77	72	15	9	218
35	72	243	48	52	45	14	6	165
Total	**3601**	**11631**	**1850**	**2593**	**2860**	**641**	**596**	**8540**
			21.7%	**30.4%**	**33.5%**	**7.5%**	**7.0%**	**100.0%**



F. Traffic Distribution


APPENDIX F - FIGURE A
2023 - SURVEYED FLOWS
Oldtown Lands
Glen Ellan Road Extension
WDLR
Ashton Distributor Rd.
Glen Ellan Road
Rathbeale Rd
R125
R125
R108 Naul Road
Internal Link to P01B-P01C
New Distributor Road
Murrough Road
Mooretown Lands
1
2
3
4
5
6
247 259
112 265
0 2
311 245
8 74
3 0 0
0 2 1
335 450
489 440
335 450
33 39
239 455
142 338
35 75 46
32 105 58
85 53
233 287
172 230
262 92 166
232 119 222
149 177
167 216
28 29
140 163 124
225 254 169
138 56
279 58
231 369
128 51
101 0 204
4 0 24
1 1
258 414
295 26
489 440
57 176 131
25 215 143
144 230
207 275
109 133
AM AM Peak Hour (08:00 - 09:00)
PM PM Peak Hour (17:00 - 18:00)


APPENDIX F - FIGURE B
OLDTOWN
TRIP DISTRIBUTION
Oldtown Lands
Glen Ellan Road Extension
WDLR
Ashton Distributor Rd.
Glen Ellan Road
Rathbeale Rd
R125
R125
R108 Naul Road
Internal Link to P01B-P01C
New Distributor Road
Murrough Road
Mooretown Lands
1
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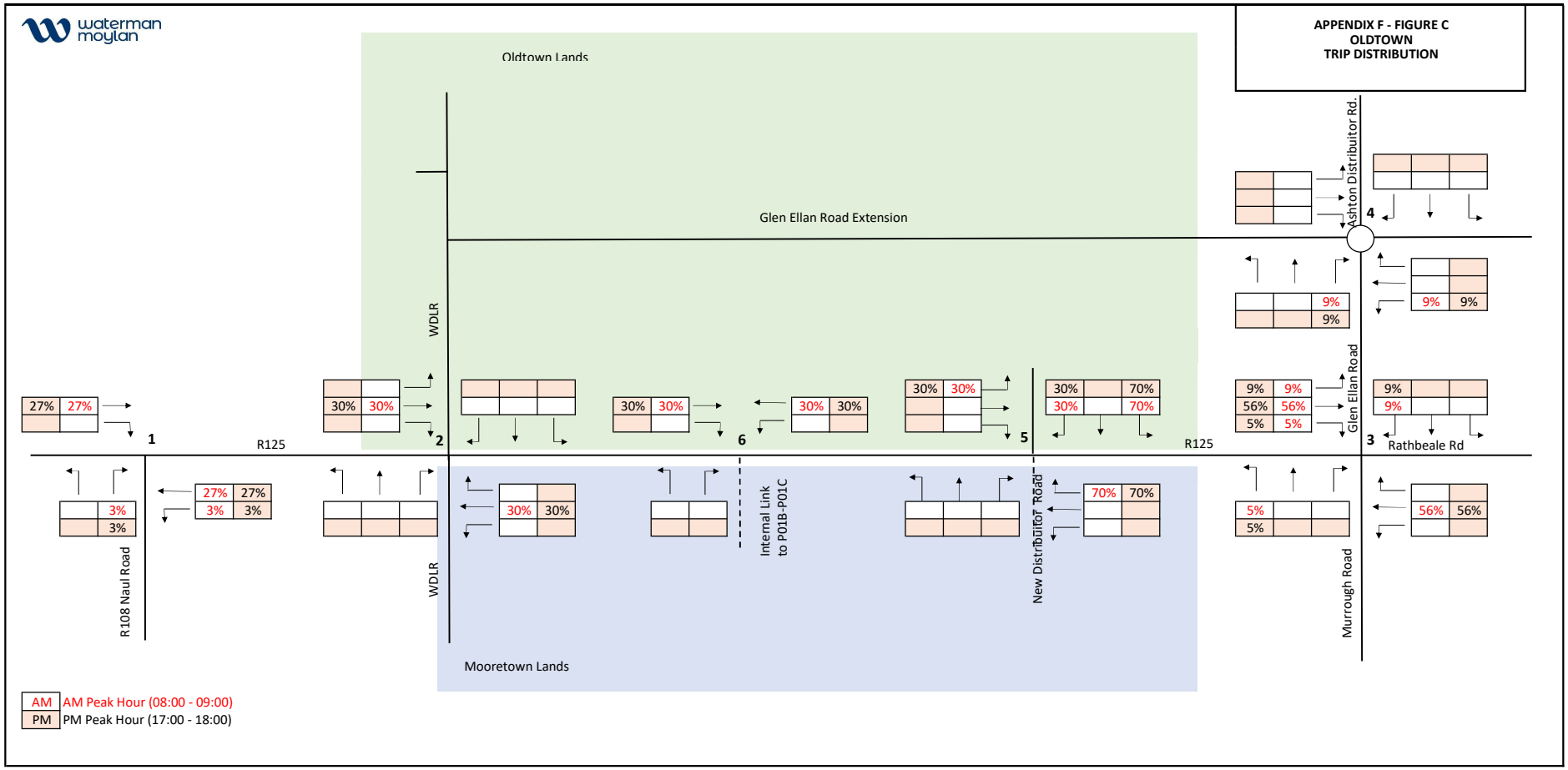
4
5
6
AM AM Peak Hour (08:00 - 09:00)
PM PM Peak Hour (17:00 - 18:00)


APPENDIX F - FIGURE C
OLDTOWN
TRIP DISTRIBUTION
Oldtown Lands
Glen Ellan Road Extension
WDLR
Ashton Distributor Rd.
Glen Ellan Road
Rathbeale Rd
R125
R125
R108 Naul Road
Internal Link to P01B-P01C
New Distributor Road
Murrough Road
Mooretown Lands
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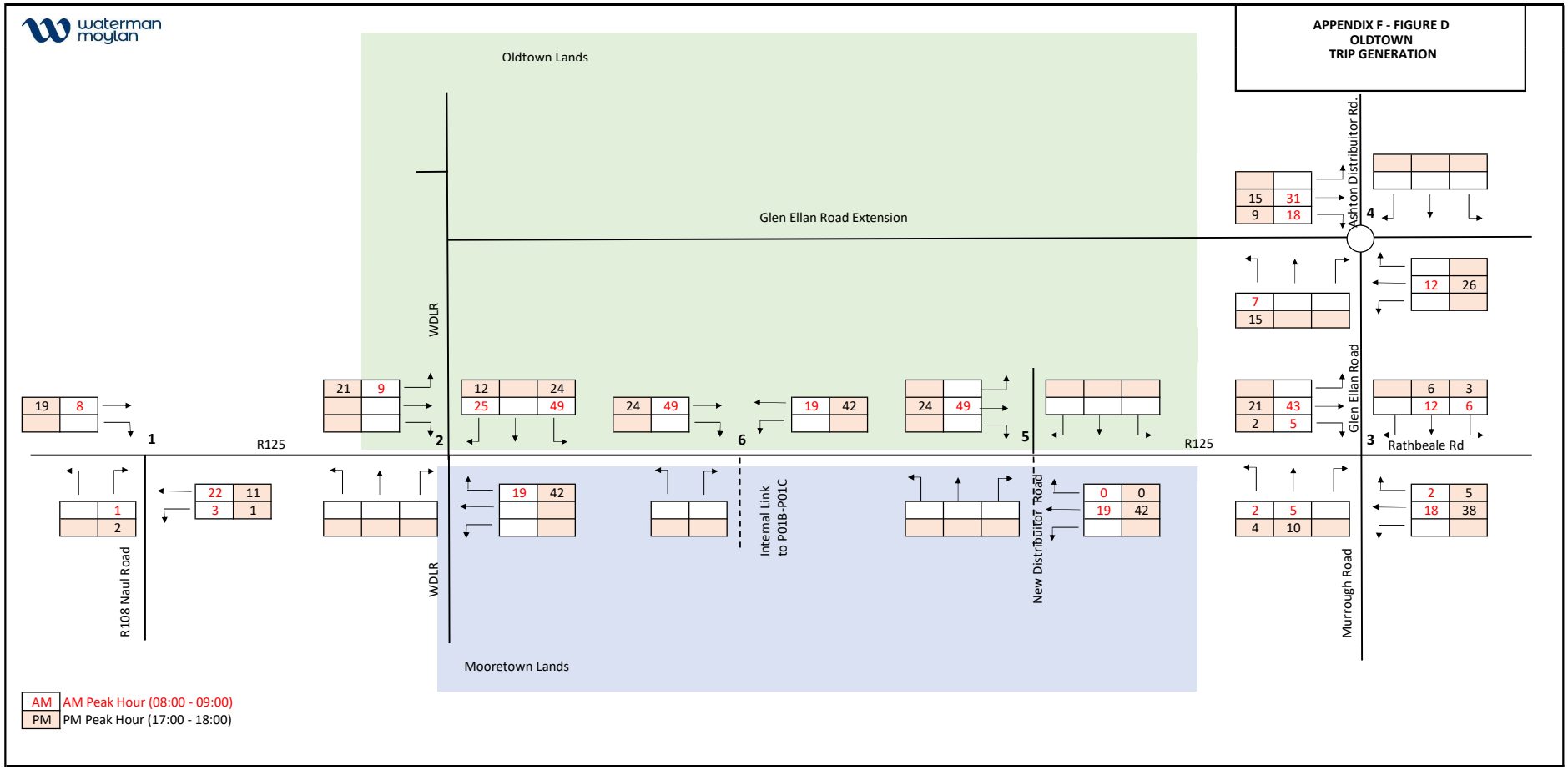
27% 27%
30% 30%
30% 30%
30% 30%
30% 30%
30% 70%
30% 70%
9% 9%
9% 9%
9% 9%
9% 56%
5% 5%
9% 9%
56% 56%
3% 3%
27% 27%
3% 3%
30% 30%
70% 70%
5% 5%
56% 56%
AM AM Peak Hour (08:00 - 09:00)
PM PM Peak Hour (17:00 - 18:00)


APPENDIX F - FIGURE D
OLDTOWN
TRIP GENERATION
Oldtown Lands
Glen Ellan Road Extension
WDLR
R125
R125
R108 Naul Road
Internal Link to P01B-P01C
New Distributor Road
Ashton Distributor Rd.
Glen Ellan Road
Rathbeale Rd
Murrough Road
Mooretown Lands
1
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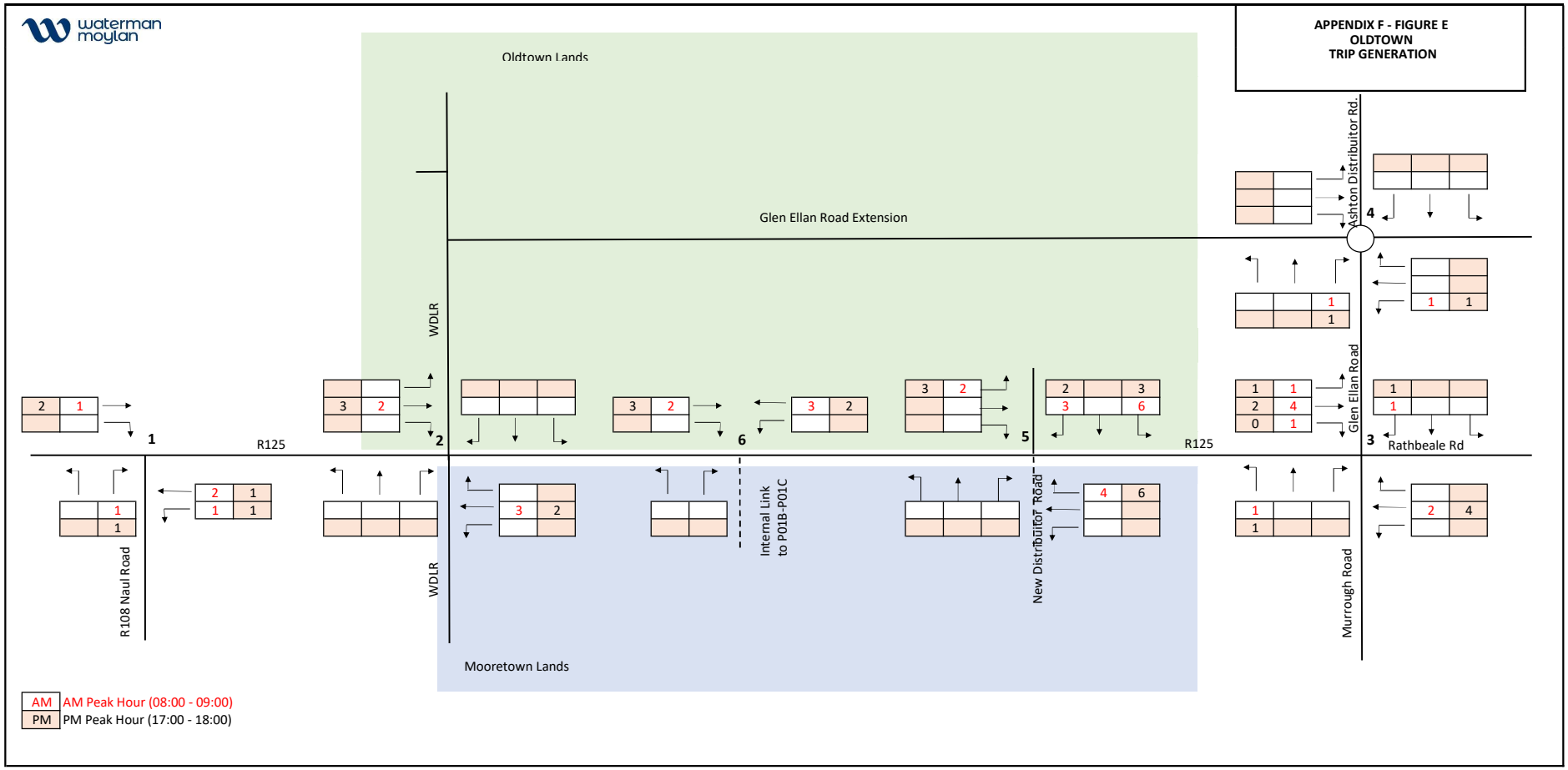
6
AM AM Peak Hour (08:00 - 09:00)
PM PM Peak Hour (17:00 - 18:00)


APPENDIX F - FIGURE E
OLDTOWN
TRIP GENERATION
Oldtown Lands
Glen Ellan Road Extension
WDLR
Ashton Distributor Rd.
Glen Ellan Road
R125
R125
Rathbeale Rd
R108 Naul Road
WDLR
Internal Link
to P01B-P01C
New Distributor Road
Murrough Road
Mooretown Lands
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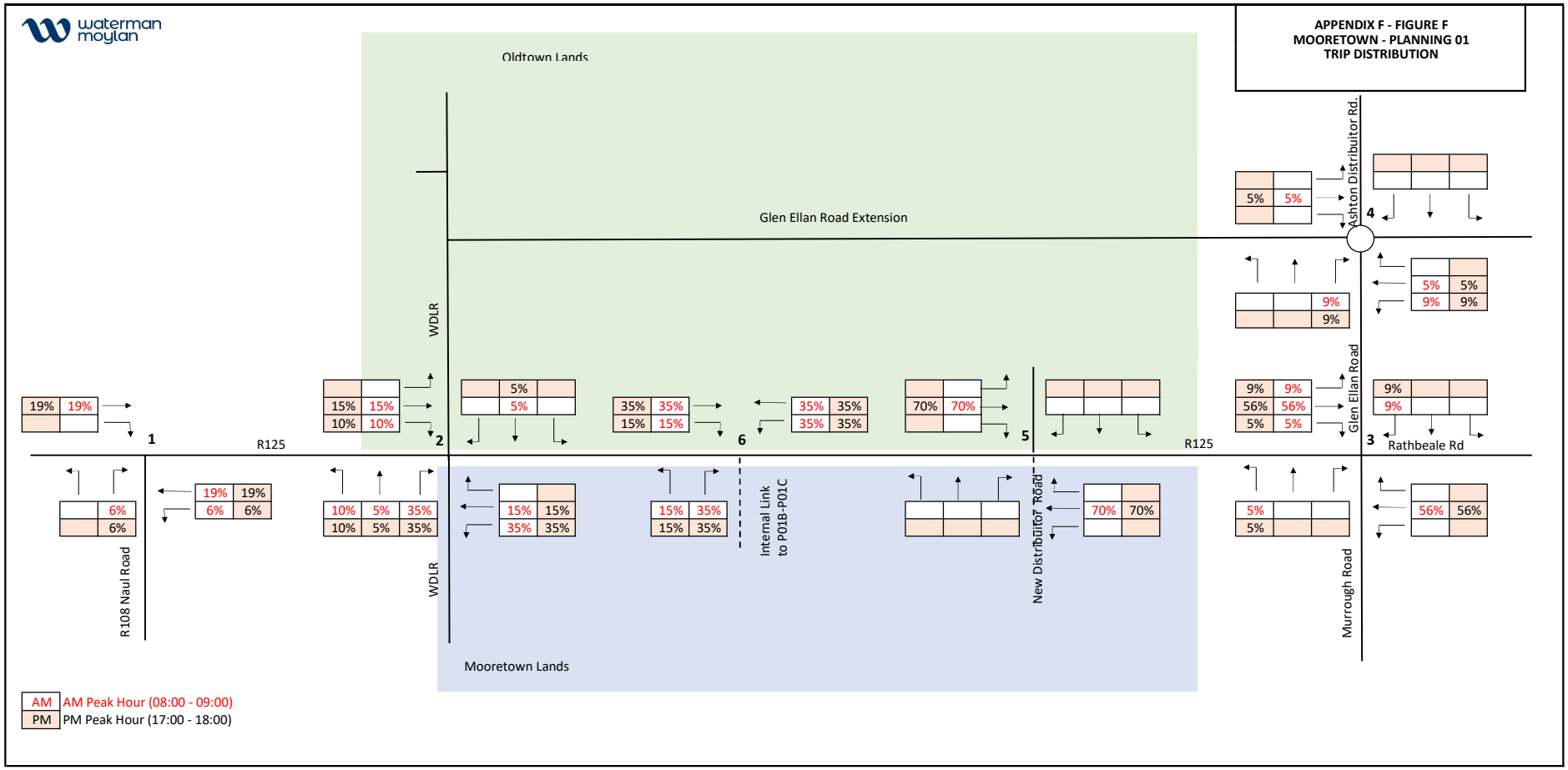
5
6
AM AM Peak Hour (08:00 - 09:00)
PM PM Peak Hour (17:00 - 18:00)


APPENDIX F - FIGURE F
MOORETOWN - PLANNING 01
TRIP DISTRIBUTION
Oldtown Lands
Glen Ellan Road Extension
WDLR
R125
R125
R108 Naul Road
Internal Link to P01B-P01C
New Distributor Road
Ashton Distributor Rd.
Glen Ellan Road
Rathbeale Rd
Murrough Road
Mooretown Lands
1
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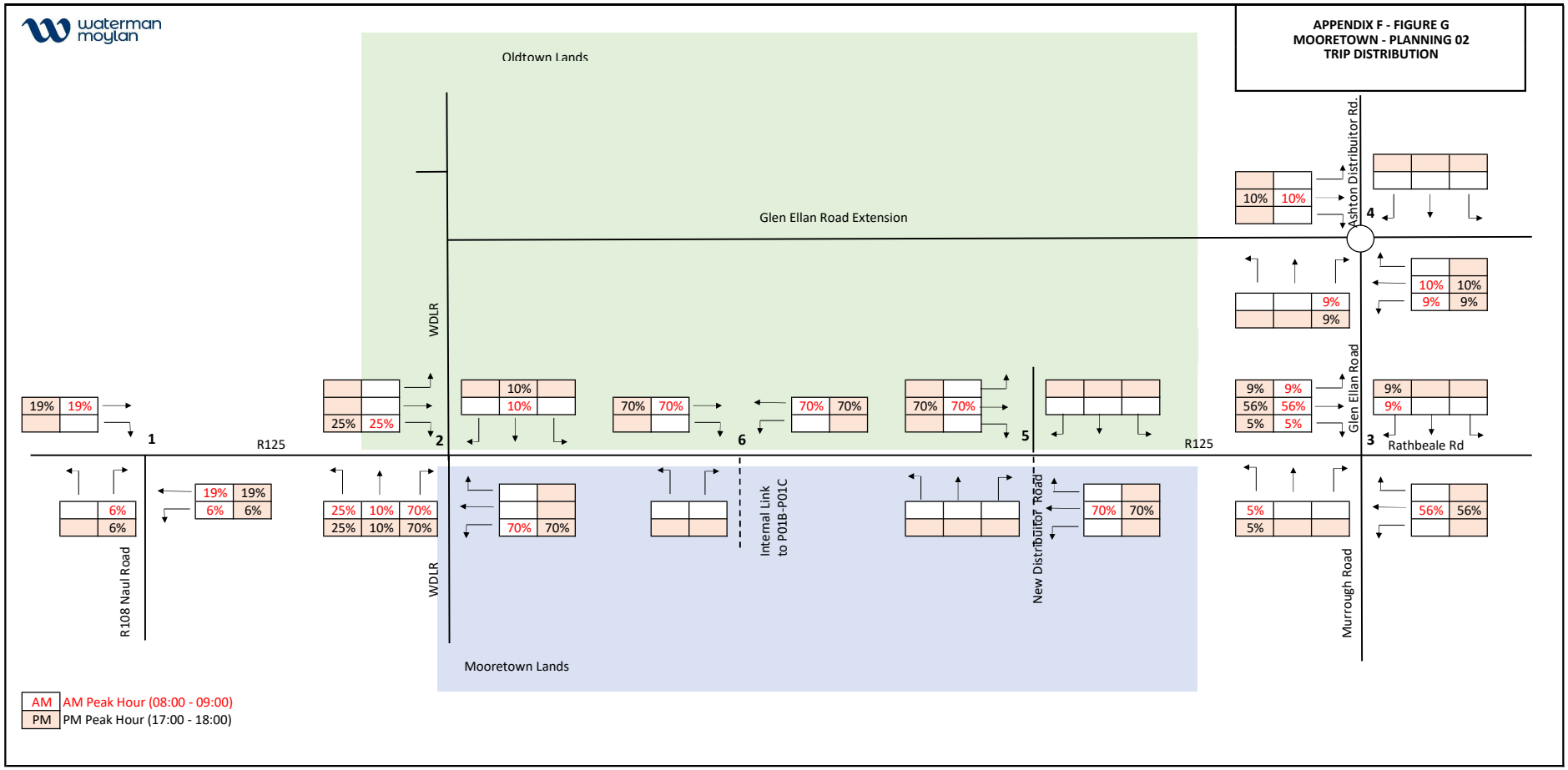
AM AM Peak Hour (08:00 - 09:00)
PM PM Peak Hour (17:00 - 18:00)


APPENDIX F - FIGURE G
MOORETOWN - PLANNING 02
TRIP DISTRIBUTION
Oldtown Lands
Glen Ellan Road Extension
WDLR
Ashton Distributor Rd.
Glen Ellan Road
Rathbeale Rd
R125
R125
R108 Naul Road
Internal Link to P01B-P01C
New Distributor Road
Murrough Road
Mooretown Lands
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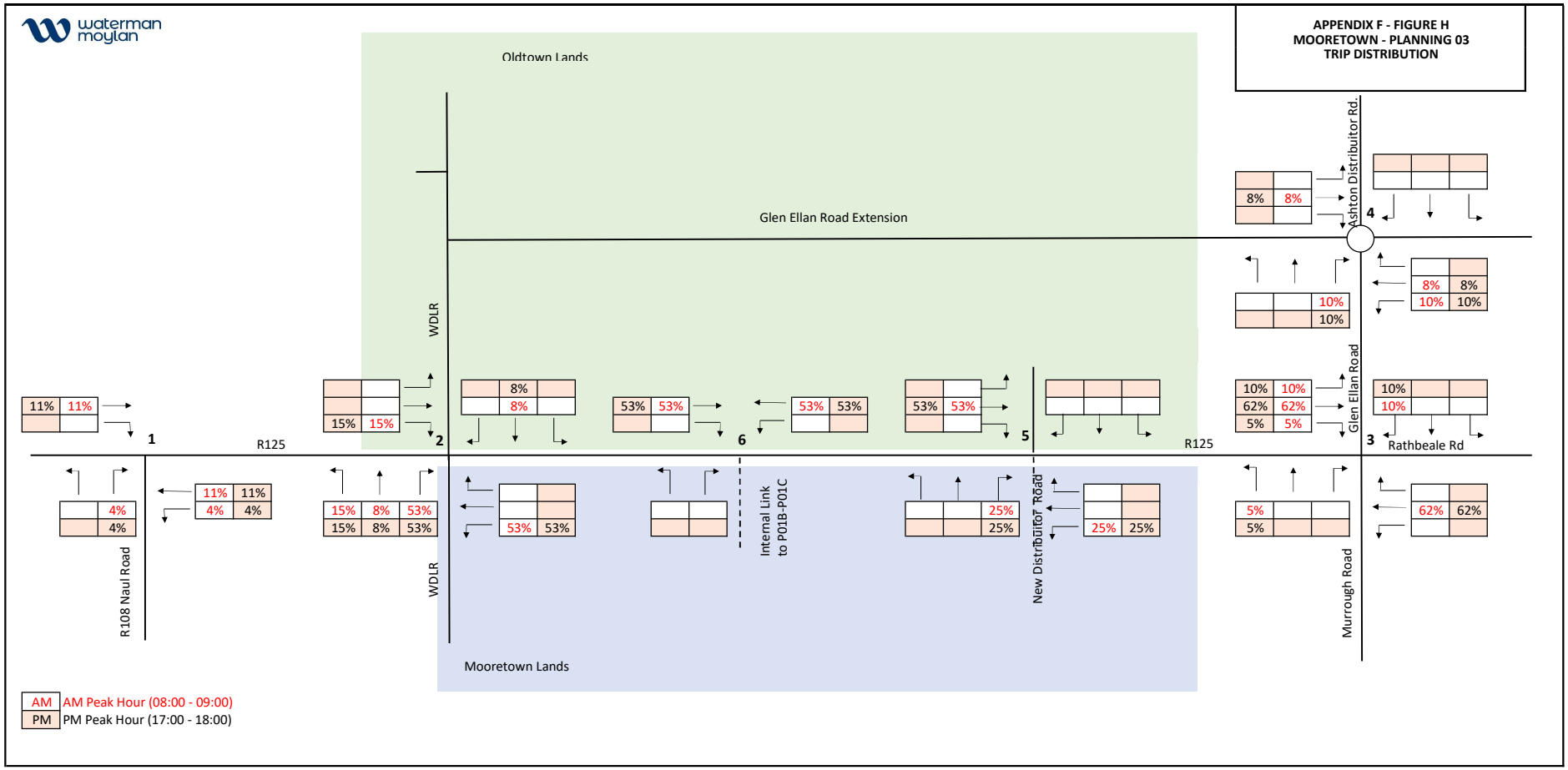
6
AM AM Peak Hour (08:00 - 09:00)
PM PM Peak Hour (17:00 - 18:00)


APPENDIX F - FIGURE H
MOORETOWN - PLANNING 03
TRIP DISTRIBUTION
Oldtown Lands
Glen Ellan Road Extension
WDLR
Ashton Distributor Rd.
Glen Ellan Road
Rathbeale Rd
R125
R125
R108 Naul Road
Internal Link to P01B-P01C
New Distributor Road
Murrough Road
Mooretown Lands
1
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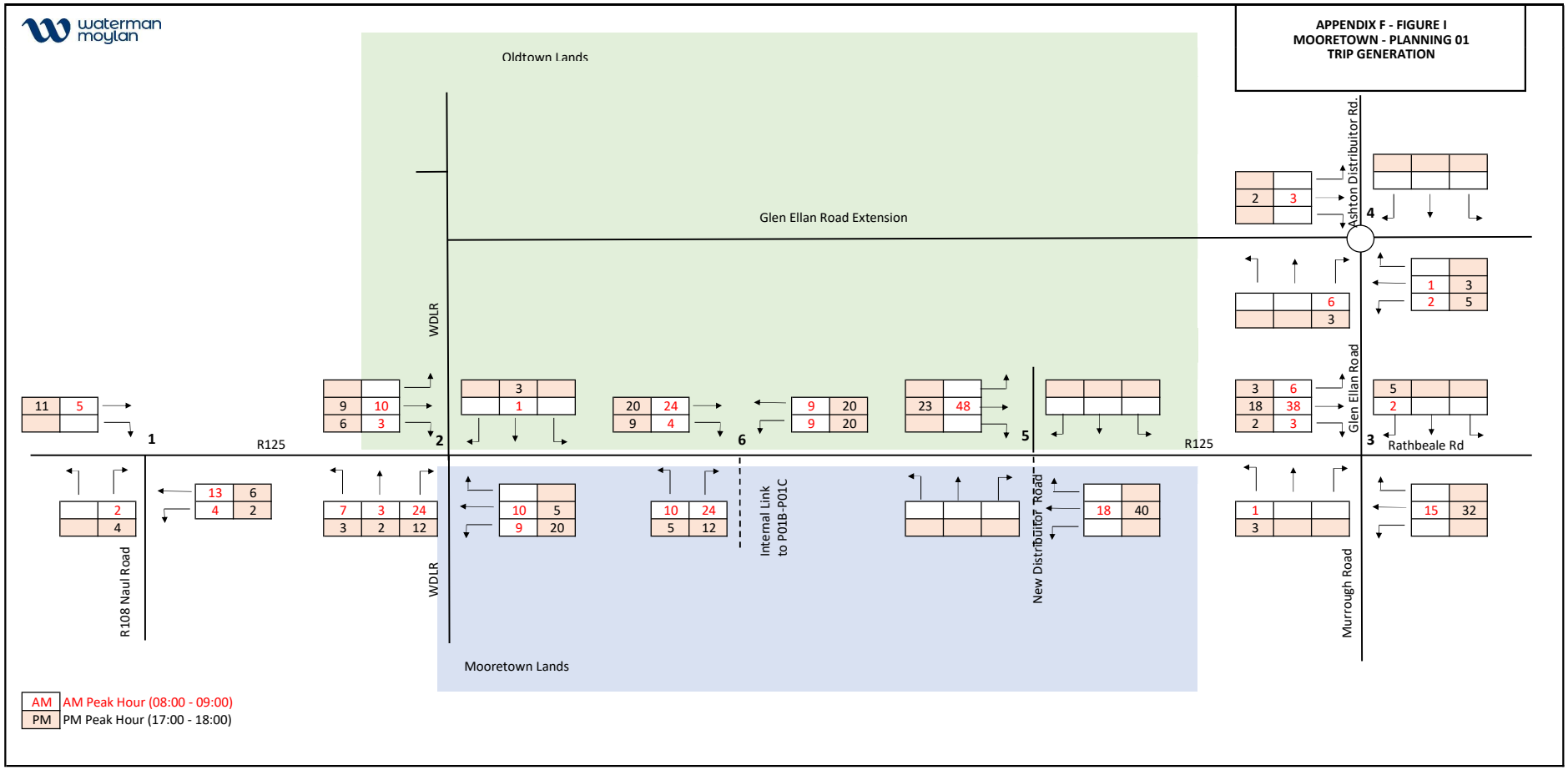
AM AM Peak Hour (08:00 - 09:00)
PM PM Peak Hour (17:00 - 18:00)


APPENDIX F - FIGURE I
MOORETOWN - PLANNING 01
TRIP GENERATION
Oldtown Lands
Glen Ellan Road Extension
WDLR
Ashton Distributor Rd.
Glen Ellan Road
Rathbeale Rd
R125
R125
R108 Naul Road
Internal Link to P01B-P01C
New Distributor Road
Murrough Road
Mooretown Lands
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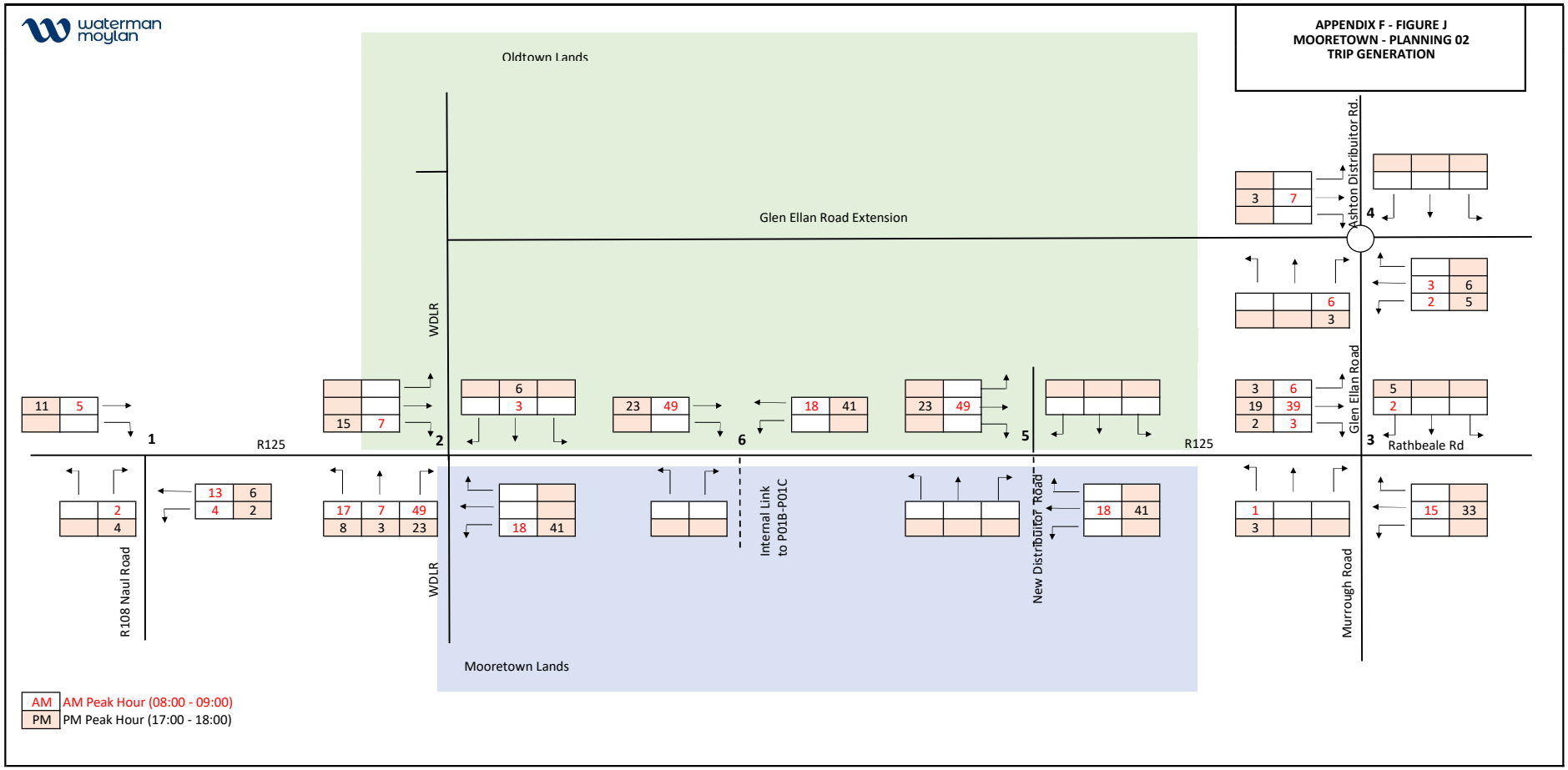
6
AM AM Peak Hour (08:00 - 09:00)
PM PM Peak Hour (17:00 - 18:00)


APPENDIX F - FIGURE J
MOORETOWN - PLANNING 02
TRIP GENERATION
Oldtown Lands
Glen Ellan Road Extension
WDLR
Ashton Distributor Rd.
Glen Ellan Road
R125
R125
Rathbeale Rd
R108 Naul Road
Internal Link to P01B-P01C
New Distributor Road
Murrough Road
Mooretown Lands
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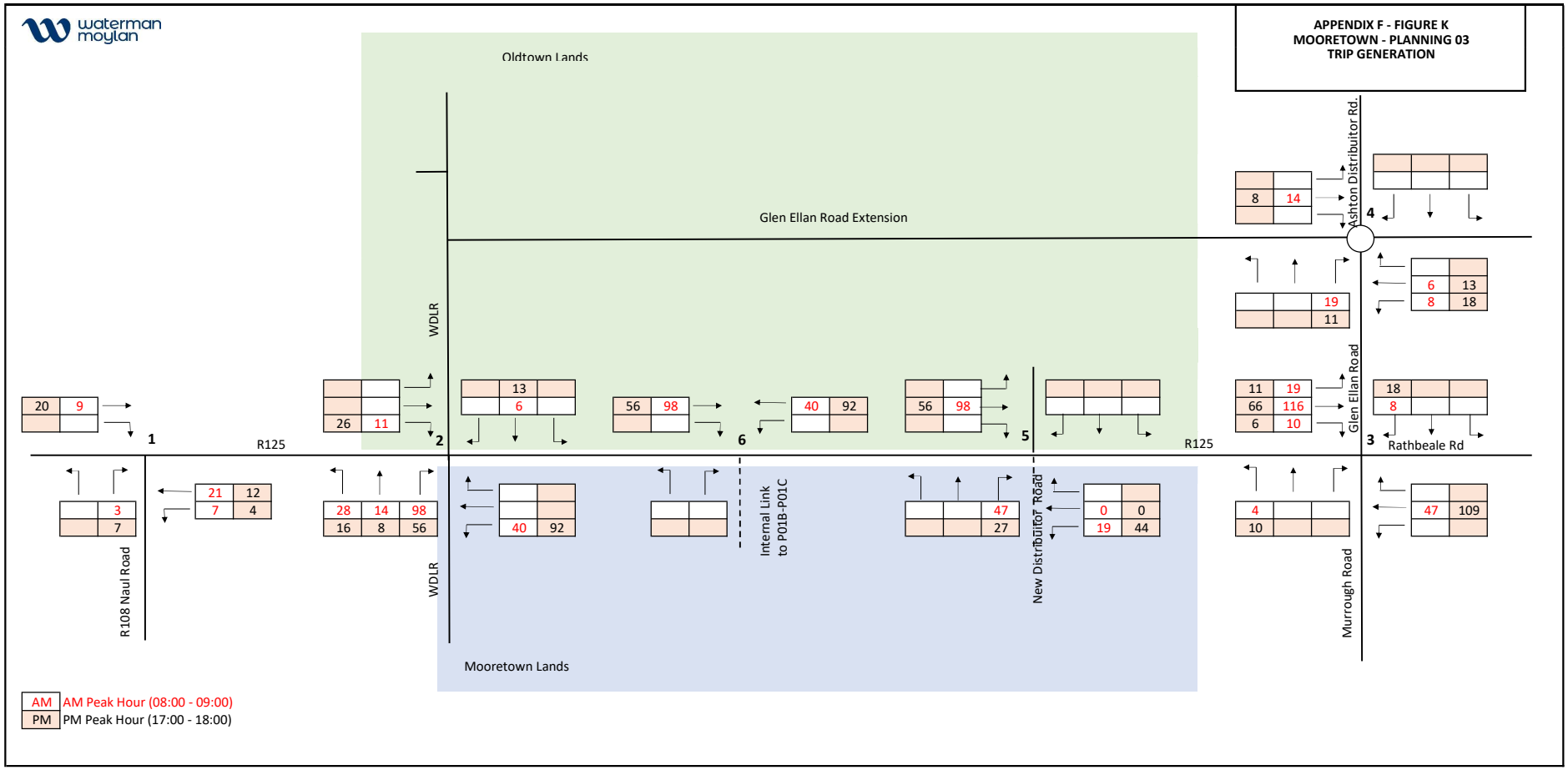
6
AM AM Peak Hour (08:00 - 09:00)
PM PM Peak Hour (17:00 - 18:00)


APPENDIX F - FIGURE K
MOORETOWN - PLANNING 03
TRIP GENERATION
Oldtown Lands
Glen Ellan Road Extension
WDLR
Ashton Distributor Rd.
Glen Ellan Road
Rathbeale Rd
R125
R125
R108 Naul Road
Internal Link to P01B-P01C
New Distributor Road
Murrough Road
Mooretown Lands
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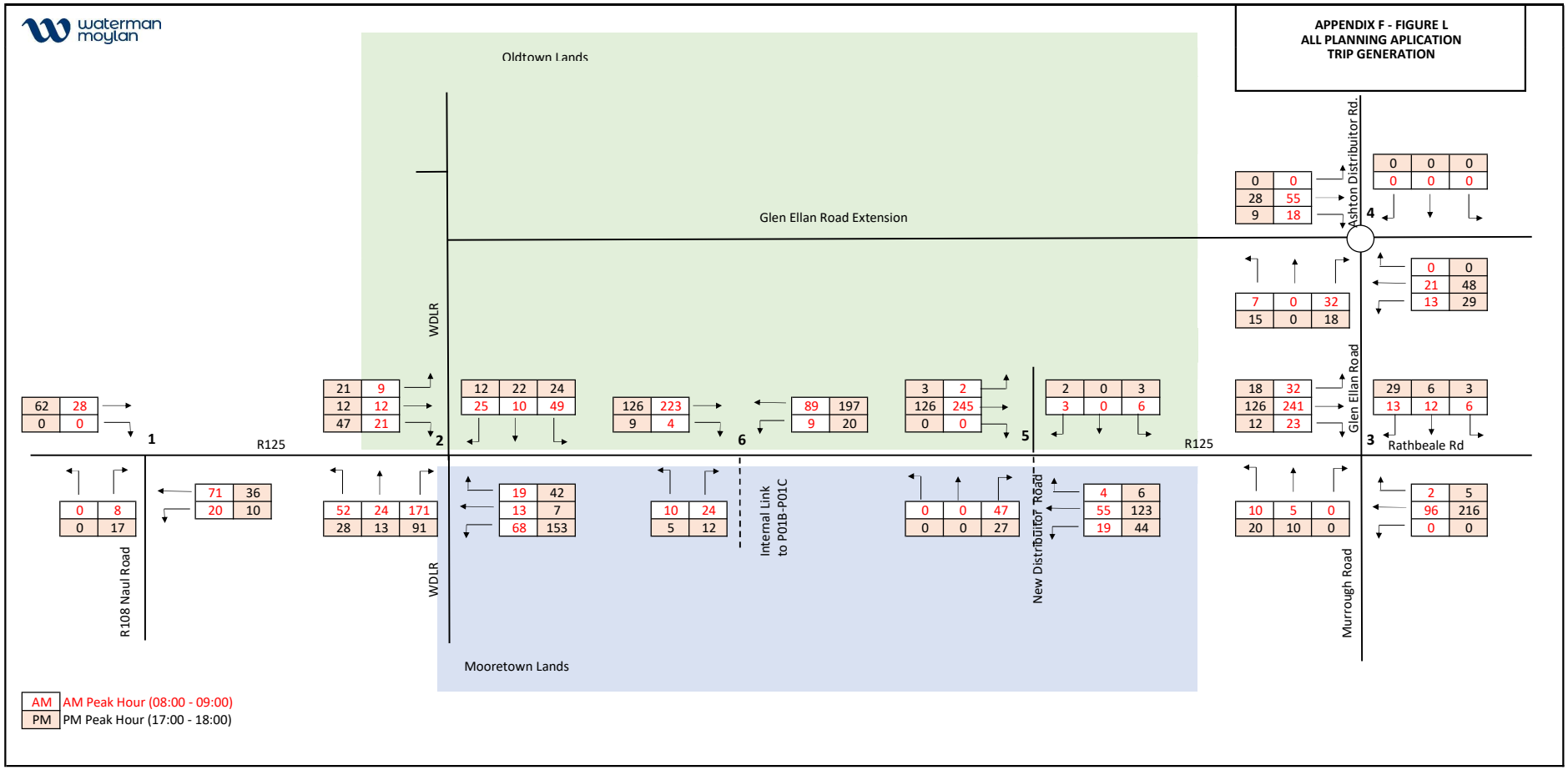
AM AM Peak Hour (08:00 - 09:00)
PM PM Peak Hour (17:00 - 18:00)


APPENDIX F - FIGURE L
ALL PLANNING APLICATION
TRIP GENERATION
Oldtown Lands
Glen Ellan Road Extension
WDLR
Ashton Distributor Rd.
Glen Ellan Road
R125
R125
Rathbeale Rd
R108 Naul Road
Internal Link to P01B-P01C
New Distributor Road
Murrough Road
Mooretown Lands
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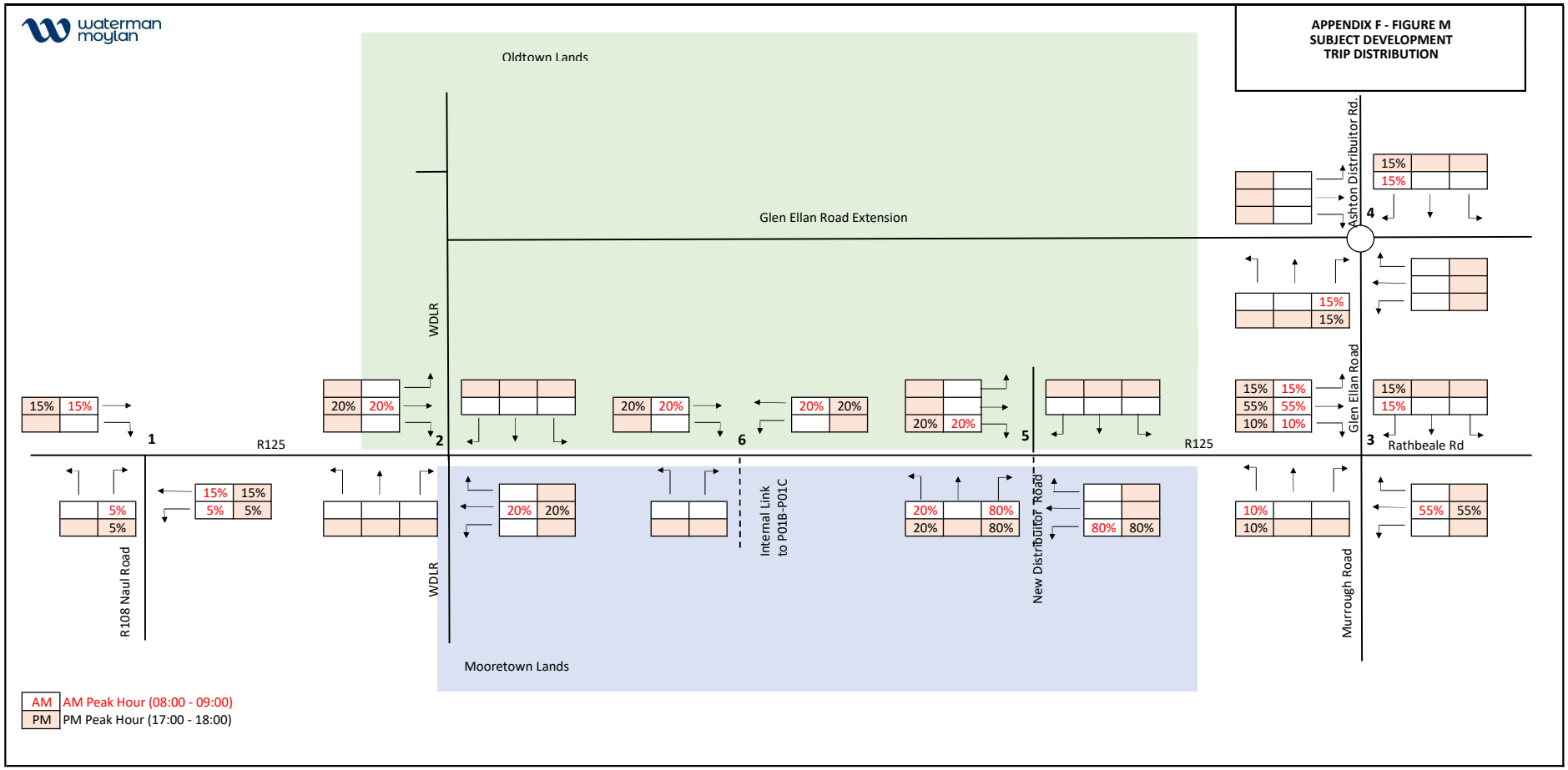
6
AM AM Peak Hour (08:00 - 09:00)
PM PM Peak Hour (17:00 - 18:00)


APPENDIX F - FIGURE M
SUBJECT DEVELOPMENT
TRIP DISTRIBUTION
Oldtown Lands
Glen Ellan Road Extension
WDLR
R125
R125
R108 Naul Road
Internal Link
to P01B-P01C
New Distributor Road
Ashton Distributor Rd.
Glen Ellan Road
Rathbeale Rd
Murrough Road
Mooretown Lands
1
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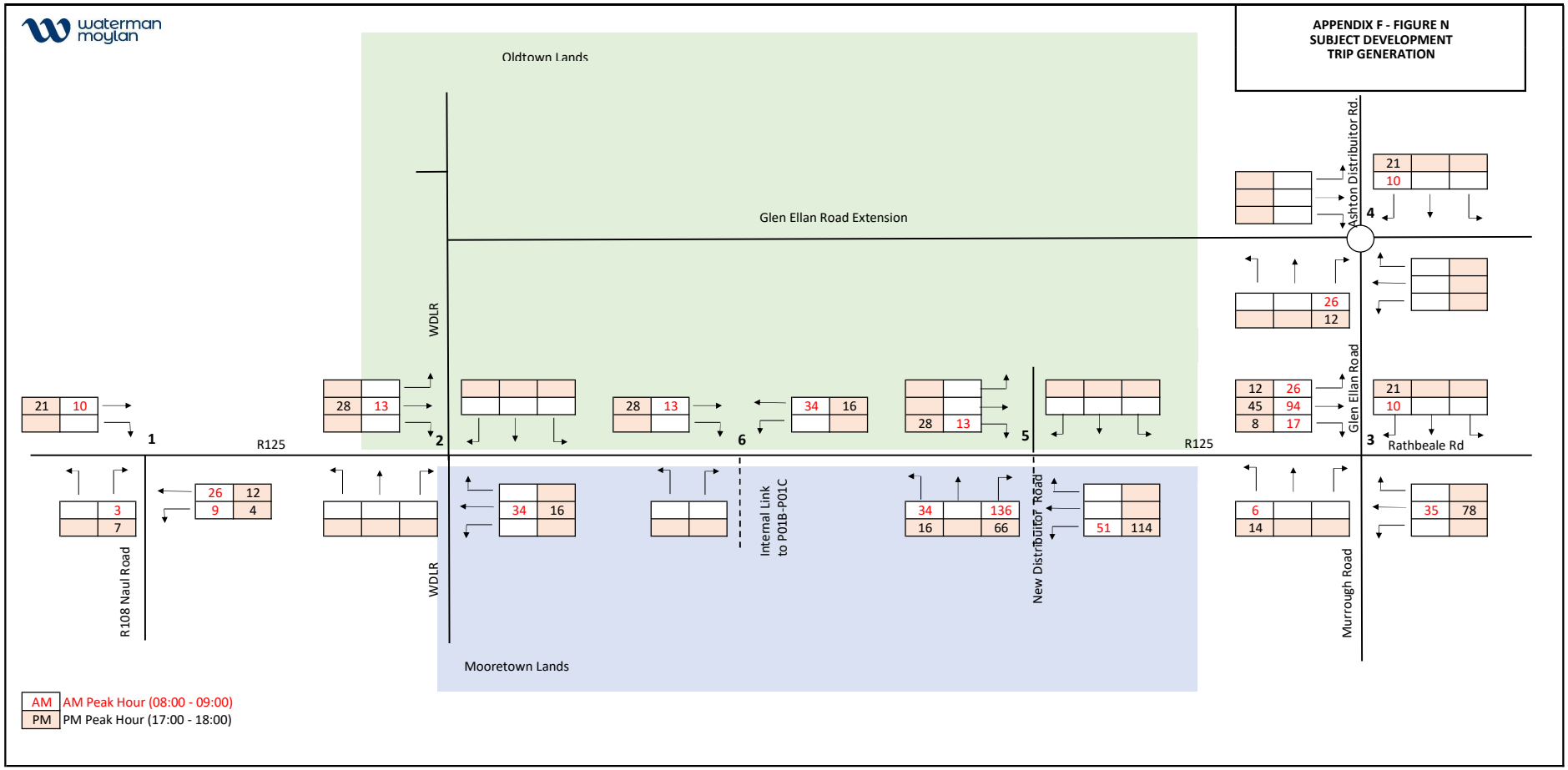
3
4
5
6
AM AM Peak Hour (08:00 - 09:00)
PM PM Peak Hour (17:00 - 18:00)


APPENDIX F - FIGURE N
SUBJECT DEVELOPMENT
TRIP GENERATION
Oldtown Lands
Glen Ellan Road Extension
WDLR
Ashton Distributor Rd.
Glen Ellan Road
R125
R125
Rathbeale Rd
R108 Naul Road
WDLR
Internal Link
to P01B-P01C
New Distributor Road
Murrough Road
Mooretown Lands
1
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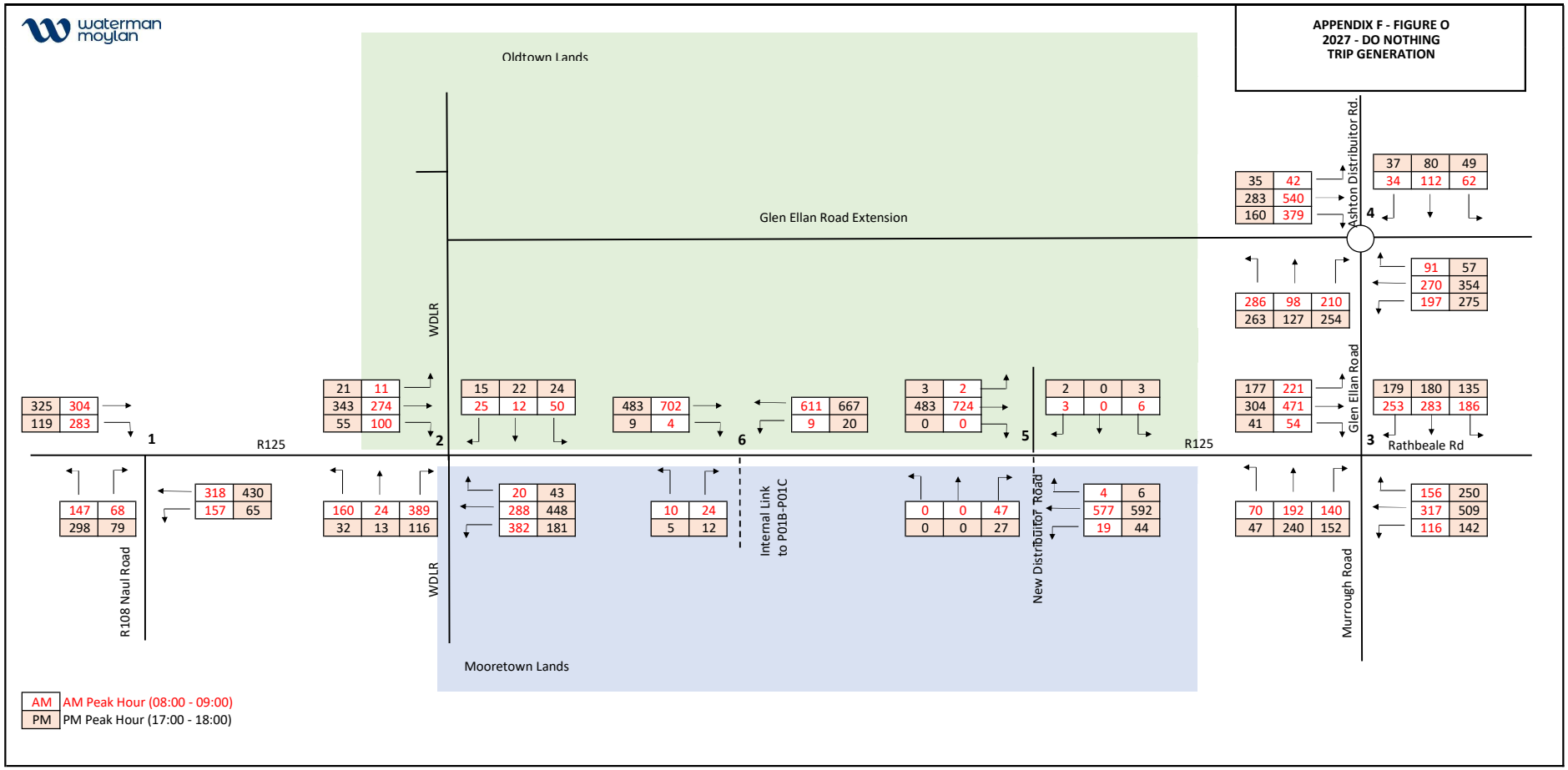
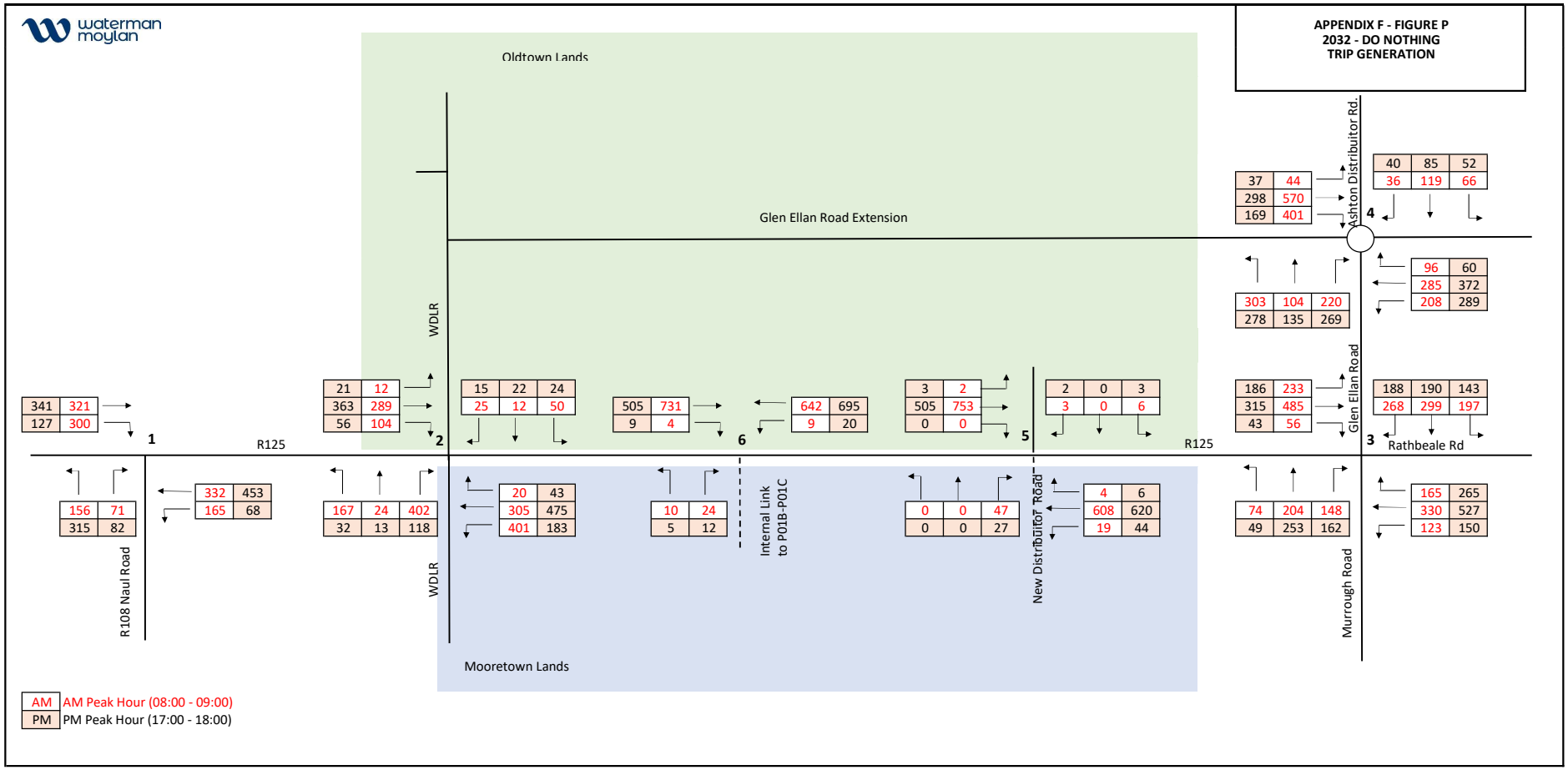
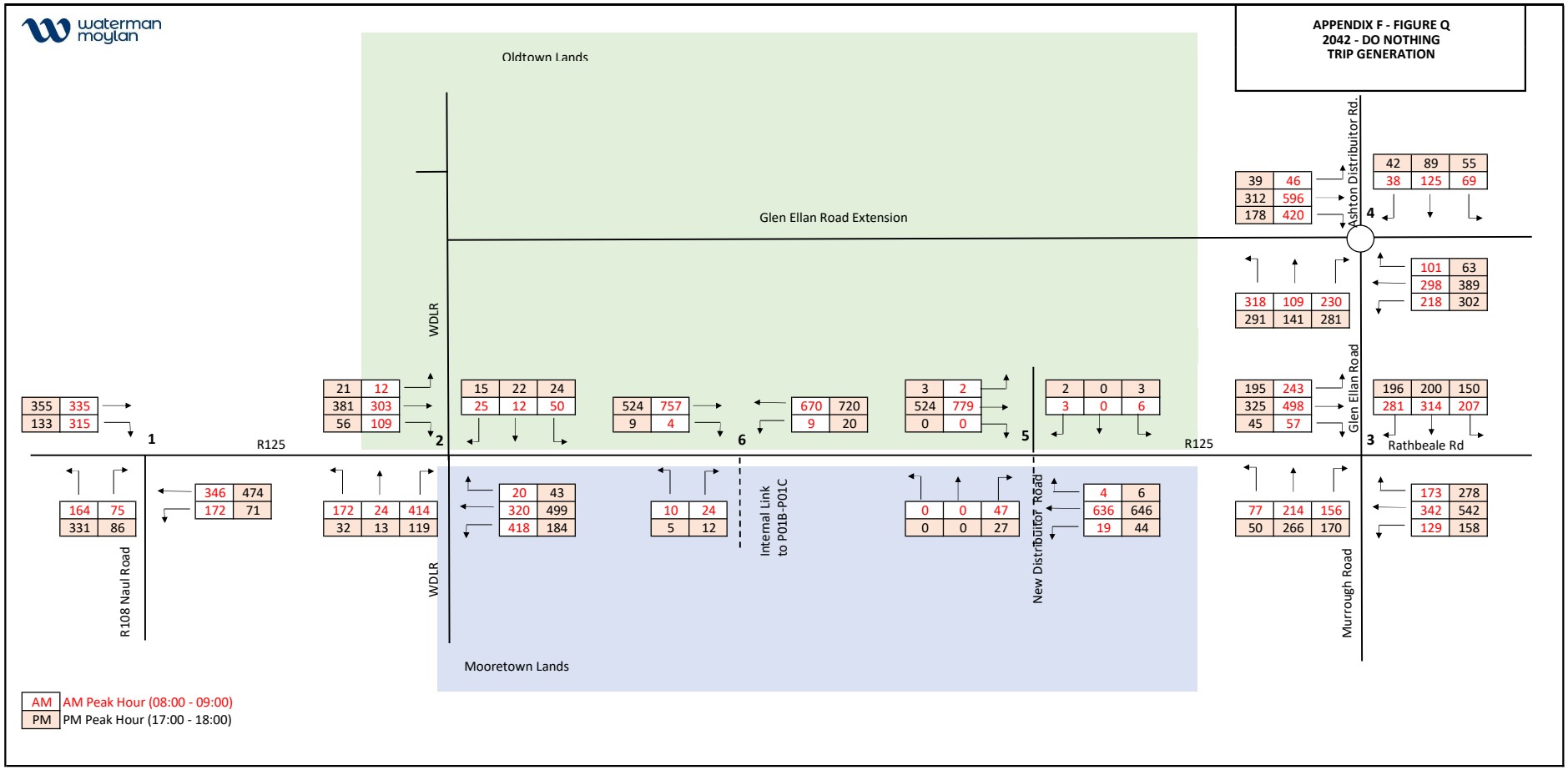
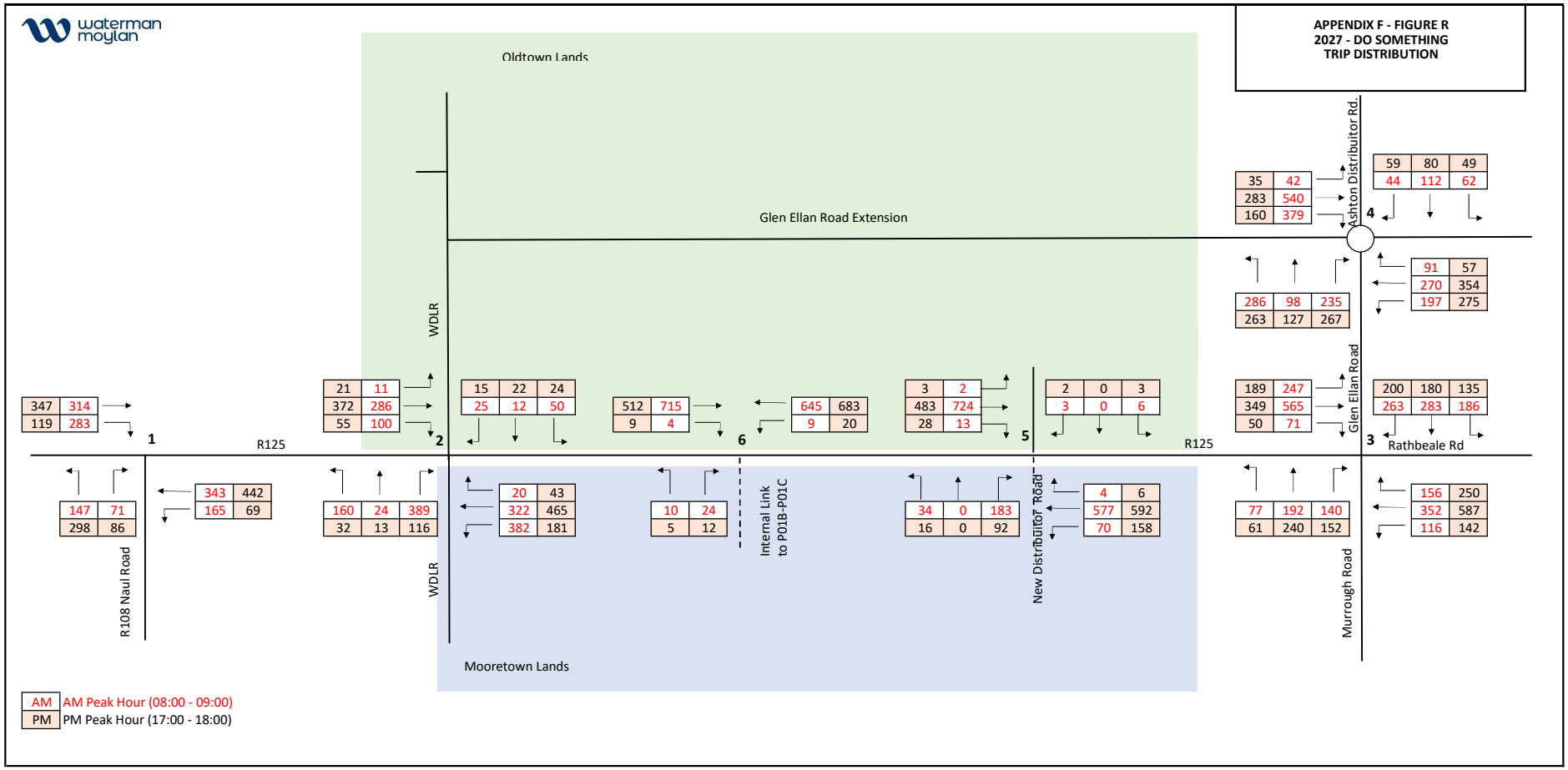
6
AM AM Peak Hour (08:00 - 09:00)
PM PM Peak Hour (17:00 - 18:00)


APPENDIX F - FIGURE O
2027 - DO NOTHING
TRIP GENERATION
Oldtown Lands
Glen Ellan Road Extension
WDLR
Ashton Distributor Rd.
Glen Ellan Road
Rathbeale Rd
R125
R125
R108 Naul Road
WDLR
Internal Link to P01B-P01C
New Distributor Road
Murrough Road
Mooretown Lands
1
2
3
4
5
6
325 304
119 283
21 11
343 274
55 100
15 22 24
25 12 50
483 702
9 4
611 667
9 20
3 2
483 724
0 0
2 0 3
3 0 6
35 42
283 540
160 379
37 80 49
34 112 62
286 98 210
263 127 254
91 57
270 354
197 275
177 221
304 471
41 54
179 180 135
253 283 186
147 68
298 79
318 430
157 65
160 24 389
32 13 116
20 43
288 448
382 181
10 24
5 12
0 0 47
0 0 27
4 6
577 592
19 44
70 192 140
47 240 152
156 250
317 509
116 142
AM AM Peak Hour (08:00 - 09:00)
PM PM Peak Hour (17:00 - 18:00)


APPENDIX F - FIGURE P
2032 - DO NOTHING
TRIP GENERATION
Oldtown Lands
Glen Ellan Road Extension
WDLR
Ashton Distributor Rd.
Glen Ellan Road
R125
R125
Rathbeale Rd
R108 Naul Road
WDLR
Internal Link to P01B-P01C
New Distributor Road
Murrough Road
Mooretown Lands
1
2
3
4
5
6
341 321
127 300
21 12
363 289
56 104
15 22 24
25 12 50
505 731
9 4
642 695
9 20
3 2
505 753
0 0
2 0 3
3 0 6
37 44
298 570
169 401
40 85 52
36 119 66
303 104 220
278 135 269
96 60
285 372
208 289
186 233
315 485
43 56
188 190 143
268 299 197
156 71
315 82
332 453
165 68
167 24 402
32 13 118
20 43
305 475
401 183
10 24
5 12
0 0 47
0 0 27
4 6
608 620
19 44
74 204 148
49 253 162
165 265
330 527
123 150
AM AM Peak Hour (08:00 - 09:00)
PM PM Peak Hour (17:00 - 18:00)


APPENDIX F - FIGURE Q
2042 - DO NOTHING
TRIP GENERATION
Oldtown Lands
Glen Ellan Road Extension
WDLR
Ashton Distributor Rd.
Glen Ellan Road
R125
R125
Rathbeale Rd
R108 Naul Road
WDLR
Internal Link to P01B-P01C
New Distributor Road
Murrough Road
Mooretown Lands
1
2
3
4
5
6
355 335
133 315
21 12
381 303
56 109
15 22 24
25 12 50
524 757
9 4
670 720
9 20
3 2
524 779
0 0
2 0 3
3 0 6
39 46
312 596
178 420
42 89 55
38 125 69
318 109 230
291 141 281
101 63
298 389
218 302
195 243
325 498
45 57
196 200 150
281 314 207
164 75
331 86
346 474
172 71
172 24 414
32 13 119
20 43
320 499
418 184
10 24
5 12
0 0 47
0 0 27
4 6
636 646
19 44
77 214 156
50 266 170
173 278
342 542
129 158
AM AM Peak Hour (08:00 - 09:00)
PM PM Peak Hour (17:00 - 18:00)


APPENDIX F - FIGURE R
2027 - DO SOMETHING
TRIP DISTRIBUTION
Oldtown Lands
Glen Ellan Road Extension
WDLR
R125
R125
R108 Naul Road
Internal Link to P01B-P01C
New Distributor Road
Ashton Distributor Rd.
Glen Ellan Road
Rathbeale Rd
Murrough Road
Mooretown Lands
1
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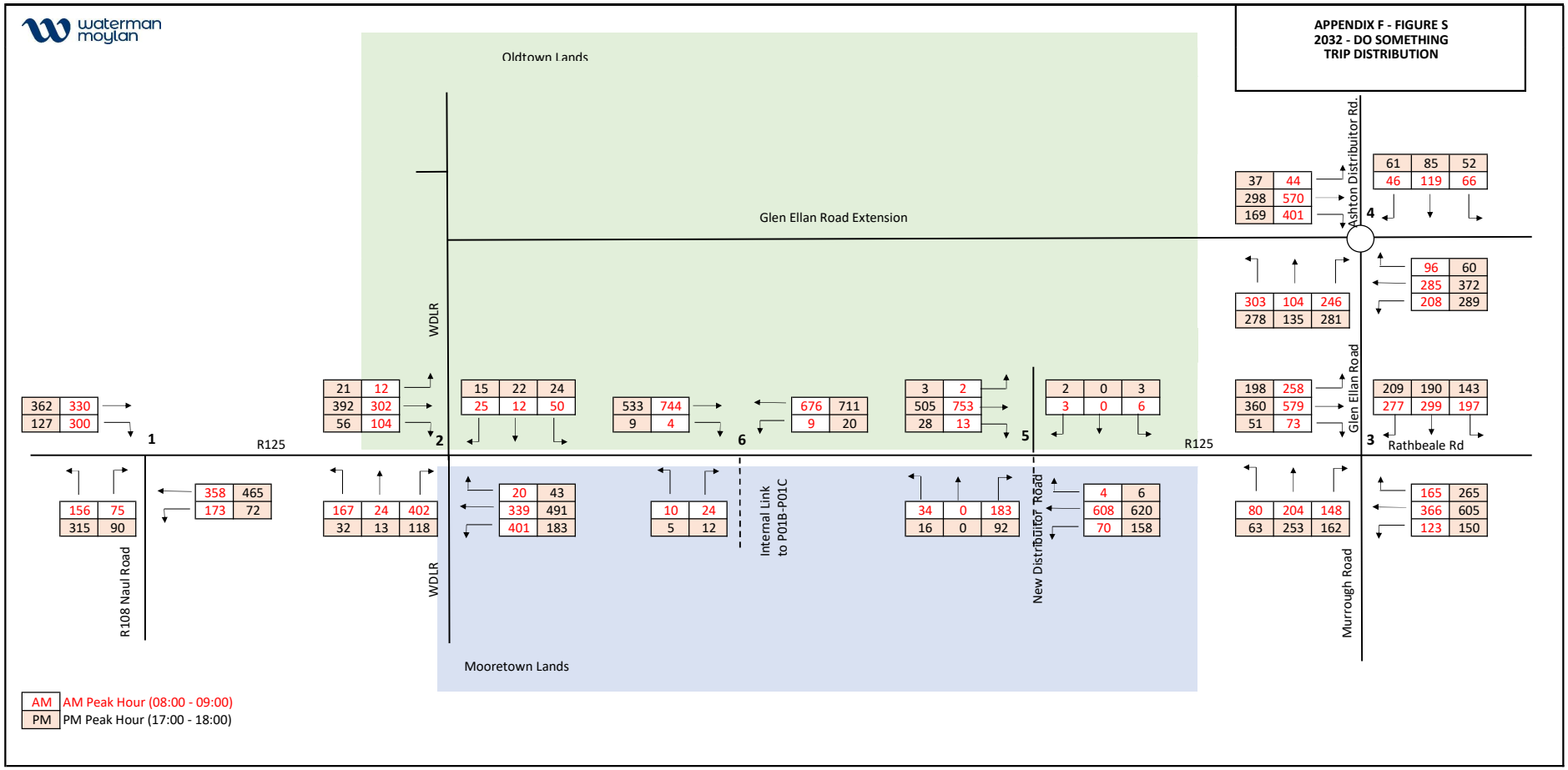
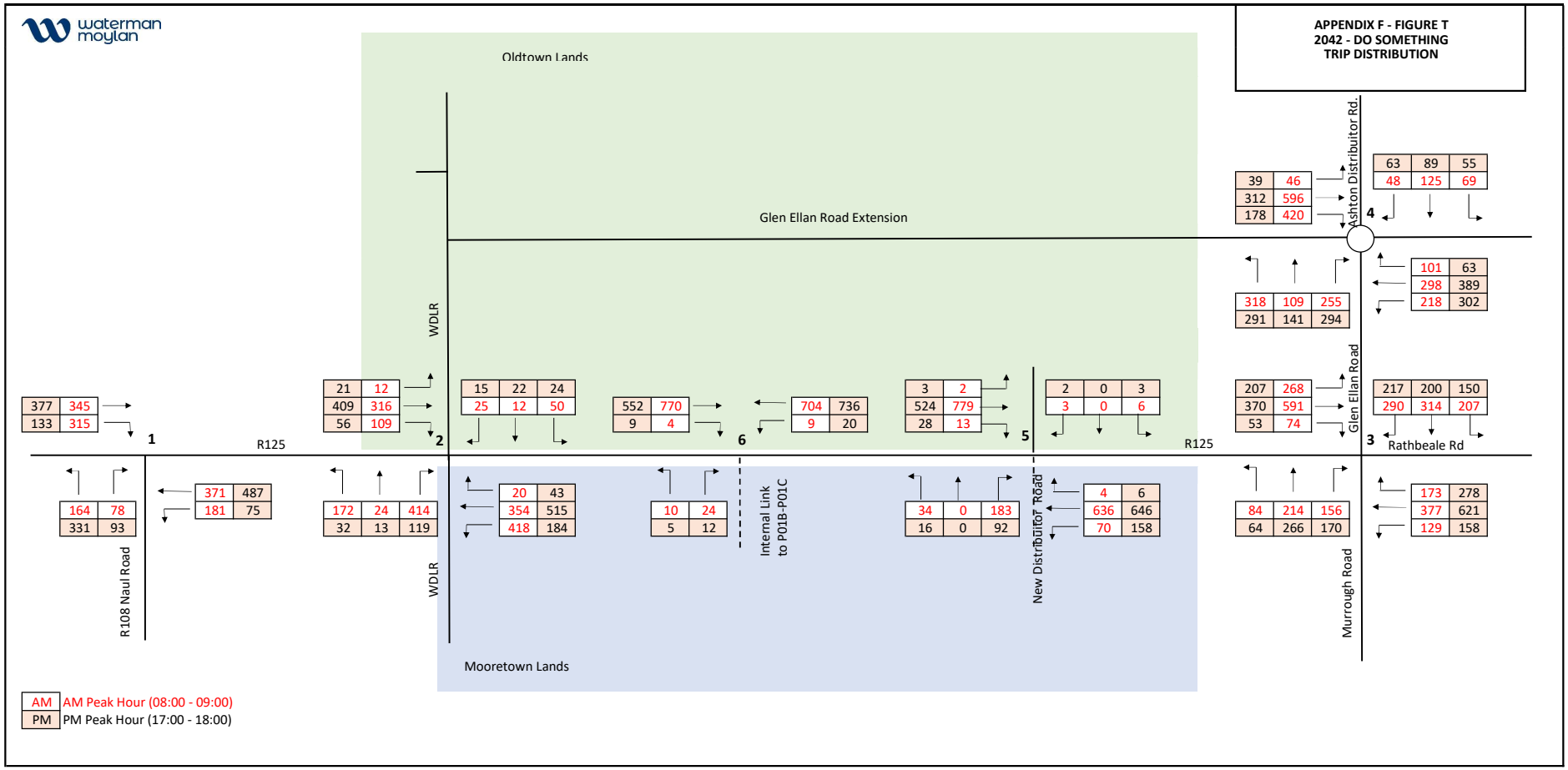
3
4
5
6
347 314
119 283
21 11
372 286
55 100
15 22 24
25 12 50
512 715
9 4
645 683
9 20
3 2
483 724
28 13
2 0 3
3 0 6
35 42
283 540
160 379
59 80 49
44 112 62
286 98 235
263 127 267
91 57
270 354
197 275
189 247
349 565
50 71
200 180 135
263 283 186
147 71
298 86
343 442
165 69
160 24 389
32 13 116
20 43
322 465
382 181
10 24
5 12
34 0 183
16 0 92
4 6
577 592
70 158
77 192 140
61 240 152
156 250
352 587
116 142
AM AM Peak Hour (08:00 - 09:00)
PM PM Peak Hour (17:00 - 18:00)


APPENDIX F - FIGURE S
2032 - DO SOMETHING
TRIP DISTRIBUTION
Oldtown Lands
Glen Ellan Road Extension
WDLR
R125
R125
R108 Naul Road
Internal Link to P01B-P01C
New Distributor Road
Ashton Distributor Rd.
Glen Ellan Road
Rathbeale Rd
Murrough Road
Mooretown Lands
1
2
3
4
5
6
362 330
127 300
21 12
392 302
56 104
15 22 24
25 12 50
533 744
9 4
676 711
9 20
3 2
505 753
28 13
2 0 3
3 0 6
198 258
360 579
51 73
209 190 143
277 299 197
37 44
298 570
169 401
61 85 52
46 119 66
303 104 246
278 135 281
96 60
285 372
208 289
156 75
315 90
358 465
173 72
167 24 402
32 13 118
20 43
339 491
401 183
10 24
5 12
34 0 183
16 0 92
4 6
608 620
70 158
80 204 148
63 253 162
165 265
366 605
123 150
AM AM Peak Hour (08:00 - 09:00)
PM PM Peak Hour (17:00 - 18:00)


APPENDIX F - FIGURE T
2042 - DO SOMETHING
TRIP DISTRIBUTION
Oldtown Lands
Glen Ellan Road Extension
WDLR
R125
R125
R108 Naul Road
Internal Link to P01B-P01C
New Distributor Road
Ashton Distributor Rd.
Glen Ellan Road
Rathbeale Rd
Murrough Road
Mooretown Lands
1
2
3
4
5
6
377 345
133 315
21 12
409 316
56 109
15 22 24
25 12 50
552 770
9 4
704 736
9 20
3 2
524 779
28 13
2 0 3
3 0 6
39 46
312 596
178 420
63 89 55
48 125 69
318 109 255
291 141 294
101 63
298 389
218 302
207 268
370 591
53 74
217 200 150
290 314 207
164 78
331 93
371 487
181 75
172 24 414
32 13 119
20 43
354 515
418 184
10 24
5 12
34 0 183
16 0 92
4 6
636 646
70 158
84 214 156
64 266 170
173 278
377 621
129 158
AM AM Peak Hour (08:00 - 09:00)
PM PM Peak Hour (17:00 - 18:00)

G. Go Car Letter of Support

Paul Carroll, Interim
Director of Housing & Community Development, #
Fingal County Council,
Grove Road,
Blanchardstown,
Co Dublin.
03/2024

To Whom It May Concern,

This is a letter to confirm that GoCar will look to provide a car sharing service in the proposed residential development at Mooretown Phase 1 Residential development lands. GoCar representatives have discussed the project with representatives are excited to provide a car sharing service at the proposed location. GoCar will aim to provide 3 car sharing vehicles at the development. It is the intention for these vehicles to have mixed use for both the residents of the development and the locality

GoCar is Ireland's leading car sharing service with over 80,000 members and over 880 cars and vans on fleet. Car sharing is a sustainable community service. Each GoCar which is placed in a community has the potential to replace the journeys of up to 15 private vehicles. With the addition of Electric Vehicles and Vans to the GoCar fleet it gives members the ability to choose from different vehicles depending on their journey needs.

The Department of Housing's Design Standards for New Apartments - Guidelines for Planning Authorities 2020 outline: "For all types of location, where it is sought to eliminate or reduce car parking provision, it is necessary to ensure... provision is also to be made for alternative mobility solutions including facilities for car sharing club vehicles."

By allowing multiple people to use the same vehicle at different times, car sharing reduces car ownership, car dependency, congestion, noise, and air pollution. It frees up land which would otherwise be used for additional parking spaces. Most GoCar users only use a car when necessary and walk and use public transport more often than car owners.

By having GoCar car sharing vehicles in a development such as this, the residents therein will have access to pay-as-you-go driving, near their homes, which will increase usership of the service and in-turn decrease the requirement for car ownership.

I trust that this information is satisfactory. For any queries, please do not hesitate to contact me.

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UK and Ireland Office Locations