



Traffic and Transport Assessment

Application at Church Fields East, Mulhuddart, Dublin 15

May 2023

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Client Name: Fingal County Council
Document Reference: 20-074r.4005 Traffic and Transport Assessment
Project Number: 20-074

Quality Assurance – Approval Status

This document has been prepared and checked in accordance with
Waterman Group's IMS (BS EN ISO 9001: 2015, BS EN ISO 14001: 2015)

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1. Introduction

1.1 Context

This Traffic and Transport Assessment (TTA) has been prepared by Waterman Moylan on behalf of Fingal County Council in support of the Part X Church Fields Housing Planning Application for a proposed residential development at Church Fields East, Mulhuddart, Dublin 15.

1.2 Site Location and Development Description

The proposed development relates to a site of c.5.52 hectares at Church Fields East, Mulhuddart, Dublin 15. The development site is located south of Damastown Avenue; west of Church Road; east of previously permitted residential development at Church Fields (Planning Reg. Ref.: PARTXI/012/21); and north of a permitted linear park (Eastern Linear Park Planning Reg. Ref.: PARTXI/012/21), in the townland of Tyrrelstown, Dublin 15. The site is located west of protected structure RPS No. 670 Mulhuddart Church (in ruins) & Graveyard, which is located east of Church Road. The proposed development seeks the construction of 217 no. residential units (ranging from 2 – 4 storeys in height) in a mixed tenure development, comprising of 121 no. houses and 96 no. apartments. The development will also include the provision of car parking, cycle parking, new pedestrian / cycle links, services, drainage attenuation, and all associated site and infrastructural works.

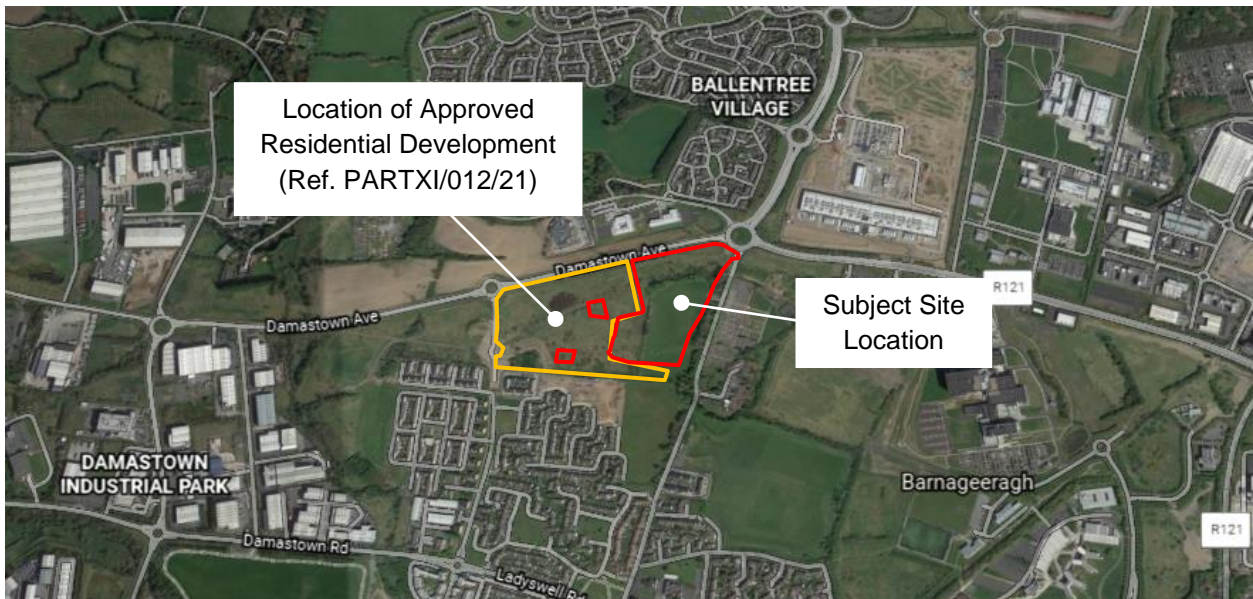


Figure 1: Site Location (Source: Google Maps).

The breakdown of the proposed residential units is shown in Table 1 below.

Unit Type	1-Bed	2-Bed	3-Bed	4-Bed	Total
Houses	-	34	76	11	121
Apartment	36	56	4	-	96
Total	36	90	80	11	217

Table 1: Breakdown of Proposed Residential Units.

1.3 Scope

This TTA is a comprehensive review of all the potential transport impacts of the overall development, including a detailed assessment of the transportation systems provided and the impact of the proposed development on the surrounding environment and road network.

1.4 Standards

This Traffic and Transport Assessment has been prepared in accordance with Chapter 14.17.4 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.

In the case of the subject proposed development, threshold no. 3 is met.

1.6 Contents of the Transport Assessment

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

- Description of the existing and proposed traffic/transportation conditions including information on the current traffic, critical junctions, pedestrians, cycle and public transport facilities;
- Description of the proposed development;
- The traffic and transportation implications of the development including consideration of trip generation/attraction and trip distribution;
- The time periods applicable to the TTA – Refer to Section 1.8.
- Description and analysis of permitted and potential future developments in the area;
- The potential impact of the proposed development on the surrounding road network;
- Description of car and cycle parking requirements and proposals.

1.7 Programme

It is intended that construction of the proposed development, subject to planning approval, will commence in 2023 for completion in 2026.

1.8 Assessment Years

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

Base Year	:	2023
Opening Year (With / Without Development)	:	2026
Opening Year + 5 Years Forecast (With / Without Development)	:	2031
Opening Year + 15 Years Forecast (With / Without Development):	:	2041

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 Consulted

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

- (a) Traffic and Transport Assessment Guidelines, TII/NRA, May 2014
- (b) Fingal Development Plan 2023 – 2029
- (c) Greater Dublin Area Transport Strategy 2022 – 2042
- (d) GDA Cycle Network Plan, NTA, 2022
- (e) Sustainable Urban Housing: Design Standards for New Apartments, December 2022
- (f) Church Fields Land Management Plan, FCC, 2019
- (g) Transport Impact Assessment, Church Fields Land Development, RPS, October 2019.
- (h) Traffic Assessment, Avondale Park, Martin Rogers Consulting Ltd. November 2019.

2. Receiving Environment

2.1 Existing Road

The site is located between the Damastown Avenue to the north, the Church Road to the east and the Church Fields Link Road (Wellview Avenue) to the west, and the Ladyswell Road to the south as shown in Figure 2.

Church Road is a narrow rural road with a single carriageway road and a greenway facility on the west side of the road, which is currently being upgraded as part of the works approved under Reg. Ref. PARTXI/011/19.

Damastown Avenue is a single carriageway road with cycle lanes and footpaths provided on both sides.

Ladyswell Road is a single carriageway local road with grass verges, footpaths, and speed ramps for traffic calming.

Wellview Avenue is a single carriageway cul-de-sac with grass verges, footpaths, and speed ramps for traffic calming. The connection link between Wellview Avenue and the Damastown Avenue (the Church Fields Link Road) is currently under construction (Reg. Ref.: PARTXI/011/19: Church Fields Link Road and Cycle Network Development)

The posted speed limit is 50 kph on Church Road, Ladyswell Road and Wellview Avenue increasing to 60 kph on Damastown Avenue.

To the south, Church Road facilitates access to the N3 and M50 motorways and to the north the R121 facilitates access to the N2 motorway.



Figure 2: Map of Local Road Network and Main Junctions (Source: Google Maps).

2.2 Existing Junctions

There are four existing main road junctions in the area of the subject site which have been numbered clockwise from Junction 1 as shown in Figure 2 above.

- **Junction 1:** Church Fields Link Road / Damastown Avenue

Junction 1 is an existing two arm roundabout with an ICD of 50 metres and provision for a future third arm (south) and fourth arm (north).

- **Junction 2:** Damastown Avenue / Church Road / Damastown Avenue / Powerstown Road / R121.

Junction 2 is an existing five-arm roundabout with an ICD of 75 metres and a signal-controlled pedestrian crossing facility on the Damastown Avenue arm (west).

- **Junction 3:** Church Road / Castlecurragh / Ladyswell Road

Junction 3 is an existing four-arm roundabout with an ICD of 36 metres.

- **Junction 4:** Damastown Road / Parnell Drive / Wellview Avenue

Junction 4 is an existing four-arm roundabout with an ICD of 36 metres.

Junction 5, on Church Fields Link Road (which will provide access to the proposed development via the adjacent approved residential development (Ref. PARTXI/012/21)), will be a four-arm roundabout with an ICD of 24 metres approved as part of the planning permission for the Church Fields Link Road and Cycle Network (Ref. PARTXI/011/19).

2.3 Existing Traffic Flows

In order to quantify the volumes of traffic movements at key points on the road network surrounding the site, a set of classified turning movement traffic counts were commissioned.

A manual classified traffic survey was carried out by 'IDASO' on Tuesday 21st March 2023 at the four junctions as outlined in Section 2.2 above.

The survey was carried out on the date identified above to ensure that flows representative of normal term time and hence not affected by school holidays or other public holidays or events. As such they provide a reasonable representation of a neutral month during a period of normal school and employment activity.

The results of the survey indicated that the peak traffic levels through the junctions occurred between the hours of 08:00 to 09:00 in the AM and 17:00 to 18:00 in the PM. The AM and PM peak hour two-way flows surveyed on each junction are shown in Table 2. Junction 5 is an approved roundabout which is currently under construction.

Junction	AM Peak Hour	PM Peak Hour	Total AM + PM
1	1,299	1,205	2,504
2	3,309	2,850	6,159
3	2,010	1,670	3,680
4	793	640	1,433
Total	7,411	6,365	13,776

Table 2: 2023 Surveyed Two-way Flows per Junction.

The traffic movement levels are illustrated in Figure 3. Full traffic survey is provided in Appendix A.

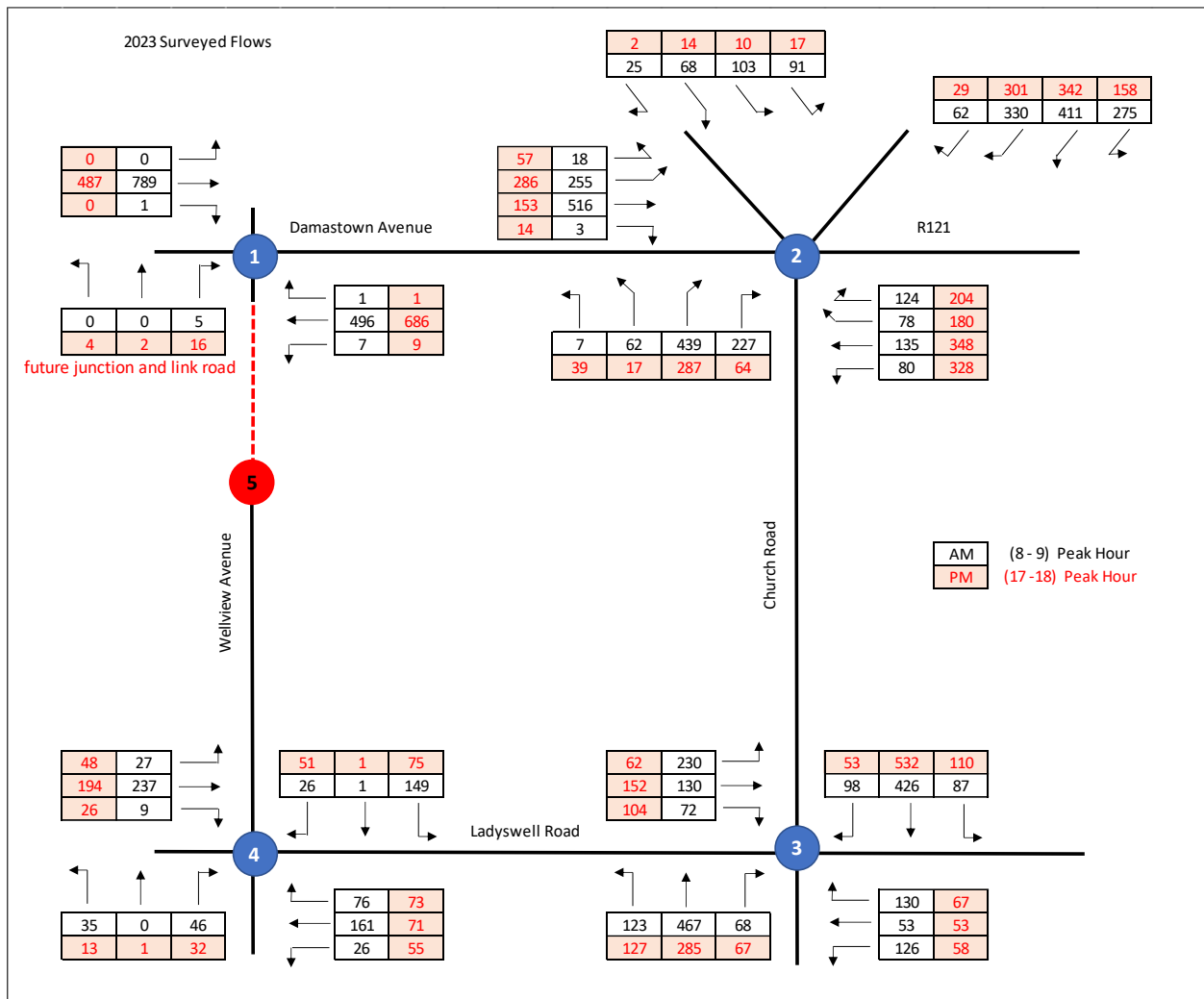


Figure 3: 2023 Surveyed Flows (AM and PM Peak Hours).

2.4 Existing Bus Network

The closest bus stops serving the surrounding area are located on Ladyswell Road and on R121 to the south and east of the site, respectively - See Figure 4. The Dublin Bus and Go-Ahead bus routes operating at these bus stops are outlined below. The weekday frequencies of which these routes operate are shown in Table 3.

- **Ladyswell Road:** Dublin Bus Routes: 38 / 38A / 38B. Go-Ahead Routes: 220 / 220A / 238
- **R121:** Dublin Bus Route: 40D. Go-Ahead Routes: 236 / 236A / 238

Walking times from the proposed development site to the closest bus stops are shown in Figure 4. Shortest walking route to the Ladyswell Road bus stops is via an existing greenway and Parslicktown Drive running parallel to the Church Road. Shortest walking route to the R121 bus stops is via Church Road and R121.

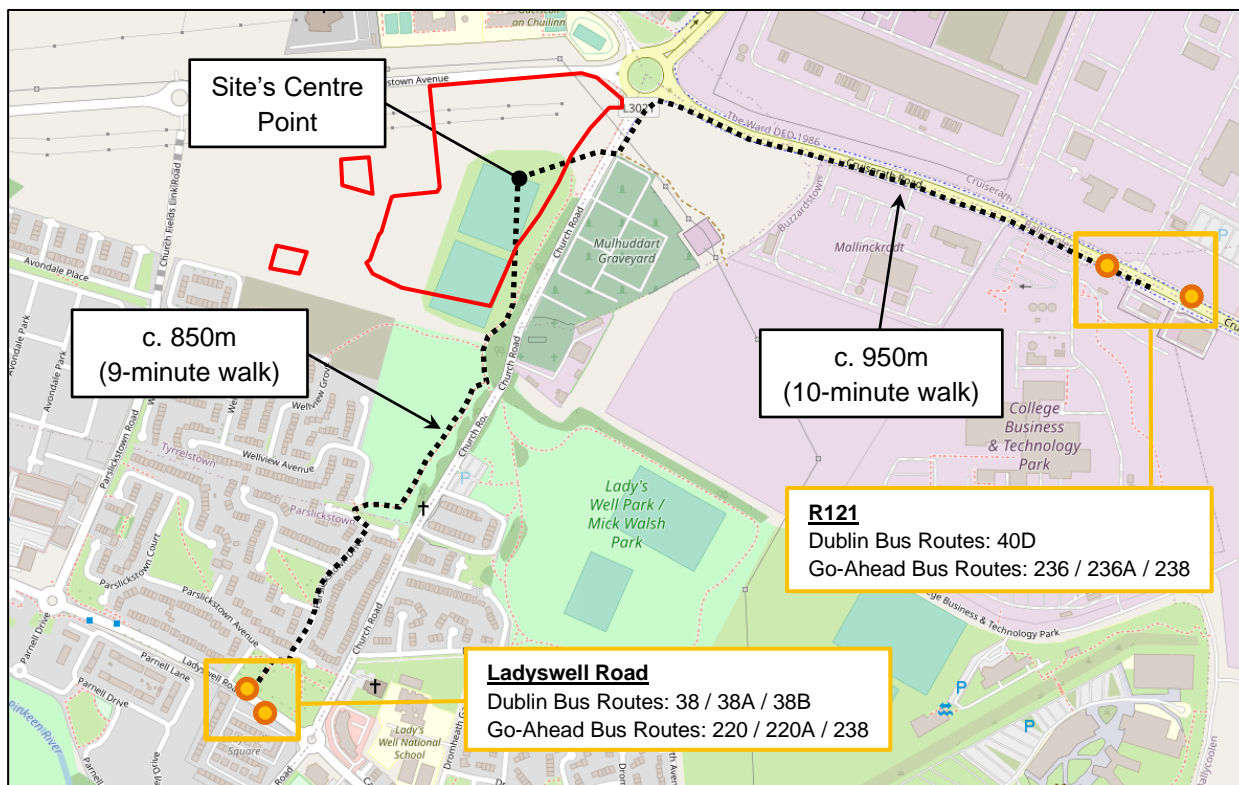


Figure 4: Location of Closest Bus Stops and Routes from the Site (Source: OpenStreetMap).

Route	Direction	00h to 07h	07h to 09h	09h to 17h	17 to 19h	19h to 00h
38	Inbound	3 services	5 services	16 services	5 services	9 services
	Outbound	2 services	6 services	17 services	4 services	9 services
38A	Inbound	3 services	6 services	17 services	5 services	8 services
	Outbound	2 services	6 services	16 services	5 services	9 services
38B	Inbound	3 services	3 services	-	-	-
	Outbound	2 services	5 services	-	-	-
40D	Inbound	2 services	9 services	18 services	8 services	9 services
	Outbound	4 services	8 services	18 services	8 services	9 services
220	Inbound	1 service	1 service	7 services	3 services	3 services
	Outbound	1 service	2 services	8 services	2 services	3 services
220A	Inbound	-	1 service	-	-	-
	Outbound	-	-	1 service	-	-
236	Inbound	1 service	2 services	-	-	-
	Outbound	-	-	1 service	2 services	-
236A	Inbound	-	-	2 services	1 service	-
	Outbound	-	2 services	1 service	-	-
238	Inbound	-	2 services	8 services	2 services	6 services
	Outbound	1 service	2 services	9 services	3 services	5 services

Table 3: Local Dublin Bus and Go-Ahead Routes – Weekday Frequencies.

2.5 Existing Cycle Facilities

In the vicinity of the proposed development site, cyclists can benefit from the provision of cycle lanes along both sides of the Damastown Avenue which continues further east along the R121. A cycleway network, permitted under Ref. PARTXI/011/19, is currently under construction along Damastown Avenue, on Church Fields Link Road and immediately east of the subject site along Church Road. Figure 5 - extracted from the National Transport Authority's (NTA) Greater Dublin Area Cycle Network Plan (2022), illustrates the local cycle network.



Figure 5: Cycle Facilities Map – extracted from GDA Cycle Network Plan, 2022.

2.6 Existing Pedestrian Facilities

Pedestrian facilities in the area surrounding the subject site are of a reasonable standard. There are well established footpaths on the roads surrounding the site and street lighting is provided. Push button pedestrian crossing facilities are provided on Damastown Avenue across the western arm of the roundabout with Church Road.

Pedestrians can also benefit from the provision of a greenway running parallel to Church Road (to the west) starting at the access to the Mulhuddart Cemetery and running south up until Parlickstown Drive.

2.7 Recorded Local Traffic Collisions

Traffic collision data of the surrounding area has been reviewed for the period of 2005 to 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. The recorded incidents were categorised into class of severity, which includes minor, serious and fatal collisions. The analysis is shown in Figure 6 below.

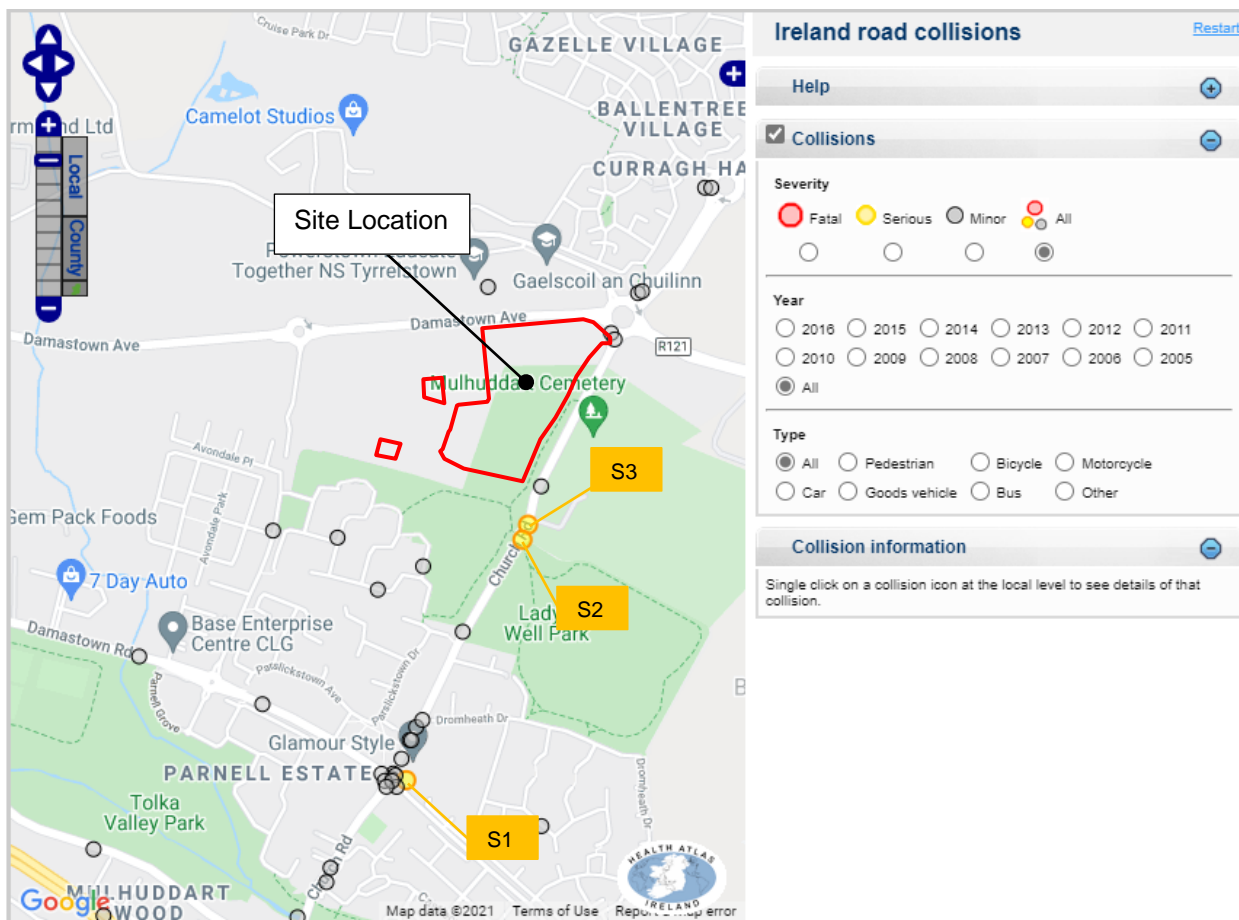


Figure 6: Local Traffic Collision Data (Source: Road Safety Authority Database).

From the information obtained consulting the RSA Traffic Collision Database, there has been three serious and several minor collisions that occurred on the road network surrounding the site between 2005 and 2016. Details of the serious collisions are shown in Table 4.

Reference	Year	Vehicle	Circumstances	Day of Week	Time
S1	2009	Car	Other	Friday	16:00-19:00
S2	2005	Car	Head-on conflict	Saturday	10:00-16:00
S3	2015	Car	Single vehicle only	Friday	16:00-19:00

Table 4: Summary of Serious Traffic Collision Data (Source: RSA Database).

3. Transportation Improvements

3.1 BusConnects

The BusConnects project currently being promoted by the National Transport Authority (NTA) aims to deliver a much-enhanced bus service to the Greater Dublin Area (GDA). Some route improvements set out under the BusConnects plan are already in place or being implemented.

The Blanchardstown to City Centre Core Bus Corridor Scheme was submitted to An Bord Pleanála in September 2022 and will support integrated sustainable transport usage through infrastructure improvements for active travel (both walking and cycling), and the provision of enhanced bus priority measures for existing (both public and private) and all future services who will use the corridor. It commences at Junction 3 (Blanchardstown / Mulhuddart) southbound off-slip from the N3 and proceeds along the R121 Blanchardstown Road South into the Blanchardstown Shopping Centre. From a new terminus to the north-west of Blanchardstown Shopping Centre, the Scheme is routed onto the N3 Navan Road via the Snugborough Road junction and follows the N3 and Navan Road as far as the junction with the Old Cabra Road, then routed along the Old Cabra Road, Prussia Street, Manor Street and Stoneybatter to the junction with King Street North. The Core Bus Corridor is then routed via Blackhall Place as far as the junction with Ellis Quay. At the Stoneybatter / Brunswick Street North junction, cyclists are routed along Brunswick Street North, George's Lane and Queen Street as far as the junction with Ellis Quay / Arran Quay. This will specifically support improved journey times on the B spine (Blanchardstown to City Centre) and associated branch routes which will be delivered as part of the BusConnects project.

The routes proposed to serve the subject development area are shown in Figure 7 and outlined below:

- **B Spine (Blanchardstown to City Centre) & Branch Route B3**: Tyrrelstown – City Centre – Dun Laoghaire
- **Local Route L62**: Blanchardstown – Tyrrelstown - Broombridge
- **Local Route L63**: Damastown - Blanchardstown
- **Peak-only Route P63**: Damastown – Corduff – City Centre (two-way)

According to BusConnects the route types can be defined as follows:

“Spines – 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.”

“Local Routes – services providing important connections within local areas, linking to local retail centres and to onward transport connections.”

“Peak-Only Routes – services operating during the peak travel periods, generally weekday mornings and evenings, providing additional capacity along key bus corridors.”

A summary of the Weekday and Weekend frequencies of which the above-mentioned BusConnects routes are proposed to operate is presented in Table 5.



Figure 7: BusConnects Routes Map – extracted from BusConnects Revised Network Map.

Weekday Frequency					
Route	Before 07:00	07:00 to 09:00	09:00 to 15:00	15:00 to 18:00	After 18:00
B3	15 to 30 min	15 min	15 min	15 min	15 to 30 min
L62	30 min	15 min	30 min	15 min	30 to 60 min
L63	15 to 30 min	15 min	15 min	15 min	15 to 30 min
P63	-	6 services	-	9 services	-
Saturday Frequency					
Route	Before 07:00	07:00 to 09:00	09:00 to 15:00	15:00 to 18:00	After 18:00
B3	20 min	20 min	15 min	15 min	20 to 30 min
L62	60 min	60 min	30 min	30 min	30 to 60 min
L63	20 min	20 min	15 min	15 min	15 to 30 min
P63	-	-	-	-	-
Sunday Frequency					
Route	Before 08:00	08:00 to 10:00	10:00 to 15:00	15:00 to 18:00	After 18:00
B3	-	30 min	20 min	20 min	30 min
L62	-	60 min	30 min	30 min	30 to 60 min
L63	-	30 min	20 min	20 min	30 min
P63	-	-	-	-	-

Table 5: BusConnects Routes Frequencies (Source: BusConnects Timetables).

To improve access from the existing, approved, proposed and future residential developments in the area of Church Fields to the future surrounding bus network, the diversion of the Local Route L63 and the Peak-Only Route P63 from their original Ladyswell Road - Damastown Road – Damastown Drive route to the Church Fields Link Road – Damastown Avenue route has been discussed and agreed in principle with the National Transport Authority (NTA). Refer to Figure 8 below.

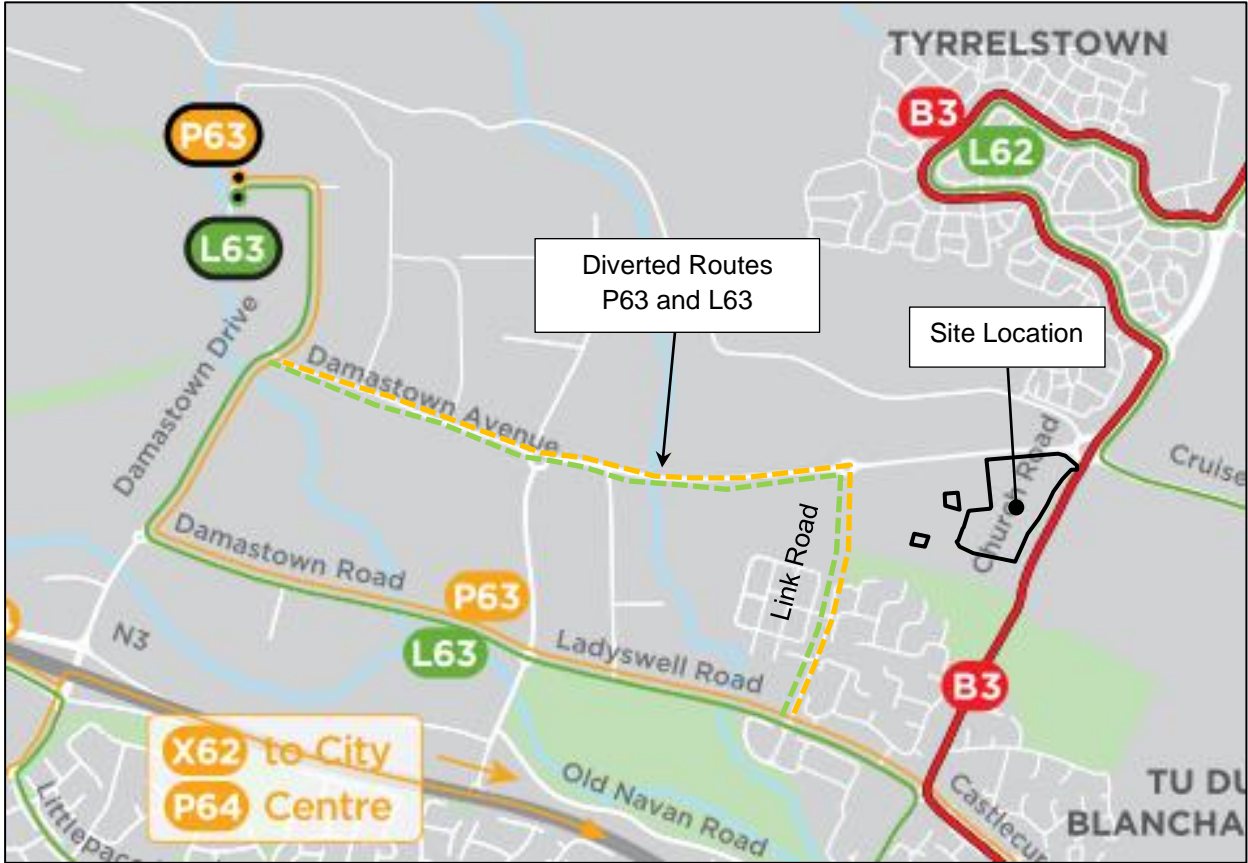


Figure 8: BusConnects Routes P63 and L63 Diverted.

3.2 Cycle Network Improvements

3.2.1 GDA Cycle Network Plan – NTA, 2022

The NTA published a version of the updated GDA Cycle Network Plan which supersedes the 2013 version. The proposed development site lies within the “Dublin North West Sector” as outlined in the 2022 Greater Dublin Area Cycle Network Plan. An extract of the updated cycle network is reproduced in Figure 9 below.

The future local cycle network, as set out in 2022 GDA Cycle Network Plan, includes a west-east secondary route along Damastown Avenue continuing east along the R121, a north-south secondary route along Church Road, a north-south greenway utility route along Wellview Avenue, and also two north-south feeder routes along Damastown Close and Damastown Drive.

Currently there is a greenway route that starts at the access to the Mulhuddart Cemetery and runs south parallel to the west of Church Road up until Parslickstown Drive. The upgrade of this greenway to include

a two-way off-road cycle track has been approved (and is currently under construction) under the *Church Fields Link Road and Cycle Network* project (Reg. Ref. PARTXI/011/19). A section of this off-road cycle track, which will be extended to start just south of the roundabout between Damastown Avenue, will run along the eastern boundary of the site. This will form part of the Secondary Cycle Route along Church Road. For the alignment of the cycle track along the eastern boundary of the site, refer to Figure 12.

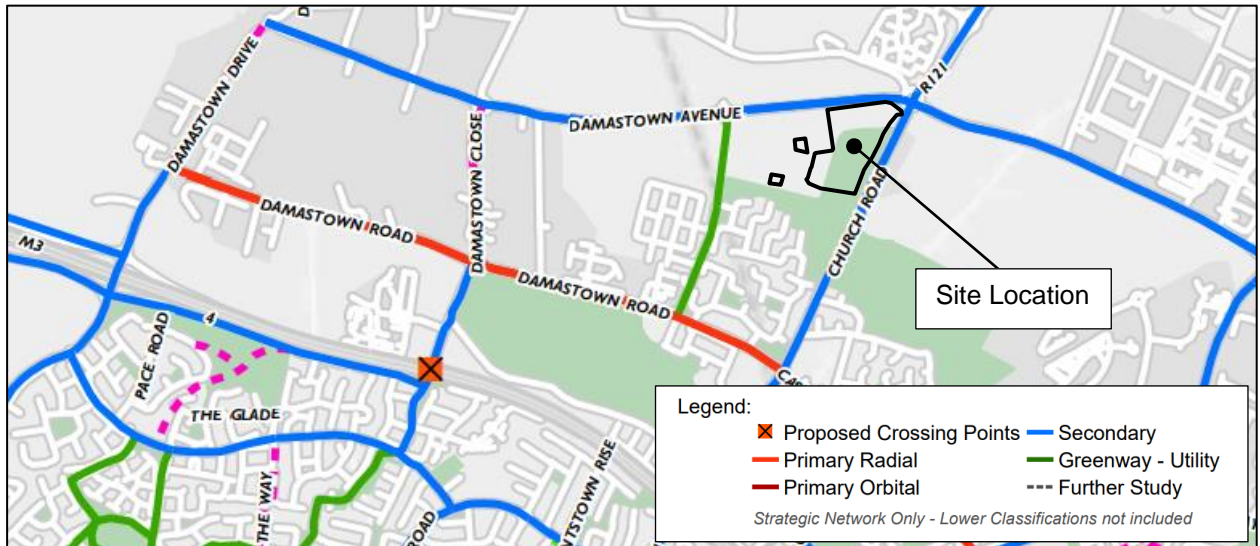


Figure 9: Cycle Network – from GDA Cycle Network Plan, 2022.

3.2.2 Fingal Development Plan (2023 – 2029)

Cycling policies and objectives are also set out in Sections 6.5.6.1 and 6.5.6.2 of the Fingal Development Plan (2023 – 2029). Figure 10 shows indicative cycle routes on Church Road, on Damastown Avenue – continuing along R121 and on Damastown Close.



Figure 10: Cycle Network Plan – Fingal Development Plan (2023 – 2029).

3.3 Transportation Network Improvements

The existing local road network was showed in Figure 2. The under-construction network approved under the '*Church Fields Link Road and Cycle Network*' provides for a number of transportation improvements including:

- (a) A 380m upgrade of Wellview Avenue and 310m long new two-lane roadway with central median linking Wellview Avenue to Damastown Avenue (Junction 1).
- (b) Pedestrian and toucan crossings at various locations along the Link Road, along the Damastown Avenue and at the existing roundabouts on Damastown Avenue.
- (c) A cycle friendly roundabout on the Church Fields Link Road providing access to the nearby approved development (Reg. Ref. PARTXI/012/21) and the subject site (Junction 5).
- (d) A 1.5km long 4m wide two-way off-road cycle track linking the proposed new Link Road to the two schools on Porterstown Road and the proposed park adjacent to Church Road.

4. Church Fields – Overall Site Strategy

In 2019, an overall Site Strategy for Church Fields was prepared by Fingal County Council which envisages the development of c. 1,000 residential units. The total number of residential units proposed in the area are as follows:

- Wellview Cul-de-sacs : 20 units
- Avondale Park : 70 units
- Permitted Part 8 Development and Proposed Development : 517 units
- Future Western Development : 500 units
- **Total** : **1,107 units**

The Site Strategy plan is detailed in Table 6 and Figure 11. At the time of writing this TTA, the current status of the various developments is summarised in Table 6.

Description	Current Status
Link Road, Footpath, Cycleway and 3 Attenuation Ponds	Under construction (Reg. Ref. PARTXI/011/19)
20 units – Wellview Cul-de-sacs	Under construction (Reg. Ref. PARTXI/006/18)
70 units – Avondale Park	Under construction (Reg. Ref. PARTXI/010/19)
Pinkeen Park	Partial Design/Part 8 Planning
300 units – Church Fields Housing and Eastern Linear Park Development	Approved (Reg. Ref. PARTXI/012/21)
217 units – Church Fields East	Subject application
c. 500 units – Church Fields West and Western Linear Park	Subject to future planning application

Table 6: Overall Church Fields Site Strategy – Current Status.

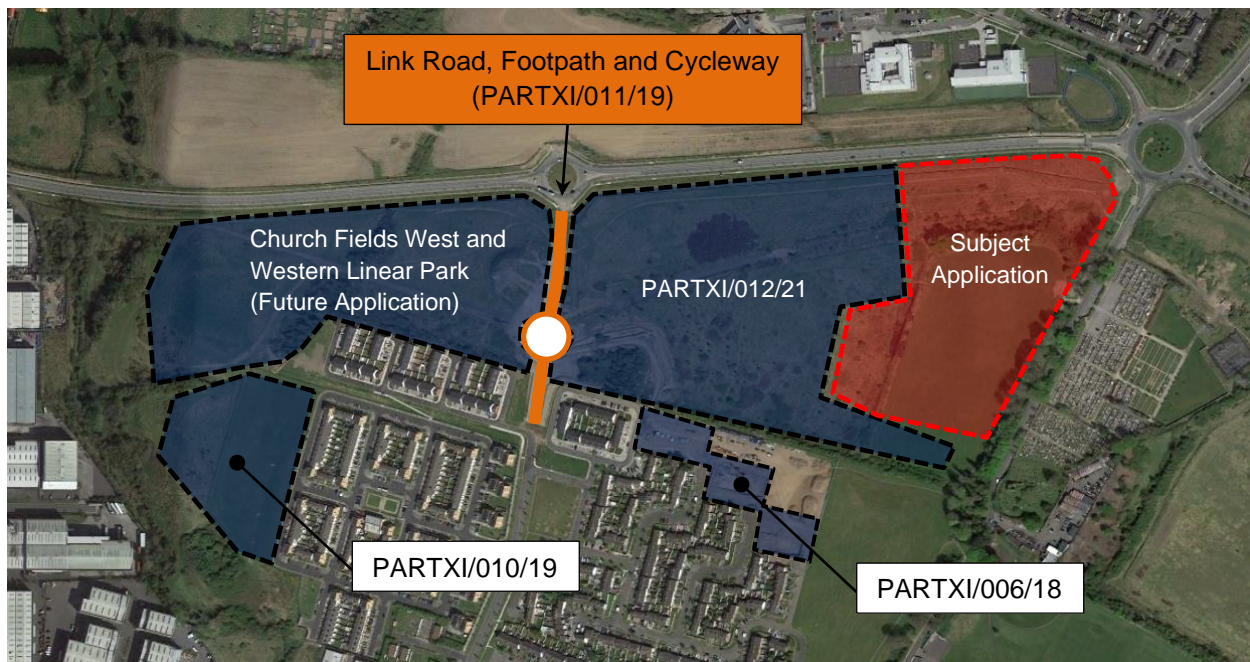


Figure 11: Overall Church Fields Site Strategy.

5. Proposed Development

5.1 Description and Layout

The proposed development consists of 217 no. residential units (121 no. houses and 96 no. apartments). The breakdown of the proposed residential units is shown in Table 7 below.

Unit Type	1-Bed	2-Bed	3-Bed	4-Bed	Total
Houses	-	34	76	11	121
Apartment	36	56	4	-	96
Total	36	90	80	11	217

Table 7: Breakdown of Proposed Residential Units.

The site layout for the proposed development is shown in Figure 12.

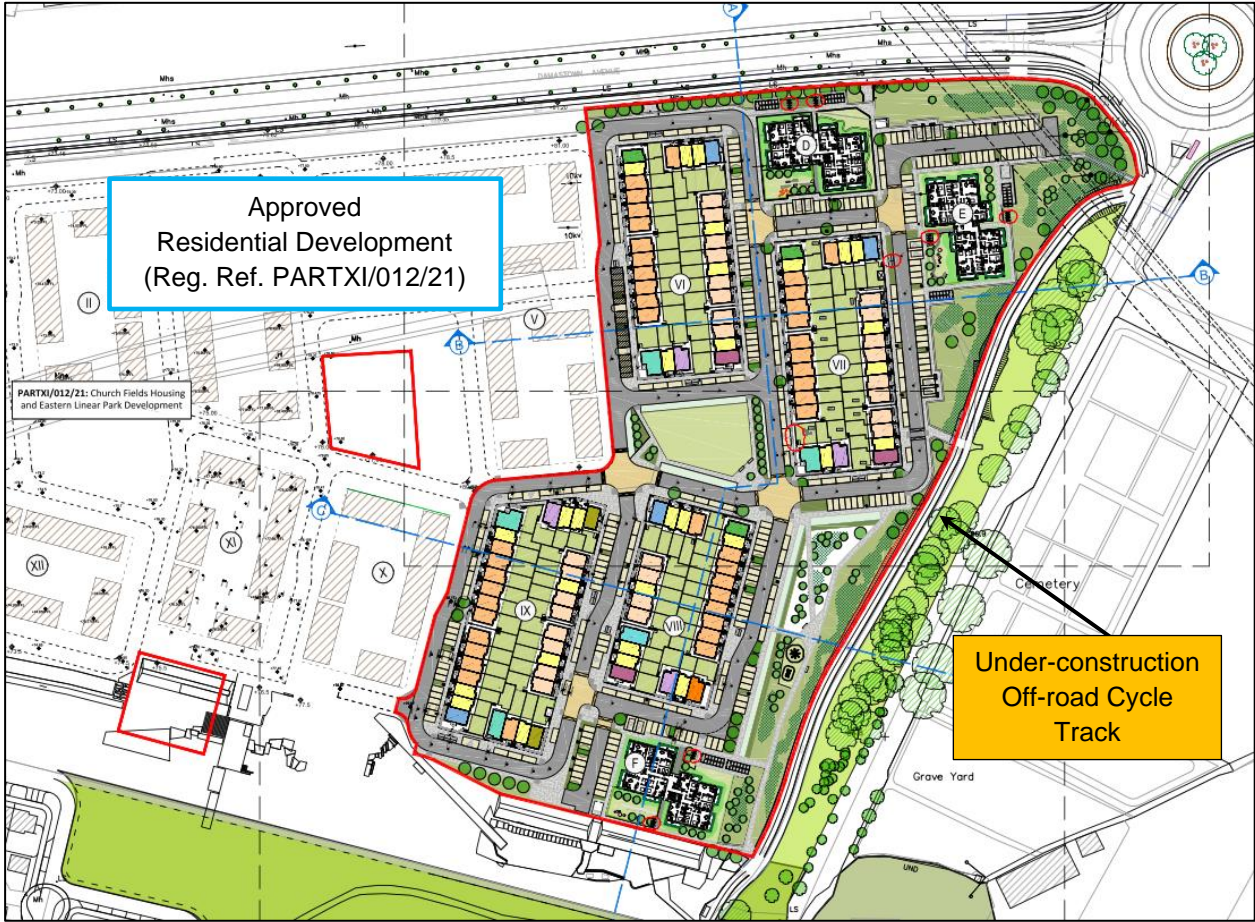


Figure 12: Proposed Site Layout.

5.2 Vehicular Access

Vehicular access to the subject development is proposed via the approved residential development to the west of the site (Church Fields Housing and Eastern Linear Park Development - permitted under Planning Reg. Ref. PARTXI/012/21) which will be accessed via a permitted cycle friendly roundabout on the Church Fields Link Road (labelled as Junction 5 in this TTA – permitted under Planning Reg. Ref. PARTXI/011/19).

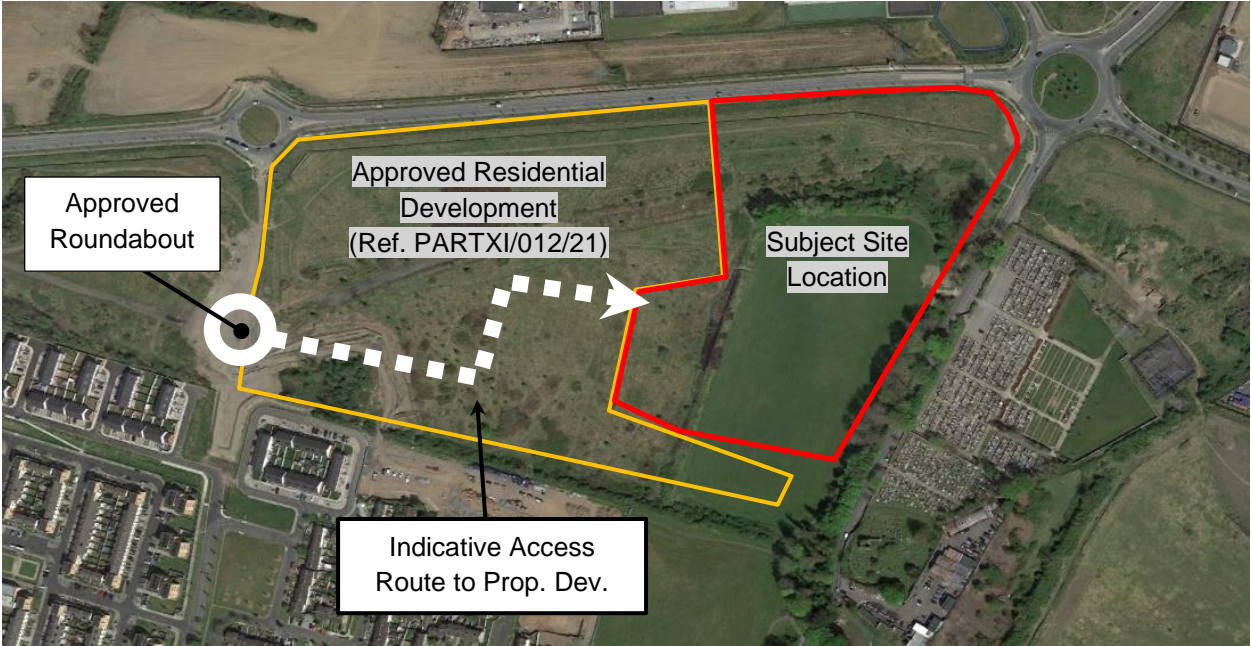


Figure 13: Indicative Vehicular Access Route to Proposed Development.

The western approach to the roundabout will also provide future access to Church Fields Western Development on the west side of Church Fields Link Road.

5.3 Car Parking

5.3.1 Fingal Development Plan (2023 – 2029) Standards

To ensure adequate residential parking provision, the Fingal Development Plan (2023 – 2029) created the following two distinct car parking zones:

- *“Zone 1: relates to developments within 800m of Bus Connects spine route, or 1,600m 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.”*

As set out in Section 3.1, the proposed development site is located adjacent to the proposed BusConnects Branch Route B3. This route combines with Branch Routes B1, B2 & B4 to form the BusConnects Spine B (from Blanchardstown to City Centre) c. 1.8km southeast of the proposed site, i.e. Branch Route B3 is not recognised as a Spine route itself, but rather one of the four branches that create the spine c. 1.8 km from the subject site. Therefore, the proposed development site is located in Zone 2 as it is not within 800m of a BusConnects spine route.

Car parking standards for new developments are set out in Table 14.19 of the Fingal Development Plan (2023 – 2029). Those relevant to the proposed scheme are shown below.

Land Use Category	Standards (Zone 2)
Residential (1-2 Bedroom)	1 + 1 visitor space per 5 units (Norm)
Residential (3-3+ Bedroom)	2 + 1 visitor space per 5 units (Norm)

Table 8: Car Parking Standards – Fingal Development Plan (2023 – 2029).

In addition to the above, the FDP also sets out the following with regards to car parking:

“Accessible Car Parking: a minimum 5% of car parking spaces provided should be set aside for disabled car parking in non-residential developments.”

“Motorcycle Parking: Parking spaces should be provided on the basis of 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.”

5.3.2 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.

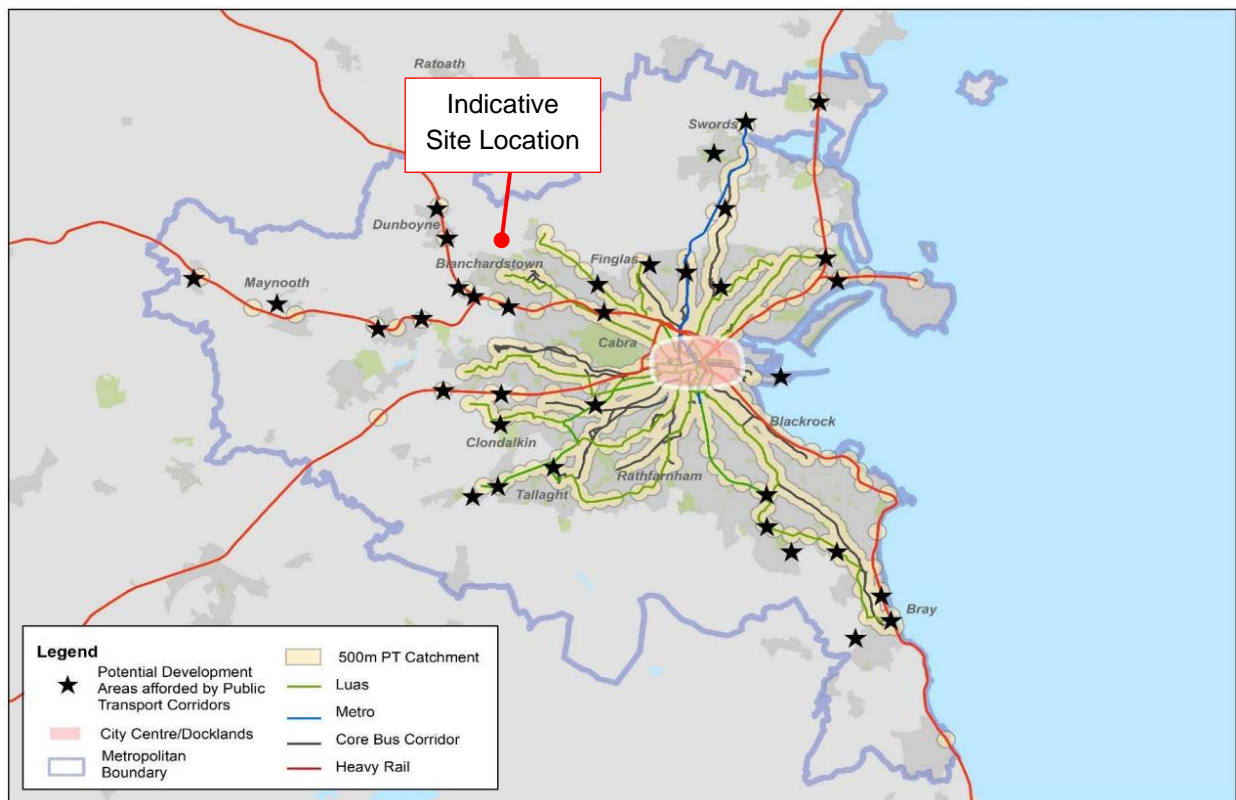


Figure 14: Areas Afforded by PT Corridors in the Metropolitan Area (Source: GDATS).

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
Locations between the Metropolitan Boundary and the M50	Up to 1.5 space per unit

Table 9: Maximum Car Parking Standards – extracted from Figure 14.1 of the GDATS.

Section 14.12.2 and Measure TM12 of the GDATS sets out the following with regards to the above parking standard:

“Section 14.12.2 Residential Car Parking Standards: Table 14.1 sets out the proposed residential standards by location for the GDA, which the NTA recommends is incorporated into all Development Plans.”

“Measure TM12 – Residential Parking Standards: It is recommended that local authorities incorporate maximum residential parking standards into their Development Plans guided by the provisions set out in Table 14.1.”

5.3.3 Sustainable Urban Housing: Design Standards for New Apartments (Dec 2022)

In December 2022, a revised version of the document “Sustainable Urban Housing: Design Standards for New Apartments” (DSNA) was released. 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); and
- 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 close 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.

Given the location of the proposed development site as detailed in Section 2.4, and the future/proposed diversion of the BusConnects routes, which will improve access from the proposed development to the future surrounding public bus service, it is considered that the subject development is located in an Intermediate Urban Location, where, as set out in the DSNA, planning authorities must consider a reduced overall car parking.

5.3.4 Proposed Car Parking

Car parking spaces proposed for the subject development are shown in Table 10, together with a summary of the Fingal Development Plan 2023 – 2029 (FDP) requirements detailed in Sections 5.3.1 above.

It is proposed to provide a total of 306 spaces to serve the subject development.

Proposed Development	Type Parking	FDP Zone 2 requirement (Norm)	Proposed Car Parking Spaces
Houses (121 units)	Residents	208 spaces	165 spaces
	Visitors	24 spaces	24 spaces
Apartments (96 units)	Residents	100 spaces	98 spaces
	Visitors	19 spaces	19 spaces
Total (217 units)	All types	351 spaces	306 spaces

Table 10: Car Parking Spaces Proposed.

A total of 306 car parking spaces are proposed to serve the subject development, 15 spaces (5%) are disabled spaces and 20% (61 spaces) are equipped with charging points for electric vehicles. All parking spaces will have the ducting infrastructure to allow for future electric vehicle charging points should the

demand for this facility requires. 12 motorcycle spaces are proposed for the apartments at a rate of 1 motorcycle bay per 10 car parking spaces.

As can be seen from the above, the car parking spaces proposed are below the Zone 2 requirements set out in the Fingal Development Plan (2023 – 2029).

The diversion of the BusConnects routes (P63 & L63) onto the Wellview Avenue / Church Fields Link Road, and the future BusConnects Branch route (B3) along Church Road, would improve the access from the proposed development to the future surrounding bus network and this amendment has been discussed and agreed in principle with the NTA. These are likely to make public bus service a very viable option for residents of the proposed development with potential to support a reduction in the use of private car and ultimately the reduced provision of car parking spaces.

As part of the overall proposal, the use of private car by residents will be discouraged whilst sustainable modes of transport will be encouraged.

The reduced car parking provision is considered appropriate for the subject development and will reflect the location of the proposed development in relation to future public transport services.

The site is therefore considered a transitional area in terms of public transport provision and car parking requirements, and the level of parking proposed balances the need to make appropriate provision for car parking and encouraging the use of public transport. An overprovision of car parking could discourage the latter by facilitating travel by private car.

5.4 Bicycle Parking

5.4.1 Fingal Development Plan (2023 – 2029)

Standards

Bicycle parking standards for new developments are set out in Table 14.17 of the Fingal Development Plan (2023 – 2029). The standards relevant to the proposed development are summarised below.

Land Use Category	Bicycle Parking Standards	
	Long-Stay	Short-Stay
Residential (1-2 Bedroom)	1, plus 1 per bedroom	0.5 per unit (for apartment blocks only)
Residential (3+ Bedroom)	2, plus 1 per bedroom	0.5 per unit (for apartment blocks only)

Table 11: Bicycle Parking Standards – Fingal Development Plan (2023 – 2029).

Requirement

Based on the above standards, the bicycle parking spaces required by FCC to serve the subject development are set out below. Note that the Short-stay parking spaces are for apartment blocks only.

Proposed Development Type	No. Units	Bicycle Parking Spaces Required	
		Long-Stay	Short-Stay
1-Bed Apartments	36	72	18
2-Bed Apartments	56	168	28
3-Bed Apartments	4	20	2
2-Bed Houses	34	102	-
3-Bed Houses	76	380	-
4-Bed Houses	11	66	-
Total	217	808	48

Table 12: Bicycle Parking Requirement – Fingal Development Plan (2023 – 2029).

5.4.2 Sustainable Urban Housing: Design Standards for New Apartments (Dec 2022)

The following extract from the “Sustainable Urban Housing: Design Standards for New Apartments – December 2022” 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.”

As can be seen, the requirements for the long-stay (for residents) bicycle parking for apartments set out in the Fingal Development Plan (2023 – 2029) are more onerous when compared to the Design Standards for New Apartments (Dec 2022) guidelines.

5.4.3 Proposed Bicycle Parking

Bicycle parking spaces proposed for the subject development are outlined below in Table 13, together with a summary of the Fingal Development Plan (2023 -2029) requirements detailed in Sections 5.4.1 above.

Proposed Development	Type of Bicycle Parking Space	Fingal Development Plan (Requirement)	Proposed Bicycle Parking Spaces
Houses (121 units)	Residents	548	549
	Visitors	-	-
Apartments (96 units)	Residents	260 spaces	300 spaces
	Visitors	48 spaces	48 spaces
Total (217 units)	All types	856 spaces	897 spaces

Table 13: Bicycle Parking Spaces Proposed.

From the above, it can be noted that the bike parking provision is over the bike parking requirements set out in the development plan.

5.5 Construction Management Plan

A Construction Management Plan (CMP) is accompanying the documentation package under a separate cover. The Plan addresses the impact of the construction related traffic on the surrounding road network during construction stage. One of the objectives of the Plan is to ensure that the construction traffic for the proposed development can be accommodated on the surrounding road network without significant impact on other road users.

5.6 Servicing

The proposed development will be accessible for refuse vehicles/fire tenders via the adjacent residential development (approved under Ref. PARTXI/012/21), accessed from a permitted roundabout on Church Fields Link Road (Planning Reg. Ref. PARTXI/011/19). Details of the swept paths for these vehicles are demarcated in Waterman Moylan Drawing No's 20-074-P4110 and 20-074-P4111 accompanying the documentation package.

6. Relevant Traffic Reports

6.1 Church Fields Land Development

6.1.1 Introduction

A Transport Impact Assessment (TIA) for the Church Fields Land Development was prepared by RPS for Fingal County Council in October 2019. This TIA assessed *'the predicted traffic generated by the proposed residential developments in the Church Fields area of Mulhuddart, Dublin 15'*.

The development assessed is illustrated in Figure 15 and comprised a total of 1,038 houses located as follows:

- (a) 428 residential units on the west side of the Church Fields Link Road (Church Fields Western Development).
- (b) 498 residential units between the Church Fields Link Road and Church Road (Church Fields Eastern Development).
- (c) 42 residential units in Avondale Place immediately to the north of Avondale Park.
- (d) 70 residential units immediately to the west of Avondale Park with access to Wellview Avenue through the existing Avondale Park entrance.

The associated road proposals included in the assessment were:

- The construction of Church Fields Link Road from Wellview Avenue north to the roundabout on Damastown Avenue.
- A new off-road cycle route along Church Road.
- A new east-west cycle and walking route between the new development of 926 residential units at Church Fields and the Avondale / Wellview estates.

6.1.2 Assessment Years

The TIA included traffic forecasting for the Opening Year of 2020, Opening Year +5 Years of 2025 and Opening Year +15 Years of 2035.

6.1.3 Traffic Forecast

The trip included for the subject site which was labelled as Church Fields Eastern Development (498 units) in the TIA, are summarised below:

- AM Peak Hour: 60 arrivals and 399 departures.
- PM Peak Hour: 249 arrivals and 143 departures.

6.1.4 Conclusions

The TIA prepared by RPS for the Church Fields Development concluded that, from a traffic and transport perspective following the full buildout of the 1,038 units, there is potential for the roundabouts at Junction 1

and Junction 2 to operate over capacity in the AM period. This could result in significant queues and delays on the eastbound approach arms to both junctions.

The TIA also concluded that although the two junctions were operating above their practical capacity, the traffic volumes for the carriageway link approaches up to 2035 were below the maximum flows for such roads.

No mitigation measures were included in the TIA.



Figure 15: Development Layout (extracted from Figure 4-1 of the RPS TIA).

6.2 Avondale Park

6.2.1 Introduction

A Traffic Assessment (TA) for a proposed housing development for 70 units at Church Fields on neighbouring Avondale Park, Mulhuddart, Dublin 15 was carried out by Martin Rogers Consulting Ltd. in November 2019. The TIA accompanied a Part 8 Planning Application approved by Fingal County Council in February 2020 (Reg Ref: PARTXI/010/19).

The location of the development is illustrated in Figure 16 below.



Figure 16: Site Location (Source: Google Maps).

6.2.2 Assessment Years

The TA included traffic forecasting for the Opening Year of 2022 only. No assessment was included for either Opening Year +5 Years or for Opening Year +15 Years.

6.2.3 Traffic Forecast

The trips included for the subject site in the TA for the 70 units at Avondale Park are summarised below:

- AM Peak Hour: 10 arrivals and 16 departures.
- PM Peak Hour: 27 arrivals and 18 departures.

6.2.4 Conclusions

The TA concluded that the proposed housing development at Avondale Park is totally sustainable in transportation terms and will have a minimal impact on the efficient working of the Avondale Park priority junction.

No mitigation measures were recommended in the TA.

7. Trip Generation

7.1 Introduction

In order to be consistent, the trip generation calculation approach used as part of the Traffic and Transport Assessment (TTA) prepared for the adjacent approved residential development (Planning Reg. Ref.: PARTXI/012/21) has been replicated for the subject assessment.

In the TTA for the adjacent approved development, TRICS was interrogated for similar developments and the trip rates obtained were compared with the trip rates used in a number of Strategic Housing Developments (SHD) applications to An Bord Pleanala.

To undertake a conservative appraisal of the local road network, the average of the trip rates used in a number of SHD was used. For the purpose of the subject application, these trip rates have also been applied.

7.2 Trip Rates

The trip rates used in the various Strategic Housing Development (SHD) applications to An Bord Pleanala, and the average trip rates used in the adjacent approved and subject applications, are presented in Table 14 below.

SHD No	Location	Units	AM Peak Hour		PM Peak Hour	
			Arr	Dep	Arr	Dep
308467	Monastery Lands, Delgany	96	0.141	0.386	0.340	0.183
308431	Bearna, Co Galway (Atkins)	52	0.111	0.424	0.308	0.162
308396	Dunshaughlin, Co Meath	254	0.295	0.674	0.432	0.253
308155	Relief Road, Enfield	304	0.071	0.233	0.361	0.247
308135	Blackrock, Co Louth	163	0.112	0.364	0.367	0.179
308116	Colpe West, Drogheda	169	0.165	0.332	0.424	0.222
307832	Clonminch, Tullamore	172	0.171	0.280	0.379	0.241
307698	Stoney Hill Road, Rathcoole	151	0.103	0.313	0.272	0.151
307507	Manorlands, Trim,	136	0.137	0.400	0.372	0.172
307041	Maryborough Ridge, Douglas	315	0.160	0.524	0.440	0.278
306504	Crodaun, Celbridge	218	0.140	0.415	0.294	0.181
306325	Ballyvolane, Cork	531	0.220	0.460	0.400	0.280
305713	Regles, Lusk	223	0.151	0.407	0.359	0.206
305701	Jigginstown, Naas	208	0.143	0.378	0.218	0.160
305552	Rathmullan Drogheda	509	0.145	0.391	0.346	0.203
305476	Farrankelly, Greystones	245	0.142	0.439	0.396	0.222
305343	Newcastle, Co Dublin	281	0.081	0.267	0.309	0.168
305007	Magee Barracks, Kildare	185	0.164	0.416	0.354	0.228
304423	Knockboy, Waterford	258	0.140	0.350	0.290	0.190
303813	Ballyowen, Gorey	232	0.164	0.416	0.354	0.228
303098	Grange, Co Cork	176	0.098	0.489	0.382	0.199
Average			0.145	0.398	0.352	0.207

Table 14: AM & PM Trip Rates from recent SHD applications to An Bord Pleanala.

7.3 Proposed Development Trips

Trip generation for the proposed development is presented in Table 15 below.

Trip Rates Source	Land Use	Size	AM Peak Hour		PM Peak Hour	
			Arrivals	Departures	Arrivals	Departures
SHD (Average)	Houses	121 units	18	48	43	25
SHD (Average)	Apartments	96 units	14	38	34	20
Total			32	86	77	45

Table 15: Proposed Development Trips – AM & PM.

7.4 Nearby Permitted Development Trips

At the time of writing this report, the following three nearby permitted developments were not yet constructed and therefore not accounted for in the traffic survey. As such, these developments were also considered with regards to trip generation. See below.

- Avondale Park (Planning Ref. PARTXI/010/19): 70 residential units
- Wellview Cul-de-sacs (Planning Ref. PARTXI/006/18): 20 residential units
- Church Fields Housing and Eastern Linear Park (Planning Ref. PARTXI/012/21): 300 residential units + Creche + Retail

Development	Size	AM Peak Hour		PM Peak Hour	
		Arrivals	Departures	Arrivals	Departures
Avondale Park	70 units	10	16	27	18
Wellview Cul-de-sacs	20 units	3	8	7	4
Church Fields Housing and Eastern Linear Park	300 units + Creche + Retail	110	163	166	137
Total	390 units + Creche + Retail	123	199	198	155

Table 16: Nearby Permitted Development Trips – AM & PM.

The trip generation for the Wellview Cul-de-sacs development was calculated based on the average SHD trip rates set out in Table 14, whilst trip generation for the Avondale Park and Church Fields Housing and Eastern Linear Park developments were extracted from the traffic studies prepared for their planning application.

7.5 Potential Future Development Trips

The proposed development falls within the Church Fields lands. As part of the Traffic Impact Assessment (TIA) prepared by RPS on behalf of FCC (Refer to Section 6.1 of the subject report), a total of 926 residential units were envisaged/assessed in Church Fields – 498 to the east of Church Fields Link Road and 428 residential units to the west of Church Fields Link Road.

The overall development proposed for the Eastern Lands (517 units – 300 approved and 217 proposed as part of the subject application) are 19 units above the 498 assessed under the TIA prepared by RPS. Trip generation for the 300 approved units (Planning Ref. PARTXI/012/21) and 217 proposed units (subject application) were calculated in Sections 7.4 and 7.3 above, respectively.

Trip generation for the potential future development to the west of the Church Fields Link Road (Ref. PARTXI/011/19) were calculated using the SHD average trip rates (Table 14). To be conservative, for the purpose of this assessment 500 units are assumed in this area as opposed to 428 as estimated in the TIA prepared by RPS.

Development	Size	AM Peak Hour		PM Peak Hour	
		Arrivals	Departures	Arrivals	Departures
Future Western Development	c. 500 units	72	199	176	104

Table 17: Potential Future Development Trips – AM & PM.

7.6 Summary of Calculated Trips

A summary of the trips calculated for the proposed, permitted and potential future developments is presented in Table 18.

Development	Size	AM Peak Hour		PM Peak Hour	
		Arrivals	Departures	Arrivals	Departures
Proposed Development	217 units	32	86	77	45
Permitted Avondale Park	70 units	10	16	27	18
Permitted Wellview Cul-de-sacs	20 units	3	8	7	4
Permitted Church Fields Housing and Eastern Linear Park	300 units + Creche + Retail	110	163	166	137
Future Western Development	c. 500 units	72	199	176	104
Total	1,107 units + Creche + Retail	227	472	453	308

Table 18: Summary of Calculated Trips – AM & PM.

The potential future western development to the west of Church Fields Link Road was included in the Stress Test scenarios only, whilst the permitted developments were assessed in all scenarios. Refer to Section 10.3.

8. Trip Distribution and Assignment

8.1 Proposed Development

8.1.1 Trip Distribution

Trip distribution for the proposed development trips (arrivals and departures) which was generally based on the surveyed traffic movements is shown in Figure 17. For the purpose of this TTA, it has been assumed that 50% of the generated trips arrive/depart from north via Junction 1 whilst 50% arrive/depart from south via Junction 4.

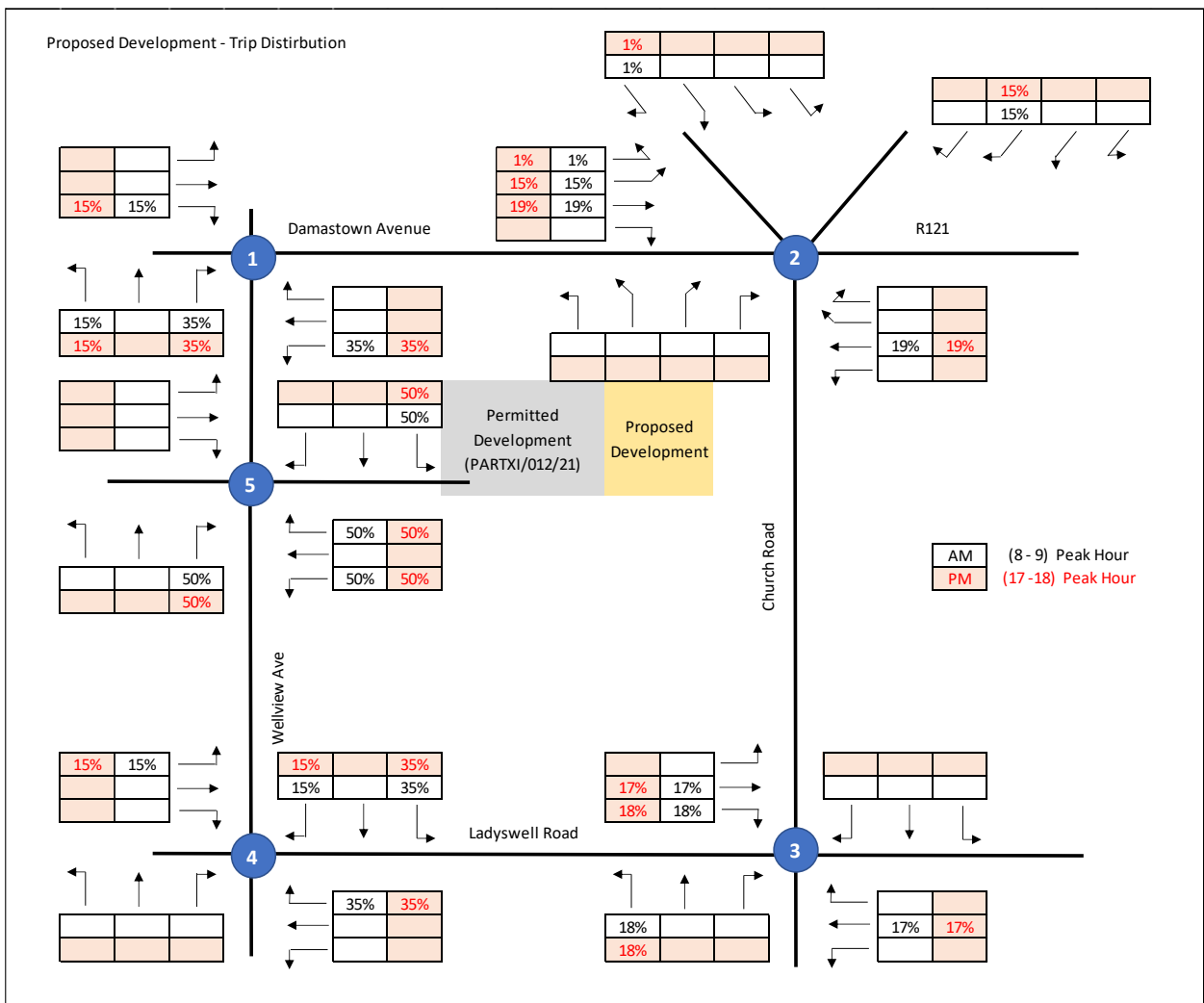


Figure 17: Proposed Development – Trip Distribution.

8.1.2 Trip Assignment

Using the trip generation from Table 18 and the trip distribution profile set out in Figure 17 above, the predicted traffic from the proposed development is illustrated in Figure 18 for the AM and PM peak hours.

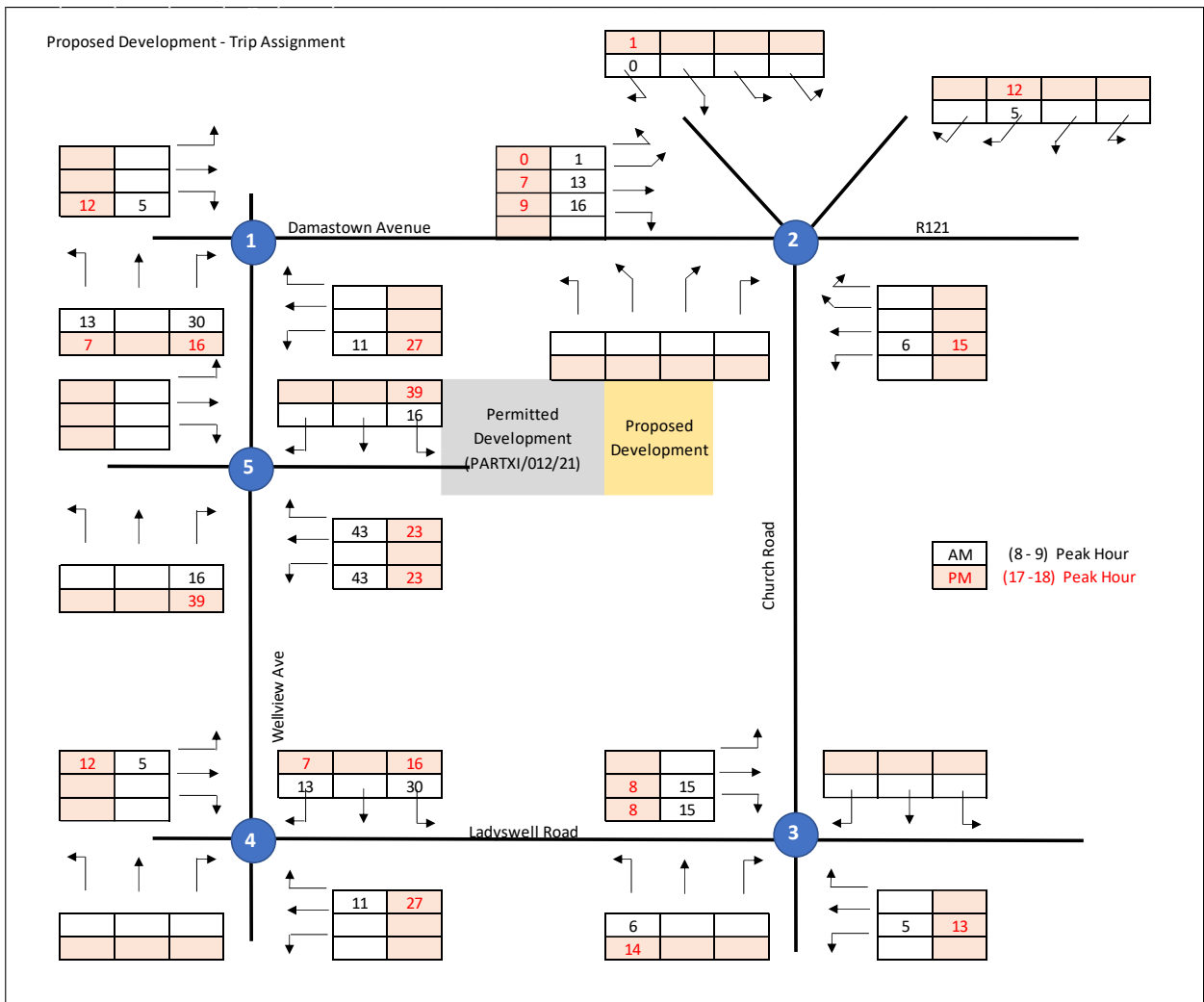


Figure 18: Proposed Development – Trip Assignment.

It is estimated as part of this assessment that the proposed development, subject to planning permission, will be fully constructed and occupied by the year of 2026.

8.2 Adjacent Permitted Development (Ref. PARTXI/012/21)

8.2.1 Trip Distribution

Trip distribution for the adjacent approved Church Fields Housing and Eastern Liner Park Development trips (arrivals and departures) is shown in Figure 19.

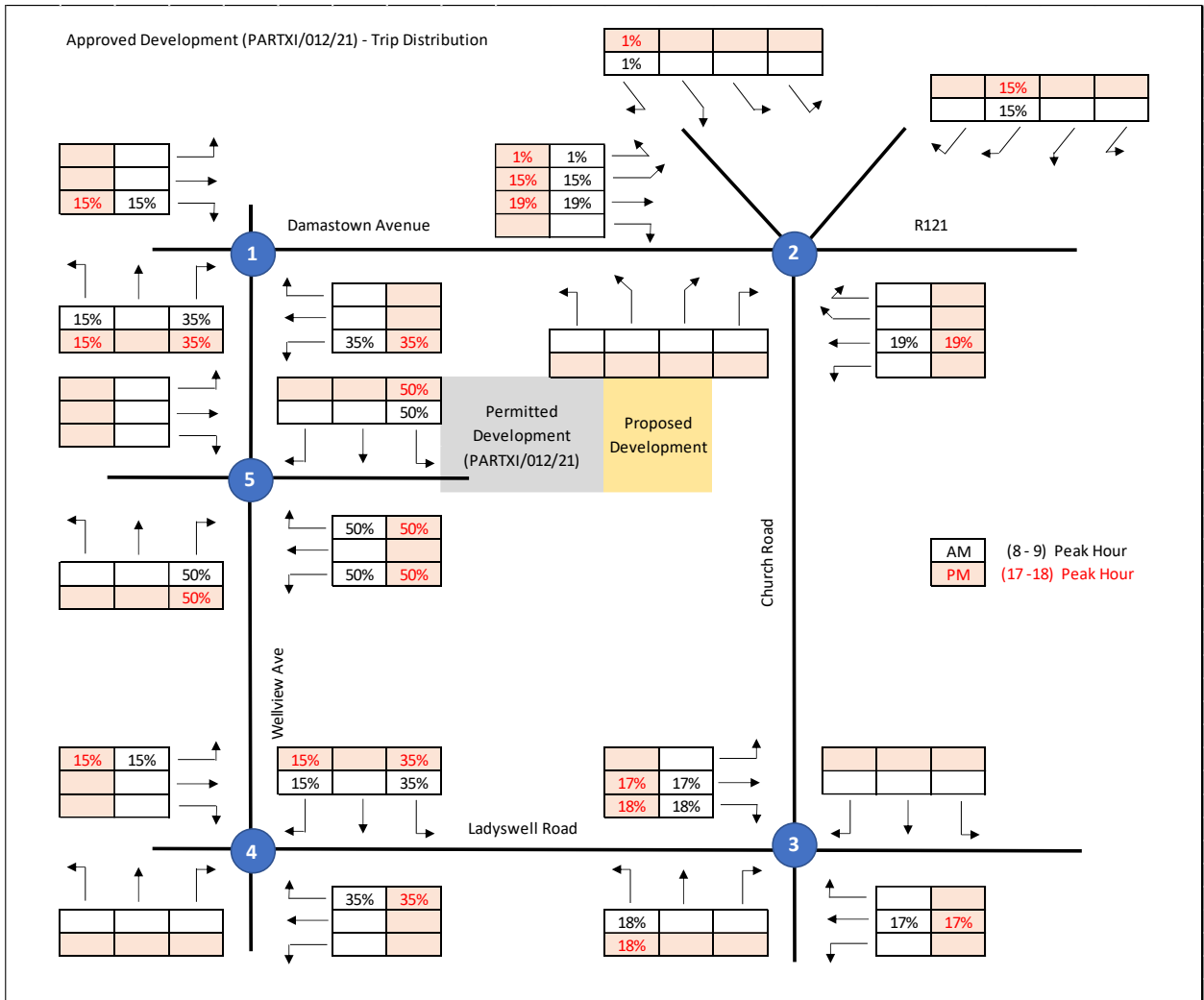


Figure 19: Approved Development (Ref. PARTXI/012/21) – Trip Distribution.

8.2.2 Trip Assignment

Using the trip generation from Table 18 and the trip distribution profile set out in Figure 19 above, the predicted traffic from the adjacent approved residential development is illustrated in Figure 20 for the AM and PM peak hours.

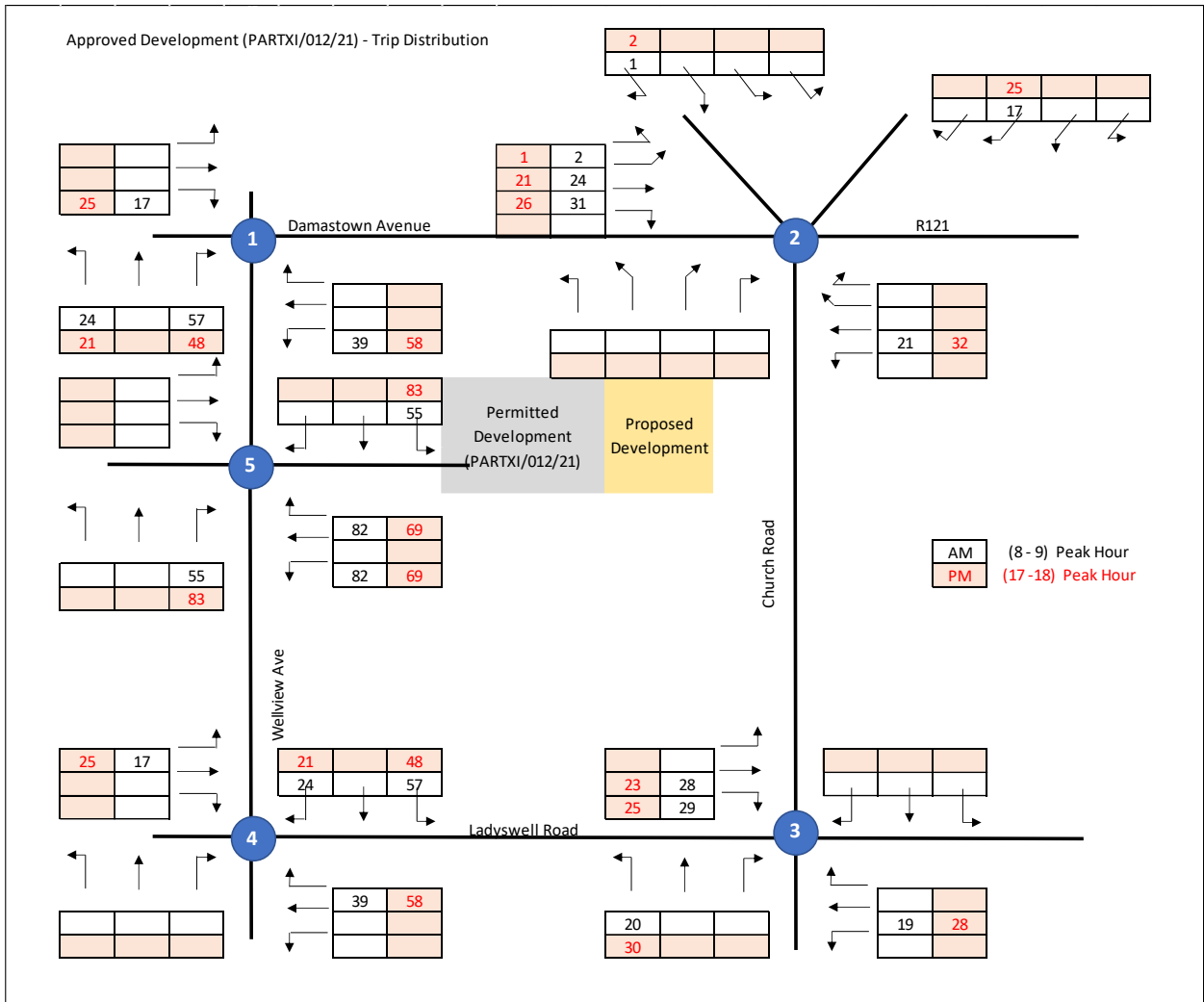


Figure 20: Approved Development (Ref. PARTXI/012/21) – Trip Assignment.

It is estimated as part of this assessment that the approved adjacent residential development will be fully constructed and occupied by the year of 2026.

8.3 Nearby Permitted Developments (Ref's PARTXI/006/18 & PARTXI/010/19)

8.3.1 Trip Distribution

Trip distribution for the nearby permitted residential development trips (arrivals and departures) is shown in Figure 21.

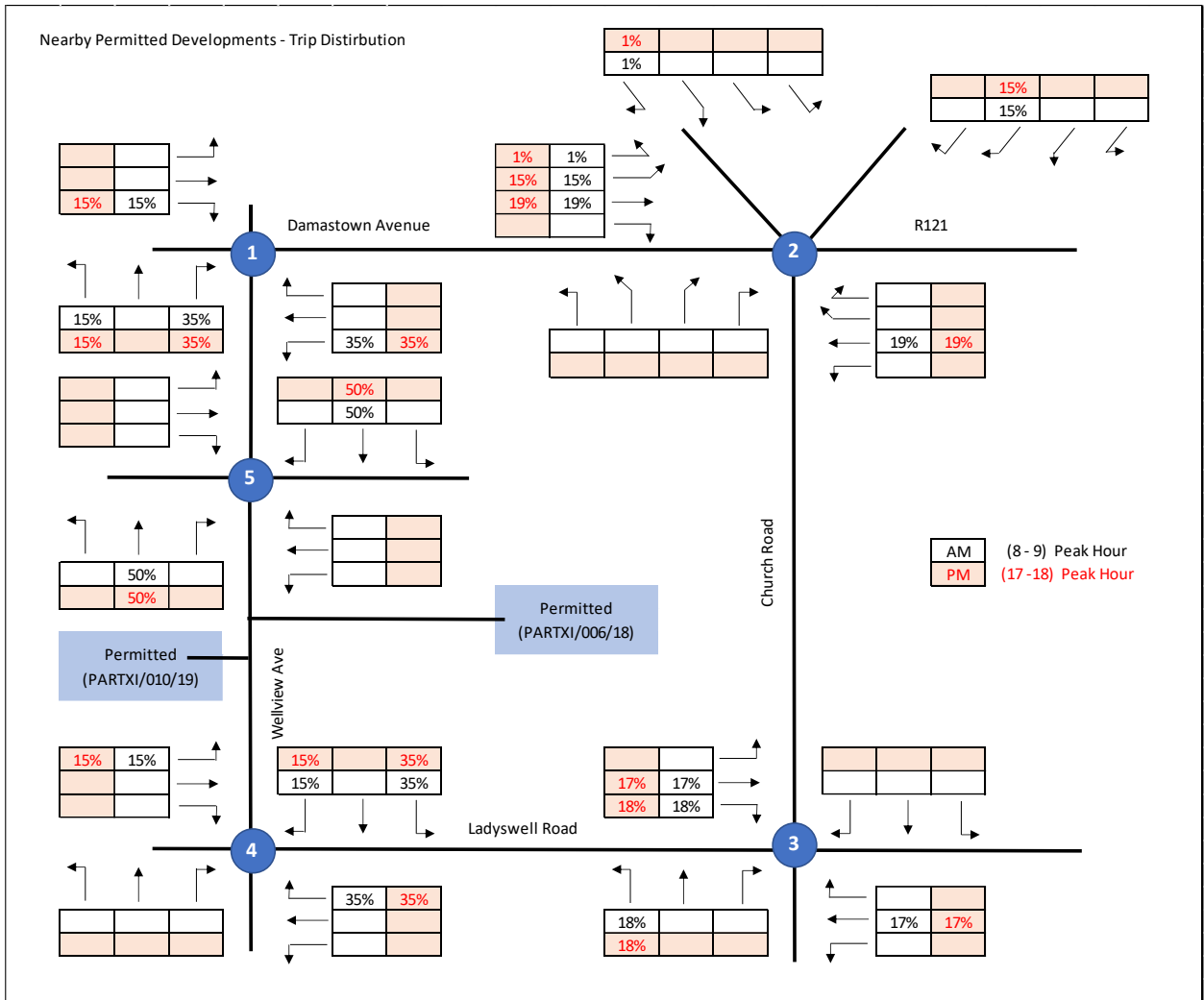


Figure 21: Permitted Dev's (Ref's PARTXI/006/18 & PARTXI/010/19) – Trip Distribution.

8.3.2 Trip Assignment

Using the trip generation from Table 18 and the trip distribution profile set out in Figure 21 above, the predicted traffic from the nearby permitted residential development is illustrated in Figure 22 for the AM and PM peak hours.

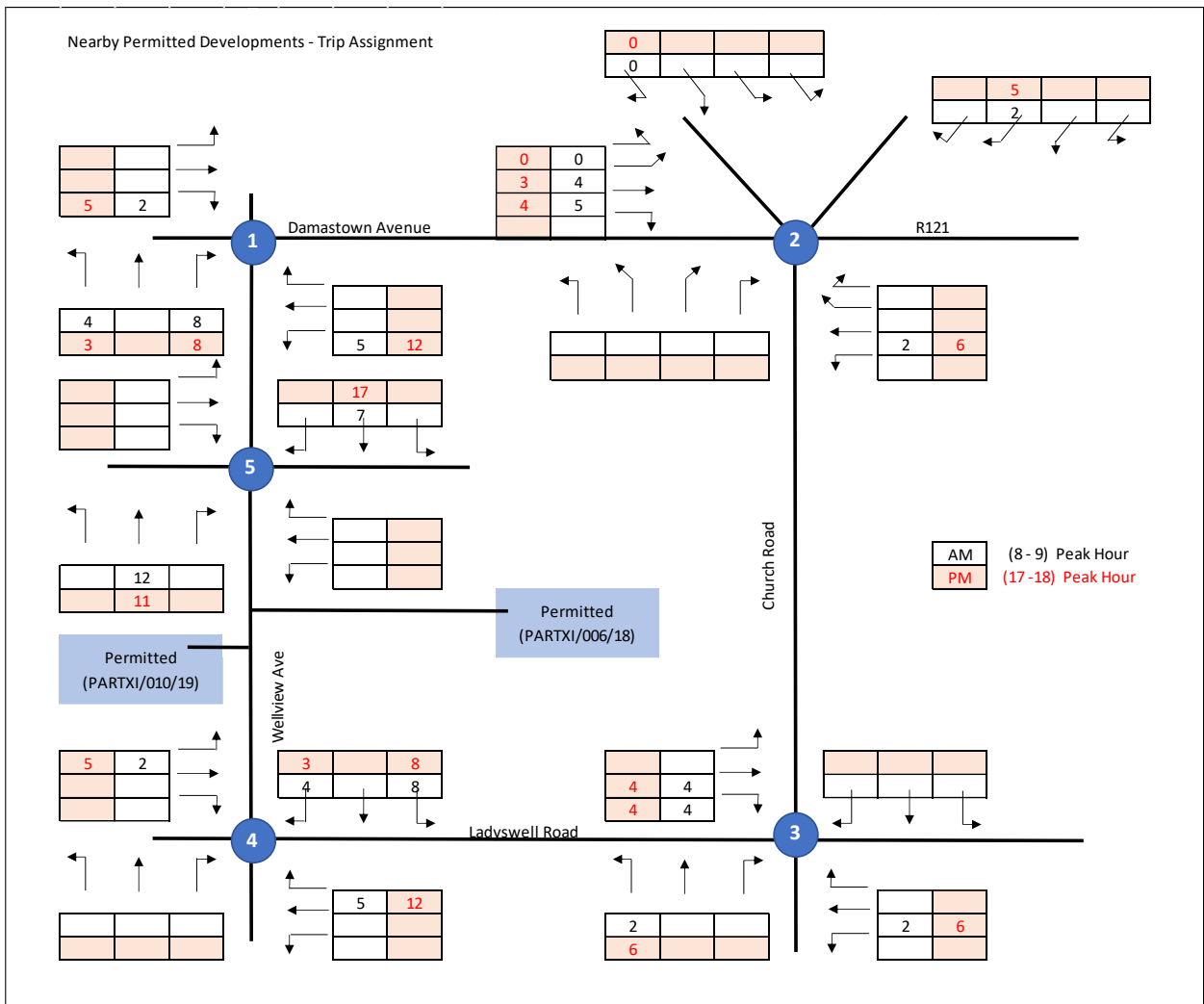


Figure 22: Permitted Dev's (Ref's PARTXI/006/18 & PARTXI/010/19) - Trip Assignment.

It is estimated as part of this assessment that the nearby permitted developments will be fully constructed and occupied by the year of 2026.

8.4 Potential Future Western Development (Subject to Future Application)

8.4.1 Trip Distribution

Trip distribution for the potential future residential development trips (arrivals and departures) is shown in Figure 23.

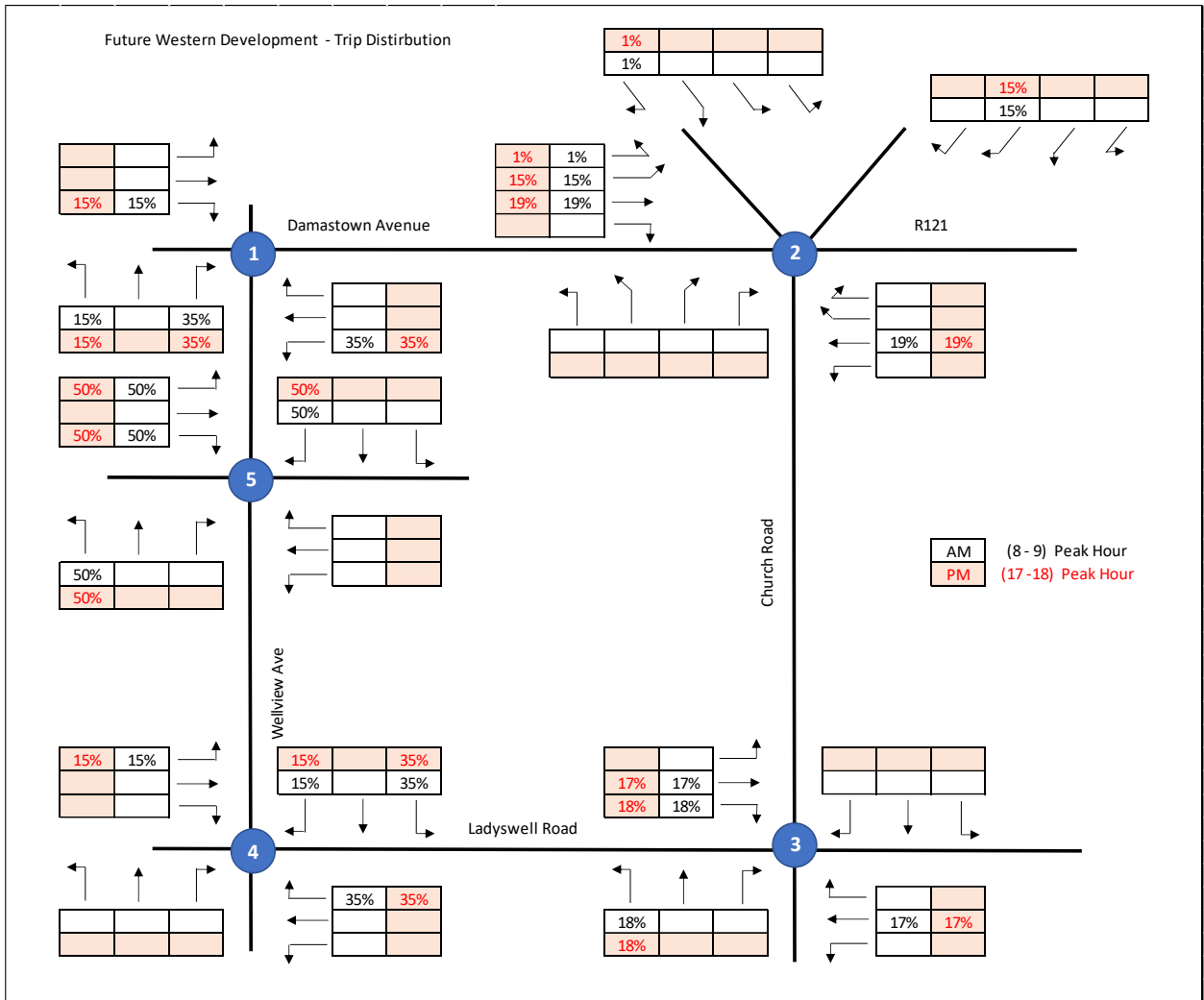


Figure 23: Potential Future Western Development – Trip Distribution.

8.4.2 Trip Assignment

Using the trip generation from Table 18 and the trip distribution profile set out in Figure 23 above, the predicted traffic from the potential future residential development to the west of the Church Fields Link Road is illustrated in Figure 24 for the AM and PM peak hours.

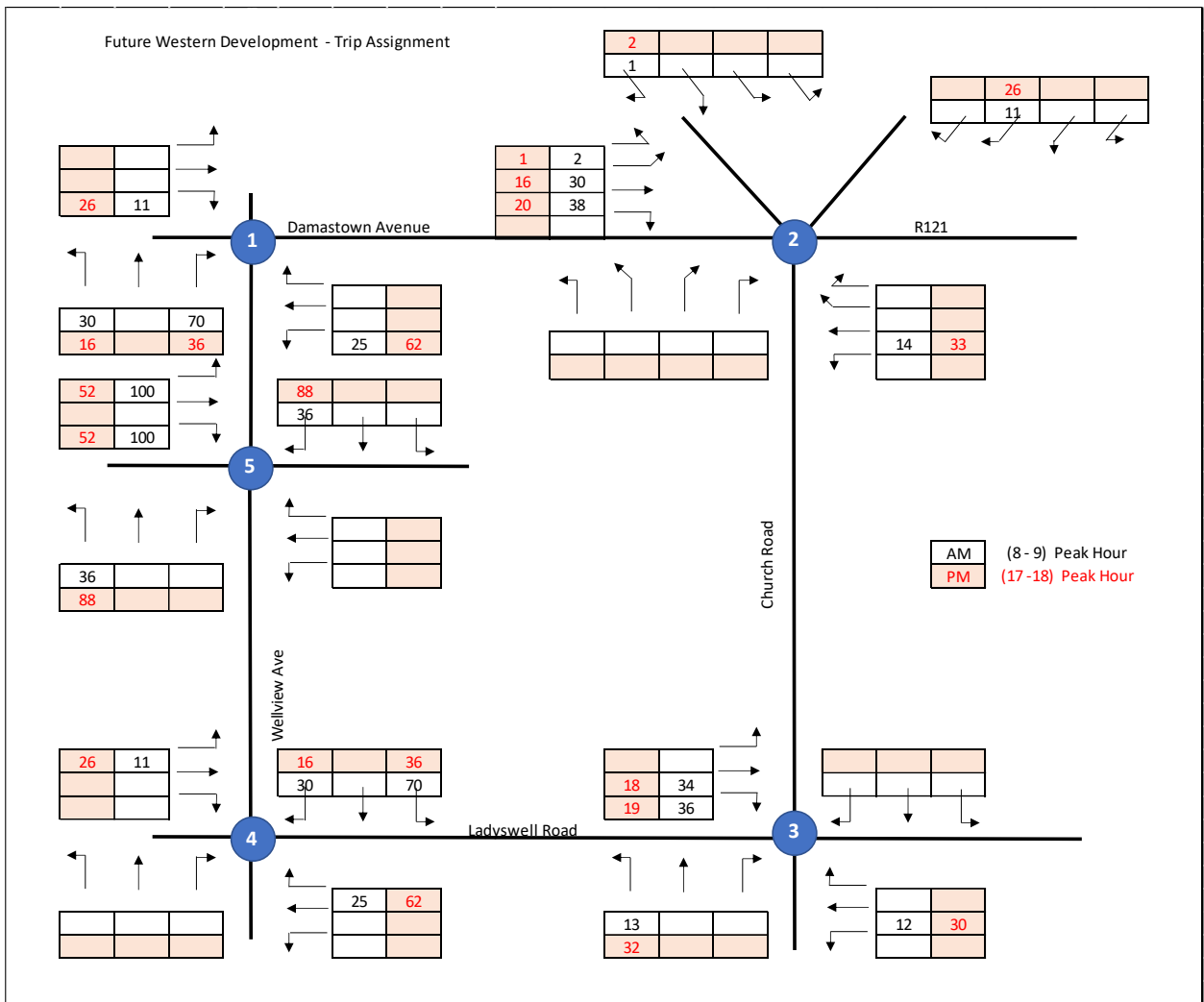


Figure 24: Potential Future Western Development - Trip Assignment.

As part of this assessment the potential future development to the west of the Church Fields Link Road was included in the Stress Test Scenarios (2031 and 2041). Refer to Section 10.3.

9. Traffic Forecasting

9.1 Assessment Years

It is intended that construction of the proposed development will commence in 2023 for completion in 2026.

In line with the “Traffic and Transport Assessment Guidelines (May 2014)”, which this TTA is based on, the assessment years adopted in this Traffic and Transport Assessment are:

- 2026 Opening Year.
- 2031 Opening Year +5 Years.
- 2041 Opening Year +15 Years.

9.2 Traffic Growth

The background traffic growth rates used to factor up the surveyed flows are based on ‘*Table 6.1: Link-Based Growth Rates: Metropolitan Area Annual Growth Rates*’ within the TII Publications – Project Appraisal Guidelines for National Road Unit 5.3 – Travel Demand Projections (May 2019). These are:

- o 1.044 overall low growth factor from 2023 to 2026
- o 1.111 overall low growth factor from 2023 to 2031
- o 1.148 overall low growth factor from 2023 to 2041

The above growth rates have been applied to the baseline traffic to account for any approved and/or potential future developments that are not located in the immediate vicinity of the proposed development but may add traffic to the assessed junctions.

It is expected that the pedestrian and cycle improvements/interventions approved under the *Church Fields Link Road and Cycle Network* project for the local area and the transport programmes currently being promoted by the NTA, such as the BusConnects and the GDA Cycle Network Plan, will make sustainable modes of transport safer and more attractive in the area. Therefore, the use of low growth was considered appropriate.

Traffic forecast figures for the assessment years of 2026, 2031 and 2041 with and without the proposed development in place are provided in Appendix B.

10. Junction Assessment

10.1 Assessed Junctions

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

- **Junction 1:** Church Fields Link Road / Damastown Avenue
- **Junction 2:** Damastown Avenue / Church Road / Damastown Avenue / Powerstown Road / R121.
- **Junction 3:** Church Road / Castlecurragh / Ladyswell Road
- **Junction 4:** Damastown Road / Parnell Drive / Wellview Avenue
- **Junction 5:** Church Fields Link Road / Access Road to Proposed Development

10.2 Methodology

10.2.1 Cumulative Impact

The extent of traffic impact from the proposed and nearby permitted developments has been determined by initially checking where generated traffic would exceed 10% of the traffic flow on the adjoining road or 5% on the road where congestion exists, or the location is sensitive. This is in line with the NRA/TII Transport Assessment Guidelines (2014). A summary of the existing two-way traffic and the expected traffic increase at each assessed junction is presented below.

Junction	Existing Flow (2023) - AM Peak Hour	Existing Flow (2023) - PM Peak Hour	Additional Traffic Two-way Flow (AM)	Additional Traffic Two-way Flow (PM)	% Expected Increase (AM)	% Expected Increase (PM)
Junction 1	1,299	1,205	215	241	16.55%	20.00%
Junction 2	3,309	2,850	150	169	4.53%	5.93%
Junction 3	2,010	1,670	150	169	7.46%	10.12%
Junction 4	793	640	215	241	27.11%	37.66%
Junction 5	0	0	410	453	100.00%	100.00%

Table 19: Existing Flows and Expected Traffic Increase.

As can be seen from the above, Junctions 1, 3, 4 and 5 are expected to receive a two-way traffic increase higher than 10%. The traffic increase in Junction 2 is estimated at >5%. As Junction 2 is considered sensitive in terms of traffic load, all junctions have been modelled. The results are presented in Section 10.4.

10.2.2 Modelling Background

There are various modelling software packages available to assess every type of junction. Waterman Moylan uses ARCADY to analyse roundabouts. This programme utilises roundabout's geometry and traffic flows input by the user to determine Ratio of Flow to Capacity (RFC), delays and queue length for each link on the junction.

Typically, a roundabout is said to be working satisfactorily when the RFC of each link does not exceed 0.85. Acceptable RFC values are considered to be in the range of 0.85 to 1.0 with higher values indicating restrained movements. However, consideration should be given to recorded queue length and delays.

10.3 Assessment Scenarios

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

- **2026 DO NOTHING**: Baseline flows factored up + traffic to/from nearby permitted developments.
- **2031 DO NOTHING**: Baseline flows factored up + traffic to/from nearby permitted developments.
- **2041 DO NOTHING**: Baseline flows factored up + traffic to/from nearby permitted developments.
- **2026 DO SOMETHING**: 2026 DO NOTHING + traffic to/from the proposed development.
- **2031 DO SOMETHING**: 2031 DO NOTHING + traffic to/from the proposed development.
- **2041 DO SOMETHING**: 2041 DO NOTHING + traffic to/from the proposed development.
- **2031 STRESS TEST**: 2041 DO SOMETHING + traffic to/from the potential future development to the west of the Church Fields Link Road.
- **2041 STRESS TEST**: 2041 DO SOMETHING + traffic to/from the potential future development to the west of the Church Fields Link Road.

10.4 Junction Assessment Results

10.4.1 Junction 1

Junction 1 is an existing two-arm roundabout with an ICD of 50 metres and provision for a future third arm (south) and fourth arm (north) - located on Damastown Avenue to the west of the proposed development site, which received planning permission under *Church Fields Link Road and Cycle Network* project to be upgraded to a three-arm roundabout with the new southern approach forming the approved Church Fields Link Road.

In summary, the approved scheme for Junction 1 as set out in the *Church Fields Link Road and Cycle Network – Part 8 Planning General Arrangement Sheet 5*, consists of:

- a) the rearrangement of the existing pedestrian/cycle facilities to provide signalised pedestrian crossings and off-road cycle lanes approaching the junction from west and east; and
- b) the provision of longer flared lanes on the western and eastern approaches as a result of the removal of the existing on-road cycle lanes.

Junction 1 has been modelled based on its approved configuration as summarised above and the ARCADY analysis results are summarised in Tables 20 to 22. Details of the modelled junction, including entry widths, entry radius, effective flare length and approach road half-width of each arm, are contained in Appendix C. The arms of the roundabout were labelled as follows within the model:

- Arm 1: Damastown Avenue (E);
- Arm 2: Church Fields Link Road (S);
- Arm 3: Damastown Avenue (W);
- Arm 4: Future Fourth Arm (N).

Arm	AM Peak Hour			PM Peak Hour		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
2026 DO NOTHING						
1	0.6	3.65	0.37	1.0	4.68	0.51
2	0.1	4.97	0.12	0.2	5.72	0.14
3	1.2	5.26	0.56	0.6	3.74	0.36
4	0.0	0.00	0.00	0.0	0.00	0.00
2031 DO NOTHING						
1	0.6	3.77	0.39	1.2	4.95	0.54
2	0.1	5.08	0.12	0.2	5.93	0.15
3	1.4	5.65	0.59	0.6	3.86	0.38
4	0.0	0.00	0.00	0.0	0.00	0.00
2041 DO NOTHING						
1	0.7	3.84	0.40	1.2	5.11	0.56
2	0.1	5.14	0.13	0.2	6.06	0.15
3	1.5	5.88	0.61	0.6	3.94	0.40
4	0.0	0.00	0.00	0.0	0.00	0.00

Table 20: Junction 1 – DO NOTHING – ARCADY Analysis Results.

As can be seen from the analysis in Table 21, Junction 1, with its approved/upgraded layout, would operate within capacity for the 2041 DO SOMETHING scenario during both AM and PM peak hours, with the highest RFC at 0.61 in the AM and 0.57 in the PM occurring on Damastown Avenue (W) and Damastown Avenue (E), respectively. No significant vehicular queuing or delay was recorded.

Arm	AM Peak Hour			PM Peak Hour		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
2026 DO SOMETHING						
1	0.6	3.70	0.38	1.1	4.87	0.53
2	0.2	5.26	0.17	0.2	5.92	0.17
3	1.3	5.42	0.56	0.6	3.82	0.37
4	0.0	0.00	0.00	0.0	0.00	0.00
2031 DO SOMETHING						
1	0.7	3.83	0.40	1.2	5.17	0.56
2	0.2	5.38	0.18	0.2	6.14	0.18
3	1.5	5.82	0.60	0.6	3.95	0.39
4	0.0	0.00	0.00	0.0	0.00	0.00
2041 DO SOMETHING						
1	0.7	3.89	0.41	1.3	5.34	0.57
2	0.2	5.45	0.18	0.2	6.28	0.18
3	1.6	6.06	0.61	0.7	4.03	0.41
4	0.0	0.00	0.00	0.0	0.00	0.00

Table 21: Junction 1 – DO SOMETHING – ARCADY Analysis Results.

Arm	AM Peak Hour			PM Peak Hour		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
2031 STREES TEST						
1	0.7	3.95	0.42	1.5	5.72	0.60
2	0.4	6.25	0.30	0.3	6.70	0.25
3	1.6	6.28	0.62	0.7	4.15	0.42
4	0.0	0.00	0.00	0.0	0.00	0.00
2041 STREES TEST						
1	0.7	4.02	0.43	1.6	5.93	0.62
2	0.4	6.34	0.30	0.3	6.86	0.26
3	1.7	6.56	0.64	0.7	4.23	0.43
4	0.0	0.00	0.00	0.0	0.00	0.00

Table 22: Junction 1 – STRESS TEST – ARCADY Analysis Results.

The results indicate the Junction 1 would continue to operate within capacity for the STRESS TEST scenarios, with the inclusion of the traffic generated by the potential future development to the west of the Church Fields Link Road, with the highest RFC at 0.64 in the AM and 0.62 in the PM.

10.4.2 Junction 2

Junction 2 is an existing five-arm roundabout with an ICD of 75 metres located immediately northeast of the proposed development site. As part the *Church Fields Link Road and Cycle Network* project, some improvement works are also approved for this junction. In summary, these improvements include:

- a) the construction of new signalised pedestrian crossings on R121 (NE), Powerstown Road (NW) and Church Road (S) approaches;
- b) the upgrade of the existing 2m Pelican Crossing on Damastown Avenue (Western Approach) to a 4m Toucan Crossing;
- c) the rearrangement of the existing pedestrian/cycle facilities to provide off-road cycle lanes approaching the junction; and
- d) the provision of longer flared lane on the western approach (Damastown Avenue) as a result of the removal of the existing on-road cycle lane.

Junction 2 has been modelled based on its approved configuration as summarised above and the ARCADY analysis results are summarised in Tables 23 to 25. Details of the modelled junction, including entry widths, entry radius, effective flare length and approach road half-width of each arm, are contained in Appendix C. The arms of the roundabout were labelled as follows within the model:

- Arm 1: Powerstown Road (NW);
- Arm 2: R121 (NE);
- Arm 3: R121 (E);
- Arm 4: Church Road (S);
- Arm 5: Damastown Avenue (W).

Arm	AM Peak Hour			PM Peak Hour		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
2026 DO NOTHING						
1	1.1	13.98	0.54	0.1	5.19	0.06
2	2.7	8.77	0.74	1.0	3.81	0.49
3	0.9	6.75	0.47	18.9	62.89	1.01
4	2.7	12.77	0.74	1.0	8.17	0.50
5	9.1	37.44	0.94	1.4	8.34	0.58
2031 DO NOTHING						
1	1.5	16.94	0.61	0.1	5.38	0.07
2	2.7	8.70	0.74	1.1	4.06	0.52
3	0.9	6.88	0.49	46.8	142.36	1.10
4	3.1	14.13	0.77	1.1	8.78	0.53
5	19.3	78.48	1.03	1.6	9.14	0.62
2041 DO NOTHING						
1	1.7	18.68	0.64	0.1	5.47	0.07
2	4.0	11.90	0.81	1.2	4.22	0.54
3	1.1	7.83	0.53	69.6	202.78	1.15
4	4.5	20.11	0.84	1.2	9.11	0.55
5	31.7	122.69	1.08	1.7	9.57	0.64

Table 23: Junction 2 – DO NOTHING – ARCADY Analysis Results.

Arm	AM Peak Hour			PM Peak Hour		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
2026 DO SOMETHING						
1	1.2	14.40	0.55	0.1	5.24	0.07
2	2.8	8.95	0.75	1.0	3.87	0.50
3	0.9	6.85	0.47	23.1	76.77	1.03
4	2.7	13.00	0.74	1.0	8.31	0.50
5	11.9	46.16	0.97	1.4	8.57	0.59
2031 DO SOMETHING						
1	1.5	17.23	0.61	0.1	5.43	0.07
2	3.5	10.59	0.79	1.1	4.14	0.53
3	1.0	7.54	0.51	55.2	164.62	1.12
4	3.8	17.19	0.81	1.1	8.89	0.53
5	26.9	105.34	1.06	1.6	9.37	0.63
2041 DO SOMETHING						
1	1.7	18.91	0.64	0.1	5.99	0.08
2	4.1	12.11	0.82	1.3	4.81	0.57
3	1.1	7.95	0.53	78.8	227.82	1.17
4	4.6	20.60	0.84	1.3	9.74	0.56
5	42.6	157.11	1.11	1.8	10.21	0.66

Table 24: Junction 2 – DO SOMETHING – ARCADY Analysis Results.

The analysis results as summarised above, indicate that, even without the proposed development trips included, for the 2026 DO NOTHING scenario (with the approved nearby developments in place), Junction 2 with its approved layout, would operate above capacity (at 1.01 RFC) in the PM peak hour and at capacity (at 0.94 RFC) in the AM peak hour.

For the 2026 DO SOMETHING scenario with the proposed development trips in place, Junction 2 would continue to operate with a similar level of capacity when compared to the 2026 DO NOTHING. In the AM peak hour, the highest RFC increases from 0.94 to 0.97 and the corresponding queue increases by only 3 cars. In the PM peak hour, the highest RFC increases from 1.01 to 1.03 and the corresponding queue increases by only 4 cars. It is important to take into consideration that these recorded RFC and queue lengths refer to the morning and evening peak hours and these conditions will only occur for a short period of time.

For the 2031 and 2041 scenarios (DO NOTHING and DO SOMETHING), it can be noted that the proposed development trips will continue to have a negligible impact on Junction 2. The level of RFC increase will not be higher than 3% (0.03) in both peak hours. In the worst case (2041 DO SOMETHING), the proposed development will add only c. 10 cars to the longest queues in the AM and PM peak hours.

For the STRESS TEST scenarios (Table 25), however, with the inclusion of the traffic generated by the potential future development to the west of the Church Fields Link Road, the results indicate that the cumulative impact on Junction 2 would be of a scale that would require additional improvement works to the junction, such of its signalisation and/or lane width increase. It is anticipated however, that new traffic survey and analysis will be carried out as part of the potential future development planning, and as a reflex of the various approved and planned interventions to the area, further upgrades to Junction 2 might no longer be required.

Arm	AM Peak Hour			PM Peak Hour		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
2031 STRESS TEST						
1	1.5	17.69	0.62	0.1	6.00	0.08
2	3.7	10.97	0.80	1.3	4.83	0.57
3	1.1	7.81	0.53	76.6	222.18	1.16
4	4.0	18.10	0.82	1.2	9.68	0.55
5	53.6	188.56	1.14	1.9	10.34	0.66
2041 STRESS TEST						
1	1.7	19.23	0.65	0.1	6.11	0.09
2	4.3	12.51	0.82	1.4	5.01	0.59
3	1.2	8.24	0.55	102.2	305.97	1.21
4	4.9	21.85	0.85	1.3	9.97	0.57
5	74.1	254.66	1.19	2.0	10.76	0.68

Table 25: Junction 2 – STRESS TEST – ARCADY Analysis Results.

10.4.3 Junction 3

Junction 3 is an existing four-arm roundabout with an ICD of 36 metres located to the south of the proposed development site. This junction has been modelled based on its existing configuration and the ARCADY

analysis results are summarised in Tables 26 to 28. The arms of the roundabout were labelled as follows within the model:

Arm 1: Castlecurragh (E); Arm 2: Church Road (S); Arm 3: Ladyswell Road (W); Arm 4: Church Road (N).

The analysis results as summarised below, indicate that, for the worst-case scenario (2041 DO SOMETHING), the existing Junction 3 would operate within capacity during both peak hours, with the highest RFC at 0.83 recorded on Church Road (S) in the AM peak hour.

Arm	AM Peak Hour			PM Peak Hour		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
2026 DO NOTHING						
1	0.9	9.18	0.47	0.5	8.06	0.33
2	2.7	13.97	0.74	1.1	7.42	0.53
3	1.5	10.45	0.61	0.7	6.59	0.42
4	1.6	9.40	0.63	2.2	11.38	0.70
2031 DO NOTHING						
1	1.0	9.95	0.51	0.6	8.62	0.36
2	3.5	17.48	0.80	1.3	8.06	0.56
3	1.7	11.55	0.64	0.8	6.96	0.45
4	1.9	10.24	0.66	2.8	13.60	0.75
2041 DO NOTHING						
1	1.1	10.43	0.53	0.6	8.99	0.38
2	4.2	20.07	0.83	1.4	8.47	0.58
3	1.9	12.19	0.66	0.8	7.19	0.46
4	2.1	10.74	0.68	3.3	15.43	0.78

Table 26: Junction 3 – DO NOTHING – ARCADY Analysis Results.

Arm	AM Peak Hour			PM Peak Hour		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
2026 DO SOMETHING						
1	0.9	9.43	0.48	0.5	8.32	0.35
2	2.8	14.42	0.75	1.2	7.76	0.55
3	1.6	11.00	0.63	0.8	6.74	0.43
4	1.7	9.68	0.64	2.3	11.56	0.70
2031 DO SOMETHING						
1	1.0	10.21	0.52	0.6	8.91	0.38
2	3.7	18.20	0.80	1.4	8.46	0.58
3	1.9	12.19	0.67	0.8	7.13	0.46
4	2.0	10.57	0.67	2.9	14.07	0.76
2041 DO SOMETHING						
1	1.1	10.73	0.54	0.6	9.29	0.40
2	4.4	20.99	0.83	1.5	8.92	0.60
3	2.1	13.36	0.69	0.9	7.36	0.48
4	2.1	11.09	0.69	3.4	16.00	0.79

Table 27: Junction 3 – DO SOMETHING – ARCADY Analysis Results.

Arm	AM Peak Hour			PM Peak Hour		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
2031 STRESS TEST						
1	1.1	10.88	0.54	0.7	9.62	0.43
2	4.1	20.01	0.82	1.6	9.55	0.62
3	2.7	15.53	0.74	1.0	7.54	0.50
4	2.1	11.37	0.69	3.2	15.26	0.78
2041 STRESS TEST						
1	1.2	11.44	0.56	0.8	10.05	0.44
2	4.9	23.32	0.85	1.7	10.11	0.64
3	3.1	17.53	0.77	1.0	7.80	0.51
4	2.3	12.09	0.71	3.8	17.61	0.81

Table 28: Junction 3 – STRESS TEST – ARCADY Analysis Results.

The results indicate the Junction 3 would continue to operate within capacity for the STRESS TEST scenarios, with the inclusion of the traffic generated by the potential future development to the west of the Church Fields Link Road, with the highest RFC at 0.85 in the AM and 0.81 in the PM.

10.4.4 Junction 4

Junction 4 is an existing four-arm roundabout with an ICD of 36 metres located to the south of the proposed development site.

As part the *Church Fields Link Road and Cycle Network* project, some improvement works are also approved for this junction. In summary, these improvements include:

- a) the maintenance of the existing 36 metres of ICD;
- b) the construction of new signalised pedestrian crossings on Ladyswell Road (E), Wellview Avenue (N) and Damastown Road (W) approaches;
- c) the construction of a new ramped zebra-controlled crossing on Parnell Drive (S) approach; and
- d) the provision of off-road cycle lanes approaching the junction.

Junction 4 has been modelled based on its approved configuration as summarised above and the ARCADY analysis results are summarised in Tables 29 to 31. Details of the modelled junction, including entry widths, entry radius, effective flare length and approach road half-width of each arm, are contained in Appendix C. The arms of the roundabout were labelled as follows within the model:

- Arm 1: Ladyswell Road (E);
- Arm 2: Parnell Drive (S);
- Arm 3: Damastown Road (W);
- Arm 4: Wellview Avenue (N).

Arm	AM Peak Hour			PM Peak Hour		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
2026 DO NOTHING						
1	0.7	7.71	0.41	0.6	7.40	0.37
2	0.1	3.80	0.08	0.0	3.57	0.05
3	0.8	9.19	0.44	0.8	9.42	0.45
4	0.5	6.07	0.32	0.3	5.37	0.24
2031 DO NOTHING						
1	0.7	8.00	0.43	0.6	7.63	0.39
2	0.1	3.86	0.09	0.1	3.61	0.05
3	0.9	9.63	0.47	0.9	9.87	0.48
4	0.5	6.28	0.34	0.3	5.50	0.26
2041 DO NOTHING						
1	0.8	8.16	0.44	0.6	7.76	0.40
2	0.1	3.89	0.09	0.1	3.63	0.05
3	0.9	9.89	0.48	0.9	10.13	0.49
4	0.5	6.40	0.35	0.3	5.57	0.26

Table 29: Junction 4 – DO NOTHING – ARCADY Analysis Results.

Arm	AM Peak Hour			PM Peak Hour		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
2026 DO SOMETHING						
1	0.7	7.97	0.43	0.7	7.83	0.40
2	0.1	3.85	0.08	0.0	3.63	0.05
3	0.8	9.37	0.45	0.9	9.91	0.47
4	0.6	6.50	0.37	0.4	5.55	0.27
2031 DO SOMETHING						
1	0.8	8.27	0.45	0.7	8.07	0.42
2	0.1	3.91	0.09	0.1	3.67	0.05
3	0.9	9.84	0.48	1.0	10.41	0.50
4	0.6	6.73	0.39	0.4	5.68	0.28
2041 DO SOMETHING						
1	0.8	8.43	0.46	0.7	8.22	0.43
2	0.1	3.95	0.09	0.1	3.69	0.05
3	0.9	10.10	0.49	1.0	10.69	0.51
4	0.6	6.87	0.40	0.4	5.76	0.29

Table 30: Junction 4 – DO SOMETHING – ARCADY Analysis Results.

The analysis results as summarised above, indicate that, for the worst-case scenario (2041 DO SOMETHING), Junction 4 with its approved layout would operate within capacity during both peak hours, with the highest RFC at 0.49 in the AM and 0.51 in the PM, both occurring on Damastown Road (W). No significant vehicular queuing or delay was recorded.

Arm	AM Peak Hour			PM Peak Hour		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
2031 STRESS TEST						
1	0.9	8.92	0.48	1.0	9.27	0.50
2	0.1	4.03	0.09	0.1	3.82	0.05
3	1.0	10.33	0.50	1.2	11.79	0.55
4	1.0	8.04	0.50	0.5	6.14	0.34
2041 STRESS TEST						
1	1.0	9.12	0.50	1.0	9.44	0.51
2	0.1	4.07	0.10	0.1	3.84	0.05
3	1.0	10.63	0.51	1.2	12.13	0.56
4	1.0	8.21	0.50	0.5	6.23	0.35

Table 31: Junction 4 – STRESST TEST – ARCADY Analysis Results.

The results indicate the Junction 4 would continue to operate within capacity for the STRESS TEST scenarios, with the inclusion of the traffic generated by the potential future development to the west of the Church Fields Link Road, with the highest RFC at 0.51 in the AM and 0.56 in the PM.

10.4.5 Junction 5

Junction 5 is a recently approved cycle friendly roundabout to be located on the new Church Fields Link Road approximately 165 metres south of the existing roundabout with Damastown Avenue. This junction, which the eastern approach will provide the vehicular access to the approved adjacent residential development and the proposed development, will comprise an ICD of 24 metres as approved under the planning permission for the *Church Fields Link Road and Cycle Network*.

Modelling for Junction 5 has been undertaken based on its approved configuration as set out in *Church Fields Link Road and Cycle Network – Part 8 Planning General Arrangement Sheet 4*, and the ARCADY analysis results are summarised in Tables 32 to 34. Details of the modelled junction, including entry widths, entry radius, effective flare length and approach road half-width of each arm, are contained in Appendix C. The arms of the roundabout were labelled as follows within the model:

- Arm 1: Proposed Site Access Road (E);
- Arm 2: Church Fields Link Road (S);
- Arm 3: Future Access Road to Church Fields Western Development (W);
- Arm 4: Church Fields Link Road (N).

From the analysis results as summarised below, the approved Junction 5 would operate within capacity for the worst-case scenario (2041 DO SOMETHING) during both AM and PM peak hours with the highest RFC at 0.35 occurring on the Proposed Site Access Road (E) in the AM, and with the highest RFC at 0.26 also occurring on Proposed Site Access Road (E) in the PM. No significant vehicular queuing or delay was recorded.

Arm	AM Peak Hour			PM Peak Hour		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
2026 DO NOTHING						
1	0.3	6.42	0.23	0.2	6.18	0.19
2	0.1	6.08	0.10	0.2	6.32	0.14
3	0.0	0.00	0.00	0.0	0.00	0.00
4	0.1	6.05	0.10	0.2	6.61	0.16
2031 DO NOTHING						
1	0.3	6.42	0.23	0.2	6.18	0.19
2	0.1	6.08	0.10	0.2	6.32	0.14
3	0.0	0.00	0.00	0.0	0.00	0.00
4	0.1	6.05	0.10	0.2	6.61	0.16
2041 DO NOTHING						
1	0.3	6.42	0.23	0.2	6.18	0.19
2	0.1	6.08	0.10	0.2	6.32	0.14
3	0.0	0.00	0.00	0.0	0.00	0.00
4	0.1	6.05	0.10	0.2	6.61	0.16

Table 32: Junction 5 – DO NOTHING – ARCADY Analysis Results.

Arm	AM Peak Hour			PM Peak Hour		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
2026 DO SOMETHING						
1	0.5	7.64	0.35	0.3	6.70	0.26
2	0.1	6.44	0.13	0.3	6.90	0.21
3	0.0	0.00	0.00	0.0	0.00	0.00
4	0.1	6.29	0.12	0.3	7.39	0.22
2031 DO SOMETHING						
1	0.5	7.64	0.35	0.3	6.70	0.26
2	0.1	6.44	0.13	0.3	6.90	0.21
3	0.0	0.00	0.00	0.0	0.00	0.00
4	0.1	6.29	0.12	0.3	7.39	0.22
2041 DO SOMETHING						
1	0.5	7.64	0.35	0.3	6.70	0.26
2	0.1	6.44	0.13	0.3	6.90	0.21
3	0.0	0.00	0.00	0.0	0.00	0.00
4	0.1	6.29	0.12	0.3	7.39	0.22

Table 33: Junction 5 – DO SOMETHING – ARCADY Analysis Results.

Arm	AM Peak Hour			PM Peak Hour		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
2031 STRESS TEST						
1	0.6	8.81	0.38	0.4	7.53	0.28
2	0.2	7.08	0.19	0.6	9.08	0.36
3	0.5	8.51	0.32	0.2	6.92	0.17
4	0.2	7.24	0.19	0.6	9.50	0.38
2041 STRESS TEST						
1	0.6	8.81	0.38	0.4	7.53	0.28
2	0.2	7.08	0.19	0.6	9.08	0.36
3	0.5	8.51	0.32	0.2	6.92	0.17
4	0.2	7.24	0.19	0.6	9.50	0.38

Table 34: Junction 5 – STRESS TEST – ARCADY Analysis Results.

The results indicate the approved Junction 5 would continue to operate within capacity for the STRESS TEST scenarios, with the inclusion of the traffic generated by the potential future development to the west of the Church Fields Link Road, with the highest RFC at 0.38 in the AM and 0.38 in the PM.

11. Construction Traffic

When considering a development of this nature, the potential traffic impact on the surrounding area must also be considered for the construction phase.

During the construction phase of the proposed development, some construction traffic movements will be undertaken by heavy goods vehicles, though there will also be vehicle movements associated with the appointed contractors and their staff.

An estimate of the day-to-day traffic movements associated with the construction activities, based on experience of similar sites, considered that the number of constructions related heavy goods vehicle movements to and from the application site will be no more than 3 arrivals/departures per hour, with the majority of the trips undertaken outside the network AM and PM peak hours. During the earthworks phase of the development, up to c. 2,388m³ of material will be removed off site over a four-week period, with one additional HGV truck movement per hour during this period.

The general workforce is likely to be c. 100 in number per day, reaching 150 persons at peak times. It is estimated that c. 80% of the workforce will travel to/from the site by a vehicle and will carpool on average 2 workers per vehicle. As a result, the site will attract/generate 40-60 number of vehicles per day, with the majority of the trips being undertaken outside the AM and PM peak hours.

Based on the above, it is estimated that the daily construction traffic will be:

- Workforce: 80-120 car trips per day (two-way).
- HGV: c. 60 trips per day (two-way).

Workers will be encouraged to reduce or eliminate the use of private cars by being informed about the public transport options and active mode facilities provided in the area.

The number of construction vehicle movements is low compared to the number of vehicular trips expected to be generated by the proposed development during the operational phase. It should be noted that most of such trips will occur outside of the traditional peak hours, and it is not considered that this level of construction traffic would result in any operational problems. Therefore, no road or junction assessment for the construction phase was undertaken.

A construction carpark will be created at the start of works by the laying of a temporary surface for vehicles.

Care will be taken to ensure that the pedestrian and cycling routes are suitably maintained or appropriately diverted as necessary during the construction period. It is likely that construction will have a slight effect on pedestrian and cycle infrastructure.

All construction traffic and transport will be managed strictly according to the proposed development management plan.

It is intended that all HGV deliveries and workforce trips to/from the site will be made from north via a left-in left-out temporary access point off Damastown Avenue. Refer to Figure 25 and 26. A restriction on using any of the surrounding residential roads for construction traffic will be put in place.



Figure 25: Location of Temporary Construction Access off Damastown Avenue.

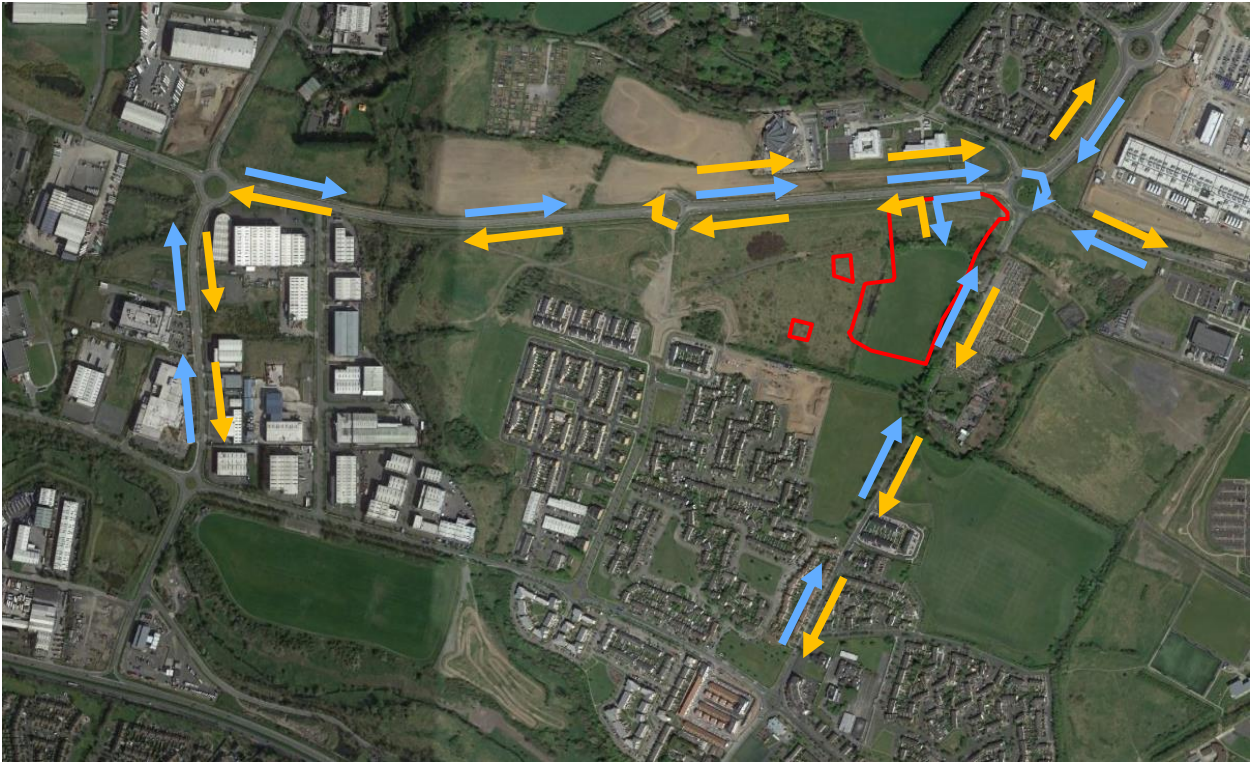


Figure 26: Construction Traffic Routes to/from the Site.

12. Non-Technical Summary

12.1 Background

This Traffic and Transport Assessment (TTA) has been prepared by Waterman Moylan on behalf of Fingal County Council in support of the Church Fields East Housing Planning Application for a proposed residential development at Church Fields East.

12.2 Proposed Development

The proposed development relates to a site of c.5.52 hectares at Church Fields East, Mulhuddart, Dublin 15. The development site is located south of Damastown Avenue; west of Church Road; east of previously permitted residential development at Church Fields (Planning Reg. Ref.: PARTXI/012/21); and north of a permitted linear park (Eastern Linear Park Planning Reg. Ref.: PARTXI/012/21), in the townland of Tyrrelstown, Dublin 15. The site is located west of protected structure RPS No. 670 Mulhuddart Church (in ruins) & Graveyard, which is located east of Church Road. The proposed development seeks the construction of 217 no. residential units (ranging from 2 – 4 storeys in height) in a mixed tenure development, comprising of 121 no. houses and 96 no. apartments. The development will also include the provision of car parking, cycle parking, new pedestrian / cycle links, services, drainage attenuation, and all associated site and infrastructural works.

12.3 Site Access

Vehicular access to the subject development is proposed via the approved residential development to the west of the site (Church Fields Housing and Eastern Linear Park Development - permitted under Planning Reg. Ref. PARTXI/012/21) which will be accessed via a permitted cycle friendly roundabout on the Church Fields Link Road (labelled as Junction 5 in this TTA – permitted under Planning Reg. Ref. PARTXI/011/19).

The western arm of the roundabout will also provide future access to Church Fields West Development – a future development of c. 500 residential units on the west site of the Church Fields Link Road.

12.4 Site Strategy Plan

An overall Site Strategy for Church Fields was prepared by Fingal County Council which envisages the development of c. 1,000 residential units. The total number of residential units proposed in the area are as follows:

○ Wellview Cul-de-sacs	:	20 units
○ Avondale Park	:	70 units
○ Permitted Part 8 Development and Proposed Development	:	517 units
○ Future Western Development	:	500 units
○ Total	:	1,107 units

12.5 Church Fields Link Road and Cycle Network

The proposed road network in the area of the proposed development incorporates the approved *Church Fields Link Road and Cycle Network* (Reg. Ref. PARTXI/011/19) which provides for a number of transportation improvements including:

- (a) A 380m upgrade of Wellview Avenue and a 310m long new two-lane roadway with central median linking Wellview Avenue to Damastown Avenue (Junction 1).
- (b) Pedestrian and toucan crossings at various locations along the Link Road, along Damastown Avenue and at the existing roundabouts on Damastown Avenue.
- (c) A cycle friendly roundabout on the Church Fields Link Road providing access to the subject site (Junction 5).
- (d) A 1.5km long 4m wide two-way off-road cycle track linking the proposed new Link Road to the two schools on Porterstown Road and the proposed park adjacent to Church Road.

12.6 Programme and Timescale

It is intended that construction of the proposed development would commence in 2023 for completion in 2026. Accordingly, the assessment years adopted in this TTA were 2026 (Opening Year), 2031 (Opening Year +5 Years) and 2041 (Opening Year +15 Years).

12.7 Trip Generation and Assignment

Trip generation for the proposed development, has been estimated by reviewing and comparing the TRICS trip rates obtained as part of the adjacent residential development application (approved under Ref. PARTXI/012/2) and trip rates used in a number of recent Strategic Housing Development (SHD) applications to An Bord Pleanála – also reviewed as part of the planning application for the adjacent approved development.

The trip distribution for the proposed development was generally based on the surveyed traffic movements.

12.8 Network Assessment

The network assessment carried out as part of this TTA indicates that the surrounding assessed junctions, except Junction 2, would operate within capacity for the worst-case scenario (2041 DO SOMETHING) during both AM and PM peak hours with the inclusion of the trips generated by the proposed development and the nearby development. It is our understanding however, that the above-capacity condition on Junction 2 will only occur for a short period of time during the morning and evening peak hours.

With the inclusion of the potential future development to the west of Church Fields Link Road (Church Fields West Development), for the STRESS TEST scenarios, all junctions (except Junction 2) would continue to operate within capacity during both peak hours. The scale of impact from the potential future Church Fields Western Development on Junction 2 would be of a scale that would require future upgrades to the junction. However, new traffic survey and analysis are expected to be carried out as part of the potential future development planning application, and the upgrades to Junction 2 (if any) will therefore be determined.

12.9 Construction Management Plan

This TTA is accompanied by a dedicated Construction Management Plan (CMP). This Plan addresses the impact of construction related traffic on the surrounding road network during the construction stage. One of the objectives of the Plan is to ensure that the construction traffic for the proposed development can be accommodated on the surrounding road network without significant impact on other road users.

APPENDICES

A. Traffic Survey

IDASO
Innovative Data Solutions



Idaso Ltd
National Science Park,
Dublin Road, Mullingar,
Co Westmeath, Ireland



Office
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www.idaso.ie

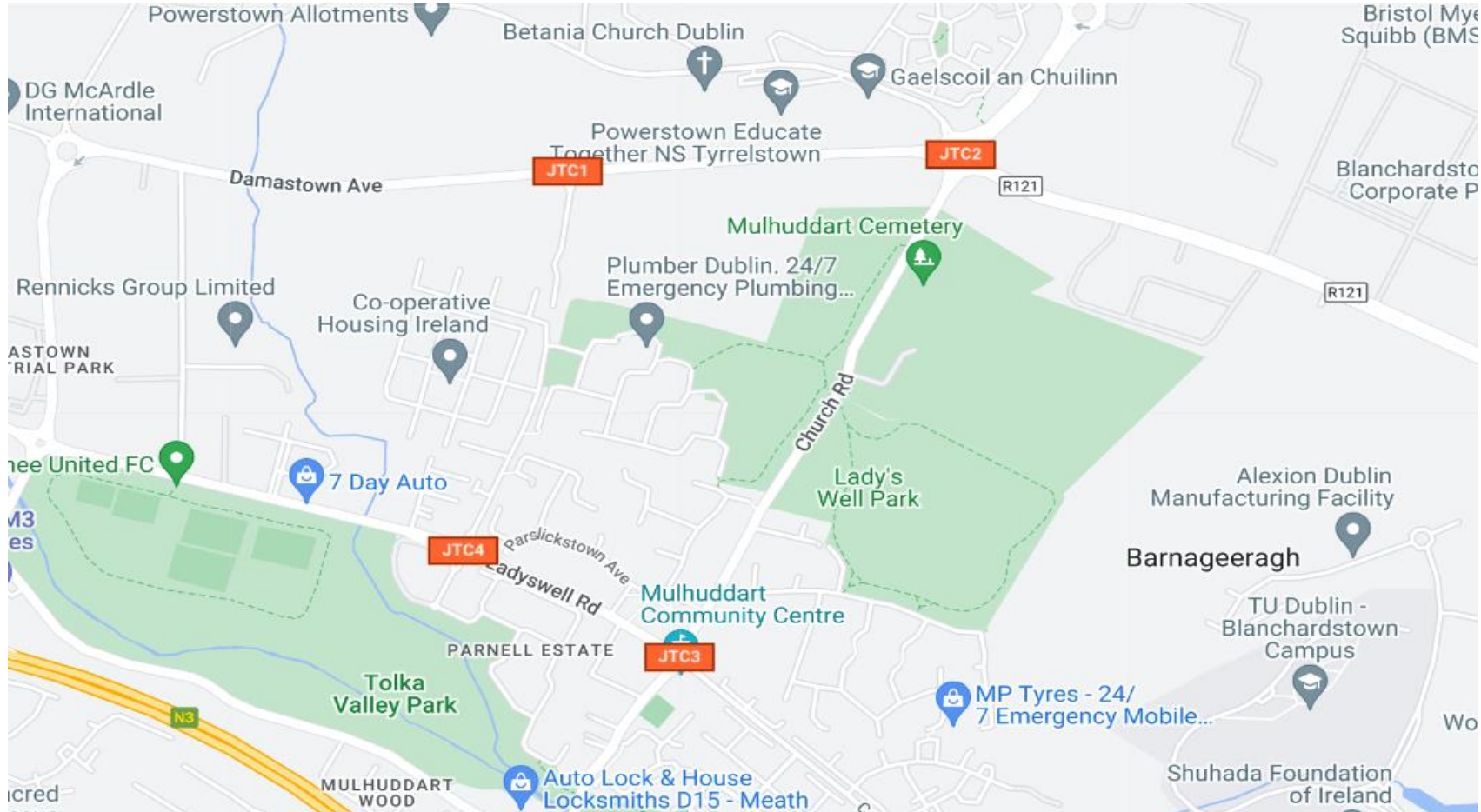
Data Analysis Services
Traffic-Transportation- Commercial-Innovation

067 22634 Churchfields 24-Hour Traffic Counts

with compliments

IDASO

Survey Name: 067 22634 Churchfields 24-Hour Traffic Counts
Date: Tue 21 Mar 2023





IDASO

Survey Name: O67 22634 Churchfields 24-Hour Traffic Counts
Site: Site 1
Location: Damastown Avenue/Unnamed Rd
Date: Tue 21-Mar-2023

TIME	A => A								A => B								A => C								A => D								B => A																						
	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													
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00:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0											
00:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	4	6.6	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	0	0	0	0	0	0	0	0	0	0	0	0	0	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	0									
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0	0	3	0	19	22.9	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	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	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	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	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	2	0	62	8	4	0	76	76.4	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		
06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	43	7	0	0	51	50.2	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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06:30	0	0	1	0	0	0	0	1	1	0	0	1	1	0	0	0	2	2	0	43	10	1	3	1	58	63.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	
06:45	0																																																						

42	20	14	4	1	81	94.2	0	0	7	0	1	0	0	8	8.5	0	1	120	9	1	1	2	134	137.2	1	0	50	22	5	0	0	78	79.7	0	0	0	0	0	0	0	0	0	0	0		
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17	3	0	0	0	20	20	0	0	6	0	0	0																																		

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0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4	0	1	54	7	0	0	0	62	61.4	0	0	21	1	0	0	0	22	22	0	0	0	0	0	0	0
0	0	1	0	0	0	0	1	1	0	0	2	0	0	0	0	2	2	0	0	53	4	0	1	1	59	61.3	0	0	16	6	1	3	0	26	30.4	0	0	1	0	0	0	0
1	0	7	2	0	1	0	11	11.5	0	0	18	1	1	0	0	20	20.5	0	1	214	25	3	1	2	246	250.2	0	0	75	7	1	4	0	87	92.7	0	0	1	1	0	1	0
0	0	2	1	0	0	0	3	3	0	0	3	0	0	0	0	3	3	0	0	35	3	0	1	0	39	40.3	0	0	16	2	0	0	0	18	18	0	0	0	0	0	0	0
2	0	0	0	0	0	0	2	0.4	0	0	1	0	0	0	0	1	1	0	0	28	3	0	0	0	31	31	0	0	17	3	0	0	0	20	20	0	0	1	0	0	0	0
0	0	1	0	0	0	0	1	1	0	0	5	0	0	0	0	5	5	1	0	37	4	0	0	0	42	41.2	0	0	21	0	0	1	0	22	23.3	0	0	0	0	0	0	0
1	0	0	0	0	0	0	1	0.2	0	0	4	0	0	0	0	4	4	0	0	32	3	0	0	0	35																	

15	16	0	0	0	0	0	0	0	0	0
6	6	0	0	0	0	0	0	0	0	0
2	2	0	0	0	0	0	0	0	0	0
4	4	0	0	0	0	0	0	0	0	0
1	1	0	0	0	0	0	0	0	0	0
13	13	0	0	0	0	0	0	0	0	0
2	2	0	0	0	0	0	0	0	0	0
2	2	0	0	0	0	0	0	0	0	0
2	2.5	0	0	0	0	0	0	0	0	0
0	0	0	0	1	0	0	0	0	1	1
6	6.5	0	0	1	0	0	0	0	1	1
4	4.5	0	0	0	0	0	0	0	0	0
2	2.5	0	0	0	0	0	0	0	0	0
10	11.5	0	0	0	0	0	0	0	0	0
2	2	0	0	0	0	0	0	0	0	0
18	20.5	0	0	0	0	0	0	0	0	0
4	4	0	0	0	0	0	0	0	0	0
2	2	0	0	0	0	0	0	0	0	0
3	3.5	0	0	1	0	0	0	0	1	1
3	4.5	0	0	0	0	0	0	0	0	0
12	14	0	0	1	0	0	0	0	1	1
2	2	0	0	0	0	0	0	0	0	0
3	3.5	0	0	0	0	0	0	0	0	0
2	2.5	0	0	0	1	0	0	0	1	1
3	3.5	0	0	1	0	0	0	0	1	1
10	11.5	0	0	1	1	0	0	0	2	2
8	9	0	0	0	0	0	0	0	0	0
14	16	0	0	1	0	0	0	0	1	1
13	13.5	0	0	0	0	0	0	0	0	0
9	10	0	0	0	0	0	0	0	0	0
44	48.5	0	0	1	0	0	0	0	1	1
0	0	0	0	0	0	0	0	0	0	0
7	8	0	0	0	0	0	0	0	0	0
2	3.3	0	0	0	0	0	0	0	0	0
5	6.3	0	0	0	0	0	0	0	0	0
14	17.6	0	0	0	0	0	0	0	0	0
2	3.3	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
1	1	0	0	0	0	0	0	0	0	0
3	4.3	0	0	0	0	0	0	0	0	0
0	0	0	0	2	0	0	0	0	2	2
1	1	0	0	0	0	0	0	0	0	0
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1	1	0	0	2	0	0	0	0	2	2
2	2	0	0	0	0	0	0	0	0	0
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0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0
1	1	0	0	0	0	0	0	0	0	0
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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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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
167	192.6	0	0	7	1	1	0	0	9	9.5

H/TOT	0	0	2	0	0	0	0	2	2	0	0	47	1	0	0	1	49	50	0	0	190	15	6	0	0	211	214	0	0	50	6	1	0	0	57	57.5	1	0	30	5	1	0
11:00	0	0	0	0	0	0	0	0	0	0	0	9	4	0	0	0	13	13	1	0	46	5	1	0	0	53	52.7	0	0	12	2	1	0	0	15	15.5	0	0	9	0	0	0
11:15	0	0	1	0	0	0	0	1	1	0	0	11	0	0	0	0	11	11	0	0	56	7	0	0	0	63	63	0	0	7	1	0	0	0	8	8	0	0	6	3	0	0
11:30	0	0	0	0	0	0	0	0	0	0	0	7	1	1	0	0	9	9.5	0	0	46	4	1	0	0	51	51.5	0	0	9	1	1	0	0	11	11.5	0	0	12	2	0	0
11:45	0	0	0	0	0	0	0	0	0	0	0	10	2	0	0	0	12	12	1	0	39	4	0	0	0	44	43.2	0	0	12	3	0	0	0	15	15	0	0	8	1	0	0
H/TOT	0	0	1	0	0	0	0	1	1	0	0	37	7	1	0	0	45	45.5	2	0	187	20	2	0	0	211	210.4	0	0	40	7	2	0	0	49	50	0	0	35	6	0	0
12:00	0	0	0	0	0	0	0	0	0	0	0	7	1	0	0	0	8	8	0	1	52	10	1	0	0	64	63.9	0	0	10	3	0	0	0	13	13	0	0	10	0	0	0
12:15	0	0	1	0	0	0	0	1	1	0	0	9	1	0	0	0	10	10	1	0	51	2	1	0	0	55	54.7	0	0	15	4	0	0	0	19	19	0	0	9	2	0	0
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12:45	0	0	2	0	0	0	0	2	2	0	0	13	0	1	0	0	14	14.5	0	0	53	5	2	1	0	61	63.3	0	0	11	2	0	0	0	13	13	0	0	7	0	0	0
H/TOT	0	0	4	0	0	0	0	4	4	0	0	38	2	2	0	0	42	43	1	2	206	18	5	1	0	233	234.8	0	0	50	9	1	0	0	60	60.5	0	0	36	3	0	0
13:00	0	0	1	0	0	0	0	1	1	0	0	18	1	0	0	0	19	19	0	0	72	3	0	0	1	76	77	0	0	12	1	0	0	0	13	13	0	0	13	2	0	0
13:15	0	0	1	0	0	0	0	1	1	0	0	15	0	0	0	0	15	15	0	1	57	9	2	0	0	69	69.4	0	0	7	1	0	0	0	8	8	0	0	14	0	0	0
13:30	0	0	1	0	0	0	0	1	1	0	0	24	0	1	0	0	25	25.5	0	0	71	3	1	0	0	75	75.5	0	0	15	1	1	0	0	17	17.5	1	0	16	1	0	0
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H/TOT	0	0	4	0	0	0	0	4	4	0	0	66	2	1	0	0	69	69.5	0	2	269	19	3	0	0	294	295.3	0	0	42	4	1	1	0	48	49.8	1	0	56	3	0	0
14:00	0	0	0	0	0	0	0	0	0	0	0	13	1	0	0	0	14	14	0	0	76	3	0	0	0	79	79	0	0	12	3	1	0	0	16	16.5	1	0	10	1	0	0
14:15	0	0	1	0	0	0	0	1	1	0	0	18	1	0	0	0	19	19	0	0	76	8	0	0	0	84	84	0	0	21	2	0	0	0	23	23	0	0	16	2	0	0
14:30	0	0	0	0	0	0	0	0	0	0	0	31	2	0	0	1	34	35	0	0	110	4	0	0	0	114	114	0	0	35	2	1	0	0	38	38.5	0	0	13	1	0	0
14:45	0	0	1	0	0	0	0	1	1	0	0	12	1	0	0	0	13	13	0	0	94	7	2	0	0	103	104	0	0	20	3	0	0	0	23	23	1	0	12	1	0	0
H/TOT	0	0	2	0	0	0	0	2	2	0	0	74	5	0	1	0	80	81	0	0	356	22	2	0	0	380	381	0	0	88	10	2	0	0	100	101	2	0	51	5	0	0
15:00	0	0	0	0	0	0	0	0	0	0	0	16	1	0	0	0	17	17	0	0	75	8	0	0	0	83	83	0	0	10	4	0	0	0	14	14	0	0	11	2	0	0
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15:30	0	0	0	0	0	0	0	0	0	0	0	30	0	0	0	0	30	30	0	2	88	13	1	0	0	104	103.3	0	0	17	0	1	0	0	18	18.5	0	0	14	1	0	0
15:45	0	0	0	0	0	0	0	0	0	0	0	28	0	0	0	0	28	28	0	2	94	3	0	0	0	99	97.8	0	0	16	4	0	0	0	20	20	0	0	18	0	0	0
H/TOT	0	0	1	0	0	0	0	1	1	0	0	94	1	2	0	0	97	98	1	4	351	30	1	0	0	387	384.3	0	0	55	8	2	0	0	65	66	0	0	65	5	0	0
16:00	0	0	1	0	0	0	0	1	1	0	0	23	1	0	0	0	24	24	0	1	98	17	2	0	0	118	118.4	0	0	14	2	0	0	0	16	16	3	0	13	2	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	19	3	0	0	0	22	22	0	0	99	12	0	0	0	111	111	0	0	13	3	0	0	0	16	16	2	0	10	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	16	4	0	0	0	20	20	0	0	127	12	2	0	0	141	142	0	0	18	4	1	0	0	23	23.5	0	0	12	0	0	0
16:45	0	0	2	0	0	0	0	2	2	0	0	18	1	0	0	0	19	19	0	0	90	16	1	0	0	107	107.5	0	0	13	0	0	0	0	13	13	0	0	11	0	0	0
H/TOT	0	0	3	0	0	0	0	3	3	0	0	76	9	0	0	0	85	85	0	1	414	57	5	0	0	477	478.9	0	0	58	9	1	0	0	68	68.5	5	0	46	2	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	26	3	0	0	0	29	29	0	1	112	14	1	0	0	128	127.9	0	0	11	5	0	0	0	16	16	0	0	13	1	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	25	4	0	0	0	29	29	1	1	100	16	1	0	0	119	118.1	0	0	10	4	0	0	0	14	14	1	0	14	1	0	0
17:30	0	0	1	0	0	0	0	1	1	0	0	24	2	0	0	0	26	26	0	1	121	14	4	0	0	140	141.4	0	0	9	1	0	0	0	10	10	0	0	12	2	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	24	2	0	0	0	26	26	0	0	131	14	0	0	0	145	145	0	0	13	0	0	0	0	13	13	1	0	19	2	1	0
H/TOT	0	0	1	0	0	0	0	1	1	0	0	99	11	0	0	0	110	110	1	3	464	58	6	0	0	532	532.4	0	0	43	10	0	0	0	53	53	2	0	58	6	1	0
18:00	0	0	0	0	0	0	0	0	0	0	0	32	2	0	0	0	34	34	1	1	108	18	0	0	0	128	126.6	0	0	24	0	0	0	0	24	24	0	0	17	1	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	20	20	2	0	110	5	1	0	0	118	116.9	0	0	13	6	1	0	0	20	20.5	2	0	13	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	15	3	0	0	0	18	18	0	0	65	6	0	0	0	71	71	0	0	12	0	0	0	0	12	12	0	0	9	0	0	0
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H/TOT	0	0	1	0	0	0	0	1	1	0	0	86	7	0	0	0	93	93	3	1	349	33	1	0	0	387	384.5	0	0	62	7	1	0	0	70	70.5	2	0	52	3	0	0
19:00	0	0	0	0	0	0	0	0	0	0	0	13	1	0	0	0	14	14	0	0	82	3	0	0	0	85	85	0	0	10	1	0	0	0	11	11	0	0	22	2	0	0
19:15	0	0	0	0	0	0	0	0	0	0	0	14	0	0	0	0	14	14	0	0	66	2	0	0	0	68	68	0	0	8	1	0	0	0	9	9	0	0	8	2	0	0
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19:45	0	0	0																																							

1	0	0	52	52.5	0	0	3	0	0	0	0	3	3	1	0	85	12	4	0	2	104	107.2	0	0	40	6	4	0	0	50	52	1	0	57	2	0	0	3	63	65.2	0	0	
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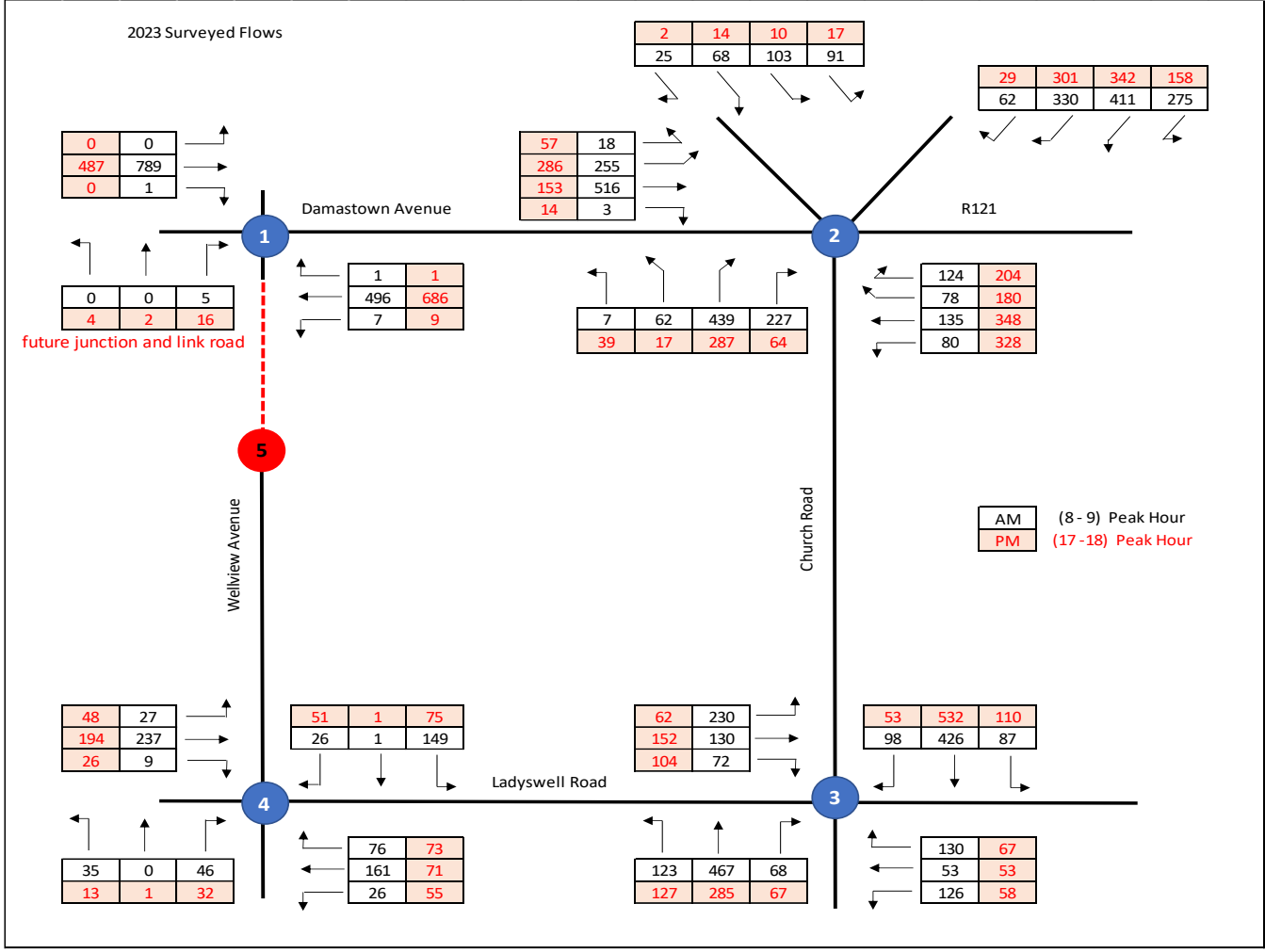
64	12	2	0	2	80	83	0	0	1	0	0	0	0	1	1
15	2	0	0	0	17	17	0	0	0	0	0	0	0	0	0
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17	0	0	0	0	17	17	0	0	0	0	0	0	0	0	0
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32	4	0	0	1	37	38	0	0	0	0	0	0	0	0	0
28	1	0	0	1	30	31	0	0	0	0	0	0	0	0	0
20	0	0	0	0	20	20	0	0	0	0	0	0	0	0	0
26	4	0	0	0	30	30	0	0	0	0	0	0	0	0	0
106	9	0	0	2	117	119	0	0	0	0	0	0	0	0	0
24	2	1	0	1	29	29.7	0	0	1	1	0	0	0	2	2
25	0	0	0	1	28	27.4	0	0	0	0	0	0	0	0	0
21	3	0	0	0	25	24.2	0	0	0	0	0	0	0	0	0
20	1	0	0	1	22	23	0	0	0	0	0	0	0	0	0
90	6	1	0	3	104	104.3	0	0	1	1	0	0	0	2	2
24	2	1	0	0	27	27.5	0	0	0	0	0	0	0	0	0
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28	3	1	0	0	33	32.7	0	0	0	0	0	0	0	0	0
29	4	0	0	0	35	33.4	0	0	0	0	0	0	0	0	0
101	12	2	0	1	119	118.6	0	0	0	0	0	0	0	0	0
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25	3	0	0	1	30	30.2	0	0	0	0	0	0	0	0	0
26	3	0	0	0	30	29.4	0	0	0	0	0	0	0	0	0
24	0	0	0	1	25	26	0	0	0	0	0	1	0	1	2.3
90	10	0	0	3	105	106.6	0	0	0	0	0	1	0	1	2.3
36	3	0	0	0	40	39.2	0	0	0	0	0	0	0	0	0
18	5	1	0	0	24	24.5	0	0	0	0	0	0	0	0	0
21	2	0	0	1	24	25	0	0	0	0	0	0	0	0	0
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90	10	1	0	2	104	105.7	0	0	0	0	0	0	0	0	0
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7	0	0	0	1	8	9	0	0	0	0	0	0	0	0	0
4	2	0	0	0	6	6	0	0	0	0	0	0	0	0	0
9	0	0	0	1	10	11	0	0	0	0	0	0	0	0	0
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35	3	0	0	3	41	44	0	0	0	0	0	0	0	0	0
14	1	0	0	0	15	15	0	0	0	0	0	0	0	0	0
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26	3	0	0	1	30	31	0	0	0	0	0	0	0	0	0
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62	5	0	0	1	68	69	0	0	0	0	0	0	0	0	0
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11	1	0	0	1	14	14.2	0	0	0	0	0	0	0	0	0
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0	57	57.5	0	0	0	0	0	0	1	1	2	0	0	24	3	1	0	0	28	28.5	1	0	68	13	3	0	6	91	97.7	0	0	0	0	0	0	0	0	0	0	0	0	11	2
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0	28	28.5	0	0	0	0	0	0	0	0	0	0	0	7	2	0	0	0	9	9	0	0	10	3	0	0	1	14	15	0	0	0	0	0	0	0	0	0	0	7	2		
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0	121	120.9	0	0	1	0	0	0	1	2	3	0	0	44	4	0	0	0	48	48	0	0	47	5	0	0	10	62	72	0	0	0	0	0	0	0	0	0	0	24	4		
0	22	22	0	0	0	0	0	0	0	0	0	0	0	9	1	0	0	0	10	10	0	0	11	1	0	0	3	15	18	0	0	0	0	0	0	0	0	0	0	10	0		
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0	19	19	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	10	10	0	0	15	1	0	0	3	19	22	0	0	0	0	0	0	0	0	0	0	5	1		
0	22	22	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	10	10	0	0	14	1	0	0	2	17	19	0	0	0	0	0	0	0	0	0	0	8	1		
0	80	80	0	0	0	0	0	0	1	1	2	0	0	35	4	0	0	0	39	39	0	0	51	4	1	0	8	64	72.5	0	0	0	0	0	0	0	0	0	0	30	2		
0	21	2																																									

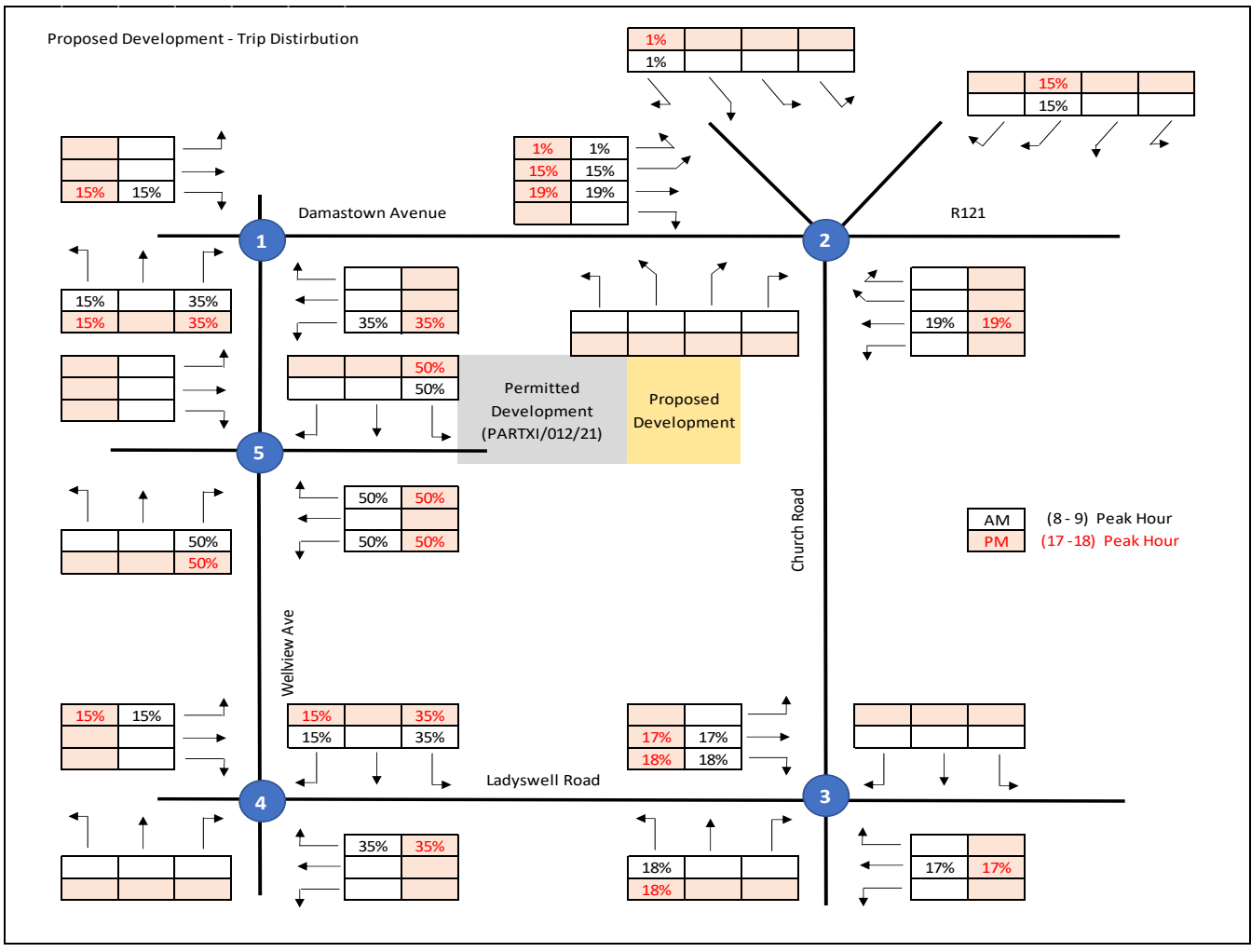
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5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0
116	15	2	0	0	136	134.6	0	0	27	2	9	4	0	42	51.7

B. Traffic Forecast Figures

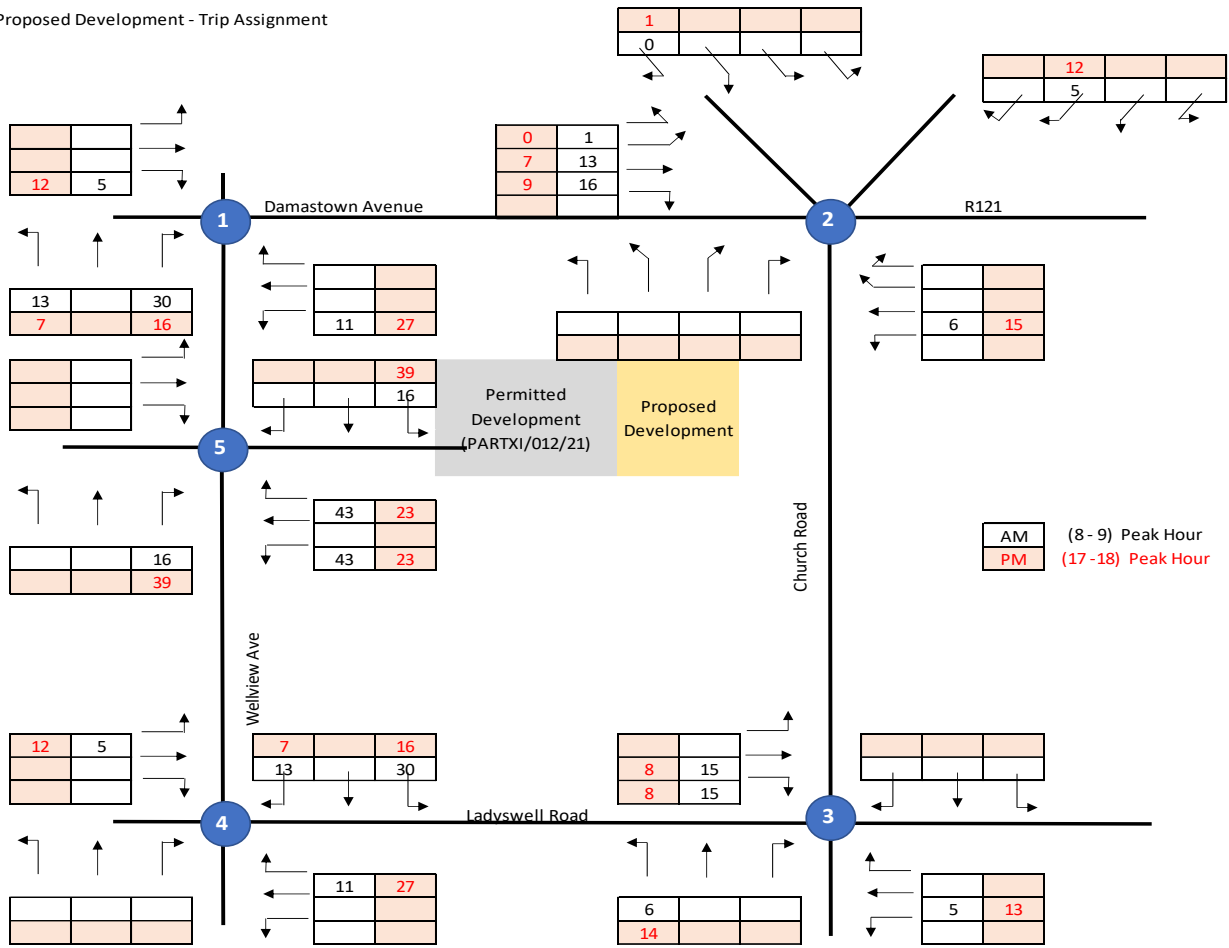
2023 Surveyed Flows



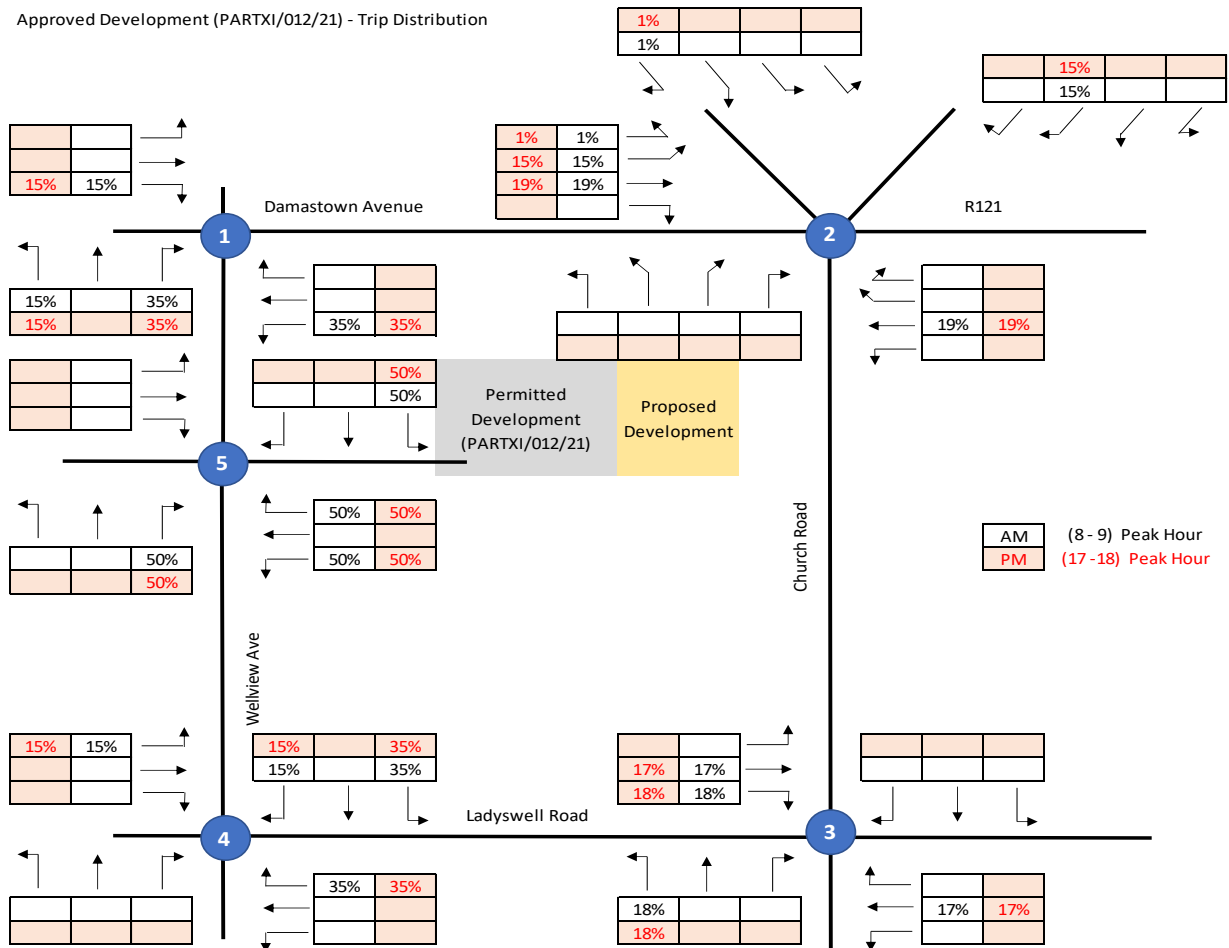
Proposed Development - Trip Distribution



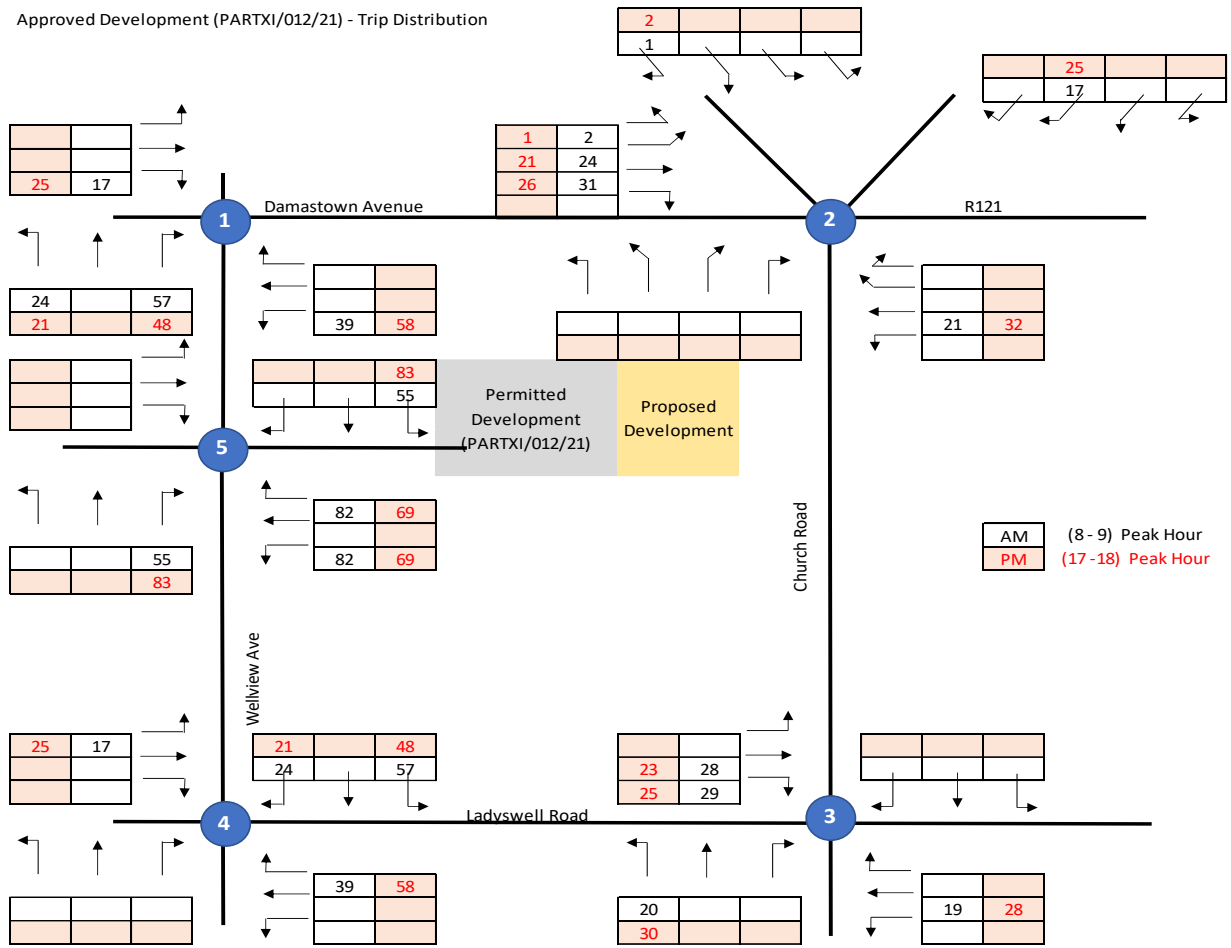
Proposed Development - Trip Assignment



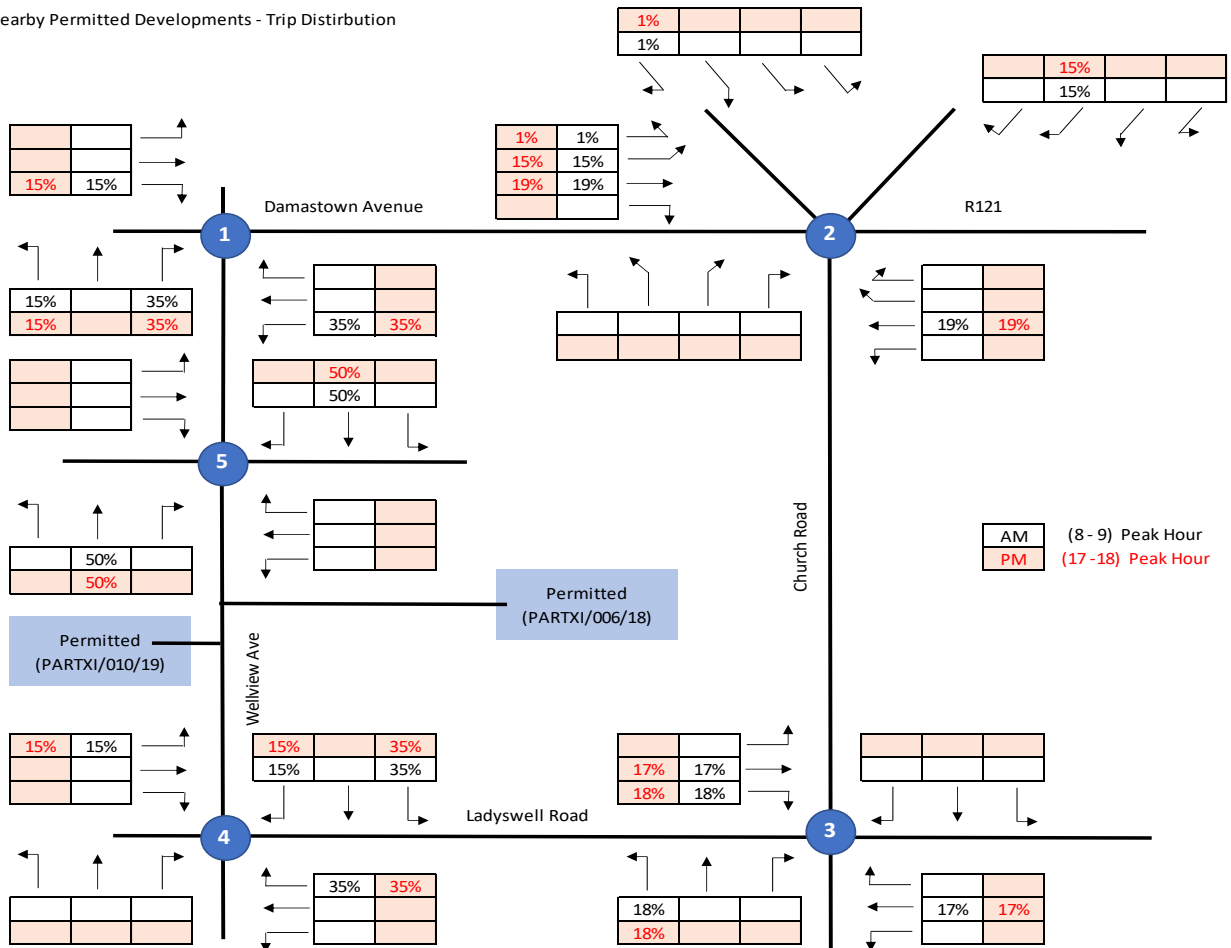
Approved Development (PARTXI/012/21) - Trip Distribution



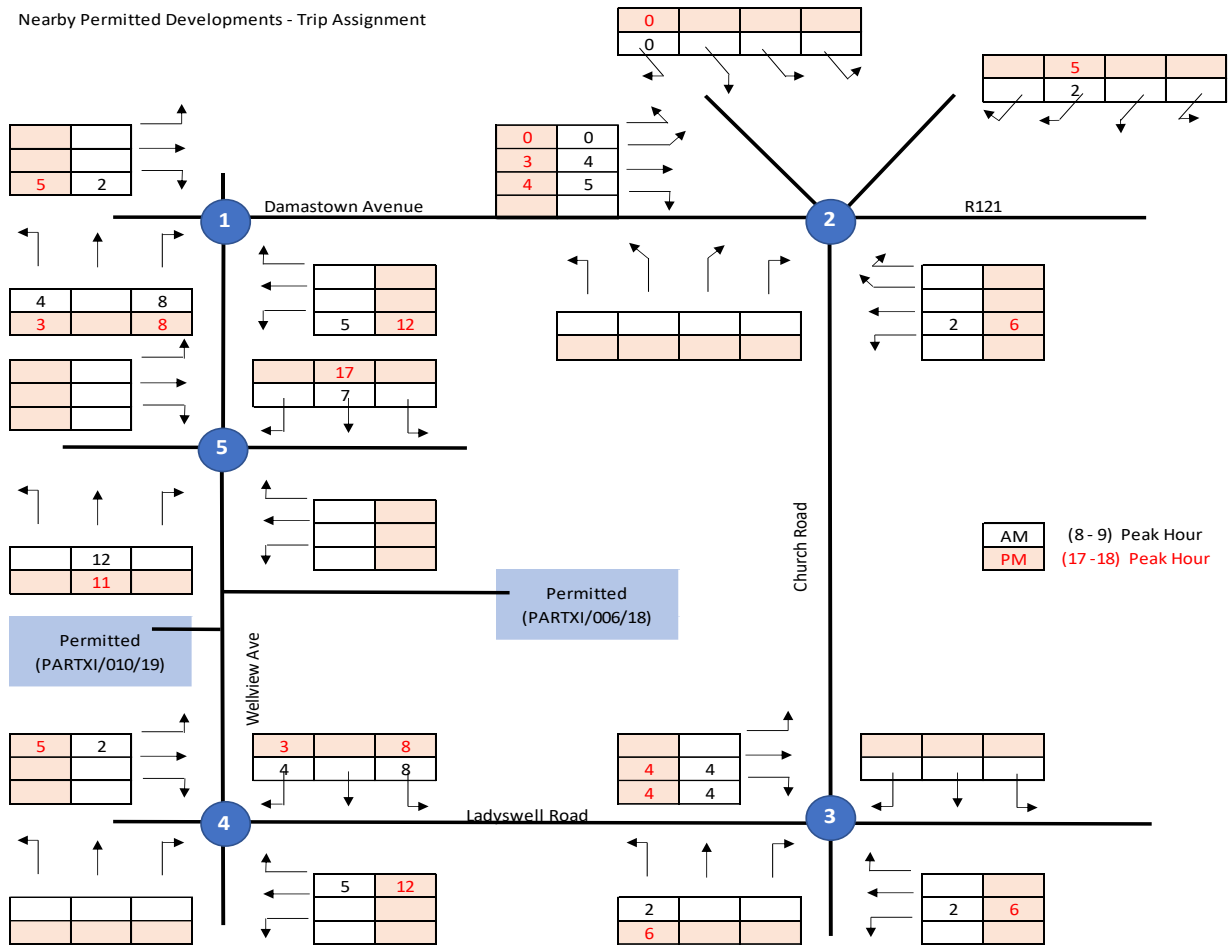
Approved Development (PARTXI/012/21) - Trip Distribution



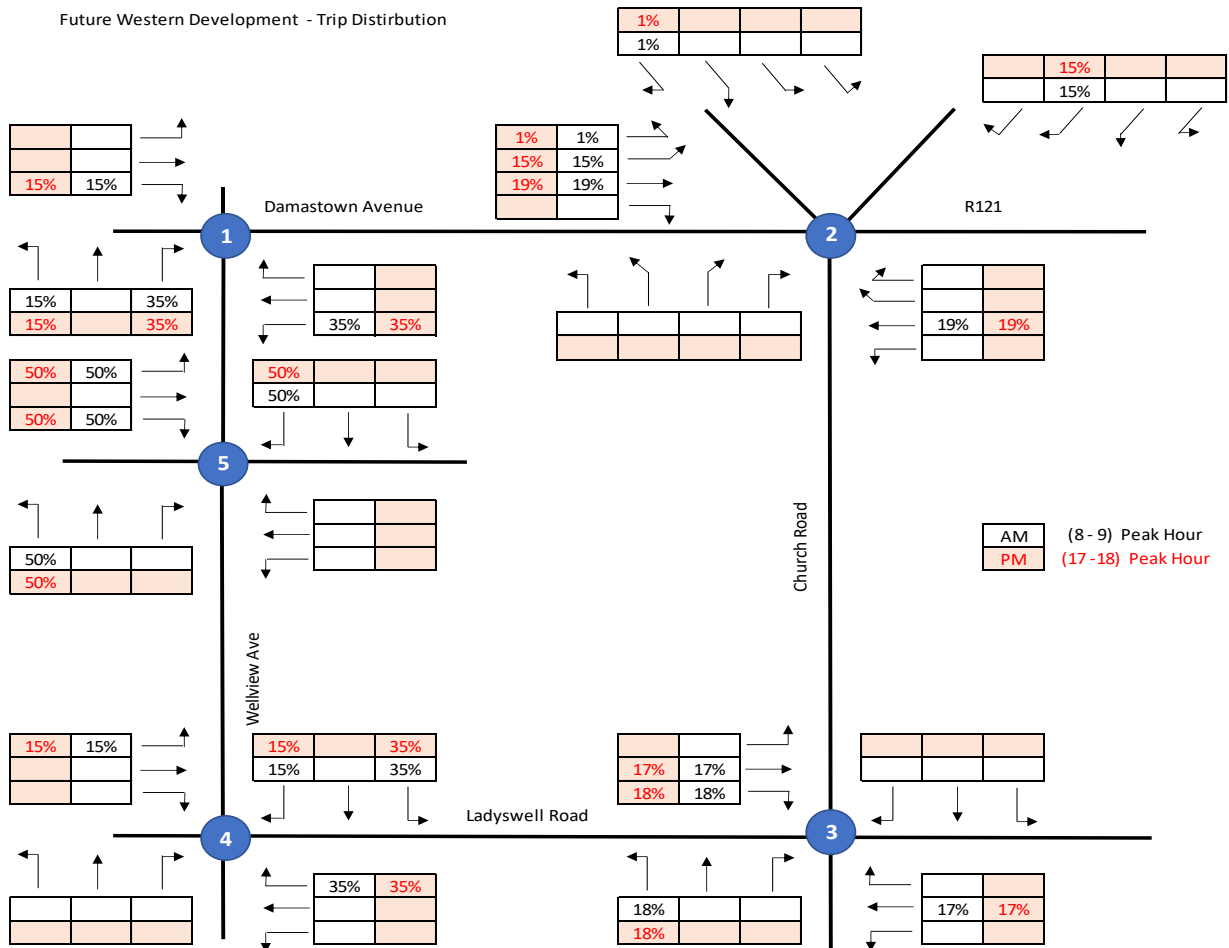
Nearby Permitted Developments - Trip Distribution



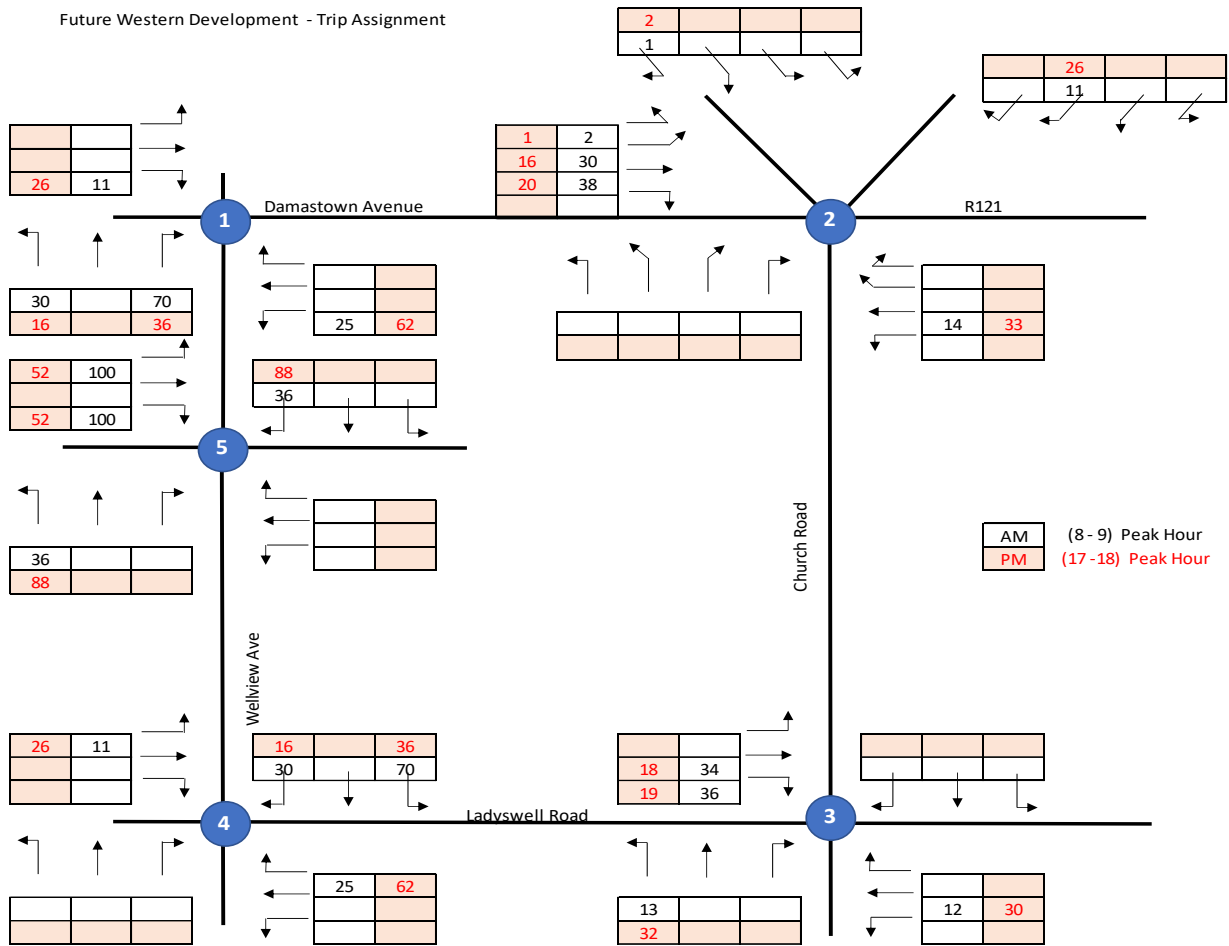
Nearby Permitted Developments - Trip Assignment



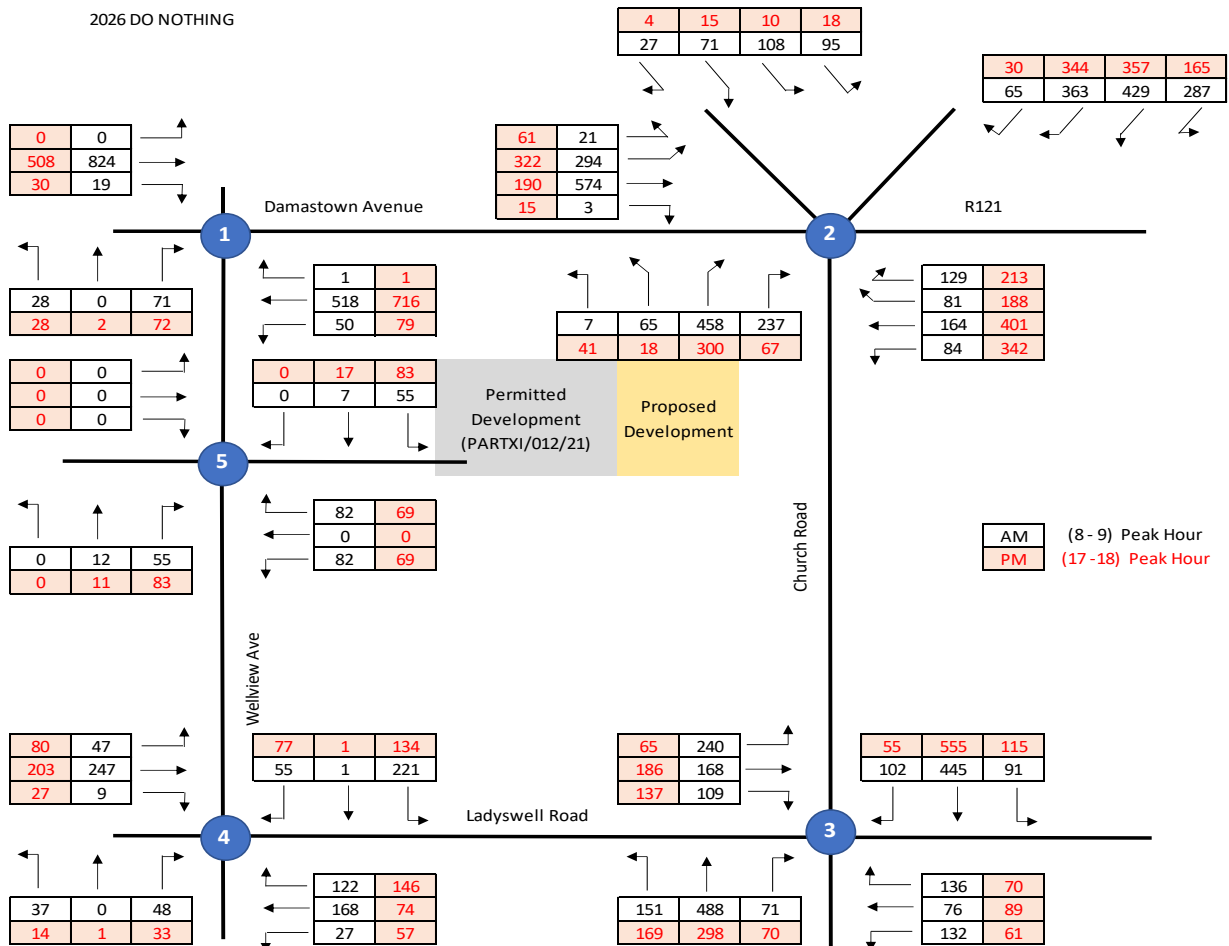
Future Western Development - Trip Distribution



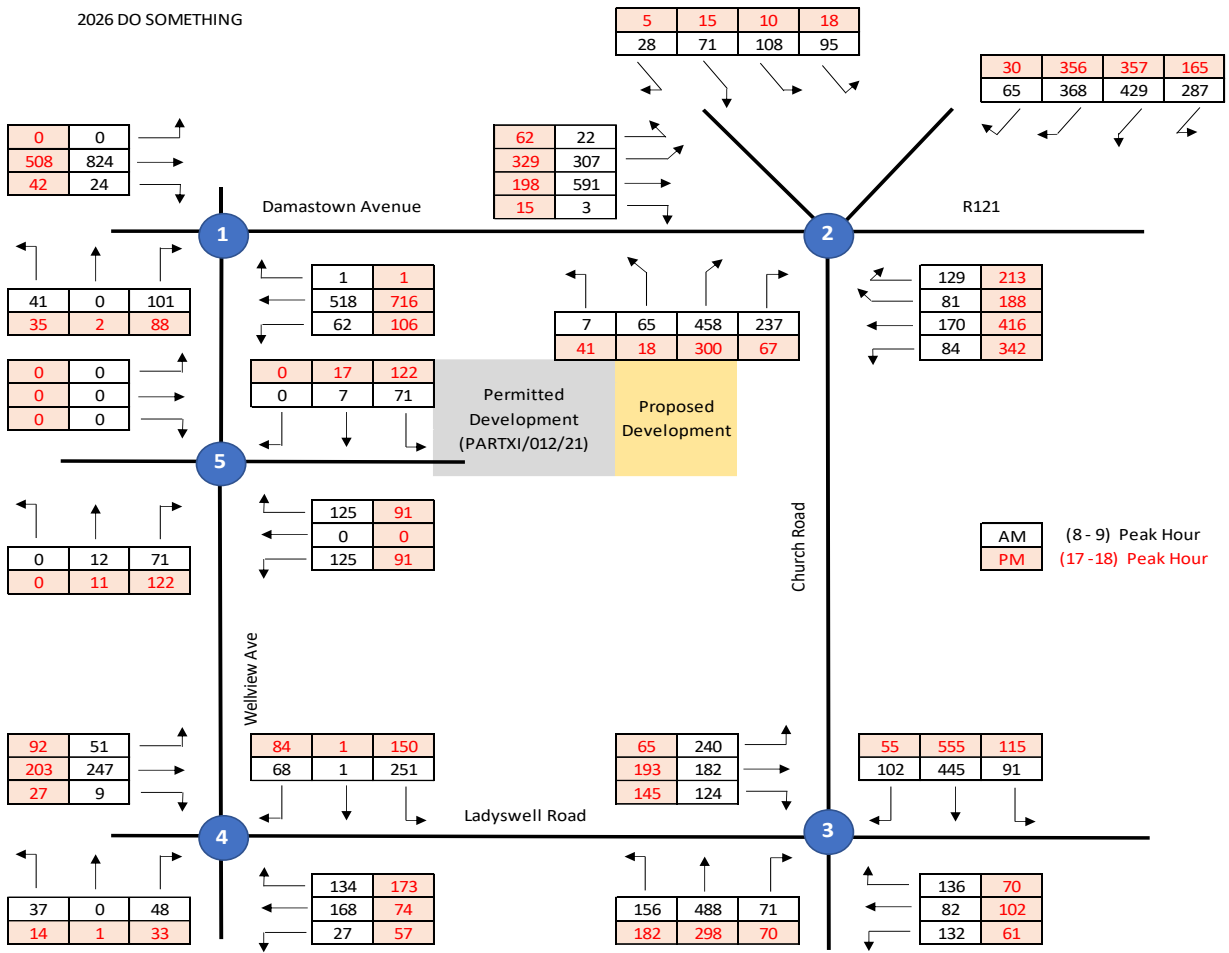
Future Western Development - Trip Assignment



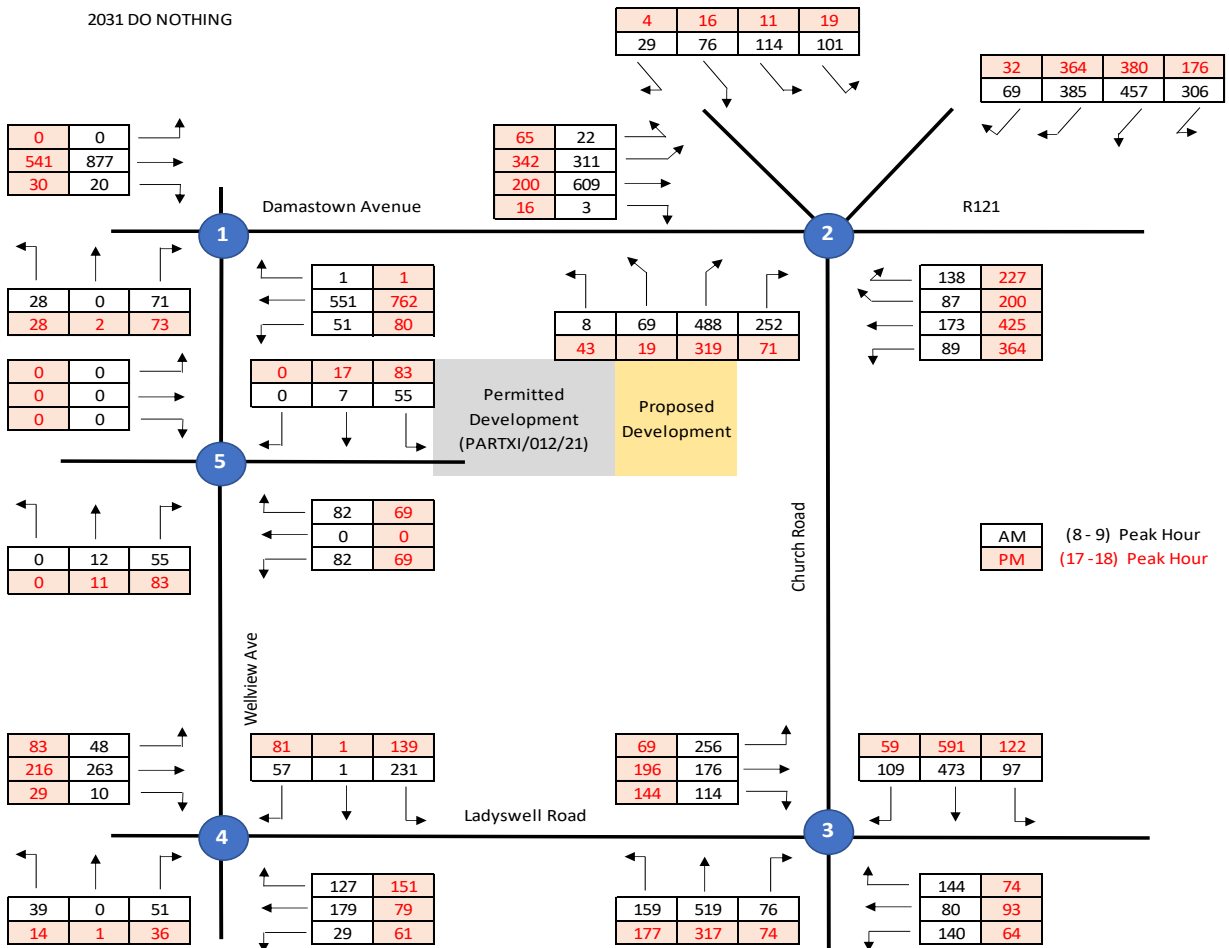
2026 DO NOTHING



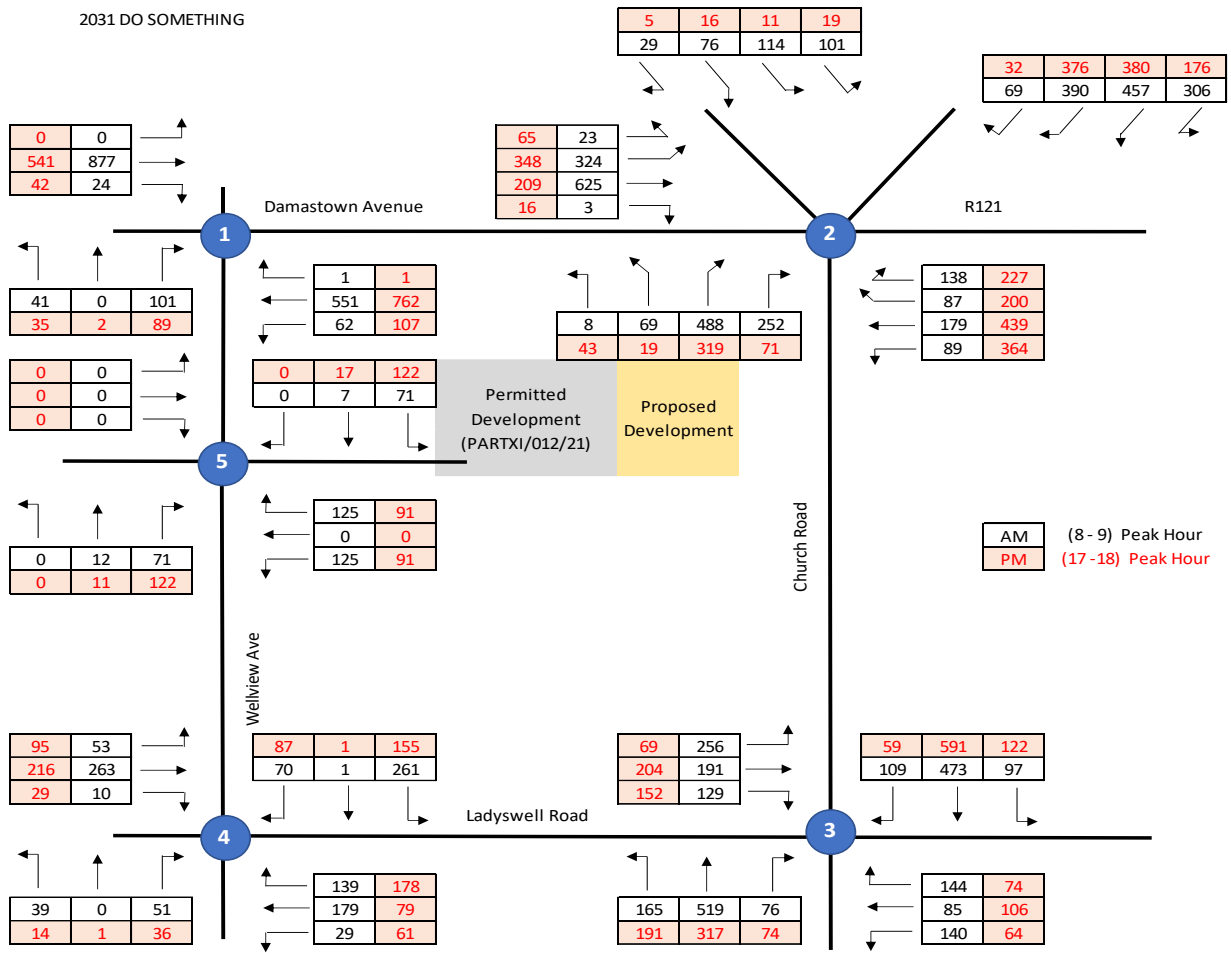
2026 DO SOMETHING



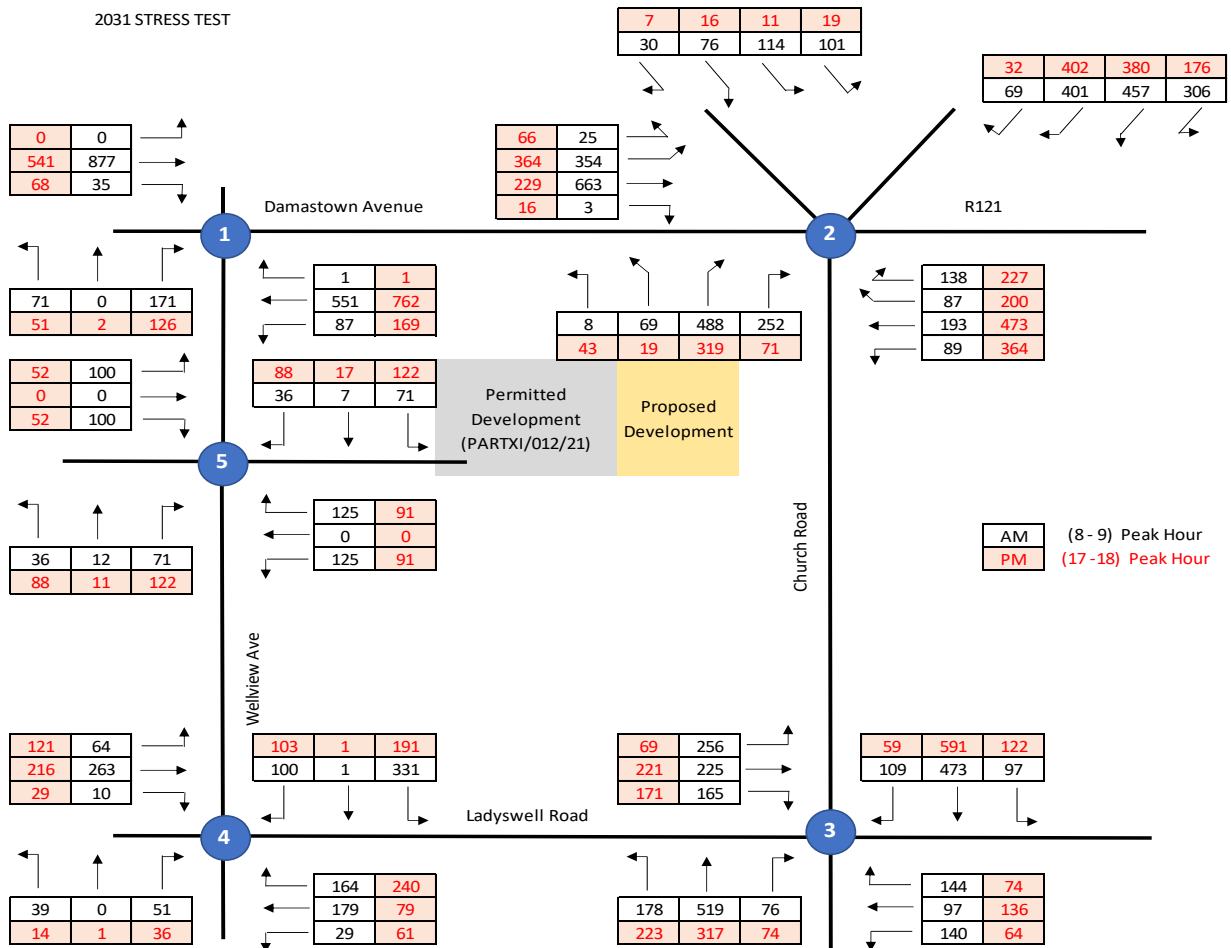
2031 DO NOTHING



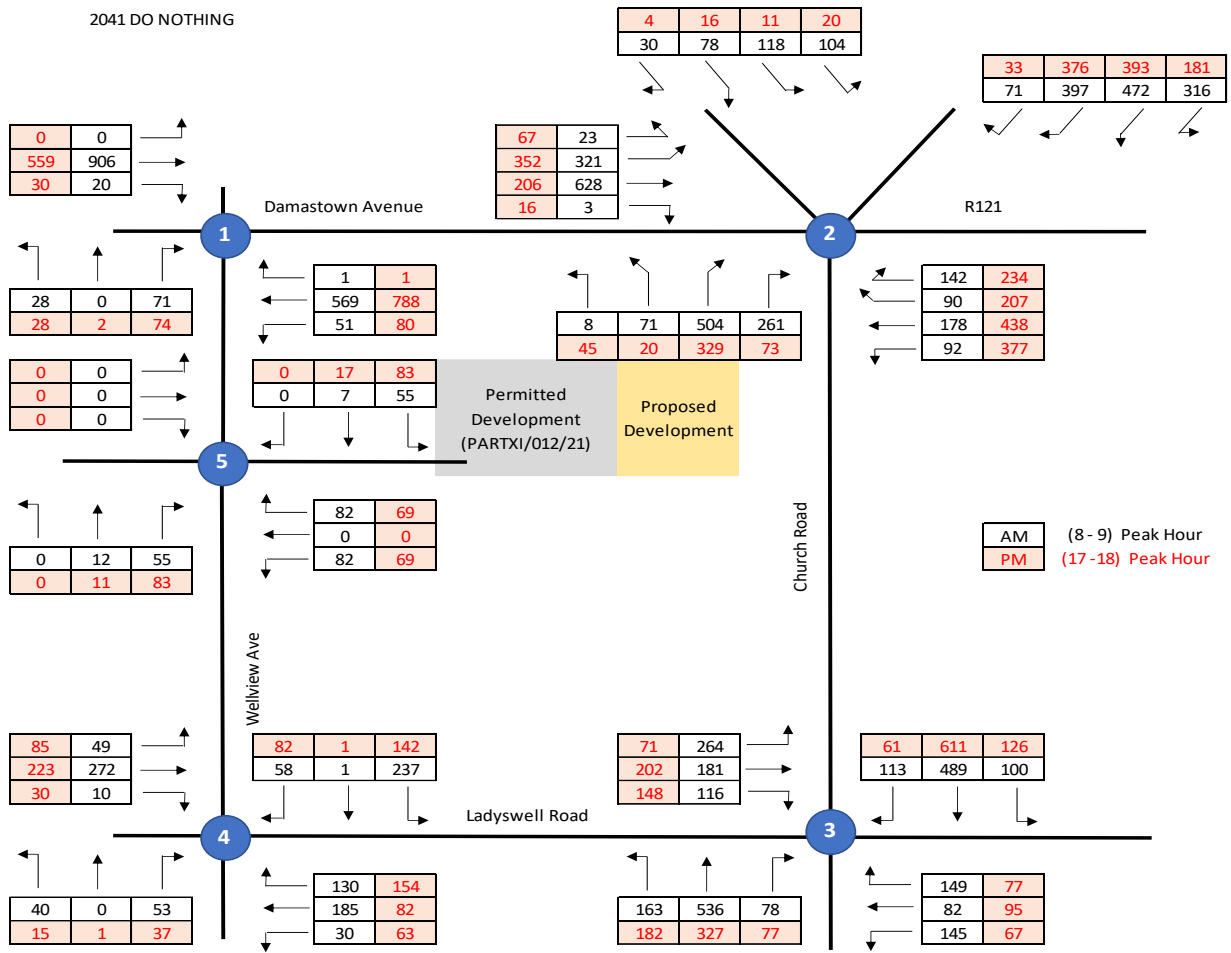
2031 DO SOMETHING



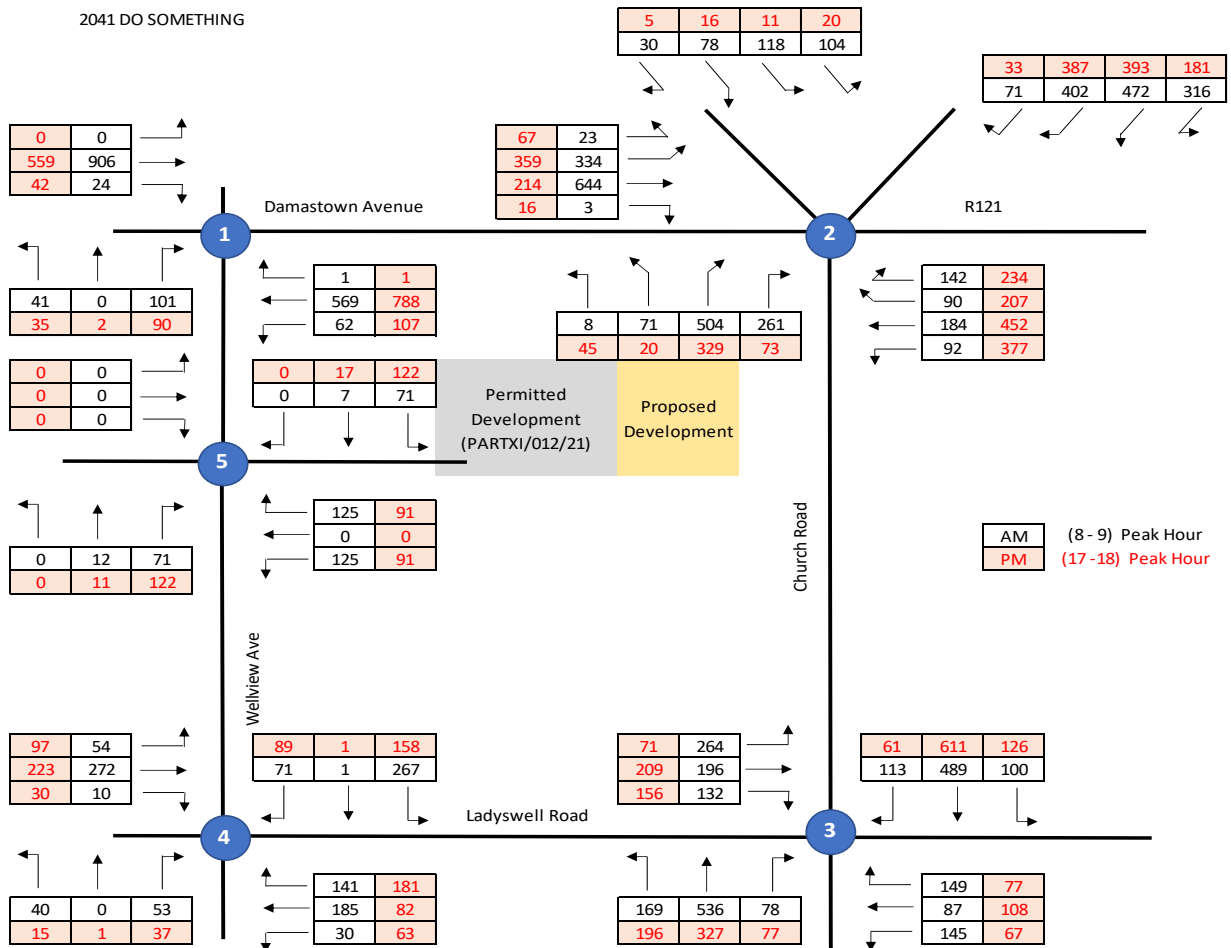
2031 STRESS TEST



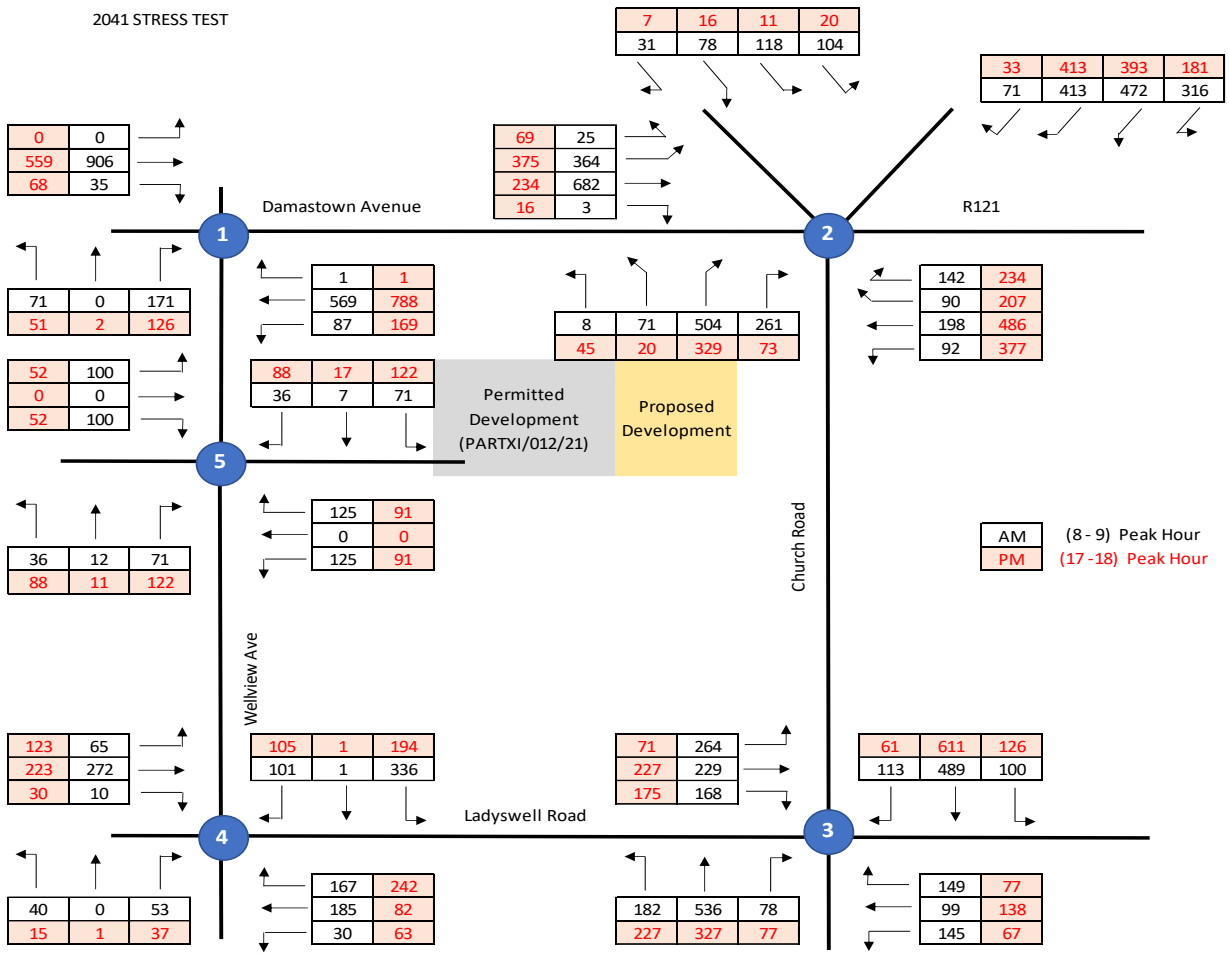
2041 DO NOTHING



2041 DO SOMETHING



2041 STRESS TEST



C. Modelling Output Reports

<h1>Junctions 9</h1>
<h2>ARCADY 9 - Roundabout Module</h2>
Version: 9.5.1.7462 © Copyright TRL Limited, 2019
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Filename: Junction 1 - AM and PM.j9

Path: M:\Projects\20\20-074 - Churchfields\Design\Civil\02 Sector 4\03 Traffic\Junction Modelling\Junction 1

Report generation date: 25/05/2023 14:32:41

- »Junction 1 - 2026 DO NOTHING, AM
- »Junction 1 - 2026 DO NOTHING, PM
- »Junction 1 - 2031 DO NOTHING, AM
- »Junction 1 - 2031 DO NOTHING, PM
- »Junction 1 - 2041 DO NOTHING, AM
- »Junction 1 - 2041 DO NOTHING, PM
- »Junction 1 - 2026 DO SOMETHING, AM
- »Junction 1 - 2026 DO SOMETHING, PM
- »Junction 1 - 2031 DO SOMETHING, AM
- »Junction 1 - 2031 DO SOMETHING, PM
- »Junction 1 - 2041 DO SOMETHING, AM
- »Junction 1 - 2041 DO SOMETHING, PM
- »Junction 1 - 2023 EXISTING, AM
- »Junction 1 - 2023 EXISTING, PM
- »Junction 1 - 2031 STRESS TEST, AM
- »Junction 1 - 2031 STRESS TEST, PM
- »Junction 1 - 2041 STRESS TEST, AM
- »Junction 1 - 2041 STRESS TEST, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
Junction 1 - 2026 DO NOTHING										
Arm 1	D1	0.6	3.65	0.37	A	D2	1.0	4.68	0.51	A
Arm 2		0.1	4.97	0.12	A		0.2	5.72	0.14	A
Arm 3		1.2	5.26	0.56	A		0.6	3.74	0.36	A
Arm 4		0.0	0.00	0.00	A		0.0	0.00	0.00	A
Junction 1 - 2031 DO NOTHING										
Arm 1	D3	0.6	3.77	0.39	A	D4	1.2	4.95	0.54	A
Arm 2		0.1	5.08	0.12	A		0.2	5.93	0.15	A
Arm 3		1.4	5.65	0.59	A		0.6	3.86	0.38	A
Arm 4		0.0	0.00	0.00	A		0.0	0.00	0.00	A
Junction 1 - 2041 DO NOTHING										
Arm 1	D5	0.7	3.84	0.40	A	D6	1.2	5.11	0.56	A
Arm 2		0.1	5.14	0.13	A		0.2	6.06	0.15	A
Arm 3		1.5	5.88	0.61	A		0.6	3.94	0.40	A
Arm 4		0.0	0.00	0.00	A		0.0	0.00	0.00	A
Junction 1 - 2026 DO SOMETHING										
Arm 1	D7	0.6	3.70	0.38	A	D8	1.1	4.87	0.53	A
Arm 2		0.2	5.26	0.17	A		0.2	5.92	0.17	A
Arm 3		1.3	5.42	0.56	A		0.6	3.82	0.37	A
Arm 4		0.0	0.00	0.00	A		0.0	0.00	0.00	A
Junction 1 - 2031 DO SOMETHING										
Arm 1	D9	0.7	3.83	0.40	A	D10	1.2	5.17	0.56	A
Arm 2		0.2	5.38	0.18	A		0.2	6.14	0.18	A
Arm 3		1.5	5.82	0.60	A		0.6	3.95	0.39	A
Arm 4		0.0	0.00	0.00	A		0.0	0.00	0.00	A
Junction 1 - 2041 DO SOMETHING										
Arm 1	D11	0.7	3.89	0.41	A	D12	1.3	5.34	0.57	A
Arm 2		0.2	5.45	0.18	A		0.2	6.28	0.18	A
Arm 3		1.6	6.06	0.61	A		0.7	4.03	0.41	A
Arm 4		0.0	0.00	0.00	A		0.0	0.00	0.00	A
Junction 1 - 2023 EXISTING										
Arm 1	D13	0.5	3.40	0.33	A	D14	0.8	4.10	0.45	A
Arm 2		0.0	4.36	0.01	A		0.0	4.99	0.03	A
Arm 3		1.0	4.69	0.51	A		0.5	3.45	0.32	A
Arm 4		0.0	0.00	0.00	A		0.0	0.00	0.00	A
Junction 1 - 2031 STRESS TEST										
Arm 1	D15	0.7	3.95	0.42	A	D16	1.5	5.72	0.60	A
Arm 2		0.4	6.25	0.30	A		0.3	6.70	0.25	A
Arm 3		1.6	6.28	0.62	A		0.7	4.15	0.42	A
Arm 4		0.0	0.00	0.00	A		0.0	0.00	0.00	A
Junction 1 - 2041 STRESS TEST										
Arm 1	D17	0.7	4.02	0.43	A	D18	1.6	5.93	0.62	A
Arm 2		0.4	6.34	0.30	A		0.3	6.86	0.26	A
Arm 3		1.7	6.56	0.64	A		0.7	4.23	0.43	A
Arm 4		0.0	0.00	0.00	A		0.0	0.00	0.00	A

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

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

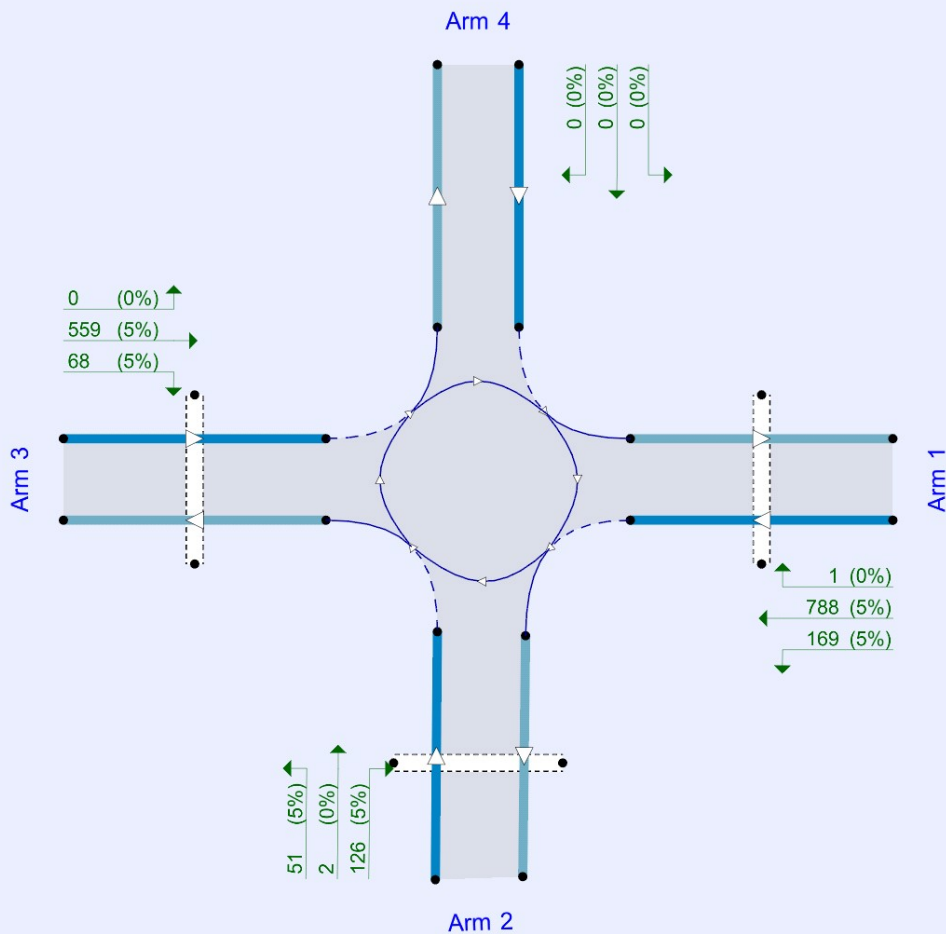
File summary

File Description

Title	
Location	
Site number	
Date	08/01/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DOMAINf.silva
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



Flows show original traffic demand (Veh/hr).

The junction diagram reflects the last run of Junctions.

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2026 DO NOTHING	AM	ONE HOUR	08:00	09:30	10
D2	2026 DO NOTHING	PM	ONE HOUR	17:00	18:30	10
D3	2031 DO NOTHING	AM	ONE HOUR	08:00	09:30	10
D4	2031 DO NOTHING	PM	ONE HOUR	17:00	18:30	10
D5	2041 DO NOTHING	AM	ONE HOUR	08:00	09:30	10
D6	2041 DO NOTHING	PM	ONE HOUR	17:00	18:30	10
D7	2026 DO SOMETHING	AM	ONE HOUR	08:00	09:30	10
D8	2026 DO SOMETHING	PM	ONE HOUR	17:00	18:30	10
D9	2031 DO SOMETHING	AM	ONE HOUR	08:00	09:30	10
D10	2031 DO SOMETHING	PM	ONE HOUR	17:00	18:30	10
D11	2041 DO SOMETHING	AM	ONE HOUR	08:00	09:30	10
D12	2041 DO SOMETHING	PM	ONE HOUR	17:00	18:30	10
D13	2023 EXISTING	AM	ONE HOUR	08:00	09:30	10
D14	2023 EXISTING	PM	ONE HOUR	17:00	18:30	10
D15	2031 STRESS TEST	AM	ONE HOUR	08:00	09:30	10
D16	2031 STRESS TEST	PM	ONE HOUR	17:00	18:30	10
D17	2041 STRESS TEST	AM	ONE HOUR	08:00	09:30	10
D18	2041 STRESS TEST	PM	ONE HOUR	17:00	18:30	10

Analysis Set Details

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

Junction 1 - 2026 DO NOTHING, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

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	4.63	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Damastown Avenue (E)	
2	Church Fields Link Road (S)	
3	Damastown Avenue (W)	
4	Northern Arm (N)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1	3.75	7.05	28.6	18.6	50.0	41.2	
2	3.00	4.81	10.0	22.8	50.0	38.1	
3	3.75	6.71	31.5	23.2	50.0	42.0	
4	3.00	5.14	6.0	5.3	50.0	54.8	

Pelican/Puffin Crossings

Arm	Space between crossing and junc. entry (Signalised) (PCU)	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)
1	25.00	3.00	2.90	1.00	6.00	6.00	7.00
2	25.00	3.00	2.90	1.00	6.00	6.00	7.00
3	25.00	3.00	2.90	1.00	6.00	6.00	7.00

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.613	1787
2	0.513	1228
3	0.610	1761
4	0.402	942

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	2026 DO NOTHING	AM	ONE HOUR	08:00	09:30	10

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		✓	569	100.000
2		✓	99	100.000
3		✓	843	100.000
4		✓	0	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	

Origin-Destination Data

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	0	50	518	1
	2	71	0	28	0
	3	824	19	0	0
	4	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	5	5	0
	2	5	0	5	0
	3	5	5	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.37	3.65	0.6	A
2	0.12	4.97	0.1	A
3	0.56	5.26	1.2	A
4	0.00	0.00	0.0	A

Main Results for each time segment

08:00 - 08:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	385	13	33.81	1594	0.241	383	0.3	2.973	A
2	67	349	33.81	930	0.072	66	0.1	4.166	A
3	570	48	33.81	1554	0.367	567	0.6	3.633	A
4	0	614		683	0.000	0	0.0	0.000	A

08:10 - 08:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	385	13	33.81	1599	0.241	385	0.3	2.965	A
2	67	351	33.81	931	0.072	67	0.1	4.168	A
3	570	49	33.81	1563	0.365	570	0.6	3.624	A
4	0	618		682	0.000	0	0.0	0.000	A

08:20 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	482	16	42.35	1577	0.306	481	0.4	3.283	A
2	84	439	42.35	876	0.096	84	0.1	4.543	A
3	714	61	42.35	1542	0.463	712	0.9	4.331	A
4	0	772		617	0.000	0	0.0	0.000	A

08:30 - 08:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	552	18	48.48	1566	0.352	551	0.5	3.546	A
2	96	503	48.48	838	0.115	96	0.1	4.849	A
3	817	70	48.48	1536	0.532	816	1.1	4.989	A
4	0	885		569	0.000	0	0.0	0.000	A

08:40 - 08:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	577	19	50.71	1563	0.369	577	0.6	3.649	A
2	100	526	50.71	825	0.122	100	0.1	4.968	A
3	855	73	50.71	1538	0.556	854	1.2	5.259	A
4	0	926		552	0.000	0	0.0	0.000	A

08:50 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	552	18	48.48	1569	0.352	552	0.5	3.540	A
2	96	503	48.48	839	0.114	96	0.1	4.849	A
3	817	70	48.48	1544	0.529	818	1.1	4.961	A
4	0	887		568	0.000	0	0.0	0.000	A

09:00 - 09:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	482	16	42.35	1581	0.305	483	0.4	3.279	A
2	84	440	42.35	876	0.096	84	0.1	4.544	A
3	714	61	42.35	1553	0.460	716	0.9	4.311	A
4	0	776		615	0.000	0	0.0	0.000	A

09:10 - 09:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	385	13	33.81	1600	0.240	385	0.3	2.964	A
2	67	352	33.81	931	0.072	67	0.1	4.169	A
3	570	49	33.81	1567	0.364	572	0.6	3.623	A
4	0	620		681	0.000	0	0.0	0.000	A

09:20 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	385	13	33.81	1599	0.241	385	0.3	2.965	A
2	67	351	33.81	931	0.072	67	0.1	4.169	A
3	570	49	33.81	1563	0.365	570	0.6	3.624	A
4	0	618		682	0.000	0	0.0	0.000	A

Junction 1 - 2026 DO NOTHING, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

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	4.40	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)
D2	2026 DO NOTHING	PM	ONE HOUR	17:00	18:30	10

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		✓	796	100.000
2		✓	102	100.000
3		✓	538	100.000
4		✓	0	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	

Origin-Destination Data

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	0	79	716	1
	2	72	0	28	2
	3	508	30	0	0
	4	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
	1	2	3	4
1	0	5	5	0
2	5	0	5	0
3	5	5	0	0
4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.51	4.68	1.0	A
2	0.14	5.72	0.2	A
3	0.36	3.74	0.6	A
4	0.00	0.00	0.0	A

Main Results for each time segment

17:00 - 17:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	538	20	33.81	1592	0.338	535	0.5	3.395	A
2	69	482	33.81	867	0.080	68	0.1	4.504	A
3	364	50	33.81	1549	0.235	362	0.3	3.029	A
4	0	410		769	0.000	0	0.0	0.000	A

17:10 - 17:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	538	20	33.81	1600	0.336	538	0.5	3.389	A
2	69	485	33.81	867	0.080	69	0.1	4.509	A
3	364	51	33.81	1554	0.234	364	0.3	3.024	A
4	0	412		768	0.000	0	0.0	0.000	A

17:20 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	674	25	42.35	1581	0.426	673	0.7	3.959	A
2	86	606	42.35	798	0.108	86	0.1	5.057	A
3	456	63	42.35	1527	0.298	455	0.4	3.355	A
4	0	516		725	0.000	0	0.0	0.000	A

17:30 - 17:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	772	29	48.48	1575	0.490	771	0.9	4.470	A
2	99	694	48.48	750	0.132	99	0.2	5.526	A
3	522	73	48.48	1512	0.345	521	0.5	3.629	A
4	0	591		693	0.000	0	0.0	0.000	A

17:40 - 17:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	807	30	50.71	1576	0.512	807	1.0	4.681	A
2	103	727	50.71	733	0.141	103	0.2	5.717	A
3	546	76	50.71	1509	0.362	545	0.6	3.737	A
4	0	618		681	0.000	0	0.0	0.000	A

17:50 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	772	29	48.48	1581	0.488	772	1.0	4.452	A
2	99	696	48.48	750	0.132	99	0.2	5.527	A
3	522	73	48.48	1515	0.344	522	0.5	3.623	A
4	0	592		693	0.000	0	0.0	0.000	A

18:00 - 18:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	674	25	42.35	1590	0.424	676	0.7	3.943	A
2	86	609	42.35	798	0.108	87	0.1	5.061	A
3	456	64	42.35	1532	0.298	456	0.4	3.351	A
4	0	517		724	0.000	0	0.0	0.000	A

18:10 - 18:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	538	20	33.81	1604	0.336	540	0.5	3.386	A
2	69	486	33.81	867	0.080	69	0.1	4.514	A
3	364	51	33.81	1555	0.234	365	0.3	3.024	A
4	0	413		768	0.000	0	0.0	0.000	A

18:20 - 18:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	538	20	33.81	1600	0.336	538	0.5	3.389	A
2	69	485	33.81	867	0.080	69	0.1	4.509	A
3	364	51	33.81	1554	0.234	364	0.3	3.027	A
4	0	412		768	0.000	0	0.0	0.000	A

Junction 1 - 2031 DO NOTHING, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

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	4.91	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2031 DO NOTHING	AM	ONE HOUR	08:00	09:30	10

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		✓	603	100.000
2		✓	99	100.000
3		✓	897	100.000
4		✓	0	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	

Origin-Destination Data

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	0	51	551	1
	2	71	0	28	0
	3	877	20	0	0
	4	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
	1	2	3	4
1	0	5	5	0
2	5	0	5	0
3	5	5	0	0
4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.39	3.77	0.6	A
2	0.12	5.08	0.1	A
3	0.59	5.65	1.4	A
4	0.00	0.00	0.0	A

Main Results for each time segment

08:00 - 08:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	408	13	33.81	1594	0.256	406	0.3	3.025	A
2	67	371	33.81	920	0.073	66	0.1	4.218	A
3	607	48	33.81	1555	0.390	603	0.6	3.763	A
4	0	650		668	0.000	0	0.0	0.000	A

08:10 - 08:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	408	14	33.81	1599	0.255	408	0.3	3.021	A
2	67	373	33.81	920	0.073	67	0.1	4.220	A
3	607	49	33.81	1565	0.388	607	0.6	3.755	A
4	0	655		666	0.000	0	0.0	0.000	A

08:20 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	511	17	42.35	1578	0.324	510	0.5	3.370	A
2	84	467	42.35	863	0.097	84	0.1	4.620	A
3	760	61	42.35	1545	0.492	758	1.0	4.563	A
4	0	818		597	0.000	0	0.0	0.000	A

08:30 - 08:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	585	19	48.48	1567	0.373	584	0.6	3.661	A
2	96	535	48.48	823	0.117	96	0.1	4.947	A
3	870	70	48.48	1541	0.564	868	1.3	5.332	A
4	0	937		547	0.000	0	0.0	0.000	A

08:40 - 08:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	612	20	50.71	1565	0.391	611	0.6	3.775	A
2	100	560	50.71	809	0.124	100	0.1	5.076	A
3	910	73	50.71	1545	0.589	909	1.4	5.649	A
4	0	981		529	0.000	0	0.0	0.000	A

08:50 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	585	19	48.48	1571	0.372	585	0.6	3.652	A
2	96	535	48.48	824	0.117	96	0.1	4.949	A
3	870	70	48.48	1551	0.561	870	1.3	5.296	A
4	0	939		546	0.000	0	0.0	0.000	A

09:00 - 09:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	511	17	42.35	1583	0.323	511	0.5	3.362	A
2	84	468	42.35	863	0.097	84	0.1	4.623	A
3	760	61	42.35	1557	0.488	762	1.0	4.537	A
4	0	822		596	0.000	0	0.0	0.000	A

09:10 - 09:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	408	14	33.81	1601	0.255	409	0.3	3.020	A
2	67	374	33.81	920	0.073	67	0.1	4.221	A
3	607	49	33.81	1570	0.386	609	0.6	3.754	A
4	0	657		665	0.000	0	0.0	0.000	A

09:20 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	408	14	33.81	1599	0.255	408	0.3	3.023	A
2	67	373	33.81	920	0.073	67	0.1	4.220	A
3	607	49	33.81	1565	0.388	607	0.6	3.758	A
4	0	655		666	0.000	0	0.0	0.000	A

Junction 1 - 2031 DO NOTHING, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

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	4.61	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2031 DO NOTHING	PM	ONE HOUR	17:00	18:30	10

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		✓	843	100.000
2		✓	103	100.000
3		✓	571	100.000
4		✓	0	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	

Origin-Destination Data

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	0	80	762	1
	2	73	0	28	2
	3	541	30	0	0
	4	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	5	5	0
	2	5	0	5	0
	3	5	5	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.54	4.95	1.2	A
2	0.15	5.93	0.2	A
3	0.38	3.86	0.6	A
4	0.00	0.00	0.0	A

Main Results for each time segment

17:00 - 17:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	570	20	33.81	1593	0.358	567	0.6	3.496	A
2	70	513	33.81	852	0.082	69	0.1	4.593	A
3	386	51	33.81	1549	0.249	384	0.3	3.084	A
4	0	433		760	0.000	0	0.0	0.000	A

17:10 - 17:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	570	20	33.81	1601	0.356	570	0.6	3.489	A
2	70	516	33.81	852	0.082	70	0.1	4.599	A
3	386	51	33.81	1554	0.248	386	0.3	3.081	A
4	0	435		759	0.000	0	0.0	0.000	A

17:20 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	714	25	42.35	1583	0.451	712	0.8	4.126	A
2	87	645	42.35	780	0.112	87	0.1	5.197	A
3	484	64	42.35	1528	0.317	483	0.5	3.443	A
4	0	545		713	0.000	0	0.0	0.000	A

17:30 - 17:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	817	29	48.48	1578	0.518	816	1.1	4.711	A
2	100	738	48.48	729	0.137	100	0.2	5.715	A
3	554	74	48.48	1514	0.366	553	0.6	3.745	A
4	0	624		679	0.000	0	0.0	0.000	A

17:40 - 17:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	855	30	50.71	1581	0.541	854	1.2	4.950	A
2	104	773	50.71	712	0.147	104	0.2	5.929	A
3	579	77	50.71	1510	0.383	579	0.6	3.864	A
4	0	653		667	0.000	0	0.0	0.000	A

17:50 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	817	29	48.48	1586	0.515	818	1.1	4.690	A
2	100	740	48.48	730	0.137	100	0.2	5.717	A
3	554	74	48.48	1517	0.365	554	0.6	3.737	A
4	0	625		679	0.000	0	0.0	0.000	A

18:00 - 18:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	714	25	42.35	1593	0.448	716	0.8	4.108	A
2	87	648	42.35	780	0.112	87	0.1	5.201	A
3	484	65	42.35	1533	0.316	484	0.5	3.438	A
4	0	546		712	0.000	0	0.0	0.000	A

18:10 - 18:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	570	20	33.81	1606	0.355	572	0.6	3.486	A
2	70	517	33.81	852	0.082	70	0.1	4.604	A
3	386	52	33.81	1556	0.248	387	0.3	3.080	A
4	0	436		758	0.000	0	0.0	0.000	A

18:20 - 18:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	570	20	33.81	1602	0.356	570	0.6	3.489	A
2	70	516	33.81	852	0.082	70	0.1	4.601	A
3	386	51	33.81	1554	0.248	386	0.3	3.081	A
4	0	435		759	0.000	0	0.0	0.000	A

Junction 1 - 2041 DO NOTHING, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

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	5.07	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)
D5	2041 DO NOTHING	AM	ONE HOUR	08:00	09:30	10

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		✓	621	100.000
2		✓	99	100.000
3		✓	926	100.000
4		✓	0	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	

Origin-Destination Data

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	0	51	569	1
	2	71	0	28	0
	3	906	20	0	0
	4	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	5	5	0
	2	5	0	5	0
	3	5	5	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.40	3.84	0.7	A
2	0.13	5.14	0.1	A
3	0.61	5.88	1.5	A
4	0.00	0.00	0.0	A

Main Results for each time segment

08:00 - 08:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	420	13	33.81	1594	0.263	418	0.4	3.056	A
2	67	383	33.81	914	0.073	66	0.1	4.247	A
3	626	48	33.81	1556	0.402	622	0.7	3.840	A
4	0	670		660	0.000	0	0.0	0.000	A

08:10 - 08:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	420	14	33.81	1599	0.263	420	0.4	3.051	A
2	67	385	33.81	914	0.073	67	0.1	4.249	A
3	626	49	33.81	1566	0.400	626	0.7	3.833	A
4	0	674		658	0.000	0	0.0	0.000	A

08:20 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	526	17	42.35	1578	0.333	525	0.5	3.414	A
2	84	482	42.35	856	0.098	84	0.1	4.663	A
3	784	61	42.35	1547	0.507	782	1.0	4.696	A
4	0	842		587	0.000	0	0.0	0.000	A

08:30 - 08:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	602	19	48.48	1568	0.384	601	0.6	3.724	A
2	96	552	48.48	815	0.118	96	0.1	5.002	A
3	898	70	48.48	1544	0.581	896	1.4	5.534	A
4	0	965		535	0.000	0	0.0	0.000	A

08:40 - 08:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	630	20	50.71	1566	0.402	630	0.7	3.842	A
2	100	578	50.71	801	0.125	100	0.1	5.138	A
3	939	73	50.71	1549	0.606	938	1.5	5.880	A
4	0	1010		516	0.000	0	0.0	0.000	A

08:50 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	602	19	48.48	1572	0.383	602	0.6	3.716	A
2	96	553	48.48	816	0.118	96	0.1	5.003	A
3	898	70	48.48	1555	0.577	899	1.4	5.492	A
4	0	967		534	0.000	0	0.0	0.000	A

09:00 - 09:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	526	17	42.35	1584	0.332	527	0.5	3.410	A
2	84	484	42.35	856	0.098	84	0.1	4.664	A
3	784	61	42.35	1560	0.503	787	1.0	4.667	A
4	0	847		585	0.000	0	0.0	0.000	A

09:10 - 09:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	420	14	33.81	1602	0.262	421	0.4	3.050	A
2	67	386	33.81	914	0.073	67	0.1	4.251	A
3	626	49	33.81	1571	0.398	628	0.7	3.825	A
4	0	676		657	0.000	0	0.0	0.000	A

09:20 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	420	14	33.81	1599	0.263	420	0.4	3.053	A
2	67	385	33.81	914	0.073	67	0.1	4.249	A
3	626	49	33.81	1566	0.400	626	0.7	3.832	A
4	0	674		658	0.000	0	0.0	0.000	A

Junction 1 - 2041 DO NOTHING, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

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	4.73	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2041 DO NOTHING	PM	ONE HOUR	17:00	18:30	10

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		✓	869	100.000
2		✓	104	100.000
3		✓	589	100.000
4		✓	0	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	

Origin-Destination Data

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	0	80	788	1
	2	74	0	28	2
	3	559	30	0	0
	4	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	5	5	0
	2	5	0	5	0
	3	5	5	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.56	5.11	1.2	A
2	0.15	6.06	0.2	A
3	0.40	3.94	0.6	A
4	0.00	0.00	0.0	A

Main Results for each time segment

17:00 - 17:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	588	20	33.81	1593	0.369	584	0.6	3.555	A
2	70	530	33.81	844	0.083	70	0.1	4.647	A
3	398	52	33.81	1549	0.257	396	0.3	3.118	A
4	0	446		754	0.000	0	0.0	0.000	A

17:10 - 17:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	588	20	33.81	1602	0.367	588	0.6	3.547	A
2	70	534	33.81	844	0.083	70	0.1	4.653	A
3	398	52	33.81	1554	0.256	398	0.3	3.114	A
4	0	448		753	0.000	0	0.0	0.000	A

17:20 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	736	25	42.35	1585	0.465	734	0.9	4.225	A
2	88	667	42.35	769	0.115	88	0.1	5.282	A
3	499	65	42.35	1528	0.326	498	0.5	3.490	A
4	0	561		706	0.000	0	0.0	0.000	A

17:30 - 17:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	843	29	48.48	1581	0.533	841	1.1	4.855	A
2	101	764	48.48	718	0.140	101	0.2	5.832	A
3	571	75	48.48	1514	0.377	570	0.6	3.814	A
4	0	642		672	0.000	0	0.0	0.000	A

17:40 - 17:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	881	30	50.71	1584	0.556	881	1.2	5.113	A
2	105	800	50.71	699	0.151	105	0.2	6.060	A
3	597	78	50.71	1511	0.395	597	0.6	3.938	A
4	0	672		659	0.000	0	0.0	0.000	A

17:50 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	843	29	48.48	1589	0.530	843	1.1	4.829	A
2	101	766	48.48	718	0.140	101	0.2	5.836	A
3	571	75	48.48	1518	0.376	571	0.6	3.806	A
4	0	643		671	0.000	0	0.0	0.000	A

18:00 - 18:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	736	25	42.35	1595	0.461	738	0.9	4.207	A
2	88	670	42.35	769	0.115	88	0.1	5.287	A
3	499	65	42.35	1533	0.325	500	0.5	3.487	A
4	0	562		705	0.000	0	0.0	0.000	A

18:10 - 18:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	588	20	33.81	1607	0.366	589	0.6	3.543	A
2	70	535	33.81	844	0.083	71	0.1	4.657	A
3	398	52	33.81	1556	0.256	399	0.3	3.112	A
4	0	449		753	0.000	0	0.0	0.000	A

18:20 - 18:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	588	20	33.81	1602	0.367	588	0.6	3.549	A
2	70	534	33.81	844	0.083	70	0.1	4.653	A
3	398	52	33.81	1554	0.256	398	0.3	3.114	A
4	0	448		753	0.000	0	0.0	0.000	A

Junction 1 - 2026 DO SOMETHING, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

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)
D7	2026 DO SOMETHING	AM	ONE HOUR	08:00	09:30	10

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		✓	581	100.000
2		✓	142	100.000
3		✓	848	100.000
4		✓	0	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	

Origin-Destination Data

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	0	62	518	1
	2	101	0	41	0
	3	824	24	0	0
	4	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
	1	2	3	4	
From	1	0	5	5	0
	2	5	0	5	0
	3	5	5	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.38	3.70	0.6	A
2	0.17	5.26	0.2	A
3	0.56	5.42	1.3	A
4	0.00	0.00	0.0	A

Main Results for each time segment

08:00 - 08:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	393	16	33.81	1592	0.247	391	0.3	2.992	A
2	96	349	33.81	931	0.103	95	0.1	4.305	A
3	573	68	33.81	1543	0.372	570	0.6	3.685	A
4	0	638		673	0.000	0	0.0	0.000	A

08:10 - 08:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	393	16	33.81	1597	0.246	393	0.3	2.989	A
2	96	351	33.81	932	0.103	96	0.1	4.307	A
3	573	69	33.81	1552	0.370	573	0.6	3.678	A
4	0	642		672	0.000	0	0.0	0.000	A

08:20 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	492	20	42.35	1575	0.312	491	0.5	3.320	A
2	120	439	42.35	878	0.137	120	0.2	4.751	A
3	718	86	42.35	1528	0.470	717	0.9	4.425	A
4	0	802		604	0.000	0	0.0	0.000	A

08:30 - 08:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	563	23	48.48	1564	0.360	563	0.6	3.595	A
2	138	503	48.48	841	0.164	137	0.2	5.118	A
3	822	99	48.48	1521	0.541	821	1.2	5.128	A
4	0	918		555	0.000	0	0.0	0.000	A

08:40 - 08:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	589	24	50.71	1561	0.377	589	0.6	3.702	A
2	144	526	50.71	828	0.174	144	0.2	5.263	A
3	860	103	50.71	1523	0.565	859	1.3	5.417	A
4	0	962		537	0.000	0	0.0	0.000	A

08:50 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	563	23	48.48	1567	0.360	564	0.6	3.590	A
2	138	503	48.48	842	0.164	138	0.2	5.117	A
3	822	99	48.48	1530	0.538	823	1.2	5.098	A
4	0	921		554	0.000	0	0.0	0.000	A

09:00 - 09:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	492	20	42.35	1580	0.312	493	0.5	3.313	A
2	120	440	42.35	879	0.137	121	0.2	4.752	A
3	718	87	42.35	1539	0.467	720	0.9	4.404	A
4	0	806		602	0.000	0	0.0	0.000	A

09:10 - 09:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	393	16	33.81	1599	0.246	394	0.3	2.990	A
2	96	352	33.81	932	0.103	96	0.1	4.308	A
3	573	69	33.81	1556	0.368	575	0.6	3.677	A
4	0	644		671	0.000	0	0.0	0.000	A

09:20 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	393	16	33.81	1597	0.246	393	0.3	2.989	A
2	96	351	33.81	932	0.103	96	0.1	4.309	A
3	573	69	33.81	1552	0.370	573	0.6	3.678	A
4	0	642		672	0.000	0	0.0	0.000	A

Junction 1 - 2026 DO SOMETHING, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

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	4.57	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2026 DO SOMETHING	PM	ONE HOUR	17:00	18:30	10

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		✓	823	100.000
2		✓	125	100.000
3		✓	550	100.000
4		✓	0	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	

Origin-Destination Data

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	0	106	716	1
	2	88	0	35	2
	3	508	42	0	0
	4	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
	1	2	3	4	
From	1	0	5	5	0
	2	5	0	5	0
	3	5	5	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.53	4.87	1.1	A
2	0.17	5.92	0.2	A
3	0.37	3.82	0.6	A
4	0.00	0.00	0.0	A

Main Results for each time segment

17:00 - 17:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	557	28	33.81	1588	0.350	553	0.5	3.469	A
2	85	482	33.81	867	0.097	84	0.1	4.590	A
3	372	61	33.81	1543	0.241	370	0.3	3.063	A
4	0	429		761	0.000	0	0.0	0.000	A

17:10 - 17:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	557	28	33.81	1596	0.349	557	0.5	3.461	A
2	85	485	33.81	868	0.097	85	0.1	4.596	A
3	372	62	33.81	1548	0.240	372	0.3	3.060	A
4	0	431		760	0.000	0	0.0	0.000	A

17:20 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	697	36	42.35	1577	0.442	696	0.8	4.079	A
2	106	606	42.35	799	0.133	106	0.2	5.194	A
3	466	77	42.35	1520	0.306	465	0.4	3.410	A
4	0	539		715	0.000	0	0.0	0.000	A

17:30 - 17:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	798	41	48.48	1571	0.508	797	1.0	4.643	A
2	121	694	48.48	751	0.161	121	0.2	5.710	A
3	533	88	48.48	1505	0.354	533	0.5	3.702	A
4	0	618		682	0.000	0	0.0	0.000	A

17:40 - 17:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	835	43	50.71	1572	0.531	834	1.1	4.872	A
2	127	727	50.71	735	0.173	127	0.2	5.921	A
3	558	92	50.71	1501	0.372	558	0.6	3.817	A
4	0	647		670	0.000	0	0.0	0.000	A

17:50 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	798	41	48.48	1578	0.506	798	1.0	4.623	A
2	121	696	48.48	752	0.161	121	0.2	5.711	A
3	533	88	48.48	1508	0.354	533	0.6	3.697	A
4	0	619		681	0.000	0	0.0	0.000	A

18:00 - 18:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	697	36	42.35	1586	0.439	699	0.8	4.063	A
2	106	609	42.35	799	0.132	106	0.2	5.197	A
3	466	77	42.35	1525	0.306	467	0.4	3.406	A
4	0	541		714	0.000	0	0.0	0.000	A

18:10 - 18:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	557	28	33.81	1600	0.348	558	0.5	3.458	A
2	85	486	33.81	868	0.097	85	0.1	4.598	A
3	372	62	33.81	1550	0.240	373	0.3	3.059	A
4	0	432		760	0.000	0	0.0	0.000	A

18:20 - 18:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	557	28	33.81	1596	0.349	557	0.5	3.461	A
2	85	485	33.81	868	0.097	85	0.1	4.596	A
3	372	62	33.81	1548	0.240	372	0.3	3.063	A
4	0	431		760	0.000	0	0.0	0.000	A

Junction 1 - 2031 DO SOMETHING, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

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	5.04	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2031 DO SOMETHING	AM	ONE HOUR	08:00	09:30	10

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		✓	614	100.000
2		✓	142	100.000
3		✓	901	100.000
4		✓	0	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	

Origin-Destination Data

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	0	62	551	1
	2	101	0	41	0
	3	877	24	0	0
	4	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
	1	2	3	4	
From	1	0	5	5	0
	2	5	0	5	0
	3	5	5	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.40	3.83	0.7	A
2	0.18	5.38	0.2	A
3	0.60	5.82	1.5	A
4	0.00	0.00	0.0	A

Main Results for each time segment

08:00 - 08:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	415	16	33.81	1592	0.261	413	0.4	3.048	A
2	96	371	33.81	920	0.104	95	0.1	4.361	A
3	609	68	33.81	1544	0.395	605	0.6	3.821	A
4	0	673		658	0.000	0	0.0	0.000	A

08:10 - 08:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	415	16	33.81	1598	0.260	415	0.4	3.043	A
2	96	373	33.81	921	0.104	96	0.1	4.363	A
3	609	69	33.81	1554	0.392	609	0.6	3.811	A
4	0	678		657	0.000	0	0.0	0.000	A

08:20 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	520	20	42.35	1576	0.330	519	0.5	3.400	A
2	120	467	42.35	864	0.139	120	0.2	4.835	A
3	763	86	42.35	1531	0.498	761	1.0	4.662	A
4	0	847		585	0.000	0	0.0	0.000	A

08:30 - 08:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	595	23	48.48	1565	0.380	595	0.6	3.706	A
2	138	535	48.48	826	0.167	137	0.2	5.228	A
3	874	99	48.48	1526	0.572	872	1.3	5.481	A
4	0	969		533	0.000	0	0.0	0.000	A

08:40 - 08:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	623	24	50.71	1564	0.398	622	0.7	3.825	A
2	144	560	50.71	813	0.177	144	0.2	5.384	A
3	914	103	50.71	1530	0.597	913	1.5	5.821	A
4	0	1015		514	0.000	0	0.0	0.000	A

08:50 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	595	23	48.48	1569	0.379	596	0.6	3.697	A
2	138	535	48.48	827	0.167	138	0.2	5.225	A
3	874	99	48.48	1537	0.568	874	1.3	5.441	A
4	0	972		532	0.000	0	0.0	0.000	A

09:00 - 09:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	520	20	42.35	1581	0.329	521	0.5	3.396	A
2	120	468	42.35	865	0.139	121	0.2	4.836	A
3	763	87	42.35	1544	0.494	765	1.0	4.634	A
4	0	851		583	0.000	0	0.0	0.000	A

09:10 - 09:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	415	16	33.81	1600	0.260	416	0.4	3.042	A
2	96	374	33.81	921	0.104	96	0.1	4.366	A
3	609	69	33.81	1559	0.391	611	0.6	3.806	A
4	0	680		656	0.000	0	0.0	0.000	A

09:20 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	415	16	33.81	1598	0.260	415	0.4	3.043	A
2	96	373	33.81	921	0.104	96	0.1	4.365	A
3	609	69	33.81	1554	0.392	609	0.6	3.814	A
4	0	678		657	0.000	0	0.0	0.000	A

Junction 1 - 2031 DO SOMETHING, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

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	4.79	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2031 DO SOMETHING	PM	ONE HOUR	17:00	18:30	10

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		✓	870	100.000
2		✓	126	100.000
3		✓	583	100.000
4		✓	0	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	

Origin-Destination Data

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	0	107	762	1
	2	89	0	35	2
	3	541	42	0	0
	4	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
	1	2	3	4	
From	1	0	5	5	0
	2	5	0	5	0
	3	5	5	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.56	5.17	1.2	A
2	0.18	6.14	0.2	A
3	0.39	3.95	0.6	A
4	0.00	0.00	0.0	A

Main Results for each time segment

17:00 - 17:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	588	28	33.81	1589	0.370	585	0.6	3.574	A
2	85	513	33.81	853	0.100	85	0.1	4.683	A
3	394	62	33.81	1543	0.255	392	0.3	3.122	A
4	0	452		752	0.000	0	0.0	0.000	A

17:10 - 17:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	588	28	33.81	1598	0.368	588	0.6	3.565	A
2	85	516	33.81	853	0.100	85	0.1	4.689	A
3	394	62	33.81	1548	0.255	394	0.3	3.119	A
4	0	454		751	0.000	0	0.0	0.000	A

17:20 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	737	36	42.35	1579	0.467	735	0.9	4.257	A
2	107	645	42.35	780	0.137	106	0.2	5.338	A
3	494	78	42.35	1521	0.325	493	0.5	3.498	A
4	0	568		703	0.000	0	0.0	0.000	A

17:30 - 17:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	844	41	48.48	1575	0.536	842	1.1	4.902	A
2	122	738	48.48	731	0.167	122	0.2	5.909	A
3	565	89	48.48	1506	0.375	565	0.6	3.824	A
4	0	651		668	0.000	0	0.0	0.000	A

17:40 - 17:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	882	43	50.71	1578	0.559	882	1.2	5.166	A
2	128	773	50.71	713	0.179	128	0.2	6.145	A
3	591	93	50.71	1503	0.394	591	0.6	3.949	A
4	0	681		655	0.000	0	0.0	0.000	A

17:50 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	844	41	48.48	1583	0.533	844	1.2	4.874	A
2	122	740	48.48	731	0.167	122	0.2	5.911	A
3	565	89	48.48	1510	0.374	566	0.6	3.816	A
4	0	652		667	0.000	0	0.0	0.000	A

18:00 - 18:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	737	36	42.35	1590	0.463	739	0.9	4.236	A
2	107	648	42.35	781	0.137	107	0.2	5.343	A
3	494	78	42.35	1526	0.324	495	0.5	3.495	A
4	0	570		702	0.000	0	0.0	0.000	A

18:10 - 18:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	588	28	33.81	1602	0.367	590	0.6	3.564	A
2	85	517	33.81	853	0.100	85	0.1	4.692	A
3	394	62	33.81	1550	0.254	395	0.3	3.120	A
4	0	455		750	0.000	0	0.0	0.000	A

18:20 - 18:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	588	28	33.81	1598	0.368	588	0.6	3.568	A
2	85	516	33.81	853	0.100	85	0.1	4.689	A
3	394	62	33.81	1548	0.255	394	0.3	3.121	A
4	0	454		751	0.000	0	0.0	0.000	A

Junction 1 - 2041 DO SOMETHING, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

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	5.21	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D11	2041 DO SOMETHING	AM	ONE HOUR	08:00	09:30	10

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		✓	632	100.000
2		✓	142	100.000
3		✓	930	100.000
4		✓	0	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	

Origin-Destination Data

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	0	62	569	1
	2	101	0	41	0
	3	906	24	0	0
	4	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	5	5	0
	2	5	0	5	0
	3	5	5	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.41	3.89	0.7	A
2	0.18	5.45	0.2	A
3	0.61	6.06	1.6	A
4	0.00	0.00	0.0	A

Main Results for each time segment

08:00 - 08:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	427	16	33.81	1593	0.268	425	0.4	3.079	A
2	96	383	33.81	914	0.105	95	0.1	4.392	A
3	629	68	33.81	1544	0.407	625	0.7	3.897	A
4	0	693		650	0.000	0	0.0	0.000	A

08:10 - 08:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	427	16	33.81	1598	0.267	427	0.4	3.074	A
2	96	385	33.81	915	0.105	96	0.1	4.394	A
3	629	69	33.81	1555	0.405	629	0.7	3.888	A
4	0	697		648	0.000	0	0.0	0.000	A

08:20 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	535	20	42.35	1577	0.339	534	0.5	3.449	A
2	120	482	42.35	857	0.140	120	0.2	4.883	A
3	788	86	42.35	1533	0.514	786	1.0	4.802	A
4	0	871		575	0.000	0	0.0	0.000	A

08:30 - 08:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	613	23	48.48	1567	0.391	612	0.6	3.767	A
2	138	552	48.48	818	0.168	137	0.2	5.290	A
3	902	99	48.48	1530	0.590	900	1.4	5.693	A
4	0	997		522	0.000	0	0.0	0.000	A

08:40 - 08:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	641	24	50.71	1565	0.410	641	0.7	3.895	A
2	144	578	50.71	804	0.179	144	0.2	5.453	A
3	943	103	50.71	1535	0.615	942	1.6	6.065	A
4	0	1045		502	0.000	0	0.0	0.000	A

08:50 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	613	23	48.48	1570	0.390	613	0.6	3.763	A
2	138	553	48.48	819	0.168	138	0.2	5.287	A
3	902	99	48.48	1541	0.585	902	1.4	5.647	A
4	0	1000		520	0.000	0	0.0	0.000	A

09:00 - 09:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	535	20	42.35	1582	0.338	536	0.5	3.442	A
2	120	484	42.35	858	0.140	121	0.2	4.883	A
3	788	87	42.35	1547	0.509	790	1.1	4.769	A
4	0	876		573	0.000	0	0.0	0.000	A

09:10 - 09:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	427	16	33.81	1600	0.267	428	0.4	3.072	A
2	96	386	33.81	916	0.105	96	0.1	4.395	A
3	629	69	33.81	1560	0.403	631	0.7	3.883	A
4	0	700		647	0.000	0	0.0	0.000	A

09:20 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	427	16	33.81	1598	0.267	427	0.4	3.076	A
2	96	385	33.81	915	0.105	96	0.1	4.394	A
3	629	69	33.81	1555	0.404	629	0.7	3.889	A
4	0	697		648	0.000	0	0.0	0.000	A

Junction 1 - 2041 DO SOMETHING, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

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	4.93	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	2041 DO SOMETHING	PM	ONE HOUR	17:00	18:30	10

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		✓	896	100.000
2		✓	127	100.000
3		✓	601	100.000
4		✓	0	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	

Origin-Destination Data

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	0	107	788	1
	2	90	0	35	2
	3	559	42	0	0
	4	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
	1	2	3	4	
From	1	0	5	5	0
	2	5	0	5	0
	3	5	5	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.57	5.34	1.3	A
2	0.18	6.28	0.2	A
3	0.41	4.03	0.7	A
4	0.00	0.00	0.0	A

Main Results for each time segment

17:00 - 17:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	606	28	33.81	1589	0.381	602	0.6	3.634	A
2	86	530	33.81	844	0.102	85	0.1	4.739	A
3	406	62	33.81	1543	0.263	404	0.4	3.156	A
4	0	465		746	0.000	0	0.0	0.000	A

17:10 - 17:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	606	28	33.81	1599	0.379	606	0.6	3.625	A
2	86	534	33.81	844	0.102	86	0.1	4.745	A
3	406	63	33.81	1548	0.263	406	0.4	3.152	A
4	0	467		745	0.000	0	0.0	0.000	A

17:20 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	759	36	42.35	1580	0.480	757	0.9	4.362	A
2	108	667	42.35	770	0.140	107	0.2	5.427	A
3	509	79	42.35	1521	0.335	508	0.5	3.550	A
4	0	584		696	0.000	0	0.0	0.000	A

17:30 - 17:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	869	41	48.48	1577	0.551	867	1.2	5.055	A
2	123	763	48.48	719	0.171	123	0.2	6.033	A
3	583	90	48.48	1507	0.387	582	0.6	3.890	A
4	0	669		660	0.000	0	0.0	0.000	A

17:40 - 17:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	909	43	50.71	1581	0.575	908	1.3	5.341	A
2	129	800	50.71	701	0.184	129	0.2	6.285	A
3	610	94	50.71	1503	0.406	609	0.7	4.027	A
4	0	700		647	0.000	0	0.0	0.000	A

17:50 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	869	41	48.48	1586	0.548	869	1.2	5.025	A
2	123	766	48.48	720	0.171	123	0.2	6.035	A
3	583	90	48.48	1510	0.386	583	0.6	3.884	A
4	0	670		660	0.000	0	0.0	0.000	A

18:00 - 18:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	759	36	42.35	1592	0.477	761	0.9	4.340	A
2	108	670	42.35	771	0.140	108	0.2	5.433	A
3	509	79	42.35	1526	0.334	510	0.5	3.543	A
4	0	586		695	0.000	0	0.0	0.000	A

18:10 - 18:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	606	28	33.81	1603	0.378	608	0.6	3.624	A
2	86	535	33.81	844	0.102	86	0.1	4.751	A
3	406	63	33.81	1550	0.262	407	0.4	3.150	A
4	0	468		745	0.000	0	0.0	0.000	A

18:20 - 18:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	606	28	33.81	1599	0.379	606	0.6	3.625	A
2	86	534	33.81	844	0.102	86	0.1	4.745	A
3	406	63	33.81	1548	0.262	406	0.4	3.152	A
4	0	467		745	0.000	0	0.0	0.000	A

Junction 1 - 2023 EXISTING, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

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	4.19	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D13	2023 EXISTING	AM	ONE HOUR	08:00	09:30	10

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		✓	504	100.000
2		✓	5	100.000
3		✓	790	100.000
4		✓	0	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	

Origin-Destination Data

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	0	7	496	1
	2	5	0	0	0
	3	789	1	0	0
	4	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	5	5	0
	2	5	0	5	0
	3	5	5	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.33	3.40	0.5	A
2	0.01	4.36	0.0	A
3	0.51	4.69	1.0	A
4	0.00	0.00	0.0	A

Main Results for each time segment

08:00 - 08:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	341	0.67	33.81	1600	0.213	339	0.3	2.851	A
2	3	334	33.81	936	0.004	3	0.0	3.859	A
3	534	4	33.81	1579	0.338	531	0.5	3.426	A
4	0	535		717	0.000	0	0.0	0.000	A

08:10 - 08:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	341	0.68	33.81	1604	0.212	341	0.3	2.849	A
2	3	336	33.81	935	0.004	3	0.0	3.862	A
3	534	4	33.81	1586	0.337	534	0.5	3.420	A
4	0	538		716	0.000	0	0.0	0.000	A

08:20 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	427	0.85	42.35	1584	0.270	426	0.4	3.109	A
2	4	420	42.35	881	0.005	4	0.0	4.103	A
3	669	5	42.35	1570	0.426	668	0.7	3.985	A
4	0	672		659	0.000	0	0.0	0.000	A

08:30 - 08:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	489	1	48.48	1572	0.311	488	0.4	3.319	A
2	5	481	48.48	843	0.006	5	0.0	4.292	A
3	766	6	48.48	1565	0.489	765	0.9	4.490	A
4	0	770		618	0.000	0	0.0	0.000	A

08:40 - 08:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	511	1	50.71	1569	0.326	511	0.5	3.401	A
2	5	504	50.71	830	0.006	5	0.0	4.364	A
3	801	6	50.71	1567	0.511	801	1.0	4.695	A
4	0	806		602	0.000	0	0.0	0.000	A

08:50 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	489	1	48.48	1575	0.310	489	0.5	3.315	A
2	5	482	48.48	843	0.006	5	0.0	4.295	A
3	766	6	48.48	1572	0.487	766	1.0	4.472	A
4	0	771		617	0.000	0	0.0	0.000	A

09:00 - 09:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	427	0.85	42.35	1587	0.269	427	0.4	3.105	A
2	4	421	42.35	881	0.005	4	0.0	4.106	A
3	669	5	42.35	1579	0.424	670	0.7	3.969	A
4	0	675		658	0.000	0	0.0	0.000	A

09:10 - 09:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	341	0.68	33.81	1606	0.212	341	0.3	2.850	A
2	3	337	33.81	935	0.004	3	0.0	3.863	A
3	534	4	33.81	1590	0.336	536	0.5	3.417	A
4	0	539		715	0.000	0	0.0	0.000	A

09:20 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	341	0.68	33.81	1604	0.212	341	0.3	2.849	A
2	3	336	33.81	935	0.004	3	0.0	3.862	A
3	534	4	33.81	1587	0.337	534	0.5	3.420	A
4	0	538		716	0.000	0	0.0	0.000	A

Junction 1 - 2023 EXISTING, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	3.85	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D14	2023 EXISTING	PM	ONE HOUR	17:00	18:30	10

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		✓	696	100.000
2		✓	22	100.000
3		✓	487	100.000
4		✓	0	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	

Origin-Destination Data

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	0	9	686	1
	2	16	0	4	2
	3	487	0	0	0
	4	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
	1	2	3	4
1	0	5	5	0
2	5	0	5	0
3	5	5	0	0
4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.45	4.10	0.8	A
2	0.03	4.99	0.0	A
3	0.32	3.45	0.5	A
4	0.00	0.00	0.0	A

Main Results for each time segment

17:00 - 17:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	471	0	33.81	1603	0.294	468	0.4	3.167	A
2	15	462	33.81	879	0.017	15	0.0	4.167	A
3	329	13	33.81	1570	0.210	328	0.3	2.894	A
4	0	338		800	0.000	0	0.0	0.000	A

17:10 - 17:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	471	0	33.81	1609	0.293	471	0.4	3.162	A
2	15	465	33.81	878	0.017	15	0.0	4.171	A
3	329	13	33.81	1574	0.209	329	0.3	2.891	A
4	0	340		799	0.000	0	0.0	0.000	A

17:20 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	590	0	42.35	1591	0.371	589	0.6	3.589	A
2	19	581	42.35	809	0.023	19	0.0	4.551	A
3	413	16	42.35	1552	0.266	412	0.4	3.155	A
4	0	425		763	0.000	0	0.0	0.000	A

17:30 - 17:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	675	0	48.48	1583	0.426	674	0.7	3.955	A
2	21	665	48.48	761	0.028	21	0.0	4.863	A
3	472	18	48.48	1540	0.307	472	0.4	3.369	A
4	0	487		737	0.000	0	0.0	0.000	A

17:40 - 17:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	706	0	50.71	1583	0.446	706	0.8	4.101	A
2	22	696	50.71	744	0.030	22	0.0	4.987	A
3	494	19	50.71	1536	0.322	494	0.5	3.452	A
4	0	510		727	0.000	0	0.0	0.000	A

17:50 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	675	0	48.48	1588	0.425	675	0.7	3.947	A
2	21	666	48.48	761	0.028	21	0.0	4.868	A
3	472	18	48.48	1542	0.306	472	0.4	3.365	A
4	0	488		737	0.000	0	0.0	0.000	A

18:00 - 18:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	590	0	42.35	1597	0.369	590	0.6	3.581	A
2	19	583	42.35	809	0.023	19	0.0	4.556	A
3	413	16	42.35	1556	0.265	413	0.4	3.151	A
4	0	427		762	0.000	0	0.0	0.000	A

18:10 - 18:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	471	0	33.81	1612	0.292	472	0.4	3.162	A
2	15	466	33.81	877	0.017	15	0.0	4.173	A
3	329	13	33.81	1576	0.209	330	0.3	2.893	A
4	0	341		799	0.000	0	0.0	0.000	A

18:20 - 18:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	471	0	33.81	1609	0.293	471	0.4	3.161	A
2	15	465	33.81	878	0.017	15	0.0	4.173	A
3	329	13	33.81	1574	0.209	329	0.3	2.893	A
4	0	340		799	0.000	0	0.0	0.000	A

Junction 1 - 2031 STRESS TEST, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

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	5.44	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)
D15	2031 STRESS TEST	AM	ONE HOUR	08:00	09:30	10

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		✓	639	100.000
2		✓	242	100.000
3		✓	912	100.000
4		✓	0	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	

Origin-Destination Data

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	0	87	551	1
	2	171	0	71	0
	3	877	35	0	0
	4	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	5	5	0
	2	5	0	5	0
	3	5	5	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.42	3.95	0.7	A
2	0.30	6.25	0.4	A
3	0.62	6.28	1.6	A
4	0.00	0.00	0.0	A

Main Results for each time segment

08:00 - 08:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	432	24	33.81	1588	0.272	430	0.4	3.102	A
2	164	371	33.81	922	0.178	162	0.2	4.734	A
3	617	115	33.81	1518	0.406	613	0.7	3.961	A
4	0	727		636	0.000	0	0.0	0.000	A

08:10 - 08:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	432	24	33.81	1594	0.271	432	0.4	3.097	A
2	164	373	33.81	924	0.177	164	0.2	4.734	A
3	617	116	33.81	1527	0.404	617	0.7	3.952	A
4	0	732		633	0.000	0	0.0	0.000	A

08:20 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	541	30	42.35	1572	0.344	540	0.5	3.486	A
2	205	467	42.35	869	0.236	204	0.3	5.412	A
3	772	145	42.35	1500	0.515	770	1.0	4.919	A
4	0	915		556	0.000	0	0.0	0.000	A

08:30 - 08:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	620	34	48.48	1561	0.397	619	0.7	3.816	A
2	235	535	48.48	833	0.282	234	0.4	6.006	A
3	884	166	48.48	1492	0.593	882	1.4	5.877	A
4	0	1047		500	0.000	0	0.0	0.000	A

08:40 - 08:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	648	35	50.71	1559	0.416	648	0.7	3.949	A
2	245	560	50.71	821	0.299	245	0.4	6.245	A
3	925	174	50.71	1496	0.618	924	1.6	6.276	A
4	0	1097		479	0.000	0	0.0	0.000	A

08:50 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	620	34	48.48	1565	0.396	620	0.7	3.808	A
2	235	535	48.48	835	0.281	235	0.4	5.997	A
3	884	167	48.48	1504	0.588	885	1.5	5.827	A
4	0	1051		499	0.000	0	0.0	0.000	A

09:00 - 09:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	541	30	42.35	1578	0.343	542	0.5	3.481	A
2	205	468	42.35	872	0.235	205	0.3	5.408	A
3	772	146	42.35	1514	0.510	775	1.1	4.886	A
4	0	920		554	0.000	0	0.0	0.000	A

09:10 - 09:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	432	24	33.81	1596	0.271	433	0.4	3.096	A
2	164	374	33.81	925	0.177	164	0.2	4.736	A
3	617	117	33.81	1533	0.402	619	0.7	3.949	A
4	0	735		632	0.000	0	0.0	0.000	A

09:20 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	432	24	33.81	1594	0.271	432	0.4	3.099	A
2	164	373	33.81	924	0.177	164	0.2	4.733	A
3	617	116	33.81	1528	0.404	617	0.7	3.953	A
4	0	732		633	0.000	0	0.0	0.000	A

Junction 1 - 2031 STRESS TEST, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

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)
D16	2031 STRESS TEST	PM	ONE HOUR	17:00	18:30	10

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		✓	932	100.000
2		✓	179	100.000
3		✓	609	100.000
4		✓	0	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	

Origin-Destination Data

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	0	169	762	1
	2	126	0	51	2
	3	541	68	0	0
	4	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	5	5	0
	2	5	0	5	0
	3	5	5	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.60	5.72	1.5	A
2	0.25	6.70	0.3	A
3	0.42	4.15	0.7	A
4	0.00	0.00	0.0	A

Main Results for each time segment

17:00 - 17:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	630	46	33.81	1580	0.399	626	0.7	3.759	A
2	121	513	33.81	853	0.142	120	0.2	4.904	A
3	412	87	33.81	1529	0.269	410	0.4	3.210	A
4	0	494		734	0.000	0	0.0	0.000	A

17:10 - 17:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	630	46	33.81	1590	0.396	630	0.7	3.753	A
2	121	516	33.81	854	0.142	121	0.2	4.909	A
3	412	87	33.81	1535	0.268	412	0.4	3.205	A
4	0	497		733	0.000	0	0.0	0.000	A

17:20 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	789	57	42.35	1570	0.503	787	1.0	4.585	A
2	152	645	42.35	783	0.194	151	0.2	5.695	A
3	516	109	42.35	1505	0.343	515	0.5	3.634	A
4	0	621		680	0.000	0	0.0	0.000	A

17:30 - 17:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	904	66	48.48	1568	0.576	902	1.3	5.387	A
2	174	738	48.48	735	0.236	173	0.3	6.406	A
3	590	125	48.48	1488	0.397	590	0.7	4.004	A
4	0	712		642	0.000	0	0.0	0.000	A

17:40 - 17:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	945	69	50.71	1573	0.601	944	1.5	5.721	A
2	182	773	50.71	718	0.253	181	0.3	6.705	A
3	618	131	50.71	1484	0.416	617	0.7	4.150	A
4	0	745		628	0.000	0	0.0	0.000	A

17:50 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	904	66	48.48	1578	0.573	904	1.4	5.350	A
2	174	740	48.48	736	0.236	174	0.3	6.407	A
3	590	125	48.48	1492	0.396	591	0.7	3.996	A
4	0	713		642	0.000	0	0.0	0.000	A

18:00 - 18:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	789	58	42.35	1584	0.498	792	1.0	4.555	A
2	152	648	42.35	784	0.193	152	0.2	5.700	A
3	516	110	42.35	1510	0.342	517	0.5	3.626	A
4	0	624		679	0.000	0	0.0	0.000	A

18:10 - 18:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	630	46	33.81	1595	0.395	632	0.7	3.748	A
2	121	518	33.81	855	0.142	121	0.2	4.912	A
3	412	88	33.81	1537	0.268	413	0.4	3.204	A
4	0	498		732	0.000	0	0.0	0.000	A

18:20 - 18:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	630	46	33.81	1590	0.396	630	0.7	3.750	A
2	121	516	33.81	854	0.142	121	0.2	4.910	A
3	412	87	33.81	1535	0.268	412	0.4	3.207	A
4	0	497		733	0.000	0	0.0	0.000	A

Junction 1 - 2041 STRESS TEST, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

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	5.62	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)
D17	2041 STRESS TEST	AM	ONE HOUR	08:00	09:30	10

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		✓	657	100.000
2		✓	242	100.000
3		✓	941	100.000
4		✓	0	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	

Origin-Destination Data

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	0	87	569	1
	2	171	0	71	0
	3	906	35	0	0
	4	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	5	5	0
	2	5	0	5	0
	3	5	5	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.43	4.02	0.7	A
2	0.30	6.34	0.4	A
3	0.64	6.56	1.7	A
4	0.00	0.00	0.0	A

Main Results for each time segment

08:00 - 08:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	444	24	33.81	1589	0.280	442	0.4	3.132	A
2	164	383	33.81	916	0.179	162	0.2	4.770	A
3	636	115	33.81	1518	0.419	632	0.7	4.043	A
4	0	747		627	0.000	0	0.0	0.000	A

08:10 - 08:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	444	24	33.81	1594	0.279	444	0.4	3.129	A
2	164	385	33.81	918	0.178	164	0.2	4.770	A
3	636	116	33.81	1529	0.416	636	0.7	4.034	A
4	0	752		625	0.000	0	0.0	0.000	A

08:20 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	557	30	42.35	1573	0.354	556	0.5	3.536	A
2	205	482	42.35	862	0.238	204	0.3	5.471	A
3	797	145	42.35	1502	0.531	795	1.1	5.073	A
4	0	939		546	0.000	0	0.0	0.000	A

08:30 - 08:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	637	34	48.48	1562	0.408	636	0.7	3.884	A
2	235	552	48.48	825	0.284	234	0.4	6.088	A
3	912	166	48.48	1496	0.610	910	1.5	6.116	A
4	0	1075		489	0.000	0	0.0	0.000	A

08:40 - 08:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	666	35	50.71	1561	0.427	666	0.7	4.021	A
2	245	578	50.71	813	0.302	245	0.4	6.338	A
3	954	174	50.71	1501	0.636	953	1.7	6.556	A
4	0	1127		467	0.000	0	0.0	0.000	A

08:50 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	637	34	48.48	1566	0.407	637	0.7	3.875	A
2	235	553	48.48	827	0.284	235	0.4	6.080	A
3	912	167	48.48	1509	0.605	913	1.6	6.055	A
4	0	1079		487	0.000	0	0.0	0.000	A

09:00 - 09:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	557	30	42.35	1579	0.353	557	0.5	3.527	A
2	205	484	42.35	865	0.237	206	0.3	5.465	A
3	797	146	42.35	1518	0.525	800	1.1	5.033	A
4	0	945		544	0.000	0	0.0	0.000	A

09:10 - 09:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	444	24	33.81	1597	0.278	445	0.4	3.127	A
2	164	386	33.81	919	0.178	164	0.2	4.772	A
3	636	117	33.81	1535	0.415	639	0.7	4.030	A
4	0	755		624	0.000	0	0.0	0.000	A

09:20 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	444	24	33.81	1594	0.279	444	0.4	3.129	A
2	164	385	33.81	918	0.178	164	0.2	4.772	A
3	636	116	33.81	1529	0.416	636	0.7	4.035	A
4	0	752		625	0.000	0	0.0	0.000	A

Junction 1 - 2041 STRESS TEST, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 3 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

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	5.42	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D18	2041 STRESS TEST	PM	ONE HOUR	17:00	18:30	10

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		✓	958	100.000
2		✓	179	100.000
3		✓	627	100.000
4		✓	0	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	

Origin-Destination Data

Demand (Veh/hr)

From	To			
	1	2	3	4
1	0	169	788	1
2	126	0	51	2
3	559	68	0	0
4	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
	1	2	3	4	
From	1	0	5	5	0
	2	5	0	5	0
	3	5	5	0	0
	4	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.62	5.93	1.6	A
2	0.26	6.86	0.3	A
3	0.43	4.23	0.7	A
4	0.00	0.00	0.0	A

Main Results for each time segment

17:00 - 17:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	648	46	33.81	1580	0.410	644	0.7	3.826	A
2	121	530	33.81	845	0.143	120	0.2	4.960	A
3	424	87	33.81	1530	0.277	422	0.4	3.242	A
4	0	506		729	0.000	0	0.0	0.000	A

17:10 - 17:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	648	46	33.81	1591	0.407	648	0.7	3.816	A
2	121	534	33.81	846	0.143	121	0.2	4.966	A
3	424	87	33.81	1535	0.276	424	0.4	3.239	A
4	0	509		728	0.000	0	0.0	0.000	A

17:20 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	811	57	42.35	1572	0.516	809	1.1	4.706	A
2	152	667	42.35	773	0.196	151	0.2	5.789	A
3	531	109	42.35	1505	0.353	530	0.5	3.688	A
4	0	637		674	0.000	0	0.0	0.000	A

17:30 - 17:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	929	66	48.48	1570	0.591	927	1.4	5.570	A
2	174	763	48.48	723	0.240	173	0.3	6.534	A
3	608	125	48.48	1489	0.408	607	0.7	4.076	A
4	0	729		635	0.000	0	0.0	0.000	A

17:40 - 17:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	972	69	50.71	1576	0.616	971	1.6	5.931	A
2	182	800	50.71	706	0.257	181	0.3	6.860	A
3	636	131	50.71	1486	0.428	636	0.7	4.232	A
4	0	763		620	0.000	0	0.0	0.000	A

17:50 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	929	66	48.48	1582	0.587	930	1.4	5.527	A
2	174	766	48.48	724	0.240	174	0.3	6.541	A
3	608	125	48.48	1493	0.407	608	0.7	4.069	A
4	0	730		634	0.000	0	0.0	0.000	A

18:00 - 18:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	811	58	42.35	1586	0.511	814	1.1	4.672	A
2	152	670	42.35	774	0.196	152	0.2	5.795	A
3	531	110	42.35	1511	0.351	532	0.5	3.679	A
4	0	639		673	0.000	0	0.0	0.000	A

18:10 - 18:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	648	46	33.81	1597	0.406	650	0.7	3.811	A
2	121	535	33.81	846	0.143	122	0.2	4.970	A
3	424	88	33.81	1537	0.276	425	0.4	3.240	A
4	0	510		727	0.000	0	0.0	0.000	A

18:20 - 18:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	648	46	33.81	1591	0.407	648	0.7	3.819	A
2	121	534	33.81	846	0.143	121	0.2	4.965	A
3	424	87	33.81	1535	0.276	424	0.4	3.239	A
4	0	509		728	0.000	0	0.0	0.000	A

Junctions 9
ARCADY 9 - Roundabout Module
Version: 9.5.1.7462 © Copyright TRL Limited, 2019
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Filename: Junction 2 - AM and PM.j9

Path: M:\Projects\20\20-074 - Churchfields\Design\Civil\02 Sector 4\03 Traffic\Junction Modelling\Junction 2

Report generation date: 25/05/2023 14:34:25

- »Junction 2 - 2026 DO NOTHING, AM
- »Junction 2 - 2026 DO NOTHING, PM
- »Junction 2 - 2031 DO NOTHING, AM
- »Junction 2 - 2031 DO NOTHING, PM
- »Junction 2 - 2041 DO NOTHING, AM
- »Junction 2 - 2041 DO NOTHING, PM
- »Junction 2 - 2026 DO SOMETHING, AM
- »Junction 2 - 2026 DO SOMETHING, PM
- »Junction 2 - 2031 DO SOMETHING, AM
- »Junction 2 - 2031 DO SOMETHING, PM
- »Junction 2 - 2041 DO SOMETHING, AM
- »Junction 2 - 2041 DO SOMETHING, PM
- »Junction 2 - 2023 EXISTING, AM
- »Junction 2 - 2023 EXISTING, PM
- »Junction 2 - 2031 STRESS TEST, AM
- »Junction 2 - 2031 STRESS TEST, PM
- »Junction 2 - 2041 STRESS TEST, AM
- »Junction 2 - 2041 STRESS TEST, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
Junction 2 - 2026 DO NOTHING										
Arm 1	D1	1.1	13.98	0.54	B	D2	0.1	5.19	0.06	A
Arm 2		2.7	8.77	0.74	A		1.0	3.81	0.49	A
Arm 3		0.9	6.75	0.47	A		18.9	62.89	1.01	F
Arm 4		2.7	12.77	0.74	B		1.0	8.17	0.50	A
Arm 5		9.1	37.44	0.94	E		1.4	8.34	0.58	A
Junction 2 - 2031 DO NOTHING										
Arm 1	D3	1.5	16.94	0.61	C	D4	0.1	5.38	0.07	A
Arm 2		2.7	8.70	0.74	A		1.1	4.06	0.52	A
Arm 3		0.9	6.88	0.49	A		46.8	142.36	1.10	F
Arm 4		3.1	14.13	0.77	B		1.1	8.78	0.53	A
Arm 5		19.3	78.48	1.03	F		1.6	9.14	0.62	A
Junction 2 - 2041 DO NOTHING										
Arm 1	D5	1.7	18.68	0.64	C	D6	0.1	5.47	0.07	A
Arm 2		4.0	11.90	0.81	B		1.2	4.22	0.54	A
Arm 3		1.1	7.83	0.53	A		69.6	202.78	1.15	F

Arm 4		4.5	20.11	0.84	C		1.2	9.11	0.55	A
Arm 5		31.7	122.69	1.08	F		1.7	9.57	0.64	A
Junction 2 - 2026 DO SOMETHING										
Arm 1	D7	1.2	14.40	0.55	B	D8	0.1	5.24	0.07	A
Arm 2		2.8	8.95	0.75	A		1.0	3.87	0.50	A
Arm 3		0.9	6.85	0.47	A		23.1	76.77	1.03	F
Arm 4		2.7	13.00	0.74	B		1.0	8.31	0.50	A
Arm 5		11.9	46.16	0.97	E		1.4	8.57	0.59	A
Junction 2 - 2031 DO SOMETHING										
Arm 1	D9	1.5	17.23	0.61	C	D10	0.1	5.43	0.07	A
Arm 2		3.5	10.59	0.79	B		1.1	4.14	0.53	A
Arm 3		1.0	7.54	0.51	A		55.2	164.62	1.12	F
Arm 4		3.8	17.19	0.81	C		1.1	8.89	0.53	A
Arm 5		26.9	105.34	1.06	F		1.6	9.37	0.63	A
Junction 2 - 2041 DO SOMETHING										
Arm 1	D11	1.7	18.91	0.64	C	D12	0.1	5.99	0.08	A
Arm 2		4.1	12.11	0.82	B		1.3	4.81	0.57	A
Arm 3		1.1	7.95	0.53	A		78.8	227.82	1.17	F
Arm 4		4.6	20.60	0.84	C		1.3	9.74	0.56	A
Arm 5		42.6	157.11	1.11	F		1.8	10.21	0.66	B
Junction 2 - 2023 EXISTING										
Arm 1	D13	0.9	11.71	0.49	B	D14	0.1	5.33	0.06	A
Arm 2		2.2	7.37	0.69	A		0.9	3.91	0.48	A
Arm 3		0.7	6.07	0.42	A		7.8	27.60	0.92	D
Arm 4		2.1	10.70	0.69	B		0.9	7.93	0.48	A
Arm 5		4.0	18.98	0.82	C		1.1	7.71	0.53	A
Junction 2 - 2031 STRESS TEST										
Arm 1	D15	1.5	17.69	0.62	C	D16	0.1	6.00	0.08	A
Arm 2		3.7	10.97	0.80	B		1.3	4.83	0.57	A
Arm 3		1.1	7.81	0.53	A		76.6	222.18	1.16	F
Arm 4		4.0	18.10	0.82	C		1.2	9.68	0.55	A
Arm 5		53.6	188.56	1.14	F		1.9	10.34	0.66	B
Junction 2 - 2041 STRESS TEST										
Arm 1	D17	1.7	19.23	0.65	C	D18	0.1	6.11	0.09	A
Arm 2		4.3	12.51	0.82	B		1.4	5.01	0.59	A
Arm 3		1.2	8.24	0.55	A		102.2	305.97	1.21	F
Arm 4		4.9	21.85	0.85	C		1.3	9.97	0.57	A
Arm 5		74.1	254.66	1.19	F		2.0	10.76	0.68	B

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

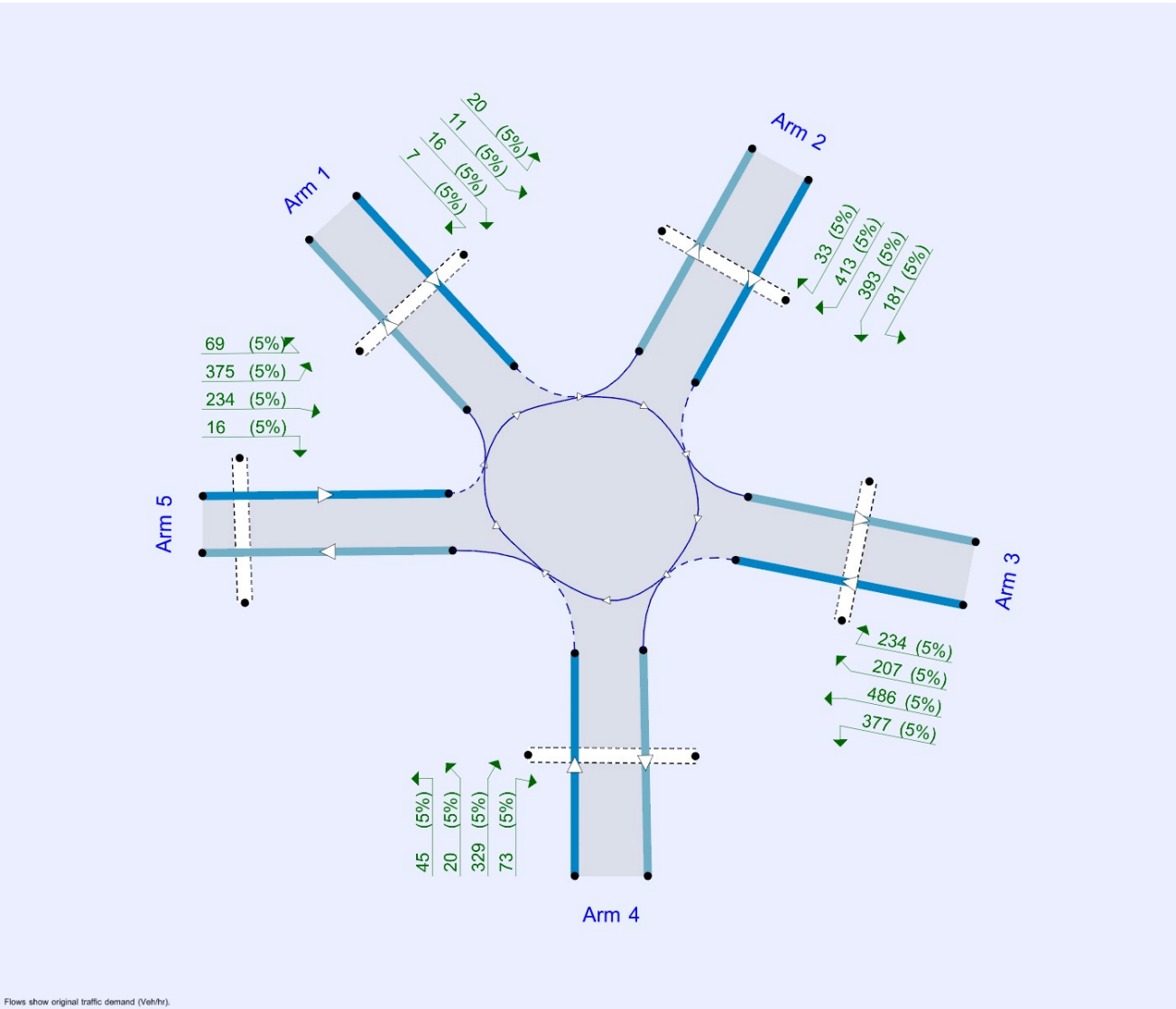
File summary

File Description

Title	
Location	
Site number	
Date	07/01/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DOMAINf.silva
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



Flows show original traffic demand (Veh/hr).
The junction diagram reflects the last run of Junctions.

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2026 DO NOTHING	AM	ONE HOUR	08:00	09:30	10
D2	2026 DO NOTHING	PM	ONE HOUR	17:00	18:30	10
D3	2031 DO NOTHING	AM	ONE HOUR	08:00	09:30	10
D4	2031 DO NOTHING	PM	ONE HOUR	17:00	18:30	10
D5	2041 DO NOTHING	AM	ONE HOUR	08:00	09:30	10
D6	2041 DO NOTHING	PM	ONE HOUR	17:00	18:30	10
D7	2026 DO SOMETHING	AM	ONE HOUR	08:00	09:30	10
D8	2026 DO SOMETHING	PM	ONE HOUR	17:00	18:30	10
D9	2031 DO SOMETHING	AM	ONE HOUR	08:00	09:30	10
D10	2031 DO SOMETHING	PM	ONE HOUR	17:00	18:30	10
D11	2041 DO SOMETHING	AM	ONE HOUR	08:00	09:30	10
D12	2041 DO SOMETHING	PM	ONE HOUR	17:00	18:30	10
D13	2023 EXISTING	AM	ONE HOUR	08:00	09:30	10
D14	2023 EXISTING	PM	ONE HOUR	17:00	18:30	10
D15	2031 STRESS TEST	AM	ONE HOUR	08:00	09:30	10
D16	2031 STRESS TEST	PM	ONE HOUR	17:00	18:30	10
D17	2041 STRESS TEST	AM	ONE HOUR	08:00	09:30	10
D18	2041 STRESS TEST	PM	ONE HOUR	17:00	18:30	10

Analysis Set Details

ID	Name	Network flow scaling factor (%)
A1	Junction 2	100.000

Junction 2 - 2026 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, 5	16.99	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Powerstown Road (NW)	
2	R121 (NE)	
3	R121 (E)	
4	Church Road (S)	
5	Damastown Avenue (W)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1	3.60	6.73	4.3	20.6	77.0	38.2	
2	7.20	10.10	3.0	20.7	77.0	45.7	
3	3.60	6.78	11.3	33.7	77.0	40.1	
4	3.60	6.78	9.8	22.9	77.0	44.5	
5	3.75	6.12	11.0	21.9	77.0	44.0	

Pelican/Puffin Crossings

Arm	Space between crossing and junc. entry (Signalised) (PCU)	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)
1	15.00	3.00	2.90	1.00	6.00	6.00	7.00
2	15.00	3.00	2.90	1.00	6.00	6.00	7.00
3	15.00	3.00	2.90	1.00	6.00	6.00	7.00
4	15.00	3.00	2.90	1.00	6.00	6.00	7.00
5	35.00	3.00	2.90	1.00	6.00	6.00	7.00

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.420	1341
2	0.553	2269
3	0.458	1574
4	0.439	1494
5	0.439	1491

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	2026 DO NOTHING	AM	ONE HOUR	08:00	09:30	10

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		✓	301	100.000
2		✓	1144	100.000
3		✓	458	100.000
4		✓	767	100.000
5		✓	892	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	50.00
5	50.00

Origin-Destination Data

Demand (Veh/hr)

		To				
		1	2	3	4	5
From	1	0	95	108	71	27
	2	65	0	287	429	363
	3	81	129	0	84	164
	4	65	458	237	0	7
	5	21	294	574	3	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.54	13.98	1.1	B
2	0.74	8.77	2.7	A
3	0.47	6.75	0.9	A
4	0.74	12.77	2.7	B
5	0.94	37.44	9.1	E

Main Results for each time segment

08:00 - 08:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	204	1133	33.81	757	0.269	201	0.4	6.455	A
2	774	682	33.81	1686	0.459	769	0.8	3.903	A
3	310	643	33.81	1136	0.273	307	0.4	4.336	A
4	519	557	33.81	1118	0.464	514	0.8	5.906	A
5	603	694	33.81	1066	0.566	596	1.3	7.537	A

08:10 - 08:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	204	1146	33.81	758	0.269	204	0.4	6.496	A
2	774	690	33.81	1695	0.456	774	0.8	3.908	A
3	310	648	33.81	1139	0.272	310	0.4	4.339	A
4	519	561	33.81	1130	0.459	519	0.8	5.894	A
5	603	700	33.81	1083	0.557	603	1.3	7.509	A

08:20 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	255	1424	42.35	646	0.395	253	0.6	9.131	A
2	969	857	42.35	1602	0.605	965	1.5	5.616	A
3	388	808	42.35	1061	0.366	387	0.6	5.331	A
4	650	700	42.35	1074	0.605	646	1.5	8.333	A
5	756	872	42.35	1030	0.733	748	2.6	12.415	B

08:30 - 08:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	292	1621	48.48	579	0.504	290	1.0	12.358	B
2	1109	974	48.48	1563	0.710	1104	2.3	7.749	A
3	444	924	48.48	1012	0.439	443	0.8	6.316	A
4	744	801	48.48	1057	0.703	739	2.2	11.141	B
5	865	998	48.48	982	0.881	846	5.6	23.690	C

08:40 - 08:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	305	1697	50.71	561	0.545	304	1.1	13.976	B
2	1160	1020	50.71	1565	0.741	1158	2.7	8.768	A
3	465	970	50.71	996	0.466	464	0.9	6.755	A
4	778	839	50.71	1054	0.738	775	2.7	12.772	B
5	905	1047	50.71	961	0.942	884	9.1	37.444	E

08:50 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	292	1648	48.48	581	0.502	292	1.0	12.524	B
2	1109	992	48.48	1583	0.701	1111	2.4	7.679	A
3	444	931	48.48	1015	0.437	444	0.8	6.312	A
4	744	805	48.48	1069	0.696	745	2.4	11.202	B
5	865	1005	48.48	979	0.884	868	8.6	34.299	D

09:00 - 09:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	255	1474	42.35	640	0.398	257	0.7	9.456	A
2	969	889	42.35	1616	0.600	974	1.5	5.658	A
3	388	816	42.35	1065	0.364	389	0.6	5.336	A
4	650	705	42.35	1101	0.590	655	1.5	8.177	A
5	756	883	42.35	1033	0.732	790	2.9	16.485	C

09:10 - 09:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	204	1160	33.81	757	0.269	205	0.4	6.544	A
2	774	699	33.81	1701	0.455	778	0.8	3.917	A
3	310	652	33.81	1141	0.271	311	0.4	4.344	A
4	519	563	33.81	1138	0.456	522	0.9	5.883	A
5	603	704	33.81	1106	0.545	613	1.2	7.450	A

09:20 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	204	1146	33.81	758	0.269	204	0.4	6.496	A
2	774	690	33.81	1695	0.456	774	0.8	3.909	A
3	310	648	33.81	1139	0.272	310	0.4	4.338	A
4	519	561	33.81	1130	0.459	519	0.9	5.894	A
5	603	700	33.81	1082	0.557	603	1.2	7.515	A

Junction 2 - 2026 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	27.08	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)
D2	2026 DO NOTHING	PM	ONE HOUR	17:00	18:30	10

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		✓	47	100.000
2		✓	896	100.000
3		✓	1144	100.000
4		✓	426	100.000
5		✓	588	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	50.00
5	50.00

Origin-Destination Data

Demand (Veh/hr)

		To				
		1	2	3	4	5
From	1	0	18	10	15	4
	2	30	0	165	357	344
	3	188	213	0	342	401
	4	18	300	67	0	41
	5	61	322	190	15	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.06	5.19	0.1	A
2	0.49	3.81	1.0	A
3	1.01	62.89	18.9	F
4	0.50	8.17	1.0	A
5	0.58	8.34	1.4	A

Main Results for each time segment

17:00 - 17:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	32	742	33.81	906	0.035	32	0.0	4.113	A
2	606	202	33.81	1929	0.314	603	0.5	2.709	A
3	774	515	33.81	1211	0.639	763	1.7	7.871	A
4	288	790	33.81	1015	0.284	286	0.4	4.920	A
5	398	546	33.81	1116	0.356	394	0.5	4.969	A

17:10 - 17:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	32	749	33.81	904	0.035	32	0.0	4.125	A
2	606	204	33.81	1935	0.313	606	0.5	2.707	A
3	774	517	33.81	1236	0.626	774	1.7	7.789	A
4	288	798	33.81	1018	0.283	288	0.4	4.933	A
5	398	552	33.81	1122	0.354	398	0.5	4.971	A

17:20 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	40	932	42.35	820	0.049	40	0.1	4.615	A
2	759	254	42.35	1887	0.402	758	0.7	3.184	A
3	969	647	42.35	1203	0.806	957	3.7	13.978	B
4	361	990	42.35	931	0.387	359	0.6	6.279	A
5	498	686	42.35	1061	0.470	496	0.9	6.357	A

17:30 - 17:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	46	1063	48.48	762	0.060	45	0.1	5.027	A
2	869	291	48.48	1860	0.467	868	0.9	3.621	A
3	1109	741	48.48	1160	0.956	1071	10.1	31.294	D
4	413	1117	48.48	883	0.468	412	0.9	7.612	A
5	570	777	48.48	1030	0.553	568	1.2	7.753	A

17:40 - 17:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	48	1112	50.71	741	0.064	48	0.1	5.195	A
2	909	305	50.71	1854	0.490	908	1.0	3.806	A
3	1160	775	50.71	1144	1.014	1109	18.7	55.939	F
4	432	1160	50.71	871	0.496	431	1.0	8.173	A
5	596	809	50.71	1026	0.581	596	1.4	8.343	A

17:50 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	46	1074	48.48	758	0.060	46	0.1	5.053	A
2	869	292	48.48	1866	0.466	869	0.9	3.615	A
3	1109	742	48.48	1159	0.957	1108	18.9	62.886	F
4	413	1144	48.48	880	0.469	413	0.9	7.716	A
5	570	791	48.48	1036	0.551	571	1.3	7.758	A

18:00 - 18:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	40	956	42.35	811	0.049	40	0.1	4.670	A
2	759	256	42.35	1895	0.401	760	0.7	3.178	A
3	969	649	42.35	1202	0.806	1053	4.8	30.698	D
4	361	1059	42.35	914	0.395	362	0.7	6.543	A
5	498	722	42.35	1060	0.470	500	0.9	6.458	A

18:10 - 18:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	32	755	33.81	902	0.035	32	0.0	4.137	A
2	606	205	33.81	1938	0.313	607	0.5	2.707	A
3	774	518	33.81	1262	0.613	793	1.6	7.968	A
4	288	812	33.81	1016	0.283	290	0.4	4.966	A
5	398	560	33.81	1124	0.354	400	0.6	4.986	A

18:20 - 18:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	32	749	33.81	904	0.035	32	0.0	4.127	A
2	606	204	33.81	1935	0.313	606	0.5	2.709	A
3	774	517	33.81	1234	0.627	773	1.7	7.803	A
4	288	798	33.81	1018	0.283	288	0.4	4.934	A
5	398	552	33.81	1122	0.354	398	0.6	4.970	A

Junction 2 - 2031 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, 5	28.27	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)
D3	2031 DO NOTHING	AM	ONE HOUR	08:00	09:30	10

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		✓	320	100.000
2		✓	1117	100.000
3		✓	487	100.000
4		✓	817	100.000
5		✓	945	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	50.00
5	50.00

Origin-Destination Data

Demand (Veh/hr)

		To				
		1	2	3	4	5
From	1	0	101	114	76	29
	2	69	0	306	457	285
	3	87	138	0	89	173
	4	69	488	252	0	8
	5	22	311	609	3	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.61	16.94	1.5	C
2	0.74	8.70	2.7	A
3	0.49	6.88	0.9	A
4	0.77	14.13	3.1	B
5	1.03	78.48	19.3	F

Main Results for each time segment

08:00 - 08:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	216	1203	33.81	730	0.296	214	0.4	6.938	A
2	755	723	33.81	1664	0.454	750	0.8	3.918	A
3	329	617	33.81	1147	0.287	327	0.4	4.376	A
4	552	524	33.81	1133	0.488	547	0.9	6.089	A
5	639	739	33.81	1051	0.608	630	1.5	8.386	A

08:10 - 08:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	216	1218	33.81	731	0.296	216	0.4	6.995	A
2	755	732	33.81	1672	0.452	755	0.8	3.926	A
3	329	621	33.81	1151	0.286	329	0.4	4.378	A
4	552	528	33.81	1145	0.482	552	0.9	6.072	A
5	639	746	33.81	1071	0.597	639	1.5	8.338	A

08:20 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	271	1510	42.35	616	0.440	269	0.8	10.312	B
2	946	907	42.35	1576	0.601	942	1.5	5.649	A
3	413	775	42.35	1076	0.383	411	0.6	5.406	A
4	692	659	42.35	1095	0.632	688	1.7	8.738	A
5	800	929	42.35	1012	0.791	789	3.4	15.391	C

08:30 - 08:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	310	1704	48.48	555	0.560	308	1.2	14.414	B
2	1083	1022	48.48	1537	0.704	1078	2.3	7.750	A
3	472	887	48.48	1030	0.459	471	0.8	6.427	A
4	792	754	48.48	1086	0.730	787	2.5	11.824	B
5	916	1063	48.48	953	0.961	879	9.7	36.161	E

08:40 - 08:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	325	1770	50.71	534	0.608	323	1.5	16.937	C
2	1133	1061	50.71	1541	0.735	1131	2.7	8.702	A
3	494	930	50.71	1016	0.486	493	0.9	6.881	A
4	829	791	50.71	1075	0.771	825	3.1	14.128	B
5	959	1115	50.71	931	1.030	904	18.8	67.301	F

08:50 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	310	1745	48.48	544	0.570	311	1.4	15.497	C
2	1083	1049	48.48	1551	0.698	1085	2.4	7.755	A
3	472	892	48.48	1034	0.457	473	0.9	6.415	A
4	792	758	48.48	1090	0.727	794	2.8	12.302	B
5	916	1072	48.48	950	0.965	913	19.3	78.479	F

09:00 - 09:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	271	1619	42.35	594	0.456	274	0.9	11.363	B
2	946	979	42.35	1570	0.603	951	1.6	5.864	A
3	413	783	42.35	1081	0.382	414	0.6	5.407	A
4	692	665	42.35	1128	0.614	699	1.6	8.524	A
5	800	942	42.35	1007	0.795	889	4.6	38.809	E

09:10 - 09:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	216	1240	33.81	729	0.297	219	0.4	7.093	A
2	755	748	33.81	1676	0.451	760	0.8	3.948	A
3	329	625	33.81	1153	0.286	331	0.4	4.382	A
4	552	531	33.81	1155	0.478	557	0.9	6.055	A
5	639	751	33.81	1091	0.586	658	1.5	8.654	A

09:20 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	216	1218	33.81	731	0.296	216	0.4	6.991	A
2	755	732	33.81	1672	0.452	755	0.8	3.925	A
3	329	621	33.81	1152	0.286	329	0.4	4.377	A
4	552	528	33.81	1145	0.482	552	0.9	6.070	A
5	639	746	33.81	1070	0.597	639	1.5	8.349	A

Junction 2 - 2031 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	56.76	F

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	2031 DO NOTHING	PM	ONE HOUR	17:00	18:30	10

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		✓	50	100.000
2		✓	952	100.000
3		✓	1216	100.000
4		✓	452	100.000
5		✓	623	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	50.00
5	50.00

Origin-Destination Data

Demand (Veh/hr)

		To				
		1	2	3	4	5
From	1	0	19	11	16	4
	2	32	0	176	380	364
	3	200	227	0	364	425
	4	19	319	71	0	43
	5	65	342	200	16	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.07	5.38	0.1	A
2	0.52	4.06	1.1	A
3	1.10	142.36	46.8	F
4	0.53	8.78	1.1	A
5	0.62	9.14	1.6	A

Main Results for each time segment

17:00 - 17:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	34	787	33.81	889	0.038	34	0.0	4.208	A
2	644	213	33.81	1924	0.335	641	0.5	2.800	A
3	822	546	33.81	1203	0.683	810	2.1	8.901	A
4	306	837	33.81	996	0.307	303	0.4	5.172	A
5	421	580	33.81	1103	0.382	418	0.6	5.229	A

17:10 - 17:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	34	795	33.81	886	0.038	34	0.0	4.222	A
2	644	215	33.81	1931	0.333	644	0.5	2.796	A
3	822	549	33.81	1233	0.667	822	2.0	8.774	A
4	306	847	33.81	999	0.306	306	0.4	5.191	A
5	421	587	33.81	1109	0.380	421	0.6	5.232	A

17:20 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	42	988	42.35	798	0.053	42	0.1	4.761	A
2	806	268	42.35	1882	0.428	805	0.7	3.337	A
3	1030	687	42.35	1185	0.869	1010	5.4	18.729	C
4	383	1046	42.35	911	0.420	381	0.7	6.769	A
5	528	727	42.35	1047	0.504	525	1.0	6.866	A

17:30 - 17:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	48	1121	48.48	740	0.066	48	0.1	5.207	A
2	923	307	48.48	1856	0.497	922	1.0	3.848	A
3	1179	786	48.48	1139	1.035	1099	18.7	49.820	E
4	438	1157	48.48	871	0.503	437	1.0	8.245	A
5	604	812	48.48	1023	0.591	602	1.4	8.496	A

17:40 - 17:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	51	1168	50.71	719	0.070	51	0.1	5.382	A
2	966	322	50.71	1850	0.522	965	1.1	4.064	A
3	1233	823	50.71	1122	1.099	1113	38.8	102.172	F
4	458	1185	50.71	867	0.529	458	1.1	8.781	A
5	632	838	50.71	1023	0.618	631	1.6	9.142	A

17:50 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	48	1131	48.48	736	0.066	49	0.1	5.234	A
2	923	309	48.48	1863	0.496	924	1.0	3.838	A
3	1179	788	48.48	1138	1.036	1131	46.8	142.358	F
4	438	1180	48.48	871	0.503	439	1.0	8.330	A
5	604	825	48.48	1031	0.586	605	1.5	8.470	A

18:00 - 18:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	42	1023	42.35	785	0.054	42	0.1	4.846	A
2	806	270	42.35	1891	0.427	808	0.8	3.330	A
3	1030	689	42.35	1184	0.870	1159	25.4	114.196	F
4	383	1151	42.35	881	0.435	384	0.8	7.271	A
5	528	782	42.35	1042	0.506	530	1.0	7.070	A

18:10 - 18:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	34	824	33.81	875	0.039	34	0.0	4.281	A
2	644	216	33.81	1934	0.333	645	0.5	2.798	A
3	822	550	33.81	1247	0.659	962	2.0	19.146	C
4	306	945	33.81	964	0.317	308	0.5	5.496	A
5	421	638	33.81	1095	0.385	424	0.6	5.381	A

18:20 - 18:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	34	795	33.81	886	0.038	34	0.0	4.222	A
2	644	215	33.81	1931	0.333	644	0.5	2.796	A
3	822	549	33.81	1233	0.667	822	2.0	8.778	A
4	306	847	33.81	1000	0.306	306	0.4	5.189	A
5	421	587	33.81	1110	0.380	421	0.6	5.233	A

Junction 2 - 2041 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, 5	41.37	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)
D5	2041 DO NOTHING	AM	ONE HOUR	08:00	09:30	10

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		✓	330	100.000
2		✓	1256	100.000
3		✓	502	100.000
4		✓	844	100.000
5		✓	975	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	50.00
5	50.00

Origin-Destination Data

Demand (Veh/hr)

		To				
		1	2	3	4	5
From	1	0	104	118	78	30
	2	71	0	316	472	397
	3	90	142	0	92	178
	4	71	504	261	0	8
	5	23	321	628	3	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.64	18.68	1.7	C
2	0.81	11.90	4.0	B
3	0.53	7.83	1.1	A
4	0.84	20.11	4.5	C
5	1.08	122.69	31.7	F

Main Results for each time segment

08:00 - 08:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	223	1241	33.81	716	0.312	220	0.4	7.230	A
2	849	746	33.81	1656	0.513	843	1.0	4.397	A
3	339	705	33.81	1110	0.306	337	0.4	4.640	A
4	571	609	33.81	1100	0.519	564	1.1	6.652	A
5	659	762	33.81	1044	0.632	649	1.6	8.927	A

08:10 - 08:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	223	1257	33.81	716	0.311	223	0.4	7.297	A
2	849	756	33.81	1666	0.510	849	1.0	4.405	A
3	339	711	33.81	1114	0.305	339	0.4	4.645	A
4	571	614	33.81	1114	0.512	571	1.1	6.630	A
5	659	770	33.81	1066	0.619	659	1.6	8.869	A

08:20 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	280	1555	42.35	601	0.465	277	0.8	11.048	B
2	1064	934	42.35	1576	0.675	1058	2.0	6.875	A
3	425	885	42.35	1032	0.412	424	0.7	5.908	A
4	715	765	42.35	1060	0.674	709	2.0	10.098	B
5	826	958	42.35	1000	0.826	811	4.1	17.864	C

08:30 - 08:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	320	1740	48.48	545	0.587	317	1.3	15.552	C
2	1218	1043	48.48	1560	0.781	1210	3.3	10.048	B
3	487	1012	48.48	981	0.496	485	1.0	7.227	A
4	818	876	48.48	1038	0.789	810	3.4	15.220	C
5	945	1095	48.48	940	1.006	890	13.4	46.244	E

08:40 - 08:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	335	1795	50.71	523	0.640	333	1.7	18.682	C
2	1274	1075	50.71	1566	0.813	1270	4.0	11.904	B
3	509	1062	50.71	967	0.527	508	1.1	7.834	A
4	856	919	50.71	1019	0.840	849	4.5	20.110	C
5	989	1148	50.71	916	1.079	903	27.7	92.686	F

08:50 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	320	1781	48.48	529	0.605	320	1.6	17.351	C
2	1218	1069	48.48	1569	0.776	1220	3.6	10.421	B
3	487	1021	48.48	987	0.493	487	1.0	7.217	A
4	818	882	48.48	1035	0.790	821	4.1	17.164	C
5	945	1108	48.48	934	1.012	921	31.7	122.692	F

09:00 - 09:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	280	1721	42.35	554	0.505	283	1.1	13.428	B
2	1064	1043	42.35	1572	0.677	1073	2.2	7.328	A
3	425	898	42.35	1037	0.410	427	0.7	5.919	A
4	715	774	42.35	1083	0.660	727	2.0	10.449	B
5	826	978	42.35	991	0.834	964	8.7	82.148	F

09:10 - 09:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	223	1304	33.81	708	0.315	227	0.5	7.539	A
2	849	788	33.81	1668	0.509	856	1.1	4.470	A
3	339	717	33.81	1116	0.304	341	0.4	4.657	A
4	571	618	33.81	1127	0.506	577	1.0	6.610	A
5	659	777	33.81	1079	0.611	701	1.6	10.533	B

09:20 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	223	1257	33.81	717	0.311	223	0.5	7.295	A
2	849	756	33.81	1667	0.510	849	1.0	4.404	A
3	339	711	33.81	1114	0.305	339	0.4	4.645	A
4	571	614	33.81	1114	0.512	571	1.0	6.630	A
5	659	770	33.81	1065	0.619	659	1.6	8.874	A

Junction 2 - 2041 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	79.31	F

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	2041 DO NOTHING	PM	ONE HOUR	17:00	18:30	10

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		✓	51	100.000
2		✓	983	100.000
3		✓	1256	100.000
4		✓	467	100.000
5		✓	641	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	50.00
5	50.00

Origin-Destination Data

Demand (Veh/hr)

		To				
		1	2	3	4	5
From	1	0	20	11	16	4
	2	33	0	181	393	376
	3	207	234	0	377	438
	4	20	329	73	0	45
	5	67	352	206	16	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.07	5.47	0.1	A
2	0.54	4.22	1.2	A
3	1.15	202.78	69.6	F
4	0.55	9.11	1.2	A
5	0.64	9.57	1.7	A

Main Results for each time segment

17:00 - 17:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	34	810	33.81	880	0.039	34	0.0	4.257	A
2	665	219	33.81	1921	0.346	662	0.5	2.850	A
3	849	564	33.81	1199	0.708	836	2.3	9.571	A
4	316	863	33.81	986	0.320	313	0.5	5.327	A
5	433	598	33.81	1096	0.396	430	0.6	5.374	A

17:10 - 17:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	34	818	33.81	877	0.039	34	0.0	4.272	A
2	665	220	33.81	1929	0.345	665	0.5	2.847	A
3	849	567	33.81	1233	0.689	850	2.3	9.410	A
4	316	874	33.81	989	0.319	316	0.5	5.349	A
5	433	606	33.81	1102	0.393	433	0.6	5.380	A

17:20 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	43	1016	42.35	788	0.055	43	0.1	4.835	A
2	833	275	42.35	1880	0.443	831	0.8	3.427	A
3	1064	708	42.35	1175	0.906	1036	6.8	22.527	C
4	396	1074	42.35	901	0.439	394	0.8	7.066	A
5	543	748	42.35	1041	0.522	540	1.1	7.158	A

17:30 - 17:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	49	1148	48.48	729	0.068	49	0.1	5.294	A
2	953	315	48.48	1854	0.514	952	1.0	3.981	A
3	1218	811	48.48	1128	1.080	1104	25.9	64.117	F
4	453	1172	48.48	868	0.522	451	1.1	8.590	A
5	622	827	48.48	1020	0.609	619	1.5	8.901	A

17:40 - 17:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	52	1194	50.71	709	0.073	52	0.1	5.473	A
2	997	330	50.71	1849	0.539	996	1.2	4.217	A
3	1274	849	50.71	1110	1.148	1106	53.9	138.161	F
4	474	1193	50.71	867	0.546	473	1.2	9.109	A
5	650	849	50.71	1024	0.635	649	1.7	9.573	A

17:50 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	49	1157	48.48	726	0.068	49	0.1	5.319	A
2	953	316	48.48	1862	0.512	954	1.1	3.967	A
3	1218	813	48.48	1127	1.081	1124	69.6	202.784	F
4	453	1187	48.48	872	0.519	453	1.1	8.617	A
5	622	836	48.48	1031	0.603	622	1.6	8.833	A

18:00 - 18:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	43	1046	42.35	777	0.056	43	0.1	4.909	A
2	833	277	42.35	1889	0.441	834	0.8	3.419	A
3	1064	711	42.35	1173	0.907	1157	54.1	191.899	F
4	396	1160	42.35	880	0.450	397	0.8	7.485	A
5	543	793	42.35	1041	0.522	546	1.1	7.311	A

18:10 - 18:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	34	880	33.81	853	0.040	35	0.0	4.398	A
2	665	222	33.81	1932	0.344	666	0.5	2.846	A
3	849	568	33.81	1239	0.686	1158	2.6	77.029	F
4	316	1091	33.81	906	0.348	318	0.5	6.132	A
5	433	716	33.81	1065	0.407	436	0.7	5.743	A

18:20 - 18:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	34	819	33.81	877	0.039	34	0.0	4.274	A
2	665	221	33.81	1929	0.345	665	0.5	2.850	A
3	849	567	33.81	1237	0.686	851	2.3	9.382	A
4	316	875	33.81	990	0.319	316	0.5	5.349	A
5	433	607	33.81	1103	0.393	434	0.7	5.383	A

Junction 2 - 2026 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, 5	19.53	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	2026 DO SOMETHING	AM	ONE HOUR	08:00	09:30	10

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		✓	302	100.000
2		✓	1149	100.000
3		✓	464	100.000
4		✓	767	100.000
5		✓	923	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	50.00
5	50.00

Origin-Destination Data

Demand (Veh/hr)

		To				
		1	2	3	4	5
From	1	0	95	108	71	28
	2	65	0	287	429	368
	3	81	129	0	84	170
	4	65	458	237	0	7
	5	22	307	591	3	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.55	14.40	1.2	B
2	0.75	8.95	2.8	A
3	0.47	6.85	0.9	A
4	0.74	13.00	2.7	B
5	0.97	46.16	11.9	E

Main Results for each time segment

08:00 - 08:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	204	1153	33.81	749	0.273	202	0.4	6.551	A
2	777	694	33.81	1680	0.462	772	0.8	3.942	A
3	314	647	33.81	1134	0.277	311	0.4	4.367	A
4	519	565	33.81	1115	0.465	514	0.9	5.938	A
5	624	693	33.81	1068	0.585	616	1.4	7.838	A

08:10 - 08:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	204	1166	33.81	750	0.272	204	0.4	6.597	A
2	777	702	33.81	1689	0.460	777	0.9	3.948	A
3	314	652	33.81	1138	0.276	314	0.4	4.368	A
4	519	569	33.81	1126	0.460	519	0.9	5.925	A
5	624	700	33.81	1086	0.575	624	1.4	7.799	A

08:20 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	256	1449	42.35	637	0.402	254	0.7	9.362	A
2	973	871	42.35	1596	0.610	969	1.5	5.709	A
3	393	813	42.35	1059	0.371	392	0.6	5.385	A
4	650	710	42.35	1070	0.607	646	1.5	8.404	A
5	782	872	42.35	1037	0.754	773	2.8	13.214	B

08:30 - 08:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	293	1644	48.48	571	0.513	291	1.0	12.735	B
2	1114	988	48.48	1558	0.715	1109	2.4	7.910	A
3	450	930	48.48	1010	0.446	449	0.8	6.400	A
4	744	812	48.48	1054	0.706	739	2.3	11.269	B
5	895	998	48.48	982	0.911	871	6.9	27.453	D

08:40 - 08:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	306	1718	50.71	554	0.553	305	1.2	14.395	B
2	1165	1032	50.71	1562	0.746	1163	2.8	8.950	A
3	471	976	50.71	995	0.473	470	0.9	6.850	A
4	778	852	50.71	1049	0.742	775	2.7	13.005	B
5	936	1047	50.71	961	0.975	906	11.9	46.165	E

08:50 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	293	1675	48.48	572	0.512	293	1.1	12.962	B
2	1114	1008	48.48	1577	0.706	1116	2.5	7.851	A
3	450	936	48.48	1014	0.444	450	0.8	6.394	A
4	744	817	48.48	1064	0.699	745	2.4	11.387	B
5	895	1005	48.48	979	0.914	896	11.7	45.771	E

09:00 - 09:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	256	1515	42.35	626	0.409	258	0.7	9.857	A
2	973	915	42.35	1605	0.606	979	1.6	5.798	A
3	393	822	42.35	1064	0.369	394	0.6	5.388	A
4	650	716	42.35	1097	0.592	655	1.5	8.243	A
5	782	883	42.35	1033	0.757	832	3.4	21.109	C

09:10 - 09:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	204	1183	33.81	749	0.273	206	0.4	6.657	A
2	777	713	33.81	1694	0.459	781	0.9	3.960	A
3	314	656	33.81	1139	0.275	315	0.4	4.372	A
4	519	572	33.81	1135	0.457	522	0.9	5.912	A
5	624	704	33.81	1111	0.562	637	1.3	7.786	A

09:20 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	204	1166	33.81	750	0.272	204	0.4	6.597	A
2	777	702	33.81	1689	0.460	777	0.9	3.947	A
3	314	652	33.81	1138	0.276	314	0.4	4.369	A
4	519	569	33.81	1126	0.460	519	0.9	5.925	A
5	624	700	33.81	1085	0.575	624	1.3	7.810	A

Junction 2 - 2026 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	32.26	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)
D8	2026 DO SOMETHING	PM	ONE HOUR	17:00	18:30	10

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		✓	48	100.000
2		✓	908	100.000
3		✓	1159	100.000
4		✓	426	100.000
5		✓	604	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	50.00
5	50.00

Origin-Destination Data

Demand (Veh/hr)

		To				
		1	2	3	4	5
From	1	0	18	10	15	5
	2	30	0	165	357	356
	3	188	213	0	342	416
	4	18	300	67	0	41
	5	62	329	198	15	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.07	5.24	0.1	A
2	0.50	3.87	1.0	A
3	1.03	76.77	23.1	F
4	0.50	8.31	1.0	A
5	0.59	8.57	1.4	A

Main Results for each time segment

17:00 - 17:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	32	752	33.81	903	0.036	32	0.0	4.135	A
2	614	208	33.81	1926	0.319	611	0.5	2.732	A
3	784	524	33.81	1208	0.649	773	1.8	8.084	A
4	288	808	33.81	1008	0.286	286	0.4	4.971	A
5	408	546	33.81	1116	0.366	405	0.6	5.038	A

17:10 - 17:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	32	759	33.81	900	0.036	32	0.0	4.147	A
2	614	210	33.81	1932	0.318	614	0.5	2.730	A
3	784	526	33.81	1234	0.635	784	1.8	7.995	A
4	288	817	33.81	1010	0.285	288	0.4	4.986	A
5	408	552	33.81	1122	0.364	408	0.6	5.041	A

17:20 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	41	945	42.35	815	0.050	41	0.1	4.648	A
2	769	262	42.35	1884	0.408	768	0.7	3.220	A
3	982	658	42.35	1198	0.820	968	4.0	14.859	B
4	361	1013	42.35	922	0.391	359	0.6	6.379	A
5	512	685	42.35	1062	0.482	510	0.9	6.492	A

17:30 - 17:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	47	1076	48.48	757	0.062	46	0.1	5.069	A
2	880	300	48.48	1857	0.474	879	0.9	3.677	A
3	1124	753	48.48	1154	0.974	1079	11.5	34.706	D
4	413	1139	48.48	875	0.472	412	0.9	7.746	A
5	586	774	48.48	1033	0.567	583	1.3	7.960	A

17:40 - 17:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	49	1125	50.71	736	0.066	49	0.1	5.239	A
2	921	314	50.71	1850	0.498	920	1.0	3.869	A
3	1176	789	50.71	1138	1.033	1111	22.2	64.262	F
4	432	1180	50.71	864	0.500	431	1.0	8.307	A
5	613	805	50.71	1031	0.595	612	1.4	8.571	A

17:50 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	47	1088	48.48	753	0.062	47	0.1	5.100	A
2	880	301	48.48	1863	0.473	881	0.9	3.670	A
3	1124	755	48.48	1153	0.974	1118	23.1	76.768	F
4	413	1168	48.48	872	0.474	413	0.9	7.867	A
5	586	790	48.48	1039	0.564	586	1.3	7.965	A

18:00 - 18:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	41	973	42.35	805	0.051	41	0.1	4.714	A
2	769	264	42.35	1891	0.407	770	0.7	3.216	A
3	982	660	42.35	1197	0.820	1087	5.5	40.822	E
4	361	1098	42.35	899	0.402	362	0.7	6.732	A
5	512	729	42.35	1059	0.483	514	1.0	6.629	A

18:10 - 18:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	32	766	33.81	898	0.036	33	0.0	4.163	A
2	614	211	33.81	1935	0.317	615	0.5	2.729	A
3	784	527	33.81	1258	0.623	807	1.7	8.358	A
4	288	834	33.81	1008	0.286	290	0.4	5.027	A
5	408	561	33.81	1125	0.363	411	0.6	5.058	A

18:20 - 18:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	32	759	33.81	900	0.036	32	0.0	4.149	A
2	614	210	33.81	1932	0.318	614	0.5	2.730	A
3	784	526	33.81	1233	0.636	784	1.7	8.009	A
4	288	817	33.81	1010	0.285	288	0.4	4.986	A
5	408	552	33.81	1123	0.364	408	0.6	5.040	A

Junction 2 - 2031 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, 5	36.30	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)
D9	2031 DO SOMETHING	AM	ONE HOUR	08:00	09:30	10

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		✓	320	100.000
2		✓	1222	100.000
3		✓	493	100.000
4		✓	817	100.000
5		✓	975	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	50.00
5	50.00

Origin-Destination Data

Demand (Veh/hr)

		To				
		1	2	3	4	5
From	1	0	101	114	76	29
	2	69	0	306	457	390
	3	87	138	0	89	179
	4	69	488	252	0	8
	5	23	324	625	3	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.61	17.23	1.5	C
2	0.79	10.59	3.5	B
3	0.51	7.54	1.0	A
4	0.81	17.19	3.8	C
5	1.06	105.34	26.9	F

Main Results for each time segment

08:00 - 08:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	216	1222	33.81	723	0.299	214	0.4	7.038	A
2	826	733	33.81	1661	0.497	820	1.0	4.253	A
3	333	687	33.81	1117	0.298	331	0.4	4.562	A
4	552	599	33.81	1103	0.501	547	1.0	6.407	A
5	659	739	33.81	1053	0.626	650	1.6	8.735	A

08:10 - 08:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	216	1237	33.81	723	0.299	216	0.4	7.099	A
2	826	743	33.81	1671	0.494	826	1.0	4.260	A
3	333	692	33.81	1122	0.297	333	0.4	4.566	A
4	552	603	33.81	1116	0.495	552	1.0	6.389	A
5	659	746	33.81	1074	0.614	659	1.6	8.678	A

08:20 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	271	1532	42.35	608	0.446	269	0.8	10.553	B
2	1035	919	42.35	1579	0.655	1030	1.8	6.489	A
3	418	863	42.35	1040	0.401	416	0.7	5.756	A
4	692	752	42.35	1061	0.652	687	1.8	9.501	A
5	826	928	42.35	1013	0.816	812	3.8	16.930	C

08:30 - 08:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	310	1720	48.48	549	0.565	308	1.2	14.713	B
2	1185	1030	48.48	1557	0.761	1178	3.0	9.328	A
3	478	987	48.48	990	0.483	477	0.9	6.983	A
4	792	861	48.48	1044	0.758	786	2.9	13.539	B
5	945	1062	48.48	954	0.991	896	12.0	42.360	E

08:40 - 08:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	325	1779	50.71	530	0.612	323	1.5	17.225	C
2	1239	1064	50.71	1572	0.788	1236	3.5	10.586	B
3	500	1036	50.71	976	0.513	499	1.0	7.543	A
4	829	903	50.71	1026	0.808	823	3.8	17.193	C
5	989	1113	50.71	932	1.062	915	24.4	82.694	F

08:50 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	310	1762	48.48	537	0.578	311	1.4	15.978	C
2	1185	1057	48.48	1576	0.752	1187	3.2	9.325	A
3	478	995	48.48	995	0.480	479	0.9	6.972	A
4	792	866	48.48	1042	0.760	795	3.4	14.752	B
5	945	1072	48.48	950	0.996	930	26.9	105.345	F

09:00 - 09:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	271	1681	42.35	571	0.475	274	0.9	12.232	B
2	1035	1016	42.35	1573	0.658	1042	2.0	6.863	A
3	418	874	42.35	1045	0.399	419	0.7	5.764	A
4	692	760	42.35	1089	0.636	701	1.8	9.502	A
5	826	945	42.35	1006	0.821	951	6.2	63.397	F

09:10 - 09:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	216	1269	33.81	719	0.301	219	0.4	7.245	A
2	826	764	33.81	1676	0.493	832	1.0	4.299	A
3	333	698	33.81	1123	0.297	335	0.4	4.576	A
4	552	607	33.81	1127	0.490	557	1.0	6.373	A
5	659	752	33.81	1090	0.605	687	1.6	9.492	A

09:20 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	216	1237	33.81	724	0.299	216	0.4	7.098	A
2	826	743	33.81	1671	0.494	826	1.0	4.261	A
3	333	692	33.81	1122	0.297	333	0.4	4.566	A
4	552	603	33.81	1116	0.495	552	1.0	6.387	A
5	659	746	33.81	1074	0.614	659	1.6	8.686	A

Junction 2 - 2031 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	64.99	F

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	2031 DO SOMETHING	PM	ONE HOUR	17:00	18:30	10

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		✓	51	100.000
2		✓	964	100.000
3		✓	1230	100.000
4		✓	452	100.000
5		✓	638	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	50.00
5	50.00

Origin-Destination Data

Demand (Veh/hr)

		To				
		1	2	3	4	5
From	1	0	19	11	16	5
	2	32	0	176	380	376
	3	200	227	0	364	439
	4	19	319	71	0	43
	5	65	348	209	16	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.07	5.43	0.1	A
2	0.53	4.14	1.1	A
3	1.12	164.62	55.2	F
4	0.53	8.89	1.1	A
5	0.63	9.37	1.6	A

Main Results for each time segment

17:00 - 17:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	34	797	33.81	885	0.039	34	0.0	4.231	A
2	652	220	33.81	1921	0.339	649	0.5	2.823	A
3	832	555	33.81	1201	0.693	819	2.1	9.148	A
4	306	854	33.81	989	0.309	303	0.4	5.227	A
5	431	580	33.81	1103	0.391	428	0.6	5.301	A

17:10 - 17:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	34	805	33.81	882	0.039	34	0.0	4.245	A
2	652	222	33.81	1927	0.338	652	0.5	2.821	A
3	832	558	33.81	1232	0.675	832	2.1	9.010	A
4	306	865	33.81	992	0.308	306	0.4	5.247	A
5	431	587	33.81	1110	0.389	431	0.6	5.305	A

17:20 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	43	1000	42.35	794	0.054	43	0.1	4.796	A
2	817	277	42.35	1879	0.435	815	0.8	3.380	A
3	1042	697	42.35	1180	0.883	1019	5.9	20.074	C
4	383	1067	42.35	903	0.424	381	0.7	6.874	A
5	540	726	42.35	1049	0.515	538	1.0	7.010	A

17:30 - 17:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	49	1133	48.48	735	0.067	49	0.1	5.249	A
2	935	317	48.48	1852	0.505	933	1.0	3.911	A
3	1193	799	48.48	1133	1.052	1100	21.3	54.983	F
4	438	1175	48.48	865	0.507	437	1.0	8.367	A
5	619	808	48.48	1027	0.603	616	1.5	8.707	A

17:40 - 17:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	52	1180	50.71	715	0.072	52	0.1	5.428	A
2	978	332	50.71	1846	0.530	977	1.1	4.137	A
3	1248	836	50.71	1116	1.118	1109	44.3	115.265	F
4	458	1200	50.71	862	0.532	458	1.1	8.893	A
5	647	832	50.71	1029	0.629	646	1.6	9.372	A

17:50 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	49	1143	48.48	732	0.068	49	0.1	5.275	A
2	935	318	48.48	1859	0.503	935	1.0	3.899	A
3	1193	800	48.48	1133	1.053	1127	55.2	164.622	F
4	438	1194	48.48	866	0.506	439	1.0	8.433	A
5	619	819	48.48	1036	0.597	619	1.5	8.662	A

18:00 - 18:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	43	1033	42.35	782	0.055	43	0.1	4.877	A
2	817	279	42.35	1887	0.433	818	0.8	3.373	A
3	1042	700	42.35	1178	0.884	1157	35.9	142.569	F
4	383	1165	42.35	876	0.437	384	0.8	7.350	A
5	540	777	42.35	1046	0.517	543	1.1	7.195	A

18:10 - 18:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	34	846	33.81	866	0.040	35	0.0	4.329	A
2	652	223	33.81	1931	0.338	653	0.5	2.823	A
3	832	559	33.81	1243	0.669	1034	2.2	33.510	D
4	306	1008	33.81	939	0.326	307	0.5	5.717	A
5	431	659	33.81	1088	0.397	434	0.7	5.526	A

18:20 - 18:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	34	805	33.81	882	0.039	34	0.0	4.248	A
2	652	222	33.81	1927	0.338	652	0.5	2.823	A
3	832	558	33.81	1233	0.675	832	2.1	9.007	A
4	306	865	33.81	992	0.308	306	0.5	5.245	A
5	431	587	33.81	1110	0.389	432	0.6	5.306	A

Junction 2 - 2041 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, 5	50.84	F

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	2041 DO SOMETHING	AM	ONE HOUR	08:00	09:30	10

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		✓	330	100.000
2		✓	1261	100.000
3		✓	508	100.000
4		✓	844	100.000
5		✓	1004	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	50.00
5	50.00

Origin-Destination Data

Demand (Veh/hr)

		To				
		1	2	3	4	5
From	1	0	104	118	78	30
	2	71	0	316	472	402
	3	90	142	0	92	184
	4	71	504	261	0	8
	5	23	334	644	3	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.64	18.91	1.7	C
2	0.82	12.11	4.1	B
3	0.53	7.95	1.1	A
4	0.84	20.60	4.6	C
5	1.11	157.11	42.6	F

Main Results for each time segment

08:00 - 08:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	223	1260	33.81	709	0.315	220	0.5	7.336	A
2	853	756	33.81	1651	0.517	846	1.1	4.442	A
3	344	708	33.81	1109	0.310	341	0.4	4.673	A
4	571	617	33.81	1097	0.520	564	1.1	6.686	A
5	679	762	33.81	1045	0.649	668	1.8	9.302	A

08:10 - 08:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	223	1277	33.81	709	0.315	223	0.5	7.410	A
2	853	767	33.81	1661	0.513	853	1.1	4.451	A
3	344	714	33.81	1113	0.309	344	0.4	4.677	A
4	571	621	33.81	1111	0.514	571	1.1	6.666	A
5	679	770	33.81	1069	0.635	679	1.8	9.232	A

08:20 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	280	1577	42.35	593	0.472	277	0.9	11.317	B
2	1068	946	42.35	1571	0.680	1062	2.1	6.991	A
3	430	889	42.35	1030	0.418	429	0.7	5.968	A
4	715	775	42.35	1057	0.676	709	2.0	10.186	B
5	850	958	42.35	1000	0.851	833	4.7	19.785	C

08:30 - 08:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	320	1753	48.48	541	0.592	317	1.4	15.850	C
2	1223	1049	48.48	1559	0.784	1215	3.4	10.196	B
3	493	1017	48.48	980	0.502	491	1.0	7.327	A
4	818	886	48.48	1033	0.792	810	3.4	15.493	C
5	973	1095	48.48	940	1.036	902	16.6	53.982	F

08:40 - 08:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	335	1801	50.71	521	0.643	333	1.7	18.906	C
2	1279	1076	50.71	1566	0.817	1275	4.1	12.109	B
3	515	1067	50.71	966	0.533	514	1.1	7.949	A
4	856	930	50.71	1014	0.844	849	4.6	20.596	C
5	1018	1147	50.71	917	1.111	908	34.9	112.530	F

08:50 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	320	1788	48.48	526	0.608	320	1.6	17.597	C
2	1223	1071	48.48	1568	0.780	1225	3.7	10.598	B
3	493	1026	48.48	986	0.500	493	1.0	7.316	A
4	818	892	48.48	1031	0.794	821	4.2	17.572	C
5	973	1108	48.48	934	1.042	927	42.6	157.111	F

09:00 - 09:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	280	1726	42.35	552	0.506	283	1.1	13.532	B
2	1068	1042	42.35	1574	0.678	1077	2.2	7.372	A
3	430	903	42.35	1036	0.415	432	0.7	5.981	A
4	715	784	42.35	1078	0.663	728	2.1	10.604	B
5	850	979	42.35	991	0.858	968	23.1	124.243	F

09:10 - 09:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	223	1407	33.81	668	0.334	226	0.5	8.218	A
2	853	853	33.81	1635	0.522	859	1.1	4.679	A
3	344	720	33.81	1115	0.308	345	0.5	4.689	A
4	571	625	33.81	1124	0.508	577	1.1	6.644	A
5	679	777	33.81	1079	0.629	806	1.8	19.735	C

09:20 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	223	1277	33.81	710	0.314	223	0.5	7.403	A
2	853	767	33.81	1662	0.513	853	1.1	4.452	A
3	344	714	33.81	1113	0.309	344	0.4	4.679	A
4	571	622	33.81	1111	0.514	571	1.1	6.666	A
5	679	770	33.81	1070	0.635	679	1.8	9.226	A

Junction 2 - 2041 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	88.89	F

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	2041 DO SOMETHING	PM	ONE HOUR	17:00	18:30	10

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		✓	52	100.000
2		✓	994	100.000
3		✓	1270	100.000
4		✓	467	100.000
5		✓	656	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	100.00
2	100.00
3	100.00
4	100.00
5	100.00

Origin-Destination Data

Demand (Veh/hr)

		To				
		1	2	3	4	5
From	1	0	20	11	16	5
	2	33	0	181	393	387
	3	207	234	0	377	452
	4	20	329	73	0	45
	5	67	359	214	16	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.08	5.99	0.1	A
2	0.57	4.81	1.3	A
3	1.17	227.82	78.8	F
4	0.56	9.74	1.3	A
5	0.66	10.21	1.8	B

Main Results for each time segment

17:00 - 17:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	35	819	67.62	827	0.043	35	0.0	4.541	A
2	672	224	67.62	1819	0.370	669	0.6	3.120	A
3	859	572	67.62	1168	0.736	843	2.6	10.644	B
4	316	879	67.62	932	0.339	313	0.5	5.789	A
5	444	598	67.62	1045	0.424	439	0.7	5.902	A

17:10 - 17:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	35	829	67.62	825	0.043	35	0.0	4.557	A
2	672	227	67.62	1834	0.366	672	0.6	3.097	A
3	859	575	67.62	1233	0.697	860	2.4	9.716	A
4	316	892	67.62	941	0.336	316	0.5	5.761	A
5	444	606	67.62	1062	0.418	444	0.7	5.823	A

17:20 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	44	1028	84.70	732	0.060	44	0.1	5.230	A
2	842	282	84.70	1776	0.474	840	0.9	3.837	A
3	1076	718	84.70	1170	0.919	1045	7.5	24.261	C
4	396	1094	84.70	856	0.462	394	0.8	7.743	A
5	556	746	84.70	1005	0.553	553	1.2	7.904	A

17:30 - 17:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	50	1160	96.96	674	0.075	50	0.1	5.774	A
2	964	323	96.96	1754	0.550	962	1.2	4.536	A
3	1231	823	96.96	1122	1.097	1103	29.0	70.336	F
4	453	1187	96.96	835	0.542	451	1.1	9.313	A
5	636	822	96.96	1002	0.635	633	1.7	9.693	A

17:40 - 17:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	53	1207	101.43	654	0.081	53	0.1	5.986	A
2	1008	339	101.43	1755	0.575	1007	1.3	4.813	A
3	1288	861	101.43	1105	1.166	1101	60.1	153.515	F
4	474	1205	101.43	842	0.563	473	1.3	9.740	A
5	665	843	101.43	1015	0.655	664	1.8	10.212	B

17:50 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	50	1168	96.96	672	0.075	50	0.1	5.794	A
2	964	325	96.96	1769	0.545	964	1.2	4.477	A
3	1231	825	96.96	1121	1.098	1119	78.8	227.822	F
4	453	1199	96.96	847	0.535	453	1.2	9.161	A
5	636	830	96.96	1023	0.622	637	1.7	9.363	A

18:00 - 18:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	44	1056	84.70	723	0.061	44	0.1	5.300	A
2	842	285	84.70	1796	0.469	844	0.9	3.787	A
3	1076	722	84.70	1169	0.921	1154	65.8	224.092	F
4	396	1172	84.70	851	0.465	397	0.9	7.971	A
5	556	788	84.70	1023	0.543	559	1.2	7.807	A

18:10 - 18:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	35	898	67.62	800	0.044	35	0.0	4.709	A
2	672	228	67.62	1842	0.365	674	0.6	3.088	A
3	859	576	67.62	1235	0.695	1217	6.1	111.086	F
4	316	1144	67.62	856	0.369	318	0.6	6.710	A
5	444	732	67.62	1028	0.431	446	0.8	6.215	A

18:20 - 18:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	35	833	67.62	823	0.043	35	0.0	4.566	A
2	672	227	67.62	1834	0.367	672	0.6	3.100	A
3	859	575	67.62	1236	0.695	881	2.4	10.725	B
4	316	907	67.62	938	0.337	316	0.5	5.801	A
5	444	614	67.62	1060	0.418	444	0.7	5.842	A

Junction 2 - 2023 EXISTING, 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	11.10	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	2023 EXISTING	AM	ONE HOUR	08:00	09:30	10

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		✓	287	100.000
2		✓	1078	100.000
3		✓	417	100.000
4		✓	735	100.000
5		✓	792	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	50.00
5	50.00

Origin-Destination Data

Demand (Veh/hr)

		To				
		1	2	3	4	5
From	1	0	91	103	68	25
	2	62	0	275	411	330
	3	78	124	0	80	135
	4	62	439	227	0	7
	5	18	255	516	3	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.49	11.71	0.9	B
2	0.69	7.37	2.2	A
3	0.42	6.07	0.7	A
4	0.69	10.70	2.1	B
5	0.82	18.98	4.0	C

Main Results for each time segment

08:00 - 08:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	194	1047	33.81	790	0.246	192	0.3	5.998	A
2	729	630	33.81	1711	0.426	725	0.7	3.633	A
3	282	604	33.81	1152	0.245	280	0.3	4.121	A
4	497	507	33.81	1137	0.437	492	0.8	5.543	A
5	536	665	33.81	1073	0.499	530	1.0	6.555	A

08:10 - 08:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	194	1058	33.81	791	0.245	194	0.3	6.027	A
2	729	637	33.81	1719	0.424	729	0.7	3.635	A
3	282	608	33.81	1155	0.244	282	0.3	4.123	A
4	497	510	33.81	1148	0.433	497	0.8	5.531	A
5	536	671	33.81	1086	0.493	536	1.0	6.541	A

08:20 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	243	1317	42.35	685	0.355	242	0.5	8.095	A
2	913	793	42.35	1628	0.561	910	1.3	4.989	A
3	353	759	42.35	1079	0.327	352	0.5	4.948	A
4	623	637	42.35	1094	0.569	619	1.3	7.532	A
5	671	837	42.35	1025	0.654	666	1.8	9.883	A

08:30 - 08:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	278	1506	48.48	617	0.451	277	0.8	10.519	B
2	1045	906	48.48	1583	0.660	1041	1.9	6.600	A
3	404	868	48.48	1030	0.392	403	0.6	5.734	A
4	713	729	48.48	1075	0.663	709	1.9	9.739	A
5	768	958	48.48	1000	0.768	761	3.0	14.587	B

08:40 - 08:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	291	1579	50.71	597	0.488	290	0.9	11.715	B
2	1093	951	50.71	1578	0.693	1092	2.2	7.368	A
3	423	910	50.71	1015	0.417	423	0.7	6.075	A
4	746	764	50.71	1078	0.691	744	2.1	10.697	B
5	803	1004	50.71	979	0.820	797	4.0	18.977	C

08:50 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	278	1520	48.48	621	0.448	279	0.8	10.553	B
2	1045	916	48.48	1599	0.654	1047	1.9	6.541	A
3	404	873	48.48	1033	0.391	405	0.7	5.730	A
4	713	732	48.48	1093	0.652	714	1.9	9.551	A
5	768	963	48.48	997	0.770	771	3.6	16.153	C

09:00 - 09:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	243	1339	42.35	687	0.354	245	0.6	8.180	A
2	913	807	42.35	1644	0.555	917	1.3	4.979	A
3	353	765	42.35	1083	0.326	354	0.5	4.948	A
4	623	641	42.35	1115	0.558	626	1.3	7.427	A
5	671	845	42.35	1049	0.639	681	1.8	10.041	B

09:10 - 09:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	194	1066	33.81	792	0.245	195	0.3	6.052	A
2	729	642	33.81	1724	0.423	732	0.7	3.641	A
3	282	611	33.81	1156	0.244	283	0.3	4.128	A
4	497	512	33.81	1155	0.430	500	0.8	5.524	A
5	536	675	33.81	1098	0.488	541	1.0	6.525	A

09:20 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	194	1058	33.81	791	0.245	194	0.3	6.028	A
2	729	637	33.81	1719	0.424	729	0.7	3.638	A
3	282	608	33.81	1155	0.244	282	0.3	4.125	A
4	497	510	33.81	1148	0.433	497	0.8	5.530	A
5	536	671	33.81	1086	0.493	536	1.0	6.542	A

Junction 2 - 2023 EXISTING, 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	14.00	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	2023 EXISTING	PM	ONE HOUR	17:00	18:30	10

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		✓	43	100.000
2		✓	830	100.000
3		✓	1060	100.000
4		✓	407	100.000
5		✓	510	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	100.00
2	100.00
3	100.00
4	100.00
5	100.00

Origin-Destination Data

Demand (Veh/hr)

		To				
		1	2	3	4	5
From	1	0	17	10	14	2
	2	29	0	158	342	301
	3	180	204	0	328	348
	4	17	287	64	0	39
	5	57	286	153	14	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.06	5.33	0.1	A
2	0.48	3.91	0.9	A
3	0.92	27.60	7.8	D
4	0.48	7.93	0.9	A
5	0.53	7.71	1.1	A

Main Results for each time segment

17:00 - 17:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	29	675	67.62	881	0.033	29	0.0	4.225	A
2	561	172	67.62	1840	0.305	559	0.4	2.802	A
3	717	472	67.62	1177	0.609	708	1.5	7.529	A
4	275	712	67.62	993	0.277	273	0.4	5.000	A
5	345	523	67.62	1067	0.323	342	0.5	4.946	A

17:10 - 17:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	29	682	67.62	879	0.033	29	0.0	4.234	A
2	561	174	67.62	1852	0.303	561	0.4	2.790	A
3	717	475	67.62	1217	0.589	717	1.5	7.209	A
4	275	720	67.62	1001	0.275	275	0.4	4.962	A
5	345	528	67.62	1078	0.320	345	0.5	4.909	A

17:20 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	36	850	84.70	796	0.046	36	0.0	4.740	A
2	703	217	84.70	1794	0.392	702	0.6	3.292	A
3	898	594	84.70	1198	0.749	890	2.8	11.377	B
4	345	895	84.70	919	0.375	343	0.6	6.238	A
5	432	657	84.70	1015	0.426	430	0.7	6.143	A

17:30 - 17:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	42	972	96.96	739	0.056	42	0.1	5.160	A
2	805	248	96.96	1766	0.456	804	0.8	3.736	A
3	1028	680	96.96	1188	0.865	1013	5.3	18.977	C
4	395	1021	96.96	875	0.451	393	0.8	7.449	A
5	495	751	96.96	986	0.502	493	1.0	7.283	A

17:40 - 17:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	44	1018	101.43	719	0.061	44	0.1	5.330	A
2	842	260	101.43	1761	0.478	841	0.9	3.912	A
3	1075	712	101.43	1173	0.916	1060	7.8	27.603	D
4	413	1068	101.43	866	0.477	412	0.9	7.930	A
5	517	786	101.43	982	0.527	517	1.1	7.706	A

17:50 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	42	979	96.96	737	0.057	42	0.1	5.176	A
2	805	249	96.96	1776	0.453	805	0.8	3.711	A
3	1028	681	96.96	1187	0.866	1031	7.2	24.175	C
4	395	1034	96.96	882	0.447	395	0.8	7.399	A
5	495	759	96.96	996	0.496	495	1.0	7.188	A

18:00 - 18:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	36	861	84.70	793	0.046	36	0.0	4.763	A
2	703	218	84.70	1807	0.389	704	0.6	3.269	A
3	898	596	84.70	1226	0.732	924	2.9	12.770	B
4	345	920	84.70	925	0.373	346	0.6	6.230	A
5	432	672	84.70	1027	0.420	434	0.7	6.079	A

18:10 - 18:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	29	686	67.62	878	0.033	29	0.0	4.242	A
2	561	175	67.62	1857	0.302	562	0.4	2.784	A
3	717	476	67.62	1253	0.572	726	1.4	6.944	A
4	275	726	67.62	1004	0.274	277	0.4	4.957	A
5	345	533	67.62	1084	0.318	346	0.5	4.894	A

18:20 - 18:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	29	682	67.62	879	0.033	29	0.0	4.234	A
2	561	174	67.62	1852	0.303	561	0.4	2.788	A
3	717	475	67.62	1212	0.591	716	1.4	7.254	A
4	275	719	67.62	1001	0.275	275	0.4	4.960	A
5	345	528	67.62	1078	0.320	345	0.5	4.908	A

Junction 2 - 2031 STRESS TEST, 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	59.90	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D15	2031 STRESS TEST	AM	ONE HOUR	08:00	09:30	10

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		✓	321	100.000
2		✓	1233	100.000
3		✓	507	100.000
4		✓	817	100.000
5		✓	1045	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	50.00
5	50.00

Origin-Destination Data

Demand (Veh/hr)

		To				
		1	2	3	4	5
From	1	0	101	114	76	30
	2	69	0	306	457	401
	3	87	138	0	89	193
	4	69	488	252	0	8
	5	25	354	663	3	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.62	17.69	1.5	C
2	0.80	10.97	3.7	B
3	0.53	7.81	1.1	A
4	0.82	18.10	4.0	C
5	1.14	188.56	53.6	F

Main Results for each time segment

08:00 - 08:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	217	1266	33.81	706	0.308	214	0.4	7.288	A
2	834	759	33.81	1649	0.506	828	1.0	4.354	A
3	343	695	33.81	1114	0.308	340	0.4	4.634	A
4	552	616	33.81	1096	0.504	546	1.0	6.486	A
5	707	738	33.81	1058	0.668	695	1.9	9.653	A

08:10 - 08:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	217	1284	33.81	706	0.308	217	0.4	7.365	A
2	834	770	33.81	1658	0.503	834	1.0	4.364	A
3	343	701	33.81	1119	0.306	343	0.4	4.639	A
4	552	621	33.81	1109	0.498	552	1.0	6.468	A
5	707	746	33.81	1084	0.652	707	1.9	9.559	A

08:20 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	272	1582	42.35	590	0.461	270	0.8	11.164	B
2	1044	947	42.35	1567	0.666	1039	1.9	6.742	A
3	429	873	42.35	1037	0.414	428	0.7	5.896	A
4	692	774	42.35	1053	0.657	687	1.8	9.696	A
5	885	928	42.35	1013	0.874	864	5.4	21.694	C

08:30 - 08:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	311	1748	48.48	541	0.575	309	1.3	15.302	C
2	1196	1043	48.48	1554	0.769	1188	3.1	9.639	A
3	492	998	48.48	988	0.498	490	1.0	7.208	A
4	792	886	48.48	1034	0.766	785	3.0	14.073	B
5	1013	1061	48.48	954	1.062	925	20.1	61.291	F

08:40 - 08:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	326	1789	50.71	525	0.620	324	1.5	17.693	C
2	1251	1066	50.71	1571	0.796	1247	3.7	10.970	B
3	514	1048	50.71	973	0.528	513	1.1	7.811	A
4	829	929	50.71	1014	0.817	823	4.0	18.099	C
5	1060	1113	50.71	932	1.137	926	42.4	131.053	F

08:50 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	311	1777	48.48	531	0.586	312	1.5	16.494	C
2	1196	1061	48.48	1574	0.760	1198	3.3	9.654	A
3	492	1006	48.48	993	0.495	492	1.0	7.193	A
4	792	891	48.48	1031	0.768	795	3.5	15.482	C
5	1013	1072	48.48	950	1.067	946	53.6	188.556	F

09:00 - 09:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	272	1716	42.35	556	0.489	275	1.0	12.926	B
2	1044	1034	42.35	1569	0.666	1052	2.1	7.068	A
3	429	884	42.35	1043	0.412	431	0.7	5.901	A
4	692	782	42.35	1079	0.641	702	1.9	9.790	A
5	885	945	42.35	1005	0.881	987	36.7	165.026	F

09:10 - 09:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	217	1492	33.81	634	0.343	220	0.5	8.757	A
2	834	906	33.81	1605	0.519	840	1.1	4.734	A
3	343	706	33.81	1120	0.306	344	0.4	4.647	A
4	552	625	33.81	1121	0.493	558	1.0	6.448	A
5	707	752	33.81	1090	0.648	915	2.0	42.374	E

09:20 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	217	1284	33.81	707	0.307	218	0.5	7.362	A
2	834	770	33.81	1660	0.502	834	1.0	4.365	A
3	343	701	33.81	1119	0.306	343	0.4	4.641	A
4	552	621	33.81	1109	0.498	552	1.0	6.467	A
5	707	746	33.81	1085	0.651	707	1.9	9.547	A

Junction 2 - 2031 STRESS TEST, 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	86.57	F

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)
D16	2031 STRESS TEST	PM	ONE HOUR	17:00	18:30	10

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		✓	53	100.000
2		✓	990	100.000
3		✓	1264	100.000
4		✓	452	100.000
5		✓	675	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	100.00
2	100.00
3	100.00
4	100.00
5	100.00

Origin-Destination Data

Demand (Veh/hr)

		To				
		1	2	3	4	5
From	1	0	19	11	16	7
	2	32	0	176	380	402
	3	200	227	0	364	473
	4	19	319	71	0	43
	5	66	364	229	16	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.08	6.00	0.1	A
2	0.57	4.83	1.3	A
3	1.16	222.18	76.6	F
4	0.55	9.68	1.2	A
5	0.66	10.34	1.9	B

Main Results for each time segment

17:00 - 17:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	36	820	67.62	827	0.043	36	0.0	4.547	A
2	669	234	67.62	1814	0.369	666	0.6	3.127	A
3	855	574	67.62	1166	0.733	839	2.6	10.581	B
4	306	894	67.62	925	0.330	303	0.5	5.758	A
5	456	579	67.62	1053	0.433	452	0.8	5.945	A

17:10 - 17:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	36	829	67.62	825	0.043	36	0.0	4.562	A
2	669	237	67.62	1829	0.366	669	0.6	3.103	A
3	855	577	67.62	1230	0.695	856	2.4	9.666	A
4	306	908	67.62	933	0.327	306	0.5	5.733	A
5	456	587	67.62	1071	0.426	456	0.7	5.863	A

17:20 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	45	1029	84.70	732	0.061	45	0.1	5.238	A
2	839	295	84.70	1770	0.474	837	0.9	3.848	A
3	1071	721	84.70	1169	0.916	1041	7.3	23.854	C
4	383	1114	84.70	847	0.452	381	0.8	7.688	A
5	572	723	84.70	1016	0.562	569	1.2	7.985	A

17:30 - 17:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	51	1162	96.96	673	0.076	51	0.1	5.789	A
2	960	338	96.96	1747	0.550	958	1.2	4.553	A
3	1226	825	96.96	1121	1.093	1100	28.2	68.904	F
4	438	1210	96.96	824	0.532	436	1.1	9.248	A
5	654	798	96.96	1015	0.645	652	1.7	9.817	A

17:40 - 17:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	54	1209	101.43	653	0.082	54	0.1	6.004	A
2	1004	355	101.43	1747	0.575	1003	1.3	4.834	A
3	1282	865	101.43	1103	1.162	1100	58.6	150.056	F
4	458	1230	101.43	829	0.553	458	1.2	9.675	A
5	685	818	101.43	1030	0.665	684	1.9	10.341	B

17:50 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	51	1171	96.96	671	0.077	51	0.1	5.809	A
2	960	340	96.96	1762	0.545	961	1.2	4.495	A
3	1226	828	96.96	1120	1.094	1118	76.6	222.182	F
4	438	1224	96.96	834	0.525	439	1.1	9.113	A
5	654	806	96.96	1037	0.631	655	1.8	9.464	A

18:00 - 18:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	45	1057	84.70	723	0.062	45	0.1	5.310	A
2	839	298	84.70	1790	0.469	840	0.9	3.801	A
3	1071	724	84.70	1167	0.917	1152	62.9	216.668	F
4	383	1195	84.70	840	0.456	385	0.9	7.941	A
5	572	764	84.70	1035	0.552	575	1.3	7.869	A

18:10 - 18:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	36	897	67.62	800	0.045	36	0.0	4.712	A
2	669	238	67.62	1837	0.364	671	0.6	3.092	A
3	855	578	67.62	1234	0.693	1211	3.5	102.785	F
4	306	1162	67.62	847	0.361	307	0.6	6.685	A
5	456	709	67.62	1039	0.439	459	0.8	6.240	A

18:20 - 18:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	36	831	67.62	824	0.043	36	0.0	4.567	A
2	669	237	67.62	1829	0.366	669	0.6	3.104	A
3	855	577	67.62	1235	0.692	862	2.4	9.816	A
4	306	912	67.62	935	0.327	306	0.5	5.735	A
5	456	590	67.62	1071	0.426	457	0.8	5.861	A

Junction 2 - 2041 STRESS TEST, 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	78.79	F

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)
D17	2041 STRESS TEST	AM	ONE HOUR	08:00	09:30	10

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		✓	331	100.000
2		✓	1272	100.000
3		✓	522	100.000
4		✓	844	100.000
5		✓	1074	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	50.00
5	50.00

Origin-Destination Data

Demand (Veh/hr)

		To				
		1	2	3	4	5
From	1	0	104	118	78	31
	2	71	0	316	472	413
	3	90	142	0	92	198
	4	71	504	261	0	8
	5	25	364	682	3	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.65	19.23	1.7	C
2	0.82	12.51	4.3	B
3	0.55	8.24	1.2	A
4	0.85	21.85	4.9	C
5	1.19	254.66	74.1	F

Main Results for each time segment

08:00 - 08:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	224	1304	33.81	692	0.324	221	0.5	7.609	A
2	860	781	33.81	1638	0.525	854	1.1	4.552	A
3	353	716	33.81	1106	0.319	350	0.5	4.749	A
4	571	634	33.81	1090	0.524	564	1.1	6.773	A
5	726	762	33.81	1051	0.691	714	2.1	10.324	B

08:10 - 08:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	224	1323	33.81	691	0.324	224	0.5	7.698	A
2	860	793	33.81	1649	0.522	860	1.1	4.565	A
3	353	722	33.81	1110	0.318	353	0.5	4.753	A
4	571	639	33.81	1104	0.517	571	1.1	6.751	A
5	726	770	33.81	1080	0.673	726	2.1	10.205	B

08:20 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	280	1624	42.35	576	0.487	278	0.9	11.969	B
2	1077	972	42.35	1560	0.691	1071	2.1	7.266	A
3	442	899	42.35	1027	0.430	440	0.7	6.118	A
4	715	796	42.35	1049	0.681	709	2.0	10.407	B
5	910	958	42.35	1000	0.910	882	6.8	25.883	D

08:30 - 08:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	321	1771	48.48	533	0.602	318	1.4	16.477	C
2	1233	1056	48.48	1560	0.791	1225	3.5	10.479	B
3	506	1028	48.48	978	0.518	504	1.0	7.574	A
4	818	911	48.48	1022	0.801	809	3.6	16.170	C
5	1041	1094	48.48	940	1.108	922	26.7	77.275	F

08:40 - 08:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	336	1805	50.71	519	0.647	334	1.7	19.228	C
2	1290	1074	50.71	1567	0.824	1285	4.3	12.515	B
3	529	1079	50.71	964	0.549	529	1.2	8.245	A
4	856	956	50.71	1003	0.854	848	4.9	21.845	C
5	1089	1147	50.71	917	1.188	914	55.9	171.279	F

08:50 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	321	1793	48.48	524	0.613	321	1.6	17.857	C
2	1233	1069	48.48	1569	0.786	1236	3.9	10.919	B
3	506	1037	48.48	984	0.514	507	1.1	7.559	A
4	818	918	48.48	1019	0.803	821	4.4	18.618	C
5	1041	1108	48.48	934	1.115	932	74.1	254.660	F

09:00 - 09:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	280	1735	42.35	548	0.512	284	1.1	13.786	B
2	1077	1043	42.35	1578	0.683	1087	2.2	7.481	A
3	442	913	42.35	1033	0.428	444	0.8	6.133	A
4	715	806	42.35	1069	0.669	729	2.1	10.986	B
5	910	980	42.35	990	0.919	977	62.9	249.030	F

09:10 - 09:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	224	1657	33.81	572	0.391	226	0.7	10.491	B
2	860	1011	33.81	1556	0.553	866	1.3	5.260	A
3	353	728	33.81	1112	0.317	355	0.5	4.763	A
4	571	643	33.81	1118	0.510	577	1.1	6.726	A
5	726	778	33.81	1079	0.673	1062	6.9	123.236	F

09:20 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	224	1351	33.81	684	0.327	225	0.5	7.864	A
2	860	812	33.81	1642	0.524	861	1.1	4.615	A
3	353	723	33.81	1110	0.318	353	0.5	4.755	A
4	571	639	33.81	1104	0.517	571	1.1	6.754	A
5	726	770	33.81	1082	0.671	755	2.1	11.864	B

Junction 2 - 2041 STRESS TEST, 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	117.70	F

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)
D18	2041 STRESS TEST	PM	ONE HOUR	17:00	18:30	10

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		✓	54	100.000
2		✓	1020	100.000
3		✓	1304	100.000
4		✓	467	100.000
5		✓	694	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	100.00
2	100.00
3	100.00
4	100.00
5	100.00

Origin-Destination Data

Demand (Veh/hr)

		To				
		1	2	3	4	5
From	1	0	20	11	16	7
	2	33	0	181	393	413
	3	207	234	0	377	486
	4	20	329	73	0	45
	5	69	375	234	16	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		1	2	3	4	5
From	1	0	5	5	5	5
	2	5	0	5	5	5
	3	5	5	0	5	5
	4	5	5	5	0	5
	5	5	5	5	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.09	6.11	0.1	A
2	0.59	5.01	1.4	A
3	1.21	305.97	102.2	F
4	0.57	9.97	1.3	A
5	0.68	10.76	2.0	B

Main Results for each time segment

17:00 - 17:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	37	843	67.62	819	0.045	36	0.0	4.600	A
2	690	239	67.62	1813	0.381	686	0.6	3.185	A
3	882	590	67.62	1167	0.755	865	2.9	11.339	B
4	316	919	67.62	916	0.345	313	0.5	5.935	A
5	469	597	67.62	1047	0.448	464	0.8	6.130	A

17:10 - 17:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	37	853	67.62	816	0.045	37	0.0	4.617	A
2	690	241	67.62	1828	0.377	690	0.6	3.160	A
3	882	594	67.62	1227	0.719	883	2.7	10.521	B
4	316	934	67.62	925	0.341	316	0.5	5.908	A
5	469	606	67.62	1066	0.440	469	0.8	6.035	A

17:20 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	46	1056	84.70	722	0.063	46	0.1	5.320	A
2	864	301	84.70	1770	0.488	862	0.9	3.955	A
3	1105	742	84.70	1159	0.953	1063	9.6	29.144	D
4	396	1138	84.70	841	0.470	393	0.9	8.005	A
5	588	743	84.70	1014	0.580	585	1.3	8.328	A

17:30 - 17:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	52	1188	96.96	664	0.079	52	0.1	5.885	A
2	989	345	96.96	1748	0.566	987	1.3	4.712	A
3	1264	850	96.96	1110	1.139	1098	37.4	87.502	F
4	453	1219	96.96	826	0.548	451	1.2	9.558	A
5	673	811	96.96	1018	0.661	670	1.9	10.236	B

17:40 - 17:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	55	1236	101.43	644	0.085	55	0.1	6.108	A
2	1035	362	101.43	1751	0.591	1034	1.4	5.015	A
3	1323	890	101.43	1092	1.212	1090	76.2	194.349	F
4	474	1234	101.43	833	0.568	473	1.3	9.966	A
5	704	829	101.43	1036	0.680	703	2.0	10.764	B

17:50 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	52	1196	96.96	662	0.079	52	0.1	5.904	A
2	989	347	96.96	1766	0.560	990	1.3	4.647	A
3	1264	852	96.96	1109	1.140	1108	102.2	292.339	F
4	453	1227	96.96	839	0.540	453	1.2	9.362	A
5	673	816	96.96	1042	0.646	674	1.9	9.813	A

18:00 - 18:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	46	1080	84.70	715	0.064	46	0.1	5.381	A
2	864	304	84.70	1791	0.482	866	0.9	3.900	A
3	1105	746	84.70	1158	0.954	1146	95.3	305.973	F
4	396	1200	84.70	842	0.470	397	0.9	8.132	A
5	588	775	84.70	1038	0.566	591	1.3	8.120	A

18:10 - 18:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	37	917	67.62	793	0.046	37	0.0	4.760	A
2	690	243	67.62	1837	0.375	692	0.6	3.148	A
3	882	595	67.62	1226	0.719	1214	39.9	202.586	F
4	316	1170	67.62	846	0.373	318	0.6	6.831	A
5	469	720	67.62	1038	0.452	472	0.8	6.394	A

18:20 - 18:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	37	893	67.62	801	0.046	37	0.0	4.706	A
2	690	241	67.62	1828	0.377	690	0.6	3.163	A
3	882	594	67.62	1227	0.719	1104	2.9	52.448	F
4	316	1091	67.62	868	0.364	316	0.6	6.525	A
5	469	681	67.62	1039	0.452	469	0.8	6.320	A

<h1>Junctions 9</h1>
<h2>ARCADY 9 - Roundabout Module</h2>
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Filename: Junction 3 - AM and PM.j9

Path: M:\Projects\20\20-074 - Churchfields\Design\Civil\02 Sector 4\03 Traffic\Junction Modelling\Junction 3

Report generation date: 25/05/2023 14:35:54

-
- »Junction 3 - 2026 DO NOTHING, AM
 - »Junction 3 - 2026 DO NOTHING, PM
 - »Junction 3 - 2031 DO NOTHING, AM
 - »Junction 3 - 2031 DO NOTHING, PM
 - »Junction 3 - 2041 DO NOTHING, AM
 - »Junction 3 - 2041 DO NOTHING, PM
 - »Junction 3 - 2026 DO SOMETHING, AM
 - »Junction 3 - 2026 DO SOMETHING, PM
 - »Junction 3 - 2031 DO SOMETHING, AM
 - »Junction 3 - 2031 DO SOMETHING, PM
 - »Junction 3 - 2041 DO SOMETHING, AM
 - »Junction 3 - 2041 DO SOMETHING, PM
 - »Junction 3 - 2023 EXISTING, AM
 - »Junction 3 - 2023 EXISTING, PM
 - »Junction 3 - 2031 STRESS TEST, AM
 - »Junction 3 - 2031 STRESS TEST, PM
 - »Junction 3 - 2041 STRESS TEST, AM
 - »Junction 3 - 2041 STRESS TEST, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
Junction 3 - 2026 DO NOTHING										
Arm 1	D1	0.9	9.18	0.47	A	D2	0.5	8.06	0.33	A
Arm 2		2.7	13.97	0.74	B		1.1	7.42	0.53	A
Arm 3		1.5	10.45	0.61	B		0.7	6.59	0.42	A
Arm 4		1.6	9.40	0.63	A		2.2	11.38	0.70	B
Junction 3 - 2031 DO NOTHING										
Arm 1	D3	1.0	9.95	0.51	A	D4	0.6	8.62	0.36	A
Arm 2		3.5	17.48	0.80	C		1.3	8.06	0.56	A
Arm 3		1.7	11.55	0.64	B		0.8	6.96	0.45	A
Arm 4		1.9	10.24	0.66	B		2.8	13.60	0.75	B
Junction 3 - 2041 DO NOTHING										
Arm 1	D5	1.1	10.43	0.53	B	D6	0.6	8.99	0.38	A
Arm 2		4.2	20.07	0.83	C		1.4	8.47	0.58	A
Arm 3		1.9	12.19	0.66	B		0.8	7.19	0.46	A
Arm 4		2.1	10.74	0.68	B		3.3	15.43	0.78	C
Junction 3 - 2026 DO SOMETHING										
Arm 1	D7	0.9	9.43	0.48	A	D8	0.5	8.32	0.35	A
Arm 2		2.8	14.42	0.75	B		1.2	7.76	0.55	A
Arm 3		1.6	11.00	0.63	B		0.8	6.74	0.43	A
Arm 4		1.7	9.68	0.64	A		2.3	11.56	0.70	B
Junction 3 - 2031 DO SOMETHING										
Arm 1	D9	1.0	10.21	0.52	B	D10	0.6	8.91	0.38	A
Arm 2		3.7	18.20	0.80	C		1.4	8.46	0.58	A
Arm 3		1.9	12.19	0.67	B		0.8	7.13	0.46	A
Arm 4		2.0	10.57	0.67	B		2.9	14.07	0.76	B
Junction 3 - 2041 DO SOMETHING										
Arm 1	D11	1.1	10.73	0.54	B	D12	0.6	9.29	0.40	A
Arm 2		4.4	20.99	0.83	C		1.5	8.92	0.60	A
Arm 3		2.1	13.36	0.69	B		0.9	7.36	0.48	A
Arm 4		2.1	11.09	0.69	B		3.4	16.00	0.79	C
Junction 3 - 2023 EXISTING										
Arm 1	D13	0.7	8.11	0.41	A	D14	0.4	7.10	0.26	A
Arm 2		2.0	11.03	0.67	B		0.8	6.36	0.46	A
Arm 3		1.0	8.72	0.52	A		0.5	5.87	0.35	A
Arm 4		1.4	8.34	0.59	A		1.9	10.07	0.67	B
Junction 3 - 2031 STRESS TEST										
Arm 1	D15	1.1	10.88	0.54	B	D16	0.7	9.62	0.43	A
Arm 2		4.1	20.01	0.82	C		1.6	9.55	0.62	A
Arm 3		2.7	15.53	0.74	C		1.0	7.54	0.50	A
Arm 4		2.1	11.37	0.69	B		3.2	15.26	0.78	C
Junction 3 - 2041 STRESS TEST										
Arm 1	D17	1.2	11.44	0.56	B	D18	0.8	10.05	0.44	B
Arm 2		4.9	23.32	0.85	C		1.7	10.11	0.64	B
Arm 3		3.1	17.53	0.77	C		1.0	7.80	0.51	A
Arm 4		2.3	12.09	0.71	B		3.8	17.61	0.81	C

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

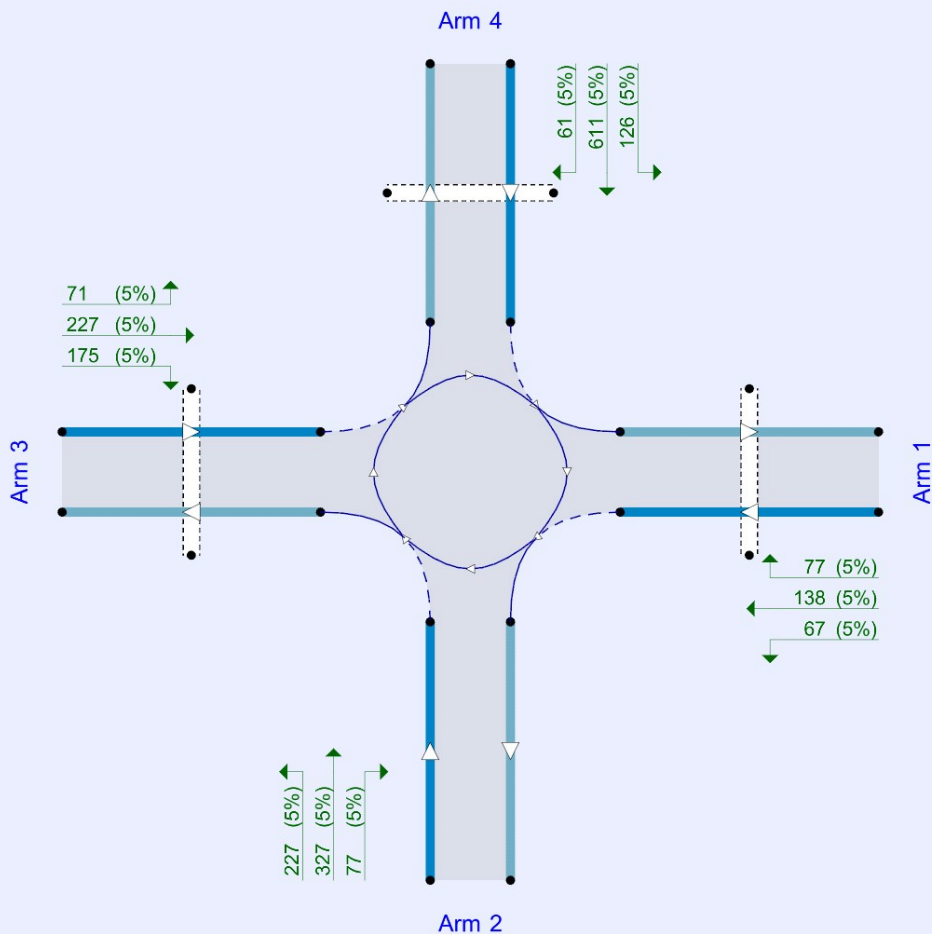
File summary

File Description

Title	
Location	
Site number	
Date	08/01/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DOMAINf.silva
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



Flows show original traffic demand (Veh/hr).

The junction diagram reflects the last run of Junctions.

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2026 DO NOTHING	AM	ONE HOUR	08:00	09:30	10
D2	2026 DO NOTHING	PM	ONE HOUR	17:00	18:30	10
D3	2031 DO NOTHING	AM	ONE HOUR	08:00	09:30	10
D4	2031 DO NOTHING	PM	ONE HOUR	17:00	18:30	10
D5	2041 DO NOTHING	AM	ONE HOUR	08:00	09:30	10
D6	2041 DO NOTHING	PM	ONE HOUR	17:00	18:30	10
D7	2026 DO SOMETHING	AM	ONE HOUR	08:00	09:30	10
D8	2026 DO SOMETHING	PM	ONE HOUR	17:00	18:30	10
D9	2031 DO SOMETHING	AM	ONE HOUR	08:00	09:30	10
D10	2031 DO SOMETHING	PM	ONE HOUR	17:00	18:30	10
D11	2041 DO SOMETHING	AM	ONE HOUR	08:00	09:30	10
D12	2041 DO SOMETHING	PM	ONE HOUR	17:00	18:30	10
D13	2023 EXISTING	AM	ONE HOUR	08:00	09:30	10
D14	2023 EXISTING	PM	ONE HOUR	17:00	18:30	10
D15	2031 STRESS TEST	AM	ONE HOUR	08:00	09:30	10
D16	2031 STRESS TEST	PM	ONE HOUR	17:00	18:30	10
D17	2041 STRESS TEST	AM	ONE HOUR	08:00	09:30	10
D18	2041 STRESS TEST	PM	ONE HOUR	17:00	18:30	10

Analysis Set Details

ID	Name	Network flow scaling factor (%)
A1	Junction 3	100.000

Junction 3 - 2026 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	11.08	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Castlecarragh (E)	
2	Church Road (S)	
3	Ladyswell Road (W)	
4	Church Road (N)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1	3.50	4.52	3.0	36.4	36.0	29.0	
2	3.00	5.24	4.7	20.1	36.0	23.1	
3	4.50	4.73	0.4	23.6	36.0	33.1	
4	3.50	4.68	7.6	15.1	36.0	13.1	

Pelican/Puffin Crossings

Arm	Space between crossing and junc. entry (Signalised) (PCU)	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)
1	20.00	3.00	2.90	1.00	6.00	6.00	7.00
3	20.00	3.00	2.90	1.00	6.00	6.00	7.00
4	45.00	3.00	2.90	1.00	6.00	6.00	7.00

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.565	1240
2	0.558	1206
3	0.584	1381
4	0.593	1355

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	2026 DO NOTHING	AM	ONE HOUR	08:00	09:30	10

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		✓	344	100.000
2		✓	710	100.000
3		✓	517	100.000
4		✓	638	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	100.00
2	
3	100.00
4	100.00

Origin-Destination Data

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	0	132	76	136
	2	71	0	151	488
	3	168	109	0	240
	4	91	445	102	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	0.47	9.18	0.9	A
2	0.74	13.97	2.7	B
3	0.61	10.45	1.5	B
4	0.63	9.40	1.6	A

Main Results for each time segment

08:00 - 08:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	233	439	67.62	836	0.278	230	0.4	5.922	A
2	480	210		1031	0.466	475	0.9	6.414	A
3	350	465	67.62	940	0.372	346	0.6	6.030	A
4	431	233	67.62	1039	0.415	427	0.7	5.843	A

08:10 - 08:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	233	444	67.62	845	0.275	233	0.4	5.884	A
2	480	212		1030	0.466	480	0.9	6.540	A
3	350	470	67.62	953	0.367	350	0.6	5.961	A
4	431	235	67.62	1057	0.408	431	0.7	5.752	A

08:20 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	291	553	84.70	780	0.373	290	0.6	7.327	A
2	601	265		1001	0.601	598	1.5	8.851	A
3	438	585	84.70	889	0.493	436	0.9	7.901	A
4	540	293	84.70	1021	0.529	538	1.1	7.411	A

08:30 - 08:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	334	634	96.96	747	0.447	332	0.8	8.661	A
2	688	303		979	0.703	684	2.2	11.972	B
3	501	670	96.96	865	0.580	499	1.3	9.770	A
4	619	336	96.96	1018	0.608	616	1.5	8.898	A

08:40 - 08:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	349	664	101.43	740	0.472	348	0.9	9.178	A
2	720	318		971	0.741	717	2.7	13.973	B
3	524	703	101.43	867	0.605	523	1.5	10.449	B
4	647	352	101.43	1028	0.630	646	1.6	9.397	A

08:50 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	334	637	96.96	756	0.441	334	0.8	8.539	A
2	688	305		979	0.703	690	2.5	12.547	B
3	501	675	96.96	883	0.568	502	1.4	9.486	A
4	619	338	96.96	1038	0.596	619	1.5	8.625	A

09:00 - 09:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	291	558	84.70	792	0.368	293	0.6	7.228	A
2	601	267		1000	0.602	607	1.6	9.291	A
3	438	594	84.70	911	0.481	440	0.9	7.695	A
4	540	297	84.70	1047	0.516	543	1.1	7.182	A

09:10 - 09:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	233	446	67.62	849	0.274	234	0.4	5.861	A
2	480	213		1030	0.466	484	0.9	6.647	A
3	350	474	67.62	962	0.364	352	0.6	5.924	A
4	431	237	67.62	1067	0.404	434	0.7	5.706	A

09:20 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	233	444	67.62	845	0.275	233	0.4	5.881	A
2	480	212		1030	0.466	480	0.9	6.548	A
3	350	470	67.62	953	0.367	350	0.6	5.963	A
4	431	235	67.62	1057	0.408	431	0.7	5.755	A

Junction 3 - 2026 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	8.86	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2026 DO NOTHING	PM	ONE HOUR	17:00	18:30	10

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		✓	220	100.000
2		✓	537	100.000
3		✓	388	100.000
4		✓	725	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	100.00
2	
3	100.00
4	100.00

Origin-Destination Data

Demand (Veh/hr)

	To				
	1	2	3	4	
From	1	0	61	89	70
	2	70	0	169	298
	3	186	137	0	65
	4	115	555	55	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	0.33	8.06	0.5	A
2	0.53	7.42	1.1	A
3	0.42	6.59	0.7	A
4	0.70	11.38	2.2	B

Main Results for each time segment

17:00 - 17:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	149	500	67.62	802	0.186	147	0.2	5.492	A
2	363	143		1069	0.340	360	0.5	5.059	A
3	262	294	67.62	1022	0.257	260	0.3	4.716	A
4	490	264	67.62	1028	0.477	485	0.9	6.562	A

17:10 - 17:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	149	505	67.62	805	0.185	149	0.2	5.483	A
2	363	145		1068	0.340	363	0.5	5.107	A
3	262	296	67.62	1030	0.255	262	0.3	4.689	A
4	490	266	67.62	1052	0.466	490	0.9	6.413	A

17:20 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	186	629	84.70	730	0.255	186	0.3	6.607	A
2	455	181		1048	0.434	453	0.8	6.040	A
3	329	370	84.70	975	0.337	328	0.5	5.553	A
4	614	332	84.70	1020	0.602	611	1.5	8.720	A

17:30 - 17:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	213	721	96.96	683	0.312	213	0.4	7.638	A
2	521	207		1033	0.504	519	1.0	6.983	A
3	376	423	96.96	946	0.398	375	0.7	6.302	A
4	703	380	96.96	1029	0.683	699	2.0	10.779	B

17:40 - 17:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	223	757	101.43	669	0.334	223	0.5	8.064	A
2	545	217		1028	0.530	544	1.1	7.418	A
3	394	444	101.43	939	0.419	393	0.7	6.590	A
4	735	398	101.43	1049	0.701	734	2.2	11.378	B

17:50 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	213	725	96.96	687	0.310	214	0.5	7.603	A
2	521	208		1033	0.504	521	1.0	7.045	A
3	376	425	96.96	953	0.395	376	0.7	6.249	A
4	703	381	96.96	1058	0.665	704	2.1	10.229	B

18:00 - 18:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	186	636	84.70	734	0.254	187	0.3	6.583	A
2	455	182		1047	0.434	456	0.8	6.112	A
3	329	372	84.70	985	0.334	330	0.5	5.503	A
4	614	334	84.70	1057	0.581	618	1.4	8.274	A

18:10 - 18:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	149	508	67.62	807	0.184	149	0.2	5.482	A
2	363	145		1067	0.340	365	0.5	5.133	A
3	262	297	67.62	1034	0.254	263	0.3	4.679	A
4	490	267	67.62	1066	0.460	494	0.9	6.326	A

18:20 - 18:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	149	505	67.62	805	0.185	149	0.2	5.484	A
2	363	145		1068	0.340	363	0.5	5.107	A
3	262	296	67.62	1030	0.255	262	0.3	4.691	A
4	490	266	67.62	1051	0.467	490	0.9	6.420	A

Junction 3 - 2031 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	12.83	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	2031 DO NOTHING	AM	ONE HOUR	08:00	09:30	10

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		✓	364	100.000
2		✓	754	100.000
3		✓	546	100.000
4		✓	679	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	100.00
2	
3	100.00
4	100.00

Origin-Destination Data

Demand (Veh/hr)

	To				
	1	2	3	4	
From	1	0	140	80	144
	2	76	0	159	519
	3	176	114	0	256
	4	97	473	109	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	0.51	9.95	1.0	A
2	0.80	17.48	3.5	C
3	0.64	11.55	1.7	B
4	0.66	10.24	1.9	B

Main Results for each time segment

08:00 - 08:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	246	466	67.62	824	0.299	244	0.4	6.178	A
2	510	223		1024	0.498	504	1.0	6.846	A
3	369	494	67.62	927	0.398	365	0.7	6.372	A
4	459	245	67.62	1035	0.443	454	0.8	6.149	A

08:10 - 08:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	246	471	67.62	833	0.295	246	0.4	6.133	A
2	510	225		1023	0.498	510	1.0	7.011	A
3	369	500	67.62	942	0.392	369	0.6	6.287	A
4	459	247	67.62	1056	0.435	459	0.8	6.039	A

08:20 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	308	587	84.70	768	0.402	307	0.7	7.762	A
2	639	281		992	0.644	634	1.7	9.805	A
3	462	622	84.70	878	0.527	460	1.1	8.565	A
4	575	308	84.70	1022	0.563	572	1.3	7.961	A

08:30 - 08:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	353	672	96.96	735	0.480	351	0.9	9.341	A
2	731	322		969	0.754	725	2.8	14.304	B
3	529	711	96.96	858	0.617	527	1.5	10.779	B
4	658	353	96.96	1024	0.643	656	1.7	9.689	A

08:40 - 08:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	369	705	101.43	730	0.506	369	1.0	9.951	A
2	765	337		961	0.796	761	3.5	17.481	C
3	554	746	101.43	863	0.642	553	1.7	11.554	B
4	689	370	101.43	1037	0.664	688	1.9	10.245	B

08:50 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	353	676	96.96	746	0.473	353	0.9	9.179	A
2	731	323		968	0.755	733	3.3	15.466	C
3	529	718	96.96	878	0.603	530	1.6	10.387	B
4	658	356	96.96	1047	0.629	659	1.7	9.319	A

09:00 - 09:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	308	593	84.70	781	0.395	310	0.7	7.660	A
2	639	283		991	0.645	647	1.9	10.714	B
3	462	633	84.70	902	0.513	465	1.1	8.297	A
4	575	312	84.70	1051	0.547	578	1.2	7.662	A

09:10 - 09:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	246	474	67.62	839	0.294	248	0.4	6.107	A
2	510	227		1022	0.499	515	1.0	7.171	A
3	369	504	67.62	951	0.388	372	0.6	6.241	A
4	459	249	67.62	1067	0.430	462	0.8	5.979	A

09:20 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	246	471	67.62	833	0.295	246	0.4	6.132	A
2	510	225		1023	0.498	510	1.0	7.020	A
3	369	500	67.62	941	0.392	369	0.6	6.290	A
4	459	247	67.62	1055	0.435	459	0.8	6.042	A

Junction 3 - 2031 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	10.06	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)
D4	2031 DO NOTHING	PM	ONE HOUR	17:00	18:30	10

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		✓	231	100.000
2		✓	568	100.000
3		✓	409	100.000
4		✓	772	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	100.00
2	
3	100.00
4	100.00

Origin-Destination Data

Demand (Veh/hr)

	To				
	1	2	3	4	
From	1	0	64	93	74
	2	74	0	177	317
	3	196	144	0	69
	4	122	591	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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.36	8.62	0.6	A
2	0.56	8.06	1.3	A
3	0.45	6.96	0.8	A
4	0.75	13.60	2.8	B

Main Results for each time segment

17:00 - 17:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	156	531	67.62	787	0.199	155	0.2	5.686	A
2	384	151		1064	0.361	381	0.6	5.242	A
3	277	312	67.62	1013	0.273	274	0.4	4.858	A
4	522	278	67.62	1025	0.510	516	1.0	6.998	A

17:10 - 17:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	156	537	67.62	790	0.198	156	0.2	5.676	A
2	384	153		1063	0.361	384	0.6	5.298	A
3	277	314	67.62	1022	0.271	277	0.4	4.830	A
4	522	280	67.62	1051	0.497	522	1.0	6.807	A

17:20 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	196	669	84.70	713	0.275	195	0.4	6.944	A
2	481	191		1042	0.462	479	0.8	6.376	A
3	346	392	84.70	966	0.359	345	0.6	5.787	A
4	654	350	84.70	1023	0.639	650	1.7	9.542	A

17:30 - 17:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	224	766	96.96	665	0.337	223	0.5	8.133	A
2	551	218		1027	0.536	549	1.1	7.503	A
3	397	449	96.96	937	0.423	396	0.7	6.637	A
4	749	400	96.96	1041	0.719	744	2.4	11.934	B

17:40 - 17:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	234	803	101.43	651	0.360	234	0.6	8.623	A
2	576	229		1021	0.564	575	1.3	8.058	A
3	415	471	101.43	931	0.445	414	0.8	6.958	A
4	783	419	101.43	1041	0.752	780	2.8	13.603	B

17:50 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	224	771	96.96	669	0.335	224	0.5	8.093	A
2	551	219		1026	0.537	551	1.2	7.588	A
3	397	451	96.96	945	0.419	397	0.7	6.567	A
4	749	402	96.96	1052	0.712	750	2.6	12.025	B

18:00 - 18:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	196	678	84.70	717	0.273	196	0.4	6.925	A
2	481	192		1041	0.462	483	0.9	6.471	A
3	346	395	84.70	977	0.355	347	0.6	5.730	A
4	654	352	84.70	1071	0.610	660	1.6	8.863	A

18:10 - 18:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	156	541	67.62	792	0.197	157	0.2	5.673	A
2	384	154		1063	0.361	386	0.6	5.333	A
3	277	316	67.62	1027	0.269	278	0.4	4.815	A
4	522	281	67.62	1067	0.489	526	1.0	6.703	A

18:20 - 18:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	156	537	67.62	791	0.198	156	0.2	5.676	A
2	384	153		1063	0.361	384	0.6	5.301	A
3	277	314	67.62	1022	0.271	277	0.4	4.830	A
4	522	280	67.62	1050	0.497	522	1.0	6.822	A

Junction 3 - 2041 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	14.03	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)
D5	2041 DO NOTHING	AM	ONE HOUR	08:00	09:30	10

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		✓	376	100.000
2		✓	777	100.000
3		✓	561	100.000
4		✓	702	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	100.00
2	
3	100.00
4	100.00

Origin-Destination Data

Demand (Veh/hr)

	To				
	1	2	3	4	
From	1	0	145	82	149
	2	78	0	163	536
	3	181	116	0	264
	4	100	489	113	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	0.53	10.43	1.1	B
2	0.83	20.07	4.2	C
3	0.66	12.19	1.9	B
4	0.68	10.74	2.1	B

Main Results for each time segment

08:00 - 08:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	254	480	67.62	817	0.311	252	0.4	6.334	A
2	525	230		1020	0.515	519	1.0	7.100	A
3	379	510	67.62	919	0.413	375	0.7	6.569	A
4	475	251	67.62	1034	0.459	470	0.8	6.329	A

08:10 - 08:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	254	486	67.62	827	0.307	254	0.4	6.285	A
2	525	233		1019	0.516	525	1.1	7.291	A
3	379	516	67.62	936	0.406	379	0.7	6.473	A
4	475	254	67.62	1055	0.450	475	0.8	6.206	A

08:20 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	318	605	84.70	761	0.418	317	0.7	8.074	A
2	658	290		987	0.667	653	1.9	10.616	B
3	475	642	84.70	871	0.545	472	1.2	8.955	A
4	595	316	84.70	1023	0.582	591	1.3	8.290	A

08:30 - 08:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	365	693	96.96	729	0.500	363	1.0	9.781	A
2	753	332		963	0.782	745	3.2	15.909	C
3	544	733	96.96	854	0.637	541	1.7	11.369	B
4	681	361	96.96	1028	0.662	678	1.9	10.159	B

08:40 - 08:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	381	727	101.43	725	0.526	381	1.1	10.431	B
2	788	348		954	0.826	783	4.2	20.072	C
3	569	769	101.43	861	0.661	568	1.9	12.190	B
4	712	379	101.43	1044	0.682	711	2.1	10.741	B

08:50 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	365	697	96.96	742	0.492	365	1.0	9.580	A
2	753	334		962	0.783	755	3.9	17.668	C
3	544	741	96.96	876	0.621	545	1.7	10.911	B
4	681	364	96.96	1053	0.646	682	1.9	9.724	A

09:00 - 09:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	318	612	84.70	776	0.410	320	0.7	7.925	A
2	658	293		985	0.668	669	2.1	11.715	B
3	475	655	84.70	898	0.529	478	1.2	8.652	A
4	595	320	84.70	1055	0.564	598	1.3	7.940	A

09:10 - 09:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	254	489	67.62	833	0.305	256	0.4	6.256	A
2	525	234		1018	0.516	532	1.1	7.490	A
3	379	521	67.62	945	0.401	382	0.7	6.422	A
4	475	256	67.62	1067	0.445	478	0.8	6.135	A

09:20 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	254	486	67.62	827	0.307	254	0.4	6.284	A
2	525	233		1019	0.516	525	1.1	7.298	A
3	379	516	67.62	935	0.406	379	0.7	6.477	A
4	475	254	67.62	1054	0.450	475	0.8	6.210	A

Junction 3 - 2041 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	10.98	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)
D6	2041 DO NOTHING	PM	ONE HOUR	17:00	18:30	10

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		✓	239	100.000
2		✓	586	100.000
3		✓	421	100.000
4		✓	798	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	100.00
2	
3	100.00
4	100.00

Origin-Destination Data

Demand (Veh/hr)

	To				
	1	2	3	4	
From	1	0	67	95	77
	2	77	0	182	327
	3	202	148	0	71
	4	126	611	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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.38	8.99	0.6	A
2	0.58	8.47	1.4	A
3	0.46	7.19	0.8	A
4	0.78	15.43	3.3	C

Main Results for each time segment

17:00 - 17:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	162	548	67.62	778	0.208	160	0.3	5.809	A
2	396	156		1062	0.373	393	0.6	5.354	A
3	285	322	67.62	1008	0.282	282	0.4	4.944	A
4	540	286	67.62	1022	0.528	533	1.1	7.272	A

17:10 - 17:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	162	555	67.62	782	0.207	162	0.3	5.798	A
2	396	158		1061	0.374	396	0.6	5.417	A
3	285	325	67.62	1017	0.280	285	0.4	4.914	A
4	540	289	67.62	1051	0.514	540	1.1	7.049	A

17:20 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	202	690	84.70	703	0.288	202	0.4	7.163	A
2	496	196		1039	0.478	495	0.9	6.588	A
3	357	406	84.70	961	0.371	355	0.6	5.934	A
4	676	360	84.70	1024	0.660	671	1.9	10.055	B

17:30 - 17:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	232	791	96.96	655	0.354	231	0.5	8.462	A
2	568	225		1023	0.555	566	1.2	7.844	A
3	408	465	96.96	932	0.438	407	0.8	6.839	A
4	774	413	96.96	1045	0.740	769	2.7	12.776	B

17:40 - 17:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	242	828	101.43	642	0.378	242	0.6	8.988	A
2	594	236		1017	0.584	593	1.4	8.473	A
3	427	487	101.43	927	0.461	427	0.8	7.186	A
4	809	433	101.43	1034	0.783	805	3.3	15.425	C

17:50 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	232	797	96.96	660	0.351	232	0.6	8.413	A
2	568	226		1022	0.556	569	1.3	7.949	A
3	408	467	96.96	941	0.434	409	0.8	6.767	A
4	774	414	96.96	1044	0.741	776	3.0	13.533	B

18:00 - 18:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	202	701	84.70	708	0.286	203	0.4	7.145	A
2	496	199		1038	0.478	498	0.9	6.701	A
3	357	409	84.70	973	0.367	358	0.6	5.868	A
4	676	363	84.70	1075	0.629	683	1.8	9.366	A

18:10 - 18:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	162	559	67.62	785	0.206	162	0.3	5.796	A
2	396	159		1060	0.374	398	0.6	5.453	A
3	285	327	67.62	1022	0.279	286	0.4	4.896	A
4	540	290	67.62	1068	0.505	544	1.0	6.928	A

18:20 - 18:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	162	554	67.62	783	0.207	162	0.3	5.799	A
2	396	158		1061	0.374	396	0.6	5.420	A
3	285	325	67.62	1018	0.280	285	0.4	4.914	A
4	540	289	67.62	1049	0.515	540	1.1	7.069	A

Junction 3 - 2026 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	11.47	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)
D7	2026 DO SOMETHING	AM	ONE HOUR	08:00	09:30	10

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		✓	350	100.000
2		✓	715	100.000
3		✓	546	100.000
4		✓	638	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	100.00
2	
3	100.00
4	100.00

Origin-Destination Data

Demand (Veh/hr)

	To				
	1	2	3	4	
From	1	0	132	82	136
	2	71	0	156	488
	3	182	124	0	240
	4	91	445	102	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	0.48	9.43	0.9	A
2	0.75	14.42	2.8	B
3	0.63	11.00	1.6	B
4	0.64	9.68	1.7	A

Main Results for each time segment

08:00 - 08:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	237	449	67.62	832	0.285	234	0.4	6.006	A
2	483	214		1029	0.470	478	0.9	6.475	A
3	369	465	67.62	941	0.392	365	0.6	6.211	A
4	431	252	67.62	1029	0.419	427	0.7	5.937	A

08:10 - 08:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	237	454	67.62	840	0.282	237	0.4	5.966	A
2	483	216		1028	0.470	483	0.9	6.608	A
3	369	470	67.62	956	0.386	369	0.6	6.134	A
4	431	255	67.62	1048	0.412	431	0.7	5.845	A

08:20 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	296	566	84.70	775	0.382	295	0.6	7.478	A
2	606	270		998	0.607	602	1.5	9.003	A
3	462	585	84.70	894	0.517	460	1.0	8.247	A
4	540	318	84.70	1010	0.535	538	1.1	7.583	A

08:30 - 08:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	339	648	96.96	742	0.457	338	0.8	8.887	A
2	693	309		976	0.710	688	2.3	12.283	B
3	529	670	96.96	874	0.606	527	1.5	10.286	B
4	619	364	96.96	1007	0.615	616	1.5	9.154	A

08:40 - 08:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	355	680	101.43	736	0.483	354	0.9	9.430	A
2	725	324		968	0.749	722	2.8	14.421	B
3	554	702	101.43	879	0.630	553	1.6	11.002	B
4	647	382	101.43	1017	0.637	646	1.7	9.680	A

08:50 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	339	652	96.96	752	0.451	340	0.8	8.750	A
2	693	311		975	0.711	695	2.6	12.919	B
3	529	675	96.96	894	0.592	530	1.5	9.934	A
4	619	366	96.96	1027	0.602	619	1.6	8.859	A

09:00 - 09:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	296	571	84.70	788	0.376	298	0.6	7.368	A
2	606	272		997	0.608	611	1.6	9.481	A
3	462	594	84.70	918	0.504	465	1.0	7.993	A
4	540	321	84.70	1036	0.522	543	1.1	7.339	A

09:10 - 09:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	237	456	67.62	845	0.280	238	0.4	5.944	A
2	483	218		1027	0.471	488	0.9	6.721	A
3	369	474	67.62	965	0.382	372	0.6	6.087	A
4	431	257	67.62	1058	0.408	434	0.7	5.794	A

09:20 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	237	454	67.62	840	0.282	237	0.4	5.966	A
2	483	216		1028	0.470	484	0.9	6.616	A
3	369	470	67.62	956	0.386	369	0.6	6.134	A
4	431	255	67.62	1047	0.412	431	0.7	5.845	A

Junction 3 - 2026 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	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)
D8	2026 DO SOMETHING	PM	ONE HOUR	17:00	18:30	10

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		✓	233	100.000
2		✓	550	100.000
3		✓	403	100.000
4		✓	725	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	100.00
2	
3	100.00
4	100.00

Origin-Destination Data

Demand (Veh/hr)

	To				
	1	2	3	4	
From	1	0	61	102	70
	2	70	0	182	298
	3	193	145	0	65
	4	115	555	55	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	0.35	8.32	0.5	A
2	0.55	7.76	1.2	A
3	0.43	6.74	0.8	A
4	0.70	11.56	2.3	B

Main Results for each time segment

17:00 - 17:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	158	505	67.62	799	0.197	156	0.2	5.584	A
2	372	152		1064	0.350	369	0.5	5.155	A
3	273	294	67.62	1022	0.267	270	0.4	4.775	A
4	490	274	67.62	1023	0.479	485	0.9	6.621	A

17:10 - 17:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	158	511	67.62	803	0.196	158	0.2	5.573	A
2	372	153		1063	0.350	372	0.5	5.208	A
3	273	296	67.62	1031	0.264	273	0.4	4.746	A
4	490	276	67.62	1047	0.468	490	0.9	6.470	A

17:20 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	197	636	84.70	728	0.271	197	0.4	6.763	A
2	466	191		1042	0.447	464	0.8	6.214	A
3	341	370	84.70	977	0.350	340	0.5	5.649	A
4	614	345	84.70	1014	0.605	611	1.5	8.836	A

17:30 - 17:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	226	729	96.96	682	0.331	225	0.5	7.866	A
2	533	219		1026	0.520	532	1.1	7.255	A
3	391	423	96.96	948	0.412	390	0.7	6.436	A
4	703	395	96.96	1024	0.686	699	2.1	10.951	B

17:40 - 17:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	236	765	101.43	668	0.354	236	0.5	8.320	A
2	558	230		1020	0.547	557	1.2	7.755	A
3	409	444	101.43	942	0.434	408	0.8	6.737	A
4	735	413	101.43	1044	0.705	734	2.3	11.560	B

17:50 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	226	733	96.96	687	0.329	226	0.5	7.822	A
2	533	220		1026	0.520	534	1.1	7.325	A
3	391	425	96.96	956	0.409	391	0.7	6.377	A
4	703	396	96.96	1053	0.668	704	2.1	10.375	B

18:00 - 18:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	197	643	84.70	733	0.269	198	0.4	6.736	A
2	466	193		1041	0.448	468	0.8	6.299	A
3	341	372	84.70	987	0.346	342	0.5	5.596	A
4	614	347	84.70	1052	0.584	618	1.4	8.374	A

18:10 - 18:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	158	514	67.62	806	0.196	158	0.2	5.570	A
2	372	154		1063	0.350	374	0.5	5.239	A
3	273	298	67.62	1035	0.263	274	0.4	4.735	A
4	490	277	67.62	1061	0.462	494	0.9	6.379	A

18:20 - 18:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	158	511	67.62	804	0.196	158	0.2	5.574	A
2	372	153		1063	0.350	372	0.5	5.211	A
3	273	296	67.62	1031	0.264	273	0.4	4.748	A
4	490	276	67.62	1046	0.469	490	0.9	6.477	A

Junction 3 - 2031 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	13.34	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)
D9	2031 DO SOMETHING	AM	ONE HOUR	08:00	09:30	10

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		✓	369	100.000
2		✓	760	100.000
3		✓	576	100.000
4		✓	679	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	100.00
2	
3	100.00
4	100.00

Origin-Destination Data

Demand (Veh/hr)

	To				
	1	2	3	4	
From	1	0	140	85	144
	2	76	0	165	519
	3	191	129	0	256
	4	97	473	109	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	0.52	10.21	1.0	B
2	0.80	18.20	3.7	C
3	0.67	12.19	1.9	B
4	0.67	10.57	2.0	B

Main Results for each time segment

08:00 - 08:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	250	476	67.62	819	0.305	247	0.4	6.262	A
2	514	226		1022	0.503	508	1.0	6.920	A
3	389	494	67.62	928	0.420	385	0.7	6.579	A
4	459	265	67.62	1025	0.448	454	0.8	6.257	A

08:10 - 08:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	250	481	67.62	829	0.301	250	0.4	6.213	A
2	514	229		1021	0.503	514	1.0	7.093	A
3	389	500	67.62	945	0.412	390	0.7	6.480	A
4	459	268	67.62	1046	0.439	459	0.8	6.141	A

08:20 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	313	599	84.70	763	0.410	311	0.7	7.941	A
2	644	285		990	0.650	639	1.8	10.129	B
3	488	622	84.70	883	0.552	485	1.2	8.972	A
4	575	333	84.70	1010	0.569	572	1.3	8.163	A

08:30 - 08:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	358	686	96.96	730	0.490	356	0.9	9.583	A
2	737	326		967	0.762	730	2.9	14.756	B
3	558	711	96.96	868	0.643	555	1.7	11.383	B
4	658	382	96.96	1012	0.650	655	1.8	9.989	A

08:40 - 08:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	374	720	101.43	725	0.516	374	1.0	10.212	B
2	771	342		958	0.805	766	3.7	18.199	C
3	584	746	101.43	877	0.666	583	1.9	12.189	B
4	689	401	101.43	1027	0.671	688	2.0	10.570	B

08:50 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	358	690	96.96	742	0.482	358	1.0	9.400	A
2	737	328		966	0.763	739	3.4	16.068	C
3	558	718	96.96	891	0.627	560	1.7	10.899	B
4	658	385	96.96	1036	0.635	659	1.8	9.585	A

09:00 - 09:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	313	606	84.70	777	0.402	314	0.7	7.803	A
2	644	288		988	0.651	653	2.0	10.992	B
3	488	633	84.70	911	0.535	491	1.2	8.641	A
4	575	338	84.70	1041	0.553	578	1.3	7.840	A

09:10 - 09:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	250	484	67.62	834	0.299	251	0.4	6.189	A
2	514	230		1020	0.504	519	1.0	7.264	A
3	389	505	67.62	956	0.408	392	0.7	6.424	A
4	459	270	67.62	1057	0.434	462	0.8	6.078	A

09:20 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	250	481	67.62	829	0.301	250	0.4	6.215	A
2	514	229		1021	0.503	514	1.0	7.102	A
3	389	500	67.62	945	0.412	389	0.7	6.485	A
4	459	268	67.62	1045	0.439	459	0.8	6.144	A

Junction 3 - 2031 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	10.38	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)
D10	2031 DO SOMETHING	PM	ONE HOUR	17:00	18:30	10

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		✓	244	100.000
2		✓	582	100.000
3		✓	425	100.000
4		✓	772	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	100.00
2	
3	100.00
4	100.00

Origin-Destination Data

Demand (Veh/hr)

	To				
	1	2	3	4	
From	1	0	64	106	74
	2	74	0	191	317
	3	204	152	0	69
	4	122	591	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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.38	8.91	0.6	A
2	0.58	8.46	1.4	A
3	0.46	7.13	0.8	A
4	0.76	14.07	2.9	B

Main Results for each time segment

17:00 - 17:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	165	536	67.62	784	0.210	163	0.3	5.784	A
2	394	160		1059	0.371	390	0.6	5.351	A
3	287	312	67.62	1014	0.283	285	0.4	4.924	A
4	522	288	67.62	1019	0.512	516	1.0	7.070	A

17:10 - 17:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	165	542	67.62	789	0.209	165	0.3	5.771	A
2	394	162		1058	0.372	394	0.6	5.413	A
3	287	314	67.62	1023	0.281	287	0.4	4.894	A
4	522	291	67.62	1046	0.499	522	1.0	6.873	A

17:20 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	207	675	84.70	711	0.291	206	0.4	7.115	A
2	493	201		1036	0.476	491	0.9	6.581	A
3	360	392	84.70	968	0.372	359	0.6	5.899	A
4	654	363	84.70	1017	0.643	650	1.7	9.676	A

17:30 - 17:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	237	774	96.96	664	0.356	236	0.5	8.388	A
2	564	231		1020	0.553	562	1.2	7.831	A
3	412	449	96.96	940	0.438	411	0.8	6.792	A
4	749	416	96.96	1036	0.723	744	2.4	12.141	B

17:40 - 17:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	247	811	101.43	651	0.380	247	0.6	8.905	A
2	590	242		1014	0.582	589	1.4	8.461	A
3	431	471	101.43	935	0.461	431	0.8	7.129	A
4	783	436	101.43	1032	0.759	780	2.9	14.075	B

17:50 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	237	779	96.96	669	0.354	237	0.6	8.335	A
2	564	232		1019	0.554	565	1.3	7.936	A
3	412	451	96.96	949	0.434	412	0.8	6.718	A
4	749	417	96.96	1043	0.718	750	2.7	12.411	B

18:00 - 18:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	207	685	84.70	716	0.289	208	0.4	7.091	A
2	493	204		1035	0.476	495	0.9	6.693	A
3	360	396	84.70	979	0.368	361	0.6	5.834	A
4	654	365	84.70	1068	0.612	660	1.6	8.963	A

18:10 - 18:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	165	546	67.62	791	0.209	166	0.3	5.765	A
2	394	163		1058	0.372	396	0.6	5.451	A
3	287	316	67.62	1028	0.280	289	0.4	4.876	A
4	522	292	67.62	1062	0.492	526	1.0	6.765	A

18:20 - 18:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	165	542	67.62	789	0.209	165	0.3	5.772	A
2	394	162		1058	0.372	394	0.6	5.414	A
3	287	314	67.62	1023	0.281	287	0.4	4.893	A
4	522	291	67.62	1044	0.500	522	1.0	6.889	A

Junction 3 - 2041 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	14.73	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	2041 DO SOMETHING	AM	ONE HOUR	08:00	09:30	10

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		✓	381	100.000
2		✓	783	100.000
3		✓	592	100.000
4		✓	702	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	100.00
2	
3	100.00
4	100.00

Origin-Destination Data

Demand (Veh/hr)

	To				
	1	2	3	4	
From	1	0	145	87	149
	2	78	0	169	536
	3	196	132	0	264
	4	100	489	113	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	0.54	10.73	1.1	B
2	0.83	20.99	4.4	C
3	0.69	13.36	2.1	B
4	0.69	11.09	2.1	B

Main Results for each time segment

08:00 - 08:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	258	491	67.62	812	0.317	255	0.5	6.427	A
2	529	233		1018	0.520	523	1.1	7.180	A
3	400	510	67.62	921	0.435	396	0.8	6.796	A
4	475	271	67.62	1023	0.464	470	0.8	6.447	A

08:10 - 08:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	258	496	67.62	822	0.313	258	0.5	6.375	A
2	529	236		1017	0.521	529	1.1	7.380	A
3	400	516	67.62	939	0.426	400	0.7	6.685	A
4	475	275	67.62	1045	0.454	475	0.8	6.317	A

08:20 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	323	618	84.70	756	0.427	321	0.7	8.248	A
2	663	294		985	0.674	658	2.0	10.839	B
3	501	641	84.70	878	0.571	498	1.3	9.404	A
4	595	342	84.70	1011	0.588	591	1.4	8.513	A

08:30 - 08:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	369	708	96.96	724	0.510	368	1.0	10.044	B
2	759	337		961	0.790	751	3.4	16.455	C
3	574	733	96.96	866	0.663	571	1.9	12.030	B
4	681	391	96.96	1017	0.669	677	1.9	10.490	B

08:40 - 08:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	386	743	101.43	720	0.536	386	1.1	10.725	B
2	794	353		952	0.835	788	4.4	20.988	C
3	600	769	101.43	866	0.694	599	2.1	13.362	B
4	712	410	101.43	1034	0.689	711	2.1	11.094	B

08:50 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	369	713	96.96	737	0.501	370	1.0	9.822	A
2	759	339		960	0.791	761	4.1	18.462	C
3	574	741	96.96	882	0.651	575	1.9	11.817	B
4	681	395	96.96	1043	0.653	682	1.9	10.016	B

09:00 - 09:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	323	626	84.70	772	0.418	324	0.7	8.086	A
2	663	297		983	0.675	675	2.2	12.066	B
3	501	656	84.70	909	0.551	505	1.3	9.003	A
4	595	347	84.70	1044	0.570	598	1.4	8.140	A

09:10 - 09:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	258	500	67.62	829	0.311	259	0.5	6.344	A
2	529	238		1016	0.521	536	1.1	7.590	A
3	400	522	67.62	950	0.421	403	0.7	6.621	A
4	475	277	67.62	1058	0.449	478	0.8	6.242	A

09:20 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	258	496	67.62	823	0.313	258	0.5	6.374	A
2	529	236		1017	0.521	530	1.1	7.390	A
3	400	516	67.62	938	0.427	400	0.7	6.689	A
4	475	275	67.62	1044	0.455	475	0.8	6.321	A

Junction 3 - 2041 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	11.35	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)
D12	2041 DO SOMETHING	PM	ONE HOUR	17:00	18:30	10

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		✓	252	100.000
2		✓	600	100.000
3		✓	436	100.000
4		✓	798	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	100.00
2	
3	100.00
4	100.00

Origin-Destination Data

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	0	67	108	77
	2	77	0	196	327
	3	209	156	0	71
	4	126	611	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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.40	9.29	0.6	A
2	0.60	8.92	1.5	A
3	0.48	7.36	0.9	A
4	0.79	16.00	3.4	C

Main Results for each time segment

17:00 - 17:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	170	553	67.62	776	0.220	169	0.3	5.911	A
2	406	165		1057	0.384	402	0.6	5.468	A
3	295	322	67.62	1009	0.292	292	0.4	5.008	A
4	540	296	67.62	1017	0.531	533	1.1	7.340	A

17:10 - 17:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	170	560	67.62	781	0.218	170	0.3	5.898	A
2	406	166		1056	0.384	406	0.6	5.536	A
3	295	325	67.62	1019	0.289	295	0.4	4.975	A
4	540	299	67.62	1046	0.516	540	1.1	7.118	A

17:20 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	213	697	84.70	702	0.304	213	0.4	7.344	A
2	508	207		1033	0.492	506	0.9	6.808	A
3	369	406	84.70	963	0.384	368	0.6	6.042	A
4	676	373	84.70	1019	0.663	671	1.9	10.199	B

17:30 - 17:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	244	798	96.96	655	0.373	243	0.6	8.731	A
2	582	237		1016	0.573	580	1.3	8.203	A
3	423	465	96.96	935	0.452	422	0.8	6.993	A
4	774	427	96.96	1037	0.746	769	2.7	13.147	B

17:40 - 17:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	256	836	101.43	642	0.398	255	0.6	9.295	A
2	609	249		1010	0.603	608	1.5	8.919	A
3	442	487	101.43	931	0.475	442	0.9	7.357	A
4	809	448	101.43	1025	0.790	805	3.4	16.002	C

17:50 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	244	805	96.96	660	0.370	245	0.6	8.671	A
2	582	239		1015	0.573	582	1.4	8.331	A
3	423	467	96.96	945	0.448	423	0.8	6.912	A
4	774	429	96.96	1036	0.747	776	3.1	14.002	B

18:00 - 18:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	213	709	84.70	707	0.302	214	0.4	7.323	A
2	508	210		1032	0.493	511	1.0	6.940	A
3	369	409	84.70	975	0.379	371	0.6	5.969	A
4	676	376	84.70	1067	0.633	684	1.8	9.575	A

18:10 - 18:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	170	564	67.62	783	0.218	171	0.3	5.891	A
2	406	167		1055	0.384	408	0.6	5.578	A
3	295	327	67.62	1024	0.288	296	0.4	4.956	A
4	540	300	67.62	1064	0.507	544	1.1	6.988	A

18:20 - 18:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	170	560	67.62	781	0.218	170	0.3	5.896	A
2	406	166		1056	0.384	406	0.6	5.537	A
3	295	325	67.62	1019	0.289	295	0.4	4.973	A
4	540	299	67.62	1044	0.517	540	1.1	7.134	A

Junction 3 - 2023 EXISTING, 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	9.27	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)
D13	2023 EXISTING	AM	ONE HOUR	08:00	09:30	10

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		✓	309	100.000
2		✓	658	100.000
3		✓	432	100.000
4		✓	611	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	100.00
2	
3	100.00
4	100.00

Origin-Destination Data

Demand (Veh/hr)

	To				
	1	2	3	4	
From	1	0	126	53	130
	2	68	0	123	467
	3	130	72	0	230
	4	87	426	98	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	0.41	8.11	0.7	A
2	0.67	11.03	2.0	B
3	0.52	8.72	1.0	A
4	0.59	8.34	1.4	A

Main Results for each time segment

08:00 - 08:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	209	399	67.62	854	0.245	207	0.3	5.546	A
2	445	188		1044	0.426	441	0.7	5.927	A
3	292	445	67.62	946	0.309	289	0.4	5.462	A
4	413	181	67.62	1065	0.388	409	0.6	5.465	A

08:10 - 08:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	209	403	67.62	861	0.243	209	0.3	5.516	A
2	445	190		1043	0.427	445	0.7	6.022	A
3	292	450	67.62	956	0.306	292	0.4	5.424	A
4	413	183	67.62	1081	0.382	413	0.6	5.391	A

08:20 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	262	503	84.70	799	0.327	261	0.5	6.673	A
2	557	237		1016	0.548	555	1.2	7.751	A
3	366	561	84.70	888	0.412	364	0.7	6.853	A
4	518	228	84.70	1048	0.494	516	1.0	6.738	A

08:30 - 08:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	300	576	96.96	765	0.392	299	0.6	7.712	A
2	638	272		997	0.640	635	1.7	9.845	A
3	419	642	96.96	855	0.490	417	0.9	8.198	A
4	592	261	96.96	1043	0.568	590	1.3	7.924	A

08:40 - 08:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	313	604	101.43	756	0.414	313	0.7	8.114	A
2	667	285		990	0.674	666	2.0	11.030	B
3	438	673	101.43	850	0.516	438	1.0	8.719	A
4	620	273	101.43	1050	0.590	619	1.4	8.335	A

08:50 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	300	579	96.96	772	0.388	300	0.6	7.635	A
2	638	273		997	0.640	639	1.8	10.104	B
3	419	646	96.96	867	0.483	419	1.0	8.063	A
4	592	262	96.96	1059	0.559	593	1.3	7.740	A

09:00 - 09:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	262	507	84.70	808	0.324	263	0.5	6.608	A
2	557	239		1015	0.549	561	1.3	7.982	A
3	366	567	84.70	903	0.405	367	0.7	6.749	A
4	518	230	84.70	1069	0.484	520	1.0	6.574	A

09:10 - 09:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	209	405	67.62	865	0.242	210	0.3	5.501	A
2	445	191		1042	0.427	448	0.8	6.087	A
3	292	452	67.62	962	0.304	294	0.4	5.400	A
4	413	184	67.62	1090	0.379	415	0.6	5.355	A

09:20 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	209	403	67.62	862	0.243	209	0.3	5.517	A
2	445	190		1043	0.427	445	0.8	6.026	A
3	292	450	67.62	956	0.306	292	0.4	5.424	A
4	413	183	67.62	1081	0.382	413	0.6	5.394	A

Junction 3 - 2023 EXISTING, 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	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)
D14	2023 EXISTING	PM	ONE HOUR	17:00	18:30	10

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		✓	178	100.000
2		✓	479	100.000
3		✓	318	100.000
4		✓	695	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	100.00
2	
3	100.00
4	100.00

Origin-Destination Data

Demand (Veh/hr)

	To				
	1	2	3	4	
From	1	0	58	53	67
	2	67	0	127	285
	3	152	104	0	62
	4	110	532	53	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	0.26	7.10	0.4	A
2	0.46	6.36	0.8	A
3	0.35	5.87	0.5	A
4	0.67	10.07	1.9	B

Main Results for each time segment

17:00 - 17:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	120	461	67.62	819	0.147	119	0.2	5.136	A
2	324	116		1084	0.299	321	0.4	4.706	A
3	215	281	67.62	1026	0.210	213	0.3	4.423	A
4	470	217	67.62	1050	0.447	465	0.8	6.104	A

17:10 - 17:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	120	466	67.62	822	0.146	120	0.2	5.132	A
2	324	117		1083	0.299	324	0.4	4.739	A
3	215	283	67.62	1032	0.208	215	0.3	4.405	A
4	470	218	67.62	1071	0.439	470	0.8	5.985	A

17:20 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	151	581	84.70	749	0.201	150	0.2	6.007	A
2	406	146		1067	0.380	405	0.6	5.424	A
3	269	354	84.70	976	0.276	269	0.4	5.082	A
4	589	273	84.70	1040	0.566	586	1.3	7.867	A

17:30 - 17:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	173	665	96.96	702	0.246	172	0.3	6.788	A
2	464	167		1055	0.440	463	0.8	6.070	A
3	308	405	96.96	944	0.327	308	0.5	5.654	A
4	674	313	96.96	1045	0.645	671	1.7	9.541	A

17:40 - 17:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	181	698	101.43	687	0.263	180	0.4	7.103	A
2	486	175		1051	0.462	485	0.8	6.360	A
3	323	425	101.43	935	0.345	322	0.5	5.874	A
4	705	327	101.43	1060	0.665	704	1.9	10.069	B

17:50 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	173	669	96.96	704	0.245	173	0.3	6.773	A
2	464	168		1055	0.440	465	0.8	6.102	A
3	308	407	96.96	949	0.325	309	0.5	5.625	A
4	674	313	96.96	1069	0.630	675	1.8	9.165	A

18:00 - 18:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	151	586	84.70	751	0.201	151	0.3	6.004	A
2	406	147		1067	0.380	407	0.6	5.466	A
3	269	356	84.70	983	0.274	270	0.4	5.056	A
4	589	274	84.70	1071	0.549	592	1.3	7.555	A

18:10 - 18:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	120	469	67.62	823	0.146	121	0.2	5.131	A
2	324	118		1083	0.299	325	0.4	4.757	A
3	215	284	67.62	1035	0.208	216	0.3	4.397	A
4	470	219	67.62	1084	0.434	473	0.8	5.921	A

18:20 - 18:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	120	466	67.62	822	0.146	120	0.2	5.133	A
2	324	117		1083	0.299	324	0.4	4.740	A
3	215	283	67.62	1032	0.208	215	0.3	4.405	A
4	470	218	67.62	1071	0.439	470	0.8	5.991	A

Junction 3 - 2031 STRESS TEST, 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	15.07	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)
D15	2031 STRESS TEST	AM	ONE HOUR	08:00	09:30	10

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		✓	381	100.000
2		✓	773	100.000
3		✓	646	100.000
4		✓	679	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	100.00
2	
3	100.00
4	100.00

Origin-Destination Data

Demand (Veh/hr)

	To				
	1	2	3	4	
From	1	0	140	97	144
	2	76	0	178	519
	3	225	165	0	256
	4	97	473	109	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	0.54	10.88	1.1	B
2	0.82	20.01	4.1	C
3	0.74	15.53	2.7	C
4	0.69	11.37	2.1	B

Main Results for each time segment

08:00 - 08:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	258	500	67.62	808	0.319	255	0.5	6.473	A
2	523	234		1018	0.513	517	1.0	7.096	A
3	437	494	67.62	933	0.468	432	0.9	7.116	A
4	459	311	67.62	1002	0.458	454	0.8	6.518	A

08:10 - 08:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	258	505	67.62	818	0.315	258	0.5	6.420	A
2	523	237		1017	0.514	523	1.0	7.284	A
3	437	500	67.62	953	0.458	437	0.9	6.973	A
4	459	315	67.62	1023	0.449	459	0.8	6.392	A

08:20 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	323	629	84.70	751	0.430	321	0.7	8.340	A
2	655	295		984	0.665	650	1.9	10.599	B
3	547	621	84.70	898	0.609	543	1.5	10.031	B
4	575	392	84.70	984	0.585	572	1.4	8.668	A

08:30 - 08:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	369	720	96.96	719	0.514	368	1.0	10.191	B
2	750	338		960	0.781	742	3.2	15.869	C
3	626	710	96.96	896	0.699	622	2.2	12.919	B
4	658	449	96.96	986	0.667	655	1.9	10.743	B

08:40 - 08:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	386	756	101.43	716	0.540	386	1.1	10.882	B
2	784	354		951	0.824	779	4.1	20.010	C
3	655	745	101.43	880	0.745	652	2.7	15.532	C
4	689	470	101.43	1002	0.687	688	2.1	11.373	B

08:50 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	369	726	96.96	732	0.504	370	1.0	9.957	A
2	750	340		959	0.781	751	3.8	17.614	C
3	626	718	96.96	895	0.700	628	2.4	13.583	B
4	658	453	96.96	1012	0.651	659	1.9	10.254	B

09:00 - 09:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	323	637	84.70	767	0.421	325	0.7	8.177	A
2	655	298		982	0.667	665	2.1	11.690	B
3	547	635	84.70	942	0.581	553	1.4	9.393	A
4	575	399	84.70	1016	0.566	579	1.3	8.297	A

09:10 - 09:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	258	509	67.62	824	0.313	259	0.5	6.389	A
2	523	238		1016	0.515	529	1.1	7.480	A
3	437	505	67.62	966	0.452	440	0.8	6.894	A
4	459	318	67.62	1035	0.444	462	0.8	6.318	A

09:20 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	258	505	67.62	818	0.315	258	0.5	6.422	A
2	523	237		1017	0.514	523	1.1	7.294	A
3	437	500	67.62	952	0.459	437	0.8	6.981	A
4	459	315	67.62	1022	0.449	459	0.8	6.397	A

Junction 3 - 2031 STRESS TEST, 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	11.20	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)
D16	2031 STRESS TEST	PM	ONE HOUR	17:00	18:30	10

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		✓	274	100.000
2		✓	614	100.000
3		✓	461	100.000
4		✓	772	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	100.00
2	
3	100.00
4	100.00

Origin-Destination Data

Demand (Veh/hr)

From	To			
	1	2	3	4
1	0	64	136	74
2	74	0	223	317
3	221	171	0	69
4	122	591	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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.43	9.62	0.7	A
2	0.62	9.55	1.6	A
3	0.50	7.54	1.0	A
4	0.78	15.26	3.2	C

Main Results for each time segment

17:00 - 17:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	185	549	67.62	779	0.238	183	0.3	6.023	A
2	415	180		1048	0.396	411	0.6	5.619	A
3	312	311	67.62	1015	0.307	309	0.4	5.081	A
4	522	312	67.62	1007	0.518	516	1.0	7.235	A

17:10 - 17:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	185	555	67.62	785	0.236	185	0.3	6.004	A
2	415	182		1047	0.396	415	0.7	5.695	A
3	312	314	67.62	1026	0.304	312	0.4	5.041	A
4	522	315	67.62	1035	0.505	522	1.0	7.030	A

17:20 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	232	691	84.70	707	0.328	231	0.5	7.542	A
2	520	227		1022	0.509	518	1.0	7.107	A
3	390	392	84.70	972	0.402	389	0.7	6.161	A
4	654	393	84.70	1004	0.651	649	1.8	10.016	B

17:30 - 17:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	266	792	96.96	662	0.401	265	0.7	9.031	A
2	595	260		1004	0.593	593	1.4	8.708	A
3	447	449	96.96	947	0.472	446	0.9	7.163	A
4	749	450	96.96	1023	0.732	744	2.6	12.647	B

17:40 - 17:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	278	829	101.43	651	0.427	277	0.7	9.618	A
2	623	272		997	0.625	622	1.6	9.552	A
3	468	471	101.43	944	0.495	467	1.0	7.540	A
4	783	472	101.43	1010	0.775	779	3.2	15.261	C

17:50 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	266	798	96.96	669	0.397	266	0.7	8.941	A
2	595	261		1003	0.594	596	1.5	8.867	A
3	447	451	96.96	957	0.467	447	0.9	7.068	A
4	749	452	96.96	1022	0.733	750	2.9	13.390	B

18:00 - 18:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	232	702	84.70	714	0.325	233	0.5	7.497	A
2	520	229		1021	0.509	523	1.1	7.265	A
3	390	396	84.70	986	0.396	392	0.7	6.079	A
4	654	396	84.70	1055	0.620	661	1.7	9.296	A

18:10 - 18:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	185	559	67.62	788	0.235	186	0.3	5.993	A
2	415	183		1047	0.397	418	0.7	5.744	A
3	312	316	67.62	1031	0.302	313	0.4	5.022	A
4	522	317	67.62	1051	0.497	526	1.0	6.910	A

18:20 - 18:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	185	555	67.62	785	0.236	185	0.3	6.005	A
2	415	182		1047	0.396	415	0.7	5.699	A
3	312	314	67.62	1026	0.304	312	0.4	5.041	A
4	522	315	67.62	1033	0.505	522	1.0	7.046	A

Junction 3 - 2041 STRESS TEST, 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	16.90	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)
D17	2041 STRESS TEST	AM	ONE HOUR	08:00	09:30	10

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		✓	393	100.000
2		✓	796	100.000
3		✓	661	100.000
4		✓	702	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	100.00
2	
3	100.00
4	100.00

Origin-Destination Data

Demand (Veh/hr)

	To				
	1	2	3	4	
From	1	0	145	99	149
	2	78	0	182	536
	3	229	168	0	264
	4	100	489	113	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	0.56	11.44	1.2	B
2	0.85	23.32	4.9	C
3	0.77	17.53	3.1	C
4	0.71	12.09	2.3	B

Main Results for each time segment

08:00 - 08:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	266	515	67.62	801	0.332	263	0.5	6.648	A
2	538	241		1014	0.531	532	1.1	7.368	A
3	447	510	67.62	926	0.483	441	0.9	7.356	A
4	475	317	67.62	1000	0.475	469	0.9	6.719	A

08:10 - 08:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	266	521	67.62	812	0.327	266	0.5	6.592	A
2	538	244		1012	0.532	538	1.1	7.582	A
3	447	516	67.62	948	0.472	447	0.9	7.194	A
4	475	321	67.62	1022	0.464	475	0.9	6.574	A

08:20 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	333	648	84.70	744	0.447	331	0.8	8.670	A
2	674	304		979	0.689	668	2.1	11.373	B
3	560	641	84.70	894	0.627	556	1.6	10.521	B
4	595	399	84.70	985	0.603	591	1.5	9.045	A

08:30 - 08:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	381	742	96.96	714	0.534	379	1.1	10.692	B
2	772	348		954	0.809	762	3.7	17.805	C
3	641	732	96.96	887	0.722	636	2.4	14.020	B
4	681	457	96.96	992	0.686	677	2.1	11.278	B

08:40 - 08:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	399	779	101.43	711	0.560	398	1.2	11.443	B
2	807	365		945	0.855	800	4.9	23.315	C
3	670	768	101.43	866	0.774	666	3.1	17.527	C
4	712	479	101.43	1006	0.708	711	2.3	12.085	B

08:50 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	381	748	96.96	728	0.523	382	1.1	10.418	B
2	772	351		953	0.810	774	4.6	20.531	C
3	641	742	96.96	882	0.727	643	2.8	15.238	C
4	681	462	96.96	1016	0.670	682	2.1	10.826	B

09:00 - 09:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	333	658	84.70	761	0.437	335	0.8	8.483	A
2	674	308		977	0.690	688	2.4	12.964	B
3	560	657	84.70	931	0.602	567	1.6	10.099	B
4	595	408	84.70	1021	0.583	599	1.4	8.610	A

09:10 - 09:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	266	525	67.62	819	0.325	268	0.5	6.554	A
2	538	246		1012	0.532	545	1.2	7.837	A
3	447	522	67.62	962	0.465	451	0.9	7.096	A
4	475	324	67.62	1036	0.458	478	0.9	6.496	A

09:20 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	266	521	67.62	812	0.327	266	0.5	6.591	A
2	538	244		1012	0.532	538	1.2	7.598	A
3	447	516	67.62	947	0.472	447	0.9	7.205	A
4	475	321	67.62	1021	0.465	475	0.9	6.583	A

Junction 3 - 2041 STRESS TEST, 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	12.34	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)
D18	2041 STRESS TEST	PM	ONE HOUR	17:00	18:30	10

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		✓	282	100.000
2		✓	631	100.000
3		✓	473	100.000
4		✓	798	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	100.00
2	
3	100.00
4	100.00

Origin-Destination Data

Demand (Veh/hr)

	To				
	1	2	3	4	
From	1	0	67	138	77
	2	77	0	227	327
	3	227	175	0	71
	4	126	611	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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.44	10.05	0.8	B
2	0.64	10.11	1.7	B
3	0.51	7.80	1.0	A
4	0.81	17.61	3.8	C

Main Results for each time segment

17:00 - 17:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	191	566	67.62	771	0.247	189	0.3	6.161	A
2	427	185		1046	0.408	423	0.7	5.742	A
3	320	322	67.62	1010	0.317	317	0.5	5.178	A
4	540	321	67.62	1005	0.537	533	1.1	7.523	A

17:10 - 17:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	191	573	67.62	777	0.245	191	0.3	6.141	A
2	427	187		1045	0.408	427	0.7	5.825	A
3	320	325	67.62	1021	0.313	320	0.5	5.131	A
4	540	324	67.62	1034	0.522	540	1.1	7.283	A

17:20 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	239	713	84.70	698	0.342	238	0.5	7.796	A
2	534	233		1019	0.525	532	1.1	7.360	A
3	401	406	84.70	967	0.414	399	0.7	6.321	A
4	676	404	84.70	1006	0.672	671	1.9	10.569	B

17:30 - 17:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	273	816	96.96	654	0.418	272	0.7	9.410	A
2	612	266		1000	0.612	609	1.5	9.140	A
3	459	464	96.96	943	0.487	457	0.9	7.394	A
4	774	463	96.96	1016	0.762	768	2.9	14.154	B

17:40 - 17:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	286	855	101.43	643	0.445	286	0.8	10.055	B
2	640	279		993	0.645	639	1.7	10.108	B
3	480	487	101.43	940	0.510	479	1.0	7.799	A
4	809	485	101.43	1002	0.808	804	3.8	17.606	C

17:50 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	273	823	96.96	661	0.414	274	0.7	9.316	A
2	612	268		999	0.612	613	1.6	9.340	A
3	459	467	96.96	954	0.481	459	0.9	7.285	A
4	774	465	96.96	1014	0.763	776	3.4	15.306	C

18:00 - 18:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	239	726	84.70	705	0.339	240	0.5	7.756	A
2	534	235		1017	0.525	537	1.1	7.546	A
3	401	410	84.70	982	0.408	402	0.7	6.231	A
4	676	407	84.70	1049	0.645	685	1.9	10.140	B

18:10 - 18:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	191	577	67.62	780	0.244	192	0.3	6.130	A
2	427	188		1044	0.409	429	0.7	5.883	A
3	320	327	67.62	1027	0.311	321	0.5	5.113	A
4	540	325	67.62	1054	0.512	545	1.1	7.135	A

18:20 - 18:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	191	573	67.62	777	0.245	191	0.3	6.141	A
2	427	187		1045	0.408	427	0.7	5.827	A
3	320	325	67.62	1021	0.313	320	0.5	5.134	A
4	540	324	67.62	1032	0.523	540	1.1	7.306	A

<h1>Junctions 9</h1>
<h2>ARCADY 9 - Roundabout Module</h2>
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Filename: Junction 4 - AM and PM.j9

Path: M:\Projects\20\20-074 - Churchfields\Design\Civil\02 Sector 4\03 Traffic\Junction Modelling\Junction 4

Report generation date: 25/05/2023 14:37:29

-
- »Junction 4 - 2026 DO NOTHING, AM
 - »Junction 4 - 2026 DO NOTHING, PM
 - »Junction 4 - 2031 DO NOTHING, AM
 - »Junction 4 - 2031 DO NOTHING, PM
 - »Junction 4 - 2041 DO NOTHING, AM
 - »Junction 4 - 2041 DO NOTHING, PM
 - »Junction 4 - 2026 DO SOMETHING, AM
 - »Junction 4 - 2026 DO SOMETHING, PM
 - »Junction 4 - 2031 DO SOMETHING, AM
 - »Junction 4 - 2031 DO SOMETHING, PM
 - »Junction 4 - 2041 DO SOMETHING, AM
 - »Junction 4 - 2041 DO SOMETHING, PM
 - »Junction 4 - 2023 EXISTING, AM
 - »Junction 4 - 2023 EXISTING, PM
 - »Junction 4 - 2031 STRESS TEST, AM
 - »Junction 4 - 2031 STRESS TEST, PM
 - »Junction 4 - 2041 STRESS TEST, AM
 - »Junction 4 - 2041 STRESS TEST, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
Junction 4 - 2026 DO NOTHING										
Arm 1	D1	0.7	7.71	0.41	A	D2	0.6	7.40	0.37	A
Arm 2		0.1	3.80	0.08	A		0.0	3.57	0.05	A
Arm 3		0.8	9.19	0.44	A		0.8	9.42	0.45	A
Arm 4		0.5	6.07	0.32	A		0.3	5.37	0.24	A
Junction 4 - 2031 DO NOTHING										
Arm 1	D3	0.7	8.00	0.43	A	D4	0.6	7.63	0.39	A
Arm 2		0.1	3.86	0.09	A		0.1	3.61	0.05	A
Arm 3		0.9	9.63	0.47	A		0.9	9.87	0.48	A
Arm 4		0.5	6.28	0.34	A		0.3	5.50	0.26	A
Junction 4 - 2041 DO NOTHING										
Arm 1	D5	0.8	8.16	0.44	A	D6	0.6	7.76	0.40	A
Arm 2		0.1	3.89	0.09	A		0.1	3.63	0.05	A
Arm 3		0.9	9.89	0.48	A		0.9	10.13	0.49	B
Arm 4		0.5	6.40	0.35	A		0.3	5.57	0.26	A
Junction 4 - 2026 DO SOMETHING										
Arm 1	D7	0.7	7.97	0.43	A	D8	0.7	7.83	0.40	A
Arm 2		0.1	3.85	0.08	A		0.0	3.63	0.05	A
Arm 3		0.8	9.37	0.45	A		0.9	9.91	0.47	A
Arm 4		0.6	6.50	0.37	A		0.4	5.55	0.27	A
Junction 4 - 2031 DO SOMETHING										
Arm 1	D9	0.8	8.27	0.45	A	D10	0.7	8.07	0.42	A
Arm 2		0.1	3.91	0.09	A		0.1	3.67	0.05	A
Arm 3		0.9	9.84	0.48	A		1.0	10.41	0.50	B
Arm 4		0.6	6.73	0.39	A		0.4	5.68	0.28	A
Junction 4 - 2041 DO SOMETHING										
Arm 1	D11	0.8	8.43	0.46	A	D12	0.7	8.22	0.43	A
Arm 2		0.1	3.95	0.09	A		0.1	3.69	0.05	A
Arm 3		0.9	10.10	0.49	B		1.0	10.69	0.51	B
Arm 4		0.6	6.87	0.40	A		0.4	5.76	0.29	A
Junction 4 - 2023 EXISTING										
Arm 1	D13	0.5	6.85	0.34	A	D14	0.4	6.35	0.26	A
Arm 2		0.1	3.63	0.08	A		0.0	3.39	0.04	A
Arm 3		0.6	8.30	0.39	A		0.6	8.11	0.38	A
Arm 4		0.3	5.21	0.21	A		0.2	4.77	0.15	A
Junction 4 - 2031 STRESS TEST										
Arm 1	D15	0.9	8.92	0.48	A	D16	1.0	9.27	0.50	A
Arm 2		0.1	4.03	0.09	A		0.1	3.82	0.05	A
Arm 3		1.0	10.33	0.50	B		1.2	11.79	0.55	B
Arm 4		1.0	8.04	0.50	A		0.5	6.14	0.34	A
Junction 4 - 2041 STRESS TEST										
Arm 1	D17	1.0	9.12	0.50	A	D18	1.0	9.44	0.51	A
Arm 2		0.1	4.07	0.10	A		0.1	3.84	0.05	A
Arm 3		1.0	10.63	0.51	B		1.2	12.13	0.56	B
Arm 4		1.0	8.21	0.50	A		0.5	6.23	0.35	A

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

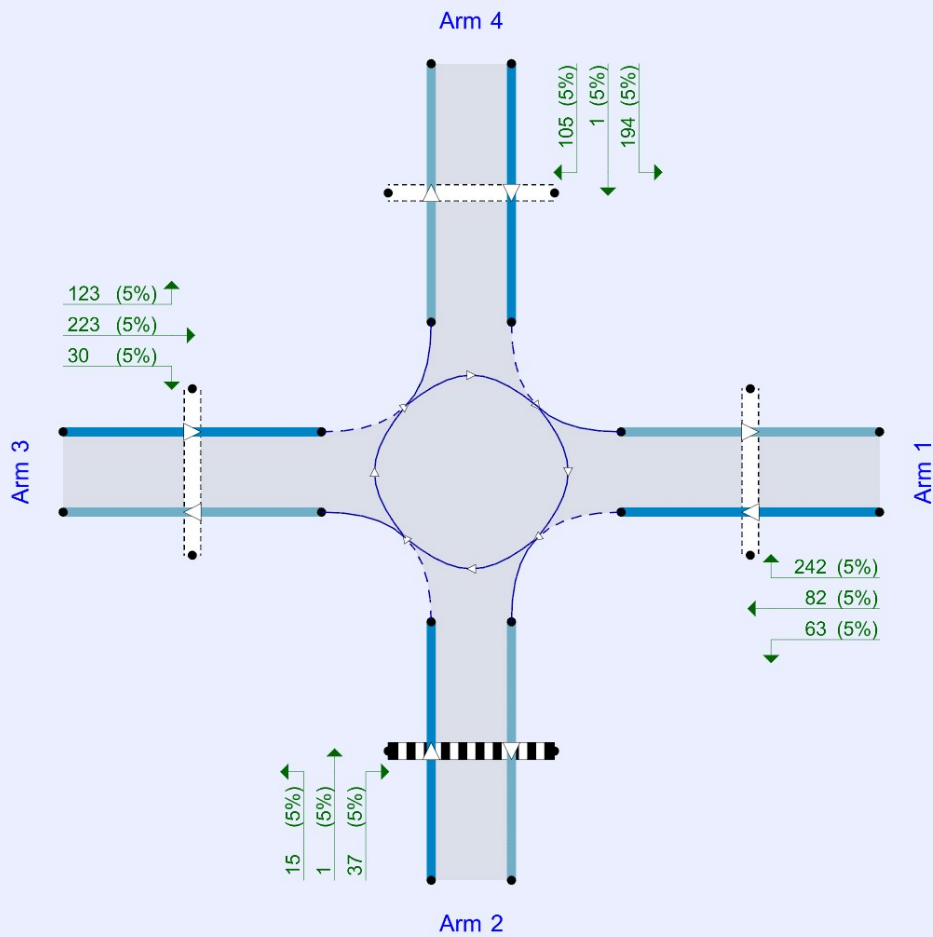
File summary

File Description

Title	
Location	
Site number	
Date	08/01/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DOMAINf.silva
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



Flows show original traffic demand (Veh/hr).

The junction diagram reflects the last run of Junctions.

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2026 DO NOTHING	AM	ONE HOUR	08:00	09:30	10
D2	2026 DO NOTHING	PM	ONE HOUR	17:00	18:30	10
D3	2031 DO NOTHING	AM	ONE HOUR	08:00	09:30	10
D4	2031 DO NOTHING	PM	ONE HOUR	17:00	18:30	10
D5	2041 DO NOTHING	AM	ONE HOUR	08:00	09:30	10
D6	2041 DO NOTHING	PM	ONE HOUR	17:00	18:30	10
D7	2026 DO SOMETHING	AM	ONE HOUR	08:00	09:30	10
D8	2026 DO SOMETHING	PM	ONE HOUR	17:00	18:30	10
D9	2031 DO SOMETHING	AM	ONE HOUR	08:00	09:30	10
D10	2031 DO SOMETHING	PM	ONE HOUR	17:00	18:30	10
D11	2041 DO SOMETHING	AM	ONE HOUR	08:00	09:30	10
D12	2041 DO SOMETHING	PM	ONE HOUR	17:00	18:30	10
D13	2023 EXISTING	AM	ONE HOUR	08:00	09:30	10
D14	2023 EXISTING	PM	ONE HOUR	17:00	18:30	10
D15	2031 STRESS TEST	AM	ONE HOUR	08:00	09:30	10
D16	2031 STRESS TEST	PM	ONE HOUR	17:00	18:30	10
D17	2041 STRESS TEST	AM	ONE HOUR	08:00	09:30	10
D18	2041 STRESS TEST	PM	ONE HOUR	17:00	18:30	10

Analysis Set Details

ID	Name	Network flow scaling factor (%)
A1	Junction 4	100.000

Junction 4 - 2026 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	7.37	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Ladyswell Road (E)	
2	Parnell Drive (S)	
3	Damastown Road (W)	
4	Wellview Avenue (N)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1	3.00	4.17	9.2	3.3	36.0	23.0	
2	4.00	6.12	12.1	3.3	36.0	22.8	
3	2.50	4.29	8.5	3.3	36.0	23.1	
4	3.00	5.63	17.1	3.3	36.0	20.7	

Zebra Crossings

Arm	Space between crossing and junction entry (Zebra) (PCU)	Vehicles queueing on exit (Zebra) (PCU)	Central Refuge	Crossing data type	Crossing length (m)	Crossing time (s)
2	8.00	1.00		Distance	8.00	5.71

Pelican/Puffin Crossings

Arm	Space between crossing and junc. entry (Signalised) (PCU)	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)
1	20.00	3.00	2.90	1.00	6.00	6.00	7.00
3	20.00	3.00	2.90	1.00	6.00	6.00	7.00
4	20.00	3.00	2.90	1.00	6.00	6.00	7.00

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.421	905
2	0.495	1266
3	0.408	841
4	0.471	1136

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	2026 DO NOTHING	AM	ONE HOUR	08:00	09:30	10

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		✓	317	100.000
2		✓	85	100.000
3		✓	303	100.000
4		✓	277	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	50.00

Origin-Destination Data

Demand (Veh/hr)

		To				
		1	2	3	4	
From	1	0	27	168	122	
	2	48	0	37	0	
	3	247	9	0	47	
	4	221	1	55	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	0.41	7.71	0.7	A
2	0.08	3.80	0.1	A
3	0.44	9.19	0.8	A
4	0.32	6.07	0.5	A

Main Results for each time segment

08:00 - 08:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	214	44	33.81	797	0.269	212	0.4	6.139	A
2	57	231	33.81	1091	0.053	57	0.1	3.481	A
3	205	114	33.81	714	0.287	203	0.4	7.004	A
4	187	203	33.81	929	0.202	186	0.2	4.833	A

08:10 - 08:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	214	44	33.81	802	0.267	214	0.4	6.125	A
2	57	233	33.81	1090	0.053	57	0.1	3.485	A
3	205	115	33.81	720	0.285	205	0.4	6.989	A
4	187	206	33.81	932	0.201	187	0.3	4.833	A

08:20 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	269	55	42.35	791	0.340	268	0.5	6.869	A
2	72	291	42.35	1061	0.068	72	0.1	3.637	A
3	257	144	42.35	704	0.364	256	0.6	8.008	A
4	235	257	42.35	899	0.261	234	0.3	5.405	A

08:30 - 08:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	307	63	48.48	787	0.391	307	0.6	7.479	A
2	82	334	48.48	1040	0.079	82	0.1	3.756	A
3	294	165	48.48	698	0.421	293	0.7	8.867	A
4	269	294	48.48	879	0.305	268	0.4	5.885	A

08:40 - 08:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	322	66	50.71	788	0.408	321	0.7	7.711	A
2	86	350	50.71	1033	0.084	86	0.1	3.803	A
3	307	172	50.71	698	0.440	307	0.8	9.193	A
4	281	308	50.71	873	0.322	281	0.5	6.072	A

08:50 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	307	63	48.48	791	0.389	308	0.6	7.452	A
2	82	335	48.48	1040	0.079	82	0.1	3.759	A
3	294	165	48.48	703	0.418	294	0.7	8.819	A
4	269	295	48.48	882	0.305	269	0.4	5.878	A

09:00 - 09:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	269	55	42.35	796	0.337	269	0.5	6.844	A
2	72	293	42.35	1061	0.068	72	0.1	3.641	A
3	257	144	42.35	710	0.361	258	0.6	7.966	A
4	235	258	42.35	902	0.260	235	0.4	5.398	A

09:10 - 09:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	214	44	33.81	804	0.267	215	0.4	6.122	A
2	57	234	33.81	1090	0.053	58	0.1	3.490	A
3	205	115	33.81	723	0.284	206	0.4	6.981	A
4	187	207	33.81	933	0.201	188	0.3	4.834	A

09:20 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	214	44	33.81	802	0.267	214	0.4	6.125	A
2	57	233	33.81	1090	0.053	57	0.1	3.485	A
3	205	115	33.81	720	0.285	205	0.4	6.988	A
4	187	206	33.81	932	0.201	187	0.3	4.832	A

Junction 4 - 2026 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	7.41	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)
D2	2026 DO NOTHING	PM	ONE HOUR	17:00	18:30	10

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		✓	277	100.000
2		✓	48	100.000
3		✓	310	100.000
4		✓	212	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	50.00

Origin-Destination Data

Demand (Veh/hr)

	To				
	1	2	3	4	
From	1	0	57	74	146
	2	33	0	14	1
	3	203	27	0	80
	4	134	1	77	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	0.37	7.40	0.6	A
2	0.05	3.57	0.0	A
3	0.45	9.42	0.8	A
4	0.24	5.37	0.3	A

Main Results for each time segment

17:00 - 17:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	187	70	33.81	785	0.239	185	0.3	5.990	A
2	32	199	33.81	1107	0.029	32	0.0	3.349	A
3	210	121	33.81	712	0.294	207	0.4	7.100	A
4	143	176	33.81	940	0.152	142	0.2	4.506	A

17:10 - 17:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	187	71	33.81	789	0.237	187	0.3	5.980	A
2	32	201	33.81	1106	0.029	32	0.0	3.352	A
3	210	122	33.81	718	0.292	210	0.4	7.084	A
4	143	178	33.81	942	0.152	143	0.2	4.506	A

17:20 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	235	89	42.35	775	0.303	234	0.4	6.651	A
2	41	251	42.35	1081	0.038	41	0.0	3.458	A
3	263	152	42.35	702	0.374	262	0.6	8.159	A
4	180	222	42.35	911	0.197	179	0.2	4.916	A

17:30 - 17:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	269	102	48.48	768	0.350	268	0.5	7.196	A
2	47	287	48.48	1063	0.044	47	0.0	3.539	A
3	301	174	48.48	696	0.432	300	0.7	9.070	A
4	206	254	48.48	891	0.231	205	0.3	5.246	A

17:40 - 17:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	281	106	50.71	767	0.366	281	0.6	7.402	A
2	49	301	50.71	1057	0.046	49	0.0	3.570	A
3	314	182	50.71	696	0.452	314	0.8	9.416	A
4	215	266	50.71	885	0.243	215	0.3	5.373	A

17:50 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	269	102	48.48	771	0.348	269	0.5	7.176	A
2	47	288	48.48	1063	0.044	47	0.0	3.541	A
3	301	175	48.48	700	0.429	301	0.8	9.015	A
4	206	255	48.48	892	0.230	206	0.3	5.241	A

18:00 - 18:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	235	89	42.35	779	0.301	235	0.4	6.631	A
2	41	252	42.35	1081	0.038	41	0.0	3.463	A
3	263	153	42.35	708	0.371	264	0.6	8.114	A
4	180	224	42.35	913	0.197	180	0.2	4.913	A

18:10 - 18:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	187	71	33.81	791	0.237	188	0.3	5.978	A
2	32	202	33.81	1106	0.029	33	0.0	3.356	A
3	210	122	33.81	721	0.291	211	0.4	7.075	A
4	143	179	33.81	943	0.152	144	0.2	4.508	A

18:20 - 18:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	187	71	33.81	789	0.237	187	0.3	5.979	A
2	32	201	33.81	1106	0.029	32	0.0	3.352	A
3	210	122	33.81	718	0.292	210	0.4	7.085	A
4	143	178	33.81	942	0.152	143	0.2	4.508	A

Junction 4 - 2031 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	7.66	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	2031 DO NOTHING	AM	ONE HOUR	08:00	09:30	10

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		✓	335	100.000
2		✓	90	100.000
3		✓	321	100.000
4		✓	289	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	50.00

Origin-Destination Data

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	0	29	179	127
	2	51	0	39	0
	3	263	10	0	48
	4	231	1	57	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	0.43	8.00	0.7	A
2	0.09	3.86	0.1	A
3	0.47	9.63	0.9	A
4	0.34	6.28	0.5	A

Main Results for each time segment

08:00 - 08:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	227	46	33.81	796	0.285	224	0.4	6.269	A
2	61	243	33.81	1085	0.056	61	0.1	3.513	A
3	217	119	33.81	713	0.305	214	0.4	7.193	A
4	195	217	33.81	924	0.212	194	0.3	4.922	A

08:10 - 08:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	227	46	33.81	802	0.282	227	0.4	6.254	A
2	61	245	33.81	1084	0.056	61	0.1	3.517	A
3	217	120	33.81	719	0.302	217	0.4	7.173	A
4	195	219	33.81	927	0.211	195	0.3	4.923	A

08:20 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	284	57	42.35	791	0.359	283	0.5	7.068	A
2	76	306	42.35	1054	0.072	76	0.1	3.681	A
3	272	150	42.35	703	0.387	271	0.6	8.300	A
4	245	273	42.35	893	0.274	244	0.4	5.543	A

08:30 - 08:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	325	66	48.48	788	0.412	324	0.7	7.741	A
2	87	351	48.48	1032	0.085	87	0.1	3.810	A
3	311	172	48.48	698	0.446	310	0.8	9.262	A
4	280	313	48.48	872	0.321	280	0.5	6.069	A

08:40 - 08:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	340	69	50.71	789	0.431	339	0.7	7.997	A
2	91	368	50.71	1024	0.089	91	0.1	3.861	A
3	326	180	50.71	699	0.466	325	0.9	9.628	A
4	293	328	50.71	866	0.338	293	0.5	6.278	A

08:50 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	325	66	48.48	792	0.410	325	0.7	7.707	A
2	87	352	48.48	1031	0.085	87	0.1	3.815	A
3	311	173	48.48	703	0.443	312	0.8	9.202	A
4	280	314	48.48	875	0.320	280	0.5	6.059	A

09:00 - 09:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	284	58	42.35	797	0.356	285	0.6	7.035	A
2	76	308	42.35	1053	0.072	76	0.1	3.685	A
3	272	151	42.35	710	0.383	273	0.6	8.250	A
4	245	275	42.35	896	0.273	245	0.4	5.536	A

09:10 - 09:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	227	46	33.81	805	0.282	228	0.4	6.247	A
2	61	246	33.81	1084	0.056	61	0.1	3.522	A
3	217	121	33.81	722	0.301	218	0.4	7.163	A
4	195	220	33.81	928	0.211	196	0.3	4.925	A

09:20 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	227	46	33.81	802	0.282	227	0.4	6.253	A
2	61	245	33.81	1084	0.056	61	0.1	3.517	A
3	217	120	33.81	719	0.302	217	0.4	7.174	A
4	195	219	33.81	927	0.211	195	0.3	4.924	A

Junction 4 - 2031 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	7.70	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2031 DO NOTHING	PM	ONE HOUR	17:00	18:30	10

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		✓	291	100.000
2		✓	51	100.000
3		✓	328	100.000
4		✓	221	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	50.00

Origin-Destination Data

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	0	61	79	151
	2	36	0	14	1
	3	216	29	0	83
	4	139	1	81	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	0.39	7.63	0.6	A
2	0.05	3.61	0.1	A
3	0.48	9.87	0.9	A
4	0.26	5.50	0.3	A

Main Results for each time segment

17:00 - 17:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	197	74	33.81	783	0.251	195	0.3	6.098	A
2	34	208	33.81	1102	0.031	34	0.0	3.370	A
3	222	126	33.81	710	0.312	219	0.4	7.290	A
4	149	188	33.81	935	0.160	148	0.2	4.569	A

17:10 - 17:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	197	75	33.81	788	0.250	197	0.3	6.086	A
2	34	210	33.81	1101	0.031	34	0.0	3.373	A
3	222	127	33.81	717	0.309	222	0.4	7.272	A
4	149	190	33.81	937	0.159	149	0.2	4.570	A

17:20 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	246	94	42.35	773	0.319	246	0.5	6.811	A
2	43	263	42.35	1076	0.040	43	0.0	3.486	A
3	278	159	42.35	701	0.396	277	0.6	8.461	A
4	187	237	42.35	905	0.207	187	0.3	5.008	A

17:30 - 17:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	282	107	48.48	767	0.368	281	0.6	7.407	A
2	49	301	48.48	1057	0.047	49	0.0	3.573	A
3	318	182	48.48	695	0.457	317	0.8	9.482	A
4	214	272	48.48	884	0.242	214	0.3	5.367	A

17:40 - 17:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	295	112	50.71	766	0.385	295	0.6	7.634	A
2	52	315	50.71	1050	0.049	52	0.1	3.606	A
3	333	191	50.71	696	0.478	332	0.9	9.870	A
4	224	285	50.71	878	0.255	224	0.3	5.505	A

17:50 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	282	108	48.48	770	0.366	282	0.6	7.384	A
2	49	302	48.48	1056	0.047	49	0.0	3.574	A
3	318	182	48.48	701	0.454	318	0.8	9.416	A
4	214	273	48.48	886	0.242	214	0.3	5.364	A

18:00 - 18:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	246	94	42.35	778	0.317	247	0.5	6.787	A
2	43	264	42.35	1075	0.040	43	0.0	3.488	A
3	278	160	42.35	708	0.392	279	0.7	8.407	A
4	187	239	42.35	907	0.206	188	0.3	5.006	A

18:10 - 18:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	197	75	33.81	790	0.249	198	0.3	6.083	A
2	34	211	33.81	1101	0.031	35	0.0	3.377	A
3	222	128	33.81	720	0.308	223	0.5	7.262	A
4	149	191	33.81	938	0.159	150	0.2	4.571	A

18:20 - 18:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	197	75	33.81	788	0.250	197	0.3	6.088	A
2	34	210	33.81	1101	0.031	34	0.0	3.375	A
3	222	127	33.81	717	0.309	222	0.5	7.273	A
4	149	190	33.81	937	0.159	149	0.2	4.570	A

Junction 4 - 2041 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	7.84	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	2041 DO NOTHING	AM	ONE HOUR	08:00	09:30	10

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		✓	345	100.000
2		✓	93	100.000
3		✓	331	100.000
4		✓	296	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	50.00

Origin-Destination Data

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	0	30	185	130
	2	53	0	40	0
	3	272	10	0	49
	4	237	1	58	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	0.44	8.16	0.8	A
2	0.09	3.89	0.1	A
3	0.48	9.89	0.9	A
4	0.35	6.40	0.5	A

Main Results for each time segment

08:00 - 08:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	233	46	33.81	796	0.293	231	0.4	6.342	A
2	63	250	33.81	1082	0.058	63	0.1	3.531	A
3	224	123	33.81	712	0.315	221	0.5	7.300	A
4	200	224	33.81	920	0.217	199	0.3	4.975	A

08:10 - 08:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	233	47	33.81	802	0.291	233	0.4	6.326	A
2	63	252	33.81	1081	0.058	63	0.1	3.536	A
3	224	124	33.81	718	0.312	224	0.5	7.281	A
4	200	227	33.81	924	0.217	200	0.3	4.975	A

08:20 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	292	58	42.35	792	0.369	291	0.6	7.179	A
2	79	315	42.35	1050	0.075	79	0.1	3.706	A
3	280	155	42.35	703	0.399	279	0.6	8.475	A
4	251	283	42.35	889	0.282	250	0.4	5.625	A

08:30 - 08:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	335	67	48.48	789	0.424	334	0.7	7.890	A
2	90	361	48.48	1027	0.088	90	0.1	3.842	A
3	321	177	48.48	698	0.460	320	0.8	9.499	A
4	287	324	48.48	868	0.331	286	0.5	6.180	A

08:40 - 08:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	350	70	50.71	790	0.443	350	0.8	8.159	A
2	94	378	50.71	1019	0.093	94	0.1	3.895	A
3	336	185	50.71	699	0.481	335	0.9	9.888	A
4	300	339	50.71	862	0.348	300	0.5	6.400	A

08:50 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	335	67	48.48	794	0.422	335	0.7	7.852	A
2	90	362	48.48	1026	0.088	90	0.1	3.844	A
3	321	178	48.48	703	0.456	321	0.9	9.433	A
4	287	325	48.48	871	0.330	287	0.5	6.170	A

09:00 - 09:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	292	59	42.35	798	0.366	293	0.6	7.146	A
2	79	317	42.35	1049	0.075	79	0.1	3.714	A
3	280	155	42.35	710	0.395	282	0.7	8.419	A
4	251	285	42.35	893	0.281	251	0.4	5.617	A

09:10 - 09:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	233	47	33.81	805	0.290	234	0.4	6.319	A
2	63	253	33.81	1080	0.058	63	0.1	3.541	A
3	224	124	33.81	721	0.310	225	0.5	7.270	A
4	200	228	33.81	925	0.216	201	0.3	4.977	A

09:20 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	233	47	33.81	802	0.291	233	0.4	6.328	A
2	63	252	33.81	1081	0.058	63	0.1	3.536	A
3	224	124	33.81	718	0.312	224	0.5	7.282	A
4	200	227	33.81	924	0.217	200	0.3	4.977	A

Junction 4 - 2041 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	7.86	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	2041 DO NOTHING	PM	ONE HOUR	17:00	18:30	10

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		✓	299	100.000
2		✓	53	100.000
3		✓	338	100.000
4		✓	225	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	50.00

Origin-Destination Data

Demand (Veh/hr)

	To				
	1	2	3	4	
From	1	0	63	82	154
	2	37	0	15	1
	3	223	30	0	85
	4	142	1	82	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	0.40	7.76	0.6	A
2	0.05	3.63	0.1	A
3	0.49	10.13	0.9	B
4	0.26	5.57	0.3	A

Main Results for each time segment

17:00 - 17:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	202	76	33.81	783	0.258	200	0.3	6.156	A
2	36	213	33.81	1100	0.033	36	0.0	3.381	A
3	229	129	33.81	710	0.322	226	0.5	7.400	A
4	152	194	33.81	933	0.163	151	0.2	4.600	A

17:10 - 17:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	202	76	33.81	788	0.257	202	0.3	6.144	A
2	36	215	33.81	1099	0.033	36	0.0	3.384	A
3	229	130	33.81	716	0.319	229	0.5	7.379	A
4	152	196	33.81	935	0.163	152	0.2	4.600	A

17:20 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	253	95	42.35	773	0.327	252	0.5	6.899	A
2	45	269	42.35	1073	0.042	45	0.0	3.501	A
3	286	162	42.35	701	0.409	285	0.7	8.636	A
4	191	245	42.35	902	0.211	190	0.3	5.053	A

17:30 - 17:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	290	109	48.48	767	0.378	289	0.6	7.536	A
2	51	308	48.48	1053	0.049	51	0.1	3.592	A
3	328	186	48.48	696	0.471	327	0.9	9.720	A
4	218	280	48.48	881	0.248	218	0.3	5.425	A

17:40 - 17:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	303	115	50.71	766	0.396	303	0.6	7.762	A
2	54	322	50.71	1046	0.051	54	0.1	3.626	A
3	343	195	50.71	697	0.492	342	0.9	10.132	B
4	228	294	50.71	874	0.261	228	0.3	5.569	A

17:50 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	290	110	48.48	771	0.376	290	0.6	7.499	A
2	51	309	48.48	1053	0.049	51	0.1	3.593	A
3	328	186	48.48	702	0.467	328	0.9	9.644	A
4	218	281	48.48	882	0.247	218	0.3	5.420	A

18:00 - 18:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	253	96	42.35	778	0.325	254	0.5	6.877	A
2	45	270	42.35	1072	0.042	45	0.0	3.504	A
3	286	163	42.35	709	0.404	288	0.7	8.575	A
4	191	247	42.35	904	0.211	191	0.3	5.053	A

18:10 - 18:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	202	77	33.81	790	0.256	203	0.3	6.139	A
2	36	216	33.81	1099	0.033	36	0.0	3.386	A
3	229	130	33.81	720	0.318	230	0.5	7.371	A
4	152	197	33.81	935	0.163	153	0.2	4.603	A

18:20 - 18:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	202	76	33.81	788	0.257	202	0.3	6.146	A
2	36	215	33.81	1099	0.033	36	0.0	3.387	A
3	229	130	33.81	716	0.319	229	0.5	7.380	A
4	152	196	33.81	935	0.163	152	0.2	4.602	A

Junction 4 - 2026 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	7.59	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2026 DO SOMETHING	AM	ONE HOUR	08:00	09:30	10

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		✓	329	100.000
2		✓	85	100.000
3		✓	307	100.000
4		✓	320	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	50.00

Origin-Destination Data

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	0	27	168	134
	2	48	0	37	0
	3	247	9	0	51
	4	251	1	68	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	0.43	7.97	0.7	A
2	0.08	3.85	0.1	A
3	0.45	9.37	0.8	A
4	0.37	6.50	0.6	A

Main Results for each time segment

08:00 - 08:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	222	52	33.81	793	0.280	220	0.4	6.255	A
2	57	248	33.81	1083	0.053	57	0.1	3.509	A
3	208	122	33.81	711	0.292	205	0.4	7.079	A
4	216	203	33.81	930	0.233	215	0.3	5.020	A

08:10 - 08:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	222	53	33.81	799	0.278	222	0.4	6.242	A
2	57	250	33.81	1082	0.053	57	0.1	3.513	A
3	208	123	33.81	717	0.290	208	0.4	7.065	A
4	216	206	33.81	934	0.232	216	0.3	5.018	A

08:20 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	279	66	42.35	788	0.354	278	0.5	7.048	A
2	72	312	42.35	1051	0.069	72	0.1	3.676	A
3	260	154	42.35	701	0.371	259	0.6	8.128	A
4	271	257	42.35	902	0.301	270	0.4	5.693	A

08:30 - 08:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	319	75	48.48	784	0.407	318	0.7	7.716	A
2	82	358	48.48	1028	0.080	82	0.1	3.804	A
3	298	176	48.48	694	0.429	297	0.7	9.029	A
4	310	294	48.48	883	0.351	310	0.5	6.271	A

08:40 - 08:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	334	79	50.71	785	0.425	333	0.7	7.969	A
2	86	375	50.71	1020	0.085	86	0.1	3.854	A
3	311	184	50.71	695	0.448	311	0.8	9.369	A
4	325	308	50.71	878	0.370	324	0.6	6.501	A

08:50 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	319	76	48.48	788	0.405	319	0.7	7.682	A
2	82	359	48.48	1028	0.080	82	0.1	3.809	A
3	298	177	48.48	699	0.426	298	0.8	8.977	A
4	310	295	48.48	886	0.350	310	0.5	6.259	A

09:00 - 09:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	279	66	42.35	793	0.351	280	0.6	7.019	A
2	72	314	42.35	1050	0.069	72	0.1	3.683	A
3	260	155	42.35	707	0.368	261	0.6	8.085	A
4	271	258	42.35	906	0.299	272	0.4	5.685	A

09:10 - 09:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	222	53	33.81	802	0.278	223	0.4	6.238	A
2	57	251	33.81	1081	0.053	58	0.1	3.519	A
3	208	124	33.81	720	0.288	209	0.4	7.057	A
4	216	207	33.81	935	0.231	217	0.3	5.017	A

09:20 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	222	53	33.81	799	0.278	222	0.4	6.243	A
2	57	250	33.81	1082	0.053	57	0.1	3.516	A
3	208	123	33.81	717	0.289	208	0.4	7.066	A
4	216	206	33.81	934	0.232	216	0.3	5.020	A

Junction 4 - 2026 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	7.76	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2026 DO SOMETHING	PM	ONE HOUR	17:00	18:30	10

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		✓	304	100.000
2		✓	48	100.000
3		✓	322	100.000
4		✓	235	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	50.00

Origin-Destination Data

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	0	57	74	173
	2	33	0	14	1
	3	203	27	0	92
	4	150	1	84	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	0.40	7.83	0.7	A
2	0.05	3.63	0.0	A
3	0.47	9.91	0.9	A
4	0.27	5.55	0.4	A

Main Results for each time segment

17:00 - 17:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	206	75	33.81	783	0.262	203	0.4	6.184	A
2	32	222	33.81	1096	0.030	32	0.0	3.384	A
3	218	139	33.81	705	0.309	215	0.4	7.306	A
4	159	176	33.81	941	0.169	158	0.2	4.592	A

17:10 - 17:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	206	76	33.81	789	0.261	206	0.4	6.173	A
2	32	224	33.81	1095	0.030	32	0.0	3.387	A
3	218	140	33.81	712	0.306	218	0.4	7.288	A
4	159	178	33.81	943	0.169	159	0.2	4.591	A

17:20 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	257	95	42.35	774	0.333	257	0.5	6.944	A
2	41	280	42.35	1067	0.038	41	0.0	3.505	A
3	273	175	42.35	695	0.393	272	0.6	8.488	A
4	199	222	42.35	912	0.218	199	0.3	5.041	A

17:30 - 17:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	295	108	48.48	768	0.384	294	0.6	7.582	A
2	47	320	48.48	1047	0.044	47	0.0	3.597	A
3	312	200	48.48	688	0.454	311	0.8	9.519	A
4	228	254	48.48	893	0.255	227	0.3	5.409	A

17:40 - 17:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	308	114	50.71	768	0.402	308	0.7	7.825	A
2	49	335	50.71	1040	0.047	49	0.0	3.632	A
3	327	210	50.71	689	0.474	326	0.9	9.914	A
4	238	266	50.71	887	0.269	238	0.4	5.550	A

17:50 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	295	109	48.48	772	0.382	295	0.6	7.555	A
2	47	321	48.48	1047	0.044	47	0.0	3.601	A
3	312	201	48.48	694	0.450	312	0.8	9.455	A
4	228	255	48.48	894	0.255	228	0.3	5.402	A

18:00 - 18:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	257	95	42.35	779	0.330	258	0.5	6.920	A
2	41	281	42.35	1066	0.038	41	0.0	3.511	A
3	273	176	42.35	702	0.389	274	0.6	8.433	A
4	199	224	42.35	914	0.218	199	0.3	5.040	A

18:10 - 18:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	206	76	33.81	791	0.260	206	0.4	6.168	A
2	32	225	33.81	1094	0.030	33	0.0	3.389	A
3	218	141	33.81	715	0.305	219	0.4	7.281	A
4	159	179	33.81	944	0.168	159	0.2	4.594	A

18:20 - 18:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	206	76	33.81	789	0.261	206	0.4	6.175	A
2	32	224	33.81	1095	0.030	32	0.0	3.388	A
3	218	140	33.81	712	0.306	218	0.4	7.289	A
4	159	178	33.81	943	0.169	159	0.2	4.593	A

Junction 4 - 2031 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	7.91	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2031 DO SOMETHING	AM	ONE HOUR	08:00	09:30	10

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		✓	347	100.000
2		✓	90	100.000
3		✓	326	100.000
4		✓	332	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	50.00

Origin-Destination Data

Demand (Veh/hr)

	To				
	1	2	3	4	
From	1	0	29	179	139
	2	51	0	39	0
	3	263	10	0	53
	4	261	1	70	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	0.45	8.27	0.8	A
2	0.09	3.91	0.1	A
3	0.48	9.84	0.9	A
4	0.39	6.73	0.6	A

Main Results for each time segment

08:00 - 08:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	235	54	33.81	793	0.296	232	0.4	6.390	A
2	61	260	33.81	1077	0.057	61	0.1	3.541	A
3	220	127	33.81	710	0.311	218	0.4	7.278	A
4	224	217	33.81	924	0.243	223	0.3	5.117	A

08:10 - 08:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	235	55	33.81	799	0.294	235	0.4	6.375	A
2	61	262	33.81	1076	0.057	61	0.1	3.546	A
3	220	128	33.81	716	0.308	220	0.4	7.262	A
4	224	219	33.81	928	0.242	224	0.3	5.115	A

08:20 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	294	68	42.35	788	0.373	293	0.6	7.257	A
2	76	328	42.35	1043	0.073	76	0.1	3.720	A
3	276	160	42.35	700	0.394	275	0.6	8.444	A
4	281	273	42.35	895	0.314	280	0.5	5.847	A

08:30 - 08:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	336	78	48.48	785	0.429	336	0.7	7.992	A
2	87	375	48.48	1020	0.086	87	0.1	3.859	A
3	316	184	48.48	694	0.455	315	0.8	9.457	A
4	322	313	48.48	876	0.367	321	0.6	6.480	A

08:40 - 08:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	352	82	50.71	786	0.448	352	0.8	8.271	A
2	91	393	50.71	1011	0.090	91	0.1	3.913	A
3	331	193	50.71	695	0.476	330	0.9	9.844	A
4	337	328	50.71	871	0.387	336	0.6	6.731	A

08:50 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	336	79	48.48	790	0.426	337	0.8	7.953	A
2	87	376	48.48	1019	0.086	87	0.1	3.862	A
3	316	184	48.48	700	0.452	316	0.8	9.392	A
4	322	314	48.48	879	0.366	322	0.6	6.465	A

09:00 - 09:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	294	69	42.35	794	0.370	295	0.6	7.222	A
2	76	330	42.35	1042	0.073	76	0.1	3.725	A
3	276	161	42.35	708	0.390	277	0.7	8.389	A
4	281	275	42.35	900	0.313	282	0.5	5.836	A

09:10 - 09:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	235	55	33.81	802	0.293	236	0.4	6.368	A
2	61	264	33.81	1075	0.057	61	0.1	3.551	A
3	220	129	33.81	719	0.306	222	0.4	7.251	A
4	224	220	33.81	930	0.241	225	0.3	5.114	A

09:20 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	235	55	33.81	799	0.294	235	0.4	6.374	A
2	61	262	33.81	1076	0.057	61	0.1	3.546	A
3	220	128	33.81	716	0.308	220	0.4	7.263	A
4	224	219	33.81	928	0.242	225	0.3	5.116	A

Junction 4 - 2031 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	8.06	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2031 DO SOMETHING	PM	ONE HOUR	17:00	18:30	10

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		✓	318	100.000
2		✓	51	100.000
3		✓	340	100.000
4		✓	243	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	50.00

Origin-Destination Data

Demand (Veh/hr)

	To				
	1	2	3	4	
From	1	0	61	79	178
	2	36	0	14	1
	3	216	29	0	95
	4	155	1	87	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	8.07	0.7	A
2	0.05	3.67	0.1	A
3	0.50	10.41	1.0	B
4	0.28	5.68	0.4	A

Main Results for each time segment

17:00 - 17:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	215	78	33.81	782	0.275	213	0.4	6.296	A
2	34	230	33.81	1092	0.032	34	0.0	3.404	A
3	230	144	33.81	704	0.327	227	0.5	7.509	A
4	164	188	33.81	935	0.176	163	0.2	4.653	A

17:10 - 17:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	215	79	33.81	788	0.273	215	0.4	6.283	A
2	34	233	33.81	1090	0.032	34	0.0	3.408	A
3	230	145	33.81	711	0.324	230	0.5	7.487	A
4	164	190	33.81	938	0.175	164	0.2	4.654	A

17:20 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	269	99	42.35	774	0.348	268	0.5	7.114	A
2	43	290	42.35	1062	0.041	43	0.0	3.533	A
3	288	182	42.35	694	0.415	287	0.7	8.813	A
4	206	237	42.35	906	0.227	205	0.3	5.133	A

17:30 - 17:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	308	113	48.48	768	0.402	308	0.7	7.808	A
2	49	333	48.48	1041	0.048	49	0.0	3.630	A
3	330	208	48.48	688	0.479	328	0.9	9.966	A
4	236	272	48.48	886	0.266	235	0.4	5.527	A

17:40 - 17:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	323	119	50.71	768	0.420	322	0.7	8.073	A
2	52	349	50.71	1033	0.050	52	0.1	3.667	A
3	345	218	50.71	690	0.500	344	1.0	10.407	B
4	246	285	50.71	880	0.280	246	0.4	5.682	A

17:50 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	308	114	48.48	772	0.399	309	0.7	7.774	A
2	49	334	48.48	1040	0.048	49	0.1	3.634	A
3	330	209	48.48	695	0.475	330	0.9	9.884	A
4	236	273	48.48	888	0.265	236	0.4	5.522	A

18:00 - 18:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	269	99	42.35	779	0.346	270	0.5	7.086	A
2	43	292	42.35	1061	0.041	43	0.0	3.539	A
3	288	183	42.35	702	0.410	289	0.7	8.749	A
4	206	239	42.35	908	0.227	206	0.3	5.130	A

18:10 - 18:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	215	79	33.81	790	0.272	216	0.4	6.277	A
2	34	234	33.81	1090	0.032	35	0.0	3.412	A
3	230	146	33.81	714	0.322	231	0.5	7.475	A
4	164	191	33.81	939	0.175	165	0.2	4.654	A

18:20 - 18:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	215	79	33.81	788	0.273	215	0.4	6.285	A
2	34	233	33.81	1090	0.032	34	0.0	3.411	A
3	230	145	33.81	711	0.323	230	0.5	7.488	A
4	164	190	33.81	938	0.175	164	0.2	4.653	A

Junction 4 - 2041 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	8.09	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)
D11	2041 DO SOMETHING	AM	ONE HOUR	08:00	09:30	10

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		✓	356	100.000
2		✓	93	100.000
3		✓	336	100.000
4		✓	339	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	50.00

Origin-Destination Data

Demand (Veh/hr)

	To				
	1	2	3	4	
From	1	0	30	185	141
	2	53	0	40	0
	3	272	10	0	54
	4	267	1	71	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	0.46	8.43	0.8	A
2	0.09	3.95	0.1	A
3	0.49	10.10	0.9	B
4	0.40	6.87	0.6	A

Main Results for each time segment

08:00 - 08:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	241	55	33.81	793	0.304	238	0.4	6.458	A
2	63	266	33.81	1074	0.059	63	0.1	3.559	A
3	227	130	33.81	709	0.320	224	0.5	7.388	A
4	229	224	33.81	921	0.249	227	0.3	5.172	A

08:10 - 08:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	241	55	33.81	799	0.301	241	0.4	6.442	A
2	63	268	33.81	1073	0.059	63	0.1	3.564	A
3	227	131	33.81	716	0.317	227	0.5	7.368	A
4	229	227	33.81	925	0.248	229	0.3	5.172	A

08:20 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	302	69	42.35	788	0.382	300	0.6	7.362	A
2	79	335	42.35	1040	0.076	79	0.1	3.745	A
3	285	164	42.35	700	0.407	283	0.7	8.617	A
4	287	283	42.35	892	0.322	286	0.5	5.936	A

08:30 - 08:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	345	79	48.48	786	0.439	344	0.8	8.133	A
2	90	384	48.48	1016	0.089	90	0.1	3.889	A
3	326	188	48.48	695	0.469	325	0.9	9.695	A
4	329	324	48.48	872	0.377	328	0.6	6.603	A

08:40 - 08:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	361	83	50.71	787	0.459	361	0.8	8.425	A
2	94	402	50.71	1007	0.094	94	0.1	3.946	A
3	341	197	50.71	696	0.490	340	0.9	10.105	B
4	344	339	50.71	867	0.397	344	0.6	6.870	A

08:50 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	345	80	48.48	791	0.436	345	0.8	8.090	A
2	90	385	48.48	1015	0.089	90	0.1	3.892	A
3	326	188	48.48	701	0.465	326	0.9	9.621	A
4	329	325	48.48	876	0.375	329	0.6	6.587	A

09:00 - 09:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	302	70	42.35	795	0.379	303	0.6	7.321	A
2	79	337	42.35	1039	0.076	79	0.1	3.750	A
3	285	165	42.35	708	0.402	286	0.7	8.558	A
4	287	285	42.35	896	0.320	288	0.5	5.926	A

09:10 - 09:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	241	56	33.81	802	0.300	242	0.4	6.437	A
2	63	270	33.81	1072	0.059	63	0.1	3.569	A
3	227	132	33.81	719	0.316	229	0.5	7.360	A
4	229	228	33.81	927	0.247	230	0.3	5.171	A

09:20 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	241	55	33.81	800	0.301	241	0.4	6.444	A
2	63	268	33.81	1073	0.059	63	0.1	3.566	A
3	227	131	33.81	716	0.317	227	0.5	7.366	A
4	229	227	33.81	925	0.248	229	0.3	5.171	A

Junction 4 - 2041 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	8.24	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	2041 DO SOMETHING	PM	ONE HOUR	17:00	18:30	10

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		✓	326	100.000
2		✓	53	100.000
3		✓	350	100.000
4		✓	248	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	50.00

Origin-Destination Data

Demand (Veh/hr)

	To				
	1	2	3	4	
From	1	0	63	82	181
	2	37	0	15	1
	3	223	30	0	97
	4	158	1	89	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	0.43	8.22	0.7	A
2	0.05	3.69	0.1	A
3	0.51	10.69	1.0	B
4	0.29	5.76	0.4	A

Main Results for each time segment

17:00 - 17:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	220	80	33.81	782	0.282	218	0.4	6.362	A
2	36	236	33.81	1089	0.033	36	0.0	3.417	A
3	237	147	33.81	703	0.337	234	0.5	7.621	A
4	168	194	33.81	933	0.180	166	0.2	4.689	A

17:10 - 17:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	220	81	33.81	787	0.280	220	0.4	6.348	A
2	36	238	33.81	1088	0.033	36	0.0	3.421	A
3	237	148	33.81	710	0.333	237	0.5	7.600	A
4	168	196	33.81	935	0.179	168	0.2	4.689	A

17:20 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	276	101	42.35	773	0.357	275	0.5	7.218	A
2	45	297	42.35	1058	0.042	45	0.0	3.550	A
3	296	185	42.35	694	0.427	295	0.7	9.000	A
4	210	245	42.35	903	0.233	210	0.3	5.187	A

17:30 - 17:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	316	116	48.48	768	0.412	315	0.7	7.940	A
2	51	340	48.48	1037	0.050	51	0.1	3.651	A
3	339	212	48.48	689	0.493	338	0.9	10.227	B
4	240	280	48.48	883	0.272	240	0.4	5.597	A

17:40 - 17:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	331	122	50.71	768	0.431	330	0.7	8.221	A
2	54	357	50.71	1029	0.052	54	0.1	3.690	A
3	355	222	50.71	690	0.514	354	1.0	10.693	B
4	252	294	50.71	876	0.287	251	0.4	5.759	A

17:50 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	316	116	48.48	772	0.409	316	0.7	7.906	A
2	51	342	48.48	1037	0.050	51	0.1	3.656	A
3	339	212	48.48	695	0.488	340	1.0	10.133	B
4	240	281	48.48	884	0.272	241	0.4	5.591	A

18:00 - 18:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	276	102	42.35	779	0.354	277	0.6	7.182	A
2	45	299	42.35	1058	0.042	45	0.0	3.557	A
3	296	186	42.35	702	0.422	298	0.7	8.929	A
4	210	247	42.35	905	0.232	210	0.3	5.185	A

18:10 - 18:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	220	81	33.81	790	0.279	221	0.4	6.344	A
2	36	239	33.81	1087	0.033	36	0.0	3.426	A
3	237	149	33.81	714	0.331	238	0.5	7.590	A
4	168	197	33.81	936	0.179	168	0.2	4.690	A

18:20 - 18:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	220	81	33.81	788	0.280	220	0.4	6.347	A
2	36	238	33.81	1088	0.033	36	0.0	3.421	A
3	237	148	33.81	710	0.333	237	0.5	7.601	A
4	168	196	33.81	935	0.179	168	0.2	4.691	A

Junction 4 - 2023 EXISTING, 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	6.66	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	2023 EXISTING	AM	ONE HOUR	08:00	09:30	10

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		✓	263	100.000
2		✓	81	100.000
3		✓	273	100.000
4		✓	176	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	50.00

Origin-Destination Data

Demand (Veh/hr)

	To				
	1	2	3	4	
From	1	0	26	161	76
	2	46	0	35	0
	3	237	9	0	27
	4	149	1	26	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	0.34	6.85	0.5	A
2	0.08	3.63	0.1	A
3	0.39	8.30	0.6	A
4	0.21	5.21	0.3	A

Main Results for each time segment

08:00 - 08:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	178	24	33.81	803	0.221	176	0.3	5.729	A
2	55	176	33.81	1118	0.049	54	0.1	3.384	A
3	185	82	33.81	726	0.254	183	0.3	6.607	A
4	119	195	33.81	931	0.128	118	0.1	4.424	A

08:10 - 08:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	178	24	33.81	807	0.220	178	0.3	5.719	A
2	55	178	33.81	1118	0.049	55	0.1	3.386	A
3	185	82	33.81	730	0.253	185	0.3	6.594	A
4	119	197	33.81	932	0.128	119	0.1	4.425	A

08:20 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	223	30	42.35	797	0.280	222	0.4	6.261	A
2	69	222	42.35	1096	0.063	69	0.1	3.504	A
3	231	103	42.35	717	0.323	230	0.5	7.393	A
4	149	247	42.35	899	0.166	149	0.2	4.796	A

08:30 - 08:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	255	35	48.48	792	0.322	254	0.5	6.691	A
2	79	255	48.48	1080	0.073	78	0.1	3.595	A
3	265	118	48.48	711	0.373	264	0.6	8.048	A
4	171	282	48.48	877	0.195	170	0.2	5.096	A

08:40 - 08:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	267	36	50.71	792	0.337	267	0.5	6.852	A
2	82	267	50.71	1074	0.077	82	0.1	3.630	A
3	277	124	50.71	710	0.390	277	0.6	8.296	A
4	179	296	50.71	869	0.205	178	0.3	5.209	A

08:50 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	255	35	48.48	795	0.321	255	0.5	6.677	A
2	79	255	48.48	1079	0.073	79	0.1	3.596	A
3	265	118	48.48	714	0.371	265	0.6	8.018	A
4	171	283	48.48	878	0.194	171	0.2	5.091	A

09:00 - 09:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	223	31	42.35	800	0.278	223	0.4	6.244	A
2	69	223	42.35	1095	0.063	69	0.1	3.509	A
3	231	104	42.35	722	0.320	232	0.5	7.366	A
4	149	248	42.35	900	0.166	149	0.2	4.797	A

09:10 - 09:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	178	24	33.81	809	0.220	178	0.3	5.715	A
2	55	178	33.81	1117	0.049	55	0.1	3.388	A
3	185	83	33.81	733	0.252	185	0.3	6.590	A
4	119	198	33.81	933	0.128	119	0.1	4.425	A

09:20 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	178	24	33.81	807	0.220	178	0.3	5.721	A
2	55	178	33.81	1118	0.049	55	0.1	3.389	A
3	185	82	33.81	731	0.253	185	0.3	6.595	A
4	119	197	33.81	932	0.128	119	0.1	4.425	A

Junction 4 - 2023 EXISTING, 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	6.56	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D14	2023 EXISTING	PM	ONE HOUR	17:00	18:30	10

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		✓	199	100.000
2		✓	46	100.000
3		✓	268	100.000
4		✓	127	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	50.00

Origin-Destination Data

Demand (Veh/hr)

	To				
	1	2	3	4	
From	1	0	55	71	73
	2	32	0	13	1
	3	194	26	0	48
	4	75	1	51	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	0.26	6.35	0.4	A
2	0.04	3.39	0.0	A
3	0.38	8.11	0.6	A
4	0.15	4.77	0.2	A

Main Results for each time segment

17:00 - 17:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	135	52	33.81	790	0.170	133	0.2	5.470	A
2	31	131	33.81	1141	0.027	31	0.0	3.243	A
3	181	71	33.81	729	0.248	179	0.3	6.521	A
4	86	169	33.81	942	0.091	85	0.1	4.198	A

17:10 - 17:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	135	53	33.81	793	0.170	135	0.2	5.465	A
2	31	132	33.81	1140	0.027	31	0.0	3.244	A
3	181	72	33.81	734	0.247	181	0.3	6.508	A
4	86	170	33.81	943	0.091	86	0.1	4.199	A

17:20 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	169	66	42.35	779	0.217	168	0.3	5.893	A
2	39	165	42.35	1124	0.035	39	0.0	3.317	A
3	227	90	42.35	721	0.315	226	0.5	7.274	A
4	108	213	42.35	912	0.118	107	0.1	4.475	A

17:30 - 17:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	193	76	48.48	770	0.251	193	0.3	6.228	A
2	45	189	48.48	1112	0.040	45	0.0	3.371	A
3	260	103	48.48	716	0.363	259	0.6	7.877	A
4	123	244	48.48	890	0.138	123	0.2	4.689	A

17:40 - 17:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	202	79	50.71	768	0.263	202	0.4	6.354	A
2	47	198	50.71	1108	0.042	47	0.0	3.392	A
3	272	107	50.71	715	0.380	272	0.6	8.108	A
4	129	255	50.71	883	0.146	129	0.2	4.771	A

17:50 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	193	76	48.48	772	0.250	193	0.3	6.221	A
2	45	189	48.48	1112	0.040	45	0.0	3.372	A
3	260	103	48.48	719	0.361	260	0.6	7.848	A
4	123	244	48.48	891	0.138	123	0.2	4.688	A

18:00 - 18:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	169	66	42.35	781	0.216	169	0.3	5.883	A
2	39	165	42.35	1124	0.035	39	0.0	3.318	A
3	227	90	42.35	726	0.313	228	0.5	7.235	A
4	108	214	42.35	912	0.118	108	0.1	4.475	A

18:10 - 18:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	135	53	33.81	794	0.169	135	0.2	5.465	A
2	31	132	33.81	1140	0.027	31	0.0	3.248	A
3	181	72	33.81	736	0.246	182	0.3	6.502	A
4	86	171	33.81	943	0.091	86	0.1	4.202	A

18:20 - 18:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	135	53	33.81	793	0.170	135	0.2	5.467	A
2	31	132	33.81	1140	0.027	31	0.0	3.244	A
3	181	72	33.81	734	0.247	181	0.3	6.509	A
4	86	170	33.81	943	0.091	86	0.1	4.199	A

Junction 4 - 2031 STRESS TEST, 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	8.64	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)
D15	2031 STRESS TEST	AM	ONE HOUR	08:00	09:30	10

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		✓	372	100.000
2		✓	90	100.000
3		✓	337	100.000
4		✓	432	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	50.00

Origin-Destination Data

Demand (Veh/hr)

	To				
	1	2	3	4	
From	1	0	29	179	164
	2	51	0	39	0
	3	263	10	0	64
	4	331	1	100	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	0.48	8.92	0.9	A
2	0.09	4.03	0.1	A
3	0.50	10.33	1.0	B
4	0.50	8.04	1.0	A

Main Results for each time segment

08:00 - 08:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	252	74	33.81	786	0.320	249	0.5	6.672	A
2	61	296	33.81	1059	0.057	60	0.1	3.606	A
3	228	144	33.81	704	0.324	225	0.5	7.477	A
4	292	217	33.81	927	0.315	289	0.5	5.627	A

08:10 - 08:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	252	75	33.81	793	0.317	252	0.5	6.651	A
2	61	300	33.81	1057	0.058	61	0.1	3.611	A
3	228	145	33.81	710	0.321	228	0.5	7.458	A
4	292	219	33.81	932	0.313	292	0.5	5.622	A

08:20 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	315	94	42.35	781	0.404	314	0.7	7.694	A
2	76	374	42.35	1021	0.075	76	0.1	3.811	A
3	285	182	42.35	694	0.412	284	0.7	8.766	A
4	366	273	42.35	902	0.406	365	0.7	6.682	A

08:30 - 08:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	361	107	48.48	778	0.464	360	0.8	8.580	A
2	87	428	48.48	994	0.088	87	0.1	3.971	A
3	327	208	48.48	688	0.475	326	0.9	9.901	A
4	419	313	48.48	887	0.472	418	0.9	7.650	A

08:40 - 08:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	377	112	50.71	780	0.484	377	0.9	8.921	A
2	91	449	50.71	983	0.093	91	0.1	4.034	A
3	342	218	50.71	689	0.496	341	1.0	10.334	B
4	438	328	50.71	885	0.495	438	1.0	8.036	A

08:50 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	361	108	48.48	784	0.460	361	0.9	8.529	A
2	87	430	48.48	993	0.088	87	0.1	3.975	A
3	327	209	48.48	694	0.471	327	0.9	9.824	A
4	419	314	48.48	893	0.469	419	0.9	7.606	A

09:00 - 09:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	315	94	42.35	788	0.400	316	0.7	7.646	A
2	76	377	42.35	1019	0.075	76	0.1	3.817	A
3	285	183	42.35	702	0.407	287	0.7	8.702	A
4	366	276	42.35	910	0.402	367	0.7	6.651	A

09:10 - 09:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	252	75	33.81	796	0.316	253	0.5	6.642	A
2	61	301	33.81	1057	0.058	61	0.1	3.615	A
3	228	146	33.81	714	0.319	229	0.5	7.447	A
4	292	220	33.81	935	0.312	293	0.5	5.618	A

09:20 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	252	75	33.81	793	0.317	252	0.5	6.652	A
2	61	300	33.81	1057	0.058	61	0.1	3.614	A
3	228	145	33.81	711	0.321	228	0.5	7.459	A
4	292	219	33.81	933	0.313	292	0.5	5.623	A

Junction 4 - 2031 STRESS TEST, 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	9.02	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D16	2031 STRESS TEST	PM	ONE HOUR	17:00	18:30	10

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		✓	380	100.000
2		✓	51	100.000
3		✓	366	100.000
4		✓	295	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	50.00

Origin-Destination Data

Demand (Veh/hr)

From	To			
	1	2	3	4
1	0	61	79	240
2	36	0	14	1
3	216	29	0	121
4	191	1	103	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	0.50	9.27	1.0	A
2	0.05	3.82	0.1	A
3	0.55	11.79	1.2	B
4	0.34	6.14	0.5	A

Main Results for each time segment

17:00 - 17:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	257	89	33.81	780	0.329	254	0.5	6.810	A
2	34	282	33.81	1066	0.032	34	0.0	3.489	A
3	247	185	33.81	689	0.359	244	0.5	8.034	A
4	199	188	33.81	936	0.213	198	0.3	4.863	A

17:10 - 17:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	257	90	33.81	787	0.327	257	0.5	6.791	A
2	34	285	33.81	1064	0.032	34	0.0	3.494	A
3	247	187	33.81	697	0.355	247	0.5	8.011	A
4	199	190	33.81	940	0.212	199	0.3	4.864	A

17:20 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	322	112	42.35	774	0.416	321	0.7	7.924	A
2	43	356	42.35	1029	0.042	43	0.0	3.649	A
3	310	234	42.35	678	0.457	308	0.8	9.701	A
4	250	237	42.35	909	0.275	249	0.4	5.451	A

17:30 - 17:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	368	129	48.48	770	0.478	367	0.9	8.902	A
2	49	408	48.48	1004	0.049	49	0.1	3.771	A
3	355	268	48.48	673	0.528	353	1.1	11.216	B
4	286	271	48.48	890	0.321	285	0.5	5.948	A

17:40 - 17:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	385	135	50.71	772	0.499	385	1.0	9.274	A
2	52	428	50.71	994	0.052	52	0.1	3.819	A
3	371	281	50.71	675	0.550	371	1.2	11.793	B
4	299	285	50.71	885	0.338	299	0.5	6.142	A

17:50 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	368	129	48.48	777	0.474	369	0.9	8.838	A
2	49	409	48.48	1003	0.049	49	0.1	3.777	A
3	355	269	48.48	681	0.521	355	1.1	11.085	B
4	286	273	48.48	893	0.320	286	0.5	5.938	A

18:00 - 18:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	322	113	42.35	782	0.412	323	0.7	7.871	A
2	43	359	42.35	1028	0.042	43	0.0	3.654	A
3	310	235	42.35	688	0.450	312	0.8	9.604	A
4	250	239	42.35	912	0.274	250	0.4	5.448	A

18:10 - 18:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	257	90	33.81	790	0.325	258	0.5	6.781	A
2	34	287	33.81	1064	0.032	35	0.0	3.497	A
3	247	188	33.81	701	0.353	249	0.6	7.996	A
4	199	191	33.81	941	0.212	200	0.3	4.866	A

18:20 - 18:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	257	90	33.81	787	0.326	257	0.5	6.792	A
2	34	285	33.81	1064	0.032	34	0.0	3.494	A
3	247	187	33.81	697	0.355	248	0.6	8.009	A
4	199	190	33.81	940	0.212	199	0.3	4.863	A

Junction 4 - 2041 STRESS TEST, 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	8.84	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)
D17	2041 STRESS TEST	AM	ONE HOUR	08:00	09:30	10

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		✓	382	100.000
2		✓	93	100.000
3		✓	347	100.000
4		✓	438	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	50.00

Origin-Destination Data

Demand (Veh/hr)

	To				
	1	2	3	4	
From	1	0	30	185	167
	2	53	0	40	0
	3	272	10	0	65
	4	336	1	101	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	0.50	9.12	1.0	A
2	0.10	4.07	0.1	A
3	0.51	10.63	1.0	B
4	0.50	8.21	1.0	A

Main Results for each time segment

08:00 - 08:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	258	75	33.81	786	0.329	255	0.5	6.750	A
2	63	303	33.81	1056	0.060	63	0.1	3.625	A
3	235	147	33.81	703	0.334	232	0.5	7.595	A
4	296	224	33.81	923	0.321	293	0.5	5.689	A

08:10 - 08:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	258	76	33.81	793	0.326	258	0.5	6.731	A
2	63	306	33.81	1054	0.060	63	0.1	3.631	A
3	235	149	33.81	710	0.331	235	0.5	7.574	A
4	296	227	33.81	929	0.319	296	0.5	5.684	A

08:20 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	324	95	42.35	781	0.414	322	0.7	7.824	A
2	79	382	42.35	1016	0.078	79	0.1	3.838	A
3	294	186	42.35	693	0.424	293	0.7	8.958	A
4	371	283	42.35	899	0.413	370	0.7	6.787	A

08:30 - 08:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	370	108	48.48	779	0.476	369	0.9	8.760	A
2	90	438	48.48	989	0.091	90	0.1	4.005	A
3	336	213	48.48	688	0.489	335	0.9	10.168	B
4	425	324	48.48	884	0.481	423	0.9	7.800	A

08:40 - 08:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	387	113	50.71	781	0.496	387	1.0	9.117	A
2	94	459	50.71	978	0.096	94	0.1	4.071	A
3	352	223	50.71	689	0.511	351	1.0	10.628	B
4	444	339	50.71	882	0.504	444	1.0	8.209	A

08:50 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	370	109	48.48	785	0.472	371	0.9	8.700	A
2	90	440	48.48	988	0.091	90	0.1	4.009	A
3	336	213	48.48	694	0.484	337	1.0	10.078	B
4	425	325	48.48	890	0.477	425	0.9	7.754	A

09:00 - 09:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	324	95	42.35	789	0.410	325	0.7	7.772	A
2	79	385	42.35	1015	0.078	79	0.1	3.845	A
3	294	187	42.35	702	0.419	295	0.7	8.887	A
4	371	285	42.35	907	0.409	372	0.7	6.755	A

09:10 - 09:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	258	76	33.81	796	0.324	260	0.5	6.724	A
2	63	308	33.81	1053	0.060	63	0.1	3.638	A
3	235	149	33.81	713	0.329	236	0.5	7.565	A
4	296	228	33.81	933	0.318	298	0.5	5.682	A

09:20 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	258	76	33.81	793	0.326	258	0.5	6.733	A
2	63	306	33.81	1054	0.060	63	0.1	3.634	A
3	235	149	33.81	710	0.330	235	0.5	7.572	A
4	296	227	33.81	930	0.319	296	0.5	5.685	A

Junction 4 - 2041 STRESS TEST, 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	9.22	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)
D18	2041 STRESS TEST	PM	ONE HOUR	17:00	18:30	10

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		✓	387	100.000
2		✓	53	100.000
3		✓	376	100.000
4		✓	300	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	50.00

Origin-Destination Data

Demand (Veh/hr)

	To				
	1	2	3	4	
From	1	0	63	82	242
	2	37	0	15	1
	3	223	30	0	123
	4	194	1	105	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	0.51	9.44	1.0	A
2	0.05	3.84	0.1	A
3	0.56	12.13	1.2	B
4	0.35	6.23	0.5	A

Main Results for each time segment

17:00 - 17:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	262	91	33.81	779	0.336	259	0.5	6.878	A
2	36	287	33.81	1064	0.034	36	0.0	3.502	A
3	254	187	33.81	689	0.369	251	0.6	8.157	A
4	203	194	33.81	934	0.217	201	0.3	4.903	A

17:10 - 17:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	262	92	33.81	787	0.333	262	0.5	6.858	A
2	36	290	33.81	1062	0.034	36	0.0	3.507	A
3	254	189	33.81	697	0.365	254	0.6	8.134	A
4	203	196	33.81	937	0.216	203	0.3	4.903	A

17:20 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	328	115	42.35	773	0.424	326	0.7	8.033	A
2	45	362	42.35	1026	0.044	45	0.0	3.666	A
3	318	236	42.35	678	0.470	317	0.9	9.914	A
4	254	244	42.35	906	0.281	253	0.4	5.511	A

17:30 - 17:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	375	132	48.48	770	0.487	374	0.9	9.052	A
2	51	415	48.48	1000	0.051	51	0.1	3.792	A
3	365	271	48.48	674	0.541	363	1.1	11.521	B
4	291	280	48.48	887	0.328	290	0.5	6.026	A

17:40 - 17:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	393	138	50.71	773	0.508	392	1.0	9.441	A
2	54	435	50.71	990	0.054	54	0.1	3.842	A
3	381	284	50.71	677	0.564	381	1.2	12.128	B
4	304	294	50.71	881	0.345	304	0.5	6.231	A

17:50 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	375	132	48.48	777	0.483	376	1.0	8.982	A
2	51	416	48.48	1000	0.051	51	0.1	3.795	A
3	365	272	48.48	682	0.534	365	1.2	11.372	B
4	291	281	48.48	889	0.327	291	0.5	6.017	A

18:00 - 18:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	328	116	42.35	782	0.419	329	0.7	7.977	A
2	45	365	42.35	1025	0.044	45	0.0	3.672	A
3	318	238	42.35	689	0.462	320	0.9	9.805	A
4	254	247	42.35	909	0.280	255	0.4	5.508	A

18:10 - 18:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	262	92	33.81	790	0.331	263	0.5	6.850	A
2	36	292	33.81	1061	0.034	36	0.0	3.512	A
3	254	190	33.81	701	0.363	256	0.6	8.118	A
4	203	197	33.81	938	0.216	204	0.3	4.903	A

18:20 - 18:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	262	92	33.81	787	0.333	262	0.5	6.859	A
2	36	290	33.81	1062	0.034	36	0.0	3.507	A
3	254	189	33.81	697	0.365	254	0.6	8.133	A
4	203	196	33.81	937	0.216	203	0.3	4.904	A

<h1>Junctions 9</h1>
<h2>ARCADY 9 - Roundabout Module</h2>
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Filename: Junction 5 - AM and PM.j9

Path: M:\Projects\20\20-074 - Churchfields\Design\Civil\02 Sector 4\03 Traffic\Junction Modelling\Junction 5

Report generation date: 25/05/2023 14:38:44

-
- »Junction 5 - 2026 DO NOTHING, AM
 - »Junction 5 - 2026 DO NOTHING, PM
 - »Junction 5 - 2031 DO NOTHING, AM
 - »Junction 5 - 2031 DO NOTHING, PM
 - »Junction 5 - 2041 DO NOTHING, AM
 - »Junction 5 - 2041 DO NOTHING, PM
 - »Junction 5 - 2026 DO SOMETHING, AM
 - »Junction 5 - 2026 DO SOMETHING, PM
 - »Junction 5 - 2031 DO SOMETHING, AM
 - »Junction 5 - 2031 DO SOMETHING, PM
 - »Junction 5 - 2041 DO SOMETHING, AM
 - »Junction 5 - 2041 DO SOMETHING, PM
 - »Junction 5 - 2031 STRESS TEST, AM
 - »Junction 5 - 2031 STRESS TEST, PM
 - »Junction 5 - 2041 STRESS TEST, AM
 - »Junction 5 - 2041 STRESS TEST, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Set ID	Queue (Veh)	Delay (s)	RFC	LOS
Junction 5 - 2026 DO NOTHING										
Arm 1	D1	0.3	6.42	0.23	A	D2	0.2	6.18	0.19	A
Arm 2		0.1	6.08	0.10	A		0.2	6.32	0.14	A
Arm 3		0.0	0.00	0.00	A		0.0	0.00	0.00	A
Arm 4		0.1	6.05	0.10	A		0.2	6.61	0.16	A
Junction 5 - 2031 DO NOTHING										
Arm 1	D3	0.3	6.42	0.23	A	D4	0.2	6.18	0.19	A
Arm 2		0.1	6.08	0.10	A		0.2	6.32	0.14	A
Arm 3		0.0	0.00	0.00	A		0.0	0.00	0.00	A
Arm 4		0.1	6.05	0.10	A		0.2	6.61	0.16	A
Junction 5 - 2041 DO NOTHING										
Arm 1	D5	0.3	6.42	0.23	A	D6	0.2	6.18	0.19	A
Arm 2		0.1	6.08	0.10	A		0.2	6.32	0.14	A
Arm 3		0.0	0.00	0.00	A		0.0	0.00	0.00	A
Arm 4		0.1	6.05	0.10	A		0.2	6.61	0.16	A
Junction 5 - 2026 DO SOMETHING										
Arm 1	D7	0.5	7.64	0.35	A	D8	0.3	6.70	0.26	A
Arm 2		0.1	6.44	0.13	A		0.3	6.90	0.21	A
Arm 3		0.0	0.00	0.00	A		0.0	0.00	0.00	A
Arm 4		0.1	6.29	0.12	A		0.3	7.39	0.22	A
Junction 5 - 2031 DO SOMETHING										
Arm 1	D9	0.5	7.64	0.35	A	D10	0.3	6.70	0.26	A
Arm 2		0.1	6.44	0.13	A		0.3	6.90	0.21	A
Arm 3		0.0	0.00	0.00	A		0.0	0.00	0.00	A
Arm 4		0.1	6.29	0.12	A		0.3	7.39	0.22	A
Junction 5 - 2041 DO SOMETHING										
Arm 1	D11	0.5	7.64	0.35	A	D12	0.3	6.70	0.26	A
Arm 2		0.1	6.44	0.13	A		0.3	6.90	0.21	A
Arm 3		0.0	0.00	0.00	A		0.0	0.00	0.00	A
Arm 4		0.1	6.29	0.12	A		0.3	7.39	0.22	A
Junction 5 - 2031 STRESS TEST										
Arm 1	D13	0.6	8.81	0.38	A	D14	0.4	7.53	0.28	A
Arm 2		0.2	7.08	0.19	A		0.6	9.08	0.36	A
Arm 3		0.5	8.51	0.32	A		0.2	6.92	0.17	A
Arm 4		0.2	7.24	0.19	A		0.6	9.50	0.38	A
Junction 5 - 2041 STRESS TEST										
Arm 1	D15	0.6	8.81	0.38	A	D16	0.4	7.53	0.28	A
Arm 2		0.2	7.08	0.19	A		0.6	9.08	0.36	A
Arm 3		0.5	8.51	0.32	A		0.2	6.92	0.17	A
Arm 4		0.2	7.24	0.19	A		0.6	9.50	0.38	A

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

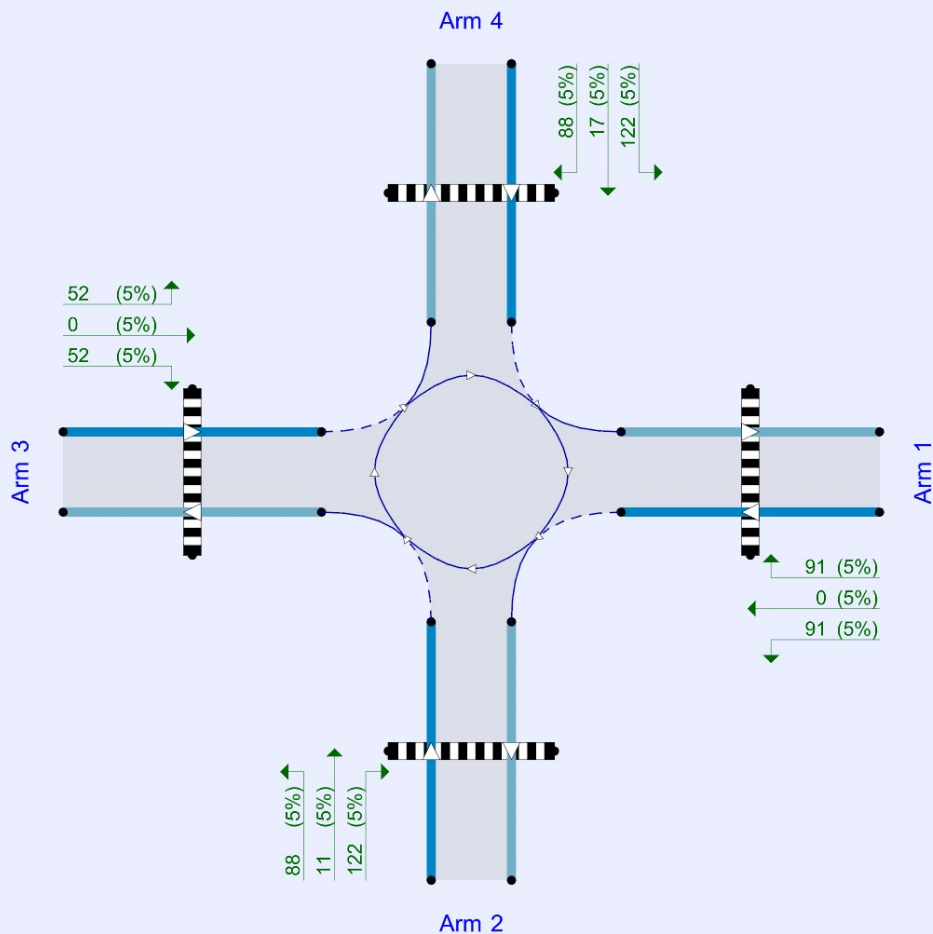
File summary

File Description

Title	
Location	
Site number	
Date	08/01/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	DOMAINf.silva
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



Flows show original traffic demand (Veh/hr).

The junction diagram reflects the last run of Junctions.

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2026 DO NOTHING	AM	ONE HOUR	08:00	09:30	10
D2	2026 DO NOTHING	PM	ONE HOUR	17:00	18:30	10
D3	2031 DO NOTHING	AM	ONE HOUR	08:00	09:30	10
D4	2031 DO NOTHING	PM	ONE HOUR	17:00	18:30	10
D5	2041 DO NOTHING	AM	ONE HOUR	08:00	09:30	10
D6	2041 DO NOTHING	PM	ONE HOUR	17:00	18:30	10
D7	2026 DO SOMETHING	AM	ONE HOUR	08:00	09:30	10
D8	2026 DO SOMETHING	PM	ONE HOUR	17:00	18:30	10
D9	2031 DO SOMETHING	AM	ONE HOUR	08:00	09:30	10
D10	2031 DO SOMETHING	PM	ONE HOUR	17:00	18:30	10
D11	2041 DO SOMETHING	AM	ONE HOUR	08:00	09:30	10
D12	2041 DO SOMETHING	PM	ONE HOUR	17:00	18:30	10
D13	2031 STRESS TEST	AM	ONE HOUR	08:00	09:30	10
D14	2031 STRESS TEST	PM	ONE HOUR	17:00	18:30	10
D15	2041 STRESS TEST	AM	ONE HOUR	08:00	09:30	10
D16	2041 STRESS TEST	PM	ONE HOUR	17:00	18:30	10

Analysis Set Details

ID	Name	Network flow scaling factor (%)
A1	Junction 5	100.000

Junction 5 - 2026 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	6.27	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Proposed Site Access Road (E)	
2	Church Fields Link Road (S)	
3	Church Fields - Future Access Road (W)	
4	Church Fields Link Road (N)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1	3.00	4.11	1.4	3.0	24.0	18.6	
2	3.00	3.70	1.2	3.0	24.0	25.4	
3	3.00	3.90	1.2	3.0	24.0	17.9	
4	3.00	3.62	0.7	3.0	24.0	23.1	

Zebra Crossings

Arm	Space between crossing and junction entry (Zebra) (PCU)	Vehicles queueing on exit (Zebra) (PCU)	Central Refuge	Crossing data type	Crossing length (m)	Crossing time (s)
1	5.00	1.00		Distance	6.00	4.29
2	5.00	1.00		Distance	9.00	6.43
3	5.00	1.00		Distance	6.00	4.29
4	5.00	1.00		Distance	9.00	6.43

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.396	768
2	0.380	726
3	0.395	757
4	0.380	714

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	2026 DO NOTHING	AM	ONE HOUR	08:00	09:30	10

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		✓	164	100.000
2		✓	67	100.000
3		✓	0	100.000
4		✓	62	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	50.00

Origin-Destination Data

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	0	82	0	82
	2	55	0	0	12
	3	0	0	0	0
	4	55	7	0	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	0.23	6.42	0.3	A
2	0.10	6.08	0.1	A
3	0.00	0.00	0.0	A
4	0.10	6.05	0.1	A

Main Results for each time segment

08:00 - 08:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	111	5	33.81	729	0.152	110	0.2	5.810	A
2	45	55	33.81	670	0.068	45	0.1	5.753	A
3	0	100	33.81	689	0.000	0	0.0	0.000	A
4	42	37	33.81	666	0.063	42	0.1	5.764	A

08:10 - 08:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	111	5	33.81	728	0.152	111	0.2	5.828	A
2	45	55	33.81	670	0.068	45	0.1	5.761	A
3	0	101	33.81	688	0.000	0	0.0	0.000	A
4	42	37	33.81	665	0.063	42	0.1	5.772	A

08:20 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	139	6	42.35	728	0.191	139	0.2	6.110	A
2	57	69	42.35	665	0.085	57	0.1	5.917	A
3	0	126	42.35	678	0.000	0	0.0	0.000	A
4	53	46	42.35	662	0.079	52	0.1	5.908	A

08:30 - 08:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	159	7	48.48	727	0.219	159	0.3	6.335	A
2	65	79	48.48	661	0.098	65	0.1	6.039	A
3	0	144	48.48	670	0.000	0	0.0	0.000	A
4	60	53	48.48	659	0.091	60	0.1	6.010	A

08:40 - 08:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	166	7	50.71	726	0.229	166	0.3	6.424	A
2	68	83	50.71	660	0.103	68	0.1	6.084	A
3	0	151	50.71	667	0.000	0	0.0	0.000	A
4	63	56	50.71	658	0.096	63	0.1	6.048	A

08:50 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	159	7	48.48	727	0.219	159	0.3	6.344	A
2	65	80	48.48	661	0.098	65	0.1	6.040	A
3	0	145	48.48	670	0.000	0	0.0	0.000	A
4	60	53	48.48	659	0.091	60	0.1	6.010	A

09:00 - 09:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	139	6	42.35	727	0.191	139	0.2	6.123	A
2	57	70	42.35	665	0.085	57	0.1	5.925	A
3	0	126	42.35	678	0.000	0	0.0	0.000	A
4	53	47	42.35	662	0.079	53	0.1	5.912	A

09:10 - 09:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	111	5	33.81	728	0.152	111	0.2	5.837	A
2	45	56	33.81	670	0.068	45	0.1	5.764	A
3	0	101	33.81	688	0.000	0	0.0	0.000	A
4	42	37	33.81	665	0.063	42	0.1	5.775	A

09:20 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	111	5	33.81	728	0.152	111	0.2	5.831	A
2	45	55	33.81	670	0.068	45	0.1	5.764	A
3	0	101	33.81	688	0.000	0	0.0	0.000	A
4	42	37	33.81	665	0.063	42	0.1	5.774	A

Junction 5 - 2026 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	6.35	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2026 DO NOTHING	PM	ONE HOUR	17:00	18:30	10

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		✓	138	100.000
2		✓	94	100.000
3		✓	0	100.000
4		✓	100	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	50.00

Origin-Destination Data

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	0	69	0	69
	2	83	0	0	11
	3	0	0	0	0
	4	83	17	0	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	0.19	6.18	0.2	A
2	0.14	6.32	0.2	A
3	0.00	0.00	0.0	A
4	0.16	6.61	0.2	A

Main Results for each time segment

17:00 - 17:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	93	11	33.81	726	0.129	92	0.1	5.676	A
2	64	46	33.81	674	0.094	63	0.1	5.889	A
3	0	109	33.81	685	0.000	0	0.0	0.000	A
4	68	56	33.81	658	0.103	67	0.1	6.084	A

17:10 - 17:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	93	11	33.81	726	0.129	93	0.1	5.690	A
2	64	47	33.81	673	0.094	64	0.1	5.902	A
3	0	110	33.81	685	0.000	0	0.0	0.000	A
4	68	56	33.81	658	0.103	68	0.1	6.098	A

17:20 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	117	14	42.35	724	0.161	117	0.2	5.921	A
2	80	58	42.35	669	0.119	79	0.1	6.105	A
3	0	138	42.35	674	0.000	0	0.0	0.000	A
4	85	70	42.35	652	0.130	85	0.1	6.342	A

17:30 - 17:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	134	16	48.48	723	0.185	134	0.2	6.106	A
2	91	67	48.48	666	0.137	91	0.2	6.262	A
3	0	158	48.48	665	0.000	0	0.0	0.000	A
4	97	80	48.48	648	0.150	97	0.2	6.533	A

17:40 - 17:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	140	17	50.71	723	0.194	140	0.2	6.178	A
2	95	70	50.71	665	0.143	95	0.2	6.323	A
3	0	165	50.71	662	0.000	0	0.0	0.000	A
4	101	84	50.71	646	0.157	101	0.2	6.609	A

17:50 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	134	16	48.48	723	0.185	134	0.2	6.112	A
2	91	67	48.48	666	0.137	91	0.2	6.266	A
3	0	158	48.48	665	0.000	0	0.0	0.000	A
4	97	81	48.48	648	0.150	97	0.2	6.540	A

18:00 - 18:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	117	14	42.35	724	0.161	117	0.2	5.933	A
2	80	59	42.35	669	0.119	80	0.1	6.111	A
3	0	138	42.35	673	0.000	0	0.0	0.000	A
4	85	70	42.35	652	0.130	85	0.2	6.349	A

18:10 - 18:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	93	12	33.81	726	0.129	94	0.1	5.695	A
2	64	47	33.81	673	0.094	64	0.1	5.909	A
3	0	111	33.81	685	0.000	0	0.0	0.000	A
4	68	56	33.81	658	0.103	68	0.1	6.105	A

18:20 - 18:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	93	11	33.81	726	0.129	93	0.1	5.693	A
2	64	47	33.81	673	0.094	64	0.1	5.902	A
3	0	110	33.81	685	0.000	0	0.0	0.000	A
4	68	56	33.81	658	0.103	68	0.1	6.098	A

Junction 5 - 2031 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	6.27	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)
D3	2031 DO NOTHING	AM	ONE HOUR	08:00	09:30	10

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		✓	164	100.000
2		✓	67	100.000
3		✓	0	100.000
4		✓	62	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	50.00

Origin-Destination Data

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	0	82	0	82
	2	55	0	0	12
	3	0	0	0	0
	4	55	7	0	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	0.23	6.42	0.3	A
2	0.10	6.08	0.1	A
3	0.00	0.00	0.0	A
4	0.10	6.05	0.1	A

Main Results for each time segment

08:00 - 08:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	111	5	33.81	729	0.152	110	0.2	5.810	A
2	45	55	33.81	670	0.068	45	0.1	5.753	A
3	0	100	33.81	689	0.000	0	0.0	0.000	A
4	42	37	33.81	666	0.063	42	0.1	5.764	A

08:10 - 08:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	111	5	33.81	728	0.152	111	0.2	5.828	A
2	45	55	33.81	670	0.068	45	0.1	5.761	A
3	0	101	33.81	688	0.000	0	0.0	0.000	A
4	42	37	33.81	665	0.063	42	0.1	5.772	A

08:20 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	139	6	42.35	728	0.191	139	0.2	6.110	A
2	57	69	42.35	665	0.085	57	0.1	5.917	A
3	0	126	42.35	678	0.000	0	0.0	0.000	A
4	53	46	42.35	662	0.079	52	0.1	5.908	A

08:30 - 08:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	159	7	48.48	727	0.219	159	0.3	6.335	A
2	65	79	48.48	661	0.098	65	0.1	6.039	A
3	0	144	48.48	670	0.000	0	0.0	0.000	A
4	60	53	48.48	659	0.091	60	0.1	6.010	A

08:40 - 08:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	166	7	50.71	726	0.229	166	0.3	6.424	A
2	68	83	50.71	660	0.103	68	0.1	6.084	A
3	0	151	50.71	667	0.000	0	0.0	0.000	A
4	63	56	50.71	658	0.096	63	0.1	6.048	A

08:50 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	159	7	48.48	727	0.219	159	0.3	6.344	A
2	65	80	48.48	661	0.098	65	0.1	6.040	A
3	0	145	48.48	670	0.000	0	0.0	0.000	A
4	60	53	48.48	659	0.091	60	0.1	6.010	A

09:00 - 09:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	139	6	42.35	727	0.191	139	0.2	6.123	A
2	57	70	42.35	665	0.085	57	0.1	5.925	A
3	0	126	42.35	678	0.000	0	0.0	0.000	A
4	53	47	42.35	662	0.079	53	0.1	5.912	A

09:10 - 09:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	111	5	33.81	728	0.152	111	0.2	5.837	A
2	45	56	33.81	670	0.068	45	0.1	5.764	A
3	0	101	33.81	688	0.000	0	0.0	0.000	A
4	42	37	33.81	665	0.063	42	0.1	5.775	A

09:20 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	111	5	33.81	728	0.152	111	0.2	5.831	A
2	45	55	33.81	670	0.068	45	0.1	5.764	A
3	0	101	33.81	688	0.000	0	0.0	0.000	A
4	42	37	33.81	665	0.063	42	0.1	5.774	A

Junction 5 - 2031 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	6.35	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2031 DO NOTHING	PM	ONE HOUR	17:00	18:30	10

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		✓	138	100.000
2		✓	94	100.000
3		✓	0	100.000
4		✓	100	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	50.00

Origin-Destination Data

Demand (Veh/hr)

From	To			
	1	2	3	4
1	0	69	0	69
2	83	0	0	11
3	0	0	0	0
4	83	17	0	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	0.19	6.18	0.2	A
2	0.14	6.32	0.2	A
3	0.00	0.00	0.0	A
4	0.16	6.61	0.2	A

Main Results for each time segment

17:00 - 17:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	93	11	33.81	726	0.129	92	0.1	5.676	A
2	64	46	33.81	674	0.094	63	0.1	5.889	A
3	0	109	33.81	685	0.000	0	0.0	0.000	A
4	68	56	33.81	658	0.103	67	0.1	6.084	A

17:10 - 17:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	93	11	33.81	726	0.129	93	0.1	5.690	A
2	64	47	33.81	673	0.094	64	0.1	5.902	A
3	0	110	33.81	685	0.000	0	0.0	0.000	A
4	68	56	33.81	658	0.103	68	0.1	6.098	A

17:20 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	117	14	42.35	724	0.161	117	0.2	5.921	A
2	80	58	42.35	669	0.119	79	0.1	6.105	A
3	0	138	42.35	674	0.000	0	0.0	0.000	A
4	85	70	42.35	652	0.130	85	0.1	6.342	A

17:30 - 17:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	134	16	48.48	723	0.185	134	0.2	6.106	A
2	91	67	48.48	666	0.137	91	0.2	6.262	A
3	0	158	48.48	665	0.000	0	0.0	0.000	A
4	97	80	48.48	648	0.150	97	0.2	6.533	A

17:40 - 17:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	140	17	50.71	723	0.194	140	0.2	6.178	A
2	95	70	50.71	665	0.143	95	0.2	6.323	A
3	0	165	50.71	662	0.000	0	0.0	0.000	A
4	101	84	50.71	646	0.157	101	0.2	6.609	A

17:50 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	134	16	48.48	723	0.185	134	0.2	6.112	A
2	91	67	48.48	666	0.137	91	0.2	6.266	A
3	0	158	48.48	665	0.000	0	0.0	0.000	A
4	97	81	48.48	648	0.150	97	0.2	6.540	A

18:00 - 18:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	117	14	42.35	724	0.161	117	0.2	5.933	A
2	80	59	42.35	669	0.119	80	0.1	6.111	A
3	0	138	42.35	673	0.000	0	0.0	0.000	A
4	85	70	42.35	652	0.130	85	0.2	6.349	A

18:10 - 18:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	93	12	33.81	726	0.129	94	0.1	5.695	A
2	64	47	33.81	673	0.094	64	0.1	5.909	A
3	0	111	33.81	685	0.000	0	0.0	0.000	A
4	68	56	33.81	658	0.103	68	0.1	6.105	A

18:20 - 18:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	93	11	33.81	726	0.129	93	0.1	5.693	A
2	64	47	33.81	673	0.094	64	0.1	5.902	A
3	0	110	33.81	685	0.000	0	0.0	0.000	A
4	68	56	33.81	658	0.103	68	0.1	6.098	A

Junction 5 - 2041 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	6.27	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)
D5	2041 DO NOTHING	AM	ONE HOUR	08:00	09:30	10

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		✓	164	100.000
2		✓	67	100.000
3		✓	0	100.000
4		✓	62	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	50.00

Origin-Destination Data

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	0	82	0	82
	2	55	0	0	12
	3	0	0	0	0
	4	55	7	0	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	0.23	6.42	0.3	A
2	0.10	6.08	0.1	A
3	0.00	0.00	0.0	A
4	0.10	6.05	0.1	A

Main Results for each time segment

08:00 - 08:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	111	5	33.81	729	0.152	110	0.2	5.810	A
2	45	55	33.81	670	0.068	45	0.1	5.753	A
3	0	100	33.81	689	0.000	0	0.0	0.000	A
4	42	37	33.81	666	0.063	42	0.1	5.764	A

08:10 - 08:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	111	5	33.81	728	0.152	111	0.2	5.828	A
2	45	55	33.81	670	0.068	45	0.1	5.761	A
3	0	101	33.81	688	0.000	0	0.0	0.000	A
4	42	37	33.81	665	0.063	42	0.1	5.772	A

08:20 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	139	6	42.35	728	0.191	139	0.2	6.110	A
2	57	69	42.35	665	0.085	57	0.1	5.917	A
3	0	126	42.35	678	0.000	0	0.0	0.000	A
4	53	46	42.35	662	0.079	52	0.1	5.908	A

08:30 - 08:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	159	7	48.48	727	0.219	159	0.3	6.335	A
2	65	79	48.48	661	0.098	65	0.1	6.039	A
3	0	144	48.48	670	0.000	0	0.0	0.000	A
4	60	53	48.48	659	0.091	60	0.1	6.010	A

08:40 - 08:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	166	7	50.71	726	0.229	166	0.3	6.424	A
2	68	83	50.71	660	0.103	68	0.1	6.084	A
3	0	151	50.71	667	0.000	0	0.0	0.000	A
4	63	56	50.71	658	0.096	63	0.1	6.048	A

08:50 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	159	7	48.48	727	0.219	159	0.3	6.344	A
2	65	80	48.48	661	0.098	65	0.1	6.040	A
3	0	145	48.48	670	0.000	0	0.0	0.000	A
4	60	53	48.48	659	0.091	60	0.1	6.010	A

09:00 - 09:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	139	6	42.35	727	0.191	139	0.2	6.123	A
2	57	70	42.35	665	0.085	57	0.1	5.925	A
3	0	126	42.35	678	0.000	0	0.0	0.000	A
4	53	47	42.35	662	0.079	53	0.1	5.912	A

09:10 - 09:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	111	5	33.81	728	0.152	111	0.2	5.837	A
2	45	56	33.81	670	0.068	45	0.1	5.764	A
3	0	101	33.81	688	0.000	0	0.0	0.000	A
4	42	37	33.81	665	0.063	42	0.1	5.775	A

09:20 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	111	5	33.81	728	0.152	111	0.2	5.831	A
2	45	55	33.81	670	0.068	45	0.1	5.764	A
3	0	101	33.81	688	0.000	0	0.0	0.000	A
4	42	37	33.81	665	0.063	42	0.1	5.774	A

Junction 5 - 2041 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	6.35	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2041 DO NOTHING	PM	ONE HOUR	17:00	18:30	10

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		✓	138	100.000
2		✓	94	100.000
3		✓	0	100.000
4		✓	100	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	50.00

Origin-Destination Data

Demand (Veh/hr)

From	To			
	1	2	3	4
1	0	69	0	69
2	83	0	0	11
3	0	0	0	0
4	83	17	0	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	0.19	6.18	0.2	A
2	0.14	6.32	0.2	A
3	0.00	0.00	0.0	A
4	0.16	6.61	0.2	A

Main Results for each time segment

17:00 - 17:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	93	11	33.81	726	0.129	92	0.1	5.676	A
2	64	46	33.81	674	0.094	63	0.1	5.889	A
3	0	109	33.81	685	0.000	0	0.0	0.000	A
4	68	56	33.81	658	0.103	67	0.1	6.084	A

17:10 - 17:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	93	11	33.81	726	0.129	93	0.1	5.690	A
2	64	47	33.81	673	0.094	64	0.1	5.902	A
3	0	110	33.81	685	0.000	0	0.0	0.000	A
4	68	56	33.81	658	0.103	68	0.1	6.098	A

17:20 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	117	14	42.35	724	0.161	117	0.2	5.921	A
2	80	58	42.35	669	0.119	79	0.1	6.105	A
3	0	138	42.35	674	0.000	0	0.0	0.000	A
4	85	70	42.35	652	0.130	85	0.1	6.342	A

17:30 - 17:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	134	16	48.48	723	0.185	134	0.2	6.106	A
2	91	67	48.48	666	0.137	91	0.2	6.262	A
3	0	158	48.48	665	0.000	0	0.0	0.000	A
4	97	80	48.48	648	0.150	97	0.2	6.533	A

17:40 - 17:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	140	17	50.71	723	0.194	140	0.2	6.178	A
2	95	70	50.71	665	0.143	95	0.2	6.323	A
3	0	165	50.71	662	0.000	0	0.0	0.000	A
4	101	84	50.71	646	0.157	101	0.2	6.609	A

17:50 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	134	16	48.48	723	0.185	134	0.2	6.112	A
2	91	67	48.48	666	0.137	91	0.2	6.266	A
3	0	158	48.48	665	0.000	0	0.0	0.000	A
4	97	81	48.48	648	0.150	97	0.2	6.540	A

18:00 - 18:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	117	14	42.35	724	0.161	117	0.2	5.933	A
2	80	59	42.35	669	0.119	80	0.1	6.111	A
3	0	138	42.35	673	0.000	0	0.0	0.000	A
4	85	70	42.35	652	0.130	85	0.2	6.349	A

18:10 - 18:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	93	12	33.81	726	0.129	94	0.1	5.695	A
2	64	47	33.81	673	0.094	64	0.1	5.909	A
3	0	111	33.81	685	0.000	0	0.0	0.000	A
4	68	56	33.81	658	0.103	68	0.1	6.105	A

18:20 - 18:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	93	11	33.81	726	0.129	93	0.1	5.693	A
2	64	47	33.81	673	0.094	64	0.1	5.902	A
3	0	110	33.81	685	0.000	0	0.0	0.000	A
4	68	56	33.81	658	0.103	68	0.1	6.098	A

Junction 5 - 2026 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	7.14	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2026 DO SOMETHING	AM	ONE HOUR	08:00	09:30	10

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		✓	250	100.000
2		✓	83	100.000
3		✓	0	100.000
4		✓	78	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	50.00

Origin-Destination Data

Demand (Veh/hr)

	To				
	1	2	3	4	
From	1	0	125	0	125
	2	71	0	0	12
	3	0	0	0	0
	4	71	7	0	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	0.35	7.64	0.5	A
2	0.13	6.44	0.1	A
3	0.00	0.00	0.0	A
4	0.12	6.29	0.1	A

Main Results for each time segment

08:00 - 08:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	169	5	33.81	728	0.232	167	0.3	6.405	A
2	56	84	33.81	659	0.085	56	0.1	5.958	A
3	0	139	33.81	672	0.000	0	0.0	0.000	A
4	53	48	33.81	661	0.080	52	0.1	5.905	A

08:10 - 08:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	169	5	33.81	727	0.232	169	0.3	6.445	A
2	56	85	33.81	659	0.085	56	0.1	5.970	A
3	0	141	33.81	672	0.000	0	0.0	0.000	A
4	53	48	33.81	661	0.080	53	0.1	5.916	A

08:20 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	212	6	42.35	726	0.292	211	0.4	6.984	A
2	70	106	42.35	651	0.108	70	0.1	6.196	A
3	0	176	42.35	657	0.000	0	0.0	0.000	A
4	66	60	42.35	656	0.101	66	0.1	6.096	A

08:30 - 08:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	242	7	48.48	725	0.335	242	0.5	7.451	A
2	80	121	48.48	645	0.125	80	0.1	6.372	A
3	0	201	48.48	645	0.000	0	0.0	0.000	A
4	76	69	48.48	653	0.116	76	0.1	6.235	A

08:40 - 08:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	254	7	50.71	724	0.350	253	0.5	7.643	A
2	84	127	50.71	643	0.131	84	0.1	6.441	A
3	0	211	50.71	641	0.000	0	0.0	0.000	A
4	79	72	50.71	651	0.121	79	0.1	6.291	A

08:50 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	242	7	48.48	725	0.335	243	0.5	7.469	A
2	80	121	48.48	645	0.125	81	0.1	6.376	A
3	0	202	48.48	645	0.000	0	0.0	0.000	A
4	76	69	48.48	653	0.116	76	0.1	6.242	A

09:00 - 09:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	212	6	42.35	726	0.292	212	0.4	7.019	A
2	70	106	42.35	651	0.108	70	0.1	6.203	A
3	0	177	42.35	656	0.000	0	0.0	0.000	A
4	66	60	42.35	656	0.101	66	0.1	6.102	A

09:10 - 09:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	169	5	33.81	727	0.232	170	0.3	6.461	A
2	56	85	33.81	659	0.085	56	0.1	5.975	A
3	0	141	33.81	671	0.000	0	0.0	0.000	A
4	53	48	33.81	661	0.080	53	0.1	5.922	A

09:20 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	169	5	33.81	727	0.232	169	0.3	6.446	A
2	56	85	33.81	659	0.085	56	0.1	5.970	A
3	0	141	33.81	672	0.000	0	0.0	0.000	A
4	53	48	33.81	661	0.080	53	0.1	5.916	A

Junction 5 - 2026 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	6.97	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2026 DO SOMETHING	PM	ONE HOUR	17:00	18:30	10

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		✓	182	100.000
2		✓	133	100.000
3		✓	0	100.000
4		✓	139	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	50.00

Origin-Destination Data

Demand (Veh/hr)

	To				
	1	2	3	4	
From	1	0	91	0	91
	2	122	0	0	11
	3	0	0	0	0
	4	122	17	0	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	0.26	6.70	0.3	A
2	0.21	6.90	0.3	A
3	0.00	0.00	0.0	A
4	0.22	7.39	0.3	A

Main Results for each time segment

17:00 - 17:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	123	11	33.81	725	0.170	122	0.2	5.951	A
2	90	61	33.81	668	0.135	89	0.2	6.199	A
3	0	150	33.81	669	0.000	0	0.0	0.000	A
4	94	82	33.81	647	0.145	93	0.2	6.484	A

17:10 - 17:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	123	11	33.81	725	0.170	123	0.2	5.976	A
2	90	62	33.81	668	0.135	90	0.2	6.229	A
3	0	151	33.81	668	0.000	0	0.0	0.000	A
4	94	82	33.81	647	0.145	94	0.2	6.511	A

17:20 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	154	14	42.35	724	0.213	154	0.3	6.314	A
2	113	77	42.35	662	0.170	112	0.2	6.548	A
3	0	189	42.35	652	0.000	0	0.0	0.000	A
4	118	103	42.35	638	0.185	117	0.2	6.914	A

17:30 - 17:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	176	16	48.48	722	0.244	176	0.3	6.589	A
2	129	88	48.48	658	0.196	129	0.2	6.803	A
3	0	217	48.48	641	0.000	0	0.0	0.000	A
4	135	118	48.48	631	0.214	135	0.3	7.251	A

17:40 - 17:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	185	17	50.71	722	0.256	184	0.3	6.701	A
2	135	92	50.71	656	0.206	135	0.3	6.904	A
3	0	227	50.71	637	0.000	0	0.0	0.000	A
4	141	124	50.71	628	0.224	141	0.3	7.385	A

17:50 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	176	16	48.48	722	0.244	177	0.3	6.599	A
2	129	88	48.48	658	0.196	129	0.2	6.811	A
3	0	217	48.48	641	0.000	0	0.0	0.000	A
4	135	118	48.48	631	0.214	135	0.3	7.260	A

18:00 - 18:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	154	14	42.35	724	0.213	154	0.3	6.332	A
2	113	77	42.35	662	0.170	113	0.2	6.563	A
3	0	190	42.35	652	0.000	0	0.0	0.000	A
4	118	104	42.35	638	0.185	118	0.2	6.935	A

18:10 - 18:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	123	12	33.81	725	0.170	123	0.2	5.984	A
2	90	62	33.81	668	0.135	90	0.2	6.237	A
3	0	152	33.81	668	0.000	0	0.0	0.000	A
4	94	83	33.81	647	0.145	94	0.2	6.520	A

18:20 - 18:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	123	11	33.81	725	0.170	123	0.2	5.976	A
2	90	62	33.81	668	0.135	90	0.2	6.229	A
3	0	151	33.81	668	0.000	0	0.0	0.000	A
4	94	83	33.81	647	0.145	94	0.2	6.511	A

Junction 5 - 2031 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	7.14	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	2031 DO SOMETHING	AM	ONE HOUR	08:00	09:30	10

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		✓	250	100.000
2		✓	83	100.000
3		✓	0	100.000
4		✓	78	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	50.00

Origin-Destination Data

Demand (Veh/hr)

	To				
	1	2	3	4	
From	1	0	125	0	125
	2	71	0	0	12
	3	0	0	0	0
	4	71	7	0	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	0.35	7.64	0.5	A
2	0.13	6.44	0.1	A
3	0.00	0.00	0.0	A
4	0.12	6.29	0.1	A

Main Results for each time segment

08:00 - 08:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	169	5	33.81	728	0.232	167	0.3	6.405	A
2	56	84	33.81	659	0.085	56	0.1	5.958	A
3	0	139	33.81	672	0.000	0	0.0	0.000	A
4	53	48	33.81	661	0.080	52	0.1	5.905	A

08:10 - 08:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	169	5	33.81	727	0.232	169	0.3	6.445	A
2	56	85	33.81	659	0.085	56	0.1	5.970	A
3	0	141	33.81	672	0.000	0	0.0	0.000	A
4	53	48	33.81	661	0.080	53	0.1	5.916	A

08:20 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	212	6	42.35	726	0.292	211	0.4	6.984	A
2	70	106	42.35	651	0.108	70	0.1	6.196	A
3	0	176	42.35	657	0.000	0	0.0	0.000	A
4	66	60	42.35	656	0.101	66	0.1	6.096	A

08:30 - 08:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	242	7	48.48	725	0.335	242	0.5	7.451	A
2	80	121	48.48	645	0.125	80	0.1	6.372	A
3	0	201	48.48	645	0.000	0	0.0	0.000	A
4	76	69	48.48	653	0.116	76	0.1	6.235	A

08:40 - 08:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	254	7	50.71	724	0.350	253	0.5	7.643	A
2	84	127	50.71	643	0.131	84	0.1	6.441	A
3	0	211	50.71	641	0.000	0	0.0	0.000	A
4	79	72	50.71	651	0.121	79	0.1	6.291	A

08:50 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	242	7	48.48	725	0.335	243	0.5	7.469	A
2	80	121	48.48	645	0.125	81	0.1	6.376	A
3	0	202	48.48	645	0.000	0	0.0	0.000	A
4	76	69	48.48	653	0.116	76	0.1	6.242	A

09:00 - 09:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	212	6	42.35	726	0.292	212	0.4	7.019	A
2	70	106	42.35	651	0.108	70	0.1	6.203	A
3	0	177	42.35	656	0.000	0	0.0	0.000	A
4	66	60	42.35	656	0.101	66	0.1	6.102	A

09:10 - 09:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	169	5	33.81	727	0.232	170	0.3	6.461	A
2	56	85	33.81	659	0.085	56	0.1	5.975	A
3	0	141	33.81	671	0.000	0	0.0	0.000	A
4	53	48	33.81	661	0.080	53	0.1	5.922	A

09:20 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	169	5	33.81	727	0.232	169	0.3	6.446	A
2	56	85	33.81	659	0.085	56	0.1	5.970	A
3	0	141	33.81	672	0.000	0	0.0	0.000	A
4	53	48	33.81	661	0.080	53	0.1	5.916	A

Junction 5 - 2031 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	6.97	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	2031 DO SOMETHING	PM	ONE HOUR	17:00	18:30	10

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		✓	182	100.000
2		✓	133	100.000
3		✓	0	100.000
4		✓	139	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	50.00

Origin-Destination Data

Demand (Veh/hr)

	To				
	1	2	3	4	
From	1	0	91	0	91
	2	122	0	0	11
	3	0	0	0	0
	4	122	17	0	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	0.26	6.70	0.3	A
2	0.21	6.90	0.3	A
3	0.00	0.00	0.0	A
4	0.22	7.39	0.3	A

Main Results for each time segment

17:00 - 17:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	123	11	33.81	725	0.170	122	0.2	5.951	A
2	90	61	33.81	668	0.135	89	0.2	6.199	A
3	0	150	33.81	669	0.000	0	0.0	0.000	A
4	94	82	33.81	647	0.145	93	0.2	6.484	A

17:10 - 17:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	123	11	33.81	725	0.170	123	0.2	5.976	A
2	90	62	33.81	668	0.135	90	0.2	6.229	A
3	0	151	33.81	668	0.000	0	0.0	0.000	A
4	94	82	33.81	647	0.145	94	0.2	6.511	A

17:20 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	154	14	42.35	724	0.213	154	0.3	6.314	A
2	113	77	42.35	662	0.170	112	0.2	6.548	A
3	0	189	42.35	652	0.000	0	0.0	0.000	A
4	118	103	42.35	638	0.185	117	0.2	6.914	A

17:30 - 17:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	176	16	48.48	722	0.244	176	0.3	6.589	A
2	129	88	48.48	658	0.196	129	0.2	6.803	A
3	0	217	48.48	641	0.000	0	0.0	0.000	A
4	135	118	48.48	631	0.214	135	0.3	7.251	A

17:40 - 17:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	185	17	50.71	722	0.256	184	0.3	6.701	A
2	135	92	50.71	656	0.206	135	0.3	6.904	A
3	0	227	50.71	637	0.000	0	0.0	0.000	A
4	141	124	50.71	628	0.224	141	0.3	7.385	A

17:50 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	176	16	48.48	722	0.244	177	0.3	6.599	A
2	129	88	48.48	658	0.196	129	0.2	6.811	A
3	0	217	48.48	641	0.000	0	0.0	0.000	A
4	135	118	48.48	631	0.214	135	0.3	7.260	A

18:00 - 18:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	154	14	42.35	724	0.213	154	0.3	6.332	A
2	113	77	42.35	662	0.170	113	0.2	6.563	A
3	0	190	42.35	652	0.000	0	0.0	0.000	A
4	118	104	42.35	638	0.185	118	0.2	6.935	A

18:10 - 18:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	123	12	33.81	725	0.170	123	0.2	5.984	A
2	90	62	33.81	668	0.135	90	0.2	6.237	A
3	0	152	33.81	668	0.000	0	0.0	0.000	A
4	94	83	33.81	647	0.145	94	0.2	6.520	A

18:20 - 18:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	123	11	33.81	725	0.170	123	0.2	5.976	A
2	90	62	33.81	668	0.135	90	0.2	6.229	A
3	0	151	33.81	668	0.000	0	0.0	0.000	A
4	94	83	33.81	647	0.145	94	0.2	6.511	A

Junction 5 - 2041 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	7.14	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	2041 DO SOMETHING	AM	ONE HOUR	08:00	09:30	10

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		✓	250	100.000
2		✓	83	100.000
3		✓	0	100.000
4		✓	78	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	50.00

Origin-Destination Data

Demand (Veh/hr)

	To				
	1	2	3	4	
From	1	0	125	0	125
	2	71	0	0	12
	3	0	0	0	0
	4	71	7	0	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	0.35	7.64	0.5	A
2	0.13	6.44	0.1	A
3	0.00	0.00	0.0	A
4	0.12	6.29	0.1	A

Main Results for each time segment

08:00 - 08:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	169	5	33.81	728	0.232	167	0.3	6.405	A
2	56	84	33.81	659	0.085	56	0.1	5.958	A
3	0	139	33.81	672	0.000	0	0.0	0.000	A
4	53	48	33.81	661	0.080	52	0.1	5.905	A

08:10 - 08:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	169	5	33.81	727	0.232	169	0.3	6.445	A
2	56	85	33.81	659	0.085	56	0.1	5.970	A
3	0	141	33.81	672	0.000	0	0.0	0.000	A
4	53	48	33.81	661	0.080	53	0.1	5.916	A

08:20 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	212	6	42.35	726	0.292	211	0.4	6.984	A
2	70	106	42.35	651	0.108	70	0.1	6.196	A
3	0	176	42.35	657	0.000	0	0.0	0.000	A
4	66	60	42.35	656	0.101	66	0.1	6.096	A

08:30 - 08:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	242	7	48.48	725	0.335	242	0.5	7.451	A
2	80	121	48.48	645	0.125	80	0.1	6.372	A
3	0	201	48.48	645	0.000	0	0.0	0.000	A
4	76	69	48.48	653	0.116	76	0.1	6.235	A

08:40 - 08:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	254	7	50.71	724	0.350	253	0.5	7.643	A
2	84	127	50.71	643	0.131	84	0.1	6.441	A
3	0	211	50.71	641	0.000	0	0.0	0.000	A
4	79	72	50.71	651	0.121	79	0.1	6.291	A

08:50 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	242	7	48.48	725	0.335	243	0.5	7.469	A
2	80	121	48.48	645	0.125	81	0.1	6.376	A
3	0	202	48.48	645	0.000	0	0.0	0.000	A
4	76	69	48.48	653	0.116	76	0.1	6.242	A

09:00 - 09:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	212	6	42.35	726	0.292	212	0.4	7.019	A
2	70	106	42.35	651	0.108	70	0.1	6.203	A
3	0	177	42.35	656	0.000	0	0.0	0.000	A
4	66	60	42.35	656	0.101	66	0.1	6.102	A

09:10 - 09:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	169	5	33.81	727	0.232	170	0.3	6.461	A
2	56	85	33.81	659	0.085	56	0.1	5.975	A
3	0	141	33.81	671	0.000	0	0.0	0.000	A
4	53	48	33.81	661	0.080	53	0.1	5.922	A

09:20 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	169	5	33.81	727	0.232	169	0.3	6.446	A
2	56	85	33.81	659	0.085	56	0.1	5.970	A
3	0	141	33.81	672	0.000	0	0.0	0.000	A
4	53	48	33.81	661	0.080	53	0.1	5.916	A

Junction 5 - 2041 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	6.97	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	2041 DO SOMETHING	PM	ONE HOUR	17:00	18:30	10

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		✓	182	100.000
2		✓	133	100.000
3		✓	0	100.000
4		✓	139	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	50.00

Origin-Destination Data

Demand (Veh/hr)

	To				
	1	2	3	4	
From	1	0	91	0	91
	2	122	0	0	11
	3	0	0	0	0
	4	122	17	0	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	0.26	6.70	0.3	A
2	0.21	6.90	0.3	A
3	0.00	0.00	0.0	A
4	0.22	7.39	0.3	A

Main Results for each time segment

17:00 - 17:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	123	11	33.81	725	0.170	122	0.2	5.951	A
2	90	61	33.81	668	0.135	89	0.2	6.199	A
3	0	150	33.81	669	0.000	0	0.0	0.000	A
4	94	82	33.81	647	0.145	93	0.2	6.484	A

17:10 - 17:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	123	11	33.81	725	0.170	123	0.2	5.976	A
2	90	62	33.81	668	0.135	90	0.2	6.229	A
3	0	151	33.81	668	0.000	0	0.0	0.000	A
4	94	82	33.81	647	0.145	94	0.2	6.511	A

17:20 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	154	14	42.35	724	0.213	154	0.3	6.314	A
2	113	77	42.35	662	0.170	112	0.2	6.548	A
3	0	189	42.35	652	0.000	0	0.0	0.000	A
4	118	103	42.35	638	0.185	117	0.2	6.914	A

17:30 - 17:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	176	16	48.48	722	0.244	176	0.3	6.589	A
2	129	88	48.48	658	0.196	129	0.2	6.803	A
3	0	217	48.48	641	0.000	0	0.0	0.000	A
4	135	118	48.48	631	0.214	135	0.3	7.251	A

17:40 - 17:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	185	17	50.71	722	0.256	184	0.3	6.701	A
2	135	92	50.71	656	0.206	135	0.3	6.904	A
3	0	227	50.71	637	0.000	0	0.0	0.000	A
4	141	124	50.71	628	0.224	141	0.3	7.385	A

17:50 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	176	16	48.48	722	0.244	177	0.3	6.599	A
2	129	88	48.48	658	0.196	129	0.2	6.811	A
3	0	217	48.48	641	0.000	0	0.0	0.000	A
4	135	118	48.48	631	0.214	135	0.3	7.260	A

18:00 - 18:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	154	14	42.35	724	0.213	154	0.3	6.332	A
2	113	77	42.35	662	0.170	113	0.2	6.563	A
3	0	190	42.35	652	0.000	0	0.0	0.000	A
4	118	104	42.35	638	0.185	118	0.2	6.935	A

18:10 - 18:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	123	12	33.81	725	0.170	123	0.2	5.984	A
2	90	62	33.81	668	0.135	90	0.2	6.237	A
3	0	152	33.81	668	0.000	0	0.0	0.000	A
4	94	83	33.81	647	0.145	94	0.2	6.520	A

18:20 - 18:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	123	11	33.81	725	0.170	123	0.2	5.976	A
2	90	62	33.81	668	0.135	90	0.2	6.229	A
3	0	151	33.81	668	0.000	0	0.0	0.000	A
4	94	83	33.81	647	0.145	94	0.2	6.511	A

Junction 5 - 2031 STRESS TEST, 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	8.16	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	2031 STRESS TEST	AM	ONE HOUR	08:00	09:30	10

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		✓	250	100.000
2		✓	119	100.000
3		✓	200	100.000
4		✓	114	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	50.00

Origin-Destination Data

Demand (Veh/hr)

	To				
	1	2	3	4	
From	1	0	125	0	125
	2	71	0	36	12
	3	0	100	0	100
	4	71	7	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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.38	8.81	0.6	A
2	0.19	7.08	0.2	A
3	0.32	8.51	0.5	A
4	0.19	7.24	0.2	A

Main Results for each time segment

08:00 - 08:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	169	96	33.81	688	0.246	167	0.3	6.887	A
2	80	108	33.81	650	0.124	80	0.1	6.301	A
3	135	139	33.81	660	0.205	134	0.3	6.817	A
4	77	114	33.81	636	0.121	76	0.1	6.423	A

08:10 - 08:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	169	97	33.81	687	0.246	169	0.3	6.943	A
2	80	109	33.81	650	0.124	80	0.1	6.323	A
3	135	141	33.81	660	0.205	135	0.3	6.864	A
4	77	116	33.81	635	0.121	77	0.1	6.446	A

08:20 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	212	121	42.35	675	0.314	211	0.4	7.747	A
2	101	136	42.35	639	0.158	101	0.2	6.678	A
3	169	176	42.35	643	0.264	169	0.4	7.586	A
4	97	144	42.35	624	0.155	96	0.2	6.816	A

08:30 - 08:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	242	138	48.48	665	0.364	242	0.6	8.486	A
2	115	156	48.48	632	0.183	115	0.2	6.965	A
3	194	201	48.48	630	0.308	193	0.4	8.234	A
4	111	165	48.48	616	0.179	110	0.2	7.116	A

08:40 - 08:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	254	145	50.71	661	0.383	253	0.6	8.812	A
2	121	163	50.71	629	0.192	121	0.2	7.083	A
3	203	211	50.71	625	0.324	203	0.5	8.512	A
4	116	173	50.71	613	0.189	116	0.2	7.237	A

08:50 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	242	139	48.48	665	0.365	243	0.6	8.528	A
2	115	156	48.48	632	0.183	115	0.2	6.978	A
3	194	202	48.48	630	0.308	194	0.5	8.267	A
4	111	166	48.48	616	0.180	111	0.2	7.129	A

09:00 - 09:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	212	121	42.35	674	0.314	212	0.5	7.806	A
2	101	137	42.35	639	0.158	101	0.2	6.693	A
3	169	177	42.35	642	0.264	170	0.4	7.632	A
4	97	145	42.35	624	0.155	97	0.2	6.834	A

09:10 - 09:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	169	97	33.81	687	0.246	170	0.3	6.971	A
2	80	109	33.81	649	0.124	81	0.1	6.334	A
3	135	141	33.81	659	0.205	136	0.3	6.887	A
4	77	116	33.81	635	0.121	77	0.1	6.454	A

09:20 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	169	97	33.81	687	0.246	169	0.3	6.947	A
2	80	109	33.81	650	0.124	80	0.1	6.324	A
3	135	141	33.81	660	0.205	135	0.3	6.867	A
4	77	116	33.81	635	0.121	77	0.1	6.449	A

Junction 5 - 2031 STRESS TEST, 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	8.52	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	2031 STRESS TEST	PM	ONE HOUR	17:00	18:30	10

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		✓	182	100.000
2		✓	221	100.000
3		✓	104	100.000
4		✓	227	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	50.00

Origin-Destination Data

Demand (Veh/hr)

	To				
	1	2	3	4	
From	1	0	91	0	91
	2	122	0	88	11
	3	0	52	0	52
	4	122	17	88	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	0.28	7.53	0.4	A
2	0.36	9.08	0.6	A
3	0.17	6.92	0.2	A
4	0.38	9.50	0.6	A

Main Results for each time segment

17:00 - 17:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	123	105	33.81	687	0.179	122	0.2	6.354	A
2	149	120	33.81	645	0.232	148	0.3	7.212	A
3	70	150	33.81	659	0.107	70	0.1	6.096	A
4	153	116	33.81	634	0.242	152	0.3	7.434	A

17:10 - 17:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	123	106	33.81	687	0.179	123	0.2	6.387	A
2	149	121	33.81	644	0.232	149	0.3	7.272	A
3	70	151	33.81	659	0.107	70	0.1	6.119	A
4	153	118	33.81	633	0.242	153	0.3	7.499	A

17:20 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	154	133	42.35	675	0.229	154	0.3	6.904	A
2	187	151	42.35	632	0.296	187	0.4	8.048	A
3	88	189	42.35	642	0.137	88	0.2	6.488	A
4	192	147	42.35	621	0.310	192	0.4	8.363	A

17:30 - 17:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	176	152	48.48	666	0.265	176	0.4	7.345	A
2	214	173	48.48	624	0.344	214	0.5	8.783	A
3	101	217	48.48	630	0.160	101	0.2	6.793	A
4	220	168	48.48	612	0.360	219	0.5	9.156	A

17:40 - 17:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	185	159	50.71	662	0.279	184	0.4	7.532	A
2	224	181	50.71	620	0.361	224	0.6	9.078	A
3	105	227	50.71	626	0.169	105	0.2	6.916	A
4	230	176	50.71	608	0.379	230	0.6	9.505	A

17:50 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	176	152	48.48	666	0.265	177	0.4	7.366	A
2	214	174	48.48	623	0.344	214	0.5	8.810	A
3	101	217	48.48	630	0.160	101	0.2	6.804	A
4	220	169	48.48	612	0.360	220	0.6	9.205	A

18:00 - 18:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	154	133	42.35	674	0.229	155	0.3	6.931	A
2	187	152	42.35	632	0.296	188	0.4	8.116	A
3	88	190	42.35	642	0.137	88	0.2	6.504	A
4	192	148	42.35	621	0.310	193	0.5	8.431	A

18:10 - 18:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	123	107	33.81	686	0.179	124	0.2	6.401	A
2	149	122	33.81	644	0.232	150	0.3	7.300	A
3	70	152	33.81	658	0.107	71	0.1	6.130	A
4	153	118	33.81	633	0.242	154	0.3	7.530	A

18:20 - 18:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	123	106	33.81	687	0.179	123	0.2	6.390	A
2	149	121	33.81	644	0.232	149	0.3	7.276	A
3	70	151	33.81	659	0.107	70	0.1	6.120	A
4	153	118	33.81	633	0.242	154	0.3	7.500	A

Junction 5 - 2041 STRESS TEST, 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	8.16	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D15	2041 STRESS TEST	AM	ONE HOUR	08:00	09:30	10

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		✓	250	100.000
2		✓	119	100.000
3		✓	200	100.000
4		✓	114	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	50.00

Origin-Destination Data

Demand (Veh/hr)

	To				
	1	2	3	4	
From	1	0	125	0	125
	2	71	0	36	12
	3	0	100	0	100
	4	71	7	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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1	0.38	8.81	0.6	A
2	0.19	7.08	0.2	A
3	0.32	8.51	0.5	A
4	0.19	7.24	0.2	A

Main Results for each time segment

08:00 - 08:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	169	96	33.81	688	0.246	167	0.3	6.887	A
2	80	108	33.81	650	0.124	80	0.1	6.301	A
3	135	139	33.81	660	0.205	134	0.3	6.817	A
4	77	114	33.81	636	0.121	76	0.1	6.423	A

08:10 - 08:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	169	97	33.81	687	0.246	169	0.3	6.943	A
2	80	109	33.81	650	0.124	80	0.1	6.323	A
3	135	141	33.81	660	0.205	135	0.3	6.864	A
4	77	116	33.81	635	0.121	77	0.1	6.446	A

08:20 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	212	121	42.35	675	0.314	211	0.4	7.747	A
2	101	136	42.35	639	0.158	101	0.2	6.678	A
3	169	176	42.35	643	0.264	169	0.4	7.586	A
4	97	144	42.35	624	0.155	96	0.2	6.816	A

08:30 - 08:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	242	138	48.48	665	0.364	242	0.6	8.486	A
2	115	156	48.48	632	0.183	115	0.2	6.965	A
3	194	201	48.48	630	0.308	193	0.4	8.234	A
4	111	165	48.48	616	0.179	110	0.2	7.116	A

08:40 - 08:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	254	145	50.71	661	0.383	253	0.6	8.812	A
2	121	163	50.71	629	0.192	121	0.2	7.083	A
3	203	211	50.71	625	0.324	203	0.5	8.512	A
4	116	173	50.71	613	0.189	116	0.2	7.237	A

08:50 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	242	139	48.48	665	0.365	243	0.6	8.528	A
2	115	156	48.48	632	0.183	115	0.2	6.978	A
3	194	202	48.48	630	0.308	194	0.5	8.267	A
4	111	166	48.48	616	0.180	111	0.2	7.129	A

09:00 - 09:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	212	121	42.35	674	0.314	212	0.5	7.806	A
2	101	137	42.35	639	0.158	101	0.2	6.693	A
3	169	177	42.35	642	0.264	170	0.4	7.632	A
4	97	145	42.35	624	0.155	97	0.2	6.834	A

09:10 - 09:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	169	97	33.81	687	0.246	170	0.3	6.971	A
2	80	109	33.81	649	0.124	81	0.1	6.334	A
3	135	141	33.81	659	0.205	136	0.3	6.887	A
4	77	116	33.81	635	0.121	77	0.1	6.454	A

09:20 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	169	97	33.81	687	0.246	169	0.3	6.947	A
2	80	109	33.81	650	0.124	80	0.1	6.324	A
3	135	141	33.81	660	0.205	135	0.3	6.867	A
4	77	116	33.81	635	0.121	77	0.1	6.449	A

Junction 5 - 2041 STRESS TEST, 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	8.52	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)
D16	2041 STRESS TEST	PM	ONE HOUR	17:00	18:30	10

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		✓	182	100.000
2		✓	221	100.000
3		✓	104	100.000
4		✓	227	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
1	50.00
2	50.00
3	50.00
4	50.00

Origin-Destination Data

Demand (Veh/hr)

	To				
	1	2	3	4	
From	1	0	91	0	91
	2	122	0	88	11
	3	0	52	0	52
	4	122	17	88	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	0.28	7.53	0.4	A
2	0.36	9.08	0.6	A
3	0.17	6.92	0.2	A
4	0.38	9.50	0.6	A

Main Results for each time segment

17:00 - 17:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	123	105	33.81	687	0.179	122	0.2	6.354	A
2	149	120	33.81	645	0.232	148	0.3	7.212	A
3	70	150	33.81	659	0.107	70	0.1	6.096	A
4	153	116	33.81	634	0.242	152	0.3	7.434	A

17:10 - 17:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	123	106	33.81	687	0.179	123	0.2	6.387	A
2	149	121	33.81	644	0.232	149	0.3	7.272	A
3	70	151	33.81	659	0.107	70	0.1	6.119	A
4	153	118	33.81	633	0.242	153	0.3	7.499	A

17:20 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	154	133	42.35	675	0.229	154	0.3	6.904	A
2	187	151	42.35	632	0.296	187	0.4	8.048	A
3	88	189	42.35	642	0.137	88	0.2	6.488	A
4	192	147	42.35	621	0.310	192	0.4	8.363	A

17:30 - 17:40

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	176	152	48.48	666	0.265	176	0.4	7.345	A
2	214	173	48.48	624	0.344	214	0.5	8.783	A
3	101	217	48.48	630	0.160	101	0.2	6.793	A
4	220	168	48.48	612	0.360	219	0.5	9.156	A

17:40 - 17:50

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	185	159	50.71	662	0.279	184	0.4	7.532	A
2	224	181	50.71	620	0.361	224	0.6	9.078	A
3	105	227	50.71	626	0.169	105	0.2	6.916	A
4	230	176	50.71	608	0.379	230	0.6	9.505	A

17:50 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	176	152	48.48	666	0.265	177	0.4	7.366	A
2	214	174	48.48	623	0.344	214	0.5	8.810	A
3	101	217	48.48	630	0.160	101	0.2	6.804	A
4	220	169	48.48	612	0.360	220	0.6	9.205	A

18:00 - 18:10

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	154	133	42.35	674	0.229	155	0.3	6.931	A
2	187	152	42.35	632	0.296	188	0.4	8.116	A
3	88	190	42.35	642	0.137	88	0.2	6.504	A
4	192	148	42.35	621	0.310	193	0.5	8.431	A

18:10 - 18:20

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	123	107	33.81	686	0.179	124	0.2	6.401	A
2	149	122	33.81	644	0.232	150	0.3	7.300	A
3	70	152	33.81	658	0.107	71	0.1	6.130	A
4	153	118	33.81	633	0.242	154	0.3	7.530	A

18:20 - 18:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	123	106	33.81	687	0.179	123	0.2	6.390	A
2	149	121	33.81	644	0.232	149	0.3	7.276	A
3	70	151	33.81	659	0.107	70	0.1	6.120	A
4	153	118	33.81	633	0.242	154	0.3	7.500	A

UK and Ireland Office Locations

